

047-E2F-PCT.ST25.txt  
SEQUENCE LISTING

<110> CropDesign N.V.

<120> Identification of novel E2F target genes and use thereof

<130> 4982-3

<140> 10/531,475

<141> 2005-04-15

<150> PCT/EP2003/011658

<151> 2003-10-20

<150> EP 02079408.7

<151> 2002-10-18

<160> 2776

<170> PatentIn version 3.1

<210> 1

<211> 1768

<212> DNA

<213> Arabidopsis thaliana

<400> 1  
atctctcctt ttccttcttc ttcttccttc tcctttctct gtttatttgc ttcgtttcct 60  
cttctctttc tccgattctt tatccatctt cgctcagatc ttccccgttt caactctttg 120  
gatccagatt ctctctcttt ttatgtaggt aacacgcata tcaagtgtta aagagtcaag 180  
atcacaaaaa gttctatcgg gtgatctggg ctgctttctt ttgtaatcta attgcagaaa 240  
ctttgctctg acttg gatag cttcgtaaaa ggttcaatct ttctccgttt ttcataatg 300  
agtagtaact aatctggaaa tttgttggga gagaaagggc acattgcact gctattgcta 360  
gagaacgttt ctgcatccat gctggttagag agcatgcgtg gatactgtgt tttgggtgat 420  
gccctgaca aaattagttc ccgatgcatt cggcgttgtg acgatatgtc tagtcgctct 480

047-E2F-PCT.ST25.txt

gctagttctt ttgggtctcc tttgcatcgc ttactcgttc tatttccagt ctcacgttcg 540  
 taagcaaggc tatattcaac ttggttactt cagtgggtccc tggattatcc gaatcacttt 600  
 cattctcttt gctatctggt gggctgttgg tgagattttt cgattgagtt tgttgaggcg 660  
 tcacagaagg ttgttgagtg ggttggatct gagatggcaa gaaaacgttt gcaagtggta 720  
 catcgtttcc aatctaggat ttgcggagcc ttgtctcttt ctgactctca tgtttcttct 780  
 gcgtgctccc ttgaagatgg aatcaggggc tttgagcgga aaatggaaca gggacacagc 840  
 aggttatatt attctttatt gtctcccgat gcttgctctt caacttgcgg ttgtgttgtc 900  
 cgagtcacgc ctaaagtgtg gtagtggctc ttatgtaaag ctgccacacg acttcacaag 960  
 aacgtattcc cgagttatta ttgatcacga cgaggtggcc ttatgcacat atcctctact 1020  
 gagtaccatc cttcttggtg tgtttgcagc cgtcctaaca gcttacttgt tctggcttgg 1080  
 aaggcagata ctgaaacttg tcattaacaa gcgtttacag aagagagtat acactttgat 1140  
 attctcggtc tcgagtttcc ttccattaag gattgttatg ctctgtttgt cggttctcac 1200  
 agcagcagac aagattatat tcgaagccct ttctttcttg gccttcctct ccctcttctg 1260  
 cttttgcgtg gtatccatct gcttgcttgt ctacttcccg gtttcagatt ccatggccct 1320  
 gagaggtcta agagacacag atgatgagga tacggctgtg accgaagaac gcagtgggtgc 1380  
 tctgttactt gcaccaaact cttcacaac tgatgagggg ttgagcttaa gaggtcggag 1440  
 agactcggga tcgtctacac aggagaggta tgtggaactc agcctatttc tggaagctga 1500  
 gaactaaaat cgccaaaggc tgtttctatt tggcttttgg caatgtacag attcctgggtg 1560  
 aaacaagcag agagagaggg ataaagagtt taagtatgag aatatgtttg cgcaaaaaaa 1620  
 ggcataattt cagttttgtg gcaaagacac tttgactgta aaggaggggtt taaggggggtt 1680  
 tactcttgtg aggggtttgtt gtttgaaatg ttttctgctt gatggatcat atttttgtac 1740  
 ctttattatg tgatcaattt tgatttag 1768

<210> 2

<211> 362

<212> PRT

<213> Arabidopsis thaliana

<400> 2

Met Pro Leu Thr Lys Leu Val Pro Asp Ala Phe Gly Val Val Thr Ile  
 1 5 10 15

Cys Leu Val Ala Leu Leu Val Leu Leu Gly Leu Leu Cys Ile Ala Tyr  
 20 25 30



047-E2F-PCT.ST25.txt

Ser Phe Tyr Phe Gln Ser His Val Arg Lys Gln Gly Tyr Ile Gln Leu  
35 40 45

Gly Tyr Phe Ser Gly Pro Trp Ile Ile Arg Ile Thr Phe Ile Leu Phe  
50 55 60

Ala Ile Trp Trp Ala Val Gly Glu Ile Phe Arg Leu Ser Leu Leu Arg  
65 70 75 80

Arg His Arg Arg Leu Leu Ser Gly Leu Asp Leu Arg Trp Gln Glu Asn  
85 90 95

Val Cys Lys Trp Tyr Ile Val Ser Asn Leu Gly Phe Ala Glu Pro Cys  
100 105 110

Leu Phe Leu Thr Leu Met Phe Leu Leu Arg Ala Pro Leu Lys Met Glu  
115 120 125

Ser Gly Ala Leu Ser Gly Lys Trp Asn Arg Asp Thr Ala Gly Tyr Ile  
130 135 140

Ile Leu Tyr Cys Leu Pro Met Leu Ala Leu Gln Leu Ala Val Val Leu  
145 150 155 160

Ser Glu Ser Arg Leu Asn Gly Gly Ser Gly Ser Tyr Val Lys Leu Pro  
165 170 175

His Asp Phe Thr Arg Thr Tyr Ser Arg Val Ile Ile Asp His Asp Glu  
180 185 190

Val Ala Leu Cys Thr Tyr Pro Leu Leu Ser Thr Ile Leu Leu Gly Val  
195 200 205

Phe Ala Ala Val Leu Thr Ala Tyr Leu Phe Trp Leu Gly Arg Gln Ile  
210 215 220

Leu Lys Leu Val Ile Asn Lys Arg Leu Gln Lys Arg Val Tyr Thr Leu  
225 230 235 240

Ile Phe Ser Val Ser Ser Phe Leu Pro Leu Arg Ile Val Met Leu Cys  
245 250 255

Leu Ser Val Leu Thr Ala Ala Asp Lys Ile Ile Phe Glu Ala Leu Ser  
260 265 270

Phe Leu Ala Phe Leu Ser Leu Phe Cys Phe Cys Val Val Ser Ile Cys

275

280

285

Leu Leu Val Tyr Phe Pro Val Ser Asp Ser Met Ala Leu Arg Gly Leu  
 290 295 300

Arg Asp Thr Asp Asp Glu Asp Thr Ala Val Thr Glu Glu Arg Ser Gly  
 305 310 315 320

Ala Leu Leu Leu Ala Pro Asn Ser Ser Gln Thr Asp Glu Gly Leu Ser  
 325 330 335

Leu Arg Gly Arg Arg Asp Ser Gly Ser Ser Thr Gln Glu Arg Tyr Val  
 340 345 350

Glu Leu Ser Leu Phe Leu Glu Ala Glu Asn  
 355 360

&lt;210&gt; 3

&lt;211&gt; 626

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 3

catcgcggtc tggaacagcg atgactcgca tttaaatttg tttctctgct tcactctttt	60
gatttctttt tacttctttt tttcacacag atcttaagat actacaactg cgaccatgga	120
gcttccatct ccttacagct caagaaagga ggaatcaact gttcctccga agagaggccg	180
agtcaagatc atgatctttc gtgatctagt cagatcgga acctcgatgg caccgactcc	240
gaggagaggc cgaatcaaga aaatgatcgc ggggtgatcta gtcggatcag ggaaacagaa	300
caactacgac ggagacggta agagaggagg ctagttaagc agactctccg actacataca	360
ctttatctcc atgccagctt ccagacaatc cctttctctg agaagatgat cggattttca	420
tattcatttg aaaatcttgt atgaaatgta atatagttgt tggctttggc ttcttctttc	480
gaatatgtta tacaaaaagt ttattatattt tgttggggta aattaaagat tttaaaggtaa	540
gttactctgt ttcatacaaa gtttgggcct ctgggcta attttggtat ctatgtaaaa	600
atgtaaatat tatgtttctt tagaag	626

&lt;210&gt; 4

&lt;211&gt; 72

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 4

Met Glu Leu Pro Ser Pro Tyr Ser Ser Arg Lys Glu Glu Ser Thr Val  
 1 5 10 15

Pro Pro Lys Arg Gly Arg Val Lys Ile Met Ile Phe Arg Asp Leu Val  
 20 25 30

Arg Ser Glu Thr Ser Met Ala Pro Thr Pro Arg Arg Gly Arg Ile Lys  
 35 40 45

Lys Met Ile Ala Gly Asp Leu Val Gly Ser Gly Lys Gln Asn Asn Tyr  
 50 55 60

Asp Gly Asp Gly Lys Arg Gly Gly  
 65 70

&lt;210&gt; 5

&lt;211&gt; 1176

&lt;212&gt; DNA

<213> *Oryza sativa*

&lt;400&gt; 5

ccgccgcggc tcacctggaa actgggcaga ttggacaatc gctcgagcga gctagcgaga	60
gagagcgcga gagagcgagg cggcgcgcg cgttggttgcg gatttgtagc ttagagcgcg	120
gggccatggg gaggtcgccg tgctgcgaga aggcgcacac gaacaagggg gcgtggacga	180
aggaggagga ccagcggctc atcgcgta caagggcgca tggcgaaggc tgctggcgct	240
cgctgccc aa ggcggcgggc ctcttcgct gcggaagag ctgccgcctc cgggtggatga	300
actacctccg ccccgacctc aagcgcggca acttcaccga cgacgaggac gagctcatca	360
tccgcctcca cagcctctc ggcaacaagt ggtctctgat cgccgggcag ctgccgggga	420
ggacggacaa cgagatcaag aactactgga acacgcacat caagcgcaag ctctcgccc	480
gcggcatcga cccgcagacg caccgcccgc tgctcagcgg cggtagcggc atcgcggcga	540
gcaacaagcg gcaccaccgc cgccgcatcc catatccgtc ccggcgaagg cggcgggcgc	600
ggcgatcttc gccgtgcgaa gccgcccgc cgcgcgcgc cggtcgactc ctcggaagac	660
ggctgccgca gcagcagcgg cacaacgagc acgggggagc cgcggtgccc cgacctcaac	720
ctcgagctct cggtcggggc gacgccgagc tcgccgccgg cggagacgcc caccagcgcg	780

047-E2F-PCT.ST25.txt

cggccggtct gcctctgcta ccacctcggc ttccgcggcg gggaggcgtg cagctgtcag 840  
gctgacagca agggcccaca cgagtttaga tatttcaggc cgttggaaca aggccagtac 900  
atatgagata tgaccatgag atgtgagatg gcttaattag cttcaattcc caacatgtgt 960  
aacacagga gtttttctag tggacgacaa tactgtttta tttcagaaaa aaaaggga 1020  
gaaaaagggt ctaatctgtt catatttctt actattatcc aatcttcatg atctcaatct 1080  
ctctctctct ttattatttt tctttgtagt aattaacttc atgttggttc ctctaaaaaa 1140  
gattggtcga tgttattcag tgataaatat tcctag 1176

<210> 6

<211> 239

<212> PRT

<213> Oryza sativa

<400> 6

Met Gly Arg Ser Pro Cys Cys Glu Lys Ala His Thr Asn Lys Gly Ala  
1 5 10 15  
Trp Thr Lys Glu Glu Asp Gln Arg Leu Ile Ala Tyr Ile Arg Ala His  
20 25 30  
Gly Glu Gly Cys Trp Arg Ser Leu Pro Lys Ala Ala Gly Leu Leu Arg  
35 40 45  
Cys Gly Lys Ser Cys Arg Leu Arg Trp Met Asn Tyr Leu Arg Pro Asp  
50 55 60  
Leu Lys Arg Gly Asn Phe Thr Asp Asp Glu Asp Glu Leu Ile Ile Arg  
65 70 75 80  
Leu His Ser Leu Leu Gly Asn Lys Trp Ser Leu Ile Ala Gly Gln Leu  
85 90 95  
Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Asn Thr His Ile  
100 105 110  
Lys Arg Lys Leu Leu Ala Arg Gly Ile Asp Pro Gln Thr His Arg Pro  
115 120 125  
Leu Leu Ser Gly Gly Asp Gly Ile Ala Ala Ser Asn Lys Arg His His  
130 135 140

047-E2F-PCT.ST25.txt

Arg Arg Arg Ile Pro Tyr Pro Ser Arg Arg Arg Arg Arg Pro Arg Arg  
145 150 155 160

Ser Ser Pro Cys Glu Ala Ala Ala Ala Ala Ala Pro Gly Arg Leu Leu  
165 170 175

Gly Arg Arg Leu Pro Gln Gln Gln Arg His Asn Glu His Gly Gly Ala  
180 185 190

Ala Val Pro Arg Pro Gln Pro Arg Ala Leu Gly Arg Ala Asp Ala Glu  
195 200 205

Leu Ala Ala Gly Gly Asp Ala His Gln Arg Ala Ala Gly Leu Pro Leu  
210 215 220

Leu Pro Pro Arg Leu Pro Arg Arg Gly Gly Val Gln Leu Ser Gly  
225 230 235

<210> 7

<211> 1264

<212> DNA

<213> Oryza sativa

<400> 7

gcagcatcaa caaaggcagc agcagcagca gcagcagcag cagcgttggt ggtggtggtg	60
tgtcatcacc aacattttca cgagaggaga aggatggaaa tggcggcggc ggttgggggc	120
agcgggagga gggacgcgga ggcggagctg aacctgccgc cgggcttccg tttccacccg	180
accgacgagg agctcgtggt gcactacctc tgccgcaagg ttgcccggca gccgctcccc	240
gtcccaatca tcgccgaggt cgacctctac aagctcgacc cctgggatct ccctgagaag	300
gcgttgttcg ggaggaaaga gtggtacttc ttcacgccga gggaccggaa gtacccgaac	360
gggtcgaggc cgaaccgcgc agcggggaga ggggtactgga aggcgacggg agccgacaag	420
ccggtggcgc ccaaggggag cgcgaggacg gtggggatca agaaggcgct cgtgttctac	480
tccgggaagg cgccgagggg ggtcaagacg gactggatca tgcacgagta ccgcctcgcc	540
gacgccgacc gcgccccggg cggcaagaag ggctcacaga agctggacga gtgggtgctg	600
tgccggctgt acaacaagaa gaacaactgg gagaaggtga agctggagca gcaggacgtg	660
gcctccgtgg cggcggcggc gccgcgcaac caccaccatc agaacggcga ggtcatggac	720
gcggcggcgg ctgacaccat gtccgacagc ttccagacgc acgactccga catcgacaac	780
gcctccgccg gcctgcggca cggtggctgc ggcggcggcg gcttcggcga cgtggcgccg	840

047-E2F-PCT.ST25.txt

```

ccgaggaatg ggttcgtgac ggtgaaggag gacaacgact gggtcaccgg cctcaacttc 900
gacgagctgc agccgccgta catgatgaac ctgcagcaca tgcagatgca gatggtgaat 960
ccggcggcgc cagggcacga cggcggctac ttgcagtcca tcagctcgcc gcagatgaag 1020
atgtggcaga caatcctgcc accattctga gatggatgga gcaagaaaaa ggttgctgta 1080
gataaagggc ggaaatagga gtgatggcta gaaaattatt agatttacta gaacgaaaat 1140
gattagaaat ctggcaagca tgattctgca aatgtggtgg tagatgcttg cagtatgtaa 1200
ttcatttggt cagtatatgc atttggtaat ctgcaaaaca aaaaaaaaaa aaaaaaaaaa 1260
aaaa 1264

```

<210> 8

<211> 316

<212> PRT

<213> Oryza sativa

<400> 8

```

Met Ala Ala Ala Val Gly Gly Ser Gly Arg Arg Asp Ala Glu Ala Glu
1      5      10     15
Leu Asn Leu Pro Pro Gly Phe Arg Phe His Pro Thr Asp Glu Glu Leu
20     25     30
Val Val His Tyr Leu Cys Arg Lys Val Ala Arg Gln Pro Leu Pro Val
35     40     45
Pro Ile Ile Ala Glu Val Asp Leu Tyr Lys Leu Asp Pro Trp Asp Leu
50     55     60
Pro Glu Lys Ala Leu Phe Gly Arg Lys Glu Trp Tyr Phe Phe Thr Pro
65     70     75     80
Arg Asp Arg Lys Tyr Pro Asn Gly Ser Arg Pro Asn Arg Ala Ala Gly
85     90     95
Arg Gly Tyr Trp Lys Ala Thr Gly Ala Asp Lys Pro Val Ala Pro Lys
100    105    110
Gly Ser Ala Arg Thr Val Gly Ile Lys Lys Ala Leu Val Phe Tyr Ser
115    120    125
Gly Lys Ala Pro Arg Gly Val Lys Thr Asp Trp Ile Met His Glu Tyr
130    135    140

```

047-E2F-PCT.ST25.txt

Arg Leu Ala Asp Ala Asp Arg Ala Pro Gly Gly Lys Lys Gly Ser Gln  
145 150 155 160

Lys Leu Asp Glu Trp Val Leu Cys Arg Leu Tyr Asn Lys Lys Asn Asn  
165 170 175

Trp Glu Lys Val Lys Leu Glu Gln Gln Asp Val Ala Ser Val Ala Ala  
180 185 190

Ala Ala Pro Arg Asn His His His Gln Asn Gly Glu Val Met Asp Ala  
195 200 205

Ala Ala Ala Asp Thr Met Ser Asp Ser Phe Gln Thr His Asp Ser Asp  
210 215 220

Ile Asp Asn Ala Ser Ala Gly Leu Arg His Gly Gly Cys Gly Gly Gly  
225 230 235 240

Gly Phe Gly Asp Val Ala Pro Pro Arg Asn Gly Phe Val Thr Val Lys  
245 250 255

Glu Asp Asn Asp Trp Phe Thr Gly Leu Asn Phe Asp Glu Leu Gln Pro  
260 265 270

Pro Tyr Met Met Asn Leu Gln His Met Gln Met Gln Met Val Asn Pro  
275 280 285

Ala Ala Pro Gly His Asp Gly Gly Tyr Leu Gln Ser Ile Ser Ser Pro  
290 295 300

Gln Met Lys Met Trp Gln Thr Ile Leu Pro Pro Phe  
305 310 315

<210> 9

<211> 1057

<212> DNA

<213> Oryza sativa

<400> 9

tttctcctc ttcttcctcc atatcacacg gttttcgtcc atcgatcatc agagctcgat	60
cgggcgccat ggatggggag gaggacagcg agtggatgat gatggacgtt ggaggggaagg	120
gcgggaaggg cggcggcggc ggcggcgcgg cggacaggaa gaagcggttc agcgaggagc	180

047-E2F-PCT.ST25.txt

```

agatcaagtc gctggagtc atgttcgcga cgcagaccaa gctggagccg aggcagaagc 240
tgcagctcgc cagggagctc ggcctgcagc ctcgccaggt cgccatctgg ttccagaaca 300
agcgcgcgcg gtggaagtcc aagcagctcg agcgcgagta ctccgccctc cgcgacgact 360
acgacgccct cctctgcagc tacgagtccc tcaagaagga gaagctcgcc ctcatcaagc 420
agctggagaa gctggcgagg atgctgcagg agccacgggg gaagtacggc gataatgccg 480
gggacgacgc gcggtcgggc ggcgtcgccg gcatgaagaa ggaggagttc gtcggcgcg 540
gcggcgccgc cacgctctac tcgtcggccg aggggtggcg gacgtcgtcc acggagcaga 600
cctgcagcag cagccatgg tgggaattcg agagcgagtg agcatccaca ctgttactac 660
taggctactc atggatgac catcgatcgc cacagatcat gcatgccacg atcagaatct 720
caattcgccg cgaggacgga tcaaacctgt actagatcgg atcagagcaa acatagcaga 780
gaagatgac aaaccaacag tgatgtgtac atagatttct gtagatcaaa accccaggca 840
gtctcctctc catccagcca tcagcatgcg aaaattctct ctcttttttt tcccctccaa 900
gtcttactcg acttcgatgt tgttatcaca acaccacatc atgtaatcca gcaacacgcc 960
gagatgaaaa aaaggttaaa aagcttatag agttcgttca tttgatggat ccaaaaaaaaa 1020
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa 1057

```

<210> 10

<211> 190

<212> PRT

<213> Oryza sativa

<400> 10

Met Asp Gly Glu Glu Asp Ser Glu Trp Met Met Met Asp Val Gly Gly  
1 5 10 15

Lys Gly Gly Lys Gly Gly Gly Gly Gly Gly Ala Ala Asp Arg Lys Lys  
20 25 30

Arg Phe Ser Glu Glu Gln Ile Lys Ser Leu Glu Ser Met Phe Ala Thr  
35 40 45

Gln Thr Lys Leu Glu Pro Arg Gln Lys Leu Gln Leu Ala Arg Glu Leu  
50 55 60

Gly Leu Gln Pro Arg Gln Val Ala Ile Trp Phe Gln Asn Lys Arg Ala  
65 70 75 80



Arg Trp Lys Ser Lys Gln Leu Glu Arg Glu Tyr Ser Ala Leu Arg Asp  
85 90 95

Asp Tyr Asp Ala Leu Leu Cys Ser Tyr Glu Ser Leu Lys Lys Glu Lys  
100 105 110

Leu Ala Leu Ile Lys Gln Leu Glu Lys Leu Ala Glu Met Leu Gln Glu  
115 120 125

Pro Arg Gly Lys Tyr Gly Asp Asn Ala Gly Asp Asp Ala Arg Ser Gly  
130 135 140

Gly Val Ala Gly Met Lys Lys Glu Glu Phe Val Gly Ala Gly Gly Ala  
145 150 155 160

Ala Thr Leu Tyr Ser Ser Ala Glu Gly Gly Gly Thr Ser Ser Thr Glu  
165 170 175

Gln Thr Cys Ser Ser Thr Pro Trp Trp Glu Phe Glu Ser Glu  
180 185 190

<210> 11

<211> 1275

<212> DNA

<213> Oryza sativa

<400> 11

cagtagacgg caatactcct gatccaaatc aagaaaatct ttctgagagt gctcaaggaa	60
gccacgctgg ctctcctccc aacatggcat ctattgtcac agctacagtt gctgcagcat	120
cagcatggtg ggcaacacaa ggtctttctcc ctctttttcc tccacctata gcttttccat	180
ttgtttccagc tcctagtgct ccctttttcca cagcagatgt tcagcgagct caagagaaag	240
atatagactg cccaatggat aatgcacaga aggaattgca agaaactcgg aaacaagata	300
atattgaagc tatgaaggtc atagtgtctt cagagactga tgagagtgga aaaggagaag	360
tgtcgctcca cactgagtta aagatatctc cagcagataa ggccgacacc aaacctgccg	420
caggagctga aacaagtgac gtttttggaataaagaaaaa gcaggatcgc tcttcatgtg	480
gttccaacac accgtcaagt agtgatatag aagcagataa tgctcctgag aatcaagaaa	540
aggctaacga caaggcaaag caagcatctt gcagtaactc ttcagccggt gacaataacc	600
accgtagatt taggagcagt gcaagcaciaa gtgattcatg gaaggaagtt tctgaagagg	660
gtcgtctggc ttttgatgca ctgttcagta gagaaaggct tccccaaagc ttttctcctc	720

047-E2F-PCT.ST25.txt

cgcaagtaga aggatcaaag gagattagca aggaggaaga agatgaagta accacggtga 780  
cggttgacct caacaagaat gccgctatta ttgatcaaga actcgacaca gcggatgagc 840  
caagagcttc ctttcctaata gaattgtcaa acctgaagct gaaatctcgc aggaccggtt 900  
tcaaaccata caagaggtgc tcagtggaag cgaaggagaa caggggtaccg gctagcgatg 960  
aggttggtac caagaggatt cgtcttgaga gcgaagcatc gacatgattt gctttccacc 1020  
tggttgctgg cctctaccaa gtcagaagtt aaatttacat ccgagctacc ataggacttc 1080  
agaccttcca atgcattacc tcacaaactc aattttattgt gtgttgatc ttaatgcttg 1140  
ccaagcagct cctatagact gcttttaaac cgtatctcat agacttttga ttagcattta 1200  
agcgactgct aaactttctt cataaaaggg tattatcctt attatgcatt atagtctggg 1260  
gaaggaaata agtgg 1275

<210> 12

<211> 307

<212> PRT

<213> Oryza sativa

<400> 12

Met Ala Ser Ile Val Thr Ala Thr Val Ala Ala Ala Ser Ala Trp Trp  
1 5 10 15

Ala Thr Gln Gly Leu Leu Pro Leu Phe Pro Pro Pro Ile Ala Phe Pro  
20 25 30

Phe Val Pro Ala Pro Ser Ala Pro Phe Ser Thr Ala Asp Val Gln Arg  
35 40 45

Ala Gln Glu Lys Asp Ile Asp Cys Pro Met Asp Asn Ala Gln Lys Glu  
50 55 60

Leu Gln Glu Thr Arg Lys Gln Asp Asn Phe Glu Ala Met Lys Val Ile  
65 70 75 80

Val Ser Ser Glu Thr Asp Glu Ser Gly Lys Gly Glu Val Ser Leu His  
85 90 95

Thr Glu Leu Lys Ile Ser Pro Ala Asp Lys Ala Asp Thr Lys Pro Ala  
100 105 110

Ala Gly Ala Glu Thr Ser Asp Val Phe Gly Asn Lys Lys Lys Gln Asp  
115 120 125

047-E2F-PCT.ST25.txt

Arg Ser Ser Cys Gly Ser Asn Thr Pro Ser Ser Ser Asp Ile Glu Ala  
130 135 140

Asp Asn Ala Pro Glu Asn Gln Glu Lys Ala Asn Asp Lys Ala Lys Gln  
145 150 155 160

Ala Ser Cys Ser Asn Ser Ser Ala Gly Asp Asn Asn His Arg Arg Phe  
165 170 175

Arg Ser Ser Ala Ser Thr Ser Asp Ser Trp Lys Glu Val Ser Glu Glu  
180 185 190

Gly Arg Leu Ala Phe Asp Ala Leu Phe Ser Arg Glu Arg Leu Pro Gln  
195 200 205

Ser Phe Ser Pro Pro Gln Val Glu Gly Ser Lys Glu Ile Ser Lys Glu  
210 215 220

Glu Glu Asp Glu Val Thr Thr Val Thr Val Asp Leu Asn Lys Asn Ala  
225 230 235 240

Ala Ile Ile Asp Gln Glu Leu Asp Thr Ala Asp Glu Pro Arg Ala Ser  
245 250 255

Phe Pro Asn Glu Leu Ser Asn Leu Lys Leu Lys Ser Arg Arg Thr Gly  
260 265 270

Phe Lys Pro Tyr Lys Arg Cys Ser Val Glu Ala Lys Glu Asn Arg Val  
275 280 285

Pro Ala Ser Asp Glu Val Gly Thr Lys Arg Ile Arg Leu Glu Ser Glu  
290 295 300

Ala Ser Thr  
305

<210> 13

<211> 1106

<212> DNA

<213> Arabidopsis thaliana

<400> 13

aaatcgaaag gcacagccca acttttcgca agtcgctgta aagtttgatt tgcttctttt

60

047-E2F-PCT.ST25.txt

tatatacaca catactttctc ctccatacac tttcctcttc aatcctcagt tttttttcta	120
agccctaata ccatctcaaa gaagagatca agatttgaaa tcaagaagac accattactc	180
agatcaacat gcttgccgtt caccgtcctt cttccgccgt atcagacgga gattccgttc	240
agattccgat gatgatcgcg tcgtttcaaa aacgtttttcc ttctctctca cgcgactcca	300
cggccgctcg ttttcacaca caccgaggttg gtcctaataca gtgttgctcc gccgttattc	360
aagagatctc cgctccaatc tccaccgttt ggtccgtcgt acgccgcttt gataaccac	420
aagcttacaac acacttttctc aaaagctgta gcgatcatcgg cggagacggc gataacgttg	480
gtagcctccg tcaagtccac gtcgtctctg gtctccccgc cgctagctcc accgagagac	540
tcgatatcct cgacgacgaa cgccacgtca tcagcttcag cgttggttggg ggtgaccacc	600
ggctctctaa ctaccgatcc gtaacgaccc ttcacccttc tccgatctcc gggaccgctg	660
ttgtcgagtc ttacgtcggt gatgttcctc caggcaacac aaaggaagag acttgtgact	720
tcgttgacgt tatcgtacga tgcaatcttc aatctcttgc gaaaatagcc gagaatactg	780
cggctgagag caagaagaag atgtctctgt gatgagcttt tgctggttgc gggtagtttc	840
gtagatccg acgtcgtttt ctagattttt agccgctcgtg tgatctatgt tttttcggct	900
tatgtgtgaa aaaaaagtta cattagttaa ttaatctctc atgcatatca taatccttct	960
tttaattttt gtattttaca tatcccataa agaaccgatt tggatagccc tattccggct	1020
ttcaccaccc aaagataata atattcaaac tgaaagaatg tggttgtgtt gtccgctaata	1080
taaaagtgtg attttcaagt ttaatt	1106

<210> 14

<211> 207

<212> PRT

<213> Arabidopsis thaliana

<400> 14

Met	Leu	Ala	Val	His	Arg	Pro	Ser	Ser	Ala	Val	Ser	Asp	Gly	Asp	Ser
1				5					10					15	

Val	Gln	Ile	Pro	Met	Met	Ile	Ala	Ser	Phe	Gln	Lys	Arg	Phe	Pro	Ser
			20					25					30		

Leu	Ser	Arg	Asp	Ser	Thr	Ala	Ala	Arg	Phe	His	Thr	His	Glu	Val	Gly
		35					40					45			

Pro	Asn	Gln	Cys	Cys	Ser	Ala	Val	Ile	Gln	Glu	Ile	Ser	Ala	Pro	Ile
	50					55					60				

047-E2F-PCT.ST25.txt

Ser Thr Val Trp Ser Val Val Arg Arg Phe Asp Asn Pro Gln Ala Tyr  
65 70 75 80

Lys His Phe Leu Lys Ser Cys Ser Val Ile Gly Gly Asp Gly Asp Asn  
85 90 95

Val Gly Ser Leu Arg Gln Val His Val Val Ser Gly Leu Pro Ala Ala  
100 105 110

Ser Ser Thr Glu Arg Leu Asp Ile Leu Asp Asp Glu Arg His Val Ile  
115 120 125

Ser Phe Ser Val Val Gly Gly Asp His Arg Leu Ser Asn Tyr Arg Ser  
130 135 140

Val Thr Thr Leu His Pro Ser Pro Ile Ser Gly Thr Val Val Val Glu  
145 150 155 160

Ser Tyr Val Val Asp Val Pro Pro Gly Asn Thr Lys Glu Glu Thr Cys  
165 170 175

Asp Phe Val Asp Val Ile Val Arg Cys Asn Leu Gln Ser Leu Ala Lys  
180 185 190

Ile Ala Glu Asn Thr Ala Ala Glu Ser Lys Lys Lys Met Ser Leu  
195 200 205

<210> 15

<211> 1848

<212> DNA

<213> Arabidopsis thaliana

<400> 15

ggttgagtga ttgctgaagc caacttaaaa gagagagaag agaagagtga ctctgtgtgt	60
gtgtgcaaga aagtcttctc ttccacacct ttcgttttct cgaacctctc ctttaaagat	120
ggtggaggaa tcttgggttt gacaactcat taacactgac cctcttttta gctctacaag	180
catccaagga acccctctta cttttccctc ttcttcattc cctctctctc tatatctccc	240
aattccttct ctttttttaa ccttgatctt cttcttataa gagactcaga gctgttcttc	300
aagatgggat tgtgtaagct tgaaacttga ctatctgggt ctctccatt ttctgttctc	360
ttttgtattc tgagtgaag ttttgttttc tgggggaaaa aattaggggt cttagatgga	420

```

ggagatagaa ggaacaaaca gagcagctgt tgagagttgt catagagttc ttaatctttt 480
acatagatca cagcaacaag atcatgttgg ttttgaaaag aatttagtat ctgaaactag 540
agaagctgtg attaggttca agagagttgg gagtttggtta agcagtagtg ttggtcatgc 600
taggttttaga agagctaaga aacttcagag tcatgtctct caaagtctct tacttgatcc 660
atgtcaacaa aggacaacag aagttccatc atcatcttct cagaaaacac cgggtactccg 720
gtctggtttc caggaattga gcttgagaca accttcagat tcaactcactt tagggactcg 780
ctcttttagt ttaaactcaa atgctaaagc tcctctcctt cagcttaatc agcagacaat 840
gcctccttcg aattatccta ctttgtttcc agtacaacaa caacaacaac aacaacaaca 900
acaacaacag caggagcagc agcagcagca gcagcagcaa cagcaacagt ttcattgaacg 960
gttacaagct caccatcttc atcagcaaca gcagctacag aaacatcaag ctgagcttat 1020
gcttaggaaa tgcaatggtg ggataagttt gagtttcgat aactctagtt gtactccaac 1080
tatgtcatcc actaggtcct ttgtttcttc acttagcata gatggttagtg ttgctaatat 1140
agagggaaaag aactccttcc attttggggg tcctagttca actgatcaga attcactaca 1200
ttctaagagg aaatgccctt tgaaaggaga tgaacatgga agcttaaaat gcgggagctc 1260
tagccgatgc cactgcgcta agaagaggaa acatcggggt aggagatcga ttagagtacc 1320
ggctataagt aacaagggtg cagatatccc tcctgatgat tattcatggc gaaaatatgg 1380
tcagaagccc atcaagggtc ctctttatcc cagaggatat taaaaatgta gtagcatgag 1440
aggttgtcca gcgaggaagc atgttgagag atgtttggaa gatccggcaa tgcttattgt 1500
tacttatgaa gcagagcata accacccgaa attgccatct caagctataa caacttaact 1560
ctcgtttatc tttgcggtcc agcataaacc ttctcatgta tgttgttctc ttttgtgcgc 1620
gatgatcggc tttgggggtg ctgcaatgtt gtgatatatg gatcggggta agtgcttttg 1680
ttgggggtgga tttgcttggt agagtttgct gcaattgttg gattttgagc tatatatggg 1740
gtaaatgtag gattggtcaa gactcttttt ctgtttctca agtttattgg tcttaatgat 1800
taaaagttta atggtttggt tctggctatg tatctttttt ttcttctc 1848

```

<210> 16

<211> 380

<212> PRT

<213> Arabidopsis thaliana

<400> 16

Met Glu Glu Ile Glu Gly Thr Asn Arg Ala Ala Val Glu Ser Cys His  
1 5 10 15

047-E2F-PCT.ST25.txt

Arg Val Leu Asn Leu Leu His Arg Ser Gln Gln Gln Asp His Val Gly  
20 25 30

Phe Glu Lys Asn Leu Val Ser Glu Thr Arg Glu Ala Val Ile Arg Phe  
35 40 45

Lys Arg Val Gly Ser Leu Leu Ser Ser Ser Val Gly His Ala Arg Phe  
50 55 60

Arg Arg Ala Lys Lys Leu Gln Ser His Val Ser Gln Ser Leu Leu Leu  
65 70 75 80

Asp Pro Cys Gln Gln Arg Thr Thr Glu Val Pro Ser Ser Ser Ser Gln  
85 90 95

Lys Thr Pro Val Leu Arg Ser Gly Phe Gln Glu Leu Ser Leu Arg Gln  
100 105 110

Pro Ser Asp Ser Leu Thr Leu Gly Thr Arg Ser Phe Ser Leu Asn Ser  
115 120 125

Asn Ala Lys Ala Pro Leu Leu Gln Leu Asn Gln Gln Thr Met Pro Pro  
130 135 140

Ser Asn Tyr Pro Thr Leu Phe Pro Val Gln Gln Gln Gln Gln Gln Gln  
145 150 155 160

Gln Gln Gln Gln Gln Gln Glu Gln Gln Gln Gln Gln Gln Gln Gln  
165 170 175

Gln Gln Phe His Glu Arg Leu Gln Ala His His Leu His Gln Gln Gln  
180 185 190

Gln Leu Gln Lys His Gln Ala Glu Leu Met Leu Arg Lys Cys Asn Gly  
195 200 205

Gly Ile Ser Leu Ser Phe Asp Asn Ser Ser Cys Thr Pro Thr Met Ser  
210 215 220

Ser Thr Arg Ser Phe Val Ser Ser Leu Ser Ile Asp Gly Ser Val Ala  
225 230 235 240

Asn Ile Glu Gly Lys Asn Ser Phe His Phe Gly Val Pro Ser Ser Thr  
245 250 255

Asp Gln Asn Ser Leu His Ser Lys Arg Lys Cys Pro Leu Lys Gly Asp

260

265

270

Glu His Gly Ser Leu Lys Cys Gly Ser Ser Ser Arg Cys His Cys Ala  
 275 280 285  
 Lys Lys Arg Lys His Arg Val Arg Arg Ser Ile Arg Val Pro Ala Ile  
 290 295 300  
 Ser Asn Lys Val Ala Asp Ile Pro Pro Asp Asp Tyr Ser Trp Arg Lys  
 305 310 315 320  
 Tyr Gly Gln Lys Pro Ile Lys Gly Ser Pro Tyr Pro Arg Gly Tyr Tyr  
 325 330 335  
 Lys Cys Ser Ser Met Arg Gly Cys Pro Ala Arg Lys His Val Glu Arg  
 340 345 350  
 Cys Leu Glu Asp Pro Ala Met Leu Ile Val Thr Tyr Glu Ala Glu His  
 355 360 365  
 Asn His Pro Lys Leu Pro Ser Gln Ala Ile Thr Thr  
 370 375 380

&lt;210&gt; 17

&lt;211&gt; 846

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 17

```

gatcattcat gttcagagtaa acgataaaac tgttgcttga agtttttttaa tggcgatttc      60
taatgtgatg ttagagtcta tgtctagatc tctattaaga ttcgaatact gaattcgcgg      120
gaagtggact tttttgtttc taatgattga tttagtactg ataagtgata acgatgtata      180
tagtttttgt tctggacttg aatttgaaaa catacttttg ttaaagctca gttatggaag      240
acgtgaaagg gaaggagatt attgatgatg ctctattga caacaagggt tcagatgaaa      300
tgagagagtga ggaaaatgcg atcaagaaaa agtatggagg attgttgcct aagaagattc      360
ctttgatatc taaggaccat gaacgtgcgt tttttgactc agctgattgg gctttaggca      420
agcaaaaagg acagaagccg aaagggcctt tggaagctct ccgccccaaa ctgcagccaa      480
ccccgcaaca gcaaccaaga gcaagacgaa tggcttattc ttcaggcgaa actgaagaca      540
ctgagattga taacaacgaa gctccggatg accaagcctg cgcacagct gtggatagta      600
ccaattttaa ggacgatgga ggcgcaaaag acaacatcaa atcatgaaca acatatagag      660

```



047-E2F-PCT.ST25.txt

atctcttgag gagcgcaaac aaacaacatc acaagtcaat ttacagaaga ataagcgacc 720  
 aggttttgctt tgcaacgggt gtaatatcaa gtctcttacc ttatcatact tgggactgca 780  
 aatctgtatc acttacaac ctcttggtt gaaacgtcta ttggacgatt gcaaattgatt 840  
 tgcttt 846

<210> 18

<211> 137

<212> PRT

<213> Arabidopsis thaliana

<400> 18

Met Glu Asp Val Lys Gly Lys Glu Ile Ile Asp Asp Ala Pro Ile Asp  
 1 5 10 15  
 Asn Lys Val Ser Asp Glu Met Glu Ser Glu Glu Asn Ala Ile Lys Lys  
 20 25 30  
 Lys Tyr Gly Gly Leu Leu Pro Lys Lys Ile Pro Leu Ile Ser Lys Asp  
 35 40 45  
 His Glu Arg Ala Phe Phe Asp Ser Ala Asp Trp Ala Leu Gly Lys Gln  
 50 55 60  
 Lys Gly Gln Lys Pro Lys Gly Pro Leu Glu Ala Leu Arg Pro Lys Leu  
 65 70 75 80  
 Gln Pro Thr Pro Gln Gln Gln Pro Arg Ala Arg Arg Met Ala Tyr Ser  
 85 90 95  
 Ser Gly Glu Thr Glu Asp Thr Glu Ile Asp Asn Asn Glu Ala Pro Asp  
 100 105 110  
 Asp Gln Ala Cys Ala Ser Ala Val Asp Ser Thr Asn Leu Lys Asp Asp  
 115 120 125  
 Gly Gly Ala Lys Asp Asn Ile Lys Ser  
 130 135

<210> 19

<211> 1395

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 19

```

ggctcacaca aatataagat aacgtccggt tcaaattccc ccaactcgga gaaaccgaag    60
cgagtctgac tctctgagtc gtcaccaccg agtcaactct gtctccgcca tggctgctgc    120
ttcactccac acttcaatct caccacgtag cttccttcct ctctccaaac catctctaaa    180
acctcaccgt tcccaaattc tactgagaaa caaacagagg aattgcgttt cgtgcgcatt    240
gatccgtgac gaaatcgacc tgattccggt tcagagccga gatcggaccg accatgagga    300
aggttcgggt gtagtgatga gcactgagac ggcggttgat ggtaatgaat cggttgttgt    360
aggttttagt gctgcgacga gtgaagggtca gctttcggtta gaagggtttc cttcttcttc    420
ttcttcggga gctgatttag gagatgaaaa gagaagagag aacgaagaaa tggagaagat    480
gatcgatcga accattaacg ctacgattgt tttagctgct ggttcttacg ctattaccaa    540
attgcttacc atcgatcatg attattggca tggatggact ctgtttgaga tactaagata    600
tgctcctcaa cataactgga ttgcttacga agaagcgcta aagcaaaacc cggttctagc    660
aaaaatgggtc attagtggag ttgtctactc tgtaggagat tggatagctc agtgttacga    720
aggcaaaccg ttgtttgaaa ttgatagagc aagaacattg agatcaggac tagtaggttt    780
cactctccat ggctcgttat cgcatttcta ttaccagttc tgtgaagagc ttttcccggt    840
tcaagattgg tgggtgggtc ctgtgaaagt tgcctttgat caaacagtct ggtcagctat    900
atggaacagt atttacttca cggttcttgg tttcctgcgt ttcgaatcgc ctatcagcat    960
cttcaaagaa ctaaaagcta cgttcttgcc tatgctaaca gcaggttgga agctttggcc   1020
at ttgctcat ttgatcacat acggtttggt cccagtagaa caacgacttc tctgggtaga   1080
ttgcgtggag cttatttggg tcactatact ttcgacttac tcgaacgaga aatcagaagc   1140
tagaatctcg gaatctgtca ttgagacctc ttcgagttct actacaacca ttgatccctc   1200
taaggaatga gaaagcagaa aagccaaatc gggctcttatc agcatcatat tgtatatata   1260
cagagtttag ccaataaagt ggccagagat ttgagattga tacagaggag atggagatat   1320
tcaaattgat gtatctatta atgtgtaaga aaaataacca gaatcttgaa tacacaatag   1380
aaacaatttt atttg                                     1395

```

&lt;210&gt; 20

&lt;211&gt; 366

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 20

```

Met Ala Ala Ala Ser Leu His Thr Ser Ile Ser Pro Arg Ser Phe Leu
1      5      10      15

Pro Leu Ser Lys Pro Ser Leu Lys Pro His Arg Ser Gln Ile Leu Leu
      20      25      30

Arg Asn Lys Gln Arg Asn Cys Val Ser Cys Ala Leu Ile Arg Asp Glu
      35      40      45

Ile Asp Leu Ile Pro Val Gln Ser Arg Asp Arg Thr Asp His Glu Glu
      50      55      60

Gly Ser Val Val Val Met Ser Thr Glu Thr Ala Val Asp Gly Asn Glu
65      70      75      80

Ser Val Val Val Gly Phe Ser Ala Ala Thr Ser Glu Gly Gln Leu Ser
      85      90      95

Leu Glu Gly Phe Pro Ser Ser Ser Ser Ser Gly Ala Asp Leu Gly Asp
      100      105      110

Glu Lys Arg Arg Glu Asn Glu Glu Met Glu Lys Met Ile Asp Arg Thr
      115      120      125

Ile Asn Ala Thr Ile Val Leu Ala Ala Gly Ser Tyr Ala Ile Thr Lys
      130      135      140

Leu Leu Thr Ile Asp His Asp Tyr Trp His Gly Trp Thr Leu Phe Glu
145      150      155      160

Ile Leu Arg Tyr Ala Pro Gln His Asn Trp Ile Ala Tyr Glu Glu Ala
      165      170      175

Leu Lys Gln Asn Pro Val Leu Ala Lys Met Val Ile Ser Gly Val Val
      180      185      190

Tyr Ser Val Gly Asp Trp Ile Ala Gln Cys Tyr Glu Gly Lys Pro Leu
      195      200      205

Phe Glu Ile Asp Arg Ala Arg Thr Leu Arg Ser Gly Leu Val Gly Phe
      210      215      220

Thr Leu His Gly Ser Leu Ser His Phe Tyr Tyr Gln Phe Cys Glu Glu
225      230      235      240

```

047-E2F-PCT.ST25.txt

Leu Phe Pro Phe Gln Asp Trp Trp Val Val Pro Val Lys Val Ala Phe  
245 250 255

Asp Gln Thr Val Trp Ser Ala Ile Trp Asn Ser Ile Tyr Phe Thr Val  
260 265 270

Leu Gly Phe Leu Arg Phe Glu Ser Pro Ile Ser Ile Phe Lys Glu Leu  
275 280 285

Lys Ala Thr Phe Leu Pro Met Leu Thr Ala Gly Trp Lys Leu Trp Pro  
290 295 300

Phe Ala His Leu Ile Thr Tyr Gly Leu Val Pro Val Glu Gln Arg Leu  
305 310 315 320

Leu Trp Val Asp Cys Val Glu Leu Ile Trp Val Thr Ile Leu Ser Thr  
325 330 335

Tyr Ser Asn Glu Lys Ser Glu Ala Arg Ile Ser Glu Ser Val Ile Glu  
340 345 350

Thr Ser Ser Ser Ser Thr Thr Thr Ile Asp Pro Ser Lys Glu  
355 360 365

<210> 21

<211> 1627

<212> DNA

<213> Arabidopsis thaliana

<400> 21

agaagattct taaatctcat ttctgcggcg taggtgaagt cttagcgata agctttgttt	60
cttcttcttc ttcttcttta cccatggatt tttaacgaac aagagaagag aagaaccaag	120
ttttcttcga aaggattgaa ctttgtttct ttctcttcag ctacaacaac caaaaaatga	180
tcaagctttg cttcatgact tctcatggtt attcaatccc tggccttggt cttcctcaag	240
acctctgcaa caccgaaatc atcaagcaga atagccggtc tcatctggtg aatcccggag	300
caagacaaga gatcatacct gcaagctcct tcaatctgaa tacagaactc ttggaaccat	360
ggaaaccggt ttcttcattt agccaattcg tggagattga ttcagccatg atgaaacctc	420
tgctcatgga tgttcatgag acggcaccag aatctctgat tttgagcttt ggaatcgctg	480
ataagtttgc aagacaagaa aaggtgatgg agtttcttct gtctcagtca gaggagttca	540
aggaaaaagg attcgaatg tcgctgttaa atgaattgat ggagtttgag tctatgaaat	600

047-E2F-PCT.ST25.txt

```

ccagtttctca gctacgaccg tatgatactt cctctgttct ttacttgaat caagaattag 660
ggaaaccggt tttggatctc gttagggata tgatggagaa tccagagttc tctgtgcat 720
cgaatggtca tgttctgttc tcttcaagta gcaatcctga gttgaatgat ctactttcta 780
ttgcttccga gttcaatttg tcaaggaatt caacaacaaa atggagacag ctctcaccgc 840
ttatcccaca ctttcagagg tttgaaagtg acgtatttac accggctaag ctgaaagcag 900
ttacagtgtc agcacctttg aagagtcctg agaaaagcag gctcaagtca ccaaggaaac 960
acaacacgaa gcgaaaagct aaagagaggg acctatacaa aagaaatcat ctccacgctt 1020
acgagagcct tctctcttta atgataggca atgatcatcg acacaaacac acaacagtac 1080
tctctttaca gaaatcatgt ggagagctct cagagcttct gactcagttc tctatcactg 1140
ctgctggaac tggaatcgct gtgctctttt ctgtcgtatg tagccttgct tcaaggcgtg 1200
tacccttttg cgcaaataag ttcttcgaca ctgggcttgg tttgagtttg gtaatactgt 1260
catgggctgt gaatagactc agggaggtga ttgttcatgt caataggaaa gcgaacaagc 1320
catgttcaag tttgaaagat gacgaaatca taaacagtgt ggagagaagt atgaaggagg 1380
tttactacag agctgcaacg gtaatcgcgg tgtttgcgct taggtttgca tgttgaaaaa 1440
tcgggggtgag aggtaaaaat cttgatttac tactccatgg aaagcttcta aaaggctggt 1500
tgtaaagtac taaaacttgt ttagtagctg taaatgtgaa agatgatatt atgtggtaga 1560
acctaagatt aagaggtgaa gaattttgaa gagaataaat gttttgcaag aatgcgtttg 1620
ttccatc 1627

```

<210> 22

<211> 419

<212> PRT

<213> Arabidopsis thaliana

<400> 22

Met Ile Lys Leu Cys Phe Met Thr Ser His Gly Tyr Ser Ile Pro Gly  
1 5 10 15

Leu Gly Leu Pro Gln Asp Leu Cys Asn Thr Glu Ile Ile Lys Gln Asn  
20 25 30

Ser Arg Ser His Leu Val Asn Pro Gly Ala Arg Gln Glu Ile Ile Pro  
35 40 45

Ala Ser Ser Phe Asn Leu Asn Thr Glu Leu Leu Glu Pro Trp Lys Pro  
Page 23

50

55

Val 65	Ser	Ser	Phe	Ser	Gln 70	Phe	Val	Glu	Ile	Asp 75	Ser	Ala	Met	Met	Lys 80
Pro	Leu	Leu	Met	Asp 85	Val	His	Glu	Thr	Ala 90	Pro	Glu	Ser	Leu	Ile 95	Leu
Ser	Phe	Gly	Ile 100	Ala	Asp	Lys	Phe	Ala 105	Arg	Gln	Glu	Lys	Val 110	Met	Glu
Phe	Leu	Leu 115	Ser	Gln	Ser	Glu	Glu 120	Phe	Lys	Glu	Lys	Gly 125	Phe	Asp	Met
Ser	Leu 130	Leu	Asn	Glu	Leu	Met 135	Glu	Phe	Glu	Ser	Met 140	Lys	Ser	Ser	Ser
Gln 145	Leu	Arg	Pro	Tyr	Asp 150	Thr	Ser	Ser	Val	Leu 155	Tyr	Leu	Asn	Gln	Glu 160
Leu	Gly	Lys	Pro	Val 165	Leu	Asp	Leu	Val	Arg 170	Asp	Met	Met	Glu	Asn 175	Pro
Glu	Phe	Ser	Val 180	Arg	Ser	Asn	Gly	His 185	Val	Leu	Phe	Ser	Ser 190	Ser	Ser
Asn	Pro	Glu 195	Leu	Asn	Asp	Leu	Leu 200	Ser	Ile	Ala	Ser	Glu 205	Phe	Asn	Leu
Ser	Arg 210	Asn	Ser	Thr	Thr	Lys 215	Trp	Arg	Gln	Leu	Ser 220	Pro	Leu	Ile	Pro
His 225	Phe	Gln	Arg	Phe	Glu 230	Ser	Asp	Val	Phe	Thr 235	Pro	Ala	Lys	Leu	Lys 240
Ala	Val	Thr	Val	Leu 245	Ala	Pro	Leu	Lys	Ser 250	Pro	Glu	Lys	Ser	Arg 255	Leu
Lys	Ser	Pro	Arg 260	Lys	His	Asn	Thr	Lys 265	Arg	Lys	Ala	Lys	Glu 270	Arg	Asp
Leu	Tyr	Lys 275	Arg	Asn	His	Leu	His 280	Ala	Tyr	Glu	Ser	Leu 285	Leu	Ser	Leu
Met	Ile 290	Gly	Asn	Asp	His	Arg 295	His	Lys	His	Thr	Thr 300	Val	Leu	Ser	Leu

Gln Lys Ser Cys Gly Glu Leu Ser Glu Leu Leu Thr Gln Phe Ser Ile  
 305 310 315 320  
 Thr Ala Ala Gly Thr Gly Ile Ala Val Leu Phe Ser Val Val Cys Ser  
 325 330 335  
 Leu Ala Ser Arg Arg Val Pro Phe Cys Ala Asn Lys Phe Phe Asp Thr  
 340 345 350  
 Gly Leu Gly Leu Ser Leu Val Ile Leu Ser Trp Ala Val Asn Arg Leu  
 355 360 365  
 Arg Glu Val Ile Val His Val Asn Arg Lys Ala Asn Lys Pro Cys Ser  
 370 375 380  
 Ser Leu Lys Asp Asp Glu Ile Ile Asn Ser Val Glu Arg Ser Met Lys  
 385 390 395 400  
 Glu Val Tyr Tyr Arg Ala Ala Thr Val Ile Ala Val Phe Ala Leu Arg  
 405 410 415  
 Phe Ala Cys

<210> 23

<211> 1647

<212> DNA

<213> Arabidopsis thaliana

<400> 23

acaaatcaac catttctcct ttcttcttat ttctgagcaa agttttttct tcctttcata	60
ttgtgaggat gtccaaaacc aatatgaaat tttgcaatag ttattttctg gtcgatccga	120
ccaaagcaag ttttcttgat ctccttttgc ttttggtttc ctccaacctg accagtgcaa	180
gattcatcga ttctcctccg gatacgctta aaggcttccg gagaagtttc gcgagtcgat	240
ggatccttgc gttggccatc ttctttcaaa aagtattaat gctcttaagt aaaccttttg	300
cattcattgg tcaaaagctc acatattggc tcaaccttct tacggcaa at ggaggcttct	360
tcaacttgat acttaacctt atgtcaggaa agctggtcaa gcctgacaaa tcttcggcga	420
cgtatacttc ttttatagga tgctcagatc gacgaataga gcttgacgag aagataaatg	480
ttggtagcat cgaatacaaa tcgatgttgt caataatggc ttctaagatc tcttatgaga	540
gcaaacctta catcacttcc gtcgtcaaaa acacttgga gatggacttg gtgggtaact	600

047-E2F-PCT.ST25.txt

acgactttta caacgctttc caagaaagta aattgacgca agccttcgtg ttcaagactt 660  
cgagcaccaa tccagacctc atcgtcgtta gcttcagagg aaccgaacct ttcgaggctg 720  
ccgattggtg cactgatctc gacctctctt ggtacgagat gaagaacggt ggcaaagtcc 780  
acgccggggt ctcaagagct ttaggtctcc aaaaagatgg atggcccaag gaaaatatta 840  
gtctactaca ccaatatgct tactacacca tcagacagat gcttagagac aagcttggca 900  
gaaacaagaa ccttaaatat attctaacag gtcacagcct tggcggagca ctagctgctc 960  
ttttcccggc gattctggcc attcacggtg aggatgagct gctagataag ctagagggaa 1020  
tctatacggt tggacagcca cgtgtaggag atgaggactt tggtagagtt atgaaggggtg 1080  
tggtgaaaaa gcatggaata gagtatgaga gattcgtcta taacaatgat gttgtgccta 1140  
gagtgccctt tgatgacaag tacttattct catacaagca ctatggacct tgcaattcct 1200  
tcaacagtct ctacaaagga aaggtaagag aagatgcacc aaatgcgaac tacttcaact 1260  
tgttgtgggt aataccgcag ctgttgactg gtttgtggga gtttataagg agtttcatat 1320  
tacagttttg gaaaggcgac gagtacaaag agaattgggt aatgagattt gttaggggtg 1380  
tggaatagt gttccctggt ggctctaacc atttccatt tgattacgtc aactctactc 1440  
gcctaggagg cttggttcga cctcctccta ctactactcc tgaggataaa cttgccctca 1500  
ttgcttgaac tctcattatt taataatcat atccacttta tctgccctaa tgacgggttaa 1560  
ataattgcac ttgagcttta atgtattctc tgtgttatgt gtttttgtat gtgagttttt 1620  
atgttggtaa caatatctac cttttcc 1647

<210> 24

<211> 479

<212> PRT

<213> Arabidopsis thaliana

<400> 24

Met Ser Lys Thr Asn Met Lys Phe Cys Asn Ser Tyr Phe Leu Val Asp  
1 5 10 15

Pro Thr Lys Ala Ser Phe Leu Asp Leu Leu Leu Leu Leu Phe Ser Ser  
20 25 30

Asn Leu Thr Ser Ala Arg Phe Ile Asp Ser Pro Pro Asp Thr Leu Lys  
35 40 45

Gly Phe Arg Arg Ser Phe Ala Ser Arg Trp Ile Leu Ala Leu Ala Ile  
50 55 60



047-E2F-PCT.ST25.txt

Phe Leu Gln Lys Val Leu Met Leu Leu Ser Lys Pro Phe Ala Phe Ile  
 65 70 75 80  
 Gly Gln Lys Leu Thr Tyr Trp Leu Asn Leu Leu Thr Ala Asn Gly Gly  
 85 90 95  
 Phe Phe Asn Leu Ile Leu Asn Leu Met Ser Gly Lys Leu Val Lys Pro  
 100 105 110  
 Asp Lys Ser Ser Ala Thr Tyr Thr Ser Phe Ile Gly Cys Ser Asp Arg  
 115 120 125  
 Arg Ile Glu Leu Asp Glu Lys Ile Asn Val Gly Ser Ile Glu Tyr Lys  
 130 135 140  
 Ser Met Leu Ser Ile Met Ala Ser Lys Ile Ser Tyr Glu Ser Lys Pro  
 145 150 155 160  
 Tyr Ile Thr Ser Val Val Lys Asn Thr Trp Lys Met Asp Leu Val Gly  
 165 170 175  
 Asn Tyr Asp Phe Tyr Asn Ala Phe Gln Glu Ser Lys Leu Thr Gln Ala  
 180 185 190  
 Phe Val Phe Lys Thr Ser Ser Thr Asn Pro Asp Leu Ile Val Val Ser  
 195 200 205  
 Phe Arg Gly Thr Glu Pro Phe Glu Ala Ala Asp Trp Cys Thr Asp Leu  
 210 215 220  
 Asp Leu Ser Trp Tyr Glu Met Lys Asn Val Gly Lys Val His Ala Gly  
 225 230 235 240  
 Phe Ser Arg Ala Leu Gly Leu Gln Lys Asp Gly Trp Pro Lys Glu Asn  
 245 250 255  
 Ile Ser Leu Leu His Gln Tyr Ala Tyr Tyr Thr Ile Arg Gln Met Leu  
 260 265 270  
 Arg Asp Lys Leu Gly Arg Asn Lys Asn Leu Lys Tyr Ile Leu Thr Gly  
 275 280 285  
 His Ser Leu Gly Gly Ala Leu Ala Ala Leu Phe Pro Ala Ile Leu Ala  
 290 295 300  
 Ile His Gly Glu Asp Glu Leu Leu Asp Lys Leu Glu Gly Ile Tyr Thr

305 310 320  
Phe Gly Gln Pro Arg Val Gly Asp Glu Asp Phe Gly Glu Phe Met Lys  
325 330 335  
Gly Val Val Lys Lys His Gly Ile Glu Tyr Glu Arg Phe Val Tyr Asn  
340 345 350  
Asn Asp Val Val Pro Arg Val Pro Phe Asp Asp Lys Tyr Leu Phe Ser  
355 360 365  
Tyr Lys His Tyr Gly Pro Cys Asn Ser Phe Asn Ser Leu Tyr Lys Gly  
370 375 380  
Lys Val Arg Glu Asp Ala Pro Asn Ala Asn Tyr Phe Asn Leu Leu Trp  
385 390 395 400  
Leu Ile Pro Gln Leu Leu Thr Gly Leu Trp Glu Phe Ile Arg Ser Phe  
405 410 415  
Ile Leu Gln Phe Trp Lys Gly Asp Glu Tyr Lys Glu Asn Trp Leu Met  
420 425 430  
Arg Phe Val Arg Val Val Gly Ile Val Phe Pro Gly Gly Ser Asn His  
435 440 445  
Phe Pro Phe Asp Tyr Val Asn Ser Thr Arg Leu Gly Gly Leu Val Arg  
450 455 460  
Pro Pro Pro Thr Thr Thr Pro Glu Asp Lys Leu Ala Leu Ile Ala  
465 470 475

<210> 25

<211> 918

<212> DNA

<213> Arabidopsis thaliana

<400> 25  
atgatgaatg ttgcagtgac agccactccc tcgtctctct tgtactctcc tctgcttctt 60  
ccttctcaag ggccaaaccg gcgaatgcaa tggaaaagaa acggaaagag acggttaggg 120  
acaaaggtgg ctgtttccgg tgttatcaca gctggatttg agctgaagcc acctccatat 180  
cctcttgatg ctctggaacc gcatatgagc cgggaaacct tggattatca ctggggcaaa 240  
catcacaaaa cttatgtaga gaacctgaac aagcaaattc taggcacgga tctagatgca 300

047-E2F-PCT.ST25.txt

```

ttatccttgg aagaagttgt gcttctttca tacaacaaag gcaatatgct tcctgctttc 360
aacaacgctg cacaggcttg gaaccacgag ttcttctggg agtctatcca acctggaggt 420
ggaggaaagc caactggaga gctcctcaga ttaatagaaa gagatttttg gtctttcgaa 480
gagtttttgg aaaggttcaa gtcggctgca gcttcgaatt ttggttcggg ttggacatgg 540
cttgcatata aggcgaatag acttgacgtt gcaaatgccg ttaatcctct cccaaaggag 600
gaagacaaga aacttgttat agtgaagacg cccaatgcag taaatccgct cgtatgggat 660
tattctccac ttctcaccat tgatacctgg gagcacgctt actatctgga ttttgagaac 720
cgaagagctg aatacataaa tacattcatg gaaaagcttg tgtcatggga aactgtaagc 780
acaaggttgg aatccgcaat tgctcgagca gtgcaaagag aacaagaagg aacagagaca 840
gaagatgaag agaatccaga tgatgaagta ccagaggtct atttagatag tgacatcgat 900
gtatctgagg ttgactaa 918

```

<210> 26

<211> 305

<212> PRT

<213> Arabidopsis thaliana

<400> 26

```

Met Met Asn Val Ala Val Thr Ala Thr Pro Ser Ser Leu Leu Tyr Ser
1          5          10         15

```

```

Pro Leu Leu Leu Pro Ser Gln Gly Pro Asn Arg Arg Met Gln Trp Lys
20         25         30

```

```

Arg Asn Gly Lys Arg Arg Leu Gly Thr Lys Val Ala Val Ser Gly Val
35         40         45

```

```

Ile Thr Ala Gly Phe Glu Leu Lys Pro Pro Pro Tyr Pro Leu Asp Ala
50         55         60

```

```

Leu Glu Pro His Met Ser Arg Glu Thr Leu Asp Tyr His Trp Gly Lys
65         70         75         80

```

```

His His Lys Thr Tyr Val Glu Asn Leu Asn Lys Gln Ile Leu Gly Thr
85         90         95

```

```

Asp Leu Asp Ala Leu Ser Leu Glu Glu Val Val Leu Leu Ser Tyr Asn
100        105        110

```

047-E2F-PCT.ST25.txt

Lys Gly Asn Met Leu Pro Ala Phe Asn Asn Ala Ala Gln Ala Trp Asn  
115 120 125

His Glu Phe Phe Trp Glu Ser Ile Gln Pro Gly Gly Gly Gly Lys Pro  
130 135 140

Thr Gly Glu Leu Leu Arg Leu Ile Glu Arg Asp Phe Gly Ser Phe Glu  
145 150 155 160

Glu Phe Leu Glu Arg Phe Lys Ser Ala Ala Ala Ser Asn Phe Gly Ser  
165 170 175

Gly Trp Thr Trp Leu Ala Tyr Lys Ala Asn Arg Leu Asp Val Ala Asn  
180 185 190

Ala Val Asn Pro Leu Pro Lys Glu Glu Asp Lys Lys Leu Val Ile Val  
195 200 205

Lys Thr Pro Asn Ala Val Asn Pro Leu Val Trp Asp Tyr Ser Pro Leu  
210 215 220

Leu Thr Ile Asp Thr Trp Glu His Ala Tyr Tyr Leu Asp Phe Glu Asn  
225 230 235 240

Arg Arg Ala Glu Tyr Ile Asn Thr Phe Met Glu Lys Leu Val Ser Trp  
245 250 255

Glu Thr Val Ser Thr Arg Leu Glu Ser Ala Ile Ala Arg Ala Val Gln  
260 265 270

Arg Glu Gln Glu Gly Thr Glu Thr Glu Asp Glu Glu Asn Pro Asp Asp  
275 280 285

Glu Val Pro Glu Val Tyr Leu Asp Ser Asp Ile Asp Val Ser Glu Val  
290 295 300

Asp  
305

<210> 27

<211> 1479

<212> DNA

<213> Arabidopsis thaliana

## 047-E2F-PCT.ST25.txt

<400> 27  
 atggcgcgaa aatccctaata tttcccgggtg attttgctcg ccgttcttct cttctctccg 60  
 ccgatttact ccgccgggtca cgattaccgc gacgctctcc gtaaaagcat tctcttcttc 120  
 gaagggtcaac gttccggtaa actccctcca gatcaacgct taaaatggcg ccgtgactca 180  
 gcattacgcg acggttcctc cgccggcggtt gacttatccg gtggttacta cgacgccgga 240  
 gacaacatca agttcggttt tccgatggcg ttcacaacaa cgatgctttc atggagtata 300  
 atcgatttctg gtaaaaccat gggacctgag cttagaaacg ccgtgaaagc tgttaaattgg 360  
 ggaacagatt acctccttaa agcgacggcg attcccggag tagtcttcgt ccaagtcgga 420  
 gacgcttact ccgatcataa ctgttgggaa aggcctgaag atatggacac tctccgtact 480  
 gtttacaaaa tcgatagagc tcatcctggt tctgacgctg ctggtgaaac cgcagccgct 540  
 ttagccgccg cttcaatcgt ttttagaaaa cgcgatcctg cttattccag acttctactt 600  
 gaccgtgcca ctaggggtatt cgcgtttgct aacagatatc gcggcgcgta tagtaacagt 660  
 ctctaccacg cggtttgtcc tttttactgt gatttcaacg gttaccagga tgagttactg 720  
 tggggagcgg catggctaca caaagcctcg aggaaacgag cgtacagaga attcattgtg 780  
 aagaacgagg tcattcttaa ggctggagat accattaatg agtttggttg ggacaataag 840  
 catgctggga ttaatgtctt aatctccaag gaagtgttaa tgggaaaagc agagtatttt 900  
 gagtctttca agcagaacgc agatgggttt atctgttcta tattgcctgg aatttctcac 960  
 cccaagtcc aatactctcg aggagggcta ctagtgaaga ctggagggag taacatgcaa 1020  
 catgtaacat cactatcttt cctcctattg gcttactcta attatctgag ccatgcaaaa 1080  
 aaggttgtgc cttgtggcga attaactgct tccccatctc tcctccgtca aatcgccaag 1140  
 cgtcaggtgg attacattct cggagacaac ccgatgggac tgtcttacat gggttgatac 1200  
 ggtcaaaagt ttccacgtag gattcatcac cgtggttagct cggttccttc ggtttcagcc 1260  
 catccaagcc acataggggtg caaagaaggc tctcgtatt tcctaagccc aaatcctaac 1320  
 ccaaaccttt tggttgggtg tgtagtcggt ggacctaatg tctactgatgc ttttccggat 1380  
 tcaagacctt actttcagca gtctgagccc acgacttata tcaatgcacc actagtgggc 1440  
 cttctcggtt acttctccgc ccattctact tggcgtatga 1479

<210> 28

<211> 492

<212> PRT

<213> Arabidopsis thaliana

<400> 28

047-E2F-PCT.ST25.txt

Met Ala Arg Lys Ser Leu Ile Phe Pro Val Ile Leu Leu Ala Val Leu  
1 5 10 15

Leu Phe Ser Pro Pro Ile Tyr Ser Ala Gly His Asp Tyr Arg Asp Ala  
20 25 30

Leu Arg Lys Ser Ile Leu Phe Phe Glu Gly Gln Arg Ser Gly Lys Leu  
35 40 45

Pro Pro Asp Gln Arg Leu Lys Trp Arg Arg Asp Ser Ala Leu Arg Asp  
50 55 60

Gly Ser Ser Ala Gly Val Asp Leu Ser Gly Gly Tyr Tyr Asp Ala Gly  
65 70 75 80

Asp Asn Ile Lys Phe Gly Phe Pro Met Ala Phe Thr Thr Thr Met Leu  
85 90 95

Ser Trp Ser Ile Ile Asp Phe Gly Lys Thr Met Gly Pro Glu Leu Arg  
100 105 110

Asn Ala Val Lys Ala Val Lys Trp Gly Thr Asp Tyr Leu Leu Lys Ala  
115 120 125

Thr Ala Ile Pro Gly Val Val Phe Val Gln Val Gly Asp Ala Tyr Ser  
130 135 140

Asp His Asn Cys Trp Glu Arg Pro Glu Asp Met Asp Thr Leu Arg Thr  
145 150 155 160

Val Tyr Lys Ile Asp Arg Ala His Pro Gly Ser Asp Val Ala Gly Glu  
165 170 175

Thr Ala Ala Ala Leu Ala Ala Ala Ser Ile Val Phe Arg Lys Arg Asp  
180 185 190

Pro Ala Tyr Ser Arg Leu Leu Leu Asp Arg Ala Thr Arg Val Phe Ala  
195 200 205

Phe Ala Asn Arg Tyr Arg Gly Ala Tyr Ser Asn Ser Leu Tyr His Ala  
210 215 220

Val Cys Pro Phe Tyr Cys Asp Phe Asn Gly Tyr Gln Asp Glu Leu Leu  
225 230 235 240

Trp Gly Ala Ala Trp Leu His Lys Ala Ser Arg Lys Arg Ala Tyr Arg  
245 250 255

047-E2F-PCT.ST25.txt

Glu Phe Ile Val Lys Asn Glu Val Ile Leu Lys Ala Gly Asp Thr Ile  
 260 265 270  
 Asn Glu Phe Gly Trp Asp Asn Lys His Ala Gly Ile Asn Val Leu Ile  
 275 280 285  
 Ser Lys Glu Val Leu Met Gly Lys Ala Glu Tyr Phe Glu Ser Phe Lys  
 290 295 300  
 Gln Asn Ala Asp Gly Phe Ile Cys Ser Ile Leu Pro Gly Ile Ser His  
 305 310 315 320  
 Pro Gln Val Gln Tyr Ser Arg Gly Gly Leu Leu Val Lys Thr Gly Gly  
 325 330 335  
 Ser Asn Met Gln His Val Thr Ser Leu Ser Phe Leu Leu Leu Ala Tyr  
 340 345 350  
 Ser Asn Tyr Leu Ser His Ala Lys Lys Val Val Pro Cys Gly Glu Leu  
 355 360 365  
 Thr Ala Ser Pro Ser Leu Leu Arg Gln Ile Ala Lys Arg Gln Val Asp  
 370 375 380  
 Tyr Ile Leu Gly Asp Asn Pro Met Gly Leu Ser Tyr Met Val Gly Tyr  
 385 390 395 400  
 Gly Gln Lys Phe Pro Arg Arg Ile His His Arg Gly Ser Ser Val Pro  
 405 410 415  
 Ser Val Ser Ala His Pro Ser His Ile Gly Cys Lys Glu Gly Ser Arg  
 420 425 430  
 Tyr Phe Leu Ser Pro Asn Pro Asn Pro Asn Leu Leu Val Gly Ala Val  
 435 440 445  
 Val Gly Gly Pro Asn Val Thr Asp Ala Phe Pro Asp Ser Arg Pro Tyr  
 450 455 460  
 Phe Gln Gln Ser Glu Pro Thr Thr Tyr Ile Asn Ala Pro Leu Val Gly  
 465 470 475 480  
 Leu Leu Gly Tyr Phe Ser Ala His Ser Thr Trp Arg  
 485 490

<210> 29

&lt;211&gt; 1365

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 29

atggcgtccg ttgttcttcg aaaccctagc tcgaagcgcc ttgttccatt ctcttcccag	60
atctactctc gctgtggtgc ttccgttact tcctcttact cgatctctca ttctatcggt	120
ggagatgata tctcttcttc taccttcgga acctcctcct tctggagatc catggccact	180
tttactcgaa ataaacctca tgtaaagtgt ggaactattg ggcattgtga tcatggcaag	240
accactttaa ctgctgcaat cacaaagggt cttgctgagg agggcaaagc taaagctatt	300
gcctttgatg aaattgataa agctcctgaa gagaagaaga gaggaattac tattgccacg	360
gctcatgtgg agtatgaaac tgcaaagcgt cactatgctc atgtggattg ccctggacac	420
gcagattatg ttaaaaaatat gattactgga gctgcgcaaa tggatggcgg aattcttgtg	480
gtttcaggac cagatggacc catgccgcag acaaaggaac atattctact tgcacgccag	540
gttggtgttc cctcacttgt gtgcttcttg aacaaagttg atgtggtgga tgaccctgag	600
ctcttggagc ttgtcgagat ggaactacgt gagctcctca gcttctacaa gtttctctggg	660
gatgatattc ccatcatccg aggatctgct ctgtccgcag tacagggcac caatgatgaa	720
attggaaggc aagctatatt aaagctgatg gatgctgttg atgaatatat acctgaccct	780
gttcgcgtcc ttgacaagcc tttcttgatg ccaattgaag atgttttctc aattcaagga	840
cgtggaactg ttgcaaccgg tcgtatcgaa cagggagtca ttaaagtggg tgaagaagtt	900
gagatattgg gtttacgtga ggggggtgtt ccactgaaat cgactgtaac tgggggttgag	960
atgttcaaga agattttgga taatggacag gctggtgata atgtaggact tcttctgcgt	1020
gggctaaaga gagaagacat tcagcgtgga atggtgattg ctaagcctgg ttcattgcaag	1080
acatacaaga agtttgaagc agagatttac gtgctcacia aggatgaagg tggacgtcac	1140
actgcatttt tctctaacta caggcctcag ttttacttga ggactgcaga tatcactggc	1200
aaagtggaat taccgaaaa cgtgaagatg gttatgcctg gtgacaatgt cacagctgtt	1260
ttcgagttaa tcatgcctgt cccactcgaa acaggtcaaa gatttgcctt aagggaagga	1320
ggtagaacag ttggagctgg tgttgtatca aaagtgatga cctaa	1365

&lt;210&gt; 30

&lt;211&gt; 454

&lt;212&gt; PRT



<213> *Arabidopsis thaliana*

&lt;400&gt; 30

Met Ala Ser Val Val Leu Arg Asn Pro Ser Ser Lys Arg Leu Val Pro  
 1 5 10 15

Phe Ser Ser Gln Ile Tyr Ser Arg Cys Gly Ala Ser Val Thr Ser Ser  
 20 25 30

Tyr Ser Ile Ser His Ser Ile Gly Gly Asp Asp Leu Ser Ser Ser Thr  
 35 40 45

Phe Gly Thr Ser Ser Phe Trp Arg Ser Met Ala Thr Phe Thr Arg Asn  
 50 55 60

Lys Pro His Val Asn Val Gly Thr Ile Gly His Val Asp His Gly Lys  
 65 70 75 80

Thr Thr Leu Thr Ala Ala Ile Thr Lys Val Leu Ala Glu Glu Gly Lys  
 85 90 95

Ala Lys Ala Ile Ala Phe Asp Glu Ile Asp Lys Ala Pro Glu Glu Lys  
 100 105 110

Lys Arg Gly Ile Thr Ile Ala Thr Ala His Val Glu Tyr Glu Thr Ala  
 115 120 125

Lys Arg His Tyr Ala His Val Asp Cys Pro Gly His Ala Asp Tyr Val  
 130 135 140

Lys Asn Met Ile Thr Gly Ala Ala Gln Met Asp Gly Gly Ile Leu Val  
 145 150 155 160

Val Ser Gly Pro Asp Gly Pro Met Pro Gln Thr Lys Glu His Ile Leu  
 165 170 175

Leu Ala Arg Gln Val Gly Val Pro Ser Leu Val Cys Phe Leu Asn Lys  
 180 185 190

Val Asp Val Val Asp Asp Pro Glu Leu Leu Glu Leu Val Glu Met Glu  
 195 200 205

Leu Arg Glu Leu Leu Ser Phe Tyr Lys Phe Pro Gly Asp Asp Ile Pro  
 210 215 220

Ile Ile Arg Gly Ser Ala Leu Ser Ala Leu Gln Gly Thr Asn Asp Glu  
 Page 35

047-E2F-PCT.ST25.txt

047-EZ-FCF.S129.CXC

225	230	235	240
-----	-----	-----	-----

Ile Gly Arg Gln Ala Ile Leu Lys Leu Met Asp Ala Val Asp Glu Tyr  
245 250 255

Ile Pro Asp Pro Val Arg Val Leu Asp Lys Pro Phe Leu Met Pro Ile  
260 265 270

Glu Asp Val Phe Ser Ile Gln Gly Arg Gly Thr Val Ala Thr Gly Arg  
275 280 285

Ile Glu Gln Gly Val Ile Lys Val Gly Glu Glu Val Glu Ile Leu Gly  
290 295 300

Leu Arg Glu Gly Gly Val Pro Leu Lys Ser Thr Val Thr Gly Val Glu  
305 310 315 320

Met Phe Lys Lys Ile Leu Asp Asn Gly Gln Ala Gly Asp Asn Val Gly  
325 330 335

Leu Leu Leu Arg Gly Leu Lys Arg Glu Asp Ile Gln Arg Gly Met Val  
340 345 350

Ile Ala Lys Pro Gly Ser Cys Lys Thr Tyr Lys Lys Phe Glu Ala Glu  
355 360 365

Ile Tyr Val Leu Thr Lys Asp Glu Gly Gly Arg His Thr Ala Phe Phe  
370 375 380

Ser 385 Asn Tyr Arg Pro Gln 390 Phe Tyr Leu Arg Thr 395 Ala Asp Ile Thr Gly 400

Lys Val Glu Leu Pro Glu Asn Val Lys Met Val Met Pro Gly Asp Asn  
405 410 415

Val Thr Ala Val Phe Glu Leu Ile Met Pro Val Pro Leu Glu Thr Gly  
420 425 430

Gln Arg Phe Ala Leu Arg Glu Gly Gly Arg Thr Val Gly Ala Gly Val  
435 440 445

Val Ser Lys Val Met Thr  
450

<210> 31

$\langle 211 \rangle$  510

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 31

```

atgtctgaag ttgagtaccg gtgctttgtc ggcggccttg cctgggccac caatgatgaa      60
gatcttcaaa ggacgtttctc acagttcggc gacgttatcg attctaagat cattaacgac    120
cgcgagagtg gaagatcaag gggattcggg ttcgtcacct tcaaggacga gaaagccatg    180
agggatgcga ttgaagagat gaacggtaaa gagctcgatg gacgtgtcat caccgtgaac    240
gaggctcagt cgagaggtag cggcgggtggc ggaggaggcc gtggtggaag cggtggtggt    300
taccgcagcg gaggcggttg tggataactca ggaggcggtg gcggcggata ctcaggagga    360
ggcggtggtg gttacgagag acgtagcggg ggttacggat ctggtggagg cggtggtggc    420
cgaggatacg gtggtggttg acgccgtgag ggaggtggct acggaggcgg tgatggtgga    480
agttacggag gcggtggttg cggctggtaa      510

```

&lt;210&gt; 32

&lt;211&gt; 169

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 32

```

Met Ser Glu Val Glu Tyr Arg Cys Phe Val Gly Gly Leu Ala Trp Ala
1      5      10
Thr Asn Asp Glu Asp Leu Gln Arg Thr Phe Ser Gln Phe Gly Asp Val
20     25     30
Ile Asp Ser Lys Ile Ile Asn Asp Arg Glu Ser Gly Arg Ser Arg Gly
35     40     45
Phe Gly Phe Val Thr Phe Lys Asp Glu Lys Ala Met Arg Asp Ala Ile
50     55     60
Glu Glu Met Asn Gly Lys Glu Leu Asp Gly Arg Val Ile Thr Val Asn
65     70     75     80
Glu Ala Gln Ser Arg Gly Ser Gly Gly Gly Gly Gly Arg Gly Gly
85     90     95
Ser Gly Gly Gly Tyr Arg Ser Gly Gly Gly Gly Gly Tyr Ser Gly Gly

```

100

105

110

Gly Gly Gly Gly Tyr Ser Gly Gly Gly Gly Gly Gly Tyr Glu Arg Arg  
 115 120 125

Ser Gly Gly Tyr Gly Ser Gly Gly Gly Gly Gly Gly Arg Gly Tyr Gly  
 130 135 140

Gly Gly Gly Arg Arg Glu Gly Gly Gly Tyr Gly Gly Gly Asp Gly Gly  
 145 150 155 160

Ser Tyr Gly Gly Gly Gly Gly Gly Trp  
 165

&lt;210&gt; 33

&lt;211&gt; 1446

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 33

atgcatatca caaaaccaca cgccgccatg ttttccagtc ccggaatggg ccatgtcatc 60  
 ccggtgatcg agcttggaag gcgtctctcc gctaacaacg gcttccacgt caccgtcttc 120  
 gtcctcgaaa ccgacgcagc ctccgctcaa tccaagttcc taaactcaac cggcgtcgac 180  
 atcgtcaaac ttccatcgcc ggacatttat ggttttagtg accccgacga ccatgtagtg 240  
 accaagatcg gagtcattat gcgtgcagca gttccagccc tccgatccaa gatcgctgcc 300  
 atgcatcaaa agccaacggc tctgatcggt gacttggttg gcacagatgc gttatgtctc 360  
 gcaaaggaat ttaacatggt gagttatgtg tttatcccta ccaacgcacg ttttctcgga 420  
 gtttcgattt attatccaaa tttggacaaa gatatcaagg aagagcacac agtgcaaaga 480  
 aaccactcg ctataccggg gtgtgaaccg gttagggttcg aagatactct ggatgcatat 540  
 ctggttcccg acgaaccggg gtaccgggat tttgttcgtc atggtctggc ttacccaaaa 600  
 gccgatggaa ttttggtaaa tacatgggaa gagatggagc ccaaatcatt gaagtccctt 660  
 ctaaacccaa agctcttggg ccgggttgct cgtgtaccgg tctatccaat cgggtccctta 720  
 tgcagaccga tacaatcatc cgaaaccgat caccgggttt tggattgggt aaacgaacaa 780  
 ccgaacgagt cggttctcta tatctccttc gggagtggtg gttgtctatc ggcgaaacag 840  
 ttaactgaat tggcgtgggg actcgagcag agccagcaac ggttcgtatg ggtgggttcga 900  
 ccaccggtcg acggttcgtg ttgtagcgag tatgtctcgg ctaacgggtg tggaaccgaa 960  
 gacaacacgc cagagtatct accggaaggg ttcgtgagtc gtactagtga tagaggtttc 1020

047-E2F-PCT.ST25.txt

gtggtcccct catgggcccc acaagctgaa atcctgtccc atcgggccgt tgggtgggttt 1080  
 ttgaccatt gcggttgag ctcgacgttg gaaagcgctg ttggcggcgt tccgatgatc 1140  
 gcatggccac tttttgccga gcagaatatg aatgcggcgt tgctcagcga cgaactggga 1200  
 atcgcagtca gattggatga tccaaaggag gatatttcta ggtggaagat tgaggcggtg 1260  
 gtgaggaagg ttatgactga gaaggaaggt gaagcgatga gaaggaaagt gaagaagttg 1320  
 agagactcgg cggagatgtc actgagcatt gacgggtggtg gtttggcgca cgagtcgctt 1380  
 tgcagagtca ccaaggagtg tcaacggttt ttggaacgtg tcgtggactt gtcacgtggt 1440  
 gcttag 1446

<210> 34

<211> 481

<212> PRT

<213> Arabidopsis thaliana

<400> 34

Met His Ile Thr Lys Pro His Ala Ala Met Phe Ser Ser Pro Gly Met  
 1 5 10 15

Gly His Val Ile Pro Val Ile Glu Leu Gly Lys Arg Leu Ser Ala Asn  
 20 25 30

Asn Gly Phe His Val Thr Val Phe Val Leu Glu Thr Asp Ala Ala Ser  
 35 40 45

Ala Gln Ser Lys Phe Leu Asn Ser Thr Gly Val Asp Ile Val Lys Leu  
 50 55 60

Pro Ser Pro Asp Ile Tyr Gly Leu Val Asp Pro Asp Asp His Val Val  
 65 70 75 80

Thr Lys Ile Gly Val Ile Met Arg Ala Ala Val Pro Ala Leu Arg Ser  
 85 90 95

Lys Ile Ala Ala Met His Gln Lys Pro Thr Ala Leu Ile Val Asp Leu  
 100 105 110

Phe Gly Thr Asp Ala Leu Cys Leu Ala Lys Glu Phe Asn Met Leu Ser  
 115 120 125

Tyr Val Phe Ile Pro Thr Asn Ala Arg Phe Leu Gly Val Ser Ile Tyr

130

135

Tyr Pro Asn Leu Asp Lys Asp Ile Lys Glu Glu His Thr Val Gln Arg  
145 150 155 160

Asn Pro Leu Ala Ile Pro Gly Cys Glu Pro Val Arg Phe Glu Asp Thr  
165 170 175

Leu Asp Ala Tyr Leu Val Pro Asp Glu Pro Val Tyr Arg Asp Phe Val  
180 185 190

Arg His Gly Leu Ala Tyr Pro Lys Ala Asp Gly Ile Leu Val Asn Thr  
195 200 205

Trp Glu Glu Met Glu Pro Lys Ser Leu Lys Ser Leu Leu Asn Pro Lys  
210 215 220

Leu Leu Gly Arg Val Ala Arg Val Pro Val Tyr Pro Ile Gly Pro Leu  
225 230 235 240

Cys Arg Pro Ile Gln Ser Ser Glu Thr Asp His Pro Val Leu Asp Trp  
245 250 255

Leu Asn Glu Gln Pro Asn Glu Ser Val Leu Tyr Ile Ser Phe Gly Ser  
260 265 270

Gly Gly Cys Leu Ser Ala Lys Gln Leu Thr Glu Leu Ala Trp Gly Leu  
275 280 285

Glu Gln Ser Gln Gln Arg Phe Val Trp Val Val Arg Pro Pro Val Asp  
290 295 300

Gly Ser Cys Cys Ser Glu Tyr Val Ser Ala Asn Gly Gly Gly Thr Glu  
305 310 315 320

Asp Asn Thr Pro Glu Tyr Leu Pro Glu Gly Phe Val Ser Arg Thr Ser  
325 330 335

Asp Arg Gly Phe Val Val Pro Ser Trp Ala Pro Gln Ala Glu Ile Leu  
340 345 350

Ser His Arg Ala Val Gly Gly Phe Leu Thr His Cys Gly Trp Ser Ser  
355 360 365

Thr Leu Glu Ser Val Val Gly Gly Val Pro Met Ile Ala Trp Pro Leu  
370 375 380

047-E2F-PCT.ST25.txt

Phe Ala Glu Gln Asn Met Asn Ala Ala Leu Leu Ser Asp Glu Leu Gly  
385 390 395 400

Ile Ala Val Arg Leu Asp Asp Pro Lys Glu Asp Ile Ser Arg Trp Lys  
405 410 415

Ile Glu Ala Leu Val Arg Lys Val Met Thr Glu Lys Glu Gly Glu Ala  
420 425 430

Met Arg Arg Lys Val Lys Lys Leu Arg Asp Ser Ala Glu Met Ser Leu  
435 440 445

Ser Ile Asp Gly Gly Gly Leu Ala His Glu Ser Leu Cys Arg Val Thr  
450 455 460

Lys Glu Cys Gln Arg Phe Leu Glu Arg Val Val Asp Leu Ser Arg Gly  
465 470 475 480

Ala

<210> 35

<211> 351

<212> DNA

<213> Arabidopsis thaliana

<400> 35  
atgatgagag ttgtgttacc actatgcctg cttcttgctt ccatatttgc atgggggttct 60  
gaagcagcca tatcttgcaa cgccgtacag gccaaccttt acccggtcgt tgtgtacgtg 120  
gtgcagggag gagccattcc gtatagctgt tgcaatggca tcaggatgct cagcaaacag 180  
gcaactagcg catcagacaa acaaggtgtg tgtcgtgca tcaagtctgt ggtgggaaga 240  
gtgtcttact cgtcaatcta tctcaagaaa gctgctgctt tgccaggcaa gtgcggtgtc 300  
aaacttcctt acaagatcga cccttcacc aactgcaaca gcattaagtg a 351

<210> 36

<211> 116

<212> PRT

<213> Arabidopsis thaliana

<400> 36

047-E2F-PCT.ST25.txt

Met Met Arg Val Val Leu Pro Leu Cys Leu Leu Leu Ala Ser Ile Phe  
1 5 10 15  
Ala Trp Gly Ser Glu Ala Ala Ile Ser Cys Asn Ala Val Gln Ala Asn  
20 25 30  
Leu Tyr Pro Cys Val Val Tyr Val Val Gln Gly Gly Ala Ile Pro Tyr  
35 40 45  
Ser Cys Cys Asn Gly Ile Arg Met Leu Ser Lys Gln Ala Thr Ser Ala  
50 55 60  
Ser Asp Lys Gln Gly Val Cys Arg Cys Ile Lys Ser Val Val Gly Arg  
65 70 75 80  
Val Ser Tyr Ser Ser Ile Tyr Leu Lys Lys Ala Ala Ala Leu Pro Gly  
85 90 95  
Lys Cys Gly Val Lys Leu Pro Tyr Lys Ile Asp Pro Ser Thr Asn Cys  
100 105 110  
Asn Ser Ile Lys  
115

<210> 37

<211> 324

<212> DNA

<213> Arabidopsis thaliana

<400> 37

atggctataa tgaagaaaac ttcaaaactc actcaaacag caatgctgaa gcagattctg 60  
aagagatgct cgagcttagg gaagaagaat ggaggagggt acgatgaaga ttgccttccg 120  
cttgacgtac caaagggaca cttccctgtc tatgtcggag agaacagaag cagatacatt 180  
gtcccaatct ctttcttgac acatcctgag ttccaatctc tcttacaacg agccgaggaa 240  
gaatttggat tcgatcacga catgggtctc accattcctt gtgatgaact cgtttttcaa 300  
accctaacat ccatgatccg atga 324

<210> 38

<211> 107

<212> PRT



<213> *Arabidopsis thaliana*

&lt;400&gt; 38

Met Ala Ile Met Lys Lys Thr Ser Lys Leu Thr Gln Thr Ala Met Leu  
 1 5 10 15  
 Lys Gln Ile Leu Lys Arg Cys Ser Ser Leu Gly Lys Lys Asn Gly Gly  
 20 25 30  
 Gly Tyr Asp Glu Asp Cys Leu Pro Leu Asp Val Pro Lys Gly His Phe  
 35 40 45  
 Pro Val Tyr Val Gly Glu Asn Arg Ser Arg Tyr Ile Val Pro Ile Ser  
 50 55 60  
 Phe Leu Thr His Pro Glu Phe Gln Ser Leu Leu Gln Arg Ala Glu Glu  
 65 70 75 80  
 Glu Phe Gly Phe Asp His Asp Met Gly Leu Thr Ile Pro Cys Asp Glu  
 85 90 95  
 Leu Val Phe Gln Thr Leu Thr Ser Met Ile Arg  
 100 105

&lt;210&gt; 39

&lt;211&gt; 825

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 39

atgtcagagg tggaaataga gaacgctgct acgatcgaag gaaacaccgc tgcggatgcg 60  
 ccggtgacgg atgcggccgt tgagaagaag cctgcagcga aaggacgaaa gacgaagaat 120  
 gttaaggaag tgaaggagaa gaagactggt gctgccgctc cgaagaagag aactgtttca 180  
 tctcatccta cttacgaaga gatgattaag gatgcgattg ttacgttgaa agagagaact 240  
 ggatctagcc aatacgcgat tcagaagttc atcgaggaga agcgtaagga gcttcctcca 300  
 acattcagaa agctgttgct tctcaatctg aagagactcg ttgcttctgg gaagcttgtg 360  
 aaggtcaaag cctcgtttta actcccatcg gcgtcggcta aagcatcatc ccctaaggcg 420  
 gcagcggaga aatctgctcc tgcgaagaag aaaccggcga ctgtggcggt taccaaggcg 480  
 aagagaaagg tcgctgcggc ttccaaggct aagaaaacaa tcgccgttaa acctaagact 540

047-E2F-PCT.ST25.txt

gctgctgcta agaaagtgac cgcgaaggct aaggctaagc ccgttcctcg tgccactgct 600  
gctgcaacta agaggaaagc tgttgatgcg aagcccaagg ctaaggctag accagccaag 660  
gcagccaaaa cggccaaggt tacatctccg gctaagaaag ctgttgctgc cacgaagaaa 720  
gttgctacgg tggccacaaa gaagaagact ccggttaaga aggttggtgaa gccaaagacg 780  
gttaagtctc cagcaaagag ggctttcttct aggggttaaga agtga 825

<210> 40

<211> 274

<212> PRT

<213> Arabidopsis thaliana

<400> 40

Met Ser Glu Val Glu Ile Glu Asn Ala Ala Thr Ile Glu Gly Asn Thr  
1 5 10 15

Ala Ala Asp Ala Pro Val Thr Asp Ala Ala Val Glu Lys Lys Pro Ala  
20 25 30

Ala Lys Gly Arg Lys Thr Lys Asn Val Lys Glu Val Lys Glu Lys Lys  
35 40 45

Thr Val Ala Ala Ala Pro Lys Lys Arg Thr Val Ser Ser His Pro Thr  
50 55 60

Tyr Glu Glu Met Ile Lys Asp Ala Ile Val Thr Leu Lys Glu Arg Thr  
65 70 75 80

Gly Ser Ser Gln Tyr Ala Ile Gln Lys Phe Ile Glu Glu Lys Arg Lys  
85 90 95

Glu Leu Pro Pro Thr Phe Arg Lys Leu Leu Leu Leu Asn Leu Lys Arg  
100 105 110

Leu Val Ala Ser Gly Lys Leu Val Lys Val Lys Ala Ser Phe Lys Leu  
115 120 125

Pro Ser Ala Ser Ala Lys Ala Ser Ser Pro Lys Ala Ala Ala Glu Lys  
130 135 140

Ser Ala Pro Ala Lys Lys Lys Pro Ala Thr Val Ala Val Thr Lys Ala  
145 150 155 160

047-E2F-PCT.ST25.txt

Lys Arg Lys Val Ala Ala Ala Ser Lys Ala Lys Lys Thr Ile Ala Val  
165 170 175

Lys Pro Lys Thr Ala Ala Ala Lys Lys Val Thr Ala Lys Ala Lys Ala  
180 185 190

Lys Pro Val Pro Arg Ala Thr Ala Ala Ala Thr Lys Arg Lys Ala Val  
195 200 205

Asp Ala Lys Pro Lys Ala Lys Ala Arg Pro Ala Lys Ala Ala Lys Thr  
210 215 220

Ala Lys Val Thr Ser Pro Ala Lys Lys Ala Val Ala Ala Thr Lys Lys  
225 230 235 240

Val Ala Thr Val Ala Thr Lys Lys Lys Thr Pro Val Lys Lys Val Val  
245 250 255

Lys Pro Lys Thr Val Lys Ser Pro Ala Lys Arg Ala Ser Ser Arg Val  
260 265 270

Lys Lys

<210> 41

<211> 1299

<212> DNA

<213> Arabidopsis thaliana

<400> 41

atgtgggatac	taaacgacgc	accacaccaa	acacaaagag	aagaagaatc	tgaagagttt	60
tgttatttctt	caccaagtaa	acggggttga	tcttttctcta	attcaagctc	ttcagctggt	120
gttatcgaag	atggatccga	tgacgatgaa	cttaaccggg	tcagacccaa	taaccactt	180
gtcaccatc	agttcttccc	tgagatggat	tctaaccggc	gtggtgttgc	ttctggcttt	240
cctcgggctc	actggtttgg	tgtaagtgtt	tgtcagtcgg	atctagccac	cggatcgtcc	300
gcgggtaaag	ctaccaacgt	tgccgctgcc	gtagtggagc	cggcacagcc	gttgaaaaag	360
agtcggcgtg	gaccaagatc	aagaagttct	cagtatagag	gtgttacgtt	ttaccggcgt	420
accggaagat	gggaatctca	tatttgggac	tgtgggaaac	aagtttactt	aggtggattt	480
gacactgctc	atgcagcagc	tcgagcatat	gatagagctg	ctattaaatt	ccgtggagta	540
gaagcggata	tcaatttcaa	catcgacgat	tatgatgatg	acttgaaaca	gatgactaat	600

047-E2F-PCT.ST25.txt

ttaaccaagg aagagttcgt acacgtactt cgccgacaaa gcacaggcctt ccctcgagga 660  
 agttcgaagt atagaggtgt cactttgcat aagtgtggtc gttgggaagc tcgaatgggt 720  
 caattcttag gcaaaaagta tgtttatttg ggtttgttcg acaccgaggt cgaagctgct 780  
 agagcttacg ataaagctgc aatcaaattgt aacggcaaag acgccgtgac caactttgat 840  
 ccgagtattt acgatgagga actcaatgcc gagtcatcag ggaatcctac tactccacaa 900  
 gatcacaacc tcgatttgag cttgggaaat tcggctaatt cgaagcataa aagtcaagat 960  
 atgcggctca ggatgaacca acaacaacaa gattctctcc actctaata ga agttcttgga 1020  
 ttaggtcaaa ccggaatgct taaccatact cccaattcaa accaccaatt tccgggcagc 1080  
 agcaacattg gtagcggagg cggattctca ctgtttccgg cggctgagaa ccaccggttt 1140  
 gatggtcggg cctcgacgaa ccaagtgttg acaaatgctg cagcatcatc aggattctct 1200  
 cctcatcatc acaatcagat ttttaattct acttctactc ctcatcaaaa ttggctgcag 1260  
 acaaatggct tccaacctcc tctcatgaga ctttcttga 1299

<210> 42

<211> 432

<212> PRT

<213> Arabidopsis thaliana

<400> 42

Met Trp Asp Leu Asn Asp Ala Pro His Gln Thr Gln Arg Glu Glu Glu  
 1 5 10 15

Ser Glu Glu Phe Cys Tyr Ser Ser Pro Ser Lys Arg Val Gly Ser Phe  
 20 25 30

Ser Asn Ser Ser Ser Ser Ala Val Val Ile Glu Asp Gly Ser Asp Asp  
 35 40 45

Asp Glu Leu Asn Arg Val Arg Pro Asn Asn Pro Leu Val Thr His Gln  
 50 55 60

Phe Phe Pro Glu Met Asp Ser Asn Gly Gly Gly Val Ala Ser Gly Phe  
 65 70 75 80

Pro Arg Ala His Trp Phe Gly Val Lys Phe Cys Gln Ser Asp Leu Ala  
 85 90 95

Thr Gly Ser Ser Ala Gly Lys Ala Thr Asn Val Ala Ala Ala Val Val  
 100 105 110

047-E2F-PCT.ST25.txt

Glu Pro Ala Gln Pro Leu Lys Lys Ser Arg Arg Gly Pro Arg Ser Arg  
 115 120 125  
 Ser Ser Gln Tyr Arg Gly Val Thr Phe Tyr Arg Arg Thr Gly Arg Trp  
 130 135 140  
 Glu Ser His Ile Trp Asp Cys Gly Lys Gln Val Tyr Leu Gly Gly Phe  
 145 150 155 160  
 Asp Thr Ala His Ala Ala Ala Arg Ala Tyr Asp Arg Ala Ala Ile Lys  
 165 170 175  
 Phe Arg Gly Val Glu Ala Asp Ile Asn Phe Asn Ile Asp Asp Tyr Asp  
 180 185 190  
 Asp Asp Leu Lys Gln Met Thr Asn Leu Thr Lys Glu Glu Phe Val His  
 195 200 205  
 Val Leu Arg Arg Gln Ser Thr Gly Phe Pro Arg Gly Ser Ser Lys Tyr  
 210 215 220  
 Arg Gly Val Thr Leu His Lys Cys Gly Arg Trp Glu Ala Arg Met Gly  
 225 230 235 240  
 Gln Phe Leu Gly Lys Lys Tyr Val Tyr Leu Gly Leu Phe Asp Thr Glu  
 245 250 255  
 Val Glu Ala Ala Arg Ala Tyr Asp Lys Ala Ala Ile Lys Cys Asn Gly  
 260 265 270  
 Lys Asp Ala Val Thr Asn Phe Asp Pro Ser Ile Tyr Asp Glu Glu Leu  
 275 280 285  
 Asn Ala Glu Ser Ser Gly Asn Pro Thr Thr Pro Gln Asp His Asn Leu  
 290 295 300  
 Asp Leu Ser Leu Gly Asn Ser Ala Asn Ser Lys His Lys Ser Gln Asp  
 305 310 315 320  
 Met Arg Leu Arg Met Asn Gln Gln Gln Gln Asp Ser Leu His Ser Asn  
 325 330 335  
 Glu Val Leu Gly Leu Gly Gln Thr Gly Met Leu Asn His Thr Pro Asn  
 340 345 350  
 Ser Asn His Gln Phe Pro Gly Ser Ser Asn Ile Gly Ser Gly Gly Gly

355 047-E2F-PCT.ST25.txt 360 365

Phe Ser Leu Phe Pro Ala Ala Glu Asn His Arg Phe Asp Gly Arg Ala  
370 375 380

Ser Thr Asn Gln Val Leu Thr Asn Ala Ala Ala Ser Ser Gly Phe Ser  
385 390 395 400

Pro His His His Asn Gln Ile Phe Asn Ser Thr Ser Thr Pro His Gln  
405 410 415

Asn Trp Leu Gln Thr Asn Gly Phe Gln Pro Pro Leu Met Arg Pro Ser  
420 425 430

<210> 43

<211> 429

<212> DNA

<213> Arabidopsis thaliana

<400> 43

atgagtacag ggcgaggaag cggaacaacc aaaggtggca gaggaaagcc aaaggccacc	60
aaatccgtct ctcgatcatc taaagccggt cttcaattcc ccgtcggaag aatcgctaga	120
ttcctcaaat ccggtaaata cgccgagcgt gtcggtgccg gagctccggt ctatctctcc	180
gctgtttctcg agtacctcgc cgccgaggtg ttggagctgg cgggaaacgc agcaagggat	240
aacaagaaga cacgtatagt accaagacac attcagcttg cagtgaggaa cgatgaagag	300
ttaagcaaac ttctgggaag tgtgacgatt gcgaatggag gagttttgcc aaatattcat	360
cagactcttt tgccatccaa ggttggcaag aacaaaggag atattggatc tgcttctcag	420
gagttctga	429

<210> 44

<211> 142

<212> PRT

<213> Arabidopsis thaliana

<400> 44

Met Ser Thr Gly Ala Gly Ser Gly Thr Thr Lys Gly Gly Arg Gly Lys  
1 5 10 15

Pro Lys Ala Thr Lys Ser Val Ser Arg Ser Ser Lys Ala Gly Leu Gln  
20 25 30

Phe Pro Val Gly Arg Ile Ala Arg Phe Leu Lys Ser Gly Lys Tyr Ala  
35 40 45

Glu Arg Val Gly Ala Gly Ala Pro Val Tyr Leu Ser Ala Val Leu Glu  
50 55 60

Tyr Leu Ala Ala Glu Val Leu Glu Leu Ala Gly Asn Ala Ala Arg Asp  
65 70 75 80

Asn Lys Lys Thr Arg Ile Val Pro Arg His Ile Gln Leu Ala Val Arg  
85 90 95

Asn Asp Glu Glu Leu Ser Lys Leu Leu Gly Ser Val Thr Ile Ala Asn  
100 105 110

Gly Gly Val Leu Pro Asn Ile His Gln Thr Leu Leu Pro Ser Lys Val  
115 120 125

Gly Lys Asn Lys Gly Asp Ile Gly Ser Ala Ser Gln Glu Phe  
130 135 140

<210> 45

<211> 1545

<212> DNA

<213> Arabidopsis thaliana

<400> 45

atggtagcag aagaagcaag aaaagaagcc atggctaaat cagtatctgg cggaagatt	60
acttattttt tggtggcttc atgtgtcatg gccgccatgg gcggtgtcat cttcggctac	120
gacatcgggg tttcaggttg agtgatgtca atggggccat ttctaaaaag atttttccca	180
aaagtgtata agctccaaga agaagataga agaagaagag gcaatagcaa taaccactac	240
tgctttttca atagccaact tcttacatcc ttcacatctt ctctatacgt ttccggtctc	300
atcgctactc tgtagcttc gtccgtgact cgttcatggg gtcgcaagcc ctctatattt	360
cttggcggtg tgtcctttct cgccggcgct gctcttggtg gctctgctca aaacgttgct	420
atgctcatta ttgcgcgtct cttgctcggc gtaggagttg gattcgctaa ccagtcggtt	480
cctctgtatc tctccgagat ggcgccggca aaatacagag gagcaatcag caatggtttc	540
cagctctgta tcggaattgg atttctatct gcaaattgtaa taaactacga aaccctaaat	600

047-E2F-PCT.ST25.txt

```

atcaaacatg gttggagaat ctcttttagcc acagctgcaa tacctgcttc aatcctcact 660
ttaggatcac tgtttctccc ggaaacgccg aatagtatca tccagaccac cggagatggt 720
cacaagaccg agcttatgct tcgccgtgtc cgtggaacta acgacgttca agatgagctt 780
actgatctcg ttgaagcgag ttctggttct gatacagatt caaacgcgtt tttgaaactg 840
cttcaaagaa aatataggcc tgagtttagtg atggcttttg tgataccttt ctttcagcaa 900
gttactggaa tcaatgttgt tgctttctac gcaccggttt tgtatagaac cgttgggttt 960
ggagagagtg gttcgttgat gtcgaccctc gtgactggaa tcgtgggaac ctcgtcgacg 1020
ttgttgtcga tgcttgtcgt tgacagaatc ggtagaaaga ctctgttttt gattggaggg 1080
ttacagatgc tcgtgtcgca agttaccatt ggtgtgatcg ttatggtggc tgatgttcac 1140
gacggtgtga tcaaggaagg gtatggttac gcggttgttg ttttgggtgtg tgtctacgtg 1200
gccgggtttg gttggtcttg ggggccatta ggatggcttg taccgagtga gatttttccg 1260
ttggagataa gatcgggtggc gcagagtgtg actgtggcag tgagttttgt gtttactttt 1320
gcggtggctc aaagtgcacc accgatgttg tgtaagtttc gagctgggat tttcttcttt 1380
tatggagggg ggttgggtgg aatgacggta gcggtgcagc tgtttttgcc ggagactaag 1440
aatgttccaa tcgagaaggt ggttggactt tgggagaagc attggttttg gaggagaatg 1500
acgagcaagc gtgatatcca agaaaccacc attcttagcc attga 1545

```

<210> 46

<211> 514

<212> PRT

<213> Arabidopsis thaliana

<400> 46

Met Val Ala Glu Glu Ala Arg Lys Glu Ala Met Ala Lys Ser Val Ser  
1 5 10 15

Gly Gly Lys Ile Thr Tyr Phe Val Val Ala Ser Cys Val Met Ala Ala  
20 25 30

Met Gly Gly Val Ile Phe Gly Tyr Asp Ile Gly Val Ser Gly Gly Val  
35 40 45

Met Ser Met Gly Pro Phe Leu Lys Arg Phe Phe Pro Lys Val Tyr Lys  
50 55 60

Leu Gln Glu Glu Asp Arg Arg Arg Arg Gly Asn Ser Asn Asn His Tyr  
65 70 75 80



047-E2F-PCT.ST25.txt

Cys Leu Phe Asn Ser Gln Leu Leu Thr Ser Phe Thr Ser Ser Leu Tyr  
 85 90 95  
 Val Ser Gly Leu Ile Ala Thr Leu Leu Ala Ser Ser Val Thr Arg Ser  
 100 105 110  
 Trp Gly Arg Lys Pro Ser Ile Phe Leu Gly Gly Val Ser Phe Leu Ala  
 115 120 125  
 Gly Ala Ala Leu Gly Gly Ser Ala Gln Asn Val Ala Met Leu Ile Ile  
 130 135 140  
 Ala Arg Leu Leu Leu Gly Val Gly Val Gly Phe Ala Asn Gln Ser Val  
 145 150 155 160  
 Pro Leu Tyr Leu Ser Glu Met Ala Pro Ala Lys Tyr Arg Gly Ala Ile  
 165 170 175  
 Ser Asn Gly Phe Gln Leu Cys Ile Gly Ile Gly Phe Leu Ser Ala Asn  
 180 185 190  
 Val Ile Asn Tyr Glu Thr Gln Asn Ile Lys His Gly Trp Arg Ile Ser  
 195 200 205  
 Leu Ala Thr Ala Ala Ile Pro Ala Ser Ile Leu Thr Leu Gly Ser Leu  
 210 215 220  
 Phe Leu Pro Glu Thr Pro Asn Ser Ile Ile Gln Thr Thr Gly Asp Val  
 225 230 235 240  
 His Lys Thr Glu Leu Met Leu Arg Arg Val Arg Gly Thr Asn Asp Val  
 245 250 255  
 Gln Asp Glu Leu Thr Asp Leu Val Glu Ala Ser Ser Gly Ser Asp Thr  
 260 265 270  
 Asp Ser Asn Ala Phe Leu Lys Leu Leu Gln Arg Lys Tyr Arg Pro Glu  
 275 280 285  
 Leu Val Met Ala Leu Val Ile Pro Phe Phe Gln Gln Val Thr Gly Ile  
 290 295 300  
 Asn Val Val Ala Phe Tyr Ala Pro Val Leu Tyr Arg Thr Val Gly Phe  
 305 310 315 320  
 Gly Glu Ser Gly Ser Leu Met Ser Thr Leu Val Thr Gly Ile Val Gly

325

335

Thr Ser Ser Thr Leu Leu Ser Met Leu Val Val Asp Arg Ile Gly Arg  
340 345 350

Lys Thr Leu Phe Leu Ile Gly Gly Leu Gln Met Leu Val Ser Gln Val  
355 360 365

Thr Ile Gly Val Ile Val Met Val Ala Asp Val His Asp Gly Val Ile  
370 375 380

Lys Glu Gly Tyr Gly Tyr Ala Val Val Val Leu Val Cys Val Tyr Val  
385 390 395 400

Ala Gly Phe Gly Trp Ser Trp Gly Pro Leu Gly Trp Leu Val Pro Ser  
405 410 415

Glu Ile Phe Pro Leu Glu Ile Arg Ser Val Ala Gln Ser Val Thr Val  
420 425 430

Ala Val Ser Phe Val Phe Thr Phe Ala Val Ala Gln Ser Ala Pro Pro  
435 440 445

Met Leu Cys Lys Phe Arg Ala Gly Ile Phe Phe Phe Tyr Gly Gly Trp  
450 455 460

Leu Val Val Met Thr Val Ala Val Gln Leu Phe Leu Pro Glu Thr Lys  
465 470 475 480

Asn Val Pro Ile Glu Lys Val Val Gly Leu Trp Glu Lys His Trp Phe  
485 490 495

Trp Arg Arg Met Thr Ser Lys Arg Asp Ile Gln Glu Thr Thr Ile Leu  
500 505 510

Ser His

<210> 47

<211> 2688

<212> DNA

<213> Arabidopsis thaliana

<400> 47

atgaagatca cagagggacg attccgtctc tctcttcttc ttcttcttct tctcatatct

60

## 047-E2F-PCT.ST25.txt

gcagcaactt	taatctcagc	tgctgattac	tctccaacag	agaaaatcct	attgaattgc	120
ggtggtggtg	cttctaattct	aaccgacaca	gataaccgta	tatggatctc	cgatgtcaaa	180
tcaaaattct	tatcatcttc	ctctgaagac	tctaaaacat	caccagcggt	aacacaagat	240
ccttccggtc	ccgaagttcc	ttacatgacg	gcgagagttt	tccgatctcc	tttcacttac	300
actttccctg	tagcatcagg	tcgtaaattc	gtgctgtctt	actttctacc	aaactcgtac	360
gacggtctca	acgctaccaa	ctcggttattc	tccgtctcct	ttgggtcctta	cactcttctc	420
aagaatttca	gtgcttctca	gacggcggag	gcggttgactt	acgctttcat	catcaaagag	480
tttgttgtca	acgttgaagg	tggaacggtg	aacatgacgt	ttacaccgga	atcagctccg	540
tctaattcgt	atgcgtttgt	taatgggatt	gagggttactt	caatgcctga	tatgtatagt	600
agtactgatg	ggactttgac	tatggttgga	tcatctggct	ctgttactat	tgataacagt	660
actgctcttg	agaatgtgta	taggctcaat	gttgaggagg	atgatattctc	gccttccgcg	720
gatacggggt	tgtataggtc	gtggtatgat	gatcagcctt	atatattttg	tgaggactt	780
ggtattccag	agactgctga	tccaacatg	acgattaagt	atcctacggg	gactcctact	840
tatgttgctc	ctgtggatgt	ttattcaacc	gcgagggtcta	tgggtccaac	agctcagatc	900
aatctcaact	acaatcttac	ttggattttc	agcattgact	ctggtttcac	ttaccttggt	960
agacttcatt	tctgtgaggt	ttcttcgaat	atcactaaga	tcaaccaacg	ggtgtttaca	1020
atctacctca	acaatcaaac	tgctgagcct	gaagctgatg	tgattgcttg	gactagtcca	1080
aacgggggtc	cgtttcacaa	ggattacgtg	gtgaatcctc	cagagggaaa	tggacagcaa	1140
gatttgtggc	ttgctcttca	tcctaacca	gttaacaagc	cggagtatta	tgattctctt	1200
cttaattggag	tggagatatt	caagatgaat	acttctgatg	gtaatctggc	tggtagcaat	1260
cctatacctg	gtccacaggt	gactgctgat	ccatctaaag	tcctacgccc	gactactagg	1320
aaatcgaaaa	gcaatacggc	tattattgca	ggcgcagcca	gtggtgcagt	tgttctggcc	1380
cttatcattg	ggttttgtgt	gtttgggtgt	taccgcagac	gtaagcgtgg	tgattaccag	1440
cctgctagtg	atgcaacatc	agggtggctt	ccactatctc	tgtatggaaa	ctcacattct	1500
gctggctcgg	cgaagacaaa	cacaacagga	agttatgcct	cgccccctcc	gtcaaatctt	1560
tgccgtcact	tctcgtttgc	tgagatcaaa	gctgccacta	aaaactttga	tgagtcccgg	1620
gtgcttggtg	ttggtgggtt	cggaagggtt	tacagaggag	agattgatgg	cggaactaca	1680
aaggtagcca	tcaagagagg	caaccaatg	tccgagcaag	gtgtacatga	gttccagact	1740
gagattgaaa	tgctttcaaa	gcttagacat	cgtcatcttg	tgctcttgat	tggatactgt	1800
gaagagaact	gcgaaatgat	cttagtctat	gattacatgg	ctcatgggtac	aatgaggggag	1860
catctctaca	aaaccagaa	tccttctctt	ccatggaagc	aacgtcttga	gatatgcatt	1920

```

ggagcagccc gaggtttaca ctatctacac actggtgcaa aacacacaat catccataga 1980
gatgtgaaga caacaaacat tctattggat gagaaatggg tggccaaggt ctctgatttt 2040
ggtctatcga agactggtcc tacactagac cacacacacg taagcacagt tgtgaaagga 2100
agtttcggtt atcttgaccc agagtatttc agacggcagc aactgactga gaaatccgat 2160
gtctactcct ttggcgttgt tctattcgaa gctctatgcg ctcgtccagc cttgaaccca 2220
acacttgcaa aggaacaagt gagcttagct gagtgggcac catactgcta caagaaaggc 2280
atgctagatc aaatcgttga tccctacctc aagggaaga tcacaccaga atgcttcaaa 2340
aagtttgctg aaaccgcat gaagtgtgtt ctagaccagg gcattgagag accatcaatg 2400
ggagatgttc tgtggaactt agaatttgcg ttgcagctcc aggaaagcgc agaagagaac 2460
ggaaaaggag tatgcggtga catggacatg gatgagatta agtacgatga tggaaactgt 2520
aaaggaaaga acgacaagag ttctgatgtg tatgaaggga atgtgacgga ctcgaggagc 2580
agtggaatag atatgagcat cggtggtagg agtttggcca gcgaagattc agatggactc 2640
actccaagtg ctgtgttttc tcagatcatg aatccaaagg gacgttag 2688

```

<210> 48

<211> 895

<212> PRT

<213> Arabidopsis thaliana

<400> 48

```

Met Lys Ile Thr Glu Gly Arg Phe Arg Leu Ser Leu Leu Leu Leu Leu
1      5      10      15

```

```

Leu Leu Ile Ser Ala Ala Thr Leu Ile Ser Ala Ala Asp Tyr Ser Pro
20      25      30

```

```

Thr Glu Lys Ile Leu Leu Asn Cys Gly Gly Gly Ala Ser Asn Leu Thr
35      40      45

```

```

Asp Thr Asp Asn Arg Ile Trp Ile Ser Asp Val Lys Ser Lys Phe Leu
50      55      60

```

```

Ser Ser Ser Ser Glu Asp Ser Lys Thr Ser Pro Ala Leu Thr Gln Asp
65      70      75      80

```

```

Pro Ser Val Pro Glu Val Pro Tyr Met Thr Ala Arg Val Phe Arg Ser
85      90      95

```

047-E2F-PCT.ST25.txt

Pro	Phe	Thr	Tyr	Thr	Phe	Pro	Val	Ala	Ser	Gly	Arg	Lys	Phe	Val	Arg
			100					105					110		
Leu	Tyr	Phe	Tyr	Pro	Asn	Ser	Tyr	Asp	Gly	Leu	Asn	Ala	Thr	Asn	Ser
		115					120					125			
Leu	Phe	Ser	Val	Ser	Phe	Gly	Pro	Tyr	Thr	Leu	Leu	Lys	Asn	Phe	Ser
	130					135					140				
Ala	Ser	Gln	Thr	Ala	Glu	Ala	Leu	Thr	Tyr	Ala	Phe	Ile	Ile	Lys	Glu
145					150					155					160
Phe	Val	Val	Asn	Val	Glu	Gly	Gly	Thr	Leu	Asn	Met	Thr	Phe	Thr	Pro
			165						170					175	
Glu	Ser	Ala	Pro	Ser	Asn	Ala	Tyr	Ala	Phe	Val	Asn	Gly	Ile	Glu	Val
			180					185					190		
Thr	Ser	Met	Pro	Asp	Met	Tyr	Ser	Ser	Thr	Asp	Gly	Thr	Leu	Thr	Met
		195					200					205			
Val	Gly	Ser	Ser	Gly	Ser	Val	Thr	Ile	Asp	Asn	Ser	Thr	Ala	Leu	Glu
	210					215					220				
Asn	Val	Tyr	Arg	Leu	Asn	Val	Gly	Gly	Asn	Asp	Ile	Ser	Pro	Ser	Ala
225					230					235					240
Asp	Thr	Gly	Leu	Tyr	Arg	Ser	Trp	Tyr	Asp	Asp	Gln	Pro	Tyr	Ile	Phe
				245					250					255	
Gly	Ala	Gly	Leu	Gly	Ile	Pro	Glu	Thr	Ala	Asp	Pro	Asn	Met	Thr	Ile
			260					265					270		
Lys	Tyr	Pro	Thr	Gly	Thr	Pro	Thr	Tyr	Val	Ala	Pro	Val	Asp	Val	Tyr
		275					280					285			
Ser	Thr	Ala	Arg	Ser	Met	Gly	Pro	Thr	Ala	Gln	Ile	Asn	Leu	Asn	Tyr
	290					295					300				
Asn	Leu	Thr	Trp	Ile	Phe	Ser	Ile	Asp	Ser	Gly	Phe	Thr	Tyr	Leu	Val
305					310					315					320
Arg	Leu	His	Phe	Cys	Glu	Val	Ser	Ser	Asn	Ile	Thr	Lys	Ile	Asn	Gln
				325					330					335	
Arg	Val	Phe	Thr	Ile	Tyr	Leu	Asn	Asn	Gln	Thr	Ala	Glu	Pro	Glu	Ala
			340					345					350		

047-E2F-PCT.ST25.txt

Asp Val Ile Ala Trp Thr Ser Ser Asn Gly Val Pro Phe His Lys Asp  
 355 360 365  
 Tyr Val Val Asn Pro Pro Glu Gly Asn Gly Gln Gln Asp Leu Trp Leu  
 370 375 380  
 Ala Leu His Pro Asn Pro Val Asn Lys Pro Glu Tyr Tyr Asp Ser Leu  
 385 390 395 400  
 Leu Asn Gly Val Glu Ile Phe Lys Met Asn Thr Ser Asp Gly Asn Leu  
 405 410 415  
 Ala Gly Thr Asn Pro Ile Pro Gly Pro Gln Val Thr Ala Asp Pro Ser  
 420 425 430  
 Lys Val Leu Arg Pro Thr Thr Arg Lys Ser Lys Ser Asn Thr Ala Ile  
 435 440 445  
 Ile Ala Gly Ala Ala Ser Gly Ala Val Val Leu Ala Leu Ile Ile Gly  
 450 455 460  
 Phe Cys Val Phe Gly Ala Tyr Arg Arg Arg Lys Arg Gly Asp Tyr Gln  
 465 470 475 480  
 Pro Ala Ser Asp Ala Thr Ser Gly Trp Leu Pro Leu Ser Leu Tyr Gly  
 485 490 495  
 Asn Ser His Ser Ala Gly Ser Ala Lys Thr Asn Thr Thr Gly Ser Tyr  
 500 505 510  
 Ala Ser Ser Leu Pro Ser Asn Leu Cys Arg His Phe Ser Phe Ala Glu  
 515 520 525  
 Ile Lys Ala Ala Thr Lys Asn Phe Asp Glu Ser Arg Val Leu Gly Val  
 530 535 540  
 Gly Gly Phe Gly Lys Val Tyr Arg Gly Glu Ile Asp Gly Gly Thr Thr  
 545 550 555 560  
 Lys Val Ala Ile Lys Arg Gly Asn Pro Met Ser Glu Gln Gly Val His  
 565 570 575  
 Glu Phe Gln Thr Glu Ile Glu Met Leu Ser Lys Leu Arg His Arg His  
 580 585 590  
 Leu Val Ser Leu Ile Gly Tyr Cys Glu Glu Asn Cys Glu Met Ile Leu  
 595 600 605

047-E2F-PCT.ST25.txt

Val Tyr Asp Tyr Met Ala His Gly Thr Met Arg Glu His Leu Tyr Lys  
610 615 620

Thr Gln Asn Pro Ser Leu Pro Trp Lys Gln Arg Leu Glu Ile Cys Ile  
625 630 635 640

Gly Ala Ala Arg Gly Leu His Tyr Leu His Thr Gly Ala Lys His Thr  
645 650 655

Ile Ile His Arg Asp Val Lys Thr Thr Asn Ile Leu Leu Asp Glu Lys  
660 665 670

Trp Val Ala Lys Val Ser Asp Phe Gly Leu Ser Lys Thr Gly Pro Thr  
675 680 685

Leu Asp His Thr His Val Ser Thr Val Val Lys Gly Ser Phe Gly Tyr  
690 695 700

Leu Asp Pro Glu Tyr Phe Arg Arg Gln Gln Leu Thr Glu Lys Ser Asp  
705 710 715 720

Val Tyr Ser Phe Gly Val Val Leu Phe Glu Ala Leu Cys Ala Arg Pro  
725 730 735

Ala Leu Asn Pro Thr Leu Ala Lys Glu Gln Val Ser Leu Ala Glu Trp  
740 745 750

Ala Pro Tyr Cys Tyr Lys Lys Gly Met Leu Asp Gln Ile Val Asp Pro  
755 760 765

Tyr Leu Lys Gly Lys Ile Thr Pro Glu Cys Phe Lys Lys Phe Ala Glu  
770 775 780

Thr Ala Met Lys Cys Val Leu Asp Gln Gly Ile Glu Arg Pro Ser Met  
785 790 795 800

Gly Asp Val Leu Trp Asn Leu Glu Phe Ala Leu Gln Leu Gln Glu Ser  
805 810 815

Ala Glu Glu Asn Gly Lys Gly Val Cys Gly Asp Met Asp Met Asp Glu  
820 825 830

Ile Lys Tyr Asp Asp Gly Asn Cys Lys Gly Lys Asn Asp Lys Ser Ser  
835 840 845

Asp Val Tyr Glu Gly Asn Val Thr Asp Ser Arg Ser Ser Gly Ile Asp

850

855

Met Ser Ile Gly Gly Arg Ser Leu Ala Ser Glu Asp Ser Asp Gly Leu  
865 870 875 880

Thr Pro Ser Ala Val Phe Ser Gln Ile Met Asn Pro Lys Gly Arg  
885 890 895

<210> 49

<211> 2013

<212> DNA

<213> Arabidopsis thaliana

<400> 49

atggaaagaa atggtggtca ctacactgat aagacgagag tggttgatat taaaccattg	60
cgtactctaa gacctgtgtt tcccagtgga aatcaagctc cgccttttgt gtgtgctcct	120
ccttttggac catttcctcc tgggtttctca tcgttttatc cgtttagttc gtctcaagcg	180
aatcagcaca caccagatct taaccaagct cagtatccac cgcaacatca gcagcctcag	240
aatccaccac cggatatatca gcagcagcct cctcagcatg catctgagcc ttcgttggtt	300
actcctttaa ggtcatttag atctcctgat gtgtctaata gcaacgcgga acttgagggg	360
tcaactgtga aaagaaggat ccctaaaaag cgtcccattt ctcggcctga gaatatgaat	420
ttcgagagtg ggattaatgt ggctgataga gagaatggca ataggagatt ggtgttgagt	480
gttcttatgc ggtttgatgc gttaagaaga aggtttgcac aacttgagga tgctaaggaa	540
gcagttagtg ggattatcaa acgccctgat ttgaaatcag gatctacttg tatgggcaga	600
ggggtgcgga caaacaccaa aaaaagacct ggtattgttc ctggtgttga gattggggac	660
gtattcttct tcaggtttga gatgtgtttg gtgggggttc attctccatc aatggctggg	720
attgactatc tggttgtcaa gggagaaacg gaagaagaac ctatcgccac tagcattgtc	780
tcattctggat attatgataa tgacgaaggt aatcctgatg ttttgattta tactggtcag	840
ggtggtaatg ctgataaaga taagcaatct tctgaccaa agctcgaaag gggtaatctt	900
gccttgagga agagcttgcg tagagatagt gcagttaggg taataagggg cttgaaagag	960
gcttctcata atgctaagat ctatatatat gatggactct atgagattaa agagtcattg	1020
gtagagaaag gaaaatctgg acacaacacc ttcaagtata aactagttag agctcctggt	1080
caaccgcctg catttgcttc atggactgca atccagaaat ggaagacggg tgtgccttca	1140
aggcaaggac tcattcttcc cgatatgact tccgggggtt aaagcatacc tgtttcactt	1200
gttaacgaag ttgataccga caatgggcct gcttatttca cctactccac aactgtgaaa	1260



047-E2F-PCT.ST25.txt

tactcagagt cgtttaagct gatgcagcct tcttttggat gtgattgtgc caacttatgc 1320  
aaaccagga acttggattg tctactgcata aggaaaaatg gaggtgactt cccctacacc 1380  
ggtaatggaa ttctagttag ccgaaagcct atgatatatg aatgcagtcc atcttgcccg 1440  
tgctcgactt gcaaaaacaa ggtgactcaa atgggagtaa aagtgaggct ggaagttttc 1500  
aagacagcga atagaggatg gggattgcgg tcatgggatg ctattcgtgc tggttctttt 1560  
atatgtatct atgtaggtga ggccaaagac aaatcaaagg tgcagcaaac tatggctaata 1620  
gatgattata cttttgatac aaccaatgtg tataaccctt tcaagtggaa ctacgaacct 1680  
ggcttagcag acgaagatgc ttgtgaagag atgtctgaag aatctgaaat cccgctgcc 1740  
ctgataatca gtgctaagaa tgttgggaac gttgcccgat tcatgaatca tagttgctca 1800  
cctaattgtt tctggcagcc ggtagttat gaaaataaca gtcaactctt tgtgcatgtg 1860  
gccttctttg ccatttctca catccctcca atgactgagt taacttacga ctatggagta 1920  
tctagaccaa gtgggactca aaatggcaat cctttatatg gcaaaaggaa atgcttctgt 1980  
ggatcagcgt attgccgtgg ctcatgttga tga 2013

<210> 50

<211> 670

<212> PRT

<213> Arabidopsis thaliana

<400> 50

Met Glu Arg Asn Gly Gly His Tyr Thr Asp Lys Thr Arg Val Leu Asp  
1 5 10 15

Ile Lys Pro Leu Arg Thr Leu Arg Pro Val Phe Pro Ser Gly Asn Gln  
20 25 30

Ala Pro Pro Phe Val Cys Ala Pro Phe Gly Pro Phe Pro Pro Gly  
35 40 45

Phe Ser Ser Phe Tyr Pro Phe Ser Ser Ser Gln Ala Asn Gln His Thr  
50 55 60

Pro Asp Leu Asn Gln Ala Gln Tyr Pro Pro Gln His Gln Gln Pro Gln  
65 70 75 80

Asn Pro Pro Pro Val Tyr Gln Gln Gln Pro Pro Gln His Ala Ser Glu  
85 90 95

047-E2F-PCT.ST25.txt

Pro Ser Leu Val Thr Pro Leu Arg Ser Phe Arg Ser Pro Asp Val Ser  
100 105 110

Asn Gly Asn Ala Glu Leu Glu Gly Ser Thr Val Lys Arg Arg Ile Pro  
115 120 125

Lys Lys Arg Pro Ile Ser Arg Pro Glu Asn Met Asn Phe Glu Ser Gly  
130 135 140

Ile Asn Val Ala Asp Arg Glu Asn Gly Asn Arg Glu Leu Val Leu Ser  
145 150 155 160

Val Leu Met Arg Phe Asp Ala Leu Arg Arg Arg Phe Ala Gln Leu Glu  
165 170 175

Asp Ala Lys Glu Ala Val Ser Gly Ile Ile Lys Arg Pro Asp Leu Lys  
180 185 190

Ser Gly Ser Thr Cys Met Gly Arg Gly Val Arg Thr Asn Thr Lys Lys  
195 200 205

Arg Pro Gly Ile Val Pro Gly Val Glu Ile Gly Asp Val Phe Phe Phe  
210 215 220

Arg Phe Glu Met Cys Leu Val Gly Leu His Ser Pro Ser Met Ala Gly  
225 230 235 240

Ile Asp Tyr Leu Val Val Lys Gly Glu Thr Glu Glu Glu Pro Ile Ala  
245 250 255

Thr Ser Ile Val Ser Ser Gly Tyr Tyr Asp Asn Asp Glu Gly Asn Pro  
260 265 270

Asp Val Leu Ile Tyr Thr Gly Gln Gly Gly Asn Ala Asp Lys Asp Lys  
275 280 285

Gln Ser Ser Asp Gln Lys Leu Glu Arg Gly Asn Leu Ala Leu Glu Lys  
290 295 300

Ser Leu Arg Arg Asp Ser Ala Val Arg Val Ile Arg Gly Leu Lys Glu  
305 310 315 320

Ala Ser His Asn Ala Lys Ile Tyr Ile Tyr Asp Gly Leu Tyr Glu Ile  
325 330 335

Lys Glu Ser Trp Val Glu Lys Gly Lys Ser Gly His Asn Thr Phe Lys  
340 345 350

047-E2F-PCT.ST25.txt

Tyr Lys Leu Val Arg Ala Pro Gly Gln Pro Pro Ala Phe Ala Ser Trp  
 355 360 365  
 Thr Ala Ile Gln Lys Trp Lys Thr Gly Val Pro Ser Arg Gln Gly Leu  
 370 375 380  
 Ile Leu Pro Asp Met Thr Ser Gly Val Glu Ser Ile Pro Val Ser Leu  
 385 390 395 400  
 Val Asn Glu Val Asp Thr Asp Asn Gly Pro Ala Tyr Phe Thr Tyr Ser  
 405 410 415  
 Thr Thr Val Lys Tyr Ser Glu Ser Phe Lys Leu Met Gln Pro Ser Phe  
 420 425 430  
 Gly Cys Asp Cys Ala Asn Leu Cys Lys Pro Gly Asn Leu Asp Cys His  
 435 440 445  
 Cys Ile Arg Lys Asn Gly Gly Asp Phe Pro Tyr Thr Gly Asn Gly Ile  
 450 455 460  
 Leu Val Ser Arg Lys Pro Met Ile Tyr Glu Cys Ser Pro Ser Cys Pro  
 465 470 475 480  
 Cys Ser Thr Cys Lys Asn Lys Val Thr Gln Met Gly Val Lys Val Arg  
 485 490 495  
 Leu Glu Val Phe Lys Thr Ala Asn Arg Gly Trp Gly Leu Arg Ser Trp  
 500 505 510  
 Asp Ala Ile Arg Ala Gly Ser Phe Ile Cys Ile Tyr Val Gly Glu Ala  
 515 520 525  
 Lys Asp Lys Ser Lys Val Gln Gln Thr Met Ala Asn Asp Asp Tyr Thr  
 530 535 540  
 Phe Asp Thr Thr Asn Val Tyr Asn Pro Phe Lys Trp Asn Tyr Glu Pro  
 545 550 555 560  
 Gly Leu Ala Asp Glu Asp Ala Cys Glu Glu Met Ser Glu Glu Ser Glu  
 565 570 575  
 Ile Pro Leu Pro Leu Ile Ile Ser Ala Lys Asn Val Gly Asn Val Ala  
 580 585 590  
 Arg Phe Met Asn His Ser Cys Ser Pro Asn Val Phe Trp Gln Pro Val

595 047-E2F-PCT.ST25.txt 600 605

Ser Tyr Glu Asn Asn Ser Gln Leu Phe Val His Val Ala Phe Phe Ala  
610 615 620

Ile Ser His Ile Pro Pro Met Thr Glu Leu Thr Tyr Asp Tyr Gly Val  
625 630 635 640

Ser Arg Pro Ser Gly Thr Gln Asn Gly Asn Pro Leu Tyr Gly Lys Arg  
645 650 655

Lys Cys Phe Cys Gly Ser Ala Tyr Cys Arg Gly Ser Phe Gly  
660 665 670

<210> 51

<211> 936

<212> DNA

<213> Arabidopsis thaliana

<400> 51  
atgatgaaga gattaagtag ttcagattca gtgggtgggc tcatctcttt atgtcctaca 60  
acttccacag atgagcagag tccgaggaga tacggtggga gagagtttca gtcgatgctt 120  
gaaggatacg aggaagaaga agaagctata gtagaagaaa gaggacacgt gggcttgctg 180  
gagaagaaga gaaggttaag cattaaccaa gttaaagctt tggagaagaa ttttgagtta 240  
gagaataagc ttgagcctga gaggaaagtt aagttagctc aagaacttgg tcttcaacct 300  
cgtcaagttg ctgtttgggt tcaaaaccgt cgtgctcggt ggaagacaaa acagcttgag 360  
aaagattacg gtgttcttaa aaccagctac gattctctcc gtcataactt tgattccctc 420  
cgccgtgaca atgaatctct ctttaagag attagtaaac tgaaaacgaa gcttaatgga 480  
ggaggaggag aagaagaaga agaagagaac aacgcggcgg tgacaacgga gagtgatatt 540  
tcggtcaagg aggaagaagt ttcggtgccg gagaagatta cagaggcacc gtcgtctcct 600  
ccacagtttc ttgaacattc tgatggtctt aattaccgga gtttcacaga tctacgtgat 660  
cttcttccat taaaggcggc ggcttcttca ttcgccgccg cagctggatc ttcagacagt 720  
agcgattcaa gcgctctgct gaatgaagaa agcagctcta atgtcactgt ggcggctccg 780  
gtgacggttc caggaggtaa tttcttccag tttgtgaaaa tggagcagac ggaggatcat 840  
gaggactttc tgagtggaga agaagcttgt gaattctttt ccgatgaaca accgccgtct 900  
ctacactggg actccaccgt tgatcattgg aattga 936

&lt;210&gt; 52

&lt;211&gt; 311

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 52

Met Met Lys Arg Leu Ser Ser Ser Asp Ser Val Gly Gly Leu Ile Ser  
 1 5 10 15

Leu Cys Pro Thr Thr Ser Thr Asp Glu Gln Ser Pro Arg Arg Tyr Gly  
 20 25 30

Gly Arg Glu Phe Gln Ser Met Leu Glu Gly Tyr Glu Glu Glu Glu  
 35 40 45

Ala Ile Val Glu Glu Arg Gly His Val Gly Leu Ser Glu Lys Lys Arg  
 50 55 60

Arg Leu Ser Ile Asn Gln Val Lys Ala Leu Glu Lys Asn Phe Glu Leu  
 65 70 75 80

Glu Asn Lys Leu Glu Pro Glu Arg Lys Val Lys Leu Ala Gln Glu Leu  
 85 90 95

Gly Leu Gln Pro Arg Gln Val Ala Val Trp Phe Gln Asn Arg Arg Ala  
 100 105 110

Arg Trp Lys Thr Lys Gln Leu Glu Lys Asp Tyr Gly Val Leu Lys Thr  
 115 120 125

Gln Tyr Asp Ser Leu Arg His Asn Phe Asp Ser Leu Arg Arg Asp Asn  
 130 135 140

Glu Ser Leu Leu Gln Glu Ile Ser Lys Leu Lys Thr Lys Leu Asn Gly  
 145 150 155 160

Gly Gly Gly Glu Glu Glu Glu Glu Asn Asn Ala Ala Val Thr Thr  
 165 170 175

Glu Ser Asp Ile Ser Val Lys Glu Glu Glu Val Ser Leu Pro Glu Lys  
 180 185 190

Ile Thr Glu Ala Pro Ser Ser Pro Pro Gln Phe Leu Glu His Ser Asp  
 195 200 205

047-E2F-PCT.ST25.txt

Gly Leu Asn Tyr Arg Ser Phe Thr Asp Leu Arg Asp Leu Leu Pro Leu  
 210 215 220  
 Lys Ala Ala Ala Ser Ser Phe Ala Ala Ala Ala Gly Ser Ser Asp Ser  
 225 230 235 240  
 Ser Asp Ser Ser Ala Leu Leu Asn Glu Glu Ser Ser Ser Asn Val Thr  
 245 250 255  
 Val Ala Ala Pro Val Thr Val Pro Gly Gly Asn Phe Phe Gln Phe Val  
 260 265 270  
 Lys Met Glu Gln Thr Glu Asp His Glu Asp Phe Leu Ser Gly Glu Glu  
 275 280 285  
 Ala Cys Glu Phe Phe Ser Asp Glu Gln Pro Pro Ser Leu His Trp Tyr  
 290 295 300  
 Ser Thr Val Asp His Trp Asn  
 305 310

<210> 53

<211> 1275

<212> DNA

<213> Arabidopsis thaliana

<400> 53

atggcgggtgg agtatgtatg ttgcagccca aacttcttta tacatatagc tgtgattgtg	60
tttcttgtct tgttcgctgg actcatgtct ggcttaacat tgggtcttat gtctttgagt	120
ctcgttgatc ttgaagttct cgctaaatcc ggtacacctg aacatcgtaa atatgcagca	180
aagatattgc cagtggtaaa gaatcagcac ttgttgcttg tcactttact tatatgcaat	240
gcagctgcta tggagacgct tcctatTTTT cttgatggcc ttgtgacggc atgggggtgcc	300
atTTTgattt cagttacatt gattcttctc tttggtgaga ttataacctca gtcgatttgt	360
tcacgttatg gtttagcgat tgggtgcaaca gtggctccgt ttgtccgtgt cctagtcttt	420
atctgcttac ctgttgcatg gccaaataagc aagttgctgg actttctatt gggtcatcgt	480
cgtgcagcgc tttttcgaag agctgagctg aaaacacttg tggattttca tggaaatgag	540
gctggaaagg gtggggagtt gactcatgac gaaacgacaa tcattgcagg agctcttgaa	600
ctctctgaga aaatggtcaa agatgcaatg acaccaatat cggatatctt tgtgattgat	660
atcaatgcca aactagacag agacttgatg aacttgattc ttgagaaagg gcatagcaga	720

047-E2F-PCT.ST25.txt

gttccagtat actatgagca gccaaactaac ataatcggcc ttgttctggt gaagaactta 780  
 ttaactatca acccagatga agaaatacct gtcaagaatg tcacgataag aaggattcca 840  
 agagttccag aaatcttgcc tttatatgac atattgaacg aattccagaa aggactcagc 900  
 cacatggctg ttgttgtaag acagtgtgac aaaatccacc cattaccttc taaaaatggg 960  
 agtgттаagg aagcccagat ggatgtggat agtgagggaa ctctactcc tcaggagaga 1020  
 atgttaagga caaaaagatc gcttcaaaag tggaagagct ttccgaatcg agcaagttcg 1080  
 tttaaaggag ggtcaaagag caagaagtgg tcaaaagaca atgatgcaga catcctgcaa 1140  
 ttgaatggca atccgtgcc taaacttgct gaggaagaag aagcagtcgg aatcattacg 1200  
 atggaggatg tcattgaaga acttctgcag gaggagatct ttgacgaaac tgatcaccat 1260  
 tttgaagact cctaa 1275

<210> 54

<211> 424

<212> PRT

<213> Arabidopsis thaliana

<400> 54

Met Ala Val Glu Tyr Val Cys Cys Ser Pro Asn Phe Phe Ile His Ile  
 1 5 10 15

Ala Val Ile Val Phe Leu Val Leu Phe Ala Gly Leu Met Ser Gly Leu  
 20 25 30

Thr Leu Gly Leu Met Ser Leu Ser Leu Val Asp Leu Glu Val Leu Ala  
 35 40 45

Lys Ser Gly Thr Pro Glu His Arg Lys Tyr Ala Ala Lys Ile Leu Pro  
 50 55 60

Val Val Lys Asn Gln His Leu Leu Leu Val Thr Leu Leu Ile Cys Asn  
 65 70 75 80

Ala Ala Ala Met Glu Thr Leu Pro Ile Phe Leu Asp Gly Leu Val Thr  
 85 90 95

Ala Trp Gly Ala Ile Leu Ile Ser Val Thr Leu Ile Leu Leu Phe Gly  
 100 105 110

Glu Ile Ile Pro Gln Ser Ile Cys Ser Arg Tyr Gly Leu Ala Ile Gly  
 Page 65

115

120

125

Ala Thr Val Ala Pro Phe Val Arg Val Leu Val Phe Ile Cys Leu Pro  
 130 135 140  
 Val Ala Trp Pro Ile Ser Lys Leu Leu Asp Phe Leu Leu Gly His Arg  
 145 150 155 160  
 Arg Ala Ala Leu Phe Arg Arg Ala Glu Leu Lys Thr Leu Val Asp Phe  
 165 170 175  
 His Gly Asn Glu Ala Gly Lys Gly Gly Glu Leu Thr His Asp Glu Thr  
 180 185 190  
 Thr Ile Ile Ala Gly Ala Leu Glu Leu Ser Glu Lys Met Val Lys Asp  
 195 200 205  
 Ala Met Thr Pro Ile Ser Asp Ile Phe Val Ile Asp Ile Asn Ala Lys  
 210 215 220  
 Leu Asp Arg Asp Leu Met Asn Leu Ile Leu Glu Lys Gly His Ser Arg  
 225 230 235 240  
 Val Pro Val Tyr Tyr Glu Gln Pro Thr Asn Ile Ile Gly Leu Val Leu  
 245 250 255  
 Val Lys Asn Leu Leu Thr Ile Asn Pro Asp Glu Glu Ile Pro Val Lys  
 260 265 270  
 Asn Val Thr Ile Arg Arg Ile Pro Arg Val Pro Glu Ile Leu Pro Leu  
 275 280 285  
 Tyr Asp Ile Leu Asn Glu Phe Gln Lys Gly Leu Ser His Met Ala Val  
 290 295 300  
 Val Val Arg Gln Cys Asp Lys Ile His Pro Leu Pro Ser Lys Asn Gly  
 305 310 315 320  
 Ser Val Lys Glu Ala Arg Val Asp Val Asp Ser Glu Gly Thr Pro Thr  
 325 330 335  
 Pro Gln Glu Arg Met Leu Arg Thr Lys Arg Ser Leu Gln Lys Trp Lys  
 340 345 350  
 Ser Phe Pro Asn Arg Ala Ser Ser Phe Lys Gly Gly Ser Lys Ser Lys  
 355 360 365



047-E2F-PCT.ST25.txt

Lys Trp Ser Lys Asp Asn Asp Ala Asp Ile Leu Gln Leu Asn Gly Asn  
370 375 380

Pro Leu Pro Lys Leu Ala Glu Glu Glu Glu Ala Val Gly Ile Ile Thr  
385 390 395 400

Met Glu Asp Val Ile Glu Glu Leu Leu Gln Glu Glu Ile Phe Asp Glu  
405 410 415

Thr Asp His His Phe Glu Asp Ser  
420

<210> 55

<211> 1416

<212> DNA

<213> Arabidopsis thaliana

<400> 55

atggcggcca aagtcttcac tcagaaccct atctattctc aatctctagt tagagacaaa	60
actcctcaac agaaacacaa tcttgaccat ttctctatat cccagcacac ctctaaaaga	120
ctcgttgtct cttctttctac aatgtcccct ccgatttcat cttctccact ctctcttcct	180
tcttcttctt cttctcaggc cattcctcct tctcgagcac ctgcagtgac tctaccgttg	240
tctcgggttt ggagagagat acaagggagc aataactggg aaaatctcat tgaacctcta	300
agccctattc tccaacaaga gatcactcgc tacgggaact tactctccgc ttcttacaaa	360
gggtttgatc taaaccctaa ctccaaacgt tacttgagtt gcaagtatgg aaaaaagaac	420
ttgcttaaag aatccggaat ccatgaccct gatggctacc aagtcaccaa gtatatctac	480
gccacaccag acatcaacct caaccctatc aagaacgagc ctaaccgtgc acgttgatc	540
ggttatgtag cggtttcttc tgatgaatcg gtgaaacggt tgggaaggag ggatattttg	600
gtgacgtttc gtggcactgt caccaaccat gagtgggttag ctaacctaaa gagctctttg	660
actccggcta ggcttgatcc tcataacct cgtcctgatg tcaaggctga atccgggttc	720
ttaggtttat acacatccgg tgagagcgag agcaaattcg ggctagaaag ctgccgtgag	780
cagcttctct ccgagatctc gaggcttatg aacaagcaca aaggcgagga aataagcata	840
acacttgcgg gacatagtat ggggagttct ctagctcagc ttctagctta cgacatagcg	900
gaactcggtg tgaaccagag aaggggacgaa aaacctgttc cggtgaccgt gttttcgttt	960
gctggtccta gagttggtaa cttgggggttc aaaaaacggt gtgaggagct aggagttaaa	1020
gtcttgagga tcacgaatgt aaacgatccg atcaccaaac ttccagggtt cttatttaat	1080

047-E2F-PCT.ST25.txt

gagaatttca gatcttttagg tgggtgtttac gagcttcctt ggagctgttc ttgctacact 1140  
cacgtgggag tcgaactcac cctcgatttc ttcgatgttc aaaacatttc ttgtgtccat 1200  
gacctcgaga cttacatcac tctagtaaac cgtccgagat gctcgaaatt ggcgggtaat 1260  
gaagacaatt ttggcggcga gtttttgaac agaacaagtg aactgatgtt cagtaaggga 1320  
cgacgtcaag cgttgcattt taaaaacgca gcgaccaatg cggcatatct actttgttct 1380  
atatccaacc atatgttgta ttataatata ttttag 1416

<210> 56

<211> 471

<212> PRT

<213> Arabidopsis thaliana

<400> 56

Met Ala Ala Lys Val Phe Thr Gln Asn Pro Ile Tyr Ser Gln Ser Leu  
1 5 10 15

Val Arg Asp Lys Thr Pro Gln Gln Lys His Asn Leu Asp His Phe Ser  
20 25 30

Ile Ser Gln His Thr Ser Lys Arg Leu Val Val Ser Ser Ser Thr Met  
35 40 45

Ser Pro Pro Ile Ser Ser Ser Pro Leu Ser Leu Pro Ser Ser Ser Ser  
50 55 60

Ser Gln Ala Ile Pro Pro Ser Arg Ala Pro Ala Val Thr Leu Pro Leu  
65 70 75 80

Ser Arg Val Trp Arg Glu Ile Gln Gly Ser Asn Asn Trp Glu Asn Leu  
85 90 95

Ile Glu Pro Leu Ser Pro Ile Leu Gln Gln Glu Ile Thr Arg Tyr Gly  
100 105 110

Asn Leu Leu Ser Ala Ser Tyr Lys Gly Phe Asp Leu Asn Pro Asn Ser  
115 120 125

Lys Arg Tyr Leu Ser Cys Lys Tyr Gly Lys Lys Asn Leu Leu Lys Glu  
130 135 140

Ser Gly Ile His Asp Pro Asp Gly Tyr Gln Val Thr Lys Tyr Ile Tyr  
145 150 155 160

047-E2F-PCT.ST25.txt

Ala Thr Pro Asp Ile Asn Leu Asn Pro Ile Lys Asn Glu Pro Asn Arg  
165 170 175

Ala Arg Trp Ile Gly Tyr Val Ala Val Ser Ser Asp Glu Ser Val Lys  
180 185 190

Arg Leu Gly Arg Arg Asp Ile Leu Val Thr Phe Arg Gly Thr Val Thr  
195 200 205

Asn His Glu Trp Leu Ala Asn Leu Lys Ser Ser Leu Thr Pro Ala Arg  
210 215 220

Leu Asp Pro His Asn Pro Arg Pro Asp Val Lys Val Glu Ser Gly Phe  
225 230 235 240

Leu Gly Leu Tyr Thr Ser Gly Glu Ser Glu Ser Lys Phe Gly Leu Glu  
245 250 255

Ser Cys Arg Glu Gln Leu Leu Ser Glu Ile Ser Arg Leu Met Asn Lys  
260 265 270

His Lys Gly Glu Glu Ile Ser Ile Thr Leu Ala Gly His Ser Met Gly  
275 280 285

Ser Ser Leu Ala Gln Leu Leu Ala Tyr Asp Ile Ala Glu Leu Gly Met  
290 295 300

Asn Gln Arg Arg Asp Glu Lys Pro Val Pro Val Thr Val Phe Ser Phe  
305 310 315 320

Ala Gly Pro Arg Val Gly Asn Leu Gly Phe Lys Lys Arg Cys Glu Glu  
325 330 335

Leu Gly Val Lys Val Leu Arg Ile Thr Asn Val Asn Asp Pro Ile Thr  
340 345 350

Lys Leu Pro Gly Phe Leu Phe Asn Glu Asn Phe Arg Ser Leu Gly Gly  
355 360 365

Val Tyr Glu Leu Pro Trp Ser Cys Ser Cys Tyr Thr His Val Gly Val  
370 375 380

Glu Leu Thr Leu Asp Phe Phe Asp Val Gln Asn Ile Ser Cys Val His  
385 390 395 400

Asp Leu Glu Thr Tyr Ile Thr Leu Val Asn Arg Pro Arg Cys Ser Lys

405

415

Leu Ala Val Asn Glu Asp Asn Phe Gly Gly Glu Phe Leu Asn Arg Thr  
420 425 430

Ser Glu Leu Met Phe Ser Lys Gly Arg Arg Gln Ala Leu His Phe Thr  
435 440 445

Asn Ala Ala Thr Asn Ala Ala Tyr Leu Leu Cys Ser Ile Ser Asn His  
450 455 460

Met Leu Tyr Tyr Asn Ile Phe  
465 470

<210> 57

<211> 4380

<212> DNA

<213> Arabidopsis thaliana

<400> 57

atggaggaga atcgtcggaa tccgtcggcc ggtatggaag ttccagttgc cggcggcgga	60
aatgtcgtca aatggattga gatattctgtt ccttcacctt ctgtttcatc ttctagtatc	120
ggtgctaatt caagtgagga caatgagtgt gttcagcttc ctttgtctga agactacgct	180
tctagctctg taattgggga accttcgata tctttcgttt ggagaatcaa caagacgagt	240
ccaaatgctc tcgagcttct tcagctctca gctaagtctg gattttccaat aacaggactg	300
cgtttcgtct ttgctcagac tctttctcct ttgtctttt tatacgccga tgagggtggt	360
gatagtggtc gtcttgtcta ctttctttac tctctcacgc cgtctggtgt tgtctacgtt	420
cttaaactct cgaatacggt agcatataag tctggttcag tcttcccgt tgatcatttg	480
attcacttgg atgttcgacc ttacttgaac gagagtcgtg ttactagtgt tgctgcatcg	540
cctggtttca tttttctcgg gaggtccgat ggttgtgtct cttgcttcca acctattgtg	600
tattttcaga aatcttcagg tttccaccag gagctgcgtg atgatacagg atttggtcgt	660
ctggggacag ttgttcgagc cgtgcaagat ttatttatat cagaagttca tggaagaaat	720
tatctatgtg tgcttcatgc tgacggggca ttacgtgtct gggatatttt gacttatagc	780
agggttttat gtcagagtat agctgctaag aaccttgagg gggttatgtg tgtgaggtta	840
tggttgggca aagctgatta cgattctggc atcattccat tagctgtctt gtatagaaag	900
agtatgaatg acagcatgga cgtgatcact gtatatggcc tgcactttag ttctgcggag	960
gggatagctt tgtctctaga ttctggatta cagaatatac cactggaaga gggggaattg	1020

## 047-E2F-PCT.ST25.txt

cgggatgtca gatttacatc cgacaagatc tggactctaa aggccaatga attaacatct 1080  
 tacatgtttgt gccagaaatc tagcaccatg gaagcgcagt cttacacgtt gcaggaagac 1140  
 tacatttctg aacagctatt tctgagttct aggagctctt cacatgatct tcttttgact 1200  
 actcattcac tgttttcac cgc aaaggat caaattatgg gattcatttc gtcaatcttc 1260  
 ttacgcaggc ttctttgtcc tggaatTTTT cacaatgttg ctttacgtct aactttactg 1320  
 gaccacaaca aaaactggac tgattccgag tttcaatctt taagtcttga tgagcttaca 1380  
 agcgagattc ttttactggg tgagcatgag tcagatgtta ttggtttagt tagaaataat 1440  
 tctgtatcac tgttttttag attggagaac gctgagcaca gccttggagg ttcttcctcc 1500  
 gaacacagca acctgacgag cttagacttg ggcgtgtctc acagcgacca tgaaattctg 1560  
 gcagaggtac taagatgtac ttcgaagatc agtaaacagt ggggtggtgc tccttatgcc 1620  
 atgtattatg aatcaattac cggaaggcca attatctcat cggatgaaat cgttcctcgc 1680  
 ttagttaaca tccttgagtc gggatattct acgaccatag gtcaacgtac ttggtcagat 1740  
 cttggtgctg atagagcatg ggaaaaagag ctagaagctc ataaaaatct tagaacattc 1800  
 tccattgaca tgctgtgtc tctctctgct ctatgtcaaa gggctggatc ttgggaaaaa 1860  
 gtctttacta tcatggagca ctatttgcag tatttgggtcc ctaaaaaatc tatgcagaaa 1920  
 aatgatggtg aggcattatc tgatatctgt agttctatcc tcgtccaagc cacttctcag 1980  
 tttgtaaagg tgatgtttga gtcggcattt gacatcttcc tactcatcag ctatctgctt 2040  
 aacatcgctg ggcagggttaa tatgtcacag caagacatat gcaagctacg gcttgagttg 2100  
 cttccaatga tccaagatat tgtctcagag tggctcatca tccttttctt tgttaccact 2160  
 ccagctgagt caacttctat ggaagatttc agcttgaaac tttcatctct acagattgat 2220  
 agcagcattg acaaaagatc atggaacgca atgctaggga aatgtggttt ctactggcg 2280  
 tttattcttc tctttagtga ccgaagtgc attgtggatg gccgctttaa cttgagatat 2340  
 cttccgagtt cacaatcat tacaagtttg gtgcaaaact ttatcagctg gattcggtat 2400  
 agtaaaacag gagatgactc ttcttctact ctaagacgct ccacggaact tagtcttagg 2460  
 ttgattcgga atggacaatc tgatgctgtt gagcgaatcc ttgtggttgt ggaggcaagt 2520  
 ttacgtgggg agaaaacatt tggatgttct caagatacta gtggagattg gtgtcttctt 2580  
 caacatctcc gtggttggtt ctttcttgat caagtacaac gtggtgcaag tggcatatta 2640  
 agagagagaa agattattga tgccatccgc tgcttcttca gagcttcac aggtgaagga 2700  
 tcttggaagg ctttgcacag cttgtctaaa gaagcaggat tttcacctgc cacaacgggt 2760  
 ccaagtattt tagatggttc tacgtcttct gcagcatgga aacttcatta ctatgagtgg 2820  
 gctatgcaaa tttttgaacg gtacaatata agtgaaggag cttgtcagtt tgcctatgca 2880

047-E2F-PCT.ST25.txt

gcccttgagc aagtagatga tgcctataat ttcatagaga tgactgagga attcgatcca	2940
actaaagcag ccacctacac tagaggacga ctgtgggcaa atgttttcaa gttcacctta	3000
gatctcaatc tcttgaatga tgcctactgt gctataattht caaacctga tgaggagatt	3060
aagcgcatct gtttgaggcg cttcataata gttctattht aatgtggcaa aacgaagatc	3120
ctcagtgatg gacatctacc tttcatcggc ttaacagaga agatcaccca agagctthtt	3180
tggaaggccg gacgttctga tataatgatg aagccaaatc catacaagct gctthtatgct	3240
tatgagatga gacgacacaa ttggcgaatg gcggaagtt acatgtatca gthttctgcc	3300
cgthttgagaa gcgaggggagc atgcaaggat tacaacaca tgtccctagt tttgcaagag	3360
aggcttaatg gactthtctgc tgctatgaat gcattagccc ttgttcatcc tgggtatgct	3420
tggattgatc cagtaccaga agaaaccaca cgthtatccg ttaaaaaggc tagaagagca	3480
gaagaagaac aattaaggag taatgaccag cccaaagggg agaagagttg cattgatatc	3540
gagaaactcc aaaacgagtt tgthtttact actgctgaat atatgcttht tctgaaaaat	3600
ttcgggtgga catattcagg actcgaaaag ccaccatcag atthtggtga cthtcttgtc	3660
caggcaaact tgtatgacat ggcattcact gttgtthttga aaththtgag gggctccgct	3720
ttgaaaaggg agctggaaaa gataththgag aatatggcaa ttaaatgttg ccctgctaaa	3780
ggaactctgt ggtcatcgcc taatcttatg ttaacatcta acgatgaaga agttactcat	3840
tcgcctgata gaagccctgc tgatcagggc tctaagttgg ctggtgattg ggaaattctt	3900
gaggtthtat tgaagaggta catagacata cacgctagac taccggtht tgttgcttca	3960
accctthttht aagcagattc ttgtatcgaa ttgcctctct ggctgattca aatgttcaag	4020
gatggtcaga aggaaaaagc tttgggaatg gctgggcaa aagcaagtcc tgcttccttg	4080
thtcagttat atgttgatta tgggcgtctt acagaggcaa ctaaththgct acttgagtac	4140
atggaatcat ttgcttcatc gaaaccagca gaggtattga agaggaaaaa ggtatccgga	4200
gthttgthttc cgtacacaac agtagaaaga ctatggtggg agctagagaa aacaatgaac	4260
tcaggacgaa tgggtggagca atgccataag ctgaaggaa aacttcatca tgcattactc	4320
aatcacttaa aactgcttaa ggtggactca aatgatgctg tathctctgc aaccggttaa	4380

<210> 58

<211> 1459

<212> PRT

<213> Arabidopsis thaliana

<400> 58

Met Glu Glu Asn Arg Arg Asn Pro Ser Ala Gly Met Glu Val Pro Val  
 1 5 10 15  
 Ala Gly Gly Gly Asn Val Val Lys Trp Ile Glu Ile Ser Val Pro Ser  
 20 25 30  
 Pro Ser Val Ser Ser Ser Ser Ile Gly Ala Asn Ser Ser Glu Asp Asn  
 35 40 45  
 Glu Cys Val Gln Leu Pro Leu Ser Glu Asp Tyr Ala Ser Ser Ser Val  
 50 55 60  
 Ile Gly Glu Pro Ser Ile Ser Phe Val Trp Arg Ile Asn Lys Thr Ser  
 65 70 75 80  
 Pro Asn Ala Leu Glu Leu Leu Gln Leu Ser Ala Lys Ser Gly Phe Pro  
 85 90 95  
 Ile Thr Gly Leu Arg Phe Val Phe Ala Gln Thr Leu Ser Pro Phe Ala  
 100 105 110  
 Phe Val Tyr Ala Asp Glu Gly Gly Asp Ser Gly Arg Leu Val Tyr Phe  
 115 120 125  
 Leu Tyr Ser Leu Thr Pro Ser Gly Val Val Tyr Val Leu Lys Leu Ser  
 130 135 140  
 Asn Thr Leu Ala Tyr Lys Ser Gly Ser Val Phe Pro Leu Asp His Leu  
 145 150 155 160  
 Ile His Leu Asp Val Arg Pro Tyr Leu Asn Glu Ser Arg Val Thr Ser  
 165 170 175  
 Val Ala Ala Ser Pro Gly Phe Ile Phe Leu Gly Arg Ser Asp Gly Cys  
 180 185 190  
 Val Ser Cys Phe Gln Pro Ile Val Tyr Phe Gln Lys Ser Ser Gly Phe  
 195 200 205  
 His Gln Glu Leu Arg Asp Asp Thr Gly Phe Gly Arg Leu Gly Thr Val  
 210 215 220  
 Val Ala Ala Val Gln Asp Leu Phe Ile Ser Glu Val His Gly Arg Asn  
 225 230 235 240  
 Tyr Leu Cys Val Leu His Ala Asp Gly Ala Leu Arg Val Trp Asp Ile  
 245 250 255

047-E2F-PCT.ST25.txt

Leu Thr Tyr Ser Arg Val Leu Cys Gln Ser Ile Ala Ala Lys Asn Leu  
 260 265 270  
 Glu Gly Val Met Cys Val Arg Leu Trp Leu Gly Lys Ala Asp Tyr Asp  
 275 280 285  
 Ser Gly Ile Ile Pro Leu Ala Val Leu Tyr Arg Lys Ser Met Asn Asp  
 290 295 300  
 Ser Met Asp Val Ile Thr Val Tyr Gly Leu His Phe Ser Ser Ala Glu  
 305 310 315 320  
 Gly Ile Ala Leu Ser Leu Asp Ser Gly Leu Gln Asn Ile Pro Leu Glu  
 325 330 335  
 Glu Gly Glu Leu Arg Asp Val Arg Phe Thr Ser Asp Lys Ile Trp Thr  
 340 345 350  
 Leu Lys Ala Asn Glu Leu Thr Ser Tyr Met Leu Cys Gln Lys Ser Ser  
 355 360 365  
 Thr Met Glu Ala Gln Ser Tyr Thr Leu Gln Glu Asp Tyr Ile Ser Glu  
 370 375 380  
 Gln Leu Phe Leu Ser Ser Arg Ser Ser Ser His Asp Leu Leu Leu Thr  
 385 390 395 400  
 Thr His Ser Leu Phe Ser Ser Ala Lys Asp Gln Ile Met Gly Phe Ile  
 405 410 415  
 Ser Ser Ile Phe Leu Arg Arg Leu Leu Cys Pro Gly Ile Phe His Asn  
 420 425 430  
 Val Ala Leu Arg Leu Thr Leu Leu Asp His Asn Lys Asn Trp Thr Asp  
 435 440 445  
 Ser Glu Phe Gln Ser Leu Ser Leu Asp Glu Leu Thr Ser Glu Ile Leu  
 450 455 460  
 Leu Leu Val Glu His Glu Ser Asp Val Ile Gly Leu Val Arg Asn Asn  
 465 470 475 480  
 Ser Val Ser Leu Phe Phe Arg Leu Glu Asn Ala Glu His Ser Leu Gly  
 485 490 495  
 Gly Ser Ser Ser Glu His Ser Asn Leu Thr Ser Leu Asp Leu Gly Val  
 500 505 510



047-E2F-PCT.ST25.txt

Ser His Ser Asp His Glu Ile Leu Ala Glu Val Leu Arg Cys Thr Ser  
515 520 525

Lys Ile Ser Lys Gln Trp Gly Gly Ala Pro Tyr Ala Met Tyr Tyr Glu  
530 535 540

Ser Ile Thr Gly Arg Pro Ile Ile Ser Ser Asp Glu Ile Val Pro Arg  
545 550 555 560

Leu Val Asn Ile Leu Glu Ser Gly Tyr Ser Thr Thr Ile Gly Gln Arg  
565 570 575

Thr Trp Ser Asp Leu Gly Ala Asp Arg Ala Trp Glu Lys Glu Leu Glu  
580 585 590

Ala His Lys Asn Leu Arg Thr Phe Ser Ile Asp Met Leu Leu Ser Leu  
595 600 605

Ser Ala Leu Cys Gln Arg Ala Gly Ser Trp Glu Lys Val Phe Thr Ile  
610 615 620

Met Glu His Tyr Leu Gln Tyr Leu Val Pro Lys Lys Ser Met Gln Lys  
625 630 635 640

Asn Asp Gly Glu Ala Leu Ser Asp Ile Cys Ser Ser Ile Leu Val Gln  
645 650 655

Ala Thr Ser Gln Phe Val Lys Val Met Phe Glu Ser Ala Phe Asp Ile  
660 665 670

Phe Leu Leu Ile Ser Tyr Leu Leu Asn Ile Ala Gly Gln Val Asn Met  
675 680 685

Ser Gln Gln Asp Ile Cys Lys Leu Arg Leu Glu Leu Leu Pro Met Ile  
690 695 700

Gln Asp Ile Val Ser Glu Trp Leu Ile Ile Leu Phe Phe Val Thr Thr  
705 710 715 720

Pro Ala Glu Ser Thr Ser Met Glu Asp Phe Ser Leu Lys Leu Ser Ser  
725 730 735

Leu Gln Ile Asp Ser Ser Ile Asp Lys Arg Ser Trp Asn Ala Met Leu  
740 745 750

Gly Lys Cys Gly Phe Ser Leu Ala Phe Ile Leu Leu Phe Ser Asp Arg

755

760

765

Ser Cys Ile Val Asp Gly Arg Phe Asn Leu Arg Tyr Leu Pro Ser Ser  
 770 775 780

Gln Ile Ile Thr Ser Leu Val Gln Asn Phe Ile Ser Trp Ile Arg Tyr  
 785 790 795 800

Ser Lys Thr Gly Asp Asp Ser Ser Ser Leu Leu Arg Arg Ser Thr Glu  
 805 810 815

Leu Ser Leu Arg Leu Ile Arg Asn Gly Gln Ser Asp Ala Val Glu Arg  
 820 825 830

Ile Leu Val Val Val Glu Ala Ser Leu Arg Gly Glu Lys Thr Phe Gly  
 835 840 845

Cys Ser Gln Asp Thr Ser Gly Asp Trp Cys Leu Leu Gln His Leu Arg  
 850 855 860

Gly Cys Cys Leu Leu Asp Gln Val Gln Arg Gly Ala Ser Gly Ile Leu  
 865 870 875 880

Arg Glu Arg Lys Ile Ile Asp Ala Ile Arg Cys Phe Phe Arg Ala Ser  
 885 890 895

Ser Gly Glu Gly Ser Trp Lys Ala Leu His Ser Leu Ser Lys Glu Ala  
 900 905 910

Gly Phe Ser Pro Ala Thr Thr Gly Pro Ser Ile Leu Asp Gly Ser Thr  
 915 920 925

Ser Ser Ala Ala Trp Lys Leu His Tyr Tyr Glu Trp Ala Met Gln Ile  
 930 935 940

Phe Glu Arg Tyr Asn Ile Ser Glu Gly Ala Cys Gln Phe Ala Tyr Ala  
 945 950 955 960

Ala Leu Glu Gln Val Asp Asp Ala Tyr Asn Phe Ile Glu Met Thr Glu  
 965 970 975

Glu Phe Asp Pro Thr Lys Ala Ala Thr Tyr Thr Arg Gly Arg Leu Trp  
 980 985 990

Ala Asn Val Phe Lys Phe Thr Leu Asp Leu Asn Leu Leu Asn Asp Ala  
 995 1000 1005

Tyr	Cys	Ala	Ile	Ile	Ser	Asn	Pro	Asp	Glu	Glu	Ile	Lys	Arg	Ile
	1010					1015					1020			
Cys	Leu	Arg	Arg	Phe	Ile	Ile	Val	Leu	Phe	Glu	Cys	Gly	Lys	Thr
	1025					1030					1035			
Lys	Ile	Leu	Ser	Asp	Gly	His	Leu	Pro	Phe	Ile	Gly	Leu	Thr	Glu
	1040					1045					1050			
Lys	Ile	Thr	Gln	Glu	Leu	Phe	Trp	Lys	Ala	Gly	Arg	Ser	Asp	Ile
	1055					1060					1065			
Met	Met	Lys	Pro	Asn	Pro	Tyr	Lys	Leu	Leu	Tyr	Ala	Tyr	Glu	Met
	1070					1075					1080			
Arg	Arg	His	Asn	Trp	Arg	Met	Ala	Ala	Ser	Tyr	Met	Tyr	Gln	Phe
	1085					1090					1095			
Ser	Ala	Arg	Leu	Arg	Ser	Glu	Gly	Ala	Cys	Lys	Asp	Tyr	Lys	His
	1100					1105					1110			
Met	Ser	Leu	Val	Leu	Gln	Glu	Arg	Leu	Asn	Gly	Leu	Ser	Ala	Ala
	1115					1120					1125			
Met	Asn	Ala	Leu	Ala	Leu	Val	His	Pro	Gly	Tyr	Ala	Trp	Ile	Asp
	1130					1135					1140			
Pro	Val	Pro	Glu	Glu	Thr	Thr	Arg	Tyr	Pro	Val	Lys	Lys	Ala	Arg
	1145					1150					1155			
Arg	Ala	Glu	Glu	Glu	Gln	Leu	Arg	Ser	Asn	Asp	Gln	Pro	Lys	Gly
	1160					1165					1170			
Glu	Lys	Ser	Cys	Ile	Asp	Ile	Glu	Lys	Leu	Gln	Asn	Glu	Phe	Val
	1175					1180					1185			
Phe	Thr	Thr	Ala	Glu	Tyr	Met	Leu	Ser	Leu	Lys	Asn	Phe	Gly	Trp
	1190					1195					1200			
Thr	Tyr	Ser	Gly	Leu	Glu	Lys	Pro	Pro	Ser	Asp	Leu	Val	Asp	Leu
	1205					1210					1215			
Leu	Val	Gln	Ala	Asn	Leu	Tyr	Asp	Met	Ala	Phe	Thr	Val	Val	Leu
	1220					1225					1230			
Lys	Phe	Trp	Arg	Gly	Ser	Ala	Leu	Lys	Arg	Glu	Leu	Glu	Lys	Ile
	1235					1240					1245			

047-E2F-PCT.ST25.txt

Phe Glu Asn Met Ala Ile Lys Cys Cys Pro Ala Lys Gly Thr Leu  
 1250 1255 1260  
 Trp Ser Ser Pro Asn Leu Met Leu Thr Ser Asn Asp Glu Glu Val  
 1265 1270 1275  
 Thr His Ser Pro Asp Arg Ser Pro Ala Asp Gln Gly Ser Lys Leu  
 1280 1285 1290  
 Ala Gly Asp Trp Glu Ile Leu Glu Val Tyr Leu Lys Arg Tyr Ile  
 1295 1300 1305  
 Asp Ile His Ala Arg Leu Pro Val Ser Val Ala Ser Thr Leu Leu  
 1310 1315 1320  
 Gln Ala Asp Ser Cys Ile Glu Leu Pro Leu Trp Leu Ile Gln Met  
 1325 1330 1335  
 Phe Lys Asp Gly Gln Lys Glu Lys Ala Leu Gly Met Ala Gly Gln  
 1340 1345 1350  
 Glu Ala Ser Pro Ala Ser Leu Phe Gln Leu Tyr Val Asp Tyr Gly  
 1355 1360 1365  
 Arg Leu Thr Glu Ala Thr Asn Leu Leu Leu Glu Tyr Met Glu Ser  
 1370 1375 1380  
 Phe Ala Ser Ser Lys Pro Ala Glu Val Leu Lys Arg Lys Lys Val  
 1385 1390 1395  
 Ser Gly Val Trp Phe Pro Tyr Thr Thr Val Glu Arg Leu Trp Trp  
 1400 1405 1410  
 Glu Leu Glu Lys Thr Met Asn Ser Gly Arg Met Val Glu Gln Cys  
 1415 1420 1425  
 His Lys Leu Lys Glu Gln Leu His His Ala Leu Leu Asn His Leu  
 1430 1435 1440  
 Lys Leu Leu Lys Val Asp Ser Asn Asp Ala Val Ser Ser Ala Thr  
 1445 1450 1455  
 Gly

<210> 59

&lt;211&gt; 933

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 59

```

atgggattcg ctccggtgac tccggcagcc gtagaaactt acgatcccga tgtggatcat    60
gatgatgaga gtaacggttt ggatggattt agggtttagat cgaagagggtc tgggaagttt    120
agcggtggtt actctgattc acctcgagaa gtaggagatg gatatggggt tagatctagg    180
gcaaggagta acatgaaaat gtatggtggt ttcaagtctg agtttgattc agatcacgat    240
tcaggaagtg gatttggtt gaaaaggaaa tacaatggga atccaaaggt tagtgctgat    300
ttcgatgctg attctgatga tgagattgtg ttagtcccca aggcaactag gcttaggact    360
catggcaagc cttcctctgg tgatttttagc catggcagtg gtggtggggt tccgttgaag    420
tcgtttggtg atcggaattt tgcttctcat gggtttaaac ctaagaattt cagtaagcct    480
gaaccaatt tctctcagga tctggattat gatgatgagt ttgatgatga tagagcagag    540
agggaaggat tcaacccgag gattcaaagt tctaggagct cttcgcggtt gaatggctac    600
agcaggaagg atgggagcta tcctcgaaac actggtgctt ccaatggcta tggatcgtct    660
tctaggttca agcatgagca aatgaatgca gcagcagaag ttgagtctga cccgatcgat    720
gaagttgttt cttctgttaa gatgttgaca gaaatgtttg tgagggtgga gaattcgaag    780
atggagatga tgagagagat ggagaagtcg agaatggaga tggagctgaa gcattgccag    840
atgatgcttg agtcacagca gcagatcata ggcgcgtttg ctgaagcggt gagcgagaaa    900
aagagcacia atgcaaggag gccggtttcg tag                                933

```

&lt;210&gt; 60

&lt;211&gt; 310

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 60

```

Met Gly Phe Ala Pro Val Thr Pro Ala Ala Val Glu Thr Tyr Asp Pro
1          5          10          15

```

```

Asp Val Asp His Asp Asp Glu Ser Asn Gly Leu Asp Gly Phe Arg Val
20          25          30

```

```

Arg Ser Lys Arg Ser Gly Lys Phe Ser Gly Gly Tyr Ser Asp Ser Pro

```

35

40

45

Arg Glu Val Gly Asp Gly Tyr Gly Val Arg Ser Arg Ala Arg Ser Asn  
 50 55 60  
 Met Lys Met Tyr Gly Gly Phe Lys Ser Glu Phe Asp Ser Asp His Asp  
 65 70 75 80  
 Ser Gly Ser Gly Phe Gly Leu Lys Arg Lys Tyr Asn Gly Asn Pro Lys  
 85 90 95  
 Val Ser Ala Asp Phe Asp Ala Asp Ser Asp Asp Glu Ile Val Leu Val  
 100 105 110  
 Pro Lys Ala Thr Arg Leu Arg Thr His Gly Lys Pro Ser Ser Gly Asp  
 115 120 125  
 Phe Ser His Gly Ser Gly Gly Gly Phe Pro Leu Lys Ser Phe Gly Asp  
 130 135 140  
 Arg Asn Phe Ala Ser His Gly Phe Lys Pro Lys Asn Phe Ser Lys Pro  
 145 150 155 160  
 Glu Pro Asn Phe Ser Gln Asp Leu Asp Tyr Asp Asp Glu Phe Asp Asp  
 165 170 175  
 Asp Arg Ala Glu Arg Glu Gly Phe Asn Pro Arg Ile Gln Ser Ser Arg  
 180 185 190  
 Ser Ser Ser Arg Val Asn Gly Tyr Ser Arg Lys Asp Gly Ser Tyr Pro  
 195 200 205  
 Arg Asn Thr Gly Ala Ser Asn Gly Tyr Gly Ser Ser Ser Arg Phe Lys  
 210 215 220  
 His Glu Gln Met Asn Ala Ala Ala Glu Val Glu Ser Asp Pro Ile Asp  
 225 230 235 240  
 Glu Val Val Ser Ser Val Lys Met Leu Thr Glu Met Phe Val Arg Val  
 245 250 255  
 Glu Asn Ser Lys Met Glu Met Met Arg Glu Met Glu Lys Ser Arg Met  
 260 265 270  
 Glu Met Glu Leu Lys His Cys Gln Met Met Leu Glu Ser Gln Gln Gln  
 275 280 285

Ile Ile Gly Ala Phe Ala Glu Ala Leu Ser Glu Lys Lys Ser Thr Asn  
 290 295 300

Ala Arg Arg Pro Val Ser  
 305 310

<210> 61

<211> 3351

<212> DNA

<213> Arabidopsis thaliana

<400> 61

atggcttccg aggcgaatca gcttcagcaa gcgcaactcg cgatggttct cggctccgat	60
tccgcgcctt tcgagacgct aatctctcac ctcatgtctt cttccaacga gcaacgttcc	120
tccgccgagt ctcttttcaa tctcgctaaa caaagcaatc ccgataccct ctctttgaag	180
cttgctcatc ttcttcagct ttctcctcat cccgaaggtc gtgctatggc cgccgtcctt	240
ctccggaagt tgtaaacacg cgacgatgct tatctatggc ctcgtctctc cctctccact	300
caatcttccc tcaaattctt gatgttgtat tgtattcaac atgaggaggc taaatcgatc	360
tctaagaaga ttgtcgatac agtctctgaa cttgcatccg ggattttacc ggagaatgga	420
tggccggagt tgcttccgtt tgttttccag tgtgttactt ctgtttaccc taaattgcag	480
gaatcggcgt ttttaattct ggctcaattg tcgcagtagc ttggggagac tcttaccctt	540
cacatcaagg aactccatgg cgtgtttctt cagtgttga gtagtaattc tgctagctcc	600
gatgttaaaa tcgccgtctt caacgccgtg attagtttcg ttcagtgtct ggccaactca	660
acggagagag atagattcca agatgttttg cctgcgatga tcaggacgtt gaccgaatct	720
ctgaacaatg ggaatgaagc aactgcacag gaggcacttg agcttttgat tgaattggct	780
ggtaccgagc cacggttcct tagacggcaa cttgttgaca tagttggttc gatgcttcag	840
attgcagagg ctgattccct cgaggagagt acacgtcatc ttgcgattga gtttttggtt	900
actctggctg aggcgcgtga gcgtgcccct ggtatggtca ggaagcttcc tcagtttatt	960
gacaggttgt ttgctgttct tatgaagatg ctcgaggata ttgaggacga tcctgcttg	1020
tacagcgctg agactgagga tgaagatgct ggcgagacaa gcaactacag catgggtcaa	1080
gagtgttttg atcggtttagc aatttctctg ggaggaaaca ccattgttcc ggttgcatat	1140
cagcagtttt ctgcttactt ggctgcctct gagtggcaga aacatcatgc ttctttgatt	1200
gcacttgctc agattgctga aggttggttca aaggtgatga taaaaaatct agaccaagt	1260
gtgtcaatgg ttttgagcca gtttcaaagt cctcatcctc gcgtaagggt ggctgctata	1320

aatgcgattg	gacagttgtc	tacagatttg	gggccagatt	tgcaaaacca	acatcatgag	1380
agagtgtccc	ccgcacttgc	tgctgctatg	gatgatttcc	agaatccacg	agtgcaggct	1440
catgctgctt	cagcagtact	caacttcagt	gaaaattgta	ctcctgaaat	attgtcacct	1500
tatttagacg	gagtagtgag	caagttactt	gtgctactac	aaaatggtaa	acaaatgggtg	1560
caagaaggag	ctttaactgc	tcttgcttca	gtggctgatt	catcacagga	acactttcaa	1620
aagtactatg	atactgtcat	gccttatctc	aaaactattt	tgatgaatgc	aactgacaag	1680
tctaagcgga	tgcttcgtgc	caaatccatg	gagtgcacat	gtcttggttg	aatggcagtt	1740
ggaaaggaca	gattcaagga	agatgctaga	caggatcatg	aagtgctaata	gtcattgcaa	1800
ggttctcaga	tggaggcgaga	cgatccaata	acaagttaca	tgttacaggc	atgggctagg	1860
ctttgcaagt	gtctaggtca	agatttcctc	ccatacatga	aggttgtgat	gcctcctttg	1920
cttcagtcag	ctcaacttaa	gccagatgta	acaattacat	ctgctgattc	agaagatgaa	1980
gcagaggatt	ctgatgatga	aagcatggag	accattatcc	tgggcgacaa	aagaataggg	2040
atcaaaacaa	gtgttctaga	ggaaaaggcc	acggcttgta	acatgctttg	ttgctatgct	2100
gatgagttaa	aagaaggatt	ttttccttgg	attgatcagg	ttgcacctac	attggttcct	2160
ttactgaaat	tctattttca	cgaagaagtt	agaagagcag	ctgtttcagc	catgccggaa	2220
ctaattgcgt	cagccaagct	ggcaatagag	aaaggggaat	ctcaagggcg	agatctatca	2280
tatttgaagc	agctttctga	ctacattatt	ccagccatgc	tggaagcttt	gcataaagaa	2340
cctgatacag	agatctgtgt	gagtatgttg	gaagctatca	atgaatgctt	gcagatctct	2400
ggaaatcttt	tggatgaagg	gaaaattaga	tccatagttg	atgagataaa	gcaagttatg	2460
accgcaagct	ctagtaggaa	gcgagagagg	ggagagaggg	cccatgctga	agactttgac	2520
gctgaagagg	gagagcttat	taaagaggaa	aatgagcaag	aggaagaaat	ttttgatcaa	2580
gtcggtgaaa	tattgggaac	attgggttaag	acattcaagg	cctcatttct	acctttcttc	2640
gatgaactgt	cctcttactt	aactcctatg	tggggaagag	ataaaacagc	ggaagagaga	2700
aggattgcta	tatgcatttt	tgatgatgta	gcagaacaat	gccgtgaagc	tgccctttaa	2760
tattatgata	cctatcttcc	atttgtactg	gaagcttgca	atgacgagag	cccagagggt	2820
cgacaggctg	ctgtttatgg	gcttggcggt	tgtgctgagt	ttggcggtc	tgtattcaag	2880
cctcttattg	gagaggctct	gtcaagatta	aatgttggtga	tacagctgcc	aaatgctcgg	2940
caatctgaaa	atgccatggc	atatgataat	gctgtatcag	ccgtgggaaa	gatctgccaa	3000
tttcaccgtg	atagtattga	ttcttctcag	gtacttcctg	cgtgggttgaa	ctgtttgcct	3060
ataagcaatg	atgtccttga	agccaaagtg	gttcattgatc	agctctgctc	aatgggttgaa	3120
aggcaagatg	tagacctttt	aggccccaat	aaccagcatc	ttccgaaaat	cttaatatgtt	3180
tttgccgagg	tacttacagg	gaaagatgtg	gtgacacaag	agacagcagg	tcgtatgata	3240



047-E2F-PCT.ST25.txt

aatatattaa ggcaacttca acagacactg ccaccatcgg cgttggcctc aacatgggtca 3300  
acgctgaaac ccgaacagca gctcgctctc caatccatgc tttcctccta a 3351

<210> 62

<211> 1116

<212> PRT

<213> Arabidopsis thaliana

<400> 62

Met Ala Ser Glu Ala Asn Gln Leu Gln Gln Ala Gln Leu Ala Met Val  
1 5 10 15

Leu Gly Ser Asp Ser Ala Pro Phe Glu Thr Leu Ile Ser His Leu Met  
20 25 30

Ser Ser Ser Asn Glu Gln Arg Ser Ser Ala Glu Ser Leu Phe Asn Leu  
35 40 45

Ala Lys Gln Ser Asn Pro Asp Thr Leu Ser Leu Lys Leu Ala His Leu  
50 55 60

Leu Gln Leu Ser Pro His Pro Glu Gly Arg Ala Met Ala Ala Val Leu  
65 70 75 80

Leu Arg Lys Leu Leu Thr Arg Asp Asp Ala Tyr Leu Trp Pro Arg Leu  
85 90 95

Ser Leu Ser Thr Gln Ser Ser Leu Lys Ser Ser Met Leu Tyr Cys Ile  
100 105 110

Gln His Glu Glu Ala Lys Ser Ile Ser Lys Lys Ile Cys Asp Thr Val  
115 120 125

Ser Glu Leu Ala Ser Gly Ile Leu Pro Glu Asn Gly Trp Pro Glu Leu  
130 135 140

Leu Pro Phe Val Phe Gln Cys Val Thr Ser Val Thr Pro Lys Leu Gln  
145 150 155 160

Glu Ser Ala Phe Leu Ile Leu Ala Gln Leu Ser Gln Tyr Val Gly Glu  
165 170 175

Thr Leu Thr Pro His Ile Lys Glu Leu His Gly Val Phe Leu Gln Cys  
Page 83

180

185

190

Leu Ser Ser Asn Ser Ala Ser Ser Asp Val Lys Ile Ala Ala Leu Asn  
 195 200 205  
 Ala Val Ile Ser Phe Val Gln Cys Leu Ala Asn Ser Thr Glu Arg Asp  
 210 215 220  
 Arg Phe Gln Asp Val Leu Pro Ala Met Ile Arg Thr Leu Thr Glu Ser  
 225 230 235 240  
 Leu Asn Asn Gly Asn Glu Ala Thr Ala Gln Glu Ala Leu Glu Leu Leu  
 245 250 255  
 Ile Glu Leu Ala Gly Thr Glu Pro Arg Phe Leu Arg Arg Gln Leu Val  
 260 265 270  
 Asp Ile Val Gly Ser Met Leu Gln Ile Ala Glu Ala Asp Ser Leu Glu  
 275 280 285  
 Glu Ser Thr Arg His Leu Ala Ile Glu Phe Leu Val Thr Leu Ala Glu  
 290 295 300  
 Ala Arg Glu Arg Ala Pro Gly Met Val Arg Lys Leu Pro Gln Phe Ile  
 305 310 315 320  
 Asp Arg Leu Phe Ala Val Leu Met Lys Met Leu Glu Asp Ile Glu Asp  
 325 330 335  
 Asp Pro Ala Trp Tyr Ser Ala Glu Thr Glu Asp Glu Asp Ala Gly Glu  
 340 345 350  
 Thr Ser Asn Tyr Ser Met Gly Gln Glu Cys Leu Asp Arg Leu Ala Ile  
 355 360 365  
 Ser Leu Gly Gly Asn Thr Ile Val Pro Val Ala Tyr Gln Gln Phe Ser  
 370 375 380  
 Ala Tyr Leu Ala Ala Ser Glu Trp Gln Lys His His Ala Ser Leu Ile  
 385 390 395 400  
 Ala Leu Ala Gln Ile Ala Glu Gly Cys Ser Lys Val Met Ile Lys Asn  
 405 410 415  
 Leu Asp Gln Val Val Ser Met Val Leu Ser Gln Phe Gln Ser Pro His  
 420 425 430

Pro Arg Val Arg Trp Ala Ala Ile Asn Ala Ile Gly Gln Leu Ser Thr  
 435 440 445  
 Asp Leu Gly Pro Asp Leu Gln Asn Gln His His Glu Arg Val Leu Pro  
 450 455 460  
 Ala Leu Ala Ala Ala Met Asp Asp Phe Gln Asn Pro Arg Val Gln Ala  
 465 470 475 480  
 His Ala Ala Ser Ala Val Leu Asn Phe Ser Glu Asn Cys Thr Pro Glu  
 485 490 495  
 Ile Leu Ser Pro Tyr Leu Asp Gly Val Val Ser Lys Leu Leu Val Leu  
 500 505 510  
 Leu Gln Asn Gly Lys Gln Met Val Gln Glu Gly Ala Leu Thr Ala Leu  
 515 520 525  
 Ala Ser Val Ala Asp Ser Ser Gln Glu His Phe Gln Lys Tyr Tyr Asp  
 530 535 540  
 Thr Val Met Pro Tyr Leu Lys Thr Ile Leu Met Asn Ala Thr Asp Lys  
 545 550 555 560  
 Ser Lys Arg Met Leu Arg Ala Lys Ser Met Glu Cys Ile Ser Leu Val  
 565 570 575  
 Gly Met Ala Val Gly Lys Asp Arg Phe Lys Glu Asp Ala Arg Gln Val  
 580 585 590  
 Met Glu Val Leu Met Ser Leu Gln Gly Ser Gln Met Glu Ala Asp Asp  
 595 600 605  
 Pro Ile Thr Ser Tyr Met Leu Gln Ala Trp Ala Arg Leu Cys Lys Cys  
 610 615 620  
 Leu Gly Gln Asp Phe Leu Pro Tyr Met Lys Val Val Met Pro Pro Leu  
 625 630 635 640  
 Leu Gln Ser Ala Gln Leu Lys Pro Asp Val Thr Ile Thr Ser Ala Asp  
 645 650 655  
 Ser Glu Asp Glu Ala Glu Asp Ser Asp Asp Glu Ser Met Glu Thr Ile  
 660 665 670  
 Ile Leu Gly Asp Lys Arg Ile Gly Ile Lys Thr Ser Val Leu Glu Glu  
 675 680 685

047-E2F-PCT.ST25.txt

Lys Ala Thr Ala Cys Asn Met Leu Cys Cys Tyr Ala Asp Glu Leu Lys  
 690 695 700  
 Glu Gly Phe Phe Pro Trp Ile Asp Gln Val Ala Pro Thr Leu Val Pro  
 705 710 715  
 Leu Leu Lys Phe Tyr Phe His Glu Glu Val Arg Arg Ala Ala Val Ser  
 725 730 735  
 Ala Met Pro Glu Leu Met Arg Ser Ala Lys Leu Ala Ile Glu Lys Gly  
 740 745 750  
 Glu Ser Gln Gly Arg Asp Leu Ser Tyr Leu Lys Gln Leu Ser Asp Tyr  
 755 760 765  
 Ile Ile Pro Ala Met Leu Glu Ala Leu His Lys Glu Pro Asp Thr Glu  
 770 775 780  
 Ile Cys Val Ser Met Leu Glu Ala Ile Asn Glu Cys Leu Gln Ile Ser  
 785 790 795 800  
 Gly Asn Leu Leu Asp Glu Gly Lys Ile Arg Ser Ile Val Asp Glu Ile  
 805 810 815  
 Lys Gln Val Met Thr Ala Ser Ser Ser Arg Lys Arg Glu Arg Gly Glu  
 820 825 830  
 Arg Ala His Ala Glu Asp Phe Asp Ala Glu Glu Gly Glu Leu Ile Lys  
 835 840 845  
 Glu Glu Asn Glu Gln Glu Glu Glu Ile Phe Asp Gln Val Gly Glu Ile  
 850 855 860  
 Leu Gly Thr Leu Val Lys Thr Phe Lys Ala Ser Phe Leu Pro Phe Phe  
 865 870 875 880  
 Asp Glu Leu Ser Ser Tyr Leu Thr Pro Met Trp Gly Arg Asp Lys Thr  
 885 890 895  
 Ala Glu Glu Arg Arg Ile Ala Ile Cys Ile Phe Asp Asp Val Ala Glu  
 900 905 910  
 Gln Cys Arg Glu Ala Ala Phe Lys Tyr Tyr Asp Thr Tyr Leu Pro Phe  
 915 920 925  
 Val Leu Glu Ala Cys Asn Asp Glu Ser Pro Glu Val Arg Gln Ala Ala  
 930 935 940

047-E2F-PCT.ST25.txt

Val Tyr Gly Leu Gly Val Cys Ala Glu Phe Gly Gly Ser Val Phe Lys  
945 950 955 960

Pro Leu Ile Gly Glu Ala Leu Ser Arg Leu Asn Val Val Ile Gln Leu  
965 970 975

Pro Asn Ala Arg Gln Ser Glu Asn Ala Met Ala Tyr Asp Asn Ala Val  
980 985 990

Ser Ala Val Gly Lys Ile Cys Gln Phe His Arg Asp Ser Ile Asp Ser  
995 1000 1005

Ser Gln Val Leu Pro Ala Trp Leu Asn Cys Leu Pro Ile Ser Asn  
1010 1015 1020

Asp Val Leu Glu Ala Lys Val Val His Asp Gln Leu Cys Ser Met  
1025 1030 1035

Val Glu Arg Gln Asp Val Asp Leu Leu Gly Pro Asn Asn Gln His  
1040 1045 1050

Leu Pro Lys Ile Leu Ile Val Phe Ala Glu Val Leu Thr Gly Lys  
1055 1060 1065

Asp Val Val Thr Gln Glu Thr Ala Gly Arg Met Ile Asn Ile Leu  
1070 1075 1080

Arg Gln Leu Gln Gln Thr Leu Pro Pro Ser Ala Leu Ala Ser Thr  
1085 1090 1095

Trp Ser Thr Leu Lys Pro Glu Gln Gln Leu Ala Leu Gln Ser Met  
1100 1105 1110

Leu Ser Ser  
1115

<210> 63

<211> 612

<212> DNA

<213> Arabidopsis thaliana

<400> 63

atgagctctg tctgtggtgg gttggatttc aaagatgcag agagcagctc tgcttccagt

60

047-E2F-PCT.ST25.txt

```

cccattatat gttctactgg cgtaaagcat atctcttgtg ttggatctga tgatgctcaa 120
gagtctgatg gtgatgatag tggttatata caccaaactg tgattgaaga atccaaagac 180
aaggcgatca gcgaacccat ccctgagtct ttacctctca attctttgga tgatgaaagt 240
gaagataaga accttgctac tgcattgcaa gacatgttct ctgagagtat gagtgtggtt 300
actctgattc ctgccattaa aggtggctga gagaagcatg gcaagtcact cgagaagctc 360
agtgtgtcat gggctgaaga tgtgtatgat cctcctccct ccattgtctc tcacacaaga 420
agcaagaaac agcaaccgca gaaatcaaag agcaaagaca acctgaagaa gaatggaaag 480
aaaggacaaa agggaagcag caattcccg c agcagcaaag acaagaagca gatttcttca 540
cgcagcagca aatacagtcg tgataagttt gattggacaa cacaaatgtc tgttctagct 600
gcattcttct ga 612

```

<210> 64

<211> 203

<212> PRT

<213> Arabidopsis thaliana

<400> 64

```

Met Ser Ser Val Cys Gly Gly Leu Asp Phe Lys Asp Ala Glu Ser Ser
1      5      10     15

```

```

Ser Ala Ser Ser Pro Ile Ile Cys Ser Thr Gly Val Lys His Ile Ser
20     25     30

```

```

Cys Val Gly Ser Asp Asp Ala Gln Glu Ser Asp Gly Asp Asp Ser Gly
35     40     45

```

```

Tyr Ile His Gln Thr Val Ile Glu Glu Ser Lys Asp Lys Ala Ile Ser
50     55     60

```

```

Glu Pro Ile Pro Glu Ser Leu Pro Leu Asn Ser Leu Asp Asp Glu Ser
65     70     75     80

```

```

Glu Asp Lys Asn Leu Ala Thr Ala Leu Gln Asp Met Phe Ser Glu Ser
85     90     95

```

```

Met Ser Val Val Thr Leu Ile Pro Ala Ile Lys Gly Gly Arg Glu Lys
100    105    110

```

```

His Gly Lys Ser Leu Glu Lys Leu Ser Val Ser Trp Ala Glu Asp Val
115    120    125

```

047-E2F-PCT.ST25.txt

Tyr Asp Pro Pro Pro Ser Ile Val Ser His Thr Arg Ser Lys Lys Gln  
 130 135 140  
 Gln Pro Gln Lys Ser Lys Ser Lys Asp Asn Leu Lys Lys Asn Gly Lys  
 145 150 155 160  
 Lys Gly Gln Lys Gly Ser Ser Asn Ser Arg Ser Ser Lys Asp Lys Lys  
 165 170 175  
 Gln Ile Ser Ser Arg Ser Ser Lys Tyr Ser Arg Asp Lys Phe Asp Trp  
 180 185 190  
 Thr Thr Gln Met Ser Val Leu Ala Ala Ser Ser  
 195 200

<210> 65

<211> 831

<212> DNA

<213> Arabidopsis thaliana

<400> 65

atgtacaagg aacgtagtgg aggaggtggt ggtgggtcat cgagatcaga gatcctcggt	60
ggagctattg atcggaacg aatcaacgat gcactcaata agaaactaga gaaatcttca	120
acttccacca ccacatctag ggttttctct tctaaagaca aagatccctt ttccttcaca	180
tctactaaaa ctcagcttcc tgatgtggaa tcggaaactg atagtgaagg gtctgatgtg	240
agtggatcgg aggggtgatga tacgtcgtgg atctcttggt tttgtaattt gagagggaat	300
gatttcttct gtgaagtcga tgaagattat attcaagatg atttcaatct ttgtggttta	360
agtgggtcaag tcccttacta tgattatgca cttgatctca ttttagatgt tgatgcttcc	420
aacagtgaga tgtttactga tgaacagcat gaaatgggtg aatcagctgc tgagatgcta	480
tatggtctta ttcattgttcg ttacattttg actactaaag gaatggctgc aatgactgag	540
aagtacaaga actgtgattt cgggagatgc ccgagagttt tctgttgcgg tcagtcttgt	600
cttccagttg gacaatccga tatcccgaga tcgagtactg tgaagatata ctgccctaaa	660
tgcgaggata tatcttacct gcgatctaaa ttccaaggca atattgatgg agcgtacttt	720
ggaaccacat tccctcactt gttcttgatg acttacggga acttaaagcc gcagaagcct	780
actcaaagct atgtcccaaa aatctttggc ttcaaggtac acaaaccatg a	831

<210> 66

&lt;211&gt; 276

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 66

Met Tyr Lys Glu Arg Ser Gly Gly Gly Gly Gly Gly Ser Ser Arg Ser  
 1 5 10 15

Glu Ile Leu Gly Gly Ala Ile Asp Arg Lys Arg Ile Asn Asp Ala Leu  
 20 25 30

Asn Lys Lys Leu Glu Lys Ser Ser Thr Ser Thr Thr Thr Ser Arg Val  
 35 40 45

Phe Ser Ser Lys Asp Lys Asp Pro Phe Ser Phe Thr Ser Thr Lys Thr  
 50 55 60

Gln Leu Pro Asp Val Glu Ser Glu Thr Asp Ser Glu Gly Ser Asp Val  
 65 70 75 80

Ser Gly Ser Glu Gly Asp Asp Thr Ser Trp Ile Ser Trp Phe Cys Asn  
 85 90 95

Leu Arg Gly Asn Asp Phe Phe Cys Glu Val Asp Glu Asp Tyr Ile Gln  
 100 105 110

Asp Asp Phe Asn Leu Cys Gly Leu Ser Gly Gln Val Pro Tyr Tyr Asp  
 115 120 125

Tyr Ala Leu Asp Leu Ile Leu Asp Val Asp Ala Ser Asn Ser Glu Met  
 130 135 140

Phe Thr Asp Glu Gln His Glu Met Val Glu Ser Ala Ala Glu Met Leu  
 145 150 155 160

Tyr Gly Leu Ile His Val Arg Tyr Ile Leu Thr Thr Lys Gly Met Ala  
 165 170 175

Ala Met Thr Glu Lys Tyr Lys Asn Cys Asp Phe Gly Arg Cys Pro Arg  
 180 185 190

Val Phe Cys Cys Gly Gln Ser Cys Leu Pro Val Gly Gln Ser Asp Ile  
 195 200 205



Pro Arg Ser Ser Thr Val Lys Ile Tyr Cys Pro Lys Cys Glu Asp Ile  
 210 215 220

Ser Tyr Pro Arg Ser Lys Phe Gln Gly Asn Ile Asp Gly Ala Tyr Phe  
 225 230 235 240

Gly Thr Thr Phe Pro His Leu Phe Leu Met Thr Tyr Gly Asn Leu Lys  
 245 250 255

Pro Gln Lys Pro Thr Gln Ser Tyr Val Pro Lys Ile Phe Gly Phe Lys  
 260 265 270

Val His Lys Pro  
 275

<210> 67

<211> 900

<212> DNA

<213> Arabidopsis thaliana

<400> 67

atgggggaca ccacaaagga cgatgggtct agccaaagta aagcgggtgcg tggggaaaaa	60
agagcattct ttttcaggaa atggacccgg atcgatatag cgagagcttc ggctgttggg	120
gctgtgcatc tattgtgtct gttgggtccg ttttaactata aatgggaagc tctccggttc	180
ggtgtgattc tcgctatagt gactagtctt agcattacat tttcatacca taggaacttg	240
actcacaaaga gctttaagct tcctaaatgg cttgaatatc cattcgctta ctctgccctt	300
ttcgcgcttc aggggtcatcc aatagattgg gtgagtacac atagggtcca tcaccagttc	360
acagattcag accgtgaccc acatagtcct atcgaaggat tctgggtcag tcacgtcttt	420
tggatattcg acaccagtta catcagagaa aagtgcggag gacgtgacaa cgtgatggac	480
ttgaagcaac aatgggttcta taggtttctt cgaaacacaa ttggtctcca catcttaaca	540
ttttggaccc tcgtctatct atgggggtgg ctaccttacc taacttgcg cggtgggtgtt	600
ggaggaacaa tcggttacaa tgggacttgg ctcataaact cggcatgcca tttttggggt	660
tcgcgagcat ggaacactaa ggacacctct cgtaacattt ggtggctagg gccattcacg	720
atgggagaga gctggcacia caaccacat gcctttgagg cctcggccag gcacggactg	780
gaatggtatc aggtagactt aacttggtac ctcatctgtt tcttccaagc tctcggttta	840
gccacggatg tcaaattgcc taccgatgct caaaagcgaa aattggcttt cgctcgttag	900

<210> 68

&lt;211&gt; 299

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 68

Met Gly Asp Thr Thr Lys Asp Asp Gly Ser Ser Gln Ser Lys Ala Val  
 1 5 10 15

Arg Gly Glu Lys Arg Ala Phe Phe Phe Arg Lys Trp Thr Arg Ile Asp  
 20 25 30

Ile Ala Arg Ala Ser Ala Val Gly Ala Val His Leu Leu Cys Leu Leu  
 35 40 45

Ala Pro Phe Asn Tyr Lys Trp Glu Ala Leu Arg Phe Gly Val Ile Leu  
 50 55 60

Ala Ile Val Thr Ser Leu Ser Ile Thr Phe Ser Tyr His Arg Asn Leu  
 65 70 75 80

Thr His Lys Ser Phe Lys Leu Pro Lys Trp Leu Glu Tyr Pro Phe Ala  
 85 90 95

Tyr Ser Ala Leu Phe Ala Leu Gln Gly His Pro Ile Asp Trp Val Ser  
 100 105 110

Thr His Arg Phe His His Gln Phe Thr Asp Ser Asp Arg Asp Pro His  
 115 120 125

Ser Pro Ile Glu Gly Phe Trp Phe Ser His Val Phe Trp Ile Phe Asp  
 130 135 140

Thr Ser Tyr Ile Arg Glu Lys Cys Gly Gly Arg Asp Asn Val Met Asp  
 145 150 155 160

Leu Lys Gln Gln Trp Phe Tyr Arg Phe Leu Arg Asn Thr Ile Gly Leu  
 165 170 175

His Ile Leu Thr Phe Trp Thr Leu Val Tyr Leu Trp Gly Gly Leu Pro  
 180 185 190

Tyr Leu Thr Cys Gly Val Gly Val Gly Gly Thr Ile Gly Tyr Asn Gly  
 195 200 205

Thr Trp Leu Ile Asn Ser Ala Cys His Ile Trp Gly Ser Arg Ala Trp  
 210 215 220

Asn Thr Lys Asp Thr Ser Arg Asn Ile Trp Trp Leu Gly Pro Phe Thr  
 225 230 235 240

Met Gly Glu Ser Trp His Asn Asn His His Ala Phe Glu Ala Ser Ala  
 245 250 255

Arg His Gly Leu Glu Trp Tyr Gln Val Asp Leu Thr Trp Tyr Leu Ile  
 260 265 270

Cys Phe Phe Gln Ala Leu Gly Leu Ala Thr Asp Val Lys Leu Pro Thr  
 275 280 285

Asp Ala Gln Lys Arg Lys Leu Ala Phe Ala Arg  
 290 295

<210> 69

<211> 783

<212> DNA

<213> Arabidopsis thaliana

<400> 69

atgcctcagg gagattacat agatttgcac aggaagagga atggatatcg cctcgaccac	60
ttcgagagaa agcgcaagaa ggaggcgcgt gaagttcaca agcactccac catggctcaa	120
aagtctctag gtatcaaggg taagatgatt gctaagaaaa actatgctga gaaagctctc	180
atgaagaaaa cattgaaaat gcatgaagag tcatcatcaa ggcgtaaggc tgatgagaat	240
gttcaggaag gagctgttcc tgcttatctt cttgatcgtg aagacaccac tcgtgccaaag	300
gttcttagca acaccattaa acaaaagagg aaagagaaaag ctggcaaattg ggaggctcct	360
cttccaaagg tccgtccagt tgctgaagat gaaatgttta gagtgatccg atctggaaaa	420
aggaaaacta aacaatggaa gcggatgggtt acaaaagcta catttggttg acctgctttc	480
acaaggaagc ctccaaagta cgagcgtttc atccgtccat ctggtcttcg tttcaccaag	540
gcccacgtca ctcaccctga actaaaatgc actttctgtc tcgagatcat cgggattaag	600
aagaatccta acggtcccat gtatacatca ctcggtgtga tgaccagggg aacaatcatc	660
gaggtcaatg tgagtgagct tggctttgtt acaccagctg gaaagggttg ctggggaaaa	720
tacgctcaag tgacaaacaa tccagagaac gacggatgta taaatgctgt tttacttgtg	780
taa	783

&lt;210&gt; 70

&lt;211&gt; 260

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 70

Met Pro Gln Gly Asp Tyr Ile Asp Leu His Arg Lys Arg Asn Gly Tyr  
 1 5 10 15

Arg Leu Asp His Phe Glu Arg Lys Arg Lys Lys Glu Ala Arg Glu Val  
 20 25 30

His Lys His Ser Thr Met Ala Gln Lys Ser Leu Gly Ile Lys Gly Lys  
 35 40 45

Met Ile Ala Lys Lys Asn Tyr Ala Glu Lys Ala Leu Met Lys Lys Thr  
 50 55 60

Leu Lys Met His Glu Glu Ser Ser Ser Arg Arg Lys Ala Asp Glu Asn  
 65 70 75 80

Val Gln Glu Gly Ala Val Pro Ala Tyr Leu Leu Asp Arg Glu Asp Thr  
 85 90 95

Thr Arg Ala Lys Val Leu Ser Asn Thr Ile Lys Gln Lys Arg Lys Glu  
 100 105 110

Lys Ala Gly Lys Trp Glu Val Pro Leu Pro Lys Val Arg Pro Val Ala  
 115 120 125

Glu Asp Glu Met Phe Arg Val Ile Arg Ser Gly Lys Arg Lys Thr Lys  
 130 135 140

Gln Trp Lys Arg Met Val Thr Lys Ala Thr Phe Val Gly Pro Ala Phe  
 145 150 155 160

Thr Arg Lys Pro Pro Lys Tyr Glu Arg Phe Ile Arg Pro Ser Gly Leu  
 165 170 175

Arg Phe Thr Lys Ala His Val Thr His Pro Glu Leu Lys Cys Thr Phe  
 180 185 190

Cys Leu Glu Ile Ile Gly Ile Lys Lys Asn Pro Asn Gly Pro Met Tyr  
 195 200 205

047-E2F-PCT.ST25.txt

Thr Ser Leu Gly Val Met Thr Arg Gly Thr Ile Ile Glu Val Asn Val  
210 215 220

Ser Glu Leu Gly Leu Val Thr Pro Ala Gly Lys Val Val Trp Gly Lys  
225 230 235 240

Tyr Ala Gln Val Thr Asn Asn Pro Glu Asn Asp Gly Cys Ile Asn Ala  
245 250 255

Val Leu Leu Val  
260

<210> 71

<211> 6744

<212> DNA

<213> Arabidopsis thaliana

<400> 71

atggctggct cggttaacgg gaatcatagt gctgtaggac ctggtataaa ttatgagacg	60
gtgtctcaag tggatgagtt ctgtaaagca cttagaggga aaaggccgat ccatagtatt	120
ttgatagcta acaatggaat ggcggctgtg aagtttatac gtagtgtcag aacatgggct	180
tatgaaacat ttggtacgga aaaagccata ttgttggtgg ggatggcaac ccctgaagac	240
atgcggatca atgcggagca tatkagaatc gctgatcagt ttgttgaggt tcccggagga	300
accaacaata acaattatgc taacgttcag ctgattgtgg agatggctga agtaacacgc	360
gtggatgcag tttggcctgg ttgggggtcat gcatctgaaa accccgaatt acctgatgcc	420
ctagatgcaa aaggaatcat atttcttggg cctccagcat cttcaatggc agcactggga	480
gataagattg gttcttcggt gattgcacaa gctgctgatg taccactct gccatggagt	540
ggttcccatg ttaaaatacc tcctaatagc aacttggtta ccatcccaga ggagatctac	600
cggcaagcat gtgtctacac aactgaagaa gcgattgcta gctgtcaagt tgtcggttac	660
ccagcaatga tcaaagcatc gtgggggtggg ggtggtaaag gaatcaggaa gggttcataat	720
gatgatgagg ttagggctct attcaagcaa gttcaggggtg aggtcccagg ctcaccaata	780
ttcataatga aggttgcgtc acagagtcgg catctagagg tccagctgct ctgtgacaag	840
catggaaatg tttcagctct gcatagccgt gattgtagcg tccagagaag acatcaaaag	900
atcatagagg agggccaat tactgtggct ccgccagaaa ctgtcaagaa acttgaacaa	960
gcagctagaa gggttggttaa gagggttaac tatgttggtg ctgctactgt tgagtatctc	1020

tacagtatgg	acactgggga	gtactacttc	ttagagctta	accctcgctt	acaggttgag	1080
catcctgtca	ctgagtggat	tgccgagata	aatcttcctg	ctgcccaggt	tgctgtgggg	1140
atgggaattc	ctctctggca	aatccctgag	ataagacggt	tctatggaat	agaacatggt	1200
ggaggttatg	attcttggcg	aaaaacatct	gttgtagcct	tcccttttga	ttttgataaa	1260
gctcaatcta	taaggccaaa	aggtcattgt	gtggctgtac	gtgtgacaag	tgaggatcct	1320
gatgacgggt	tcaaaccaac	cagcggtaga	gttcaggagt	tgagttttta	gagcaagcca	1380
aatgtgtggg	cgtacttctc	tgtcaagtct	ggtggaggca	tccacgagtt	ctcggattcc	1440
cagtttggac	atgtttttgc	atttggggaa	tccagagccc	tggcgatagc	gaatatggtt	1500
cttgggctaa	aagaaattca	gatccgtgga	gaaattagga	ctaacgttga	ctacacgac	1560
gaccttttac	atgcttctga	ttaccgtgat	aacaaaattc	acactggttg	gttggatagt	1620
aggattgcta	tgcggtcag	agctgagagg	cctccatggt	atctctctgt	tgctggcgga	1680
gctctctata	aagcatcagc	gaccagtgtc	gctgtggttt	cagattacgt	tggttatctg	1740
gagaaggggc	aaatccctcc	aaagcatata	tctcttgtac	attctcaagt	gtctctgaat	1800
attgaaggaa	gtaaatatac	gattgatgta	gtccggggtg	gatcaggaac	ctacaggcta	1860
agaatgaaca	agtcagaagt	ggtagcagaa	atacacactc	tacgtgatgg	aggctctgtt	1920
atgcagttgg	atggcaaaa	ccatgtgata	tatgcagagg	aagaagctgc	aggaactcgt	1980
cttctcattg	atggaagaac	ttgtttgcta	cagaatgacc	acgatccatc	aaagttaatg	2040
gctgagacac	cgtgcaagtt	gatgaggtat	ttgatttccg	acaacagcaa	tattgacgct	2100
gatacgcctt	atgccgaagt	tgaggtcatg	aagatgtgca	tgccacttct	ttcacctgct	2160
tcaggagtta	tccattttta	aatgtctgaa	ggacaagcca	tgcaggctgg	tgaacttata	2220
gccaatcttg	atcttgatga	tccttctgct	gtaagaaagg	ccgaaccctt	ccatggaagt	2280
ttcccaagat	tagggcttcc	aactgcaata	tccggtagag	ttcatcagag	atgtgccgca	2340
acattaaatg	ctgcacgcat	gattcttgct	ggctatgagc	ataaagtaga	tgaggttggt	2400
caagacttac	ttaattgcct	tgatagccct	gaactcccat	ttcttcagt	gcaagagtgc	2460
tttgcagttc	tggcgacacg	actacctaaa	aatctcagga	acatgctaga	atcaaagtat	2520
agggaatttg	agagtatttc	cagaaactct	ttgaccaccg	atttccctgc	caaactttta	2580
aaaggcattc	ttgaggcaca	tttatcttct	tgtgatgaga	aagagagagg	tgcccttgaa	2640
aggctcattg	aaccattgat	gagccttgca	aaatcttatg	aagggtggtg	agaaagtcac	2700
gcccgtgtta	ttgttcattc	tctctttgaa	gaatatctat	cagtagaaga	attattcaat	2760
gataacatgc	tggctgatgt	tatagaacgc	atgcgtcagc	tatacaagaa	agatctgttg	2820
aaaattgtgg	atatagtgtc	ctcacaccag	ggcataaaaa	acaaaaacaa	actcgttctc	2880
cggctcatgg	agcagcttgt	ttacccta	cctgctgctt	acagagataa	acttattcga	2940

## 047-E2F-PCT.ST25.txt

ttctcaacac	ttaaccatac	taactactct	gagttggcgc	tcaaggcgag	tcaattactt	3000
gaacagacca	aactaagtga	gcttcgttca	aacattgcta	gaagcctttc	agagttagaa	3060
atgtttacag	aggacggaga	aaatatggat	actcccaaga	ggaaaagtgc	cattaatgaa	3120
agaatagaag	atcttgtaag	cgcactctta	gctgttggaag	acgctctcgt	gggactattt	3180
gaccatagcg	atcacacact	tcaaagacgg	gttggttgaga	cttatattcg	cagattatac	3240
cagccctacg	tcgttaaaga	tagcgtgagg	atgcagtggc	accgttctgg	tcttcttgct	3300
tcctgggagt	tcctagagga	gcataatggaa	agaaaaaaca	ttggcttaga	cgatcccgac	3360
acatctgaaa	aaggattggg	tgagaagcgt	agtaagagaa	aatggggggc	tatgtttctt	3420
ccaagtataa	taagtgcagc	attgagagaa	acaaagcaca	acgactatga	aactgccgga	3480
gctcctttat	ctggcaatat	gatgcacatt	gctattgttg	gcatcaacaa	ccagatgagt	3540
ctgcttcagg	acagtgggga	tgaagaccaa	gctcaggaaa	gagtaaacaa	gttgggccaaa	3600
attcttaaag	aggaagaagt	gagttcaagc	ctctgttctg	ccggtgttg	tgtaatcagc	3660
tgtataattc	agcgagatga	aggacgaaca	cccatgagac	attctttcca	ttggtcggtg	3720
gagaaacagt	attatgtaga	agagccgttg	ctgcgtcatc	ttgaacctcc	tctgtccatt	3780
taccttgagt	tggataagct	gaaaggatac	tcaaataatac	aatatacgcc	ttctcgagat	3840
cgtcaatggc	atctgtatac	tgttacagac	aagccagtgc	caatcaagag	gatgttcctg	3900
agatctcttg	ttcgacaggc	tacaatgaac	gatggattta	tattgcagca	agggcaggat	3960
aagcagctta	gccaaacact	gatctccatg	gcgtttacgt	cgaaatgtgt	tctgaggtct	4020
ttgatggatg	ccatggagga	actggaactg	aatgcccata	atgctgcaat	gaaaccagat	4080
cacgcacata	tgtttctttg	catattgcgt	gagcagcaga	tagatgatct	tgtgcctttc	4140
cccaggagag	ttgaagtga	tgcgaggat	gaagaaacta	cagttgaaat	gatcttagaa	4200
gaagcagcac	gagagataca	tagatctgtt	ggagtgagaa	tgcatagggt	gggcgtgtgc	4260
gagtgggaag	tgcggtgtg	gttggtgtcc	tctggactgg	catgtggtgc	ttggagggtt	4320
gtggttgcaa	acgtgacagg	ccgtacatgc	actgtccaca	tataccgaga	agttgaaact	4380
cctggaagaa	acagtttaat	ctaccactca	ataaccaaga	agggaccttt	gcatgaaaca	4440
ccaatcagt	atcaatataa	gcccctggga	tatctcgaca	ggcaacgttt	agcagcaagg	4500
aggagtaaca	ctacttattg	ctatgacttc	ccgttggcat	ttgggacagc	cttggaactg	4560
ttgtgggcat	cacaacaccc	aggagttaag	aaacatata	aggatactct	gatcaatgtt	4620
aaagagcttg	tattctcaaa	accagaaggt	tcttcgggta	catctctaga	tctggttgaa	4680
agaccacccg	gtctcaacga	ctttggaatg	gttgccctgg	gcctagatat	gtcgacccca	4740
gagtttccta	tggggcgga	acttctcgtg	attgcgaatg	atgtcacctt	caaagctggt	4800

tcttttggtc	ctagagagga	cgcgtttttc	cttgctgtta	ctgaactcgc	ttgtgccaag	4860
aagcttccct	tgatttactt	ggcagcaaat	tctggtgccc	gacttggggt	tgctgaagaa	4920
gtcaaagcct	gcttcaaagt	tggatggtcg	gatgaaat	cccctgagaa	tggttttcag	4980
tatatatacc	taagccctga	agaccacgaa	aggattggat	catctgtcat	tgcccatgaa	5040
gtaaagctct	ctagtgggga	aactaggtgg	gtgattgata	cgatcgttgg	caaagaagat	5100
ggtattggtg	tagagaactt	aacaggaagt	ggggccatag	cgggtgctta	ctcaaaggca	5160
tacaatgaaa	cttttacttt	aacctttggt	agtggaagaa	cggttggaat	tggtgcttat	5220
cttgcccgcc	taggtatgcg	gtgcatacag	agacttgatc	agccgatcat	cttgactggc	5280
ttctctacac	tcaacaagtt	acttgggcgt	gaggtctata	gctctcacat	gcaactgggt	5340
ggcccgaaaa	tcatgggcac	aaatggtggt	gttcatctta	cagtctcaga	tgatcttgaa	5400
ggcgtatcag	caattctcaa	ctggctcagc	tacattcctg	cttacgtggg	tggtcctctt	5460
cctgttcttg	cccctttaga	tccaccggag	agaattgtgg	agtatgtccc	agagaactct	5520
tgcgaccac	gagcggctat	agctgggggtc	aaagacaata	ccggtaaatg	gcttggaggt	5580
atctttgata	aaaatagttt	cattgagact	cttgaaggct	gggcaaggac	ggtagtgact	5640
ggtagagcca	agctcggggg	aatacccgtt	ggagttgttg	cagttgagac	acagactgtc	5700
atgcagatca	tcccagccga	tcctggacag	cttgactctc	atgaaagagt	ggttccgcaa	5760
gcagggcaag	tctggtttcc	tgattcagcg	gccaagactg	ctcaagcgct	tatggatttc	5820
aaccgggaag	agcttccatt	gtttatccta	gcgaactgga	gaggggtttc	aggtgggcag	5880
agagatcttt	tcgaaggaat	acttcaggca	ggttcaacta	tagtagaaaa	tctgagaacc	5940
tatcgtcagc	cagtgtttgt	gtacatccca	atgatgggag	agctgcgcgg	tgagcgtgg	6000
gttggtgttg	acagccagat	aaattcggat	tatgttgaaa	tgtatgctga	tgaaacagct	6060
cgtggaaatg	tgcttgagcc	agaagggaca	atagagataa	aatttagaac	aaaagagcta	6120
ttagagtgca	tgggaagggt	ggaccagaag	ctaatacagtc	tgaaagcaaa	actgcaagat	6180
gccaagcaaa	gcgaggccta	tgcaaacatc	gagcttctcc	agcaacagat	taaagcccga	6240
gagaaacagc	ttttaccagt	ttatatccaa	atcgccacca	aatttgcaga	acttcatgac	6300
acttccatga	gaatggctgc	aaagggagtg	atcaaaagtg	ttgtggaatg	gagcggctcg	6360
cggtccttct	tctacaaaaa	gctcaatagg	agaatcgctg	agagctctct	tgtgaaaaac	6420
gtaagagaag	catctggaga	caacttagca	tataaatctt	caatgcgtct	gattcaggat	6480
tggttctgca	actctgatat	tgcaaagggg	aaagaagaag	cttggaacaga	cgaccaagtg	6540
ttctttacat	ggaaggacaa	tgttagtaac	tacgagttga	agctgagcga	gttgagagcg	6600
cagaaactac	tgaaccaact	tgcaagagatt	gggaattcct	cagatttgca	agctctgcc	6660
caaggacttg	ctaattcttct	aaacaagggtg	gagccgtcga	aaagagaaga	gctgggtggct	6720



gctattcgaa aggtcttggg ttga

6744

&lt;210&gt; 72

&lt;211&gt; 2243

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 72

Met Ala Gly Ser Val Asn Gly Asn His Ser Ala Val Gly Pro Gly Ile  
 1 5 10 15

Asn Tyr Glu Thr Val Ser Gln Val Asp Glu Phe Cys Lys Ala Leu Arg  
 20 25 30

Gly Lys Arg Pro Ile His Ser Ile Leu Ile Ala Asn Asn Gly Met Ala  
 35 40 45

Ala Val Lys Phe Ile Arg Ser Val Arg Thr Trp Ala Tyr Glu Thr Phe  
 50 55 60

Gly Thr Glu Lys Ala Ile Leu Leu Val Gly Met Ala Thr Pro Glu Asp  
 65 70 75 80

Met Arg Ile Asn Ala Glu His Ile Arg Ile Ala Asp Gln Phe Val Glu  
 85 90 95

Val Pro Gly Gly Thr Asn Asn Asn Asn Tyr Ala Asn Val Gln Leu Ile  
 100 105 110

Val Glu Met Ala Glu Val Thr Arg Val Asp Ala Val Trp Pro Gly Trp  
 115 120 125

Gly His Ala Ser Glu Asn Pro Glu Leu Pro Asp Ala Leu Asp Ala Lys  
 130 135 140

Gly Ile Ile Phe Leu Gly Pro Pro Ala Ser Ser Met Ala Ala Leu Gly  
 145 150 155 160

Asp Lys Ile Gly Ser Ser Leu Ile Ala Gln Ala Ala Asp Val Pro Thr  
 165 170 175

Leu Pro Trp Ser Gly Ser His Val Lys Ile Pro Pro Asn Ser Asn Leu  
 180 185 190

047-E2F-PCT.ST25.txt

Val Thr Ile Pro Glu Glu Ile Tyr Arg Gln Ala Cys Val Tyr Thr Thr  
195 200 205

Glu Glu Ala Ile Ala Ser Cys Gln Val Val Gly Tyr Pro Ala Met Ile  
210 215 220

Lys Ala Ser Trp Gly Gly Gly Gly Lys Gly Ile Arg Lys Val His Asn  
225 230 235 240

Asp Asp Glu Val Arg Ala Leu Phe Lys Gln Val Gln Gly Glu Val Pro  
245 250 255

Gly Ser Pro Ile Phe Ile Met Lys Val Ala Ser Gln Ser Arg His Leu  
260 265 270

Glu Val Gln Leu Leu Cys Asp Lys His Gly Asn Val Ser Ala Leu His  
275 280 285

Ser Arg Asp Cys Ser Val Gln Arg Arg His Gln Lys Ile Ile Glu Glu  
290 295 300

Gly Pro Ile Thr Val Ala Pro Pro Glu Thr Val Lys Lys Leu Glu Gln  
305 310 315 320

Ala Ala Arg Arg Leu Ala Lys Ser Val Asn Tyr Val Gly Ala Ala Thr  
325 330 335

Val Glu Tyr Leu Tyr Ser Met Asp Thr Gly Glu Tyr Tyr Phe Leu Glu  
340 345 350

Leu Asn Pro Arg Leu Gln Val Glu His Pro Val Thr Glu Trp Ile Ala  
355 360 365

Glu Ile Asn Leu Pro Ala Ala Gln Val Ala Val Gly Met Gly Ile Pro  
370 375 380

Leu Trp Gln Ile Pro Glu Ile Arg Arg Phe Tyr Gly Ile Glu His Gly  
385 390 395 400

Gly Gly Tyr Asp Ser Trp Arg Lys Thr Ser Val Val Ala Phe Pro Phe  
405 410 415

Asp Phe Asp Lys Ala Gln Ser Ile Arg Pro Lys Gly His Cys Val Ala  
420 425 430

Val Arg Val Thr Ser Glu Asp Pro Asp Asp Gly Phe Lys Pro Thr Ser  
435 440 445

047-E2F-PCT.ST25.txt

Gly Arg Val Gln Glu Leu Ser Phe Lys Ser Lys Pro Asn Val Trp Ala  
450 455 460

Tyr Phe Ser Val Lys Ser Gly Gly Gly Ile His Glu Phe Ser Asp Ser  
465 470 475 480

Gln Phe Gly His Val Phe Ala Phe Gly Glu Ser Arg Ala Leu Ala Ile  
485 490 495

Ala Asn Met Val Leu Gly Leu Lys Glu Ile Gln Ile Arg Gly Glu Ile  
500 505 510

Arg Thr Asn Val Asp Tyr Thr Ile Asp Leu Leu His Ala Ser Asp Tyr  
515 520 525

Arg Asp Asn Lys Ile His Thr Gly Trp Leu Asp Ser Arg Ile Ala Met  
530 535 540

Arg Val Arg Ala Glu Arg Pro Pro Trp Tyr Leu Ser Val Val Gly Gly  
545 550 555 560

Ala Leu Tyr Lys Ala Ser Ala Thr Ser Ala Ala Val Val Ser Asp Tyr  
565 570 575

Val Gly Tyr Leu Glu Lys Gly Gln Ile Pro Pro Lys His Ile Ser Leu  
580 585 590

Val His Ser Gln Val Ser Leu Asn Ile Glu Gly Ser Lys Tyr Thr Ile  
595 600 605

Asp Val Val Arg Gly Gly Ser Gly Thr Tyr Arg Leu Arg Met Asn Lys  
610 615 620

Ser Glu Val Val Ala Glu Ile His Thr Leu Arg Asp Gly Gly Leu Leu  
625 630 635 640

Met Gln Leu Asp Gly Lys Ser His Val Ile Tyr Ala Glu Glu Glu Ala  
645 650 655

Ala Gly Thr Arg Leu Leu Ile Asp Gly Arg Thr Cys Leu Leu Gln Asn  
660 665 670

Asp His Asp Pro Ser Lys Leu Met Ala Glu Thr Pro Cys Lys Leu Met  
675 680 685

Arg Tyr Leu Ile Ser Asp Asn Ser Asn Ile Asp Ala Asp Thr Pro Tyr

690

695

Ala 705	Glu	Val	Glu	Val	Met 710	Lys	Met	Cys	Met	Pro 715	Leu	Leu	Ser	Pro	Ala 720
Ser	Gly	Val	Ile	His 725	Phe	Lys	Met	Ser	Glu 730	Gly	Gln	Ala	Met	Gln 735	Ala
Gly	Glu	Leu	Ile 740	Ala	Asn	Leu	Asp	Leu 745	Asp	Asp	Pro	Ser	Ala 750	Val	Arg
Lys	Ala	Glu 755	Pro	Phe	His	Gly	Ser 760	Phe	Pro	Arg	Leu	Gly 765	Leu	Pro	Thr
Ala	Ile 770	Ser	Gly	Arg	Val	His 775	Gln	Arg	Cys	Ala	Ala 780	Thr	Leu	Asn	Ala
Ala 785	Arg	Met	Ile	Leu	Ala 790	Gly	Tyr	Glu	His	Lys 795	Val	Asp	Glu	Val	Val 800
Gln	Asp	Leu	Leu	Asn 805	Cys	Leu	Asp	Ser	Pro 810	Glu	Leu	Pro	Phe	Leu 815	Gln
Trp	Gln	Glu	Cys 820	Phe	Ala	Val	Leu	Ala 825	Thr	Arg	Leu	Pro	Lys 830	Asn	Leu
Arg	Asn	Met 835	Leu	Glu	Ser	Lys	Tyr 840	Arg	Glu	Phe	Glu	Ser 845	Ile	Ser	Arg
Asn	Ser 850	Leu	Thr	Thr	Asp	Phe 855	Pro	Ala	Lys	Leu	Leu 860	Lys	Gly	Ile	Leu
Glu 865	Ala	His	Leu	Ser	Ser 870	Cys	Asp	Glu	Lys	Glu 875	Arg	Gly	Ala	Leu	Glu 880
Arg	Leu	Ile	Glu	Pro 885	Leu	Met	Ser	Leu	Ala 890	Lys	Ser	Tyr	Glu	Gly 895	Gly
Arg	Glu	Ser	His 900	Ala	Arg	Val	Ile	Val 905	His	Ser	Leu	Phe	Glu 910	Glu	Tyr
Leu	Ser	Val 915	Glu	Glu	Leu	Phe	Asn 920	Asp	Asn	Met	Leu	Ala 925	Asp	Val	Ile
Glu 930	Arg	Met	Arg	Gln	Leu	Tyr 935	Lys	Lys	Asp	Leu	Leu 940	Lys	Ile	Val	Asp

047-E2F-PCT.ST25.txt

Ile Val Leu Ser His Gln Gly Ile Lys Asn Lys Asn Lys Leu Val Leu  
945 950 955 960

Arg Leu Met Glu Gln Leu Val Tyr Pro Asn Pro Ala Ala Tyr Arg Asp  
965 970 975

Lys Leu Ile Arg Phe Ser Thr Leu Asn His Thr Asn Tyr Ser Glu Leu  
980 985 990

Ala Leu Lys Ala Ser Gln Leu Leu Glu Gln Thr Lys Leu Ser Glu Leu  
995 1000 1005

Arg Ser Asn Ile Ala Arg Ser Leu Ser Glu Leu Glu Met Phe Thr  
1010 1015 1020

Glu Asp Gly Glu Asn Met Asp Thr Pro Lys Arg Lys Ser Ala Ile  
1025 1030 1035

Asn Glu Arg Ile Glu Asp Leu Val Ser Ala Ser Leu Ala Val Glu  
1040 1045 1050

Asp Ala Leu Val Gly Leu Phe Asp His Ser Asp His Thr Leu Gln  
1055 1060 1065

Arg Arg Val Val Glu Thr Tyr Ile Arg Arg Leu Tyr Gln Pro Tyr  
1070 1075 1080

Val Val Lys Asp Ser Val Arg Met Gln Trp His Arg Ser Gly Leu  
1085 1090 1095

Leu Ala Ser Trp Glu Phe Leu Glu Glu His Met Glu Arg Lys Asn  
1100 1105 1110

Ile Gly Leu Asp Asp Pro Asp Thr Ser Glu Lys Gly Leu Val Glu  
1115 1120 1125

Lys Arg Ser Lys Arg Lys Trp Gly Ala Met Phe Leu Pro Ser Ile  
1130 1135 1140

Ile Ser Ala Ala Leu Arg Glu Thr Lys His Asn Asp Tyr Glu Thr  
1145 1150 1155

Ala Gly Ala Pro Leu Ser Gly Asn Met Met His Ile Ala Ile Val  
1160 1165 1170

Gly Ile Asn Asn Gln Met Ser Leu Leu Gln Asp Ser Gly Asp Glu  
1175 1180 1185

## 047-E2F-PCT.ST25.txt

Asp	Gln	Ala	Gln	Glu	Arg	Val	Asn	Lys	Leu	Ala	Lys	Ile	Leu	Lys
	1190					1195					1200			
Glu	Glu	Glu	Val	Ser	Ser	Ser	Leu	Cys	Ser	Ala	Gly	Val	Gly	Val
	1205					1210					1215			
Ile	Ser	Cys	Ile	Ile	Gln	Arg	Asp	Glu	Gly	Arg	Thr	Pro	Met	Arg
	1220					1225					1230			
His	Ser	Phe	His	Trp	Ser	Leu	Glu	Lys	Gln	Tyr	Tyr	Val	Glu	Glu
	1235					1240					1245			
Pro	Leu	Leu	Arg	His	Leu	Glu	Pro	Pro	Leu	Ser	Ile	Tyr	Leu	Glu
	1250					1255					1260			
Leu	Asp	Lys	Leu	Lys	Gly	Tyr	Ser	Asn	Ile	Gln	Tyr	Thr	Pro	Ser
	1265					1270					1275			
Arg	Asp	Arg	Gln	Trp	His	Leu	Tyr	Thr	Val	Thr	Asp	Lys	Pro	Val
	1280					1285					1290			
Pro	Ile	Lys	Arg	Met	Phe	Leu	Arg	Ser	Leu	Val	Arg	Gln	Ala	Thr
	1295					1300					1305			
Met	Asn	Asp	Gly	Phe	Ile	Leu	Gln	Gln	Gly	Gln	Asp	Lys	Gln	Leu
	1310					1315					1320			
Ser	Gln	Thr	Leu	Ile	Ser	Met	Ala	Phe	Thr	Ser	Lys	Cys	Val	Leu
	1325					1330					1335			
Arg	Ser	Leu	Met	Asp	Ala	Met	Glu	Glu	Leu	Glu	Leu	Asn	Ala	His
	1340					1345					1350			
Asn	Ala	Ala	Met	Lys	Pro	Asp	His	Ala	His	Met	Phe	Leu	Cys	Ile
	1355					1360					1365			
Leu	Arg	Glu	Gln	Gln	Ile	Asp	Asp	Leu	Val	Pro	Phe	Pro	Arg	Arg
	1370					1375					1380			
Val	Glu	Val	Asn	Ala	Glu	Asp	Glu	Glu	Thr	Thr	Val	Glu	Met	Ile
	1385					1390					1395			
Leu	Glu	Glu	Ala	Ala	Arg	Glu	Ile	His	Arg	Ser	Val	Gly	Val	Arg
	1400					1405					1410			
Met	His	Arg	Leu	Gly	Val	Cys	Glu	Trp	Glu	Val	Arg	Leu	Trp	Leu
	1415					1420					1425			

047-E2F-PCT.ST25.txt

Val	Ser	Ser	Gly	Leu	Ala	Cys	Gly	Ala	Trp	Arg	Val	Val	Val	Ala
	1430					1435					1440			
Asn	Val	Thr	Gly	Arg	Thr	Cys	Thr	Val	His	Ile	Tyr	Arg	Glu	Val
	1445					1450					1455			
Glu	Thr	Pro	Gly	Arg	Asn	Ser	Leu	Ile	Tyr	His	Ser	Ile	Thr	Lys
	1460					1465					1470			
Lys	Gly	Pro	Leu	His	Glu	Thr	Pro	Ile	Ser	Asp	Gln	Tyr	Lys	Pro
	1475					1480					1485			
Leu	Gly	Tyr	Leu	Asp	Arg	Gln	Arg	Leu	Ala	Ala	Arg	Arg	Ser	Asn
	1490					1495					1500			
Thr	Thr	Tyr	Cys	Tyr	Asp	Phe	Pro	Leu	Ala	Phe	Gly	Thr	Ala	Leu
	1505					1510					1515			
Glu	Leu	Leu	Trp	Ala	Ser	Gln	His	Pro	Gly	Val	Lys	Lys	Pro	Tyr
	1520					1525					1530			
Lys	Asp	Thr	Leu	Ile	Asn	Val	Lys	Glu	Leu	Val	Phe	Ser	Lys	Pro
	1535					1540					1545			
Glu	Gly	Ser	Ser	Gly	Thr	Ser	Leu	Asp	Leu	Val	Glu	Arg	Pro	Pro
	1550					1555					1560			
Gly	Leu	Asn	Asp	Phe	Gly	Met	Val	Ala	Trp	Cys	Leu	Asp	Met	Ser
	1565					1570					1575			
Thr	Pro	Glu	Phe	Pro	Met	Gly	Arg	Lys	Leu	Leu	Val	Ile	Ala	Asn
	1580					1585					1590			
Asp	Val	Thr	Phe	Lys	Ala	Gly	Ser	Phe	Gly	Pro	Arg	Glu	Asp	Ala
	1595					1600					1605			
Phe	Phe	Leu	Ala	Val	Thr	Glu	Leu	Ala	Cys	Ala	Lys	Lys	Leu	Pro
	1610					1615					1620			
Leu	Ile	Tyr	Leu	Ala	Ala	Asn	Ser	Gly	Ala	Arg	Leu	Gly	Val	Ala
	1625					1630					1635			
Glu	Glu	Val	Lys	Ala	Cys	Phe	Lys	Val	Gly	Trp	Ser	Asp	Glu	Ile
	1640					1645					1650			
Ser	Pro	Glu	Asn	Gly	Phe	Gln	Tyr	Ile	Tyr	Leu	Ser	Pro	Glu	Asp

1655						1660						1665
His	Glu	Arg	Ile	Gly	Ser	Ser	Val	Ile	Ala	His	Glu	Val
	1670					1675					1680	Lys
												Leu
Ser	Ser	Gly	Glu	Thr	Arg	Trp	Val	Ile	Asp	Thr	Ile	Val
	1685					1690					1695	Gly
												Lys
Glu	Asp	Gly	Ile	Gly	Val	Glu	Asn	Leu	Thr	Gly	Ser	Gly
	1700					1705					1710	Ala
												Ile
Ala	Gly	Ala	Tyr	Ser	Lys	Ala	Tyr	Asn	Glu	Thr	Phe	Thr
	1715					1720					1725	Leu
												Thr
Phe	Val	Ser	Gly	Arg	Thr	Val	Gly	Ile	Gly	Ala	Tyr	Leu
	1730					1735					1740	Ala
												Arg
Leu	Gly	Met	Arg	Cys	Ile	Gln	Arg	Leu	Asp	Gln	Pro	Ile
	1745					1750					1755	Ile
												Leu
Thr	Gly	Phe	Ser	Thr	Leu	Asn	Lys	Leu	Leu	Gly	Arg	Glu
	1760					1765					1770	Val
												Tyr
Ser	Ser	His	Met	Gln	Leu	Gly	Gly	Pro	Lys	Ile	Met	Gly
	1775					1780					1785	Thr
												Asn
Gly	Val	Val	His	Leu	Thr	Val	Ser	Asp	Asp	Leu	Glu	Gly
	1790					1795					1800	Val
												Ser
Ala	Ile	Leu	Asn	Trp	Leu	Ser	Tyr	Ile	Pro	Ala	Tyr	Val
	1805					1810					1815	Gly
												Gly
Pro	Leu	Pro	Val	Leu	Ala	Pro	Leu	Asp	Pro	Pro	Glu	Arg
	1820					1825					1830	Ile
												Val
Glu	Tyr	Val	Pro	Glu	Asn	Ser	Cys	Asp	Pro	Arg	Ala	Ala
	1835					1840					1845	Ile
												Ala
Gly	Val	Lys	Asp	Asn	Thr	Gly	Lys	Trp	Leu	Gly	Gly	Ile
	1850					1855					1860	Phe
												Asp
Lys	Asn	Ser	Phe	Ile	Glu	Thr	Leu	Glu	Gly	Trp	Ala	Arg
	1865					1870					1875	Thr
												Val
Val	Thr	Gly	Arg	Ala	Lys	Leu	Gly	Gly	Ile	Pro	Val	Gly
	1880					1885					1890	Val
												Val
												Val



Ala	Val	Glu	Thr	Gln	Thr	Val	Met	Gln	Ile	Ile	Pro	Ala	Asp	Pro
	1895					1900					1905			
Gly	Gln	Leu	Asp	Ser	His	Glu	Arg	Val	Val	Pro	Gln	Ala	Gly	Gln
	1910					1915					1920			
Val	Trp	Phe	Pro	Asp	Ser	Ala	Ala	Lys	Thr	Ala	Gln	Ala	Leu	Met
	1925					1930					1935			
Asp	Phe	Asn	Arg	Glu	Glu	Leu	Pro	Leu	Phe	Ile	Leu	Ala	Asn	Trp
	1940					1945					1950			
Arg	Gly	Phe	Ser	Gly	Gly	Gln	Arg	Asp	Leu	Phe	Glu	Gly	Ile	Leu
	1955					1960					1965			
Gln	Ala	Gly	Ser	Thr	Ile	Val	Glu	Asn	Leu	Arg	Thr	Tyr	Arg	Gln
	1970					1975					1980			
Pro	Val	Phe	Val	Tyr	Ile	Pro	Met	Met	Gly	Glu	Leu	Arg	Gly	Gly
	1985					1990					1995			
Ala	Trp	Val	Val	Val	Asp	Ser	Gln	Ile	Asn	Ser	Asp	Tyr	Val	Glu
	2000					2005					2010			
Met	Tyr	Ala	Asp	Glu	Thr	Ala	Arg	Gly	Asn	Val	Leu	Glu	Pro	Glu
	2015					2020					2025			
Gly	Thr	Ile	Glu	Ile	Lys	Phe	Arg	Thr	Lys	Glu	Leu	Leu	Glu	Cys
	2030					2035					2040			
Met	Gly	Arg	Leu	Asp	Gln	Lys	Leu	Ile	Ser	Leu	Lys	Ala	Lys	Leu
	2045					2050					2055			
Gln	Asp	Ala	Lys	Gln	Ser	Glu	Ala	Tyr	Ala	Asn	Ile	Glu	Leu	Leu
	2060					2065					2070			
Gln	Gln	Gln	Ile	Lys	Ala	Arg	Glu	Lys	Gln	Leu	Leu	Pro	Val	Tyr
	2075					2080					2085			
Ile	Gln	Ile	Ala	Thr	Lys	Phe	Ala	Glu	Leu	His	Asp	Thr	Ser	Met
	2090					2095					2100			
Arg	Met	Ala	Ala	Lys	Gly	Val	Ile	Lys	Ser	Val	Val	Glu	Trp	Ser
	2105					2110					2115			
Gly	Ser	Arg	Ser	Phe	Phe	Tyr	Lys	Lys	Leu	Asn	Arg	Arg	Ile	Ala
	2120					2125					2130			

047-E2F-PCT.ST25.txt

Glu Ser Ser Leu Val Lys Asn Val Arg Glu Ala Ser Gly Asp Asn  
 2135 2140 2145  
 Leu Ala Tyr Lys Ser Ser Met Arg Leu Ile Gln Asp Trp Phe Cys  
 2150 2155 2160  
 Asn Ser Asp Ile Ala Lys Gly Lys Glu Glu Ala Trp Thr Asp Asp  
 2165 2170 2175  
 Gln Val Phe Phe Thr Trp Lys Asp Asn Val Ser Asn Tyr Glu Leu  
 2180 2185 2190  
 Lys Leu Ser Glu Leu Arg Ala Gln Lys Leu Leu Asn Gln Leu Ala  
 2195 2200 2205  
 Glu Ile Gly Asn Ser Ser Asp Leu Gln Ala Leu Pro Gln Gly Leu  
 2210 2215 2220  
 Ala Asn Leu Leu Asn Lys Val Glu Pro Ser Lys Arg Glu Glu Leu  
 2225 2230 2235  
 Val Ala Ala Ile Arg  
 2240

<210> 73

<211> 333

<212> DNA

<213> Arabidopsis thaliana

<400> 73

atgaaacaac taatccgccg tttatcgcggt gtcgcggact caacacagta tagcctcctc	60
cggctctgaat cccagcgtgg ccgcaccaag aaggagaaac acaaattcttg gggtcccgag	120
gggcacgtgc ctgtttacgt aggccacgag atggagcgggt tcgtggtgaa tgcggagctg	180
ctcaaccacc ccgttttcgt agcgttgctg aagcagtcgg ctcaagagta tggatacgag	240
caacaaggag tgcttcgcat cccttgccac gtgcttggtgt tcgaacgcat cttggagtct	300
ctccgtctcg gactcgccga tcgagtcaca tga	333

<210> 74

<211> 110

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 74

Met Lys Gln Leu Ile Arg Arg Leu Ser Arg Val Ala Asp Ser Thr Gln  
 1 5 10 15

Tyr Ser Leu Leu Arg Ser Glu Ser Gln Arg Gly Arg Thr Lys Lys Glu  
 20 25 30

Lys His Lys Ser Trp Val Pro Glu Gly His Val Pro Val Tyr Val Gly  
 35 40 45

His Glu Met Glu Arg Phe Val Val Asn Ala Glu Leu Leu Asn His Pro  
 50 55 60

Val Phe Val Ala Leu Leu Lys Gln Ser Ala Gln Glu Tyr Gly Tyr Glu  
 65 70 75 80

Gln Gln Gly Val Leu Arg Ile Pro Cys His Val Leu Val Phe Glu Arg  
 85 90 95

Ile Leu Glu Ser Leu Arg Leu Gly Leu Ala Asp Arg Val Thr  
 100 105 110

&lt;210&gt; 75

&lt;211&gt; 2535

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 75

atggcgtcac agagttgcta caatggaatc catcgtataa aaagggttca tcctctgatt	60
cactctctca ctttcatcg attctcctca tcttctcttc cattcaaadc tcacattccc	120
tcttcacaac aacagcttcg tattcgctca tcttcttcgc tttctgatct tggaaatcgc	180
aggcattgtt cgtctactcg aggatttcaa ttttgggtcat acaagagaag cgaagcagcg	240
tcgccgttca agacgaggta cagagaaaac gaagaagaag aagatatgac gattaaaccg	300
gcggttcgta tttccgacgg gaatctaadc atcaaaaacc ggacgattct aaccggtgta	360
ccagataatg tcatcacgac gtcagcatcg gaagctggac cggtagaagg agtcttcgtc	420
ggagctgtat ttaacaagga agagagtaaa cacatcgtac cgatcggtac gcttcgcaat	480
tcccggttta tgtcttgttt ccggtttaag ctctggtgga tggcccagag aatgggagaa	540

atgggcccag	atattcccta	cgagacgcag	ttcttattgg	tcgagagcaa	cgatgggtcc	600
caccttgagt	ctgacggagc	taacggcgtc	gagtgttaacc	agaaagttta	caccgttttc	660
ttgccgttaa	tcgaaggatc	tttccgttcg	tgtctccaag	gaaacgttaa	cgatgagggt	720
gagctctgtt	tggagagtgg	tgacgtggac	actaaacggt	cgtcgtttac	tcactctctg	780
tatattcacg	ccggtacaga	tccgtttcag	acaataacgg	acgctattcg	caccgttaag	840
ttgcatctga	atagtttccg	tcaacgtcac	gaaaagaagc	ttccagggat	cgttgactac	900
ttcggatggt	gcacttgga	cgcgttttat	caagaagtga	ctcaggaagg	cgtcgaagct	960
ggtcttaagt	ctctcgccgc	cggtggtacg	ccgccgaagt	ttgttatcat	agacgacggt	1020
tggcaatcag	ttgagagaga	tgccacggtg	gaggccggag	atgagaagaa	agagtcaccg	1080
atttttcgac	tgacggggat	caaggagaac	gaaaagttta	agaagaagga	tgatccaaac	1140
gttgggatta	agaacattgt	caagattgct	aaggagaaac	acggtttgaa	atatgtttac	1200
gtgtggcacg	cgataacggg	ttattggggc	ggagtttagac	ccggggaaga	atacggatct	1260
gttatgaaat	atcctaatat	gtcaaaggg	gtggtggaga	atgatccgac	gtggaagact	1320
gatgtaatga	cgctgcaagg	gttgggtttg	gttagcccca	agaaagtgt	taagttttac	1380
aatgagcttc	atagttactt	ggctgatgct	ggcgtggacg	gtgtgaaagt	ggatgtgcag	1440
tgtgtattgg	agactttggg	tggtggttta	ggcggtcggg	ttgagctgac	tcgtcagttt	1500
catcaagctc	ttgactcctc	tgttgctaag	aacttcccgc	ataatggctg	cattgcttgt	1560
atgagccata	atacggatgc	tctttactgc	tcgaagcaag	cagctgtgat	tagagcatca	1620
gatgatttct	atccacggga	tccggtgtct	cataccatcc	atatagcctc	cgttgcttat	1680
aacagtgtgt	tcttgggaga	gtttatgcag	cctgactggg	atatgttcca	ttccgtgcac	1740
cctgctgcag	agtatcatgc	ctctgctagg	gccatcagtg	gtgggcctct	ctatgtcagt	1800
gattctcctg	gaaagcacia	ctttgagctt	ctaagaaagc	ttgtattgcc	tgatggatcg	1860
attcttcctg	ctcgactccc	tggtagacca	actcgcgatt	gtttgttcgc	tgatcctgcc	1920
cgtgatggtg	tcagcttgct	aaagatatgg	aacatgaaca	agtacactgg	agttcttggc	1980
gtgtataact	gccaaggagc	agcttggagc	agcacagaga	gaaaaaacat	tttccaccag	2040
actaaaactg	atagcctcac	tggctccatt	cgtaggtcgtg	atgtgcattc	aatatcggag	2100
gcctccactg	atccaacaac	ctggaatgga	gactgtgctg	tttactccca	gagcagaggc	2160
gaacttattg	ttatgccata	caatgtgtct	cttccagtct	cactcaaaat	ccgtgagcac	2220
gagatcttca	cggtgagccc	cattagtcac	cttggtgatg	gtgtatcttt	tgccccaatt	2280
ggtctagtaa	acatgtacaa	ttcgggagga	gctatcgaag	gacttagata	tgaagccgag	2340
aagatgaaag	tggtaatgga	agttaaagga	tgtggcaa	tcggatctta	ctcttctgtg	2400
aagcctaaga	gatgcgttgt	tgagtcaaat	gagattgcat	tcgagtacga	ttcctcctct	2460

047-E2F-PCT.ST25.txt

ggatttggtca cctttgagtt agacaaaatg cctatagaga acaaacgatt tcatctgac 2520  
caagttgagt tatga 2535

<210> 76

<211> 844

<212> PRT

<213> Arabidopsis thaliana

<400> 76

Met Ala Ser Gln Ser Cys Tyr Asn Gly Ile His Arg Ile Lys Arg Val  
1 5 10 15

His Pro Leu Ile His Ser Leu Thr Phe His Arg Phe Ser Ser Ser Ser  
20 25 30

Leu Pro Phe Lys Ser His Ile Pro Ser Ser Gln Gln Gln Leu Arg Ile  
35 40 45

Arg Ser Ser Ser Ser Leu Ser Asp Leu Gly Asn Arg Arg His Cys Ser  
50 55 60

Ser Thr Arg Gly Phe Gln Phe Trp Ser Tyr Lys Arg Ser Glu Ala Ala  
65 70 75 80

Ser Pro Phe Lys Thr Arg Tyr Arg Glu Asn Glu Glu Glu Glu Asp Met  
85 90 95

Thr Ile Lys Pro Ala Val Arg Ile Ser Asp Gly Asn Leu Ile Ile Lys  
100 105 110

Asn Arg Thr Ile Leu Thr Gly Val Pro Asp Asn Val Ile Thr Thr Ser  
115 120 125

Ala Ser Glu Ala Gly Pro Val Glu Gly Val Phe Val Gly Ala Val Phe  
130 135 140

Asn Lys Glu Glu Ser Lys His Ile Val Pro Ile Gly Thr Leu Arg Asn  
145 150 155 160

Ser Arg Phe Met Ser Cys Phe Arg Phe Lys Leu Trp Trp Met Ala Gln  
165 170 175

Arg Met Gly Glu Met Gly Arg Asp Ile Pro Tyr Glu Thr Gln Phe Leu

180  
 185  
 190  
 Leu Val Glu Ser Asn Asp Gly Ser His Leu Glu Ser Asp Gly Ala Asn  
 195 200 205  
 Gly Val Glu Cys Asn Gln Lys Val Tyr Thr Val Phe Leu Pro Leu Ile  
 210 215 220  
 Glu Gly Ser Phe Arg Ser Cys Leu Gln Gly Asn Val Asn Asp Glu Val  
 225 230 235 240  
 Glu Leu Cys Leu Glu Ser Gly Asp Val Asp Thr Lys Arg Ser Ser Phe  
 245 250 255  
 Thr His Ser Leu Tyr Ile His Ala Gly Thr Asp Pro Phe Gln Thr Ile  
 260 265 270  
 Thr Asp Ala Ile Arg Thr Val Lys Leu His Leu Asn Ser Phe Arg Gln  
 275 280 285  
 Arg His Glu Lys Lys Leu Pro Gly Ile Val Asp Tyr Phe Gly Trp Cys  
 290 295 300  
 Thr Trp Asp Ala Phe Tyr Gln Glu Val Thr Gln Glu Gly Val Glu Ala  
 305 310 315 320  
 Gly Leu Lys Ser Leu Ala Ala Gly Gly Thr Pro Pro Lys Phe Val Ile  
 325 330 335  
 Ile Asp Asp Gly Trp Gln Ser Val Glu Arg Asp Ala Thr Val Glu Ala  
 340 345 350  
 Gly Asp Glu Lys Lys Glu Ser Pro Ile Phe Arg Leu Thr Gly Ile Lys  
 355 360 365  
 Glu Asn Glu Lys Phe Lys Lys Lys Asp Asp Pro Asn Val Gly Ile Lys  
 370 375 380  
 Asn Ile Val Lys Ile Ala Lys Glu Lys His Gly Leu Lys Tyr Val Tyr  
 385 390 395 400  
 Val Trp His Ala Ile Thr Gly Tyr Trp Gly Gly Val Arg Pro Gly Glu  
 405 410 415  
 Glu Tyr Gly Ser Val Met Lys Tyr Pro Asn Met Ser Lys Gly Val Val  
 420 425 430

Glu Asn Asp Pro Thr Trp Lys Thr Asp Val Met Thr Leu Gln Gly Leu  
 435 440 445  
 Gly Leu Val Ser Pro Lys Lys Val Tyr Lys Phe Tyr Asn Glu Leu His  
 450 455 460  
 Ser Tyr Leu Ala Asp Ala Gly Val Asp Gly Val Lys Val Asp Val Gln  
 465 470 475 480  
 Cys Val Leu Glu Thr Leu Gly Gly Gly Leu Gly Gly Arg Val Glu Leu  
 485 490 495  
 Thr Arg Gln Phe His Gln Ala Leu Asp Ser Ser Val Ala Lys Asn Phe  
 500 505 510  
 Pro Asp Asn Gly Cys Ile Ala Cys Met Ser His Asn Thr Asp Ala Leu  
 515 520 525  
 Tyr Cys Ser Lys Gln Ala Ala Val Ile Arg Ala Ser Asp Asp Phe Tyr  
 530 535 540  
 Pro Arg Asp Pro Val Ser His Thr Ile His Ile Ala Ser Val Ala Tyr  
 545 550 555 560  
 Asn Ser Val Phe Leu Gly Glu Phe Met Gln Pro Asp Trp Asp Met Phe  
 565 570 575  
 His Ser Val His Pro Ala Ala Glu Tyr His Ala Ser Ala Arg Ala Ile  
 580 585 590  
 Ser Gly Gly Pro Leu Tyr Val Ser Asp Ser Pro Gly Lys His Asn Phe  
 595 600 605  
 Glu Leu Leu Arg Lys Leu Val Leu Pro Asp Gly Ser Ile Leu Arg Ala  
 610 615 620  
 Arg Leu Pro Gly Arg Pro Thr Arg Asp Cys Leu Phe Ala Asp Pro Ala  
 625 630 635 640  
 Arg Asp Gly Val Ser Leu Leu Lys Ile Trp Asn Met Asn Lys Tyr Thr  
 645 650 655  
 Gly Val Leu Gly Val Tyr Asn Cys Gln Gly Ala Ala Trp Ser Ser Thr  
 660 665 670  
 Glu Arg Lys Asn Ile Phe His Gln Thr Lys Thr Asp Ser Leu Thr Gly  
 675 680 685

047-E2F-PCT.ST25.txt

Ser Ile Arg Gly Arg Asp Val His Ser Ile Ser Glu Ala Ser Thr Asp  
690 695 700

Pro Thr Thr Trp Asn Gly Asp Cys Ala Val Tyr Ser Gln Ser Arg Gly  
705 710 715 720

Glu Leu Ile Val Met Pro Tyr Asn Val Ser Leu Pro Val Ser Leu Lys  
725 730 735

Ile Arg Glu His Glu Ile Phe Thr Val Ser Pro Ile Ser His Leu Val  
740 745 750

Asp Gly Val Ser Phe Ala Pro Ile Gly Leu Val Asn Met Tyr Asn Ser  
755 760 765

Gly Gly Ala Ile Glu Gly Leu Arg Tyr Glu Ala Glu Lys Met Lys Val  
770 775 780

Val Met Glu Val Lys Gly Cys Gly Lys Phe Gly Ser Tyr Ser Ser Val  
785 790 795 800

Lys Pro Lys Arg Cys Val Val Glu Ser Asn Glu Ile Ala Phe Glu Tyr  
805 810 815

Asp Ser Ser Ser Gly Leu Val Thr Phe Glu Leu Asp Lys Met Pro Ile  
820 825 830

Glu Asn Lys Arg Phe His Leu Ile Gln Val Glu Leu  
835 840

<210> 77

<211> 1053

<212> DNA

<213> Arabidopsis thaliana

<400> 77

atggataagt atcaacgagt ggtgaagccg aaagcggata cgccgattga tgcgaatgag	60
attcgtatca ctagtcaagg cagggcacga aactacatca cctatgcat gactcttctt	120
caggataaag ggtcaactga agttgtattc aaggcaatgg gaagagctat caacaagact	180
gtgaccattg tagagctgat taagagaagg atccctgatc ttcacagaa cacatctatt	240
ggatccacag acatcacaga cacatgggaa ccaacagagg aaggccttct acctttggag	300
actacaaggc atgtgtcaat gataaccatt accctatcca agattgagct taatacctcc	360



047-E2F-PCT.ST25.txt

tctgttgggt accagtgtccc aattcctatt gagttggtga agccaatggg cgatattgat 420  
tatgaaggac gagaggggttc acctggtggc agagggaggg gaagaggaag aggaagggga 480  
agaggaaggg ggcgaggtgg cagaggaaat gcttatgtga acgttgagca tgaagatgga 540  
ggttgggaac gtgagcagtc ctatggtaga ggaagaggac gtggcagagg acgcagcagt 600  
cgtggtcgtg gaagaggagg atacaatggt cctccgaatg agtatgatgc accacaagat 660  
ggaggttacg gttacgatgc tcctcatgaa caccgtggat atgatgaccg tgggtggttat 720  
gatgcccctc ctcagggccg tgggtggttac gatggtcctc agggtcgcgg tggttacgat 780  
ggtcctcagg gtcgccgtgg ttatgatggt cctcctcagg gccgtggtgg ttatgatggt 840  
ccttctcaag gccgtggtgg ttatgatggt ccttctcagg gccgtggtgg ttatgatggt 900  
ccttctcagg gccgtggtgg ttatgatggt cctcagggtc gtgggcgtgg acgtggacgt 960  
ggaaggggag gacgtggaag aggaggagga cgtggtggtg atggtggttt caacaacaga 1020  
tcagatggac caccagtcca ggcagctgct tga 1053

<210> 78

<211> 350

<212> PRT

<213> Arabidopsis thaliana

<400> 78

Met Asp Lys Tyr Gln Arg Val Val Lys Pro Lys Ala Asp Thr Pro Ile  
1 5 10 15

Asp Ala Asn Glu Ile Arg Ile Thr Ser Gln Gly Arg Ala Arg Asn Tyr  
20 25 30

Ile Thr Tyr Ala Met Thr Leu Leu Gln Asp Lys Gly Ser Thr Glu Val  
35 40 45

Val Phe Lys Ala Met Gly Arg Ala Ile Asn Lys Thr Val Thr Ile Val  
50 55 60

Glu Leu Ile Lys Arg Arg Ile Pro Asp Leu His Gln Asn Thr Ser Ile  
65 70 75 80

Gly Ser Thr Asp Ile Thr Asp Thr Trp Glu Pro Thr Glu Glu Gly Leu  
85 90 95

Leu Pro Leu Glu Thr Thr Arg His Val Ser Met Ile Thr Ile Thr Leu

100  
 105  
 110  
 Ser Lys Ile Glu Leu Asn Thr Ser Ser Val Gly Tyr Gln Cys Pro Ile  
 115 120 125  
 Pro Ile Glu Leu Val Lys Pro Met Gly Asp Ile Asp Tyr Glu Gly Arg  
 130 135 140  
 Glu Gly Ser Pro Gly Gly Arg Gly Arg Gly Arg Gly Arg Gly Arg Gly  
 145 150 155 160  
 Arg Gly Arg Gly Arg Gly Gly Arg Gly Asn Ala Tyr Val Asn Val Glu  
 165 170 175  
 His Glu Asp Gly Gly Trp Glu Arg Glu Gln Ser Tyr Gly Arg Gly Arg  
 180 185 190  
 Gly Arg Gly Arg Gly Arg Ser Ser Arg Gly Arg Gly Arg Gly Gly Tyr  
 195 200 205  
 Asn Gly Pro Pro Asn Glu Tyr Asp Ala Pro Gln Asp Gly Gly Tyr Gly  
 210 215 220  
 Tyr Asp Ala Pro His Glu His Arg Gly Tyr Asp Asp Arg Gly Gly Tyr  
 225 230 235 240  
 Asp Ala Pro Pro Gln Gly Arg Gly Gly Tyr Asp Gly Pro Gln Gly Arg  
 245 250 255  
 Gly Gly Tyr Asp Gly Pro Gln Gly Arg Arg Gly Tyr Asp Gly Pro Pro  
 260 265 270  
 Gln Gly Arg Gly Gly Tyr Asp Gly Pro Ser Gln Gly Arg Gly Gly Tyr  
 275 280 285  
 Asp Gly Pro Ser Gln Gly Arg Gly Gly Tyr Asp Gly Pro Ser Gln Gly  
 290 295 300  
 Arg Gly Gly Tyr Asp Gly Pro Gln Gly Arg Gly Arg Gly Arg Gly Arg  
 305 310 315 320  
 Gly Arg Gly Gly Arg Gly Arg Gly Gly Gly Arg Gly Gly Asp Gly Gly  
 325 330 335  
 Phe Asn Asn Arg Ser Asp Gly Pro Pro Val Gln Ala Ala Ala  
 340 345 350

&lt;210&gt; 79

&lt;211&gt; 852

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 79

```

atgatgatgg gcaaagaaga tctaggtttg agcctaagct tagggttttc acaaaatcac      60
aatcctcttc agatgaatct gaatcctaac tcttcattat caaacaatct ccagagactc      120
ccatggaacc aaacattcga tcctacatca gatcttcgca agatagacgt gaacagtttt      180
ccatcaacgg ttaactgcga ggaagacaca ggagtttcgt caccaaacag tacgatctca      240
agcaccatta gcggaagag aagtgagaga gaaggaatct ccggaaccgg cgttggctcc      300
ggcgacgatc acgacgagat cactccggat cgaggggtact cacgtggaac ctcagatgaa      360
gaagaagacg ggggcgaaac gtcgaggaag aagctcaggt tatcaaaaga tcagtctgct      420
tttctcgaag agactttcaa agaacacaac actctcaatc ccaaacagaa gctagctttg      480
gctaagaagc tgaacttgac ggcaagacaa gtggaagtgt ggttccaaaa cagaagagct      540
agaaccaagt taaagcaaac ggaggtagat tgcgaatact tgaaacggtg cgtagagaag      600
ctaacggaag agaaccggag acttcagaaa gaggctatgg agcttcgaac tctcaagctg      660
tctccacaat tctacgggtc gatgactcca ccaactacac tcatcatgtg tccttcgtgc      720
gagcgtgtgg gtggcccatc atcatcgaac catcaccaca atcacaggcc cgtttctatc      780
aatccgtggg ttgcttgtgc tggtcaggtg gctcatgggc tgaattttga agccttgcgt      840
ccacgatcgt ga                                          852

```

&lt;210&gt; 80

&lt;211&gt; 283

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 80

```

Met Met Met Gly Lys Glu Asp Leu Gly Leu Ser Leu Ser Leu Gly Phe
1           5           10           15

```

```

Ser Gln Asn His Asn Pro Leu Gln Met Asn Leu Asn Pro Asn Ser Ser
20           25           30

```

```

Leu Ser Asn Asn Leu Gln Arg Leu Pro Trp Asn Gln Thr Phe Asp Pro

```

35

40

45

Thr Ser Asp Leu Arg Lys Ile Asp Val Asn Ser Phe Pro Ser Thr Val  
 50 55 60  
 Asn Cys Glu Glu Asp Thr Gly Val Ser Ser Pro Asn Ser Thr Ile Ser  
 65 70 75 80  
 Ser Thr Ile Ser Gly Lys Arg Ser Glu Arg Glu Gly Ile Ser Gly Thr  
 85 90 95  
 Gly Val Gly Ser Gly Asp Asp His Asp Glu Ile Thr Pro Asp Arg Gly  
 100 105 110  
 Tyr Ser Arg Gly Thr Ser Asp Glu Glu Glu Asp Gly Gly Glu Thr Ser  
 115 120 125  
 Arg Lys Lys Leu Arg Leu Ser Lys Asp Gln Ser Ala Phe Leu Glu Glu  
 130 135 140  
 Thr Phe Lys Glu His Asn Thr Leu Asn Pro Lys Gln Lys Leu Ala Leu  
 145 150 155 160  
 Ala Lys Lys Leu Asn Leu Thr Ala Arg Gln Val Glu Val Trp Phe Gln  
 165 170 175  
 Asn Arg Arg Ala Arg Thr Lys Leu Lys Gln Thr Glu Val Asp Cys Glu  
 180 185 190  
 Tyr Leu Lys Arg Cys Val Glu Lys Leu Thr Glu Glu Asn Arg Arg Leu  
 195 200 205  
 Gln Lys Glu Ala Met Glu Leu Arg Thr Leu Lys Leu Ser Pro Gln Phe  
 210 215 220  
 Tyr Gly Gln Met Thr Pro Pro Thr Thr Leu Ile Met Cys Pro Ser Cys  
 225 230 235 240  
 Glu Arg Val Gly Gly Pro Ser Ser Ser Asn His His His Asn His Arg  
 245 250 255  
 Pro Val Ser Ile Asn Pro Trp Val Ala Cys Ala Gly Gln Val Ala His  
 260 265 270  
 Gly Leu Asn Phe Glu Ala Leu Arg Pro Arg Ser  
 275 280

&lt;210&gt; 81

&lt;211&gt; 2265

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 81

atggtggggg cgatggcaaa caatggaaga atccggtcag cttttccggt gactaatggg	60
tcaaaagatc tgacgccgaa cagtgtccg gcgagtacaa ccggatctga atatggtcct	120
gttgagttca caagagaaga cgttgaaact cttcttaatg aacgaatcaa gtacaagagc	180
aaattcaact acaaggagag atgcgagaat atgatggatt atataaaaag acttagactt	240
tgcattagat ggtttcaaga acttgagttg gattatgctt ttgagcaaga gaagttgaag	300
aacgcattgg aattgaatga gaagcattgt gttgacatgg aggttagttt gaaaaacaaa	360
gaagaggagc tgaatatgat aattgaagag ctgaggaaaa actttgaatc tgttcaagtt	420
caacttgcca gggaacaaac ggagaagttg gcggcgaatg attctcttgg aaaagagaaa	480
gaagcaagac tttctgttga aaaggcacia gctggtctca cagaagagct aggaaaagca	540
caaggagatc ttcaaacggc taaccagagg atacaatccg tgaatgacat gtacaaactg	600
ttgcaagagt ataactcaag cttgcagctg tataacagca agctacaagg tgatcttgat	660
gaagctcacg agactataaa acgcggtgag aaagaacgga ctgccattat tgaaaatatt	720
ggcaacttga agggtcagtt ttcagcatta caggaacaac ttgctgcttc taaggcttct	780
caagaagata tcatgaagca gaaaggtgaa ttggtaaatg aaattgagag tctcaaggta	840
gagcttcagc aagtcaaaga tgaccgtgat cgccatttag tggaagttaa aaccttacia	900
accgaggcaa ccaagtacia tgacttcaaa gacgccataa ccgagcttga gactacatgt	960
tcgtcccaga gtaccagat acgacagttg caggatcgac tagtaaaactc tgagaggaga	1020
ctgcaggtgt ctgatctatc tacctttgag aaaatgaatg agtatgaaga ccagaagcaa	1080
agcattatcg atctgaaaag tcgcgtagaa gaagcagaac ttaaaactcgt tgaaggagaa	1140
aaactacgga agaagttgca caataccatt cttgaactga aaggtaacat acgtgtgttc	1200
tgtagagtta gacctctatt gccgggtgag aacaatggag atgagggaaa aactatttct	1260
tacccgacat ccctagaagc acttggccgt ggtattgact tgatgcaaaa tgcgcaaaag	1320
catgctttca catttgataa ggtttttgcg ccgactgcat cacaagaaga tgtcttcact	1380
gagatttctc aacttgttca aagtgtcttc gatggttaca aggtgtgcat ttttgcatat	1440
ggacaaactg gatcgggaaa aacttacacc atgatgggta ggccaggaaa cgtcgaggaa	1500
aaaggtctga tcccgcgatg tttggagcaa atatttgaga cgaggcagtc tcttcgatct	1560

047-E2F-PCT.ST25.txt

caggggttgga aatacgaact gcaggtatcc atggttagaaa tatacaatga aacgatccga 1620  
gatctcctgt caacaaacaa agaagcagta agaacagaca gtggtgtttc tccacagaaa 1680  
catgctatta aacatgatgc tagtggaac acgcatgtcg ctgagcttac ttttttgat 1740  
gttaaaagct ctcgggaggt ttcattcctc ttagatcatg ctgctcgtaa caggtctgta 1800  
gggaagactc agatgaacga gcaatcttcc agaagccatt ttgttttcac gctaagaatc 1860  
tctggtgtta acgagagcac tgagcaacaa gtacaagggtg tcttgaacct gattgatctt 1920  
gcggggagtg agcgtttatc gaagagtggg tcaaccggag atagacttaa agaaactcaa 1980  
gcaatcaaca aaagtgtgtc gtcgctaggc gatgtcatat tcgccttagc aaagaaagaa 2040  
gatcatgtac cattccgaaa ctcaaagctc acatatcttc tccagccttg cttaggcggt 2100  
gacgcaaaga cgctaattgt tgtgaacatt gcaccggaat cttcttcaac cggtgagtct 2160  
ctctgctctc ttagattcgc agcgagagtg aatgcttgcg agattggaac accacgtagg 2220  
cagactaaca tcaaaccatt ggaaaatcgg ttgagccttg gatga 2265

<210> 82

<211> 754

<212> PRT

<213> Arabidopsis thaliana

<400> 82

Met Val Gly Ala Met Ala Asn Asn Gly Arg Ile Arg Ser Ala Phe Pro  
1 5 10 15

Val Thr Asn Gly Ser Lys Asp Leu Thr Pro Asn Ser Ala Pro Ala Ser  
20 25 30

Thr Thr Gly Ser Glu Tyr Gly Pro Val Glu Phe Thr Arg Glu Asp Val  
35 40 45

Glu Thr Leu Leu Asn Glu Arg Ile Lys Tyr Lys Ser Lys Phe Asn Tyr  
50 55 60

Lys Glu Arg Cys Glu Asn Met Met Asp Tyr Ile Lys Arg Leu Arg Leu  
65 70 75 80

Cys Ile Arg Trp Phe Gln Glu Leu Glu Leu Asp Tyr Ala Phe Glu Gln  
85 90 95

Glu Lys Leu Lys Asn Ala Leu Glu Leu Asn Glu Lys His Cys Val Asp  
100 105 110

047-E2F-PCT.ST25.txt

Met Glu Val Ser Leu Lys Asn Lys Glu Glu Glu Leu Asn Met Ile Ile  
115 120 125

Glu Glu Leu Arg Lys Asn Phe Glu Ser Val Gln Val Gln Leu Ala Arg  
130 135 140

Glu Gln Thr Glu Lys Leu Ala Ala Asn Asp Ser Leu Gly Lys Glu Lys  
145 150 155 160

Glu Ala Arg Leu Ser Val Glu Lys Ala Gln Ala Gly Leu Thr Glu Glu  
165 170 175

Leu Gly Lys Ala Gln Gly Asp Leu Gln Thr Ala Asn Gln Arg Ile Gln  
180 185 190

Ser Val Asn Asp Met Tyr Lys Leu Leu Gln Glu Tyr Asn Ser Ser Leu  
195 200 205

Gln Leu Tyr Asn Ser Lys Leu Gln Gly Asp Leu Asp Glu Ala His Glu  
210 215 220

Thr Ile Lys Arg Gly Glu Lys Glu Arg Thr Ala Ile Ile Glu Asn Ile  
225 230 235 240

Gly Asn Leu Lys Gly Gln Phe Ser Ala Leu Gln Glu Gln Leu Ala Ala  
245 250 255

Ser Lys Ala Ser Gln Glu Asp Ile Met Lys Gln Lys Gly Glu Leu Val  
260 265 270

Asn Glu Ile Ala Ser Leu Lys Val Glu Leu Gln Gln Val Lys Asp Asp  
275 280 285

Arg Asp Arg His Leu Val Glu Val Lys Thr Leu Gln Thr Glu Ala Thr  
290 295 300

Lys Tyr Asn Asp Phe Lys Asp Ala Ile Thr Glu Leu Glu Thr Thr Cys  
305 310 315 320

Ser Ser Gln Ser Thr Gln Ile Arg Gln Leu Gln Asp Arg Leu Val Asn  
325 330 335

Ser Glu Arg Arg Leu Gln Val Ser Asp Leu Ser Thr Phe Glu Lys Met  
340 345 350

Asn Glu Tyr Glu Asp Gln Lys Gln Ser Ile Ile Asp Leu Lys Ser Arg

355

360

365

Val Glu Glu Ala Glu Leu Lys Leu Val Glu Gly Glu Lys Leu Arg Lys  
 370 375 380  
 Lys Leu His Asn Thr Ile Leu Glu Leu Lys Gly Asn Ile Arg Val Phe  
 385 390 395 400  
 Cys Arg Val Arg Pro Leu Leu Pro Gly Glu Asn Asn Gly Asp Glu Gly  
 405 410 415  
 Lys Thr Ile Ser Tyr Pro Thr Ser Leu Glu Ala Leu Gly Arg Gly Ile  
 420 425 430  
 Asp Leu Met Gln Asn Ala Gln Lys His Ala Phe Thr Phe Asp Lys Val  
 435 440 445  
 Phe Ala Pro Thr Ala Ser Gln Glu Asp Val Phe Thr Glu Ile Ser Gln  
 450 455 460  
 Leu Val Gln Ser Ala Leu Asp Gly Tyr Lys Val Cys Ile Phe Ala Tyr  
 465 470 475 480  
 Gly Gln Thr Gly Ser Gly Lys Thr Tyr Thr Met Met Gly Arg Pro Gly  
 485 490 495  
 Asn Val Glu Glu Lys Gly Leu Ile Pro Arg Cys Leu Glu Gln Ile Phe  
 500 505 510  
 Glu Thr Arg Gln Ser Leu Arg Ser Gln Gly Trp Lys Tyr Glu Leu Gln  
 515 520 525  
 Val Ser Met Leu Glu Ile Tyr Asn Glu Thr Ile Arg Asp Leu Leu Ser  
 530 535 540  
 Thr Asn Lys Glu Ala Val Arg Thr Asp Ser Gly Val Ser Pro Gln Lys  
 545 550 555 560  
 His Ala Ile Lys His Asp Ala Ser Gly Asn Thr His Val Ala Glu Leu  
 565 570 575  
 Thr Ile Leu Asp Val Lys Ser Ser Arg Glu Val Ser Phe Leu Leu Asp  
 580 585 590  
 His Ala Ala Arg Asn Arg Ser Val Gly Lys Thr Gln Met Asn Glu Gln  
 595 600 605



Ser Ser Arg Ser His Phe Val Phe Thr Leu Arg Ile Ser Gly Val Asn  
 610 615 620

Glu Ser Thr Glu Gln Gln Val Gln Gly Val Leu Asn Leu Ile Asp Leu  
 625 630 635 640

Ala Gly Ser Glu Arg Leu Ser Lys Ser Gly Ser Thr Gly Asp Arg Leu  
 645 650 655

Lys Glu Thr Gln Ala Ile Asn Lys Ser Leu Ser Ser Leu Gly Asp Val  
 660 665 670

Ile Phe Ala Leu Ala Lys Lys Glu Asp His Val Pro Phe Arg Asn Ser  
 675 680 685

Lys Leu Thr Tyr Leu Leu Gln Pro Cys Leu Gly Gly Asp Ala Lys Thr  
 690 695 700

Leu Met Phe Val Asn Ile Ala Pro Glu Ser Ser Ser Thr Gly Glu Ser  
 705 710 715 720

Leu Cys Ser Leu Arg Phe Ala Ala Arg Val Asn Ala Cys Glu Ile Gly  
 725 730 735

Thr Pro Arg Arg Gln Thr Asn Ile Lys Pro Leu Glu Asn Arg Leu Ser  
 740 745 750

Leu Gly

<210> 83

<211> 4842

<212> DNA

<213> Arabidopsis thaliana

<400> 83

atgcatggga gggtttgtga gcggagacac aaaagtcgtc gtcggcacat gttgatattct	60
tcctctcgtg taattgcgac tgtggaaggt ggtggttctt cttgtttgtc cttatcttca	120
tctacctcgt tttctaagga cgggcgcaaa attagtgttg gtgactgtgc tctgtttaag	180
ccaccacagg attgtccacc gttcattggg ataattcgct tgatcattgc tgaggaagaa	240
gataagttga agttgggtgt taattggctt tatcgacca ctgaattaaa acttggcaaa	300
ggcatccttc tagaggctga gccgaacgaa ctcttttact cttttcacga ggataatata	360

cctgcagcat	ctttactgca	tccgtgtaaa	gttgccttcc	ttccaagagg	tggtgaactg	420
ccatctggta	tcagctcggt	tgtgtgtcgg	cgagtttacg	acgttacaaa	cgagcgctta	480
tggtggctga	ctgatcaaga	ctatatgat	gatcgacaac	tagaagtaga	caagttattg	540
tgtaagactc	gttcagaaat	gcatacaaca	ttacagcagg	gtggtcgggc	tcccaagtcc	600
atgaatagtc	caacaacatc	acaaccgaaa	gatggcatcc	agaacagtaa	ctcttttctc	660
tctcagggtg	aggggaaggaa	aagagagcgt	atggatcatg	gttctgagtc	tgttaaaagg	720
gaacgttcta	gtcagagtaga	tgacagtggg	tctgggtccc	tcagaacaga	aagcggttta	780
aagtctgaaa	ttttaaaatt	tacagagaaa	gggtggctctg	tggattctga	aggagttgaa	840
aaattgggtc	agctcatgct	gcctgagagg	aatgaaaaga	aaatagactt	agttggccgt	900
gcgattcttg	cagggtttgt	agcggcaaca	gacaagtttg	attgccttag	tcgttttgtc	960
cagctcaggg	gattacctgt	gtttgatgag	tggtcgcagg	aagttcataa	agggaaagtt	1020
ggggatgggg	gcagtcctca	agacagtgat	aggttagtag	acgatttcct	cttagtctta	1080
cttcgggctc	ttgataagct	acctgtgaat	ctcaacgcgc	tacagacttg	taacattgga	1140
aagtctgtta	atcatctacg	ctcacataaa	aattcagaga	ttgggaaaaa	agcaaggagc	1200
ttggttgaca	cttggaagaa	acgagttgag	gcagaaatgg	atgcgaagtc	tggatccaac	1260
cagggtgttt	cctggcctgg	aagactgagt	catgggggaa	ggcattcagg	tggttccgcg	1320
gaggcaaaca	agacatcatc	atcacaccta	catgcttcta	agtctgtctc	ggtcaaacaa	1380
cagggtgaaa	acaacctgaa	gtgtgtagcc	acgtcgccag	gctccacaag	atcagctcct	1440
tctccgggat	cagggtggtaa	tgtttctaaa	gatggacagc	agcgaaatgc	tggggctggt	1500
ggtgtatctg	aagtcctagc	tgtagtaaa	gatgagaaaa	gtagcagctc	cagtcagtcg	1560
cacaataata	gtcagtcctg	ctcgagcgag	catgctaaaa	caggcaattt	atgtggaaaa	1620
gaagatgcaa	gaagctctac	tgctggttca	actttgaaga	agtgttccgg	tggctcttca	1680
aggcatcgga	agtcaaacaa	tgtgtttcaa	ggttcgtctt	cgtcagcatc	ccctagggga	1740
gctgggttga	gtagaagctt	ctcatcacac	aggaatgtcc	cttctgagaa	aatttctcaa	1800
tcaagtttga	catctgaaaa	gactcttgag	gttcctctga	ctgaggggtt	cggtaataaa	1860
ttgatttgta	agctgccgaa	tcgtggtcga	agtcctgctc	aaagtgtgag	tggaggctct	1920
ttggaagacc	ctgcaccggg	gaatagcaga	gtttcttcac	ctgtgcatgc	ggtgaagcag	1980
gaactatgtg	acaataacgg	gagagaaaaa	aatcattctt	atcgacctaa	tgtgagctct	2040
gtcttgaatg	ctgagtcctg	gcaaagcaat	gaattaaaag	atattttgac	aggctcgcaa	2100
gaggcagctg	gttcaccact	tgttgctggg	gatgagcgcg	gaggggatct	taaggattct	2160
gataaagcat	ctgggaatgt	taaaggcaca	tcttcattag	gaaatgagtt	caaactctgga	2220
gagaggcatg	gcggaacact	cagttcgatg	aatgctttga	ttgaaagttg	tgtcagatac	2280

## 047-E2F-PCT.ST25.txt

tctgagacga atgcctcttt ggctggttcg gatgatgttg gaatgaatct tcttgctagt	2340
gttgctgctg atgagatgtc taaatcgctt gttgcatctc cctcagtatc tcagcctcca	2400
aattccgtga tgaatgaaaa ttctactgta gggaacaata caaagctaata ggcttcggat	2460
ggcttgccctc acgagcaaca tcaagctggt tgtacctctg tcagtactga gcaagggtgag	2520
caacatgtta gcagtagtgg cacacagttg gagtcagaaa taaaaaatga atctaagacc	2580
ggagatcgtg ataagagctc gaattcagac actgaagatc tgcaaagggtt ggtggatcag	2640
tgcttagaga gcaatgacaa ttcagatggt gttgttgctt cgcctgcttt acccactaaa	2700
gccgttaagg aaaagatttt gaatgatagt gactctgggg aactgaagga tataaagact	2760
gatgttaaat cagaggctga ttgcacatct gactcaacga aaagagtagc aagctcaatg	2820
ctaaccgaat gtagagatgt aagtaaaaag gtagattctg tggctgttga acagactccc	2880
ttggaagggtg ttgatgatga taagaaagaa gagaaacccc caacggcggtt gagttctgag	2940
ctagttaaaa aagtggaaga agatgtaccc gtttcttctg ggatttcaag ggatatggat	3000
gctgtaagca ttggtagacc tataactgaa atggtcaata atgttgcggtt taatcatatg	3060
gacaaaaaag atgtaaagaa gattaagcag gattgtgata cttctgtggg agctataaag	3120
gatacctcag ccggttttga ctcatctgta actaaaggta aagttgagcc tgtggagggg	3180
aatctggaaa atagtgaagt caaggaacgg tactcaggat taagagctac tccaggatta	3240
tcacctaaag aagctgagga tcttgagaga ccgaatgggc ctaaaaccag tgatgctgat	3300
ggagatgaag cgggggaatg tacgtctgct gccagagatg cttcttctgt ttcagctgca	3360
gcttcagctg gctctgagat ggatgccaga gttgaatttg atctaaatga aggttttgat	3420
ggagacgatg caaaacatgg ggactcaaat aacttctctg gatctgtatt tttgacgcct	3480
actcctctac aaccagttaa gaccttacct tttccgggtg ctctgtatc tagtggaact	3540
cgtgcatcta ttactgttgc tgctgctgcc aaagggtccgt ttgttccacc tgaagatctg	3600
ttgagaaata aaggggctgt tggttggaga ggatctgctg ccactagtgc cttccgcca	3660
gctgagccaa gaaaacctca ggatgtgtta ctgagcatta acaacacctc tacatctgat	3720
gcatctactt ctgctggcaa acagacaagg acgtttctgg attttgactt gaatgtacct	3780
gacgagagag tccttgaaga tttggcttcc caaagatctg gaaatcccac aaattgtaca	3840
tctgatatca ccaatagttt tgaccaagta cgttctgggg tcatgggttc cgcccttgat	3900
cattcttctg gaggccttga tcttgatcta aacaaagttg atgattcaac tgatatgatc	3960
agctacacaa tgaacagtag tcatcggcta gattcatctt ttcagcaggt taaattacca	4020
tcgactggtg gtcgtagaga ttttgattta aatgatggac ctgtgggtga tgatgcagct	4080
gttgagccat ctatggttct aaatcaacat tcacgaagtg gcttgccatc acaaccatct	4140

047-E2F-PCT.ST25.txt

ctctctggaa ttcgagtga tggcgaaaac atggctagtt tctcaacttg gtttcctgct 4200  
gctaacgctt attcagctgt gagcatgcct ccaattatgc ctgagagagg tgatcagcct 4260  
tttccaatga ttgccactcg tggccacacag agaatgttgg gtccaacaac tgggtgtttcc 4320  
tcattttacc ctgaagggtta caggggtcct gttttgtcgt cgtctccagc catgccattt 4380  
cagtccacaa cgttccagta tcctgtcttt ccttttggaa acagcttccc cgttacctca 4440  
gcgaattttc ctggtgcttc tacagcacac atggattctt cttcaagcgg gagagcttgc 4500  
ttccccggtg tcaactctca aatattgggt cctggagttc cagttccgtc taattacca 4560  
agaccttata tagttggcct cccaaacggt ggtagcaatg gcggtgtttt ggacaatggc 4620  
gcgaaatggt ttaggtcagg acttgactta aattctggtc ctggaggtca tgaaacagag 4680  
ggaagagacg aatcaacact tgtggcaagg caattatcct catctgcttc cttacctttg 4740  
aaggaggatc aagcaagaat gtatcaaagc tcaggtggtg ttctgaagag gaaagaaccg 4800  
gaaggaggat gggatggata taggcagtc tcatggcaat aa 4842

<210> 84

<211> 1613

<212> PRT

<213> Arabidopsis thaliana

<400> 84

Met His Gly Arg Val Cys Glu Arg Arg His Lys Ser Arg Arg Arg His  
1 5 10 15

Met Leu Ile Ser Ser Arg Val Ile Ala Thr Val Glu Gly Gly Gly  
20 25 30

Ser Ser Cys Leu Ser Leu Ser Ser Thr Ser Phe Ser Lys Asp Gly  
35 40 45

Arg Lys Ile Ser Val Gly Asp Cys Ala Leu Phe Lys Pro Pro Gln Asp  
50 55 60

Cys Pro Pro Phe Ile Gly Ile Ile Arg Leu Ile Ile Ala Glu Glu Glu  
65 70 75 80

Asp Lys Leu Lys Leu Gly Val Asn Trp Leu Tyr Arg Pro Thr Glu Leu  
85 90 95

Lys Leu Gly Lys Gly Ile Leu Leu Glu Ala Glu Pro Asn Glu Leu Phe  
100 105 110

047-E2F-PCT.ST25.txt

Tyr Ser Phe His Glu Asp Asn Ile Pro Ala Ala Ser Leu Leu His Pro  
 115 120 125  
 Cys Lys Val Ala Phe Leu Pro Arg Gly Val Glu Leu Pro Ser Gly Ile  
 130 135 140  
 Ser Ser Phe Val Cys Arg Arg Val Tyr Asp Val Thr Asn Glu Arg Leu  
 145 150 155 160  
 Trp Trp Leu Thr Asp Gln Asp Tyr Ile Asp Asp Arg Gln Leu Glu Val  
 165 170 175  
 Asp Lys Leu Leu Cys Lys Thr Arg Ser Glu Met His Thr Thr Leu Gln  
 180 185 190  
 Gln Gly Gly Arg Ser Pro Lys Ser Met Asn Ser Pro Thr Thr Ser Gln  
 195 200 205  
 Pro Lys Asp Gly Ile Gln Asn Ser Asn Ser Phe Leu Ser Gln Gly Lys  
 210 215 220  
 Gly Arg Lys Arg Glu Arg Met Asp His Gly Ser Glu Ser Val Lys Arg  
 225 230 235 240  
 Glu Arg Ser Ser Arg Val Asp Asp Ser Gly Ser Gly Pro Leu Arg Thr  
 245 250 255  
 Glu Ser Gly Leu Lys Ser Glu Ile Leu Lys Phe Thr Glu Lys Gly Gly  
 260 265 270  
 Leu Val Asp Ser Glu Gly Val Glu Lys Leu Val Gln Leu Met Leu Pro  
 275 280 285  
 Glu Arg Asn Glu Lys Lys Ile Asp Leu Val Gly Arg Ala Ile Leu Ala  
 290 295 300  
 Gly Phe Val Ala Ala Thr Asp Lys Phe Asp Cys Leu Ser Arg Phe Val  
 305 310 315 320  
 Gln Leu Arg Gly Leu Pro Val Phe Asp Glu Trp Leu Gln Glu Val His  
 325 330 335  
 Lys Gly Lys Val Gly Asp Gly Gly Ser Pro Lys Asp Ser Asp Arg Leu  
 340 345 350  
 Val Asp Asp Phe Leu Leu Val Leu Leu Arg Ala Leu Asp Lys Leu Pro

355

360

365

Val Asn Leu Asn Ala Leu Gln Thr Cys Asn Ile Gly Lys Ser Val Asn  
 370 375 380  
 His Leu Arg Ser His Lys Asn Ser Glu Ile Gly Lys Lys Ala Arg Ser  
 385 390 395 400  
 Leu Val Asp Thr Trp Lys Lys Arg Val Glu Ala Glu Met Asp Ala Lys  
 405 410 415  
 Ser Gly Ser Asn Gln Gly Val Ser Trp Pro Gly Arg Leu Ser His Gly  
 420 425 430  
 Gly Arg His Ser Gly Gly Ser Ala Glu Ala Asn Lys Thr Ser Ser Ser  
 435 440 445  
 His Leu His Ala Ser Lys Ser Val Ser Val Lys Gln Gln Val Glu Asn  
 450 455 460  
 Asn Leu Lys Cys Val Ala Thr Ser Pro Gly Ser Thr Arg Ser Ala Pro  
 465 470 475 480  
 Ser Pro Gly Ser Gly Gly Asn Val Ser Lys Asp Gly Gln Gln Arg Asn  
 485 490 495  
 Ala Gly Ala Gly Gly Val Ser Glu Val Leu Ala Ala Val Lys Asp Glu  
 500 505 510  
 Lys Ser Ser Ser Ser Ser Gln Ser His Asn Asn Ser Gln Ser Cys Ser  
 515 520 525  
 Ser Glu His Ala Lys Thr Gly Asn Leu Cys Gly Lys Glu Asp Ala Arg  
 530 535 540  
 Ser Ser Thr Ala Gly Ser Thr Leu Lys Lys Cys Ser Gly Gly Ser Ser  
 545 550 555 560  
 Arg His Arg Lys Ser Asn Asn Val Phe Gln Gly Ser Ser Ser Ser Ala  
 565 570 575  
 Ser Pro Arg Gly Ala Gly Leu Ser Arg Ser Phe Ser Ser His Arg Asn  
 580 585 590  
 Val Pro Ser Glu Lys Ile Ser Gln Ser Ser Leu Thr Ser Glu Lys Thr  
 595 600 605

Leu Glu Val Pro Leu Thr Glu Gly Ser Gly Asn Lys Leu Ile Val Lys  
 610 615 620  
 Leu Pro Asn Arg Gly Arg Ser Pro Ala Gln Ser Val Ser Gly Gly Ser  
 625 630 635 640  
 Leu Glu Asp Pro Ala Pro Val Asn Ser Arg Val Ser Ser Pro Val His  
 645 650 655  
 Ala Val Lys Gln Glu Leu Cys Asp Asn Asn Gly Arg Glu Lys Asn His  
 660 665 670  
 Ser Tyr Arg Pro Asn Val Ser Ser Val Leu Asn Ala Glu Ser Trp Gln  
 675 680 685  
 Ser Asn Glu Leu Lys Asp Ile Leu Thr Gly Ser Gln Glu Ala Ala Gly  
 690 695 700  
 Ser Pro Leu Val Ala Gly Asp Glu Arg Gly Gly Asp Leu Lys Asp Ser  
 705 710 715 720  
 Asp Lys Ala Ser Gly Asn Val Lys Gly Thr Ser Ser Leu Gly Asn Glu  
 725 730 735  
 Phe Lys Ser Gly Glu Arg His Gly Gly Thr Leu Ser Ser Met Asn Ala  
 740 745 750  
 Leu Ile Glu Ser Cys Val Arg Tyr Ser Glu Thr Asn Ala Ser Leu Ala  
 755 760 765  
 Gly Ser Asp Asp Val Gly Met Asn Leu Leu Ala Ser Val Ala Ala Asp  
 770 775 780  
 Glu Met Ser Lys Ser Pro Val Ala Ser Pro Ser Val Ser Gln Pro Pro  
 785 790 795 800  
 Asn Ser Val Met Asn Glu Asn Ser Thr Val Gly Asn Asn Thr Lys Leu  
 805 810 815  
 Met Ala Ser Asp Gly Leu Pro His Glu Gln His Gln Ala Val Cys Thr  
 820 825 830  
 Ser Val Ser Thr Glu Gln Gly Glu Gln His Val Ser Ser Ser Gly Thr  
 835 840 845  
 Gln Leu Glu Ser Glu Ile Lys Asn Glu Ser Lys Thr Gly Asp Arg Asp  
 850 855 860

047-E2F-PCT.ST25.txt

Lys Ser Ser Asn Ser Asp Thr Glu Asp Leu Gln Arg Leu Val Asp Gln  
 865 870 875 880  
 Cys Leu Glu Ser Asn Asp Asn Ser Asp Gly Val Val Ala Ser Pro Ala  
 885 890 895  
 Leu Pro Thr Lys Ala Val Lys Glu Lys Ile Leu Asn Asp Ser Asp Ser  
 900 905 910  
 Gly Glu Leu Lys Asp Ile Lys Thr Asp Val Lys Ser Glu Ala Asp Cys  
 915 920 925  
 Thr Ser Asp Ser Thr Lys Arg Val Ala Ser Ser Met Leu Thr Glu Cys  
 930 935 940  
 Arg Asp Val Ser Lys Lys Val Asp Ser Val Ala Val Glu Gln Thr Pro  
 945 950 955 960  
 Leu Glu Gly Val Asp Asp Asp Lys Lys Glu Glu Lys Pro Pro Thr Ala  
 965 970 975  
 Leu Ser Ser Glu Leu Val Lys Lys Val Glu Glu Asp Val Pro Val Ser  
 980 985 990  
 Ser Gly Ile Ser Arg Asp Met Asp Ala Val Ser Ile Gly Arg Pro Ile  
 995 1000 1005  
 Thr Glu Met Val Asn Asn Val Ala Phe Asn His Met Asp Gln Lys  
 1010 1015 1020  
 Asp Val Lys Lys Ile Lys Gln Asp Cys Asp Thr Ser Val Gly Ala  
 1025 1030 1035  
 Ile Lys Asp Thr Ser Ala Gly Leu Asp Ser Ser Val Thr Lys Gly  
 1040 1045 1050  
 Lys Val Glu Pro Val Glu Gly Asn Leu Glu Asn Ser Glu Val Lys  
 1055 1060 1065  
 Glu Arg Tyr Ser Gly Leu Arg Ala Thr Pro Gly Leu Ser Pro Lys  
 1070 1075 1080  
 Glu Ala Glu Asp Leu Glu Arg Pro Asn Gly Pro Lys Thr Ser Asp  
 1085 1090 1095  
 Ala Asp Gly Asp Glu Ala Gly Glu Cys Thr Ser Ala Ala Arg Asp  
 1100 1105 1110



047-E2F-PCT.ST25.txt

Ala Ser Ser Val Ser Ala Ala Ala Ser Ala Gly Ser Glu Met Asp  
1115 1120 1125

Ala Arg Val Glu Phe Asp Leu Asn Glu Gly Phe Asp Gly Asp Asp  
1130 1135 1140

Ala Lys His Gly Asp Ser Asn Asn Phe Ser Gly Ser Val Phe Leu  
1145 1150 1155

Thr Pro Thr Pro Leu Gln Pro Val Lys Thr Leu Pro Phe Pro Val  
1160 1165 1170

Ala Pro Val Ser Ser Gly Thr Arg Ala Ser Ile Thr Val Ala Ala  
1175 1180 1185

Ala Ala Lys Gly Pro Phe Val Pro Pro Glu Asp Leu Leu Arg Asn  
1190 1195 1200

Lys Gly Ala Val Gly Trp Arg Gly Ser Ala Ala Thr Ser Ala Phe  
1205 1210 1215

Arg Pro Ala Glu Pro Arg Lys Pro Gln Asp Val Leu Leu Ser Ile  
1220 1225 1230

Asn Asn Thr Ser Thr Ser Asp Ala Ser Thr Ser Ala Gly Lys Gln  
1235 1240 1245

Thr Arg Thr Phe Leu Asp Phe Asp Leu Asn Val Pro Asp Glu Arg  
1250 1255 1260

Val Leu Glu Asp Leu Ala Ser Gln Arg Ser Gly Asn Pro Thr Asn  
1265 1270 1275

Cys Thr Ser Asp Ile Thr Asn Ser Phe Asp Gln Val Arg Ser Gly  
1280 1285 1290

Val Met Gly Ser Ala Leu Asp His Ser Ser Gly Gly Leu Asp Leu  
1295 1300 1305

Asp Leu Asn Lys Val Asp Asp Ser Thr Asp Met Ile Ser Tyr Thr  
1310 1315 1320

Met Asn Ser Ser His Arg Leu Asp Ser Ser Phe Gln Gln Val Lys  
1325 1330 1335

Leu Pro Ser Thr Gly Gly Arg Arg Asp Phe Asp Leu Asn Asp Gly

1340		1345		1350
Pro Val Gly Asp Asp Ala Ala Val Glu Pro Ser Met Val Leu Asn	1355	1360	1365	
Gln His Ser Arg Ser Gly Leu Pro Ser Gln Pro Ser Leu Ser Gly	1370	1375	1380	
Ile Arg Val Asn Gly Glu Asn Met Ala Ser Phe Ser Thr Trp Phe	1385	1390	1395	
Pro Ala Ala Asn Ala Tyr Ser Ala Val Ser Met Pro Pro Ile Met	1400	1405	1410	
Pro Glu Arg Gly Asp Gln Pro Phe Pro Met Ile Ala Thr Arg Gly	1415	1420	1425	
Pro Gln Arg Met Leu Gly Pro Thr Thr Gly Val Ser Ser Phe Thr	1430	1435	1440	
Pro Glu Gly Tyr Arg Gly Pro Val Leu Ser Ser Ser Pro Ala Met	1445	1450	1455	
Pro Phe Gln Ser Thr Thr Phe Gln Tyr Pro Val Phe Pro Phe Gly	1460	1465	1470	
Asn Ser Phe Pro Val Thr Ser Ala Asn Phe Pro Gly Ala Ser Thr	1475	1480	1485	
Ala His Met Asp Ser Ser Ser Ser Gly Arg Ala Cys Phe Pro Gly	1490	1495	1500	
Val Asn Ser Gln Ile Leu Gly Pro Gly Val Pro Val Pro Ser Asn	1505	1510	1515	
Tyr Pro Arg Pro Tyr Ile Val Gly Leu Pro Asn Gly Gly Ser Asn	1520	1525	1530	
Gly Gly Val Leu Asp Asn Gly Ala Lys Trp Phe Arg Ser Gly Leu	1535	1540	1545	
Asp Leu Asn Ser Gly Pro Gly Gly His Glu Thr Glu Gly Arg Asp	1550	1555	1560	
Glu Ser Thr Leu Val Ala Arg Gln Leu Ser Ser Ser Ala Ser Leu	1565	1570	1575	

Pro Leu Lys Glu Asp Gln Ala Arg Met Tyr Gln Met Ser Gly Gly  
 1580 1585 1590

Val Leu Lys Arg Lys Glu Pro Glu Gly Gly Trp Asp Gly Tyr Arg  
 1595 1600 1605

Gln Ser Ser Trp Gln  
 1610

<210> 85

<211> 876

<212> DNA

<213> Arabidopsis thaliana

<400> 85

```

atggggaaaa aagctaaatg gttttcaagt gttaagaaag cattcagccc agattcaaag      60
aagtcgaagc aaaaattggc tgagggacaa aatggtgtta tctctaatac tcctgtttgtg      120
gataatgtta gacaatcttc ttcttctcct cctcctgctc ttgctcctcg tgaagtgaga      180
gtagctgaag tgattgttga acggaacagg gatctttcac ctcttctac agcagatgct      240
gtgaatgtta cagctactga tgttcctgta gttccatctt catctgctcc tgggtgttggt      300
cgtcgcgcta cacctactcg atttgctgga aagtcaaacg aagaagccgc tgctatcttg      360
atccagacta tatttagagg ttatttggca aggagagcgt tgcgggcaat gagggggtttg      420
gtcagactta agttattgat ggaaggatct gttgttaagc ggcaagctgc aaatactcta      480
aaatgtatgc agactctctc tcgtgtacag tcgcagatcc gagctaggag aatcaggatg      540
tcagaagaga atcaggctcg ccagaaacaa ctcttcaga aacatgctaa agagctagct      600
ggcttgaaga acggggataa ctggaatgat agcattcaat caaaggagaa agttgaagcg      660
aatttgctaa gcaagtacga ggcaacaatg agaagggaaa gggcattggc ttattcatac      720
tctcatcagc aaaactggaa gaacaactct aaatctggaa acccgatggt catggatcca      780
agcaaccgga catgggggtt gagctggtta gagagatgga tggctggtag gccactagag      840
agttccgaga aagaacaaaa gcaacagcaa caatga      876

```

<210> 86

<211> 291

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 86

Met Gly Lys Lys Ala Lys Trp Phe Ser Ser Val Lys Lys Ala Phe Ser  
 1 5 10 15  
 Pro Asp Ser Lys Lys Ser Lys Gln Lys Leu Ala Glu Gly Gln Asn Gly  
 20 25 30  
 Val Ile Ser Asn Pro Pro Val Val Asp Asn Val Arg Gln Ser Ser Ser  
 35 40 45  
 Ser Pro Pro Pro Ala Leu Ala Pro Arg Glu Val Arg Val Ala Glu Val  
 50 55 60  
 Ile Val Glu Arg Asn Arg Asp Leu Ser Pro Pro Ser Thr Ala Asp Ala  
 65 70 75 80  
 Val Asn Val Thr Ala Thr Asp Val Pro Val Val Pro Ser Ser Ser Ala  
 85 90 95  
 Pro Gly Val Val Arg Arg Ala Thr Pro Thr Arg Phe Ala Gly Lys Ser  
 100 105 110  
 Asn Glu Glu Ala Ala Ala Ile Leu Ile Gln Thr Ile Phe Arg Gly Tyr  
 115 120 125  
 Leu Ala Arg Arg Ala Leu Arg Ala Met Arg Gly Leu Val Arg Leu Lys  
 130 135 140  
 Leu Leu Met Glu Gly Ser Val Val Lys Arg Gln Ala Ala Asn Thr Leu  
 145 150 155 160  
 Lys Cys Met Gln Thr Leu Ser Arg Val Gln Ser Gln Ile Arg Ala Arg  
 165 170 175  
 Arg Ile Arg Met Ser Glu Glu Asn Gln Ala Arg Gln Lys Gln Leu Leu  
 180 185 190  
 Gln Lys His Ala Lys Glu Leu Ala Gly Leu Lys Asn Gly Asp Asn Trp  
 195 200 205  
 Asn Asp Ser Ile Gln Ser Lys Glu Lys Val Glu Ala Asn Leu Leu Ser  
 210 215 220  
 Lys Tyr Glu Ala Thr Met Arg Arg Glu Arg Ala Leu Ala Tyr Ser Tyr  
 225 230 235 240

Ser His Gln Gln Asn Trp Lys Asn Asn Ser Lys Ser Gly Asn Pro Met  
 245 250 255

Phe Met Asp Pro Ser Asn Pro Thr Trp Gly Trp Ser Trp Leu Glu Arg  
 260 265 270

Trp Met Ala Gly Arg Pro Leu Glu Ser Ser Glu Lys Glu Gln Lys Gln  
 275 280 285

Gln Gln Gln  
 290

<210> 87

<211> 810

<212> DNA

<213> Arabidopsis thaliana

<400> 87

atgtctcctt tcaaaatatt cttcttcacg actcttctcg tggcggcggtt ttcagtgtcg	60
gctgctgatt tcaacactga cgtcaacgta gcttggggaa atggccgtgg gaagatactc	120
aacaacggcc agcttcttac tctctcctta gacaaatcct ctggttccgg ttttcaatcc	180
aaaacagagt atttgttttg aaagattgat atgcagatta agcttggttc tggttaactct	240
gcaggaacag tcacaacttt ttacctaaaa tccgaaggat ccacttgggg tgagattgat	300
tttgagttct tgggtaatat gagtggagat ccttatactt tacacactaa tgtttacact	360
caaggtaaag gtgacaaaga gcaacaattc catctctggt tcgacccaac cgccaatttc	420
cacacttact caatcctctg gaaccctcaa agaatcatat tgaccgtcga tgacacaccc	480
attagagagt ttaaaaacta tgagtctctc ggtgtcttgt ttccaaagaa caagccgatg	540
aggatgtacg cgagtttatg gaacgcagac gattgggcaa caagaggcgg tcttggttaa	600
actgattggt ctaaagctcc attcatggct tcttacagaa acattaagat tgactcgaaa	660
ccaaactcca attggtacac tcaagaaatg gattcaacaa gccaaagctag actcaaattg	720
gttcagaaga attacatgat ctacaattat tgtactgacc ataggagggt tccacaggga	780
gctcctaagg aatgcacaac aagctcatag	810

<210> 88

<211> 269

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 88

```

Met Ser Pro Phe Lys Ile Phe Phe Phe Thr Thr Leu Leu Val Ala Ala
1      5      10      15

Phe Ser Val Ser Ala Ala Asp Phe Asn Thr Asp Val Asn Val Ala Trp
20      25      30

Gly Asn Gly Arg Gly Lys Ile Leu Asn Asn Gly Gln Leu Leu Thr Leu
35      40      45

Ser Leu Asp Lys Ser Ser Gly Ser Gly Phe Gln Ser Lys Thr Glu Tyr
50      55      60

Leu Phe Gly Lys Ile Asp Met Gln Ile Lys Leu Val Pro Gly Asn Ser
65      70      75      80

Ala Gly Thr Val Thr Thr Phe Tyr Leu Lys Ser Glu Gly Ser Thr Trp
85      90      95

Asp Glu Ile Asp Phe Glu Phe Leu Gly Asn Met Ser Gly Asp Pro Tyr
100     105     110

Thr Leu His Thr Asn Val Tyr Thr Gln Gly Lys Gly Asp Lys Glu Gln
115     120     125

Gln Phe His Leu Trp Phe Asp Pro Thr Ala Asn Phe His Thr Tyr Ser
130     135     140

Ile Leu Trp Asn Pro Gln Arg Ile Ile Leu Thr Val Asp Asp Thr Pro
145     150     155     160

Ile Arg Glu Phe Lys Asn Tyr Glu Ser Leu Gly Val Leu Phe Pro Lys
165     170     175

Asn Lys Pro Met Arg Met Tyr Ala Ser Leu Trp Asn Ala Asp Asp Trp
180     185     190

Ala Thr Arg Gly Gly Leu Val Lys Thr Asp Trp Ser Lys Ala Pro Phe
195     200     205

Met Ala Ser Tyr Arg Asn Ile Lys Ile Asp Ser Lys Pro Asn Ser Asn
210     215     220

Trp Tyr Thr Gln Glu Met Asp Ser Thr Ser Gln Ala Arg Leu Lys Trp
225     230     235     240

```

Val Gln Lys Asn Tyr Met Ile Tyr Asn Tyr Cys Thr Asp His Arg Arg  
                   245                                  250                                  255

Phe Pro Gln Gly Ala Pro Lys Glu Cys Thr Thr Ser Ser  
                   260                                  265

<210> 89

<211> 1410

<212> DNA

<213> Arabidopsis thaliana

<400> 89

atggggtcgca acgtcaaaac caaggcaaag aggaagaaca agaagaaagc agaggcgtct	60
tcttccgaga taccatcgat accaactagg gtttggaac cagggtgttg tacccttgaa	120
gatggagaag aacttcagtg tgacccttct gcttataatt ctctccatgg cttccatgtt	180
ggttggccct gtctgagctt tgacatttta ggtgataagt tggggttgaa ccgaactgag	240
tttcctcaca cactttatat ggtggctggg actcaggctg agaaagcagc tcataactcc	300
atagggttat ttaaaatcac caacgtatct ggtaagagac gtgatgttgt gcctaagaca	360
tttggcaatg gtgaggatga ggatgaggat gacgaagatg acagtgacag cgatgatgat	420
gacggagatg aagcttctaa aactccaaat attcagggtt gaagggttgc tcaccatgga	480
tgtgttaacc gtatacgtgc aatgccacaa aactctcata tctgtgtctc ttgggcagat	540
tctggtcatg tacagggtctg ggacatgagc tctcatctta atgctttagc cgaatcagaa	600
acagagggtta aagatggaac ttcaccgggt ctttaaccaag cacccttggt taacttttct	660
ggtcacaaag atgaaggcta tgctatagac tggagtcctg caaccgctgg aagacttctt	720
tccggggact gcaagagtat gattcacctg tgggagccag cttctgggtc atgggctggt	780
gatcctattc cgttcgctgg acacactgca agtggtgaag atttacaatg gagtccagcc	840
gaagaaaacg tgtttgctc atgttctgtg gatgggagtg ttgcagtctg ggatattcga	900
cttggaagt cccctgcact atctttcaag gcacataacg cagatgtgaa tgtcatctca	960
tggaacaggc tggctagttg catgttggcc tcaggaagtg atgacgggac attctccatc	1020
cgtgatctta gactgatcaa aggtggagat gctgtggtag cacattttga gtaccataag	1080
catcctatta cgtcaattga atggagcgct catgaagctt cgacacttgc agtcacttcc	1140
ggtgataacc agctcacgat atgggatcta tccttagaga aggatgaaga agaagaggca	1200
gagttcaatg cacagaccaa ggaactagtc aacacacctc aagacttgcc tcctcagctt	1260

ctctttgttc accaaggaca aaaagatctg aaggaacttc actggcaciaa ccagattccg 1320  
 gggatgatca tctcaactgc tggatgatgt ttcaacatct taatgcctta caacattcag 1380  
 aacacgcttc cgtctgagct accagcctga 1410

<210> 90

<211> 469

<212> PRT

<213> Arabidopsis thaliana

<400> 90

Met Gly Arg Asn Val Lys Thr Lys Ala Lys Arg Lys Asn Lys Lys Lys  
 1 5 10 15

Ala Glu Ala Ser Ser Ser Glu Ile Pro Ser Ile Pro Thr Arg Val Trp  
 20 25 30

Gln Pro Gly Val Asp Thr Leu Glu Asp Gly Glu Glu Leu Gln Cys Asp  
 35 40 45

Pro Ser Ala Tyr Asn Ser Leu His Gly Phe His Val Gly Trp Pro Cys  
 50 55 60

Leu Ser Phe Asp Ile Leu Gly Asp Lys Leu Gly Leu Asn Arg Thr Glu  
 65 70 75 80

Phe Pro His Thr Leu Tyr Met Val Ala Gly Thr Gln Ala Glu Lys Ala  
 85 90 95

Ala His Asn Ser Ile Gly Leu Phe Lys Ile Thr Asn Val Ser Gly Lys  
 100 105 110

Arg Arg Asp Val Val Pro Lys Thr Phe Gly Asn Gly Glu Asp Glu Asp  
 115 120 125

Glu Asp Asp Glu Asp Asp Ser Asp Ser Asp Asp Asp Asp Gly Asp Glu  
 130 135 140

Ala Ser Lys Thr Pro Asn Ile Gln Val Arg Arg Val Ala His His Gly  
 145 150 155 160

Cys Val Asn Arg Ile Arg Ala Met Pro Gln Asn Ser His Ile Cys Val  
 165 170 175



Ser Trp Ala Asp Ser Gly His Val Gln Val Trp Asp Met Ser Ser His  
 180 185 190  
 Leu Asn Ala Leu Ala Glu Ser Glu Thr Glu Gly Lys Asp Gly Thr Ser  
 195 200 205  
 Pro Val Leu Asn Gln Ala Pro Leu Val Asn Phe Ser Gly His Lys Asp  
 210 215 220  
 Glu Gly Tyr Ala Ile Asp Trp Ser Pro Ala Thr Ala Gly Arg Leu Leu  
 225 230 235 240  
 Ser Gly Asp Cys Lys Ser Met Ile His Leu Trp Glu Pro Ala Ser Gly  
 245 250 255  
 Ser Trp Ala Val Asp Pro Ile Pro Phe Ala Gly His Thr Ala Ser Val  
 260 265 270  
 Glu Asp Leu Gln Trp Ser Pro Ala Glu Glu Asn Val Phe Ala Ser Cys  
 275 280 285  
 Ser Val Asp Gly Ser Val Ala Val Trp Asp Ile Arg Leu Gly Lys Ser  
 290 295 300  
 Pro Ala Leu Ser Phe Lys Ala His Asn Ala Asp Val Asn Val Ile Ser  
 305 310 315 320  
 Trp Asn Arg Leu Ala Ser Cys Met Leu Ala Ser Gly Ser Asp Asp Gly  
 325 330 335  
 Thr Phe Ser Ile Arg Asp Leu Arg Leu Ile Lys Gly Gly Asp Ala Val  
 340 345 350  
 Val Ala His Phe Glu Tyr His Lys His Pro Ile Thr Ser Ile Glu Trp  
 355 360 365  
 Ser Ala His Glu Ala Ser Thr Leu Ala Val Thr Ser Gly Asp Asn Gln  
 370 375 380  
 Leu Thr Ile Trp Asp Leu Ser Leu Glu Lys Asp Glu Glu Glu Glu Ala  
 385 390 395 400  
 Glu Phe Asn Ala Gln Thr Lys Glu Leu Val Asn Thr Pro Gln Asp Leu  
 405 410 415  
 Pro Pro Gln Leu Leu Phe Val His Gln Gly Gln Lys Asp Leu Lys Glu  
 420 425 430

047-E2F-PCT.ST25.txt

Leu His Trp His Asn Gln Ile Pro Gly Met Ile Ile Ser Thr Ala Gly  
 435 440 445

Asp Gly Phe Asn Ile Leu Met Pro Tyr Asn Ile Gln Asn Thr Leu Pro  
 450 455 460

Ser Glu Leu Pro Ala  
 465

<210> 91

<211> 825

<212> DNA

<213> Arabidopsis thaliana

<400> 91

atggagttac atgagatctc aaagctcgac aataagaagc atccagagag aattgttgaa	60
tcgaagatga agaagagaat gaaaccttat tctctcacgt ctcttaacaa tctcgacgat	120
ggttgccctta tgcataatcct cagcttccta tctccaattc cagataggta taacacagca	180
ctcgtttgcc acagatggag atatctggcg tgtcacccctc gcttgtggct ccgtgttgac	240
cgttttgtca aggatttatc tcagcctgga gttttcctca acattgagtc agctgtatct	300
gcagcaagac ccggcgatac cattttaata gtagccggtg ggaactatcg cgtttcta	360
attcagatta aaaagcctct ttgcctgggc ggtggaggcg agattcctga tgaaaccacc	420
ctcgtctgtg ctcgtgggtc agacagtgcc ctggaactgt tatcaacctg caagcttgcg	480
aatttaacag taaaagcaga gctcgggtgc tgtttgcttc ataggagtgg aaggctaacg	540
attgatggat gtgtgcttca atgtgagaca aaccctttgg atcatctctc atgccaatc	600
gtgagcactg ctggagatga agacattgaa aatatcttaa gccatgtgga agtgaaagaa	660
actgttactg gaaagattaa agcaaacagt gtaaccgttt tgcagacaag aatcgaggga	720
ggtgcaaagg ctgtttcaac aaggggagac ttggttctgc agcgtgttcg agtcatgtat	780
tccaaggctt acctctatct ctggtttgat gtagattatg aatga	825

<210> 92

<211> 274

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 92

Met Glu Leu His Glu Ile Ser Lys Leu Asp Asn Lys Lys His Pro Glu  
 1 5 10 15

Arg Ile Val Glu Ser Lys Met Lys Lys Arg Met Lys Pro Tyr Ser Leu  
 20 25 30

Thr Ser Leu Asn Asn Leu Asp Asp Gly Cys Leu Met His Ile Leu Ser  
 35 40 45

Phe Leu Ser Pro Ile Pro Asp Arg Tyr Asn Thr Ala Leu Val Cys His  
 50 55 60

Arg Trp Arg Tyr Leu Ala Cys His Pro Arg Leu Trp Leu Arg Val Asp  
 65 70 75 80

Arg Phe Val Lys Asp Leu Ser Gln Pro Gly Val Phe Leu Asn Ile Glu  
 85 90 95

Ser Ala Val Ser Ala Ala Arg Pro Gly Asp Thr Ile Leu Ile Val Ala  
 100 105 110

Gly Gly Asn Tyr Arg Val Ser Asn Ile Gln Ile Lys Lys Pro Leu Cys  
 115 120 125

Leu Val Gly Gly Gly Glu Ile Pro Asp Glu Thr Thr Leu Val Cys Ala  
 130 135 140

Arg Gly Ser Asp Ser Ala Leu Glu Leu Leu Ser Thr Cys Lys Leu Ala  
 145 150 155 160

Asn Leu Thr Val Lys Ala Glu Leu Gly Cys Cys Leu Leu His Arg Ser  
 165 170 175

Gly Arg Leu Thr Ile Asp Gly Cys Val Leu Gln Cys Glu Thr Asn Pro  
 180 185 190

Leu Asp His Leu Ser Cys Pro Ile Val Ser Thr Ala Gly Asp Glu Asp  
 195 200 205

Ile Glu Asn Ile Leu Ser His Val Glu Val Lys Glu Thr Val Thr Gly  
 210 215 220

Lys Ile Lys Ala Asn Ser Val Thr Val Leu Gln Thr Arg Ile Glu Gly  
 225 230 235 240

Gly Ala Lys Ala Val Ser Thr Arg Gly Asp Leu Val Leu Gln Arg Val  
 Page 141

Arg Val Met Tyr Ser Lys Ala Tyr Leu Tyr Phe Trp Phe Asp Val Asp  
260 265 270

Tyr Glu

<210> 93

<211> 3396

<212> DNA

<213> Arabidopsis thaliana

<400> 93

atgtcttctc ttagtagaga gctcgttttc ttgatcttac agtttctcga tgaagagaag	60
tttaaagaga ctgttcacaa gcttgaacaa gaatctgggt ttttcttcaa tatgaagtat	120
tttgaggatg aggttcacaa tggaaattgg gatgaggttg agaagtatct ctctggtttc	180
actaaagtag atgataatag atactctatg aagatattct tcgagataag aaagcagaag	240
tatctcgagg ctttggataa gcatgatcgt cccaaggctg tggatatact agtgaaggat	300
ttgaaagtgt tttcaacttt taatgaggag cttttcaagg aaataacaca gctcttgaca	360
ttggagaact tccgggagaa tgaacagtta tccaagtatg gggacaccaa gtctgcaaga	420
gcgatcatgt tgggtggaact caaaaagctg attgaggcga atcctttatt ccgtgataaa	480
ttgcagttcc ctactcttag aaattcaagg ctgaggactt tgatcaacca gagcttaa	540
tggcaacacc agctttgtaa aaatccaagg ccaaattccag atatcaagac tctttttgtg	600
gatcactctt gtggccctcc aaatggcgca cgagctccat ctctgtgaa caatccactg	660
cttggagggga taccaaaggc tggaggatct cctccttttag gcgcacacgg gccatttcaa	720
ccaacggcgt cacctgttcc aacacctctt gctgggttga tgtctagtcc atcctctgtc	780
ccacatccag ctgtctcagc aggagccatt gcacttggtg gtccatcaat cccagcggcg	840
ttgaagcacc cgagaactcc tccaactaat gcttcttttag actaccgctc agcagattct	900
gaacatgtct caaaaagaac aagaccaatg ggaatctctg acgaggtgaa tctaggcgtg	960
aacatgttac cgatgtcatt ttcagggcag gcccatggtc attctccggc tttcaaagca	1020
cctgacgact tgcccaagac agttgcgaga actttgagtc agggctcatc tcccatgagc	1080
atggatttcc atccaattaa acagaccctg cttctagttg gtacaaatgt aggtgatatc	1140
gggctgtggg aagttggttc tcgcgaaaga ttagtacaga agacgttcaa agtctgggat	1200
ttgagtaa	1260

## 047-E2F-PCT.ST25.txt

aaccgtgtga tatggagccc tgacggttcc ttgtttggag ttgcttactc gagacatatt 1320  
gtacaactat actcttatca cggagggtgaa gacatgaggc aacaccttga gattgatgct 1380  
catgttggtg gtgtgaatga tatttccttc tcgactccaa acaagcaact atgtgtaata 1440  
acttgtggtg atgacaaaac catcaagggt tgggacgctg caacagggtg caaaaggcat 1500  
acttttgaag gccatgaagc tcctgtttat tccgtttgtc ctcattacaa ggaaaacatt 1560  
cagttcatat tttcaacagc tcttgatggg aaaattaagg cttggttgta tgataatatg 1620  
ggttcccgag ttgactatga tgcacctggt cgctggtgta ctacaatggc ttatagtgcc 1680  
gatggtacta ggctattctc ttgtgggacg agtaaagatg gagagtcttt cattgttgag 1740  
tggaatgaaa gcgaaggagc tggtaaaaga acttatcaag gattccacaa gcgttctcta 1800  
ggtgttgtgc agtttgatac aactaaaaac cgttatctag ctgcgggtga tgatttctcc 1860  
atcaagttct gggatatgga cgctgtacag cttttaactg ccattgatgg cgatggaggc 1920  
ctccaggcaa gcccgcgat ccggttcaac aaggaaggct ctctcctggc cgtgtctggc 1980  
aacgagaatg tgatcaagat tatggcaaac tcagatggtc taaggctatt gcacactttt 2040  
gagaacatat catctgaatc ctccaagcct gcaataaaca gcatagcagc ggcagcggca 2100  
gctgctgcaa caagtgctgg tcacgcagat cgatcagcca atgtagtttc catccaagga 2160  
atgaatggag attcgcggaa tatggtggat gtgaagccag tgatcacaga agaatcaa 2220  
gataagtcta agatatggaa gcttactgaa gtcagcagc cttctcaatg caggtcactg 2280  
agactccctg agaatctgag agtagccaag atatcaagat tgattttcac gaattcggga 2340  
aatgctattt tggtctctggc atcaaacgca attcatcttc tatggaaatg gcagcggaa 2400  
gagcgcaacg caactggaaa ggcgacagct tctttaccgc ctcagcagtg gcaaccagct 2460  
agtgggatcc tcatgactaa cgatgttgct gaaaccaatc ccgaggaagc tgtaccttgt 2520  
tttgctttat ccaagaatga ttcatatgta atgtcagcct ccggaggaaa gatatcctta 2580  
tttaacatga tgacgtttta gacaatggcg actttcatgc cccaccacc ggctgctact 2640  
tttcttgctt ttcacacctca agacaacaat atcatcgcta ttgggatgga tgatagcacg 2700  
attcagattt ataatgtccg tgttgatgag gtgaagagta agcttaaagg tcattcaaag 2760  
agaataactg gtcttgctt ctccaacgta ttaaactgtg ttggtttcgtc tggagcagat 2820  
gcacagcttt gtgtttggaa cacagatgga tgggaaaagc agagaagcaa ggttttgcca 2880  
cttccacagg gaagaccaa cagtgcacct tcagatacgc gtgttcagtt ccatcaagat 2940  
caagctcact tcctcgttgt gcacgagacg caacttgcta tatacgaaac taccaagctc 3000  
gaatgcatga aacagtgggc tgttcgagaa tcattagctc caatcactca tgccacattc 3060  
tcatgcgata gccaatgggt ctacgcgagt tttatggatg caacagtttg tgtatttagc 3120

047-E2F-PCT.ST25.txt

tctgcaaatc tacggctgcg ttgccggggtc aacccttctg cgtatctacc agctagtctc 3180  
 agcaattcaa acgtacatcc actagtgatt gctgcacatc cgcaagaacc aaacatgttt 3240  
 gcagttggtc tctcagacgg gggagtgcac atattcgaac cgctcgagtc tgaaggtaaa 3300  
 tggggagtcg ctccaccggc tgagaacggg tcggctagcg gtgcaccaac tgcaccttcc 3360  
 gttggagcct ctgcatctga tcagcctcag agatga 3396

<210> 94

<211> 1131

<212> PRT

<213> Arabidopsis thaliana

<400> 94

Met Ser Ser Leu Ser Arg Glu Leu Val Phe Leu Ile Leu Gln Phe Leu  
 1 5 10 15

Asp Glu Glu Lys Phe Lys Glu Thr Val His Lys Leu Glu Gln Glu Ser  
 20 25 30

Gly Phe Phe Phe Asn Met Lys Tyr Phe Glu Asp Glu Val His Asn Gly  
 35 40 45

Asn Trp Asp Glu Val Glu Lys Tyr Leu Ser Gly Phe Thr Lys Val Asp  
 50 55 60

Asp Asn Arg Tyr Ser Met Lys Ile Phe Phe Glu Ile Arg Lys Gln Lys  
 65 70 75 80

Tyr Leu Glu Ala Leu Asp Lys His Asp Arg Pro Lys Ala Val Asp Ile  
 85 90 95

Leu Val Lys Asp Leu Lys Val Phe Ser Thr Phe Asn Glu Glu Leu Phe  
 100 105 110

Lys Glu Ile Thr Gln Leu Leu Thr Leu Glu Asn Phe Arg Glu Asn Glu  
 115 120 125

Gln Leu Ser Lys Tyr Gly Asp Thr Lys Ser Ala Arg Ala Ile Met Leu  
 130 135 140

Val Glu Leu Lys Lys Leu Ile Glu Ala Asn Pro Leu Phe Arg Asp Lys  
 145 150 155 160

Leu Gln Phe Pro Thr Leu Arg Asn Ser Arg Leu Arg Thr Leu Ile Asn  
 165 170 175  
 Gln Ser Leu Asn Trp Gln His Gln Leu Cys Lys Asn Pro Arg Pro Asn  
 180 185 190  
 Pro Asp Ile Lys Thr Leu Phe Val Asp His Ser Cys Gly Pro Pro Asn  
 195 200 205  
 Gly Ala Arg Ala Pro Ser Pro Val Asn Asn Pro Leu Leu Gly Gly Ile  
 210 215 220  
 Pro Lys Ala Gly Gly Phe Pro Pro Leu Gly Ala His Gly Pro Phe Gln  
 225 230 235 240  
 Pro Thr Ala Ser Pro Val Pro Thr Pro Leu Ala Gly Trp Met Ser Ser  
 245 250 255  
 Pro Ser Ser Val Pro His Pro Ala Val Ser Ala Gly Ala Ile Ala Leu  
 260 265 270  
 Gly Gly Pro Ser Ile Pro Ala Ala Leu Lys His Pro Arg Thr Pro Pro  
 275 280 285  
 Thr Asn Ala Ser Leu Asp Tyr Pro Ser Ala Asp Ser Glu His Val Ser  
 290 295 300  
 Lys Arg Thr Arg Pro Met Gly Ile Ser Asp Glu Val Asn Leu Gly Val  
 305 310 315 320  
 Asn Met Leu Pro Met Ser Phe Ser Gly Gln Ala His Gly His Ser Pro  
 325 330 335  
 Ala Phe Lys Ala Pro Asp Asp Leu Pro Lys Thr Val Ala Arg Thr Leu  
 340 345 350  
 Ser Gln Gly Ser Ser Pro Met Ser Met Asp Phe His Pro Ile Lys Gln  
 355 360 365  
 Thr Leu Leu Leu Val Gly Thr Asn Val Gly Asp Ile Gly Leu Trp Glu  
 370 375 380  
 Val Gly Ser Arg Glu Arg Leu Val Gln Lys Thr Phe Lys Val Trp Asp  
 385 390 395 400  
 Leu Ser Lys Cys Ser Met Pro Leu Gln Ala Ala Leu Val Lys Glu Pro  
 405 410 415

047-E2F-PCT.ST25.txt

Val Val Ser Val Asn Arg Val Ile Trp Ser Pro Asp Gly Ser Leu Phe  
 420 425 430  
 Gly Val Ala Tyr Ser Arg His Ile Val Gln Leu Tyr Ser Tyr His Gly  
 435 440 445  
 Gly Glu Asp Met Arg Gln His Leu Glu Ile Asp Ala His Val Gly Gly  
 450 455 460  
 Val Asn Asp Ile Ser Phe Ser Thr Pro Asn Lys Gln Leu Cys Val Ile  
 465 470 475 480  
 Thr Cys Gly Asp Asp Lys Thr Ile Lys Val Trp Asp Ala Ala Thr Gly  
 485 490 495  
 Val Lys Arg His Thr Phe Glu Gly His Glu Ala Pro Val Tyr Ser Val  
 500 505 510  
 Cys Pro His Tyr Lys Glu Asn Ile Gln Phe Ile Phe Ser Thr Ala Leu  
 515 520 525  
 Asp Gly Lys Ile Lys Ala Trp Leu Tyr Asp Asn Met Gly Ser Arg Val  
 530 535 540  
 Asp Tyr Asp Ala Pro Gly Arg Trp Cys Thr Thr Met Ala Tyr Ser Ala  
 545 550 555 560  
 Asp Gly Thr Arg Leu Phe Ser Cys Gly Thr Ser Lys Asp Gly Glu Ser  
 565 570 575  
 Phe Ile Val Glu Trp Asn Glu Ser Glu Gly Ala Val Lys Arg Thr Tyr  
 580 585 590  
 Gln Gly Phe His Lys Arg Ser Leu Gly Val Val Gln Phe Asp Thr Thr  
 595 600 605  
 Lys Asn Arg Tyr Leu Ala Ala Gly Asp Asp Phe Ser Ile Lys Phe Trp  
 610 615 620  
 Asp Met Asp Ala Val Gln Leu Leu Thr Ala Ile Asp Gly Asp Gly Gly  
 625 630 635 640  
 Leu Gln Ala Ser Pro Arg Ile Arg Phe Asn Lys Glu Gly Ser Leu Leu  
 645 650 655  
 Ala Val Ser Gly Asn Glu Asn Val Ile Lys Ile Met Ala Asn Ser Asp  
 660 665 670



047-E2F-PCT.ST25.txt

Gly Leu Arg Leu Leu His Thr Phe Glu Asn Ile Ser Ser Glu Ser Ser  
 675 680 685  
 Lys Pro Ala Ile Asn Ser Ile Ala Ala Ala Ala Ala Ala Ala Ala Thr  
 690 695 700  
 Ser Ala Gly His Ala Asp Arg Ser Ala Asn Val Val Ser Ile Gln Gly  
 705 710 715 720  
 Met Asn Gly Asp Ser Arg Asn Met Val Asp Val Lys Pro Val Ile Thr  
 725 730 735  
 Glu Glu Ser Asn Asp Lys Ser Lys Ile Trp Lys Leu Thr Glu Val Ser  
 740 745 750  
 Glu Pro Ser Gln Cys Arg Ser Leu Arg Leu Pro Glu Asn Leu Arg Val  
 755 760 765  
 Ala Lys Ile Ser Arg Leu Ile Phe Thr Asn Ser Gly Asn Ala Ile Leu  
 770 775 780  
 Ala Leu Ala Ser Asn Ala Ile His Leu Leu Trp Lys Trp Gln Arg Asn  
 785 790 795 800  
 Glu Arg Asn Ala Thr Gly Lys Ala Thr Ala Ser Leu Pro Pro Gln Gln  
 805 810 815  
 Trp Gln Pro Ala Ser Gly Ile Leu Met Thr Asn Asp Val Ala Glu Thr  
 820 825 830  
 Asn Pro Glu Glu Ala Val Pro Cys Phe Ala Leu Ser Lys Asn Asp Ser  
 835 840 845  
 Tyr Val Met Ser Ala Ser Gly Gly Lys Ile Ser Leu Phe Asn Met Met  
 850 855 860  
 Thr Phe Lys Thr Met Ala Thr Phe Met Pro Pro Pro Pro Ala Ala Thr  
 865 870 875 880  
 Phe Leu Ala Phe His Pro Gln Asp Asn Asn Ile Ile Ala Ile Gly Met  
 885 890 895  
 Asp Asp Ser Thr Ile Gln Ile Tyr Asn Val Arg Val Asp Glu Val Lys  
 900 905 910  
 Ser Lys Leu Lys Gly His Ser Lys Arg Ile Thr Gly Leu Ala Phe Ser

915

920

925

Asn Val Leu Asn Val Leu Val Ser Ser Gly Ala Asp Ala Gln Leu Cys  
 930 935 940

Val Trp Asn Thr Asp Gly Trp Glu Lys Gln Arg Ser Lys Val Leu Pro  
 945 950 955 960

Leu Pro Gln Gly Arg Pro Asn Ser Ala Pro Ser Asp Thr Arg Val Gln  
 965 970 975

Phe His Gln Asp Gln Ala His Phe Leu Val Val His Glu Thr Gln Leu  
 980 985 990

Ala Ile Tyr Glu Thr Thr Lys Leu Glu Cys Met Lys Gln Trp Ala Val  
 995 1000 1005

Arg Glu Ser Leu Ala Pro Ile Thr His Ala Thr Phe Ser Cys Asp  
 1010 1015 1020

Ser Gln Leu Val Tyr Ala Ser Phe Met Asp Ala Thr Val Cys Val  
 1025 1030 1035

Phe Ser Ser Ala Asn Leu Arg Leu Arg Cys Arg Val Asn Pro Ser  
 1040 1045 1050

Ala Tyr Leu Pro Ala Ser Leu Ser Asn Ser Asn Val His Pro Leu  
 1055 1060 1065

Val Ile Ala Ala His Pro Gln Glu Pro Asn Met Phe Ala Val Gly  
 1070 1075 1080

Leu Ser Asp Gly Gly Val His Ile Phe Glu Pro Leu Glu Ser Glu  
 1085 1090 1095

Gly Lys Trp Gly Val Ala Pro Pro Ala Glu Asn Gly Ser Ala Ser  
 1100 1105 1110

Gly Ala Pro Thr Ala Pro Ser Val Gly Ala Ser Ala Ser Asp Gln  
 1115 1120 1125

Pro Gln Arg  
 1130

<210> 95

<211> 1071

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 95

```

atgagtcttc ttgcagatct tggttaacctt gacatctcag acaacagtga aaagatcatc    60
gctgaataca tatgggttgg tggttctggt atggacatga gaagcaaagc caggactctc    120
cctggacctg tgaccgatcc atcaaaactt ccaaagtgga actatgatgg ttcaagcact    180
gggtcaagctc ctggtcaaga cagtgaagtg atcttatacc ctcaagcaat tttcaaagat    240
ccattccgta gaggcaacaa catccttggt atgtgtgatg cttacactcc agcgggagag    300
ccaatcccta ctaacaagcg acatgctgcg gctgagatct ttgctaaccc tgatgttatt    360
gctgaagtgc catggtatgg aatcgaacaa gaatacactt tgttgcagaa ggatgtgaac    420
tggcctcttg gatggcccat tgggtggcttc cctggccctc agggaccata ctactgcagt    480
attggagctg acaaatcttt tggaagagac attgttgatg ctactacaa agcctctttg    540
tatgctggaa tcaacatcag tgggatcaat ggagaagtca tgccgggaca atgggagttc    600
caagtcggcc catcggtcgg tatctcagct gctgatgaaa tatggatcgc tcgttacatt    660
ttggagagga tcacagagat tgctggtgtg gttgtatctt ttgacccaaa acctattcct    720
ggtgactgga atggagctgg tgctcacacc aattacagta ctaaataaat gagggaagaa    780
ggaggatacg agataatcaa gaaggcgatc gagaagcttg gcttgagaca caaggaacac    840
atctccgctt acggtgaagg aaacgagcgt cgtctcacgg gacaccatga aactgctgac    900
atcaacactt tcctttgggg tgttgcgaac cgtggtgcat cgatccgagt aggacgtgac    960
accgagaaag aagggaaggg ataccttgag gataggaggg cagcttcaaa catggaccct   1020
tacgttggtta cttccatgat tgcagagact acactcctct ggaacccttg a           1071

```

&lt;210&gt; 96

&lt;211&gt; 356

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 96

```

Met Ser Leu Leu Ala Asp Leu Val Asn Leu Asp Ile Ser Asp Asn Ser
1           5           10           15

```

```

Glu Lys Ile Ile Ala Glu Tyr Ile Trp Val Gly Gly Ser Gly Met Asp
          20           25           30

```

047-E2F-PCT.ST25.txt

Met Arg Ser Lys Ala Arg Thr Leu Pro Gly Pro Val Thr Asp Pro Ser  
35 40 45

Lys Leu Pro Lys Trp Asn Tyr Asp Gly Ser Ser Thr Gly Gln Ala Pro  
50 55 60

Gly Gln Asp Ser Glu Val Ile Leu Tyr Pro Gln Ala Ile Phe Lys Asp  
65 70 75 80

Pro Phe Arg Arg Gly Asn Asn Ile Leu Val Met Cys Asp Ala Tyr Thr  
85 90 95

Pro Ala Gly Glu Pro Ile Pro Thr Asn Lys Arg His Ala Ala Ala Glu  
100 105 110

Ile Phe Ala Asn Pro Asp Val Ile Ala Glu Val Pro Trp Tyr Gly Ile  
115 120 125

Glu Gln Glu Tyr Thr Leu Leu Gln Lys Asp Val Asn Trp Pro Leu Gly  
130 135 140

Trp Pro Ile Gly Gly Phe Pro Gly Pro Gln Gly Pro Tyr Tyr Cys Ser  
145 150 155 160

Ile Gly Ala Asp Lys Ser Phe Gly Arg Asp Ile Val Asp Ala His Tyr  
165 170 175

Lys Ala Ser Leu Tyr Ala Gly Ile Asn Ile Ser Gly Ile Asn Gly Glu  
180 185 190

Val Met Pro Gly Gln Trp Glu Phe Gln Val Gly Pro Ser Val Gly Ile  
195 200 205

Ser Ala Ala Asp Glu Ile Trp Ile Ala Arg Tyr Ile Leu Glu Arg Ile  
210 215 220

Thr Glu Ile Ala Gly Val Val Val Ser Phe Asp Pro Lys Pro Ile Pro  
225 230 235 240

Gly Asp Trp Asn Gly Ala Gly Ala His Thr Asn Tyr Ser Thr Lys Ser  
245 250 255

Met Arg Glu Glu Gly Gly Tyr Glu Ile Ile Lys Lys Ala Ile Glu Lys  
260 265 270

Leu Gly Leu Arg His Lys Glu His Ile Ser Ala Tyr Gly Glu Gly Asn  
275 280 285

Glu Arg Arg Leu Thr Gly His His Glu Thr Ala Asp Ile Asn Thr Phe  
 290 295 300

Leu Trp Gly Val Ala Asn Arg Gly Ala Ser Ile Arg Val Gly Arg Asp  
 305 310 315 320

Thr Glu Lys Glu Gly Lys Gly Tyr Phe Glu Asp Arg Arg Pro Ala Ser  
 325 330 335

Asn Met Asp Pro Tyr Val Val Thr Ser Met Ile Ala Glu Thr Thr Leu  
 340 345 350

Leu Trp Asn Pro  
 355

<210> 97

<211> 630

<212> DNA

<213> Arabidopsis thaliana

<400> 97

atggcggcgg ttaggagaag agaacgagat gtggttgaag agaatggagt tacgacgacg	60
acggtgaaac gaaggaagat ggaggaggaa gtggatttag tggaatctag gataattctg	120
tctccgtgtg tacaggcgac gaatcgcggt ggaattgtgg cgagaaattc agcaggagcg	180
tcggagacga gtgttggttat agtacgacgg cgagattctc ctccggttga agaacagtgt	240
caaatcgaag aagaagattc gtcggtttcg tgttgttcta catcggaaga gaaatcgaag	300
cggagaatcg aatttgtaga tcttgaggaa aataacggtg acgatcgtga aacagaaacg	360
tcgtggattt acgatgattt gaataagagt gaggaatcga tgaacatgga ttcttcttcg	420
gtggctgttg aagatgtaga gtctcgccgc aggttaagga agagtctcca tgagacggtg	480
aaggaagctg agttagaaga cttttttcag gtggcggaga aagatcttcg gaataagttg	540
ttggaatggt ctatgaagta taacttcgat ttcgagaaag atgagccact tgggtggagga	600
agatacgagt gggttaaatt gaatccatga	630

<210> 98

<211> 209

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 98

Met Ala Ala Val Arg Arg Arg Glu Arg Asp Val Val Glu Glu Asn Gly  
 1 5 10 15  
 Val Thr Thr Thr Thr Val Lys Arg Arg Lys Met Glu Glu Glu Val Asp  
 20 25 30  
 Leu Val Glu Ser Arg Ile Ile Leu Ser Pro Cys Val Gln Ala Thr Asn  
 35 40 45  
 Arg Gly Gly Ile Val Ala Arg Asn Ser Ala Gly Ala Ser Glu Thr Ser  
 50 55 60  
 Val Val Ile Val Arg Arg Arg Asp Ser Pro Pro Val Glu Glu Gln Cys  
 65 70 75 80  
 Gln Ile Glu Glu Glu Asp Ser Ser Val Ser Cys Cys Ser Thr Ser Glu  
 85 90 95  
 Glu Lys Ser Lys Arg Arg Ile Glu Phe Val Asp Leu Glu Glu Asn Asn  
 100 105 110  
 Gly Asp Asp Arg Glu Thr Glu Thr Ser Trp Ile Tyr Asp Asp Leu Asn  
 115 120 125  
 Lys Ser Glu Glu Ser Met Asn Met Asp Ser Ser Ser Val Ala Val Glu  
 130 135 140  
 Asp Val Glu Ser Arg Arg Arg Leu Arg Lys Ser Leu His Glu Thr Val  
 145 150 155 160  
 Lys Glu Ala Glu Leu Glu Asp Phe Phe Gln Val Ala Glu Lys Asp Leu  
 165 170 175  
 Arg Asn Lys Leu Leu Glu Cys Ser Met Lys Tyr Asn Phe Asp Phe Glu  
 180 185 190  
 Lys Asp Glu Pro Leu Gly Gly Gly Arg Tyr Glu Trp Val Lys Leu Asn  
 195 200 205  
 Pro

&lt;210&gt; 99

&lt;211&gt; 495

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 99

```

atgggtcaat tcttagagaa ggcaacttcg gctctcagcg aagccaaaga atccgttaca    60
agcaccgctg aatccgtcac ggcttctctc actgatgctg agaaaaccgt taaccaaacc    120
gccaggagca ctctaactga cgccgagaca accgttgcag catctgttga aacgggtcaag    180
accgaggctg cagccgcacc agacaaagcg tctggtgtgt ctacacaggc taaggatgca    240
gtggacaaag ctttttctag aggtatagaa ggagccaaat ctttgcttca aactttcgaa    300
gcgaagagca gcgatatttc ctcaaagctt gttggagggtg ttaccaatct tgtgagtgga    360
gcatcgagca gcaccgtggc aaaccgagac cttccagtat ctacagacaa ccagcctctg    420
ctagcgtctg gtgaaaagac gccgtggtgg aagaattggt gtggagttct tgatcttttc    480
aagaaagata cttaa                                         495

```

&lt;210&gt; 100

&lt;211&gt; 164

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 100

```

Met Ala Gln Phe Leu Glu Lys Ala Thr Ser Ala Leu Ser Glu Ala Lys
1           5           10           15

Glu Ser Val Thr Ser Thr Ala Glu Ser Val Thr Ala Ser Leu Thr Asp
20           25           30

Ala Glu Lys Thr Val Asn Gln Thr Ala Arg Ser Thr Leu Thr Asp Ala
35           40           45

Glu Thr Thr Val Ala Ala Ser Val Glu Thr Val Lys Thr Glu Ala Ala
50           55           60

Ala Ala Pro Asp Lys Ala Ser Gly Val Ser Thr Gln Ala Lys Asp Ala
65           70           75           80

Val Asp Lys Ala Phe Ser Arg Gly Ile Glu Gly Ala Lys Ser Leu Leu
85           90           95

```

047-E2F-PCT.ST25.txt

Gln Thr Phe Glu Ala Lys Ser Ser Asp Ile Ser Ser Lys Leu Val Gly  
100 105 110

Gly Val Thr Asn Leu Val Ser Gly Ala Ser Ser Ser Thr Val Ala Asn  
115 120 125

Arg Asp Leu Pro Val Ser Thr Asp Asn Gln Pro Leu Leu Ala Ser Gly  
130 135 140

Glu Lys Thr Pro Trp Trp Lys Asn Cys Cys Gly Val Leu Asp Leu Phe  
145 150 155 160

Lys Lys Asp Thr

<210> 101

<211> 867

<212> DNA

<213> Arabidopsis thaliana

<400> 101

atgtctggag cattgaatat gactcttgat gagattgtta agaggggtaa aactgcaagg	60
tctgggggaa gagggatttc tcgtgggcgt ggtcgtggac gtggtggtgg tggaagagga	120
gctggacctg ctagaagagg tcctcttgct gtgaatgctc gtccatcatc tttcaccatt	180
aacaagcctg tccgtagggt caggagcttg ccatggcaaa gcggtttggt tgaagatggc	240
ctaagagctg cgggggcatc aggagttgaa gttggaacca ggctccatgt tacaatctg	300
gaccagggtg tgacaaatga agatataagg gaactcttct ctgagattgg ggaggtagag	360
cgttatgcga ttcattatga caaaaatggg cgtccaagtg gcacagctga agtgggtgtat	420
ccaagaagaa gtgatgcatt tcaagctctg aagaaatata acaatgtgct attggatgga	480
aggccaatga gacttgagat tttgggtggc aacaattctt ccgaggctcc tttatctggt	540
cgtgtgaatg tgaatgtcac tggactcaat ggaaggctga agaggacggt tgttatccaa	600
caaggaggag gagggagagg aagagttaga ggtgggagag gaggaagagg tccagctcct	660
actgtcagtc gccgccttcc aattcataac cagcaggag gagggatgag aggaggaaga	720
ggcgggtttc gtgctagagg gcgtggtaat ggtggccgtg gtcgtggtgg tggaagagga	780
aatggaaaga agccagtgga gaagtcagct gctgatcttg acaaagatct tgagagctat	840
cacgctgatg ccatgaacac ctcttaa	867



&lt;210&gt; 102

&lt;211&gt; 288

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 102

Met Ser Gly Ala Leu Asn Met Thr Leu Asp Glu Ile Val Lys Arg Gly  
 1 5 10 15

Lys Thr Ala Arg Ser Gly Gly Arg Gly Ile Ser Arg Gly Arg Gly Arg  
 20 25 30

Gly Arg Gly Gly Gly Gly Arg Gly Ala Gly Pro Ala Arg Arg Gly Pro  
 35 40 45

Leu Ala Val Asn Ala Arg Pro Ser Ser Phe Thr Ile Asn Lys Pro Val  
 50 55 60

Arg Arg Val Arg Ser Leu Pro Trp Gln Ser Gly Leu Phe Glu Asp Gly  
 65 70 75 80

Leu Arg Ala Ala Gly Ala Ser Gly Val Glu Val Gly Thr Arg Leu His  
 85 90 95

Val Thr Asn Leu Asp Gln Gly Val Thr Asn Glu Asp Ile Arg Glu Leu  
 100 105 110

Phe Ser Glu Ile Gly Glu Val Glu Arg Tyr Ala Ile His Tyr Asp Lys  
 115 120 125

Asn Gly Arg Pro Ser Gly Thr Ala Glu Val Val Tyr Pro Arg Arg Ser  
 130 135 140

Asp Ala Phe Gln Ala Leu Lys Lys Tyr Asn Asn Val Leu Leu Asp Gly  
 145 150 155 160

Arg Pro Met Arg Leu Glu Ile Leu Gly Gly Asn Asn Ser Ser Glu Ala  
 165 170 175

Pro Leu Ser Gly Arg Val Asn Val Asn Val Thr Gly Leu Asn Gly Arg  
 180 185 190

Leu Lys Arg Thr Val Val Ile Gln Gln Gly Gly Gly Gly Arg Gly Arg  
 195 200 205

047-E2F-PCT.ST25.txt

Val Arg Gly Gly Arg Gly Gly Arg Gly Pro Ala Pro Thr Val Ser Arg  
210 215 220

Arg Leu Pro Ile His Asn Gln Gln Gly Gly Gly Met Arg Gly Gly Arg  
225 230 235 240

Gly Gly Phe Arg Ala Arg Gly Arg Gly Asn Gly Gly Arg Gly Arg Gly  
245 250 255

Gly Gly Arg Gly Asn Gly Lys Lys Pro Val Glu Lys Ser Ala Ala Asp  
260 265 270

Leu Asp Lys Asp Leu Glu Ser Tyr His Ala Asp Ala Met Asn Thr Ser  
275 280 285

<210> 103

<211> 1452

<212> DNA

<213> Arabidopsis thaliana

<400> 103

atgaacgaga aagccaacgt ctctaaggag cttaatgccc gccatagaaa gattcttgaa	60
gggcttctta aacatccaga gaacagagaa tgtgctgact gcaaaacaaa aggtccaaga	120
tgggctagtg ttaatttagg tatctttatc tgcattgcaat gttctgggat tcacaggagt	180
ctcggggtag acatatcgaa gggttcgatct gccactctgg acacatggct ccccgagcag	240
gttgcatctta tacagtcaat gggaaatgat aaagcaaata gttactggga agcagagcta	300
ccccaaact atgatagagt tggaattgag aattttatac gtgcaaagta tgaagagaag	360
agatggggtt ctagagggga aaaggctaga tcacctccta gagtcgagca ggaacggcgg	420
aaatctgtgg agagaagtgg gccgggatat gagcatggac atagtagtag tcctgtaaat	480
ttgtttgagg agaggaaaac tattccagca tctagaacaa gaaataatgt tgctgcaacg	540
agaataaatc ttcccgtgcc tccccaagga cccagtcagg ttataaagcc acagcagaaa	600
atggagtcctg cagctactcc agtagagagg gagaaacaag cagtaaattgt tgcaccagca	660
tcagatcctc caaagggtgga ttttgctact gatctgttta acatgctatc aatggatgat	720
tcgactacaa atacctcaga ggcaactcct ggcgatactc ctgccgatga taactcatgg	780
gctggccttc agtctgctgg aagtgggtcaa acggcagaga aaattgtcac agccaagcct	840
gctgagagca gttctcctcc agcttcatct tctgactttg aggatttggt taaggacaca	900
cctaatttaa caactcaaca agcaccaaaa gatgtgaaag gcgatatcat gagcctgttt	960

047-E2F-PCT.ST25.txt

gagaagacga atatagtatc gccttttgcc atgcatcagc aacaggttgc tatgctcgct 1020  
cagcagcaag ccctttacat ggctgcagcg aaagctgctg gaggcactcc aaacggcgtg 1080  
aatcaacaag ctattgctaa tgctcttaac gtagcttctg caaattgggc aaaccccggc 1140  
ggctaccaga tccccggaat gactaacccc gtaggtgggc aagctgatct ccagaaactt 1200  
atgcaaaaca tgaatatgaa cgcaaacatg aacacgagac ccgcacaacc gcaagagaac 1260  
actctacaat acccatcatc cagtttctac acaatgggtc aagctaataca agtgaacggt 1320  
atgaccccaa actcaaccgg taaacctcag tcatcatccg caaccaacc aacaagcacc 1380  
acaccatctt cacaatcagg caaagacttt gatttctctt ccttgatgga tggaatgttc 1440  
acaaaacatt ga 1452

<210> 104

<211> 483

<212> PRT

<213> Arabidopsis thaliana

<400> 104

Met Asn Glu Lys Ala Asn Val Ser Lys Glu Leu Asn Ala Arg His Arg  
1 5 10 15

Lys Ile Leu Glu Gly Leu Leu Lys His Pro Glu Asn Arg Glu Cys Ala  
20 25 30

Asp Cys Lys Thr Lys Gly Pro Arg Trp Ala Ser Val Asn Leu Gly Ile  
35 40 45

Phe Ile Cys Met Gln Cys Ser Gly Ile His Arg Ser Leu Gly Val His  
50 55 60

Ile Ser Lys Val Arg Ser Ala Thr Leu Asp Thr Trp Leu Pro Glu Gln  
65 70 75 80

Val Ala Phe Ile Gln Ser Met Gly Asn Asp Lys Ala Asn Ser Tyr Trp  
85 90 95

Glu Ala Glu Leu Pro Pro Asn Tyr Asp Arg Val Gly Ile Glu Asn Phe  
100 105 110

Ile Arg Ala Lys Tyr Glu Glu Lys Arg Trp Val Ser Arg Gly Glu Lys  
115 120 125

047-E2F-PCT.ST25.txt

Ala Arg Ser Pro Pro Arg Val Glu Gln Glu Arg Arg Lys Ser Val Glu  
130 135 140

Arg Ser Gly Pro Gly Tyr Glu His Gly His Ser Ser Ser Pro Val Asn  
145 150 155 160

Leu Phe Glu Glu Arg Lys Thr Ile Pro Ala Ser Arg Thr Arg Asn Asn  
165 170 175

Val Ala Ala Thr Arg Ile Asn Leu Pro Val Pro Pro Gln Gly Pro Ser  
180 185 190

Gln Val Ile Lys Pro Gln Gln Lys Met Glu Ser Ala Ala Thr Pro Val  
195 200 205

Glu Arg Glu Lys Gln Ala Val Asn Val Ala Pro Ala Ser Asp Pro Pro  
210 215 220

Lys Val Asp Phe Ala Thr Asp Leu Phe Asn Met Leu Ser Met Asp Asp  
225 230 235 240

Ser Thr Thr Asn Thr Ser Glu Ala Thr Pro Gly Asp Thr Pro Ala Asp  
245 250 255

Asp Asn Ser Trp Ala Gly Phe Gln Ser Ala Gly Ser Gly Gln Thr Ala  
260 265 270

Glu Lys Ile Val Thr Ala Lys Pro Ala Glu Ser Ser Ser Pro Pro Ala  
275 280 285

Ser Ser Ser Asp Phe Glu Asp Leu Phe Lys Asp Thr Pro Asn Leu Thr  
290 295 300

Thr Gln Gln Ala Pro Lys Asp Val Lys Gly Asp Ile Met Ser Leu Phe  
305 310 315 320

Glu Lys Thr Asn Ile Val Ser Pro Phe Ala Met His Gln Gln Gln Val  
325 330 335

Ala Met Leu Ala Gln Gln Gln Ala Leu Tyr Met Ala Ala Ala Lys Ala  
340 345 350

Ala Gly Gly Thr Pro Asn Gly Val Asn Gln Gln Ala Ile Ala Asn Ala  
355 360 365

Leu Asn Val Ala Ser Ala Asn Trp Ser Asn Pro Gly Gly Tyr Gln Ile  
370 375 380

047-E2F-PCT.ST25.txt

Pro Gly Met Thr Asn Pro Val Gly Gly Gln Ala Asp Leu Gln Lys Leu  
385 390 395 400

Met Gln Asn Met Asn Met Asn Ala Asn Met Asn Thr Arg Pro Ala Gln  
405 410 415

Pro Gln Glu Asn Thr Leu Gln Tyr Pro Ser Ser Ser Phe Tyr Thr Met  
420 425 430

Gly Gln Ala Asn Gln Val Asn Gly Met Thr Pro Asn Ser Thr Gly Lys  
435 440 445

Pro Gln Ser Ser Ser Ala Thr Gln Pro Thr Ser Thr Thr Pro Ser Ser  
450 455 460

Gln Ser Gly Lys Asp Phe Asp Phe Ser Ser Leu Met Asp Gly Met Phe  
465 470 475 480

Thr Lys His

<210> 105

<211> 1674

<212> DNA

<213> Arabidopsis thaliana

<400> 105

atgggaaagt ctaaatccgc caccaaagtt gttgcagaga ttaaggccac taagcctttg	60
aagaaaggca agagagagcc tgaagatgat attgacacca aagtgagtct taagaagcag	120
aagaaagacg tgattgctgc tgtccagaag gaaaaagctg tgaagaaggt tcctaagaag	180
gttgagagct ctgatgattc agattctgaa tctgaggaag aggagaaggc taagaaagtc	240
ccagccaaga aggctgcttc aagcagtgat gagtcatctg atgactcttc ttcagatgat	300
gaacctgcac ccaagaaggc cgttgctgct actaacggaa ctgttgcaaa gaagtctaag	360
gatgactcat catcatctga tgatgattct tcagacgagg aagttgctgt caccaagaag	420
cccgagctg ctgctaaaaa tggctctgta aaggccaaga aagagagttc gtctgaagat	480
gattcatctt ctgaagacga acctgcgaag aaacctgctg ctaagattgc caagccagct	540
gctaaggatt cttcatcctc tgatgatgac tcagatgagg attccgagga tgagaaacct	600
gctaccaaga aggcagctcc tgctgctgcc aaggctgcaa gcagctcaga ttcatcagat	660

047-E2F-PCT.ST25.txt

gaagattctg atgaggaaag tgaagatgag aaacctgccc agaaaaaggc tgacactaag 720  
gcctctaaaa aatcgagtag tgatgagtca agcgagtctg aggaagatga gagtgaagac 780  
gaggaggaaa cccctaagaa aaagagctct gatgtagaaa tggttgatgc tgagaaatca 840  
agtgctaaac agccaaagac accatccact cctgctgctg gaggatcaaa gacactcttt 900  
gctgccaatc tctcttttaa cattgaaaga gcagatgttg agaatttctt caaagaagct 960  
ggtgaagttg ttgatgttag attctctacc aacagagacg atggttcttt caggggattt 1020  
ggccatgttg agttcgcac tcttgaagaa gcacagaagg cgcttgaatt ccatggtagg 1080  
ccattgctcg gtcgtgagat tcgtcttgat attgctcagg agagaggtga gagaggcgag 1140  
agaccgcac tcaactccaca aagcggcaac ttcagaagtg gtggtgatgg tggatgatga 1200  
aagaaaattt tcgttaaggg atttgacgct tcactttctg aggatgatat caagaacact 1260  
ttgagggaac atttcagttc atgtggagag atcaaaaatg tatctgttcc aattgaccgt 1320  
gacactggta actccaaagg aattgcttac cttgagtttt cagaaggcaa agagaaggcg 1380  
ttggaactaa atggaagtga tatgggagga ggattctatc ttgtagtcga tgagcctaga 1440  
ccgagaggag atagcagtgg tgggtggtgga tttggaaggg gcaatggtcg tttcggtagt 1500  
ggtggtggca gaggaagaga tggaggtcgt ggtcgttttg gtagtggtgg tggcagagga 1560  
agagatggag gtcgtggtcg ttttggtagt ggtggtggca ggggaagtga tcgtggtcgt 1620  
ggaagaccta gttttactcc ccaaggtaag aagactacct tcggtgacga gtag 1674

<210> 106

<211> 557

<212> PRT

<213> Arabidopsis thaliana

<400> 106

Met Gly Lys Ser Lys Ser Ala Thr Lys Val Val Ala Glu Ile Lys Ala  
1 5 10 15

Thr Lys Pro Leu Lys Lys Gly Lys Arg Glu Pro Glu Asp Asp Ile Asp  
20 25 30

Thr Lys Val Ser Leu Lys Lys Gln Lys Lys Asp Val Ile Ala Ala Val  
35 40 45

Gln Lys Glu Lys Ala Val Lys Lys Val Pro Lys Lys Val Glu Ser Ser  
50 55 60

047-E2F-PCT.ST25.txt

Asp 65 Asp Ser Asp Ser Glu 70 Ser Glu Glu Glu Glu Lys Ala Lys Lys Val 80  
 Pro Ala Lys Lys Ala 85 Ala Ser Ser Ser Asp 90 Glu Ser Ser Asp Asp Ser 95  
 Ser Ser Asp Asp 100 Glu Pro Ala Pro Lys 105 Lys Ala Val Ala Ala Thr Asn 110  
 Gly Thr Val 115 Ala Lys Lys Ser Lys 120 Asp Asp Ser Ser Ser 125 Ser Asp Asp  
 Asp 130 Ser Ser Asp Glu Glu Val 135 Ala Val Thr Lys Lys 140 Pro Ala Ala Ala  
 Ala 145 Lys Asn Gly Ser Val 150 Lys Ala Lys Lys Glu 155 Ser Ser Ser Glu Asp 160  
 Asp Ser Ser Ser Glu 165 Asp Glu Pro Ala Lys 170 Lys Pro Ala Ala Lys 175 Ile  
 Ala Lys Pro Ala 180 Ala Lys Asp Ser Ser 185 Ser Ser Asp Asp Asp 190 Ser Asp  
 Glu Asp Ser 195 Glu Asp Glu Lys Pro Ala Thr Lys Lys Ala 205 Ala Pro Ala  
 Ala 210 Ala Lys Ala Ala Ser 215 Ser Asp Ser Ser Asp Glu Asp Ser Asp  
 Glu 225 Glu Ser Glu Asp Glu 230 Lys Pro Ala Gln Lys 235 Lys Ala Asp Thr Lys 240  
 Ala Ser Lys Lys Ser 245 Ser Ser Asp Glu 250 Ser Ser Glu Ser Glu Glu Asp 255  
 Glu Ser Glu Asp 260 Glu Glu Glu Thr Pro 265 Lys Lys Lys Ser 270 Ser Asp Val  
 Glu Met Val 275 Asp Ala Glu Lys Ser 280 Ser Ala Lys Gln Pro 285 Lys Thr Pro  
 Ser Thr 290 Pro Ala Ala Gly Gly 295 Ser Lys Thr Leu Phe 300 Ala Ala Asn Leu  
 Ser 305 Phe Asn Ile Glu Arg 310 Ala Asp Val Glu 315 Asn Phe Phe Lys Glu Ala 320

047-E2F-PCT.ST25.txt

Gly Glu Val Val Asp Val Arg Phe Ser Thr Asn Arg Asp Asp Gly Ser  
325 330 335

Phe Arg Gly Phe Gly His Val Glu Phe Ala Ser Ser Glu Glu Ala Gln  
340 345 350

Lys Ala Leu Glu Phe His Gly Arg Pro Leu Leu Gly Arg Glu Ile Arg  
355 360 365

Leu Asp Ile Ala Gln Glu Arg Gly Glu Arg Gly Glu Arg Pro Ala Phe  
370 375 380

Thr Pro Gln Ser Gly Asn Phe Arg Ser Gly Gly Asp Gly Gly Asp Glu  
385 390 395 400

Lys Lys Ile Phe Val Lys Gly Phe Asp Ala Ser Leu Ser Glu Asp Asp  
405 410 415

Ile Lys Asn Thr Leu Arg Glu His Phe Ser Ser Cys Gly Glu Ile Lys  
420 425 430

Asn Val Ser Val Pro Ile Asp Arg Asp Thr Gly Asn Ser Lys Gly Ile  
435 440 445

Ala Tyr Leu Glu Phe Ser Glu Gly Lys Glu Lys Ala Leu Glu Leu Asn  
450 455 460

Gly Ser Asp Met Gly Gly Gly Phe Tyr Leu Val Val Asp Glu Pro Arg  
465 470 475 480

Pro Arg Gly Asp Ser Ser Gly Gly Gly Gly Phe Gly Arg Gly Asn Gly  
485 490 495

Arg Phe Gly Ser Gly Gly Gly Arg Gly Arg Asp Gly Gly Arg Gly Arg  
500 505 510

Phe Gly Ser Gly Gly Gly Arg Gly Arg Asp Gly Gly Arg Gly Arg Phe  
515 520 525

Gly Ser Gly Gly Gly Arg Gly Ser Asp Arg Gly Arg Gly Arg Pro Ser  
530 535 540

Phe Thr Pro Gln Gly Lys Lys Thr Thr Phe Gly Asp Glu  
545 550 555

<210> 107



&lt;211&gt; 3267

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 107

atgaggaatc	ttgggttact	cgaaattact	ctgctttgct	ctctctttgt	ctatttccgt	60
atagattctg	tctctagttt	aaactcagat	ggtttggctt	tactctcgct	tctcaagcac	120
tttgataaag	tcccacttga	agtagcttcg	acgtggaagg	agaacacatc	tgaaaccact	180
ccatgtaata	ataactgggt	tggtgtcatt	tgtgatcttt	ctggtaatgt	cgtcgagacc	240
cttaatttgt	ctgcttctgg	gctttcaggc	caattagggt	ctgaaattgg	ggagcttaag	300
agcttgggtca	cattggatct	cagtcttaac	agtttctctg	gtttattgcc	ttccacttta	360
ggaaactgta	cttcacttga	gtatttggat	ttgtctaaca	atgatttttc	tggagaagtt	420
cctgatattt	ttggtagctt	gcagaatttg	acgtttctgt	atcttgatcg	caataatctt	480
agtgggtctca	ttcctgcaag	tgttggtggg	ttgatagagc	tcgtagatct	gaggatgtca	540
tataataact	tgtctggtac	cattccagag	ttgcttggga	actgtagtaa	gctggaatat	600
ctggctttga	acaacaacaa	gttaaattgt	tctttgccag	caagtctcta	tctactcgag	660
aatcttgggtg	agctatttgt	cagtaacaac	agccttggag	ggaggcttca	ttttggttct	720
agcaactgca	agaaattggg	ttcttttagat	ctctcgttca	atgattttcca	aggcgggtgtt	780
ccacctgaga	taggcaactg	cagtagcctt	cactcttttag	tcattggtgaa	atgcaacttg	840
acaggtacaa	tcccatcatc	aatgggtatg	ttgagaaagg	tttcggttat	tgacctttcc	900
gataatcgtc	tctcggggaa	tatccctcaa	gagcttggga	actgcagcag	cttggaacc	960
ttgaagctga	acgacaacca	gctccaaggc	gagataccac	ctgcattgag	taagctaaag	1020
aagctacaaa	gcctggagct	tttttttaat	aagctgtccg	gtgagattcc	tattggcata	1080
tggaagattc	agagtctgac	acagatgctc	gtttataaca	acactctcac	cggggaacta	1140
ccagttgaag	taactcagct	gaagcacctt	aagaagctta	cactgtttta	caacggcttt	1200
tatggagata	taccaatgag	tttaggcctg	aatcgaagct	tagaggaggt	ggaccttctt	1260
ggtaaccgtt	ttacagggga	gataccaccc	catctctgcc	atggacagaa	gttgagattg	1320
ttcatcttgg	gttctaata	gcttcatggt	aagataccag	cgtctattcg	tcagtgtgag	1380
acccttgagc	gagtcagact	tgaagataac	aaactttcag	gtgttcttcc	ggaattccct	1440
gagagtctta	gtctttccta	tgtgaacctc	ggaagcaata	gctttgaagg	atccatcccg	1500
cgcagcttgg	gaagctgtaa	aaatctcttg	actattgacc	tttctcaaaa	caaactcacg	1560
ggctctgatac	ctccagaact	gggaaatctg	caaagccttg	gactgttgaa	cctttcacat	1620

## 047-E2F-PCT.ST25.txt

aattatctgg aaggtcctct gccatcccag ctatcaggct gtgcgagact tctgtatctt 1680  
gatgttggat ccaactcatt gaacggttct attccatcaa gcttcagaag ctggaaaagc 1740  
ttgtccactt tagttctcag tgacaataat tttctaggag ctattccaca gttcttggca 1800  
gagcttgacc gactctcaga tctgcgata gctcgaaatg cttttggagg taagattcct 1860  
tcctcggttg gcttgttgaa gagtctacgc tatggcttag acctcagtgc gaacgtatct 1920  
acgggtgaga ttccaaccac actgggggct cttatcaatc ttgaacgtct caacatatcc 1980  
aacaacaagt tgacagggcc tttatcgggt cttcaaagtc ttaagtcatt gaatcaagtt 2040  
gacgtctcgt ataatcagtt cacgggtcca ataccgtaa atctgttatt aaattcttca 2100  
aagttttctg gaaatccaga cctctgcatt caagcttctt actcagttag tgccataatc 2160  
cgcaaagagt ttaaattctt caaagggtcaa gtcaaactta gcacgtggaa gatcgccctt 2220  
atagcagctg ggtcctcact atccgtattg gctttgcttt ttgctctctt tttggtttta 2280  
tgccggtgca aaagaggaac caagacagaa gatgctaata tcctcgcaga ggaaggtctg 2340  
tccttgttgc tgaacaaagt tctagcagcc actgacaatc tagatgacaa gtacatcatt 2400  
ggaagaggag ctcatggagt tgtttacaga gcttcttttag gatcaggcga agaatacgcc 2460  
gtgaagaaac tcattcttgc ggaacacatt cgcgcaaacc aaaatatgaa gcgggagatc 2520  
gaaacaatcg ggctagtcag gcacagaaat ctcatcgggt tagaaagatt ttggatgagg 2580  
aaagaagatg gcttaatgct gtatcagtac atgcccaatg gaagcctaca cgacgttttg 2640  
cacagaggta atcaaggaga agcagttctt gactgggtctg cacgggttcaa catagccctt 2700  
gggatttcac atggactggc gtattttacat catgattgtc atccaccaat aattcaccgc 2760  
gacatcaaac cagagaacat actcatggac tcggatatgg agcctcacat tggagatttc 2820  
ggattggctc ggattctaga tgactcaaca gtttcaacgg cactgttac tggcacaact 2880  
gggtacattg caccagaaaa tgcgtacaag acggtgagga gcaaggaatc agatgtttac 2940  
agttatggag ttgttttgct cgagctggta acaggaaaga gagcactgga cagatctttc 3000  
ccggaagata tcaacattgt gagctgggtc agatctgtat taagcagcta cgaggatgaa 3060  
gacgatactg ctggtccaat cgttgatcca aaacttgttg atgagcttct ggatacgaag 3120  
ctcagggaac aagcaatcca agtcacagac ttggctctta gatgtacaga caagaggccg 3180  
gagaacagac catcgatgag agatgtggtg aaagatttga ctgatttgga aagttttgta 3240  
agaagcactt cgggttcagt tcactag 3267

&lt;210&gt; 108

&lt;211&gt; 1088

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 108

Met Arg Asn Leu Gly Leu Leu Glu Ile Thr Leu Leu Cys Ser Leu Phe  
 1 5 10 15

Val Tyr Phe Arg Ile Asp Ser Val Ser Ser Leu Asn Ser Asp Gly Leu  
 20 25 30

Ala Leu Leu Ser Leu Leu Lys His Phe Asp Lys Val Pro Leu Glu Val  
 35 40 45

Ala Ser Thr Trp Lys Glu Asn Thr Ser Glu Thr Thr Pro Cys Asn Asn  
 50 55 60

Asn Trp Phe Gly Val Ile Cys Asp Leu Ser Gly Asn Val Val Glu Thr  
 65 70 75 80

Leu Asn Leu Ser Ala Ser Gly Leu Ser Gly Gln Leu Gly Ser Glu Ile  
 85 90 95

Gly Glu Leu Lys Ser Leu Val Thr Leu Asp Leu Ser Leu Asn Ser Phe  
 100 105 110

Ser Gly Leu Leu Pro Ser Thr Leu Gly Asn Cys Thr Ser Leu Glu Tyr  
 115 120 125

Leu Asp Leu Ser Asn Asn Asp Phe Ser Gly Glu Val Pro Asp Ile Phe  
 130 135 140

Gly Ser Leu Gln Asn Leu Thr Phe Leu Tyr Leu Asp Arg Asn Asn Leu  
 145 150 155 160

Ser Gly Leu Ile Pro Ala Ser Val Gly Gly Leu Ile Glu Leu Val Asp  
 165 170 175

Leu Arg Met Ser Tyr Asn Asn Leu Ser Gly Thr Ile Pro Glu Leu Leu  
 180 185 190

Gly Asn Cys Ser Lys Leu Glu Tyr Leu Ala Leu Asn Asn Asn Lys Leu  
 195 200 205

Asn Gly Ser Leu Pro Ala Ser Leu Tyr Leu Leu Glu Asn Leu Gly Glu  
 210 215 220

Leu Phe Val Ser Asn Asn Ser Leu Gly Gly Arg Leu His Phe Gly Ser  
 Page 165



Glu Ser Leu Ser Leu Ser Tyr Val Asn Leu Gly Ser Asn Ser Phe Glu  
 485 490 495  
 Gly Ser Ile Pro Arg Ser Leu Gly Ser Cys Lys Asn Leu Leu Thr Ile  
 500 505 510  
 Asp Leu Ser Gln Asn Lys Leu Thr Gly Leu Ile Pro Pro Glu Leu Gly  
 515 520 525  
 Asn Leu Gln Ser Leu Gly Leu Leu Asn Leu Ser His Asn Tyr Leu Glu  
 530 535 540  
 Gly Pro Leu Pro Ser Gln Leu Ser Gly Cys Ala Arg Leu Leu Tyr Phe  
 545 550 555 560  
 Asp Val Gly Ser Asn Ser Leu Asn Gly Ser Ile Pro Ser Ser Phe Arg  
 565 570 575  
 Ser Trp Lys Ser Leu Ser Thr Leu Val Leu Ser Asp Asn Asn Phe Leu  
 580 585 590  
 Gly Ala Ile Pro Gln Phe Leu Ala Glu Leu Asp Arg Leu Ser Asp Leu  
 595 600 605  
 Arg Ile Ala Arg Asn Ala Phe Gly Gly Lys Ile Pro Ser Ser Val Gly  
 610 615 620  
 Leu Leu Lys Ser Leu Arg Tyr Gly Leu Asp Leu Ser Ala Asn Val Phe  
 625 630 635 640  
 Thr Gly Glu Ile Pro Thr Thr Leu Gly Ala Leu Ile Asn Leu Glu Arg  
 645 650 655  
 Leu Asn Ile Ser Asn Asn Lys Leu Thr Gly Pro Leu Ser Val Leu Gln  
 660 665 670  
 Ser Leu Lys Ser Leu Asn Gln Val Asp Val Ser Tyr Asn Gln Phe Thr  
 675 680 685  
 Gly Pro Ile Pro Val Asn Leu Leu Ser Asn Ser Ser Lys Phe Ser Gly  
 690 695 700  
 Asn Pro Asp Leu Cys Ile Gln Ala Ser Tyr Ser Val Ser Ala Ile Ile  
 705 710 715 720  
 Arg Lys Glu Phe Lys Ser Cys Lys Gly Gln Val Lys Leu Ser Thr Trp  
 725 730 735

047-E2F-PCT.ST25.txt

Lys Ile Ala Leu Ile Ala Ala Gly Ser Ser Leu Ser Val Leu Ala Leu  
 740 745 750  
 Leu Phe Ala Leu Phe Leu Val Leu Cys Arg Cys Lys Arg Gly Thr Lys  
 755 760 765  
 Thr Glu Asp Ala Asn Ile Leu Ala Glu Glu Gly Leu Ser Leu Leu Leu  
 770 775 780  
 Asn Lys Val Leu Ala Ala Thr Asp Asn Leu Asp Asp Lys Tyr Ile Ile  
 785 790 795 800  
 Gly Arg Gly Ala His Gly Val Val Tyr Arg Ala Ser Leu Gly Ser Gly  
 805 810 815  
 Glu Glu Tyr Ala Val Lys Lys Leu Ile Phe Ala Glu His Ile Arg Ala  
 820 825 830  
 Asn Gln Asn Met Lys Arg Glu Ile Glu Thr Ile Gly Leu Val Arg His  
 835 840 845  
 Arg Asn Leu Ile Arg Leu Glu Arg Phe Trp Met Arg Lys Glu Asp Gly  
 850 855 860  
 Leu Met Leu Tyr Gln Tyr Met Pro Asn Gly Ser Leu His Asp Val Leu  
 865 870 875 880  
 His Arg Gly Asn Gln Gly Glu Ala Val Leu Asp Trp Ser Ala Arg Phe  
 885 890 895  
 Asn Ile Ala Leu Gly Ile Ser His Gly Leu Ala Tyr Leu His His Asp  
 900 905 910  
 Cys His Pro Pro Ile Ile His Arg Asp Ile Lys Pro Glu Asn Ile Leu  
 915 920 925  
 Met Asp Ser Asp Met Glu Pro His Ile Gly Asp Phe Gly Leu Ala Arg  
 930 935 940  
 Ile Leu Asp Asp Ser Thr Val Ser Thr Ala Thr Val Thr Gly Thr Thr  
 945 950 955 960  
 Gly Tyr Ile Ala Pro Glu Asn Ala Tyr Lys Thr Val Arg Ser Lys Glu  
 965 970 975  
 Ser Asp Val Tyr Ser Tyr Gly Val Val Leu Leu Glu Leu Val Thr Gly  
 980 985 990

047-E2F-PCT.ST25.txt

Lys Arg Ala Leu Asp Arg Ser Phe Pro Glu Asp Ile Asn Ile Val Ser  
 995 1000 1005

Trp Val Arg Ser Val Leu Ser Ser Tyr Glu Asp Glu Asp Asp Thr  
 1010 1015 1020

Ala Gly Pro Ile Val Asp Pro Lys Leu Val Asp Glu Leu Leu Asp  
 1025 1030 1035

Thr Lys Leu Arg Glu Gln Ala Ile Gln Val Thr Asp Leu Ala Leu  
 1040 1045 1050

Arg Cys Thr Asp Lys Arg Pro Glu Asn Arg Pro Ser Met Arg Asp  
 1055 1060 1065

Val Val Lys Asp Leu Thr Asp Leu Glu Ser Phe Val Arg Ser Thr  
 1070 1075 1080

Ser Gly Ser Val His  
 1085

<210> 109

<211> 1083

<212> DNA

<213> Arabidopsis thaliana

<400> 109  
 atggcgtctg tgaacccttt cgatctcttg gacgatgacg cagaggatcc cagccagatt 60  
 gttgcgtcta agccattgaa ggttggtggct ccggttcaga ctgctaagtc tggtaagatg 120  
 ccgactaagc cgctctctcc ttctcaagct gtgagggagg caaggaacgc tcctggtgga 180  
 ggtcgtggtg ctggacgtgg agggagttat ggtcgtggtg gacgtggtgg aaacaatagg 240  
 gattcaagga acaatgatgg tcctgccaat gaaaacggat atggtggagg ctacagacgc 300  
 tcagaagaag gagatggagc tagacgtggt gggcctggtg gtggataccg tggatgacgc 360  
 cgtggaagct acagcaatgg tggtgattca ggtgactctg aaagaccacg caagaactat 420  
 gaccgtcaca gtagaacagc gtacgggaat gaggataaac gtgatggagc tggccgtgcg 480  
 aattggggaa cactcagga tgatattact cgggtgactg aagaatccac agctgtttgtg 540  
 gacaagaatt tgactgttga gaagcaagat ggtgaagggtg aagcaactga tgcaaagaat 600  
 gaaacacctg ctgagaaagc agaggaaaag cctgaggaca aggagatgac tttggaagag 660

047-E2F-PCT.ST25.txt

tatgagaagg ttttgagga gaagaagaaa gctctgcagg cgaccaaggt tgaggaaagg	720
aaggttgaca ctaaagcatt tgaggccatg caacagctct caagcaaaaa gagcaacaac	780
gatgaagtct tcatcaaact gggaacagag aaggacaagc gcattactga gagagaagag	840
aagacaagga agtcattgag catcaatgag tttctgaaac ctgcggatgg aaagagttac	900
tacagaccaa gaggtgggta ccaaggtgga aggggaaggac gtggaccaag agaaggaaac	960
cagagggacg gtggaagaaa cctgagggaa ggagggagaa accagagggga cggaggagct	1020
gcagcacagg caccaacacc ggccattggg gacagtgcac agttccctac tttgggtaag	1080
taa	1083

<210> 110

<211> 360

<212> PRT

<213> Arabidopsis thaliana

<400> 110

Met	Ala	Ser	Val	Asn	Pro	Phe	Asp	Leu	Leu	Asp	Asp	Asp	Ala	Glu	Asp
1				5					10					15	

Pro	Ser	Gln	Ile	Val	Ala	Ser	Lys	Pro	Leu	Lys	Val	Val	Ala	Pro	Val
			20					25					30		

Gln	Thr	Ala	Lys	Ser	Gly	Lys	Met	Pro	Thr	Lys	Pro	Pro	Pro	Pro	Ser
		35					40					45			

Gln	Ala	Val	Arg	Glu	Ala	Arg	Asn	Ala	Pro	Gly	Gly	Gly	Arg	Gly	Ala
	50					55					60				

Gly	Arg	Gly	Gly	Ser	Tyr	Gly	Arg	Gly	Gly	Arg	Gly	Gly	Asn	Asn	Arg
65					70				75					80	

Asp	Ser	Arg	Asn	Asn	Asp	Gly	Pro	Ala	Asn	Glu	Asn	Gly	Tyr	Gly	Gly
			85						90					95	

Gly	Tyr	Arg	Arg	Ser	Glu	Glu	Gly	Asp	Gly	Ala	Arg	Arg	Gly	Gly	Pro
			100					105					110		

Val	Gly	Gly	Tyr	Arg	Gly	Asp	Arg	Arg	Gly	Ser	Tyr	Ser	Asn	Gly	Gly
		115					120					125			

Asp	Ser	Gly	Asp	Ser	Glu	Arg	Pro	Arg	Lys	Asn	Tyr	Asp	Arg	His	Ser
	130					135					140				



047-E2F-PCT.ST25.txt

Arg Thr Ala Tyr Gly Asn Glu Asp Lys Arg Asp Gly Ala Gly Arg Ala  
145 150 155 160

Asn Trp Gly Thr Thr Gln Asp Asp Ile Thr Pro Val Thr Glu Glu Ser  
165 170 175

Thr Ala Val Val Asp Lys Asn Leu Thr Val Glu Lys Gln Asp Gly Glu  
180 185 190

Gly Glu Ala Thr Asp Ala Lys Asn Glu Thr Pro Ala Glu Lys Ala Glu  
195 200 205

Glu Lys Pro Glu Asp Lys Glu Met Thr Leu Glu Glu Tyr Glu Lys Val  
210 215 220

Leu Glu Glu Lys Lys Lys Ala Leu Gln Ala Thr Lys Val Glu Glu Arg  
225 230 235 240

Lys Val Asp Thr Lys Ala Phe Glu Ala Met Gln Gln Leu Ser Ser Lys  
245 250 255

Lys Ser Asn Asn Asp Glu Val Phe Ile Lys Leu Gly Thr Glu Lys Asp  
260 265 270

Lys Arg Ile Thr Glu Arg Glu Glu Lys Thr Arg Lys Ser Leu Ser Ile  
275 280 285

Asn Glu Phe Leu Lys Pro Ala Asp Gly Lys Ser Tyr Tyr Arg Pro Arg  
290 295 300

Gly Gly Tyr Gln Gly Gly Arg Glu Gly Arg Gly Pro Arg Glu Gly Asn  
305 310 315 320

Gln Arg Asp Gly Gly Arg Asn Leu Arg Glu Gly Gly Arg Asn Gln Arg  
325 330 335

Asp Gly Gly Ala Ala Ala Gln Ala Pro Thr Pro Ala Ile Gly Asp Ser  
340 345 350

Ala Gln Phe Pro Thr Leu Gly Lys  
355 360

<210> 111

<211> 1779

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 111

```

atgttcaggc gaaaaagtcg ttctatttct cctaggcgcc atcgaagtcg atctgttact    60
cctaagagac gtttctcaac cccaaaacgt tacaaaagac aaaagagtag gagttcaact    120
ccatctcctg caaaaagatc tcccgccgca acccttgagt cagccaaaaa taggaatgga    180
gaaaaactta aaagagaaga ggaagaacga aaaaggcgac agcgtgaagc agaactgaag    240
ctaatagagg aagaaactgt gaaacgggtt gaagaagcta ttcgaaagaa ggtcgaagaa    300
agcttacagt ctgagaaaat caaaatggaa attctaacgc tgttggagga agggcgaaag    360
agacttaatg aagaagtcgc ggctcaactt gaggaggaga aagaggcttc tcttattgag    420
gctaaagaaa aagaggaaaag agagcaacaa gagaaagaag agagggagag aatagcagag    480
gagaacctaa agagagtgga agaagctcag agaaaagaag caatggagag gcaaaggaaa    540
gaggaggaac ggtatcgaga gctagaggag ctgcaacgac agaaagaaga agcgatgcga    600
aggaagaaag ctgaagagga agaagaacgt ctcaaacaga tgaaactgtt gggtaaaaac    660
aaatcacggc ctaaattatc ctttgcctta agctccaaaa tgacgacgat gtctgatctt    720
gacgaaatta tggtagctga gatactttgc aggactccga tgacatgtct gaaaacagtg    780
cgatctgttt gcaaaaagtg gaatgcttta tccaaaaaat ggtttttttt tggtaaagcg    840
aagcagtttc ttggattcat gatgatggat tctagggttt gttccttgag atttgatctc    900
cgcaaggact tgggtggtcga gccaccatct ataaagcagg taagtatact tgatcaaata    960
gaggatatcta aaatctttca cagcgacggt ttattgttat gcataatcaa aaacgacacg   1020
acgaggctct tggctctggaa tccgtatttg gagcaaacga ggtggatcca acccagacac   1080
aatctccaca tattagactg ttatgctatc ggacatgaca aaaaccgtaa gcacaaaatc   1140
ttgaggtttg tggatgattt cctccctgta gaaaacgtgg ttttcggggg aaacacttac   1200
tttttcgcta aagagagata tatatttgaa ggaaagggac cggaagaaat agatataaca   1260
gagactgaag actttttact ctgttttgat ttacaggctg agagatttgg accgcgtctt   1320
cctctgcctt ttcactctta ttacgcagag actgtgactc tctcttggtt taaagaagac   1380
cagctctccg tcttgtgcca gcgccagccc tcggaaccat ctgagatctt ggagatttgg   1440
gtttccacta atatccagcc caatgcagtg tcgtggagca tttttttgaa agtggatatg   1500
agaccactca ctggttttca gtttaacgat atggctggga gtttcttcat tgaccaggag   1560
aacaaagtcg ccgtgggttt tgatcttgac ccatcccaga tttgtcgcta ccaaacagct   1620
tacatcattg gacaagaata tggaggatac ttcaactctg ttaatatcgg agaagttcca   1680
aatctctgga tacctggcag cgttggatat gctgacacca cgtcttgtat cccgcctgtg   1740

```

tgctcctctt atgttccaag tttagtgcag atagggttag

1779

<210> 112

<211> 592

<212> PRT

<213> *Arabidopsis thaliana*

<400> 112

Met Phe Arg Arg Lys Ser Arg Ser Ile Ser Pro Arg Arg His Arg Ser  
1 5 10 15

Arg Ser Val Thr Pro Lys Arg Arg Ser Pro Thr Pro Lys Arg Tyr Lys  
20 25 30

Arg Gln Lys Ser Arg Ser Ser Thr Pro Ser Pro Ala Lys Arg Ser Pro  
35 40 45

Ala Ala Thr Leu Glu Ser Ala Lys Asn Arg Asn Gly Glu Lys Leu Lys  
50 55 60

Arg Glu Glu Glu Glu Arg Lys Arg Arg Gln Arg Glu Ala Glu Leu Lys  
65 70 75 80

Leu Ile Glu Glu Glu Thr Val Lys Arg Val Glu Glu Ala Ile Arg Lys  
85 90 95

Lys Val Glu Glu Ser Leu Gln Ser Glu Lys Ile Lys Met Glu Ile Leu  
100 105 110

Thr Leu Leu Glu Glu Gly Arg Lys Arg Leu Asn Glu Glu Val Ala Ala  
115 120 125

Gln Leu Glu Glu Glu Lys Glu Ala Ser Leu Ile Glu Ala Lys Glu Lys  
130 135 140

Glu Glu Arg Glu Gln Gln Glu Lys Glu Glu Arg Glu Arg Ile Ala Glu  
145 150 155 160

Glu Asn Leu Lys Arg Val Glu Glu Ala Gln Arg Lys Glu Ala Met Glu  
165 170 175

Arg Gln Arg Lys Glu Glu Glu Arg Tyr Arg Glu Leu Glu Glu Leu Gln  
180 185 190

047-E2F-PCT.ST25.txt

Arg Gln Lys Glu Glu Ala Met Arg Arg Lys Lys Ala Glu Glu Glu Glu  
 195 200 205  
 Glu Arg Leu Lys Gln Met Lys Leu Leu Gly Lys Asn Lys Ser Arg Pro  
 210 215 220  
 Lys Leu Ser Phe Ala Leu Ser Ser Lys Met Thr Thr Met Ser Asp Leu  
 225 230 235 240  
 Asp Glu Ile Met Val Ala Glu Ile Leu Cys Arg Thr Pro Met Thr Cys  
 245 250 255  
 Leu Lys Thr Val Arg Ser Val Cys Lys Lys Trp Asn Ala Leu Ser Lys  
 260 265 270  
 Lys Trp Phe Phe Phe Gly Lys Ala Lys Gln Phe Leu Gly Phe Met Met  
 275 280 285  
 Met Asp Ser Arg Val Cys Ser Leu Arg Phe Asp Leu Arg Lys Asp Leu  
 290 295 300  
 Val Val Glu Pro Pro Ser Ile Lys Gln Val Ser Ile Leu Asp Gln Ile  
 305 310 315 320  
 Glu Val Ser Lys Ile Phe His Ser Asp Gly Leu Leu Leu Cys Ile Ile  
 325 330 335  
 Lys Asn Asp Thr Thr Arg Leu Leu Val Trp Asn Pro Tyr Leu Glu Gln  
 340 345 350  
 Thr Arg Trp Ile Gln Pro Arg His Asn Phe His Ile Leu Asp Cys Tyr  
 355 360 365  
 Ala Ile Gly His Asp Lys Asn Arg Lys His Lys Ile Leu Arg Phe Val  
 370 375 380  
 Asp Asp Phe Leu Pro Val Glu Asn Val Val Phe Gly Gly Asn Thr Tyr  
 385 390 395 400  
 Phe Phe Ala Lys Glu Arg Tyr Ile Phe Glu Gly Lys Gly Pro Glu Glu  
 405 410 415  
 Ile Asp Ile Thr Glu Thr Glu Asp Phe Leu Leu Cys Phe Asp Phe Thr  
 420 425 430  
 Ala Glu Arg Phe Gly Pro Arg Leu Pro Leu Pro Phe His Ser Tyr Tyr  
 435 440 445

047-E2F-PCT.ST25.txt

Ala Glu Thr Val Thr Leu Ser Cys Val Lys Glu Asp Gln Leu Ser Val  
450 455 460

Leu Cys Gln Arg Gln Pro Ser Glu Pro Ser Glu Ile Leu Glu Ile Trp  
465 470 475 480

Val Ser Thr Asn Ile Gln Pro Asn Ala Val Ser Trp Ser Ile Phe Leu  
485 490 495

Lys Val Asp Met Arg Pro Leu Thr Gly Phe Gln Phe Asn Asp Met Ala  
500 505 510

Gly Ser Phe Phe Ile Asp Gln Glu Asn Lys Val Ala Val Val Phe Asp  
515 520 525

Leu Asp Pro Ser Gln Ile Cys Arg Tyr Gln Thr Ala Tyr Ile Ile Gly  
530 535 540

Gln Glu Tyr Gly Gly Tyr Phe Asn Ser Val Asn Ile Gly Glu Val Pro  
545 550 555 560

Asn Leu Trp Ile Pro Gly Ser Val Gly Tyr Ala Asp Thr Thr Ser Cys  
565 570 575

Ile Pro Pro Val Cys Ser Ser Tyr Val Pro Ser Leu Val Gln Ile Gly  
580 585 590

<210> 113

<211> 396

<212> DNA

<213> Arabidopsis thaliana

<400> 113

atggcgggtc ggggaaaaca acttgatct ggtgcagcga agaagtctac ttctcgtagt	60
agcaaggctg ggcttcaatt ccctgttggt cgtatcgctc gatttttgaa agccggtaag	120
tacgccgagc gtgttggtgc cggagctccg gtctatctcg ccgccgttct tgaatacctc	180
gccgctgagg tacttgagct tgctgggaac gcagcgagag acaacaagaa gaccgtata	240
gttccacgac acattcagct tgctgtgagg aatgatgagg agctaagcaa gttgcttgga	300
gatgtgacaa ttgctaattg aggagtgatg cctaacatcc acaatctcct tctccccaag	360
aaggctggtt catctaagcc tactgaagaa gattag	396

<210> 114

<211> 131

<212> PRT

<213> Arabidopsis thaliana

<400> 114

```

Met Ala Gly Arg Gly Lys Gln Leu Gly Ser Gly Ala Ala Lys Lys Ser
1      5      10     15
Thr Ser Arg Ser Ser Lys Ala Gly Leu Gln Phe Pro Val Gly Arg Ile
20     25     30
Ala Arg Phe Leu Lys Ala Gly Lys Tyr Ala Glu Arg Val Gly Ala Gly
35     40     45
Ala Pro Val Tyr Leu Ala Ala Val Leu Glu Tyr Leu Ala Ala Glu Val
50     55     60
Leu Glu Leu Ala Gly Asn Ala Ala Arg Asp Asn Lys Lys Thr Arg Ile
65     70     75     80
Val Pro Arg His Ile Gln Leu Ala Val Arg Asn Asp Glu Glu Leu Ser
85     90     95
Lys Leu Leu Gly Asp Val Thr Ile Ala Asn Gly Gly Val Met Pro Asn
100    105    110
Ile His Asn Leu Leu Leu Pro Lys Lys Ala Gly Ser Ser Lys Pro Thr
115    120    125
Glu Glu Asp
130

```

<210> 115

<211> 1458

<212> DNA

<213> Arabidopsis thaliana

<400> 115

```

atggctatgg cgagtttata tcggcgatct cttccttctc ctccggccat tgacttttct 60
tccgccgaag gcaagctaatt cttcaatgaa gcgcttcaga aaggaactat ggaaggattt 120

```

047-E2F-PCT.ST25.txt

```

ttcaggttga tttcgtatatt tcagacacaa tccgaacctg cgtattgtgg tttggctagt 180
ctctcagtgg tgttgaatgc tctttctatc gatcctggac gtaaattggaa agggccttgg 240
aggtgggtttg atgaatcaat gttggattgc tgcgaacctc tggaagtagt gaaggaaaaa 300
ggcattttcat ttggaaaagt tgtctgtttg gctcattgtt caggagcaaa agttgaggct 360
ttccgtacaa gtcagagcac cattgatgat ttccgcaaatt ttgtcgtcaa atgcacgagt 420
tctgagaatt gtcatatgat ctcaacatat caccgaggtg tatttaagca gactgggact 480
ggtcactttt cacctattgg tggctataat gctgagagag atatggcttt gattcttgat 540
gttgctcgtt tcaagtatcc ccctcactgg gttcctctta aacttctttg ggaagccatg 600
gacagtattg atcagtcaac agggaaacgt agagggttca tgctcatatc tagaccacac 660
agagaacccg gattgctcta tactctgagc tgcaaggatg aaagctggat cgaaatagcc 720
aagtattttga aggaagatgt tcctcgtctt gtaagttcac agcatgtaga ttctgtggag 780
aaaatcatat cagttgtgtt caagtcactt ccatcaaatt tcaaccaatt catcagatgg 840
gtggctgaga tccgaattac agaggactca aaccaaatac tcagcgcaga ggagaagtct 900
aggctgaaac taaagcaatt ggtgctgaag gaagtgcacg aaactgaact gttcaaacac 960
atcaataagt tcttatccac agtgggttat gaagacagtc tgacttatgc tgctgcaaag 1020
gcttgttgcc aaggagctga aatcttatcc ggaagcccat caaaagagtt ttgttgtcgg 1080
gaaacttgcg tgaaatgcat caaaggctct gatgactctg aaggcacggt ggtgactgga 1140
gttggtggtgc gtgatgggaa tgaacaaaag gttgatctgt tagtgccatc gacgcaaact 1200
gagtgtgaat gtggtcctga agcaacttat ccagcaggaa acgatgtgtt cactgcactt 1260
ctattggctt tacctccaca gacatggtca gggatcaaag accaagctct tatgcatgaa 1320
atgaagcagc tcatttccat ggcttcctc ccaactttgc ttcaagaaga ggtattgcat 1380
cttcgacggc aacttcagct gctaaaacga tgccaagaga acaaggaaga ggatgatctc 1440
gctgctcctg cctattag 1458

```

<210> 116

<211> 485

<212> PRT

<213> Arabidopsis thaliana

<400> 116

Met Ala Met Ala Ser Leu Tyr Arg Arg Ser Leu Pro Ser Pro Pro Ala  
1 5 10 15

047-E2F-PCT.ST25.txt

Ile Asp Phe Ser<sub>20</sub> Ser Ala Glu Gly<sub>25</sub> Lys Leu Ile Phe Asn<sub>30</sub> Glu Ala Leu  
Gln Lys Gly<sub>35</sub> Thr Met Glu Gly<sub>40</sub> Phe Phe Arg Leu Ile Ser<sub>45</sub> Tyr Phe Gln  
Thr Gln<sub>50</sub> Ser Glu Pro Ala Tyr<sub>55</sub> Cys Gly Leu Ala Ser<sub>60</sub> Leu Ser Val Val  
Leu Asn<sub>65</sub> Ala Leu Ser<sub>70</sub> Ile Asp Pro Gly Arg<sub>75</sub> Lys Trp Lys Gly Pro Trp<sub>80</sub>  
Arg Trp Phe Asp<sub>85</sub> Glu Ser Met Leu Asp<sub>90</sub> Cys Cys Glu Pro Leu Glu<sub>95</sub> Val  
Val Lys Glu Lys<sub>100</sub> Gly Ile Ser Phe Gly<sub>105</sub> Lys Val Val Cys Leu<sub>110</sub> Ala His  
Cys Ser Gly<sub>115</sub> Ala Lys Val Glu Ala<sub>120</sub> Phe Arg Thr Ser<sub>125</sub> Gln Ser Thr Ile  
Asp Asp<sub>130</sub> Phe Arg Lys Phe Val<sub>135</sub> Val Lys Cys Thr Ser<sub>140</sub> Ser Glu Asn Cys  
His Met Ile Ser Thr Tyr<sub>150</sub> His Arg Gly Val Phe<sub>155</sub> Lys Gln Thr Gly Thr<sub>160</sub>  
Gly His Phe Ser Pro<sub>165</sub> Ile Gly Gly Tyr Asn<sub>170</sub> Ala Glu Arg Asp Met<sub>175</sub> Ala  
Leu Ile Leu Asp<sub>180</sub> Val Ala Arg Phe Lys<sub>185</sub> Tyr Pro Pro His Trp<sub>190</sub> Val Pro  
Leu Lys Leu<sub>195</sub> Leu Trp Glu Ala Met<sub>200</sub> Asp Ser Ile Asp Gln<sub>205</sub> Ser Thr Gly  
Lys Arg<sub>210</sub> Arg Gly Phe Met Leu<sub>215</sub> Ile Ser Arg Pro His<sub>220</sub> Arg Glu Pro Gly  
Leu<sub>225</sub> Leu Tyr Thr Leu Ser<sub>230</sub> Cys Lys Asp Glu Ser<sub>235</sub> Trp Ile Glu Ile Ala<sub>240</sub>  
Lys Tyr Leu Lys Glu<sub>245</sub> Asp Val Pro Arg Leu<sub>250</sub> Val Ser Ser Gln His<sub>255</sub> Val  
Asp Ser Val Glu<sub>260</sub> Lys Ile Ile Ser Val<sub>265</sub> Val Phe Lys Ser Leu<sub>270</sub> Pro Ser



047-E2F-PCT.ST25.txt

Asn Phe Asn Gln Phe Ile Arg Trp Val Ala Glu Ile Arg Ile Thr Glu  
 275 280 285  
 Asp Ser Asn Gln Asn Leu Ser Ala Glu Glu Lys Ser Arg Leu Lys Leu  
 290 295 300  
 Lys Gln Leu Val Leu Lys Glu Val His Glu Thr Glu Leu Phe Lys His  
 305 310 315 320  
 Ile Asn Lys Phe Leu Ser Thr Val Gly Tyr Glu Asp Ser Leu Thr Tyr  
 325 330 335  
 Ala Ala Ala Lys Ala Cys Cys Gln Gly Ala Glu Ile Leu Ser Gly Ser  
 340 345 350  
 Pro Ser Lys Glu Phe Cys Cys Arg Glu Thr Cys Val Lys Cys Ile Lys  
 355 360 365  
 Gly Pro Asp Asp Ser Glu Gly Thr Val Val Thr Gly Val Val Val Arg  
 370 375 380  
 Asp Gly Asn Glu Gln Lys Val Asp Leu Leu Val Pro Ser Thr Gln Thr  
 385 390 395 400  
 Glu Cys Glu Cys Gly Pro Glu Ala Thr Tyr Pro Ala Gly Asn Asp Val  
 405 410 415  
 Phe Thr Ala Leu Leu Leu Ala Leu Pro Pro Gln Thr Trp Ser Gly Ile  
 420 425 430  
 Lys Asp Gln Ala Leu Met His Glu Met Lys Gln Leu Ile Ser Met Ala  
 435 440 445  
 Ser Leu Pro Thr Leu Leu Gln Glu Glu Val Leu His Leu Arg Arg Gln  
 450 455 460  
 Leu Gln Leu Leu Lys Arg Cys Gln Glu Asn Lys Glu Glu Asp Asp Leu  
 465 470 475 480  
 Ala Ala Pro Ala Tyr  
 485

<210> 117

<211> 1029

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 117

```

atgtctgcct ctgcttcttc cctctctgct ttcaatccta aatcccttcc tctctgcgtc      60
tccagacccg cttccgtctc cgtcttacct ccttccctct ccttcaaact tcaactccgac    120
cacctcgtct ctatcttcgc ttctccgcc ctcaaagtct catccccgc cgagtacccg      180
tcgcgtttcg ttagaaacgt tgctgtatct tcggattttg aggtggagga agatgatatg     240
ttcgtgacg gtgacgattc agcgcctgtg gagcgtaact ccttctctcc tgaccttaag     300
ctctttgttg gtaacctttc ttttaacgtt gatagcgctc agcttgctca gctctttgag     360
agcgttgga atgttgagat ggttgagggt atctatgaca aagtgactgg ccggagcagg     420
ggtttcggat ttgtgacaat gtcaaccgca gcggaagttg aagcagcagc tcaacagttc     480
aatggctatg aatttgaagg cagacctttg agagtcaatg ctggccctcc tccacctaaa     540
agagaggaat ccttctccag aggaccaaga agtggagggt acggttctga gcgtgggtgga     600
ggttacgggt ccgagcgtgg tgggtggttat ggttccgagc gtggtggtgg ttatggttcc     660
gagcgtgggt gtggatacgg ttctcaacgt agtgggtggt gttacggagg gtctcaacgt     720
tccagttatg gttcgggggc aggggtccggt tcgggctcag gttcaggaaa ccgtctctac     780
gtgggcaacc tttcttgggg tgttgatgac atggcacttg agaacttggt taacgagcaa     840
ggaaaggtag ttgaagctag ggttatctac gacagggaca gcggtagatc caagggtttt     900
ggatttgtga cacttagctc ttcccaagag gttcagaagg cgatcaattc cttgaatgga     960
gcagatttgg atggaagaca aataagagtc tcagaggctg aggctaggcc accaagaggc    1020
caattttga                                     1029

```

&lt;210&gt; 118

&lt;211&gt; 342

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 118

```

Met Ser Ala Ser Ala Ser Ser Leu Ser Ala Phe Asn Pro Lys Ser Leu
1           5           10           15

```

```

Pro Leu Cys Val Ser Arg Pro Ala Ser Val Ser Val Leu Pro Pro Ser
           20           25           30

```

Leu Ser Phe Lys Leu His Ser Asp His Leu Val Ser Ile Phe Ala Ser  
 35 40 45  
 Ser Ala Leu Lys Cys Ser Ser Pro Ala Glu Tyr Pro Ser Arg Phe Val  
 50 55 60  
 Arg Asn Val Ala Val Ser Ser Asp Phe Glu Val Glu Glu Asp Asp Met  
 65 70 75 80  
 Phe Ala Asp Gly Asp Asp Ser Ala Pro Val Glu Arg Asn Ser Phe Ser  
 85 90 95  
 Pro Asp Leu Lys Leu Phe Val Gly Asn Leu Ser Phe Asn Val Asp Ser  
 100 105 110  
 Ala Gln Leu Ala Gln Leu Phe Glu Ser Ala Gly Asn Val Glu Met Val  
 115 120 125  
 Glu Val Ile Tyr Asp Lys Val Thr Gly Arg Ser Arg Gly Phe Gly Phe  
 130 135 140  
 Val Thr Met Ser Thr Ala Ala Glu Val Glu Ala Ala Ala Gln Gln Phe  
 145 150 155 160  
 Asn Gly Tyr Glu Phe Glu Gly Arg Pro Leu Arg Val Asn Ala Gly Pro  
 165 170 175  
 Pro Pro Pro Lys Arg Glu Glu Ser Phe Ser Arg Gly Pro Arg Ser Gly  
 180 185 190  
 Gly Tyr Gly Ser Glu Arg Gly Gly Gly Tyr Gly Ser Glu Arg Gly Gly  
 195 200 205  
 Gly Tyr Gly Ser Glu Arg Gly Gly Gly Tyr Gly Ser Glu Arg Gly Gly  
 210 215 220  
 Gly Tyr Gly Ser Gln Arg Ser Gly Gly Gly Tyr Gly Gly Ser Gln Arg  
 225 230 235 240  
 Ser Ser Tyr Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser Gly  
 245 250 255  
 Asn Arg Leu Tyr Val Gly Asn Leu Ser Trp Gly Val Asp Asp Met Ala  
 260 265 270  
 Leu Glu Asn Leu Phe Asn Glu Gln Gly Lys Val Val Glu Ala Arg Val  
 275 280 285

047-E2F-PCT.ST25.txt

Ile Tyr Asp Arg Asp Ser Gly Arg Ser Lys Gly Phe Gly Phe Val Thr  
290 295 300

Leu Ser Ser Ser Gln Glu Val Gln Lys Ala Ile Asn Ser Leu Asn Gly  
305 310 315 320

Ala Asp Leu Asp Gly Arg Gln Ile Arg Val Ser Glu Ala Glu Ala Arg  
325 330 335

Pro Pro Arg Gly Gln Phe  
340

<210> 119

<211> 1467

<212> DNA

<213> Arabidopsis thaliana

<400> 119

atggcgatgt taggtgcaca gcaagttcca gcagcagctt gtactccaga tatggttggg	60
aatgctttttg tgccccagta ttatcacata ttgcatcaat cacctgagca tgttcacaga	120
ttttaccaag agattagcaa gttaggtcgt cctgaagaga atggtttaaat gagcatcact	180
tctaccttgc aagctattga caagaagata atggcgcttg gttacggtgt aatcagtgc	240
gagatagcta ctgtggacac acaagaatct catggagggtg gttatattgt actggtgact	300
gggtatttga cgggaaaaga cagtgtcagg aggacgttta gtcagacctt cttccttgct	360
ccacaggaga caggatactt tgtcttgaat gatatgtttc gattcattga tgaaggcact	420
gtcgtacatg gaaatcagat tccagtgaac aacgtccaag ctctgtcaa cacttaccag	480
gacacagctg ctgcgaagga aattccagat gactttgttc aggagaaata tgtccaagag	540
aatcatgctg ttaagcaaac cgagggtgttg tccaagagca ttaatgagcc tgaaaaagt	600
ttcacgccct ctgaagatga acaagtatca gctgcagaag aagctctggt gactgaaaca	660
gttaatgaag caccaattga agtgcaaaag gttggagaat ctgattctag gactggcgaa	720
attccaaaga gatcttatgc atcaattgtg aagggttatga aagaaaatgc tgcaccaatg	780
tctgcttcga gaactccaac aaaggtggaa ccaaagaaac aagaagatca agccattcat	840
atccctctac caacaccatt gtctgagaaa tcagattcag gagcaaattgt tgctgtaaat	900
gagaacaatc aagagaatga aagagctcta ggtccatcca tctatctaaa gggtttacct	960
cttgatgcaa cacctgcctt gcttgagaat gagttccaga aatttggtact tattaggacc	1020
aatggaattc aagtgagaag ccagaaggga ttctgttttg gttttgttga gtttgaatcc	1080

047-E2F-PCT.ST25.txt

gcaagttcca tgcaaagcgc tatcgaggca tcacctgtca tgctcaatgg acacaaagtt 1140  
 gttgtggagg aaaagcgatc taccgcaaga gggaactata gaggacgttc gacgtttggt 1200  
 gtaaacacag gctacagaaa cgaaggagga aggggtcgtg ggagctttgg aggtggaaga 1260  
 ggaggatatg gccggaccga tttcaacgga tatggtaata acaggggaaa caatagaggc 1320  
 ggatacgcaa accgagcaaa tggatgatggt ggtgggttcc cgagggccaa tggtaacaat 1380  
 ggacgagtaa gacgtggtgg cggaatgat gctaacagag ctacgaaacc cgtggatgat 1440  
 gctccccgtg tgtctgttgc tgcgtaa 1467

<210> 120

<211> 488

<212> PRT

<213> Arabidopsis thaliana

<400> 120

Met Ala Met Leu Gly Ala Gln Gln Val Pro Ala Ala Ala Cys Thr Pro  
 1 5 10 15

Asp Met Val Gly Asn Ala Phe Val Pro Gln Tyr Tyr His Ile Leu His  
 20 25 30

Gln Ser Pro Glu His Val His Arg Phe Tyr Gln Glu Ile Ser Lys Leu  
 35 40 45

Gly Arg Pro Glu Glu Asn Gly Leu Met Ser Ile Thr Ser Thr Leu Gln  
 50 55 60

Ala Ile Asp Lys Lys Ile Met Ala Leu Gly Tyr Gly Val Ile Ser Ala  
 65 70 75 80

Glu Ile Ala Thr Val Asp Thr Gln Glu Ser His Gly Gly Gly Tyr Ile  
 85 90 95

Val Leu Val Thr Gly Tyr Leu Thr Gly Lys Asp Ser Val Arg Arg Thr  
 100 105 110

Phe Ser Gln Thr Phe Phe Leu Ala Pro Gln Glu Thr Gly Tyr Phe Val  
 115 120 125

Leu Asn Asp Met Phe Arg Phe Ile Asp Glu Gly Thr Val Val His Gly  
 130 135 140

047-E2F-PCT.ST25.txt

Asn 145	Gln	Ile	Pro	Val	Asn 150	Asn	Val	Gln	Ala	Pro 155	Val	Asn	Thr	Tyr	Gln 160
Asp	Thr	Ala	Ala	Ala 165	Lys	Glu	Ile	Pro	Asp 170	Asp	Phe	Val	Gln	Glu 175	Lys
Tyr	Val	Gln	Glu 180	Asn	His	Ala	Val	Lys 185	Gln	Thr	Glu	Val	Leu 190	Ser	Lys
Ser	Ile	Asn 195	Glu	Pro	Glu	Lys	Val 200	Phe	Thr	Pro	Ser	Glu 205	Asp	Glu	Gln
Val	Ser 210	Ala	Ala	Glu	Glu	Ala 215	Leu	Val	Thr	Glu	Thr 220	Val	Asn	Glu	Ala
Pro 225	Ile	Glu	Val	Gln	Lys 230	Val	Gly	Glu	Ser	Asp 235	Ser	Arg	Thr	Gly	Glu 240
Ile	Pro	Lys	Arg	Ser 245	Tyr	Ala	Ser	Ile	Val 250	Lys	Val	Met	Lys	Glu 255	Asn
Ala	Ala	Pro	Met 260	Ser	Ala	Ser	Arg	Thr 265	Pro	Thr	Lys	Val	Glu 270	Pro	Lys
Lys	Gln	Glu 275	Asp	Gln	Ala	Ile	His 280	Ile	Pro	Leu	Pro	Thr 285	Pro	Leu	Ser
Glu 290	Lys	Ser	Asp	Ser	Gly	Ala 295	Asn	Val	Ala	Val	Asn 300	Glu	Asn	Asn	Gln
Glu 305	Asn	Glu	Arg	Ala	Leu 310	Gly	Pro	Ser	Ile	Tyr 315	Leu	Lys	Gly	Leu	Pro 320
Leu	Asp	Ala	Thr	Pro 325	Ala	Leu	Leu	Glu	Asn 330	Glu	Phe	Gln	Lys	Phe 335	Gly
Leu	Ile	Arg	Thr 340	Asn	Gly	Ile	Gln	Val 345	Arg	Ser	Gln	Lys	Gly 350	Phe	Cys
Phe	Gly	Phe 355	Val	Glu	Phe	Glu	Ser 360	Ala	Ser	Ser	Met	Gln 365	Ser	Ala	Ile
Glu 370	Ala	Ser	Pro	Val	Met	Leu 375	Asn	Gly	His	Lys	Val 380	Val	Val	Glu	Glu
Lys 385	Arg	Ser	Thr	Ala	Arg 390	Gly	Asn	Tyr	Arg	Gly 395	Arg	Ser	Thr	Phe	Gly 400

Val Asn Thr Gly Tyr Arg Asn Glu Gly Gly Arg Gly Arg Gly Ser Phe  
405 410 415

Gly Gly Gly Arg Gly Gly Tyr Gly Arg Thr Asp Phe Asn Gly Tyr Gly  
420 425 430

Asn Asn Arg Gly Asn Asn Arg Gly Gly Tyr Ala Asn Arg Ala Asn Gly  
435 440 445

Asp Gly Gly Gly Phe Pro Arg Ala Asn Gly Asn Asn Gly Arg Val Arg  
450 455 460

Arg Gly Gly Gly Asn Asp Ala Asn Arg Ala Thr Lys Pro Val Asp Asp  
465 470 475 480

Ala Pro Arg Val Ser Val Ala Ala  
485

<210> 121

<211> 1173

<212> DNA

<213> Arabidopsis thaliana

<400> 121

atggaaaacg gaaactcctc cagcgacaac aaatcttcac ataaaccgat ccgatgcaaa	60
gcggcgggtta gtaggaaggc tggagagccg ttggtgatgg aagaaatcat ggtggcgccg	120
ccgcagcctt tcgaggttcg gattcgaatc atctgcaccg cgttatgtca cagtgcgctc	180
actttctgga aactccaagt tcctccagcc tgctttccga ggatactagg ccacgaggca	240
ataggcgtag tggaaagtgt tggtgaaaat gtgaaggaag tggtagaagg agacaccgta	300
ctaccaacgt tcatgcctga ctgtggtgac tgtgttgatt gcaaattctca caaaagcaac	360
ttatgtagca aatttccttt caaggtatcc ccttggtatgc caagatacga taattccagc	420
agattcaccg acctcaatgg cgaaactctc tttcatttct tgaacgtctc cagcttcagc	480
gaatacacgg ttcttgatgt cgctaacggt gttaagattg attcttcgat tcctcctagt	540
cgtgcttgcc tcctaagctg cggagtctcc accggtgttg gtgctgcttg ggagaccgcc	600
aaagttgaaa aaggatcaac cgttgtgatt ttcggacttg gttctatcgg attagcggtt	660
gcagagggtg cgagactttg tgggtgcctct agaatcattg gtgtggatat aaaccctacc	720
aaattccaag ttggccagaa atttggagtt accgagtttg taaactctat gacatgtgag	780

047-E2F-PCT.ST25.txt

aaaaaccgtg ttagcgaggt gatcaatgag atgactgatg ggggagcgga ctattgcttc 840  
 gaatgtgttg gaagtagttc tttggttcaa gaagcttatg cttgctgtag acagggatgg 900  
 ggaaagacaa taacttttagg ggtggacaag ccgggttcac aaatatgttt agattcgttt 960  
 gatgttcttc accatgggaa gattctgatg ggttcgttgt ttggagggttt aaaggctaaa 1020  
 acacacattc caattcttct taaacgctac ttgagcaatg aacttgaatt ggataagttt 1080  
 gtgacacatg agatgaaatt cgaggagatc aacgacgcat tccagctact tcttgaaggg 1140  
 aaatgcatca ggtgtgtctt atggatgggc taa 1173

<210> 122

<211> 390

<212> PRT

<213> Arabidopsis thaliana

<400> 122

Met Glu Asn Gly Asn Ser Ser Ser Asp Asn Lys Ser Ser His Lys Pro  
 1 5 10 15

Ile Arg Cys Lys Ala Ala Val Ser Arg Lys Ala Gly Glu Pro Leu Val  
 20 25 30

Met Glu Glu Ile Met Val Ala Pro Pro Gln Pro Phe Glu Val Arg Ile  
 35 40 45

Arg Ile Ile Cys Thr Ala Leu Cys His Ser Asp Val Thr Phe Trp Lys  
 50 55 60

Leu Gln Val Pro Pro Ala Cys Phe Pro Arg Ile Leu Gly His Glu Ala  
 65 70 75 80

Ile Gly Val Val Glu Ser Val Gly Glu Asn Val Lys Glu Val Val Glu  
 85 90 95

Gly Asp Thr Val Leu Pro Thr Phe Met Pro Asp Cys Gly Asp Cys Val  
 100 105 110

Asp Cys Lys Ser His Lys Ser Asn Leu Cys Ser Lys Phe Pro Phe Lys  
 115 120 125

Val Ser Pro Trp Met Pro Arg Tyr Asp Asn Ser Ser Arg Phe Thr Asp  
 130 135 140



Leu Asn Gly Glu Thr Leu Phe His Phe Leu Asn Val Ser Ser Phe Ser  
 145 150 155 160  
 Glu Tyr Thr Val Leu Asp Val Ala Asn Val Val Lys Ile Asp Ser Ser  
 165 170 175  
 Ile Pro Pro Ser Arg Ala Cys Leu Leu Ser Cys Gly Val Ser Thr Gly  
 180 185 190  
 Val Gly Ala Ala Trp Glu Thr Ala Lys Val Glu Lys Gly Ser Thr Val  
 195 200 205  
 Val Ile Phe Gly Leu Gly Ser Ile Gly Leu Ala Val Ala Glu Gly Ala  
 210 215 220  
 Arg Leu Cys Gly Ala Ser Arg Ile Ile Gly Val Asp Ile Asn Pro Thr  
 225 230 235 240  
 Lys Phe Gln Val Gly Gln Lys Phe Gly Val Thr Glu Phe Val Asn Ser  
 245 250 255  
 Met Thr Cys Glu Lys Asn Arg Val Ser Glu Val Ile Asn Glu Met Thr  
 260 265 270  
 Asp Gly Gly Ala Asp Tyr Cys Phe Glu Cys Val Gly Ser Ser Ser Leu  
 275 280 285  
 Val Gln Glu Ala Tyr Ala Cys Cys Arg Gln Gly Trp Gly Lys Thr Ile  
 290 295 300  
 Thr Leu Gly Val Asp Lys Pro Gly Ser Gln Ile Cys Leu Asp Ser Phe  
 305 310 315 320  
 Asp Val Leu His His Gly Lys Ile Leu Met Gly Ser Leu Phe Gly Gly  
 325 330 335  
 Leu Lys Ala Lys Thr His Ile Pro Ile Leu Leu Lys Arg Tyr Leu Ser  
 340 345 350  
 Asn Glu Leu Glu Leu Asp Lys Phe Val Thr His Glu Met Lys Phe Glu  
 355 360 365  
 Glu Ile Asn Asp Ala Phe Gln Leu Leu Leu Glu Gly Lys Cys Ile Arg  
 370 375 380  
 Cys Val Leu Trp Met Gly  
 385 390

&lt;210&gt; 123

&lt;211&gt; 702

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 123

```

atgccggcga aacagaggac agctaaggtc aacaggaatc ctgatctgat caggggagtt      60
ggtaaatact caaggtctca gatgtaccat aagagagggt tgtgggcaat caaggccaaa     120
aatggaggcg ttttcccccg ccacgacgct aaatctaagg ttgatgctcc ggtggagaag     180
ccaccgaagt tctatccagc tgaagacgtg aagaaacctc tccccaacag gcgcacggca     240
aaaccagcca agctcagagc tagcatcact ccagggacag tgcttatcat ccttgctggt     300
agattttaagg gcaagagagt tgtcttcctt aagcagcttg cctccggttt gcttcttggt     360
actggaccat tcaagatcaa tgggtgttcct ctgagacgtg ttaaccaggc ctatgtcatt     420
ggtacttcca caaaggttga catttctgga gttaccctcg acaaattcga tgataagtac     480
ttcggcaagg ttgctgagaa gaaaaagaag aagactgaag gagagttctt cgaggctgag     540
aaagaggaga agaaagagat tccacagggg aagaaagatg accagaaagc cgtggacgca     600
gctttgatca aagctattga agcagttcca gagttgaaga cttacctcgg agcaagggtt     660
tcattgaaac aaggaatgaa gcccctagag cttgttttct ag                          702

```

&lt;210&gt; 124

&lt;211&gt; 233

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 124

```

Met Pro Ala Lys Gln Arg Thr Ala Lys Val Asn Arg Asn Pro Asp Leu
1          5          10          15

Ile Arg Gly Val Gly Lys Tyr Ser Arg Ser Gln Met Tyr His Lys Arg
          20          25          30

Gly Leu Trp Ala Ile Lys Ala Lys Asn Gly Gly Val Phe Pro Arg His
          35          40          45

Asp Ala Lys Ser Lys Val Asp Ala Pro Val Glu Lys Pro Pro Lys Phe
50          55          60

```

047-E2F-PCT.ST25.txt

Tyr Pro Ala Glu Asp Val Lys Lys Pro Leu Pro Asn Arg Arg Thr Ala  
 65 70 75 80  
 Lys Pro Ala Lys Leu Arg Ala Ser Ile Thr Pro Gly Thr Val Leu Ile  
 85 90 95  
 Ile Leu Ala Gly Arg Phe Lys Gly Lys Arg Val Val Phe Leu Lys Gln  
 100 105 110  
 Leu Ala Ser Gly Leu Leu Leu Val Thr Gly Pro Phe Lys Ile Asn Gly  
 115 120 125  
 Val Pro Leu Arg Arg Val Asn Gln Ala Tyr Val Ile Gly Thr Ser Thr  
 130 135 140  
 Lys Val Asp Ile Ser Gly Val Thr Leu Asp Lys Phe Asp Asp Lys Tyr  
 145 150 155 160  
 Phe Gly Lys Val Ala Glu Lys Lys Lys Lys Lys Thr Glu Gly Glu Phe  
 165 170 175  
 Phe Glu Ala Glu Lys Glu Glu Lys Lys Glu Ile Pro Gln Gly Lys Lys  
 180 185 190  
 Asp Asp Gln Lys Ala Val Asp Ala Ala Leu Ile Lys Ala Ile Glu Ala  
 195 200 205  
 Val Pro Glu Leu Lys Thr Tyr Leu Gly Ala Arg Phe Ser Leu Lys Gln  
 210 215 220  
 Gly Met Lys Pro His Glu Leu Val Phe  
 225 230

<210> 125

<211> 1944

<212> DNA

<213> Arabidopsis thaliana

<400> 125

atgatggata gtggtataataa taatatgaat agagccaaga ggaatttgga tgggaacgat	60
gatgatcagc ctgagcgaaa acgccctgct tttgctagtg tgattgttga ggctctgaaa	120
gtagatagtt tgcagaagct ttgctcctct ttggaacctt ttctccgccg agttgtcagc	180

## 047-E2F-PCT.ST25.txt

gaggaactgg aacgtgcttt agcaaaacta ggccttgcta ggcttactgg aagttcgggc 240  
tcttctccaa agcgaattga aggtccggat ggtcgggaagt tacagttgca cttcaaattct 300  
aggttatctc tcccgttatt cactgggggg aaagtagaag gagagcaagg tgctgtgatt 360  
catgttgtct tgattgatgc aaacactggc cgtgctgtgg tatatgggcc agaggcttcg 420  
gcaaagcttc acattgttgt gcttgagggt gactttaaca ctgaagatga tgaagactgg 480  
acacaagaag aatttgaaag ccatgttgta aaagagcggt caggaaagag accgttgctg 540  
actggagaag tgtatgttac actcaaggaa ggggttgga ctttgggcga gctagttttc 600  
acggataatt cgagttggat tcgaagtcgg aagttccgac ttggtttacg ggtggtttct 660  
gggtgttgtg atggcatgcg tatccgtgag gccaagacgg aagcttttgt tgttaaggat 720  
cacaggggag aattgtacaa gaagcattat ccacctgctc tgaatgatga tgtgtggaga 780  
ttggacaaga tcggcaagga tggggcattc cataaaaagc ttactgctga aggaataaac 840  
actgtagaag attttctgag agtaatgggtc aaggattctc caaaattacg tactattctt 900  
ggaagcggca tgtcaaacaa aatgtgggat gcactagtag agcacgcaa gacgtgtgtc 960  
cagagcagca agctttatat ctactatgct gaggattcaa ggaatgtcgg tgttgtgttc 1020  
aataatatct atgagctaag cggccttatt tctggagatc aatacttctc tgctgattca 1080  
cttactgata gccaaaagg atatgttgag gggctggtga agaaagcata tgaaaactgg 1140  
aacctagtca tagagtatga tggaaaatct cttttagact tgaagcagcc ccagagggtg 1200  
agtattactc aactaatct ggaaaattac tcgactgctg ccattgacca tccaatgcag 1260  
atggtggcag ggcattcgtc ttcaatgccg cctaaccagt ctccagtgtc ttcagatttt 1320  
gctattggag ggtatgatca aactctggca acaagatatc attcgcatcc ccagctttta 1380  
aactccaacc cgcgagcaca atttgagggt gcttcatgca gtacatcgca agaccagttc 1440  
atgggaaatc tacatcaaac tcaaagcacc ataaacaatc aacacatgaa tggcctggct 1500  
ctcggtcctt cacaatcatc cacaagcgga taccaaaaca tcaacccttc ttctgttcac 1560  
caggcagatc tcaaccattt agaagactgg tcaaaccctc gtgagagagg accagatgat 1620  
ttcttctcag aggaagagat ccgactcaga agccatgaaa tgctagagag tgaagacatg 1680  
caacagttcc tccgcctatt cagcatggga ggaggaggca atggctctgc aacacacttg 1740  
ccagaagatg gatatacttt cccatcggtt ctacacacgc ctatgcaagg ttatgatgaa 1800  
gaccgtgggt gatcaggcag agctgttgtt ggatggctta agataaaaagc cgcaatgaga 1860  
tgggggttct tcatcaggag gaaagctgct gagaggcgag cacaaattgt agagcttgat 1920  
gatgatgatg aagatggcga atag 1944

&lt;210&gt; 126

&lt;211&gt; 647

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 126

Met Met Asp Ser Gly Asn Asn Asn Met Asn Arg Ala Lys Arg Asn Leu  
 1 5 10 15

Asp Gly Asn Asp Asp Asp Gln Pro Glu Arg Lys Arg Pro Ala Phe Ala  
 20 25 30

Ser Val Ile Val Glu Ala Leu Lys Val Asp Ser Leu Gln Lys Leu Cys  
 35 40 45

Ser Ser Leu Glu Pro Ile Leu Arg Arg Val Val Ser Glu Glu Leu Glu  
 50 55 60

Arg Ala Leu Ala Lys Leu Gly Pro Ala Arg Leu Thr Gly Ser Ser Gly  
 65 70 75 80

Ser Ser Pro Lys Arg Ile Glu Gly Pro Asp Gly Arg Lys Leu Gln Leu  
 85 90 95

His Phe Lys Ser Arg Leu Ser Leu Pro Leu Phe Thr Gly Gly Lys Val  
 100 105 110

Glu Gly Glu Gln Gly Ala Val Ile His Val Val Leu Ile Asp Ala Asn  
 115 120 125

Thr Gly Arg Ala Val Val Tyr Gly Pro Glu Ala Ser Ala Lys Leu His  
 130 135 140

Ile Val Val Leu Glu Gly Asp Phe Asn Thr Glu Asp Asp Glu Asp Trp  
 145 150 155 160

Thr Gln Glu Glu Phe Glu Ser His Val Val Lys Glu Arg Ser Gly Lys  
 165 170 175

Arg Pro Leu Leu Thr Gly Glu Val Tyr Val Thr Leu Lys Glu Gly Val  
 180 185 190

Gly Thr Leu Gly Glu Leu Val Phe Thr Asp Asn Ser Ser Trp Ile Arg  
 195 200 205

Ser Arg Lys Phe Arg Leu Gly Leu Arg Val Val Ser Gly Cys Cys Asp  
 Page 191

210

215

Gly 225	Met	Arg	Ile	Arg	Glu 230	Ala	Lys	Thr	Glu	Ala 235	Phe	Val	Val	Lys	Asp 240
His	Arg	Gly	Glu	Leu 245	Tyr	Lys	Lys	His	Tyr 250	Pro	Pro	Ala	Leu	Asn 255	Asp
Asp	Val	Trp	Arg 260	Leu	Asp	Lys	Ile	Gly 265	Lys	Asp	Gly	Ala	Phe 270	His	Lys
Lys	Leu	Thr 275	Ala	Glu	Gly	Ile	Asn 280	Thr	Val	Glu	Asp	Phe 285	Leu	Arg	Val
Met	Val 290	Lys	Asp	Ser	Pro	Lys 295	Leu	Arg	Thr	Ile	Leu 300	Gly	Ser	Gly	Met
Ser 305	Asn	Lys	Met	Trp	Asp 310	Ala	Leu	Val	Glu	His 315	Ala	Lys	Thr	Cys	Val 320
Gln	Ser	Ser	Lys	Leu 325	Tyr	Ile	Tyr	Tyr	Ala 330	Glu	Asp	Ser	Arg	Asn 335	Val
Gly	Val	Val	Phe 340	Asn	Asn	Ile	Tyr	Glu 345	Leu	Ser	Gly	Leu	Ile 350	Ser	Gly
Asp	Gln	Tyr 355	Phe	Ser	Ala	Asp	Ser 360	Leu	Thr	Asp	Ser	Gln 365	Lys	Val	Tyr
Val	Glu 370	Gly	Leu	Val	Lys	Lys 375	Ala	Tyr	Glu	Asn	Trp 380	Asn	Leu	Val	Ile
Glu 385	Tyr	Asp	Gly	Lys	Ser 390	Leu	Leu	Asp	Leu	Lys 395	Gln	Pro	Gln	Arg	Leu 400
Ser	Ile	Thr	His 405	Thr	Asn	Leu	Glu	Asn	Tyr 410	Ser	Thr	Ala	Ala	Ile 415	Asp
His	Pro	Met	Gln 420	Met	Val	Ala	Gly	His 425	Ser	Ser	Ser	Met	Pro	Pro	Asn
Gln	Ser	Pro 435	Val	Leu	Ser	Asp	Phe 440	Ala	Ile	Gly	Gly	Tyr 445	Asp	Gln	Thr
Leu	Ala 450	Thr	Arg	Tyr	His	Ser 455	His	Pro	Gln	Leu	Leu 460	Asn	Ser	Asn	Pro

047-E2F-PCT.ST25.txt

Arg Ala Gln Phe Glu Val Ala Ser Cys Ser Thr Ser Gln Asp Gln Phe  
 465 470 475 480

Met Gly Asn Leu His Gln Thr Gln Ser Thr Ile Asn Asn Gln His Met  
 485 490 495

Asn Gly Leu Ala Leu Gly Pro Ser Gln Ser Ser Thr Ser Gly Tyr Gln  
 500 505 510

Asn Ile Asn Pro Ser Ser Val His Gln Ala Asp Leu Asn His Leu Glu  
 515 520 525

Asp Trp Ser Asn Pro Arg Glu Arg Gly Pro Asp Asp Phe Phe Ser Glu  
 530 535 540

Glu Glu Ile Arg Leu Arg Ser His Glu Met Leu Glu Ser Glu Asp Met  
 545 550 555 560

Gln Gln Phe Leu Arg Leu Phe Ser Met Gly Gly Gly Gly Asn Gly Ser  
 565 570 575

Ala Thr His Leu Pro Glu Asp Gly Tyr Thr Phe Pro Ser Phe Leu His  
 580 585 590

Thr Pro Met Gln Gly Tyr Asp Glu Asp Arg Gly Arg Ser Gly Arg Ala  
 595 600 605

Val Val Gly Trp Leu Lys Ile Lys Ala Ala Met Arg Trp Gly Phe Phe  
 610 615 620

Ile Arg Arg Lys Ala Ala Glu Arg Arg Ala Gln Ile Val Glu Leu Asp  
 625 630 635 640

Asp Asp Asp Glu Asp Gly Glu  
 645

<210> 127

<211> 1107

<212> DNA

<213> Arabidopsis thaliana

<400> 127

atggaaattt caggacggcg aatgagaaga ttcaggatga gattccgaag agatcacctc 60  
 accggcggcg agaacattga aaacgaagcc tcgtgttgct attgtgacct caaaatctcg 120

047-E2F-PCT.ST25.txt

aatttcaacg aacccatctt ccgttttagga cgacgattct ccggagtttt gaaagtctgg 180  
 ttctcaatcg gactaggatt cggcgtcgt tctctgatcc tcgtcaccgt cttccttctc 240  
 cttcagtttc actctaacct tttattctcc aatcgtctca cttccgccgt atttggattc 300  
 tctccttcca cgcgtgtatc attatcaggc attgcctatg tacttgtctc cactgtcatt 360  
 acagtttcag ttcatgaact tggtcacgct cttgctgctg ctagtgaagg aatacagatg 420  
 gaatacattg ccgttttcat tgcagctatc tttccgggtg gtcttgtagc ttttgataat 480  
 gatgtcttgc aatcacttcc aagctttaat gctcttcgta tttactgtgc cggtatattg 540  
 cataatgcag tggttggttc ctctctttca agtttttatt tctgtgcact ctgtgtgttc 600  
 gctttgtttc tcttgccctgt tatgttgtca cctttctaca aacacggtga aagcctcacg 660  
 gttgtggatg tgccttctgt gtcgccattg tttggttact tgtctcctgg agatgttatt 720  
 gtgtcgttgg atggcataca agtccacaaa cctagtgaat ggcttgaatt ggcagcaatt 780  
 ttggataagg aaaatagtaa aacatcgaat ggttccttgt accttggagg ttcaaggaga 840  
 tttcatcacg ggaagggtta ctgtgtccct atctctctga ttgaagaagg gtacaaaggg 900  
 aaaatggttg agaaccaatt tgtttgtccc ggtgatctca ctgcatttcg aacaatgcca 960  
 tgctcaaattg cagccataag agaggtatct gtttgtttgg atgcaaagga tatcgtcaag 1020  
 cttcaaaaat gtggtgatgg atgggtgaca acatcagaca ccgataacca aagtgactgc 1080  
 gtatgtccac aggtgaatat tgcttga 1107

<210> 128

<211> 368

<212> PRT

<213> Arabidopsis thaliana

<400> 128

Met Glu Ile Ser Gly Arg Arg Met Arg Arg Phe Arg Met Arg Phe Arg  
 1 5 10 15

Arg Asp His Leu Thr Gly Gly Glu Asn Ile Glu Asn Glu Ala Ser Cys  
 20 25 30

Cys Tyr Cys Asp Leu Lys Ile Ser Asn Phe Asn Glu Pro Ile Phe Arg  
 35 40 45

Leu Gly Arg Arg Phe Ser Gly Val Leu Lys Val Trp Phe Ser Ile Gly  
 50 55 60



047-E2F-PCT.ST25.txt

Leu Gly Phe Gly Val Ala Ser Leu Ile Leu Val Thr Val Phe Leu Leu  
 65 70 75 80  
 Leu Gln Phe His Ser Asn Pro Leu Phe Ser Asn Arg Leu Thr Ser Ala  
 85 90 95  
 Val Phe Gly Phe Ser Pro Ser Thr Arg Val Ser Leu Ser Gly Ile Ala  
 100 105 110  
 Tyr Val Leu Val Ser Thr Val Ile Thr Val Ser Val His Glu Leu Gly  
 115 120 125  
 His Ala Leu Ala Ala Ala Ser Glu Gly Ile Gln Met Glu Tyr Ile Ala  
 130 135 140  
 Val Phe Ile Ala Ala Ile Phe Pro Gly Gly Leu Val Ala Phe Asp Asn  
 145 150 155 160  
 Asp Val Leu Gln Ser Leu Pro Ser Phe Asn Ala Leu Arg Ile Tyr Cys  
 165 170 175  
 Ala Gly Ile Trp His Asn Ala Val Val Gly Ser Ser Leu Ser Ser Phe  
 180 185 190  
 Tyr Phe Cys Ala Leu Cys Val Phe Ala Leu Phe Leu Leu Pro Val Met  
 195 200 205  
 Leu Ser Pro Phe Tyr Lys His Gly Glu Ser Leu Thr Val Val Asp Val  
 210 215 220  
 Pro Ser Val Ser Pro Leu Phe Gly Tyr Leu Ser Pro Gly Asp Val Ile  
 225 230 235 240  
 Val Ser Leu Asp Gly Ile Gln Val His Lys Pro Ser Glu Trp Leu Glu  
 245 250 255  
 Leu Ala Ala Ile Leu Asp Lys Glu Asn Ser Lys Thr Ser Asn Gly Ser  
 260 265 270  
 Leu Tyr Leu Gly Gly Ser Arg Arg Phe His His Gly Lys Gly Tyr Cys  
 275 280 285  
 Val Pro Ile Ser Leu Ile Glu Glu Gly Tyr Lys Gly Lys Met Val Glu  
 290 295 300  
 Asn Gln Phe Val Cys Pro Gly Asp Leu Thr Ala Phe Arg Thr Met Pro  
 305 310 315 320

047-E2F-PCT.ST25.txt

Cys Ser Asn Ala Ala Ile Arg Glu Val Ser Val Cys Leu Asp Ala Lys  
 325 330 335

Asp Ile Val Lys Leu Gln Lys Cys Gly Asp Gly Trp Val Thr Thr Ser  
 340 345 350

Asp Thr Asp Asn Gln Ser Asp Cys Val Cys Pro Gln Val Asn Ile Ala  
 355 360 365

<210> 129

<211> 2802

<212> DNA

<213> Arabidopsis thaliana

<400> 129

atgaagcata	ttttcaagaa	gctacacaga	ggtagggaatc	aagagcagca	gaatcgaacc	60
aacgatgcag	ctcctccatc	ggatcaaaat	cggattcacg	tttctgctaa	tcctcctcaa	120
gcaacccctt	cgtcagtcac	tgagacgctt	ccggtggccg	gagctacttc	ttctatggcc	180
tctcctgctc	caaccgctgc	ttcgaaccgt	gctgattaca	tgtcttctga	ggaggagtat	240
caagtgcagt	tagccctagc	gatcagtgct	tcgaattcgc	agtccagtga	ggatccggag	300
aagcatcaga	tccgagcggc	gacgcttctg	agcttaggaa	gccatcaacg	gatggattca	360
aggagggatt	catcggaggt	ggtagcccag	aggttatcga	gacagtactg	ggaatatggc	420
gtgcttgact	atgaggagaa	agttgtcgat	agtttctacg	acgtatacag	tctatccaca	480
gactccgcaa	agcagggaga	aatgccatcg	ctggaagatc	ttgaaagcaa	tcattggcaca	540
cctggctttg	aagctgtagt	tgtaaatacg	cctattgatt	cttccctgca	tgagttgcta	600
gaaatcgag	agtgtattgc	actgggttgt	tctactacca	gtgttagtgt	gttggtacag	660
aggctggctg	agcttgctac	cgagcatatg	ggtaggattc	cggaagattc	cagtatagta	720
ttggcaaggt	ggactgaaaa	aagcagcgag	ttcaaggcag	cattgaatac	ttgcgtattc	780
cctattggat	ttgtaaagat	tggtatctca	aggcatcgtg	ctctgctttt	caagggtttg	840
gcagatagtg	tcaggttacc	ttgtagggtg	gtaaaaggta	gccactacac	aggcaatgag	900
gatgatgctg	tgaacacgat	aagactggaa	gatgaaagag	agtacttggt	tgatcttatg	960
acagatcctg	ggacgcttat	acccgctgat	tttgcaagtg	ctagtaataa	caccgttgag	1020
ccatgtaact	caaattgaaa	caaatttcct	acagctcagt	tttcaaataa	cgtgccaaag	1080
ctctcagaag	gtgaaggaag	tagtcacagt	tctatggcca	actatagtcc	ttctttggat	1140
agaaggacag	aggctgaaag	gacagattct	tcatacccaa	aggtagggacc	acttcggaac	1200

047-E2F-PCT.ST25.txt

atagactata gttctccttc tagcgtaact agttctactc agttggagaa caattcctca	1260
acagcaattg gaaaggggag tcgaggagcc ataattgaat gttcaagaac aaacatgaat	1320
atagttcctt acaatcagaa cagtgaggaa gacccaaaaa accttttcgc agaccttaat	1380
ccatttcaaa ataagggagc tgacaagctg tatatgccca ctaaatacagg tttgaataac	1440
gttgatgatt ttcatacaaca gaaaaataat cctctgggtt gtagatcacc tgcgccaatg	1500
atgtggaaga attacagttg caatgaagcc ccaaagagaa aggagaatag ttatatagaa	1560
aatctttctc cgaaactcca ccgtgatcct cgttatggaa aactcaatc ctcatatgct	1620
acctcaagct ccaatggagc tatttcctca aatgtgcatg gcagagacaa tgtgacattt	1680
gtgtcaccgg ttgctgtacc atcatccttc acatccactg aaaatcagtt tagaccaagt	1740
atagtggagg atatgaacag aaacaccaac aatgaactag atcttcagcc tcatactgct	1800
gctgtggtac atggacaaca gaatgatgaa tctcacatcc atgatcacag aaagtacaca	1860
agtgatgaca tatccactgg ctgtgatccg aggccttaagg atcacgaaag tacaagttca	1920
tctcttgatt ctacatccta ccggaatgat cctcaagttc ttgatgatgc agatgttggt	1980
gaatgtgaaa ttccttgga tgatctcggt attgctggaga gaataggatt agggctcctat	2040
ggagaggtct atcatgctga ctggcatggc acggaagttg ctgtcaagaa atttttggac	2100
caggacttct caggtgctgc tttagccgag ttcagaagcg aagtacggat tatgcgaaga	2160
ttgcgtcatc caaatgttgt attcttcctt ggggctgtta ctcgtcctcc aaatctttcc	2220
atcgtcacag agtttctgcc tagaggaagc ttgtatcgaa tccttcacgc gcccaaactc	2280
cacattgacg agcggcgccg gattaaaatg gcccttgacg tggcaatggg gatgaactgc	2340
ttacacacca gtacaccgac aattgttcat cgtgatctca aaacacacaaa ctttttggtt	2400
gataacaact ggaatgttaa ggtcgggtgat tttgggttgt ctcgcttaaa gcacaatact	2460
tttttatcct ccaaataaac tgctggaacg cctgaatgga tggctccaga agttctacgc	2520
aatgagccct caaatgaaaa gtgtgatgtg tacagtttcg gggtaatact ttgggaacta	2580
gcaacattga gattaccatg gagaggaatg aaccaatgc aagtagttgg agcagttggg	2640
ttccagaatc ggcggcttga gatccccaag gaacttgatc ctgtggtggg aaggatcatc	2700
ctggaatgtt ggcaaacgga tccgaatctg cggccgtcat ttgctcagct gacggaagtg	2760
ctgaagcctt tgaaccggct tgtacttctt acaccacaat ag	2802

<210> 130

<211> 933

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 130

```

Met Lys His Ile Phe Lys Lys Leu His Arg Gly Gly Asn Gln Glu Gln
 1      5      10      15

Gln Asn Arg Thr Asn Asp Ala Ala Pro Pro Ser Asp Gln Asn Arg Ile
 20      25      30

His Val Ser Ala Asn Pro Pro Gln Ala Thr Pro Ser Ser Val Thr Glu
 35      40      45

Thr Leu Pro Val Ala Gly Ala Thr Ser Ser Met Ala Ser Pro Ala Pro
 50      55      60

Thr Ala Ala Ser Asn Arg Ala Asp Tyr Met Ser Ser Glu Glu Glu Tyr
 65      70      75      80

Gln Val Gln Leu Ala Leu Ala Ile Ser Ala Ser Asn Ser Gln Ser Ser
 85      90      95

Glu Asp Pro Glu Lys His Gln Ile Arg Ala Ala Thr Leu Leu Ser Leu
100     105     110

Gly Ser His Gln Arg Met Asp Ser Arg Arg Asp Ser Ser Glu Val Val
115     120     125

Ala Gln Arg Leu Ser Arg Gln Tyr Trp Glu Tyr Gly Val Leu Asp Tyr
130     135     140

Glu Glu Lys Val Val Asp Ser Phe Tyr Asp Val Tyr Ser Leu Ser Thr
145     150     155     160

Asp Ser Ala Lys Gln Gly Glu Met Pro Ser Leu Glu Asp Leu Glu Ser
165     170     175

Asn His Gly Thr Pro Gly Phe Glu Ala Val Val Val Asn Arg Pro Ile
180     185     190

Asp Ser Ser Leu His Glu Leu Leu Glu Ile Ala Glu Cys Ile Ala Leu
195     200     205

Gly Cys Ser Thr Thr Ser Val Ser Val Leu Val Gln Arg Leu Ala Glu
210     215     220

Leu Val Thr Glu His Met Gly Gly Ser Ala Glu Asp Ser Ser Ile Val
225     230     235     240

```

047-E2F-PCT.ST25.txt

Leu Ala Arg Trp Thr Glu Lys Ser Ser Glu Phe Lys Ala Ala Leu Asn  
 245 250 255  
 Thr Cys Val Phe Pro Ile Gly Phe Val Lys Ile Gly Ile Ser Arg His  
 260 265 270  
 Arg Ala Leu Leu Phe Lys Val Leu Ala Asp Ser Val Arg Leu Pro Cys  
 275 280 285  
 Arg Leu Val Lys Gly Ser His Tyr Thr Gly Asn Glu Asp Asp Ala Val  
 290 295 300  
 Asn Thr Ile Arg Leu Glu Asp Glu Arg Glu Tyr Leu Val Asp Leu Met  
 305 310 315 320  
 Thr Asp Pro Gly Thr Leu Ile Pro Ala Asp Phe Ala Ser Ala Ser Asn  
 325 330 335  
 Asn Thr Val Glu Pro Cys Asn Ser Asn Gly Asn Lys Phe Pro Thr Ala  
 340 345 350  
 Gln Phe Ser Asn Asp Val Pro Lys Leu Ser Glu Gly Glu Gly Ser Ser  
 355 360 365  
 His Ser Ser Met Ala Asn Tyr Ser Ser Ser Leu Asp Arg Arg Thr Glu  
 370 375 380  
 Ala Glu Arg Thr Asp Ser Ser Tyr Pro Lys Val Gly Pro Leu Arg Asn  
 385 390 395 400  
 Ile Asp Tyr Ser Ser Pro Ser Ser Val Thr Ser Ser Thr Gln Leu Glu  
 405 410 415  
 Asn Asn Ser Ser Thr Ala Ile Gly Lys Gly Ser Arg Gly Ala Ile Ile  
 420 425 430  
 Glu Cys Ser Arg Thr Asn Met Asn Ile Val Pro Tyr Asn Gln Asn Ser  
 435 440 445  
 Glu Glu Asp Pro Lys Asn Leu Phe Ala Asp Leu Asn Pro Phe Gln Asn  
 450 455 460  
 Lys Gly Ala Asp Lys Leu Tyr Met Pro Thr Lys Ser Gly Leu Asn Asn  
 465 470 475 480  
 Val Asp Asp Phe His Gln Gln Lys Asn Asn Pro Leu Val Gly Arg Ser

Pro Ala Pro Met Met Trp Lys Asn Tyr Ser Cys Asn Glu Ala Pro Lys  
500 505 510

Arg Lys Glu Asn Ser Tyr Ile Glu Asn Leu Leu Pro Lys Leu His Arg  
515 520 525

Asp Pro Arg Tyr Gly Asn Thr Gln Ser Ser Tyr Ala Thr Ser Ser Ser  
530 535 540

Asn Gly Ala Ile Ser Ser Asn Val His Gly Arg Asp Asn Val Thr Phe  
545 550 555 560

Val Ser Pro Val Ala Val Pro Ser Ser Phe Thr Ser Thr Glu Asn Gln  
565 570 575

Phe Arg Pro Ser Ile Val Glu Asp Met Asn Arg Asn Thr Asn Asn Glu  
580 585 590

Leu Asp Leu Gln Pro His Thr Ala Ala Val Val His Gly Gln Gln Asn  
595 600 605

Asp Glu Ser His Ile His Asp His Arg Lys Tyr Thr Ser Asp Asp Ile  
610 615 620

Ser Thr Gly Cys Asp Pro Arg Leu Lys Asp His Glu Ser Thr Ser Ser  
625 630 635 640

Ser Leu Asp Ser Thr Ser Tyr Arg Asn Asp Pro Gln Val Leu Asp Asp  
645 650 655

Ala Asp Val Gly Glu Cys Glu Ile Pro Trp Asn Asp Leu Val Ile Ala  
660 665 670

Glu Arg Ile Gly Leu Gly Ser Tyr Gly Glu Val Tyr His Ala Asp Trp  
675 680 685

His Gly Thr Glu Val Ala Val Lys Lys Phe Leu Asp Gln Asp Phe Ser  
690 695 700

Gly Ala Ala Leu Ala Glu Phe Arg Ser Glu Val Arg Ile Met Arg Arg  
705 710 715 720

Leu Arg His Pro Asn Val Val Phe Phe Leu Gly Ala Val Thr Arg Pro  
725 730 735

Pro Asn Leu Ser Ile Val Thr Glu Phe Leu Pro Arg Gly Ser Leu Tyr  
 740 745 750

Arg Ile Leu His Arg Pro Lys Ser His Ile Asp Glu Arg Arg Arg Ile  
 755 760 765

Lys Met Ala Leu Asp Val Ala Met Gly Met Asn Cys Leu His Thr Ser  
 770 775 780

Thr Pro Thr Ile Val His Arg Asp Leu Lys Thr Pro Asn Leu Leu Val  
 785 790 795 800

Asp Asn Asn Trp Asn Val Lys Val Gly Asp Phe Gly Leu Ser Arg Leu  
 805 810 815

Lys His Asn Thr Phe Leu Ser Ser Lys Ser Thr Ala Gly Thr Pro Glu  
 820 825 830

Trp Met Ala Pro Glu Val Leu Arg Asn Glu Pro Ser Asn Glu Lys Cys  
 835 840 845

Asp Val Tyr Ser Phe Gly Val Ile Leu Trp Glu Leu Ala Thr Leu Arg  
 850 855 860

Leu Pro Trp Arg Gly Met Asn Pro Met Gln Val Val Gly Ala Val Gly  
 865 870 875 880

Phe Gln Asn Arg Arg Leu Glu Ile Pro Lys Glu Leu Asp Pro Val Val  
 885 890 895

Gly Arg Ile Ile Leu Glu Cys Trp Gln Thr Asp Pro Asn Leu Arg Pro  
 900 905 910

Ser Phe Ala Gln Leu Thr Glu Val Leu Lys Pro Leu Asn Arg Leu Val  
 915 920 925

Leu Pro Thr Pro Gln  
 930

<210> 131

<211> 1716

<212> DNA

<213> Arabidopsis thaliana

<400> 131

## 047-E2F-PCT.ST25.txt

atgcaaattgg	aggctaattga	ctgtcaagag	gaacataagt	tcactctcga	caactatcat	60
gtcgtggagc	aggttagaag	aggcaagtcc	tcttccgatt	tcgtggttct	tcatgatatt	120
gaagacaaaa	agtatgcaat	gaagaagatt	tgcctagcga	aacacacgga	caagttaaag	180
caaaccgctt	tacaagagat	gaaattgctc	tcaagcttaa	agaatcctta	tatcgtgcat	240
tatgaagatt	cttggattga	caatgacaat	aatgcctgca	tttttactgc	ttactatgag	300
ggaggggaaca	tggctaattgc	tattaagaaa	gcgagaggaa	aattattccc	ggaggaaaga	360
atctttaaat	ggttggcaca	attgttactg	gctgttaact	atttgcactc	aaaccgtgta	420
gttcacatgg	atctaactg	ttcaaattatt	ttcctgccga	aagatgatca	cgtccagctt	480
ggtaattatg	gtctggcgaa	acttataaat	ccagaaaagc	ctgtttccat	ggtttcgggt	540
atctctaaca	gcatgtgccc	tgaggtatta	gaagatcaac	catatggata	taaatctgac	600
atatggtcgc	tgggttggtg	tatgtatgaa	attacagcac	accagcctgc	gtttaaagct	660
ccggatatgg	ctggactcat	caataaaaata	aacagatccc	ttatgtctcc	tcttccgatc	720
gtctactcct	ctaccttgaa	acaaatgata	aagcttatgc	ttaggaagaa	accagaatat	780
cggccaacag	cctgcgaatt	gttaagaaac	ccatctctac	aaccatacct	tcttcaatgc	840
caaaacctgt	cgcctatttta	tcttccgggt	ttcccgataa	agccggtaaa	tagtccgaag	900
gataaagcaa	gaagaaactc	attgccagga	aagtttgga	aggaaagagt	ttcaagagag	960
aagagcgagg	tgtcccgag	tttggaata	ctatatccat	tttgagcgaa	tacagagact	1020
ggatctagca	gctcatcgca	accggcatca	tctacgaatg	gcgagaaga	caaacttgaa	1080
acaaaaagaa	tcgatccaag	ctgtgacaca	ttgaagattt	ctgagtttac	aagccagaag	1140
tcggatgaga	gcttaattga	tcctgatatt	gcagtttact	ctacagaaac	gccagccgaa	1200
gaaaatgctc	tgccaaaaga	aactgaaaat	atattctctg	aggaatctca	gttacgtgat	1260
gttgatgttg	gggttggtg	tgcacaagaa	gtagcatgtt	cccctccaag	agccatcgaa	1320
gaagctgaaa	ctcaggaggc	attacctaaa	ccaaaggaac	agataacagt	gcccatttct	1380
agtgttgac	attcatctac	tgaagttgca	gcagcaaaag	accatttgtc	tggaagcctt	1440
gagggcgata	aagcaaagat	ggtgaaacta	acagcgagtg	aaatgtcatc	ggtactaagt	1500
aagctcacia	aattgggtcc	gccgcagagt	aaagaaaggg	cagatgcatt	agagtgttta	1560
ttggagaaat	gtgcagggtc	tgtaaagcaa	gagaaatatg	aagaacttgc	tggtttgctt	1620
acaccatttg	gggaagatgg	tgtctcgggt	agggacactg	caatttggtt	cgcaaagaca	1680
ctcttgtcgt	ctgacaaact	caaccaagga	acctga			1716

&lt;210&gt; 132

&lt;211&gt; 571



&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 132

```

Met Gln Met Glu Ala Asn Asp Cys Gln Glu Glu His Lys Phe Thr Leu
 1          5          10          15

Asp Asn Tyr His Val Val Glu Gln Val Arg Arg Gly Lys Ser Ser Ser
 20          25          30

Asp Phe Val Val Leu His Asp Ile Glu Asp Lys Lys Tyr Ala Met Lys
 35          40          45

Lys Ile Cys Leu Ala Lys His Thr Asp Lys Leu Lys Gln Thr Ala Leu
 50          55          60

Gln Glu Met Lys Leu Leu Ser Ser Leu Lys Asn Pro Tyr Ile Val His
 65          70          75          80

Tyr Glu Asp Ser Trp Ile Asp Asn Asp Asn Asn Ala Cys Ile Phe Thr
 85          90          95

Ala Tyr Tyr Glu Gly Gly Asn Met Ala Asn Ala Ile Lys Lys Ala Arg
100          105          110

Gly Lys Leu Phe Pro Glu Glu Arg Ile Phe Lys Trp Leu Ala Gln Leu
115          120          125

Leu Leu Ala Val Asn Tyr Leu His Ser Asn Arg Val Val His Met Asp
130          135          140

Leu Thr Cys Ser Asn Ile Phe Leu Pro Lys Asp Asp His Val Gln Leu
145          150          155          160

Gly Asn Tyr Gly Leu Ala Lys Leu Ile Asn Pro Glu Lys Pro Val Ser
165          170          175

Met Val Ser Gly Ile Ser Asn Ser Met Cys Pro Glu Val Leu Glu Asp
180          185          190

Gln Pro Tyr Gly Tyr Lys Ser Asp Ile Trp Ser Leu Gly Cys Cys Met
195          200          205

Tyr Glu Ile Thr Ala His Gln Pro Ala Phe Lys Ala Pro Asp Met Ala
210          215          220

```

## 047-E2F-PCT.ST25.txt

Gly Leu Ile Asn Lys Ile Asn Arg Ser Leu Met Ser Pro Leu Pro Ile  
 225 230 235 240  
 Val Tyr Ser Ser Thr Leu Lys Gln Met Ile Lys Leu Met Leu Arg Lys  
 245 250 255  
 Lys Pro Glu Tyr Arg Pro Thr Ala Cys Glu Leu Leu Arg Asn Pro Ser  
 260 265 270  
 Leu Gln Pro Tyr Leu Leu Gln Cys Gln Asn Leu Ser Pro Ile Tyr Leu  
 275 280 285  
 Pro Val Phe Pro Ile Lys Pro Val Asn Ser Pro Lys Asp Lys Ala Arg  
 290 295 300  
 Arg Asn Ser Leu Pro Gly Lys Phe Gly Lys Glu Arg Val Ser Arg Glu  
 305 310 315 320  
 Lys Ser Glu Val Ser Arg Ser Leu Glu Asn Leu Tyr Pro Phe Trp Thr  
 325 330 335  
 Asn Thr Glu Thr Gly Ser Ser Ser Ser Gln Pro Ala Ser Ser Thr  
 340 345 350  
 Asn Gly Ala Glu Asp Lys Leu Glu Thr Lys Arg Ile Asp Pro Ser Cys  
 355 360 365  
 Asp Thr Leu Lys Ile Ser Glu Phe Thr Ser Gln Lys Ser Asp Glu Ser  
 370 375 380  
 Leu Ile Asp Pro Asp Ile Ala Val Tyr Ser Thr Glu Thr Pro Ala Glu  
 385 390 395 400  
 Glu Asn Ala Leu Pro Lys Glu Thr Glu Asn Ile Phe Ser Glu Glu Ser  
 405 410 415  
 Gln Leu Arg Asp Val Asp Val Gly Val Val Ser Ala Gln Glu Val Ala  
 420 425 430  
 Cys Ser Pro Pro Arg Ala Ile Glu Glu Ala Glu Thr Gln Glu Ala Leu  
 435 440 445  
 Pro Lys Pro Lys Glu Gln Ile Thr Val Pro Ile Ser Ser Val Ala His  
 450 455 460  
 Ser Ser Thr Glu Val Ala Ala Ala Lys Asp His Leu Ser Gly Ser Leu  
 465 470 475 480

Glu Gly Asp Lys Ala Lys Met Val Lys Leu Thr Ala Ser Glu Met Ser  
485 490 495

Ser Val Leu Ser Lys Leu Thr Lys Leu Gly Pro Pro Gln Ser Lys Glu  
500 505 510

Arg Ala Asp Ala Leu Glu Cys Leu Leu Glu Lys Cys Ala Gly Leu Val  
515 520 525

Lys Gln Glu Lys Tyr Glu Glu Leu Ala Gly Leu Leu Thr Pro Phe Gly  
530 535 540

Glu Asp Gly Val Ser Ala Arg Asp Thr Ala Ile Trp Phe Ala Lys Thr  
545 550 555 560

Leu Leu Ser Ser Asp Lys Leu Asn Gln Gly Thr  
565 570

<210> 133

<211> 1908

<212> DNA

<213> Arabidopsis thaliana

<400> 133

atgggaaacg gaaactcaac ggagacgaaa gagtcgcgcc gatcaaagat gcgtaagaag	60
attcaaaaact ttcgcagccg ccgccgtcct agtcgtccag gatccggaag cgtctctgga	120
ttggctagtc agagatctgt gagcgcagat gatttcgccg gcattgctct tctcactcct	180
atcggcgcgg agatgaagtt caaggacaag tggctcgcct gtgtttcctt cggggaacaa	240
actttccggt cggaaatttc agattccaca gagaagccga tttggaactc ggaaaagaag	300
cttctcctgg agaaaaatgg accaagtctg gctagaatct ctgtatttga gaccaataga	360
ctcttgaaga acaatatcgt tggttattgt gagcttgatc tacttgattt cgtagtacag	420
gaacctgact ctacttgcaa gtcatttgac ctggttagacc cggcctcatc taacgttggt	480
ggcagcatgt ttgtttcatg ctccgttgag gacacctgtt aaaccgagac atgttttcgcg	540
aagcgtatct tgtccatagt ggattatgac gaagatggaa aactctcatt ctgagagttc	600
tctgatctga tgaatgcttt tgggaatgta gtggctgcta acaagaaaga ggagttgttc	660
aaagccgctg acctgaatgg ggatggtggt gttacaattg atgagttggc tgcacttctt	720
gccgttcaac aggaacagga gcccaattata aatagttgtc cggtttgccg tgaggctctt	780

caacttgaca agctcaatgc aatgatccat atgactctct gttttgacga aggaactggt 840  
 aatcaaatga ccggaggggtt cttgactgat aggcaggctt catatggatg gatgttcaaa 900  
 ctaagtgaat ggactcatct atcaacttat gatgttggtt tgaatactgg ttcaagtgct 960  
 tcacatattg tggatgattga taggaagact aagaggctcg tggaagagtt gattgattca 1020  
 aagattgtta tgtctatgag agctatttac cagtcaaaaa taggactccg gcttatggac 1080  
 caaggagcaa aagagatttt gcagaacctt tctgagaaac aggggaaaaa aatgaactca 1140  
 gttgaatctg cccaaaatat tcccagcttt ctcgagtttt tcaaggatca aataaacatg 1200  
 gccgaagtca agtatcctct ggaccatttt aagacgttca atgaattctt cgtacgggag 1260  
 ttaaagcctg gtgcaagacc aattgcgtgc atggatcagg atgatgttgc tgtatctgct 1320  
 gctgattgtc gattaatggc atttcaatcg gttgatgata gcacacgggt ctggatcaag 1380  
 ggccgtaagt tttcaatcaa aggcctcctt ggaaatgatg tgcagtcgga tgctttcctt 1440  
 gatggatctt tggatgatatt ccgattggcg ccacaggact atcatcgttt tcattctcct 1500  
 gtctctggtg tcattgaaaa gtttgtcaat gtttctggaa gcttatatac ggtaaatccg 1560  
 attgctgtca atagcaagta ctgtaatgtg ttcactgaga ataaacggac catcgtaatt 1620  
 atatcaacag cagagtttgg aaaggctcga tttgttgca ttggagcaac aatggttggt 1680  
 agtatcagct ttgttaggca agaggagac catgtgaaga aaggggacga gcttggttac 1740  
 ttttcatttg gtggaagcac agttatatgc gtctttgaaa aggactcgat taagattgat 1800  
 gaggatctct tagctaacag tgctaggtcc ttggagacat tagttactgt tggaatgcaa 1860  
 cttggtgtct cctttccaaa gctggaaaac tgtgtacttg agccctga 1908

<210> 134

<211> 635

<212> PRT

<213> *Arabidopsis thaliana*

<400> 134

Met Gly Asn Gly Asn Ser Thr Glu Thr Lys Glu Ser Arg Arg Ser Lys  
 1 5 10 15

Met Arg Lys Lys Ile Gln Asn Phe Arg Ser Arg Arg Arg Leu Ser Arg  
 20 25 30

Pro Gly Ser Gly Ser Val Ser Gly Leu Ala Ser Gln Arg Ser Val Ser  
 35 40 45

## 047-E2F-PCT.ST25.txt

Ala Asp Asp Phe Ala Gly Ile Ala Leu Leu Thr Leu Ile Gly Ala Glu  
 50 55 60  
 Met Lys Phe Lys Asp Lys Trp Leu Ala Cys Val Ser Phe Gly Glu Gln  
 65 70 75 80  
 Thr Phe Arg Ser Glu Ile Ser Asp Ser Thr Glu Lys Pro Ile Trp Asn  
 85 90 95  
 Ser Glu Lys Lys Leu Leu Leu Glu Lys Asn Gly Pro Ser Leu Ala Arg  
 100 105 110  
 Ile Ser Val Phe Glu Thr Asn Arg Leu Leu Lys Asn Asn Ile Val Gly  
 115 120 125  
 Tyr Cys Glu Leu Asp Leu Leu Asp Phe Val Val Gln Glu Pro Asp Ser  
 130 135 140  
 Thr Cys Lys Ser Phe Asp Leu Leu Asp Pro Ala Ser Ser Asn Val Val  
 145 150 155 160  
 Gly Ser Met Phe Val Ser Cys Ser Val Glu Asp Pro Val Glu Thr Glu  
 165 170 175  
 Thr Cys Phe Ala Lys Arg Ile Leu Ser Ile Val Asp Tyr Asp Glu Asp  
 180 185 190  
 Gly Lys Leu Ser Phe Ser Glu Phe Ser Asp Leu Met Asn Ala Phe Gly  
 195 200 205  
 Asn Val Val Ala Ala Asn Lys Lys Glu Glu Leu Phe Lys Ala Ala Asp  
 210 215 220  
 Leu Asn Gly Asp Gly Val Val Thr Ile Asp Glu Leu Ala Ala Leu Leu  
 225 230 235 240  
 Ala Val Gln Gln Glu Gln Glu Pro Ile Ile Asn Ser Cys Pro Val Cys  
 245 250 255  
 Gly Glu Ala Leu Gln Leu Asp Lys Leu Asn Ala Met Ile His Met Thr  
 260 265 270  
 Leu Cys Phe Asp Glu Gly Thr Gly Asn Gln Met Thr Gly Gly Phe Leu  
 275 280 285  
 Thr Asp Arg Gln Ala Ser Tyr Gly Trp Met Phe Lys Leu Ser Glu Trp  
 290 295 300

## 047-E2F-PCT.ST25.txt

Thr His Leu Ser Thr Tyr Asp Val Gly Leu Asn Thr Gly Ser Ser Ala  
 305 310 315 320  
 Ser His Ile Val Val Ile Asp Arg Lys Thr Lys Arg Leu Val Glu Glu  
 325 330 335  
 Leu Ile Asp Ser Lys Ile Val Met Ser Met Arg Ala Ile Tyr Gln Ser  
 340 345 350  
 Lys Ile Gly Leu Arg Leu Met Asp Gln Gly Ala Lys Glu Ile Leu Gln  
 355 360 365  
 Asn Leu Ser Glu Lys Gln Gly Lys Lys Met Asn Ser Val Glu Ser Ala  
 370 375 380  
 Gln Asn Ile Pro Ser Phe Leu Glu Phe Phe Lys Asp Gln Ile Asn Met  
 385 390 395 400  
 Ala Glu Val Lys Tyr Pro Leu Asp His Phe Lys Thr Phe Asn Glu Phe  
 405 410 415  
 Phe Val Arg Glu Leu Lys Pro Gly Ala Arg Pro Ile Ala Cys Met Asp  
 420 425 430  
 Gln Asp Asp Val Ala Val Ser Ala Ala Asp Cys Arg Leu Met Ala Phe  
 435 440 445  
 Gln Ser Val Asp Asp Ser Thr Arg Phe Trp Ile Lys Gly Arg Lys Phe  
 450 455 460  
 Ser Ile Lys Gly Leu Leu Gly Asn Asp Val Gln Ser Asp Ala Phe Leu  
 465 470 475 480  
 Asp Gly Ser Leu Val Ile Phe Arg Leu Ala Pro Gln Asp Tyr His Arg  
 485 490 495  
 Phe His Ser Pro Val Ser Gly Val Ile Glu Lys Phe Val Asn Val Ser  
 500 505 510  
 Gly Ser Leu Tyr Thr Val Asn Pro Ile Ala Val Asn Ser Lys Tyr Cys  
 515 520 525  
 Asn Val Phe Thr Glu Asn Lys Arg Thr Ile Val Ile Ile Ser Thr Ala  
 530 535 540  
 Glu Phe Gly Lys Val Ala Phe Val Ala Ile Gly Ala Thr Met Val Gly  
 545 550 555 560

Ser Ile Ser Phe Val Arg Gln Glu Gly Asp His Val Lys Lys Gly Asp  
565 570 575

Glu Leu Gly Tyr Phe Ser Phe Gly Gly Ser Thr Val Ile Cys Val Phe  
580 585 590

Glu Lys Asp Ser Ile Lys Ile Asp Glu Asp Leu Leu Ala Asn Ser Ala  
595 600 605

Arg Ser Leu Glu Thr Leu Val Thr Val Gly Met Gln Leu Gly Val Ser  
610 615 620

Phe Pro Lys Leu Glu Asn Cys Val Leu Glu Pro  
625 630 635

<210> 135

<211> 1035

<212> DNA

<213> Arabidopsis thaliana

<400> 135

atgaagaatt gtagagagatt tgctaattctc gctctcgcag gtttgacatt ggcaccactc	60
gttgtgagag taaatccaaa tttgaatggtt attctcacag catgtatcac tgtttatgtg	120
ggttgctttc gttcgggtcaa ggatactcct ccaacggaga cgatgtcaaa agaacatgcc	180
atgcggtttcc cattgggttg gagtgctatg cttctctcac ttttcttatt gttcaagttt	240
ctctcaaagg acttggttaa tgctgtgcta acagcttact tctttgttct tgggattgtc	300
gctctttcag cgacattggt accagccatc agaagatttt taccaaattc ttggaatgac	360
aatcttatcg tctggcggtt tccttatttc aagtccttgg aggtagagtt caciaagtcc	420
caagttgttg cggaatccc tggaacattc ttctgtgcgt ggtatgcgtg gaaaaaacat	480
tggctggcta acaatatacct cggcctttcc ttctgcattc aggaattga gatgctctct	540
ctcggatcat tcaagactgg tgccatcctt ttggcaggac ttttttcta tgatatcttc	600
tgggttttct ttactccagt tatggttagt gttgccaaat ctttcgatgc tccaattaag	660
ctcttattcc ctacgggtga tgctctaaga ccctattcta tgcttgggtc ttggtgacatt	720
gtcattccgg gtattttcgt tgcactagct ctaagatttg atgtgtcaag acgtagacaa	780
ccacaatact tcacaagtgc atttatcgga tacgctgttg gtgtgatcct cacgattgta	840
gtcatgaact ggtttcaagc agcacagcct gctttgttat acattgtccc agccgtaatt	900

gggttcttgg cttctcactg catttggaac ggtgacatca aaccgttggt ggcgtttgat 960  
 gaatcaaaga cagaggaagc aacgactgat gaatcaaaga ctagtgagga ggttaataaa 1020  
 gctcatgatg aatga 1035

<210> 136

<211> 344

<212> PRT

<213> Arabidopsis thaliana

<400> 136

Met Lys Asn Cys Glu Arg Phe Ala Asn Leu Ala Leu Ala Gly Leu Thr  
 1 5 10 15  
 Leu Ala Pro Leu Val Val Arg Val Asn Pro Asn Leu Asn Val Ile Leu  
 20 25 30  
 Thr Ala Cys Ile Thr Val Tyr Val Gly Cys Phe Arg Ser Val Lys Asp  
 35 40 45  
 Thr Pro Pro Thr Glu Thr Met Ser Lys Glu His Ala Met Arg Phe Pro  
 50 55 60  
 Leu Val Gly Ser Ala Met Leu Leu Ser Leu Phe Leu Leu Phe Lys Phe  
 65 70 75 80  
 Leu Ser Lys Asp Leu Val Asn Ala Val Leu Thr Ala Tyr Phe Phe Val  
 85 90 95  
 Leu Gly Ile Val Ala Leu Ser Ala Thr Leu Leu Pro Ala Ile Arg Arg  
 100 105 110  
 Phe Leu Pro Asn Pro Trp Asn Asp Asn Leu Ile Val Trp Arg Phe Pro  
 115 120 125  
 Tyr Phe Lys Ser Leu Glu Val Glu Phe Thr Lys Ser Gln Val Val Ala  
 130 135 140  
 Gly Ile Pro Gly Thr Phe Phe Cys Ala Trp Tyr Ala Trp Lys Lys His  
 145 150 155 160  
 Trp Leu Ala Asn Asn Ile Leu Gly Leu Ser Phe Cys Ile Gln Gly Ile  
 165 170 175



Glu Met Leu Ser Leu Gly Ser Phe Lys Thr Gly Ala Ile Leu Leu Ala  
180 185 190

Gly Leu Phe Phe Tyr Asp Ile Phe Trp Val Phe Phe Thr Pro Val Met  
195 200 205

Val Ser Val Ala Lys Ser Phe Asp Ala Pro Ile Lys Leu Leu Phe Pro  
210 215 220

Thr Gly Asp Ala Leu Arg Pro Tyr Ser Met Leu Gly Leu Gly Asp Ile  
225 230 235 240

Val Ile Pro Gly Ile Phe Val Ala Leu Ala Leu Arg Phe Asp Val Ser  
245 250 255

Arg Arg Arg Gln Pro Gln Tyr Phe Thr Ser Ala Phe Ile Gly Tyr Ala  
260 265 270

Val Gly Val Ile Leu Thr Ile Val Val Met Asn Trp Phe Gln Ala Ala  
275 280 285

Gln Pro Ala Leu Leu Tyr Ile Val Pro Ala Val Ile Gly Phe Leu Ala  
290 295 300

Ser His Cys Ile Trp Asn Gly Asp Ile Lys Pro Leu Leu Ala Phe Asp  
305 310 315 320

Glu Ser Lys Thr Glu Glu Ala Thr Thr Asp Glu Ser Lys Thr Ser Glu  
325 330 335

Glu Val Asn Lys Ala His Asp Glu  
340

<210> 137

<211> 456

<212> DNA

<213> Arabidopsis thaliana

<400> 137

atggaagctc aacttcacgc caagcctcat gctcaaggag aatgggtccac aggcttctgt	60
gattgcttct ctgactgccg aaactgttgt atcacattat gttgtccatg tatcacattt	120
ggccaagtcg ctgagattgt agatcgagga tccaaatcgt gttgtgcggc tggagcatta	180
tacatgttga tagacttaat aacaagttgt gggcgtatgt acgcgtgttt ctatagtgga	240

047-E2F-PCT.ST25.txt

aagatgagag ctcaatacaa tattaaagga gatgggttgta ctgattgcct taaacatttt 300  
 tgctgtaacc tctgtgcttt gacccaacaa taccgtgaac tcaagcaccg cggtttcgat 360  
 atgagccttg gatgggcagg gaacgcagag aaacaacaaa atcaaggtgg agtggcgatg 420  
 ggtgctccag ccttccaagg cggcatgacc cgctaa 456

<210> 138

<211> 151

<212> PRT

<213> Arabidopsis thaliana

<400> 138

Met Glu Ala Gln Leu His Ala Lys Pro His Ala Gln Gly Glu Trp Ser  
 1 5 10 15

Thr Gly Phe Cys Asp Cys Phe Ser Asp Cys Arg Asn Cys Cys Ile Thr  
 20 25 30

Leu Cys Cys Pro Cys Ile Thr Phe Gly Gln Val Ala Glu Ile Val Asp  
 35 40 45

Arg Gly Ser Lys Ser Cys Cys Ala Ala Gly Ala Leu Tyr Met Leu Ile  
 50 55 60

Asp Leu Ile Thr Ser Cys Gly Arg Met Tyr Ala Cys Phe Tyr Ser Gly  
 65 70 75 80

Lys Met Arg Ala Gln Tyr Asn Ile Lys Gly Asp Gly Cys Thr Asp Cys  
 85 90 95

Leu Lys His Phe Cys Cys Asn Leu Cys Ala Leu Thr Gln Gln Tyr Arg  
 100 105 110

Glu Leu Lys His Arg Gly Phe Asp Met Ser Leu Gly Trp Ala Gly Asn  
 115 120 125

Ala Glu Lys Gln Gln Asn Gln Gly Gly Val Ala Met Gly Ala Pro Ala  
 130 135 140

Phe Gln Gly Gly Met Thr Arg  
 145 150

<210> 139

<211> 411

<212> DNA

<213> *Arabidopsis thaliana*

<400> 139

```

atggcaggca aaggtggaaa aggactcgta gctgcgaaga cgatggctgc taacaaggac      60
aaagacaagg acaagaagaa acccatctct cgctctgctc gtgctggtat tcagtttcca      120
gttggacgaa ttcacaggca actgaagacc cgagtctcgg cacatggcag agttggtgcc      180
actgcagccg tctacacagc ttcaatcctg gagtatctga cagcagaggt tcttgagttg      240
gctgggaatg cgagcaagga tctcaaagtg aagaggataa cgccaaggca tctgcagttg      300
gcgattagag gagatgagga gctggacaca ctcatcaagg gaacgattgc tggaggtggt      360
gtgatccctc acatccacaa gtctctcatc aacaaaacca ccaaggagtg a              411

```

<210> 140

<211> 136

<212> PRT

<213> *Arabidopsis thaliana*

<400> 140

```

Met Ala Gly Lys Gly Gly Lys Gly Leu Val Ala Ala Lys Thr Met Ala
1          5          10          15

Ala Asn Lys Asp Lys Asp Lys Asp Lys Lys Lys Pro Ile Ser Arg Ser
20          25          30

Ala Arg Ala Gly Ile Gln Phe Pro Val Gly Arg Ile His Arg Gln Leu
35          40          45

Lys Thr Arg Val Ser Ala His Gly Arg Val Gly Ala Thr Ala Ala Val
50          55          60

Tyr Thr Ala Ser Ile Leu Glu Tyr Leu Thr Ala Glu Val Leu Glu Leu
65          70          75          80

Ala Gly Asn Ala Ser Lys Asp Leu Lys Val Lys Arg Ile Thr Pro Arg
85          90          95

His Leu Gln Leu Ala Ile Arg Gly Asp Glu Glu Leu Asp Thr Leu Ile
100         105         110

```

Lys Gly Thr Ile Ala Gly Gly Gly Val Ile Pro His Ile His Lys Ser  
 115 120 125

Leu Ile Asn Lys Thr Thr Lys Glu  
 130 135

<210> 141

<211> 1701

<212> DNA

<213> Arabidopsis thaliana

<400> 141

atggcggcga	cacatcttca	cataccgcc	aatcctaaaa	cccaaacgtc	tcaccaaaac	60
cctccctttt	ggttctcttc	taaaacagga	atctacacca	gcaaattccc	ttccctacac	120
ctccccgtcg	acccaaatct	cgacgccgct	tccgctcttt	tctcacacaa	acaccacggc	180
gatacagcgc	tcatcgattc	cttaaccggg	ttctcaatat	ctcactga	gctacagatt	240
atggttcaat	caatggcggc	tgggatctat	cacgttttag	gtgttcgtca	aggtgacgtt	300
gtatcactcg	tcttgcctaa	ttccgtctat	tttccgatga	ttttcctctc	tttgatctcg	360
cttggtgcta	ttgttactac	catgaatcct	tcgagtagtt	taggagagat	taagaagcaa	420
gttagtgagt	gtagtggttg	attagctttt	acttctactg	aaaacgttga	gaagctgagt	480
tctttggggg	ttagtgatgat	tagtgatatct	gaaagttacg	attttgattc	gattcgtatc	540
gaaaacccga	agttttactc	cattatgaaa	gaaagttttg	ggtttgtacc	aaaaccgttg	600
attaagcaag	acgatgtagc	tgcaattatg	tattcatctg	gaacaactgg	agctagtaaa	660
ggagttttgt	taactcatag	gaatttgata	gcatcaatgg	agctttttgt	gaggtttgaa	720
gcttctcagt	acgaatatcc	gggatcgagt	aatgtttatc	tagcagcttt	gcctttgtgc	780
catatctacg	ggttatcact	ctttgtgatg	ggattgttgt	ctctgggatc	aactattggt	840
gttatgaaga	ggtttgatgc	ttctgatggt	gttaatgtaa	ttgaaagggt	taagatcact	900
catttcccg	ttgttccacc	tatgttgatg	gcattgacaa	agaaggcaaa	aggagtttgt	960
ggtgaagtgt	ttaaaagttt	gaagcaagtt	tcttctggag	cagctccttt	gagtaggaag	1020
ttcattgaag	atttccttca	gactcttcct	catgtcgatt	tgattcaggg	atatggaatg	1080
actgaatcaa	ctgcagttgg	aacacggggc	ttcaactcgg	aaaagcttag	taggtattct	1140
tctgtgggac	tactggctcc	taatatgcaa	gccaaggtag	tagattggag	ctctggttct	1200
ttccttccac	caggaaaccg	aggagagctc	tggatacaag	gtcccgggtg	catgaaagga	1260
tacttgaata	acccaaaagc	aactcagatg	agtatagttg	aagatagttg	gctacgtact	1320

047-E2F-PCT.ST25.txt

ggggatattg cttatTTTga tgaagatggT tacttGTTta ttgttgaccg tattaaggag 1380  
 attataaagt acaaaggctt tcagatcgct ccagcagatt tggaggctgt tcttGTTca 1440  
 catcccttga ttatcgacgc tgcagtaaca gctGCCCCaa atgaagaatg tggagagatt 1500  
 ccggtagcat tcgttGtccg gagacaagaa acaacacttt cagaagaaga tgtaataagc 1560  
 tatgtagctt ctcaggTTgc accctacagg aaggTgagga aagtggTgat ggtcaactct 1620  
 ataccaaaat ctccaactgg gaagatattg agaaaggaac taaagagaat tcttacaac 1680  
 tctGTTTctt caagactatg a 1701

<210> 142

<211> 566

<212> PRT

<213> Arabidopsis thaliana

<400> 142

Met	Ala	Ala	Thr	His	Leu	His	Ile	Pro	Pro	Asn	Pro	Lys	Thr	Gln	Thr
1				5					10					15	
Ser	His	Gln	Asn	Pro	Pro	Phe	Trp	Phe	Ser	Ser	Lys	Thr	Gly	Ile	Tyr
			20					25					30		
Thr	Ser	Lys	Phe	Pro	Ser	Leu	His	Leu	Pro	Val	Asp	Pro	Asn	Leu	Asp
		35					40				45				
Ala	Val	Ser	Ala	Leu	Phe	Ser	His	Lys	His	His	Gly	Asp	Thr	Ala	Leu
	50					55					60				
Ile	Asp	Ser	Leu	Thr	Gly	Phe	Ser	Ile	Ser	His	Thr	Glu	Leu	Gln	Ile
65					70					75				80	
Met	Val	Gln	Ser	Met	Ala	Ala	Gly	Ile	Tyr	His	Val	Leu	Gly	Val	Arg
				85					90					95	
Gln	Gly	Asp	Val	Val	Ser	Leu	Val	Leu	Pro	Asn	Ser	Val	Tyr	Phe	Pro
			100					105					110		
Met	Ile	Phe	Leu	Ser	Leu	Ile	Ser	Leu	Gly	Ala	Ile	Val	Thr	Thr	Met
		115					120					125			
Asn	Pro	Ser	Ser	Ser	Leu	Gly	Glu	Ile	Lys	Lys	Gln	Val	Ser	Glu	Cys
	130					135					140				

047-E2F-PCT.ST25.txt

Ser Val Gly Leu Ala Phe Thr Ser Thr Glu Asn Val Glu Lys Leu Ser  
 145 150 155 160  
 Ser Leu Gly Val Ser Val Ile Ser Val Ser Glu Ser Tyr Asp Phe Asp  
 165 170 175  
 Ser Ile Arg Ile Glu Asn Pro Lys Phe Tyr Ser Ile Met Lys Glu Ser  
 180 185 190  
 Phe Gly Phe Val Pro Lys Pro Leu Ile Lys Gln Asp Asp Val Ala Ala  
 195 200 205  
 Ile Met Tyr Ser Ser Gly Thr Thr Gly Ala Ser Lys Gly Val Leu Leu  
 210 215 220  
 Thr His Arg Asn Leu Ile Ala Ser Met Glu Leu Phe Val Arg Phe Glu  
 225 230 235 240  
 Ala Ser Gln Tyr Glu Tyr Pro Gly Ser Ser Asn Val Tyr Leu Ala Ala  
 245 250 255  
 Leu Pro Leu Cys His Ile Tyr Gly Leu Ser Leu Phe Val Met Gly Leu  
 260 265 270  
 Leu Ser Leu Gly Ser Thr Ile Val Val Met Lys Arg Phe Asp Ala Ser  
 275 280 285  
 Asp Val Val Asn Val Ile Glu Arg Phe Lys Ile Thr His Phe Pro Val  
 290 295 300  
 Val Pro Pro Met Leu Met Ala Leu Thr Lys Lys Ala Lys Gly Val Cys  
 305 310 315 320  
 Gly Glu Val Phe Lys Ser Leu Lys Gln Val Ser Ser Gly Ala Ala Pro  
 325 330 335  
 Leu Ser Arg Lys Phe Ile Glu Asp Phe Leu Gln Thr Leu Pro His Val  
 340 345 350  
 Asp Leu Ile Gln Gly Tyr Gly Met Thr Glu Ser Thr Ala Val Gly Thr  
 355 360 365  
 Arg Gly Phe Asn Ser Glu Lys Leu Ser Arg Tyr Ser Ser Val Gly Leu  
 370 375 380  
 Leu Ala Pro Asn Met Gln Ala Lys Val Val Asp Trp Ser Ser Gly Ser  
 385 390 395 400

047-E2F-PCT.ST25.txt

Phe Leu Pro Pro Gly Asn Arg Gly Glu Leu Trp Ile Gln Gly Pro Gly  
405 410 415

Val Met Lys Gly Tyr Leu Asn Asn Pro Lys Ala Thr Gln Met Ser Ile  
420 425 430

Val Glu Asp Ser Trp Leu Arg Thr Gly Asp Ile Ala Tyr Phe Asp Glu  
435 440 445

Asp Gly Tyr Leu Phe Ile Val Asp Arg Ile Lys Glu Ile Ile Lys Tyr  
450 455 460

Lys Gly Phe Gln Ile Ala Pro Ala Asp Leu Glu Ala Val Leu Val Ser  
465 470 475 480

His Pro Leu Ile Ile Asp Ala Ala Val Thr Ala Ala Pro Asn Glu Glu  
485 490 495

Cys Gly Glu Ile Pro Val Ala Phe Val Val Arg Arg Gln Glu Thr Thr  
500 505 510

Leu Ser Glu Glu Asp Val Ile Ser Tyr Val Ala Ser Gln Val Ala Pro  
515 520 525

Tyr Arg Lys Val Arg Lys Val Val Met Val Asn Ser Ile Pro Lys Ser  
530 535 540

Pro Thr Gly Lys Ile Leu Arg Lys Glu Leu Lys Arg Ile Leu Thr Asn  
545 550 555 560

Ser Val Ser Ser Arg Leu  
565

<210> 143

<211> 1710

<212> DNA

<213> Arabidopsis thaliana

<400> 143

atgaagacga cggcgacgtc gtttgtaacg ggagagagag ttgtagtttt cgtcgtggtt 60

tctcgtattc tcttatctct tcctttatca cttatctccc atggcttctc cctcttcctc 120

ctctctctct ccgccttcct cgtcgagatc cgcgtcgaga cttctccggt tcttctctct 180

047-E2F-PCT.ST25.txt

catttcagct ccagacgcgg tgcgtcttca gggatattac taggagctgt gacacttcct	240
tctgttatga tatctaagtt agttcagctt tcaagagcta tttcaatcca tgaagctgaa	300
caagatgagc ttgcacatgt gacaatgcag tattgggcag catcggctag ttgttgtgct	360
atacttatat atctatcagt gattatgtca caagtgagaa aagatgaatc tttgtcgtca	420
tcgtctattt ggcttacgag agtttagcttg actgggacag tgttgtatgg agtagcatgt	480
tttgtttcac tttccatgat ttcacacact ggcttgaata cgtcattgaa aatgttgtgg	540
atgttatttc atggacttgc agctgtgaag ttgattcgac atttgctttg cactttccca	600
tcgtgtgctt cgatagggga agcacttcct gtgaccagtg gtcttgttct ctattttggc	660
gacttttttg catgcacaat tgcaaagatt tttgagaaat tgatacctgt ggatcttgtc	720
tcaataagct atggaataaa gagaacggaa accggcataa tcgttcaggg tctactgttg	780
ggccttctac ttttcccgat ggtgtttaga tttgttctgc atatatatga aagctctttg	840
agaaagagag atgctcgaca aagaaactgc agtgatgctg caaaatctgt cttattcttt	900
gtttcacttc tattttttat ggtcgtggct gttccttctt ggatgcagtt tgtacacgat	960
ttcaaccagc atcccttctt atgggtgctc acatttgtct tttctgaacc tctgaagaga	1020
ctttcattat gtatctactg gattctgttg atcgttgtgt ctgtctcacg attttataac	1080
atctcgagga gtagcaaggt tgagagaatc ttgcttcgga agtactacca tctgatggct	1140
gttttaatgt tcttgccagc tcttgtctta cagcctaaat ttctcgatct agcatttggt	1200
gcagcattgg cagtatttgt tgcattggag atcattcgaa tatggagaat tcagcctctt	1260
ggagagcctt tacatcaatt catgaatgct ttcactgacc atcgtgactc agagcatctg	1320
attgtcagcc acttctcact cttgcttggg tgtgcgcttc cgatttggat gtcactctggg	1380
ttcaatgacc gagccttatc tccatttgc t ggaattctca gcctaggaat tggagataca	1440
atggcatcga tggttggtca caaatatggg gtgttgagat ggagcaagac aggaaagaaa	1500
acggttgaag gaacagcagc gggaataaca tcgatgatgg cagtgtgctt tgttctggtc	1560
ccaatattag catcaatggg ttatatacta agtcaaggat ggtggctgct tctgggtggct	1620
gtgacagcca ccgggatgtt ggaagcttac acggcgcagt tagacaatgc ctttatacct	1680
cttgtcttct actcactcct ctgcttgtaa	1710

<210> 144

<211> 569

<212> PRT

<213> Arabidopsis thaliana



&lt;400&gt; 144

Met Lys Thr Thr Ala Thr Ser Phe Val Thr Gly Glu Arg Val Val Val  
 1 5 10 15

Phe Val Val Val Ser Arg Ile Leu Leu Ser Leu Pro Leu Ser Leu Ile  
 20 25 30

Ser His Gly Phe Ser Leu Phe Leu Leu Ser Leu Ser Ala Phe Leu Val  
 35 40 45

Glu Ile Arg Val Glu Thr Ser Pro Phe Leu Leu Ser His Phe Ser Ser  
 50 55 60

Arg Arg Gly Ala Ser Ser Gly Ile Leu Leu Gly Ala Val Thr Leu Pro  
 65 70 75 80

Ser Val Met Ile Ser Lys Leu Val Gln Leu Ser Arg Ala Ile Ser Ile  
 85 90 95

His Glu Ala Glu Gln Asp Glu Leu Ala His Val Thr Met Gln Tyr Trp  
 100 105 110

Ala Ala Ser Ala Ser Cys Cys Ala Ile Leu Ile Tyr Leu Ser Val Ile  
 115 120 125

Met Ser Gln Val Arg Lys Asp Glu Ser Leu Ser Ser Ser Ser Ile Trp  
 130 135 140

Leu Thr Arg Val Ser Leu Thr Gly Thr Val Leu Tyr Gly Val Ala Cys  
 145 150 155 160

Phe Val Ser Leu Ser Met Ile Ser His Thr Gly Leu Asn Thr Ser Leu  
 165 170 175

Lys Met Leu Trp Met Leu Phe His Gly Leu Ala Ala Val Lys Leu Ile  
 180 185 190

Arg His Leu Leu Cys Thr Phe Pro Ser Cys Ala Ser Ile Gly Glu Ala  
 195 200 205

Leu Leu Val Thr Ser Gly Leu Val Leu Tyr Phe Gly Asp Phe Leu Ala  
 210 215 220

Cys Thr Ile Ala Lys Ile Phe Glu Lys Leu Ile Pro Val Asp Leu Val  
 225 230 235 240

Ser Ile Ser Tyr Gly Ile Lys Arg Thr Glu Thr Gly Ile Ile Val Gln  
 Page 219

Gly Leu Leu Leu Gly Leu Leu Leu Phe Pro Met Val Phe Arg Phe Val  
260 265 270

Leu His Ile Tyr Glu Ser Ser Leu Arg Lys Arg Asp Ala Arg Gln Arg  
275 280 285

Asn Cys Ser Asp Ala Ala Lys Ser Val Leu Phe Phe Val Ser Leu Leu  
290 295 300

Phe Phe Met Val Val Ala Val Pro Ser Trp Met Gln Phe Val His Asp  
305 310 315 320

Phe Asn Gln His Pro Phe Leu Trp Val Leu Thr Phe Val Phe Ser Glu  
325 330 335

Pro Leu Lys Arg Leu Ser Leu Cys Ile Tyr Trp Ile Leu Leu Ile Val  
340 345 350

Val Ser Val Ser Arg Phe Tyr Asn Ile Ser Arg Ser Ser Lys Val Glu  
355 360 365

Arg Ile Leu Leu Arg Lys Tyr Tyr His Leu Met Ala Val Leu Met Phe  
370 375 380

Leu Pro Ala Leu Val Leu Gln Pro Lys Phe Leu Asp Leu Ala Phe Gly  
385 390 395 400

Ala Ala Leu Ala Val Phe Val Ala Leu Glu Ile Ile Arg Ile Trp Arg  
405 410 415

Ile Gln Pro Leu Gly Glu Pro Leu His Gln Phe Met Asn Ala Phe Thr  
420 425 430

Asp His Arg Asp Ser Glu His Leu Ile Val Ser His Phe Ser Leu Leu  
435 440 445

Leu Gly Cys Ala Leu Pro Ile Trp Met Ser Ser Gly Phe Asn Asp Arg  
450 455 460

Ala Leu Ser Pro Phe Ala Gly Ile Leu Ser Leu Gly Ile Gly Asp Thr  
465 470 475 480

Met Ala Ser Met Val Gly His Lys Tyr Gly Val Leu Arg Trp Ser Lys  
485 490 495

Thr Gly Lys Lys Thr Val Glu Gly Thr Ala Ala Gly Ile Thr Ser Met  
 500 505 510

Met Ala Val Cys Phe Val Leu Val Pro Ile Leu Ala Ser Met Gly Tyr  
 515 520 525

Ile Leu Ser Gln Gly Trp Trp Ser Leu Leu Val Ala Val Thr Ala Thr  
 530 535 540

Gly Met Leu Glu Ala Tyr Thr Ala Gln Leu Asp Asn Ala Phe Ile Pro  
 545 550 555 560

Leu Val Phe Tyr Ser Leu Leu Cys Leu  
 565

<210> 145

<211> 1458

<212> DNA

<213> Arabidopsis thaliana

<400> 145

atggagaaaa aacaaggctt tttctctgct ctcagacacg aagttgtgag aggtctttcg	60
ccgtcacgat ccagagcaag gtctcggttc gttagtcccg ctaggtctag ttcacccatg	120
tcagctctca cttggggaag aaagaactta actggaggag gcggtggtgg tgggtggcgga	180
ggttactatt tagcgcaacc agagcagtta attgggagat ccggaagttt gagacctgta	240
atggaaggctc ctgatccaga tgaaggagga ggaggtggta atataggaga atctaaacga	300
ctcgggtcgg gtttaggtca ctgggttaaa gggcagctgt ctcgtgctcc gtctgttgct	360
gcgacggcgg cttatcggag aaatgatctg agacttcttc ttggtgtaat gggagctcct	420
cttgctccta ttcattgtctc ttcctctgat cctttgcctc atcttagtat caaaaacact	480
ccaatcgaaa catcatctgc tcagtatatt cttcaacagt aactgcagc ttctggtggt	540
cagaagctac aaaactccat taaaaacgct tatgcgatgg ggaagctcaa gatgattact	600
tcagagcttg aaactgctac aagaaccgtt aggaatcgaa acccatctaa ggctgagact	660
ggaggttttg ttccttgcca gatgaatcca gacatgtggt atgttgagct tgctgttggg	720
ggtagtaagg ttcgtgctgg ctgcaatggc aagcttgat ggagacacac tccttggtc	780
ggatctcata ctgctaaagg acctgtcaga cctctccgcc gtggacttca gggactagat	840
ccgagaacaa ctgctgcaat gtttgcgga gcgaagtgt taggagagaa gaaggtgaat	900
ggtgaagatt gcttcatttt gaagttatgc actgaccctg aaacactaaa agcgaggagc	960

```

gaaggaccgg ctgagatcat taggcatgtc ctctttggct acttcagtca gaaaacaggg 1020
ctcttggttc acattgagga ttcacatttg acccggttcc aatctaacgg tggagagact 1080
gttttctggg agaccacata caactcgtcc ctagacgatt accgtcaggt cgaaggaatc 1140
atgattgctc actcgggaca ttcagttgtg acactattca gatttgggga agtggcgacg 1200
agccatacga ggacaaagat ggaagaaagc tggacgattg aggaagttgc gtttaacgtt 1260
cctggtctgt ctctcgattg ctttatacca ccagctgata ttaagaccgg ttctttaacc 1320
gaatcctgcg agtaccaca agaggaaaga ggcaagaaca acacactcgc attgtctgca 1380
gctcacaggg ccaaagttgc agccttggag aacgggagct tggaagatca ccgcccggtt 1440
tggcatactg atgtctaa 1458

```

&lt;210&gt; 146

&lt;211&gt; 485

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 146

```

Met Glu Lys Lys Gln Gly Phe Phe Ser Ala Leu Arg His Glu Val Val
1      5      10      15

```

```

Arg Gly Leu Ser Pro Ser Arg Ser Arg Ala Arg Ser Arg Ser Val Ser
20     25     30

```

```

Pro Ala Arg Ser Ser Ser Pro Met Ser Ala Leu Thr Trp Gly Arg Lys
35     40     45

```

```

Asn Leu Thr Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Tyr Tyr Leu
50     55     60

```

```

Ala Gln Pro Glu Gln Leu Ile Gly Arg Ser Gly Ser Leu Arg Pro Val
65     70     75     80

```

```

Met Glu Gly Pro Asp Pro Asp Glu Gly Gly Gly Gly Gly Asn Ile Gly
85     90     95

```

```

Glu Ser Lys Arg Leu Gly Ser Gly Leu Gly His Trp Val Lys Gly Gln
100    105    110

```

```

Leu Ser Arg Ala Pro Ser Val Ala Ala Thr Ala Ala Tyr Arg Arg Asn
115    120    125

```

Asp Leu Arg Leu Leu Leu Gly Val Met Gly Ala Pro Leu Ala Pro Ile  
 130 135 140  
 His Val Ser Ser Ser Asp Pro Leu Pro His Leu Ser Ile Lys Asn Thr  
 145 150 155 160  
 Pro Ile Glu Thr Ser Ser Ala Gln Tyr Ile Leu Gln Gln Tyr Thr Ala  
 165 170 175  
 Ala Ser Gly Gly Gln Lys Leu Gln Asn Ser Ile Lys Asn Ala Tyr Ala  
 180 185 190  
 Met Gly Lys Leu Lys Met Ile Thr Ser Glu Leu Glu Thr Ala Thr Arg  
 195 200 205  
 Thr Val Arg Asn Arg Asn Pro Ser Lys Ala Glu Thr Gly Gly Phe Val  
 210 215 220  
 Leu Trp Gln Met Asn Pro Asp Met Trp Tyr Val Glu Leu Ala Val Gly  
 225 230 235 240  
 Gly Ser Lys Val Arg Ala Gly Cys Asn Gly Lys Leu Val Trp Arg His  
 245 250 255  
 Thr Pro Trp Leu Gly Ser His Thr Ala Lys Gly Pro Val Arg Pro Leu  
 260 265 270  
 Arg Arg Gly Leu Gln Gly Leu Asp Pro Arg Thr Thr Ala Ala Met Phe  
 275 280 285  
 Ala Glu Ala Lys Cys Ile Gly Glu Lys Lys Val Asn Gly Glu Asp Cys  
 290 295 300  
 Phe Ile Leu Lys Leu Cys Thr Asp Pro Glu Thr Leu Lys Ala Arg Ser  
 305 310 315 320  
 Glu Gly Pro Ala Glu Ile Ile Arg His Val Leu Phe Gly Tyr Phe Ser  
 325 330 335  
 Gln Lys Thr Gly Leu Leu Val His Ile Glu Asp Ser His Leu Thr Arg  
 340 345 350  
 Ile Gln Ser Asn Gly Gly Glu Thr Val Phe Trp Glu Thr Thr Tyr Asn  
 355 360 365  
 Ser Ser Leu Asp Asp Tyr Arg Gln Val Glu Gly Ile Met Ile Ala His  
 370 375 380

047-E2F-PCT.ST25.txt

Ser Gly His Ser Val Val Thr Leu Phe Arg Phe Gly Glu Val Ala Thr  
385 390 395 400

Ser His Thr Arg Thr Lys Met Glu Glu Ser Trp Thr Ile Glu Glu Val  
405 410 415

Ala Phe Asn Val Pro Gly Leu Ser Leu Asp Cys Phe Ile Pro Pro Ala  
420 425 430

Asp Leu Lys Thr Gly Ser Leu Thr Glu Ser Cys Glu Tyr Pro Gln Glu  
435 440 445

Glu Arg Gly Lys Asn Asn Thr Leu Ala Leu Ser Ala Ala His Arg Ala  
450 455 460

Lys Val Ala Ala Leu Glu Asn Gly Ser Leu Glu Asp His Arg Pro Val  
465 470 475 480

Trp His Thr Asp Val  
485

<210> 147

<211> 807

<212> DNA

<213> Arabidopsis thaliana

<400> 147

atgcattatc ctaacaacag aaccgaattc gtcggagctc cagccccaac ccggtatcaa	60
aaggagcagt tgtcaccgga gcaagagctt tcagttattg tctctgcttt gcaacacgtg	120
atctcagggg aaaacgaaac ggcgccgtgt cagggttttt ccagtgacag cacagtgata	180
agcgcgggaa tgcctcggtt ggattcagac acttgtcaag tctgtaggat cgaaggatgt	240
ctcggctgta actacttttt cgcgccaaat cagagaattg aaaagaatca tcaacaagaa	300
gaagagatta ctagtagtag taacagaaga agagagagct ctcccgtggc gaagaaagcg	360
gaaggtggcg ggaaaatcag gaagaggaag aacaagaaga atggttacag aggagttagg	420
caaagacctt ggggaaaatt tgcagctgag atcagagatc ctaaaagagc cacacgtggt	480
tggcttggtg ctttcgaaac cgccgaagat gcggctcgag cttatgatcg agccgcgatt	540
ggattccgtg ggccaagggc taaactcaac ttcccctttg tggattacac gtcttcagtt	600
tcattctctg ttgctgctga tgatatagga gcaaaggcaa gtgcaagcgc cagtgtgagc	660
gccacagatt cagttgaagc agagcaatgg aacggaggag gaggggattg caatatggag	720

gagtggatga atatgatgat gatgatggat tttgggaatg gagattcttc agattcagga 780  
aatacaattg ctgatatgtt ccagtga 807

<210> 148

<211> 268

<212> PRT

<213> Arabidopsis thaliana

<400> 148

Met His Tyr Pro Asn Asn Arg Thr Glu Phe Val Gly Ala Pro Ala Pro  
1 5 10 15

Thr Arg Tyr Gln Lys Glu Gln Leu Ser Pro Glu Gln Glu Leu Ser Val  
20 25 30

Ile Val Ser Ala Leu Gln His Val Ile Ser Gly Glu Asn Glu Thr Ala  
35 40 45

Pro Cys Gln Gly Phe Ser Ser Asp Ser Thr Val Ile Ser Ala Gly Met  
50 55 60

Pro Arg Leu Asp Ser Asp Thr Cys Gln Val Cys Arg Ile Glu Gly Cys  
65 70 75 80

Leu Gly Cys Asn Tyr Phe Phe Ala Pro Asn Gln Arg Ile Glu Lys Asn  
85 90 95

His Gln Gln Glu Glu Glu Ile Thr Ser Ser Ser Asn Arg Arg Arg Glu  
100 105 110

Ser Ser Pro Val Ala Lys Lys Ala Glu Gly Gly Gly Lys Ile Arg Lys  
115 120 125

Arg Lys Asn Lys Lys Asn Gly Tyr Arg Gly Val Arg Gln Arg Pro Trp  
130 135 140

Gly Lys Phe Ala Ala Glu Ile Arg Asp Pro Lys Arg Ala Thr Arg Val  
145 150 155 160

Trp Leu Gly Thr Phe Glu Thr Ala Glu Asp Ala Ala Arg Ala Tyr Asp  
165 170 175

Arg Ala Ala Ile Gly Phe Arg Gly Pro Arg Ala Lys Leu Asn Phe Pro  
Page 225

180

185

190

Phe Val Asp Tyr Thr Ser Ser Val Ser Ser Pro Val Ala Ala Asp Asp  
 195 200 205

Ile Gly Ala Lys Ala Ser Ala Ser Ala Ser Val Ser Ala Thr Asp Ser  
 210 215 220

Val Glu Ala Glu Gln Trp Asn Gly Gly Gly Gly Asp Cys Asn Met Glu  
 225 230 235 240

Glu Trp Met Asn Met Met Met Met Met Asp Phe Gly Asn Gly Asp Ser  
 245 250 255

Ser Asp Ser Gly Asn Thr Ile Ala Asp Met Phe Gln  
 260 265

&lt;210&gt; 149

&lt;211&gt; 1035

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 149

```

atggttttcgt ggatgatgac aaccaaggcg gtgctaattct caagcggcgt cgccaccgtg      60
gctctgtttac tgaaactctc tgttccggta gctgttgatt tctccgtgtc acgagctccg      120
atcttgtgga gctccttggt gtcattggctg aaaccaccgt atctttacgt tgttaccaac      180
ggaattatca tcactatcgt tgcttcttct aagtattacc gaagtcacca tgaccgtgat      240
gaagaagatg agatcgtcgt gtacggtggt ggagggtata agatccagac ggaggagccg      300
attgtgaatc aacatcaagc ttctccgagg attctggagg ttaaggattt ggatactggt      360
gcgcattttg gtttcgttgt ggcgaatctg gaggctgagg aactggaatc agaggcggtt      420
acggcggttg tgtttgacga tgaggaggag gagaagaaga ttatagatag cgcggcgacg      480
gcggaggatg aaattgaaga ggagcttaag agtgtgatta tggttgagaa ttcagatctg      540
gttgaatccg atgtcatacc gccgccgatg atgatcgaat cggagaatct tcctccgatt      600
gagaagcctc tcgttacttc aagggttcggt caccggaaat tgatgaaagc aagtcaagaa      660
ggtggaagag ctttgagagt gacgaagccg aagaagaacg agacgttgga gaatacgtgg      720
aagatgataa cggaagggaa atcaacgccg ttgactagac agttataccg gagatctgac      780
acgtttggac gtggagattc cgggggagtt gacggtgagg tgaaaccggt ttataagaag      840
tcggatacgt ttagggacag gactaattat tatcagttgg cggagacggc gaagggtgagg      900

```



047-E2F-PCT.ST25.txt

aaagagccgt cgctgagtca ggaagagttg aatcggcgag ttgaggcggt tataaagaag 960  
 tttaatgagg agatgaagtt gcagagaatg gagtctctca gacagtacaa agagataact 1020  
 agccgtgggg tttag 1035

<210> 150

<211> 344

<212> PRT

<213> Arabidopsis thaliana

<400> 150

Met Val Ser Trp Met Met Thr Thr Lys Ala Val Leu Ile Ser Ser Gly  
 1 5 10 15  
 Val Ala Thr Val Ala Leu Leu Leu Lys Leu Ser Val Pro Val Ala Val  
 20 25 30  
 Asp Phe Ser Val Ser Arg Ala Pro Ile Leu Trp Ser Ser Leu Leu Ser  
 35 40 45  
 Trp Leu Lys Pro Pro Tyr Leu Tyr Val Val Thr Asn Gly Ile Ile Ile  
 50 55 60  
 Thr Ile Val Ala Ser Ser Lys Tyr Tyr Arg Ser His His Asp Arg Asp  
 65 70 75 80  
 Glu Glu Asp Glu Ile Val Val Tyr Gly Gly Gly Gly Tyr Lys Ile Gln  
 85 90 95  
 Thr Glu Glu Pro Ile Val Asn Gln His Gln Ala Ser Pro Arg Ile Leu  
 100 105 110  
 Glu Val Lys Asp Leu Asp Thr Gly Ala His Phe Gly Phe Val Val Ala  
 115 120 125  
 Asn Leu Glu Ala Glu Glu Leu Glu Ser Glu Ala Val Thr Ala Val Val  
 130 135 140  
 Phe Asp Asp Glu Glu Glu Glu Lys Lys Ile Ile Asp Ser Ala Ala Thr  
 145 150 155 160  
 Ala Glu Asp Glu Ile Glu Glu Glu Leu Lys Ser Val Ile Met Val Glu  
 165 170 175

047-E2F-PCT.ST25.txt

Asn Ser Asp Leu Val Glu Ser Asp Val Ile Pro Pro Pro Met Met Ile  
180 185 190

Glu Ser Glu Asn Leu Pro Pro Ile Glu Lys Pro Leu Val Thr Ser Arg  
195 200 205

Phe Gly His Arg Lys Leu Met Lys Ala Ser Gln Glu Gly Gly Arg Ala  
210 215 220

Leu Arg Val Thr Lys Pro Lys Lys Asn Glu Thr Leu Glu Asn Thr Trp  
225 230 235 240

Lys Met Ile Thr Glu Gly Lys Ser Thr Pro Leu Thr Arg Gln Leu Tyr  
245 250 255

Arg Arg Ser Asp Thr Phe Gly Arg Gly Asp Ser Gly Gly Val Asp Gly  
260 265 270

Glu Val Lys Pro Val Tyr Lys Lys Ser Asp Thr Phe Arg Asp Arg Thr  
275 280 285

Asn Tyr Tyr Gln Leu Ala Glu Thr Ala Lys Val Arg Lys Glu Pro Ser  
290 295 300

Leu Ser Gln Glu Glu Leu Asn Arg Arg Val Glu Ala Phe Ile Lys Lys  
305 310 315 320

Phe Asn Glu Glu Met Lys Leu Gln Arg Met Glu Ser Leu Arg Gln Tyr  
325 330 335

Lys Glu Ile Thr Ser Arg Gly Val  
340

<210> 151

<211> 1431

<212> DNA

<213> Arabidopsis thaliana

<400> 151

atgaagaaca tactagcttg catagttacc atcataaccc tctcaaacct cataaccatt	60
tctcaaggaa gaagggtatc acagtcattt gaaacatttg agtacacagc aattatttgc	120
agatcccaca gtgcctccat aacagagtac ggtggtgtag gagacggcaa gacgctaaac	180
acaaaggcct tccagagcgc cgttgatcat ctcagccaat actcatctga aggcggagca	240

047-E2F-PCT.ST25.txt

cagctctttg taccgcccgg gaaatggctc accggaagtt tcaacctcac aagccatttc 300  
 actctgtttc ttcacaaaga cgcaattctt ctcgctgctc aagacttaaa cgaataacca 360  
 attctaaagg ctttgccttc gtacggacga ggacgtgacg ccgccggtgg aagattcgct 420  
 agtctcatct tcggcactaa tctctccgac gtaattatca ccgggaacaa cggcacaatc 480  
 gacggtcaag gatcgttttg gtggcaaaag ttccacggtg gcaagctaaa atacactcgc 540  
 ccgtacctga ttgagttaat gttctcagat acaattcaga tttcaaattc aacgttcctt 600  
 gattctccat cgtggaacat ccaccagtg tatagtagca atatcatcgt aaaaggcggt 660  
 acgatcatcg ccccggtaaa atctccgaac accgacggaa tcaatccaga ttcttgcacg 720  
 aacacgagga tcgaagactg ttacatcata tccggcgacg attgcatcgc cgtgaaaagc 780  
 ggatgggacg aatacggaat ctcatcggga atgccgacga agcacctcgt gatccgtaga 840  
 ttaacctgta tctcaccgta cagcgccgcg atcgctctcg gaagcgaaat gtccggcgga 900  
 atcgaagacg tgagagcgga agatatcacc gcataccaaa cagaatccgg cgtacggata 960  
 aaaaccgccg taggaagagg agctttcgtg aagaacatat acgtaaaagg aatgaatcta 1020  
 cacacgatga aatgggtttt ttggatgacc ggaaattaca aagctcatgc tgattctcat 1080  
 tacgatcctc acgctctacc ggagataacc gggattaatt acagagatat tgtagctgag 1140  
 aatgtttcta tggctggaag gttagaggga atctctggag atccttttac tgggatttgt 1200  
 atttcgaatg caacgatttc tatggcggct aagcataaga aagcgatttg gatgtgtagt 1260  
 gatgttgaag gagttacgag tgggtgttgat cctaagcctt gtgatttgct tgatggacaa 1320  
 gaatcagaga cgacgaagaa gaagatgatt gacggtggat gtgattttcc tactgatgtg 1380  
 ttggagattg ataatgttga gcttaagact tgtagttatc aaatgagtta g 1431

<210> 152

<211> 476

<212> PRT

<213> Arabidopsis thaliana

<400> 152

Met Lys Asn Ile Leu Ala Cys Ile Val Thr Ile Ile Thr Leu Ser Asn  
 1 5 10 15

Leu Ile Thr Ile Ser Gln Gly Arg Arg Val Ser Gln Ser Phe Glu Thr  
 20 25 30

Phe Glu Tyr Thr Ala Ile Ile Cys Arg Ser His Ser Ala Ser Ile Thr  
 Page 229

35

40

45

Glu Tyr Gly Gly Val Gly Asp Gly Lys Thr Leu Asn Thr Lys Ala Phe  
 50 55 60  
 Gln Ser Ala Val Asp His Leu Ser Gln Tyr Ser Ser Glu Gly Gly Ala  
 65 70 75 80  
 Gln Leu Phe Val Pro Ala Gly Lys Trp Leu Thr Gly Ser Phe Asn Leu  
 85 90 95  
 Thr Ser His Phe Thr Leu Phe Leu His Lys Asp Ala Ile Leu Leu Ala  
 100 105 110  
 Ala Gln Asp Leu Asn Glu Tyr Pro Ile Leu Lys Ala Leu Pro Ser Tyr  
 115 120 125  
 Gly Arg Gly Arg Asp Ala Ala Gly Gly Arg Phe Ala Ser Leu Ile Phe  
 130 135 140  
 Gly Thr Asn Leu Ser Asp Val Ile Ile Thr Gly Asn Asn Gly Thr Ile  
 145 150 155 160  
 Asp Gly Gln Gly Ser Phe Trp Trp Gln Lys Phe His Gly Gly Lys Leu  
 165 170 175  
 Lys Tyr Thr Arg Pro Tyr Leu Ile Glu Leu Met Phe Ser Asp Thr Ile  
 180 185 190  
 Gln Ile Ser Asn Leu Thr Phe Leu Asp Ser Pro Ser Trp Asn Ile His  
 195 200 205  
 Pro Val Tyr Ser Ser Asn Ile Ile Val Lys Gly Val Thr Ile Ile Ala  
 210 215 220  
 Pro Val Lys Ser Pro Asn Thr Asp Gly Ile Asn Pro Asp Ser Cys Thr  
 225 230 235 240  
 Asn Thr Arg Ile Glu Asp Cys Tyr Ile Ile Ser Gly Asp Asp Cys Ile  
 245 250 255  
 Ala Val Lys Ser Gly Trp Asp Glu Tyr Gly Ile Ser Phe Gly Met Pro  
 260 265 270  
 Thr Lys His Leu Val Ile Arg Arg Leu Thr Cys Ile Ser Pro Tyr Ser  
 275 280 285

Ala Ala Ile Ala Leu Gly Ser Glu Met Ser Gly Gly Ile Glu Asp Val  
 290 295 300

Arg Ala Glu Asp Ile Thr Ala Tyr Gln Thr Glu Ser Gly Val Arg Ile  
 305 310 315 320

Lys Thr Ala Val Gly Arg Gly Ala Phe Val Lys Asn Ile Tyr Val Lys  
 325 330 335

Gly Met Asn Leu His Thr Met Lys Trp Val Phe Trp Met Thr Gly Asn  
 340 345 350

Tyr Lys Ala His Ala Asp Ser His Tyr Asp Pro His Ala Leu Pro Glu  
 355 360 365

Ile Thr Gly Ile Asn Tyr Arg Asp Ile Val Ala Glu Asn Val Ser Met  
 370 375 380

Ala Gly Arg Leu Glu Gly Ile Ser Gly Asp Pro Phe Thr Gly Ile Cys  
 385 390 395 400

Ile Ser Asn Ala Thr Ile Ser Met Ala Ala Lys His Lys Lys Ala Ile  
 405 410 415

Trp Met Cys Ser Asp Val Glu Gly Val Thr Ser Gly Val Asp Pro Lys  
 420 425 430

Pro Cys Asp Leu Leu Asp Gly Gln Glu Ser Glu Thr Thr Lys Lys Lys  
 435 440 445

Met Ile Asp Gly Gly Cys Asp Phe Pro Thr Asp Val Leu Glu Ile Asp  
 450 455 460

Asn Val Glu Leu Lys Thr Cys Ser Tyr Gln Met Ser  
 465 470 475

<210> 153

<211> 2760

<212> DNA

<213> Arabidopsis thaliana

<400> 153

atggccttag ctaaagagtt aatgggttat cctctcatca cagaaagggtc atcacttgtc 60

tcgtcggcgt cgcatttcaa gaagaggaca cagtcaacac agttctcgat caaccctttt 120

gaccggagac	caagaaaaac	caaatccggc	gtcgttgacg	ccatcagcga	ggatttggtc	180
aaaacgctgc	gtttttccac	aacgaccgga	gacagaaaga	gcgaagagga	ggagaaagcg	240
gcggtgaagt	tcaaggtgag	agctgtggtt	actgtgagga	acaagaacaa	ggaggatttg	300
aaagagactc	ttgttaagca	tttggtatgct	tttgctgata	aaattgggtcg	aaacattgtc	360
ttggagctta	tcagcaccca	acttgatcca	aaaacgaagt	tgccgaagaa	aagcaatgca	420
gcagttttta	aggattgggtc	aaagaaatcg	aaaactaagg	cggagagagt	tcactatacg	480
gcggagttca	cgggtgatgc	agcgtttggc	tcgccgggag	caatcacctg	catgaataaa	540
cacaaaaaag	agtttttctt	ggagagcata	accattgaag	gcttcgcact	tggtcctgtt	600
cactttccat	gcaattcttg	ggttcagtct	caaaaagatc	accctgataa	acgaattttc	660
ttcactaatc	agccgtatct	gccgaatgag	acaccaagcg	gattaagagt	attgagggag	720
aaagagttga	agaatctacg	aggagatgga	agtggagtga	gaaaattatc	agacagaatt	780
tacgactttg	atgttttaca	cgaccttgga	aatcccgaca	aatcatccga	gctctctcgc	840
cccaaactcg	gtggcaaaga	ggttccttac	cctagacgtt	gtcgtactgg	tcgccaatca	900
acagtttctg	ataaagacgc	ggagagccga	gtagagaagc	cattacctat	gtatgtgcca	960
cgagacgagc	aatttgaaga	gtcgaagcag	gacacttttg	ctgcagggag	gctaaaagca	1020
gtctttacac	acctaattcc	gtcgtctaaa	gccagtattg	tagctgagga	ctttgcagac	1080
ttcggcgaga	tcgatcgtct	ttataaagaa	ggcttggttac	tcaagttagg	gtttcaagat	1140
gacatcttta	agaagtttcc	tctccctaag	gtcgtagtgt	ataccctcca	agaatctact	1200
aaaggactcc	tcaaatacga	cactcccaaa	atattatcga	aggataaaaa	cgcattgggtta	1260
agagatgacg	aattcgcacg	tcaagccata	gctggaatca	atccagtga	cattgagaga	1320
gtcaagactt	ttccaccggt	cagcaatctt	gaccccaaga	tctacgggtc	acaacactcc	1380
gctcttactg	acgaccatat	cattgggtcac	ctcgacggat	tctccgtaca	acaagcgttg	1440
gaagagaata	gattgtatat	gttggtattac	catgacatat	tcttaccgtt	cctagaccgg	1500
attaatgcgc	tagacggacg	caaagcctat	gctactcgaa	ctatcttctt	cttgactcgt	1560
ctaggcacac	ttaagccggt	agccattgag	ctaagcctcc	ctccccatgg	tccaaaacat	1620
cgggtccaagc	gtgtgcttac	acctccagtc	gatgcaacct	ctaattggat	gtggcagctc	1680
gctaaagccc	acgttagttc	taacgatgct	ggtgtccatc	agcttgtcaa	tcactgggtta	1740
cggacacatg	catgcttgga	gccatttata	ttagctgcac	acaggcaatt	gagcgctatg	1800
catcccatat	tcaagctact	ggatccacac	atgagataca	cgttggaaat	caatgctttg	1860
gctagacaat	cgttgatcag	tgcatatggt	gtgatcgaag	gaggcttcac	tgctgggtgca	1920
tacggcatgg	aaatgagtgc	cgccgcatac	aaaagcagct	ggcggttcga	catggaaggc	1980
ctccctgccg	atctaattcg	cagaggaatg	gcaattcctg	atgcaacaca	accacatggg	2040

047-E2F-PCT.ST25.txt

cttaaactcc taatcgaaga ctatccgtac gccaacgacg gtcttttact ctggtcagca 2100  
atccaaacct ggggtccgaac ctatgttgaa cgctactatc caaaccgaa ctttatcaaa 2160  
acagactctg agctccaatc ttggtactca gaatcaatca acgtcggcca cgctgacctc 2220  
cgcgacgctg attggtggcc ggagttatca accgtcgacg acctcgtgtc gattctaacc 2280  
actctaattc ggctcgctc tgctcaacac gccgctctaa actttggaca atacccttac 2340  
gggtggctacg tcccaaaccg accaccgttg atgcggcggt taatccccga cgagtcggat 2400  
ccagagtacg cgagtttcat ctcccatccg gagaagtatt acttctcgtc gatgccaagt 2460  
ttggcgcaga cttcgaagtt tatggccgtg gttgatactt tgtcgacgca ttcgccggat 2520  
gaggagtata ttggagagag acaacagccg tcgatttgga caggagatgc ggagattggt 2580  
gaagcgtttt atggatttgc ggcagagatc ggacggatag agaaagagat tgagaaaagg 2640  
aacgctgatc ctgaccgtag aaataggtgt ggggctggtg ttttgcctta tgagttgttg 2700  
gttccgagtt ctgagcctgg tgttacgtgt agaggtgtac ctaatagtgt atctatataa 2760

<210> 154

<211> 919

<212> PRT

<213> Arabidopsis thaliana

<400> 154

Met Ala Leu Ala Lys Glu Leu Met Gly Tyr Pro Leu Ile Thr Glu Arg  
1 5 10 15

Ser Ser Leu Val Ser Ser Ala Ser His Phe Lys Lys Arg Thr Gln Ser  
20 25 30

Thr Gln Phe Ser Ile Asn Pro Phe Asp Arg Arg Pro Arg Lys Thr Lys  
35 40 45

Ser Gly Val Val Ala Ala Ile Ser Glu Asp Leu Val Lys Thr Leu Arg  
50 55 60

Phe Ser Thr Thr Thr Gly Asp Arg Lys Ser Glu Glu Glu Lys Ala  
65 70 75 80

Ala Val Lys Phe Lys Val Arg Ala Val Val Thr Val Arg Asn Lys Asn  
85 90 95

Lys Glu Asp Leu Lys Glu Thr Leu Val Lys His Leu Asp Ala Phe Ala

100

105

110

Asp Lys Ile Gly Arg Asn Ile Val Leu Glu Leu Ile Ser Thr Gln Leu  
 115 120 125

Asp Pro Lys Thr Lys Leu Pro Lys Lys Ser Asn Ala Ala Val Leu Lys  
 130 135 140

Asp Trp Ser Lys Lys Ser Lys Thr Lys Ala Glu Arg Val His Tyr Thr  
 145 150 155 160

Ala Glu Phe Thr Val Asp Ala Ala Phe Gly Ser Pro Gly Ala Ile Thr  
 165 170 175

Val Met Asn Lys His Gln Lys Glu Phe Phe Leu Glu Ser Ile Thr Ile  
 180 185 190

Glu Gly Phe Ala Leu Gly Pro Val His Phe Pro Cys Asn Ser Trp Val  
 195 200 205

Gln Ser Gln Lys Asp His Pro Asp Lys Arg Ile Phe Phe Thr Asn Gln  
 210 215 220

Pro Tyr Leu Pro Asn Glu Thr Pro Ser Gly Leu Arg Val Leu Arg Glu  
 225 230 235 240

Lys Glu Leu Lys Asn Leu Arg Gly Asp Gly Ser Gly Val Arg Lys Leu  
 245 250 255

Ser Asp Arg Ile Tyr Asp Phe Asp Val Tyr Asn Asp Leu Gly Asn Pro  
 260 265 270

Asp Lys Ser Ser Glu Leu Ser Arg Pro Lys Leu Gly Gly Lys Glu Val  
 275 280 285

Pro Tyr Pro Arg Arg Cys Arg Thr Gly Arg Gln Ser Thr Val Ser Asp  
 290 295 300

Lys Asp Ala Glu Ser Arg Val Glu Lys Pro Leu Pro Met Tyr Val Pro  
 305 310 315 320

Arg Asp Glu Gln Phe Glu Glu Ser Lys Gln Asp Thr Phe Ala Ala Gly  
 325 330 335

Arg Leu Lys Ala Val Leu His His Leu Ile Pro Ser Leu Lys Ala Ser  
 340 345 350



Ile Val Ala Glu Asp Phe Ala Asp Phe Gly Glu Ile Asp Arg Leu Tyr  
 355 360 365  
 Lys Glu Gly Leu Leu Leu Lys Leu Gly Phe Gln Asp Asp Ile Phe Lys  
 370 375 380  
 Lys Phe Pro Leu Pro Lys Val Val Val Asp Thr Leu Gln Glu Ser Thr  
 385 390 395 400  
 Lys Gly Leu Leu Lys Tyr Asp Thr Pro Lys Ile Leu Ser Lys Asp Lys  
 405 410 415  
 Asn Ala Trp Leu Arg Asp Asp Glu Phe Ala Arg Gln Ala Ile Ala Gly  
 420 425 430  
 Ile Asn Pro Val Asn Ile Glu Arg Val Lys Thr Phe Pro Pro Val Ser  
 435 440 445  
 Asn Leu Asp Pro Lys Ile Tyr Gly Pro Gln His Ser Ala Leu Thr Asp  
 450 455 460  
 Asp His Ile Ile Gly His Leu Asp Gly Phe Ser Val Gln Gln Ala Leu  
 465 470 475 480  
 Glu Glu Asn Arg Leu Tyr Met Leu Asp Tyr His Asp Ile Phe Leu Pro  
 485 490 495  
 Phe Leu Asp Arg Ile Asn Ala Leu Asp Gly Arg Lys Ala Tyr Ala Thr  
 500 505 510  
 Arg Thr Ile Phe Phe Leu Thr Arg Leu Gly Thr Leu Lys Pro Val Ala  
 515 520 525  
 Ile Glu Leu Ser Leu Pro Pro His Gly Pro Lys His Arg Ser Lys Arg  
 530 535 540  
 Val Leu Thr Pro Pro Val Asp Ala Thr Ser Asn Trp Met Trp Gln Leu  
 545 550 555 560  
 Ala Lys Ala His Val Ser Ser Asn Asp Ala Gly Val His Gln Leu Val  
 565 570 575  
 Asn His Trp Leu Arg Thr His Ala Cys Leu Glu Pro Phe Ile Leu Ala  
 580 585 590  
 Ala His Arg Gln Leu Ser Ala Met His Pro Ile Phe Lys Leu Leu Asp  
 595 600 605

047-E2F-PCT.ST25.txt

Pro His Met Arg Tyr Thr Leu Glu Ile Asn Ala Leu Ala Arg Gln Ser  
610 615 620

Leu Ile Ser Ala Asp Gly Val Ile Glu Gly Gly Phe Thr Ala Gly Ala  
625 630 635 640

Tyr Gly Met Glu Met Ser Ala Ala Ala Tyr Lys Ser Ser Trp Arg Phe  
645 650 655

Asp Met Glu Gly Leu Pro Ala Asp Leu Ile Arg Arg Gly Met Ala Ile  
660 665 670

Pro Asp Ala Thr Gln Pro His Gly Leu Lys Leu Leu Ile Glu Asp Tyr  
675 680 685

Pro Tyr Ala Asn Asp Gly Leu Leu Leu Trp Ser Ala Ile Gln Thr Trp  
690 695 700

Val Arg Thr Tyr Val Glu Arg Tyr Tyr Pro Asn Pro Asn Leu Ile Lys  
705 710 715 720

Thr Asp Ser Glu Leu Gln Ser Trp Tyr Ser Glu Ser Ile Asn Val Gly  
725 730 735

His Ala Asp Leu Arg Asp Ala Asp Trp Trp Pro Glu Leu Ser Thr Val  
740 745 750

Asp Asp Leu Val Ser Ile Leu Thr Thr Leu Ile Trp Leu Ala Ser Ala  
755 760 765

Gln His Ala Ala Leu Asn Phe Gly Gln Tyr Pro Tyr Gly Gly Tyr Val  
770 775 780

Pro Asn Arg Pro Pro Leu Met Arg Arg Leu Ile Pro Asp Glu Ser Asp  
785 790 795 800

Pro Glu Tyr Ala Ser Phe Ile Ser His Pro Glu Lys Tyr Tyr Phe Ser  
805 810 815

Ser Met Pro Ser Leu Ala Gln Thr Ser Lys Phe Met Ala Val Val Asp  
820 825 830

Thr Leu Ser Thr His Ser Pro Asp Glu Glu Tyr Ile Gly Glu Arg Gln  
835 840 845

Gln Pro Ser Ile Trp Thr Gly Asp Ala Glu Ile Val Glu Ala Phe Tyr  
850 855 860

Gly Phe Ala Ala Glu Ile Gly Arg Ile Glu Lys Glu Ile Glu Lys Arg  
 865 870 875 880

Asn Ala Asp Pro Asp Arg Arg Asn Arg Cys Gly Ala Gly Val Leu Pro  
 885 890 895

Tyr Glu Leu Leu Val Pro Ser Ser Glu Pro Gly Val Thr Cys Arg Gly  
 900 905 910

Val Pro Asn Ser Val Ser Ile  
 915

<210> 155

<211> 3069

<212> DNA

<213> Arabidopsis thaliana

<400> 155

atggtgtctc cactctgcga ctctcagtta ctttaccacc gcccctcgat ctcacctacc	60
gcttctcagt tcgtgatcgc ggatggaatc atcctccggc aaaatcgtct tctgagctct	120
tcgtcggtttt ggggcaccaa attcggaaac accgtcaagt tgggagtatc tggatgtagt	180
agctgctctc ggaagagaag cacgagtgtg aatgcttcac taggtggtct tcttagcgga	240
atcttcaagg gttctgataa cggagagtcg actaggcaac agtacgcac catcgctcga	300
tccgttaatc gcttgagagac tgagatttcg gctctttcgg attctgagtt gcgagagagg	360
actgatgcgt tgaagcaacg tgctcagaaa ggagaatcca tggattcact tttacctgaa	420
gcatttgctg ttgtgagaga agcttccaag agagttcttg gactcagacc tttcgatgtg	480
caattaattg gtggtatggt tcttcataaa ggagaaatag ctgaaatgag aactggtgaa	540
gggaaaacgc ttgttgctat tttaccagct tatttgaatg cattaagtgg gaaaggtggt	600
catgtggtta cagttaatga ttatcttgct cgaagagatt gtgaatgggt tgggtcaagtt	660
cctcggttcc ttggattgaa gggttggtcta atccaacaga atatgacacc tgaacaaaga	720
aaggaaaatt atttatgcga tatcacatat gtcaccaaca gtgagcttgg atttgattat	780
ctgagagaca atctagccac gagtgttgag gagctcgtct tgagggattt caattattgt	840
gtgattgatg aagttgattc catacttatt gatgaagcaa ggactcctct cattatctct	900
gggcctgcag agaaacctag tgaccaatat tacaaagctg caaagattgc ttcagccttt	960
gagcgggata tacattacac tgttgatgaa aagcagaaga ctgttttact gacggaacag	1020

ggttatgagg	atgcagaaga	aatcctggac	gtgaaagatt	tgtatgatcc	ccgtgaacag	1080
tgggcatcat	atgttcttaa	tgccattaag	gcaaaagaac	tttttctcag	agatgtgaac	1140
tatatcatcc	gagcaaagga	ggttctttatc	gtggatgagt	ttactggtcg	tgtaatgcag	1200
ggaagacggt	ggagtgatgg	actacatcaa	gctgttgaag	caaaagaagg	cttgcctatt	1260
cagaatgaat	ctattactct	ggcgtcaatt	agttatcaaa	acttctttct	gcagtttccg	1320
aaactttgcg	ggatgacggg	tacagcatcg	accgagagtg	cagaatttga	aagcatatac	1380
aagcttaaag	ttacaattgt	acccacaaat	aagcccatga	taagaaagga	tgagtcagat	1440
gtggttttca	aggcagtcaa	tggcaaatgg	cgggcagtag	tagtggagat	ctctagaatg	1500
cacaagacag	gtagggctgt	gctagttagc	acaaccagtg	tcgagcagag	tgatgaacta	1560
tcgcaactgt	tgagggaagc	tggaataact	catgagggtc	tcaatgccaa	gccagaaaat	1620
gtggagaggg	aagctgaaat	tgtagcacia	agtggccggt	taggggcagt	aacaattgcc	1680
acaaatatgg	cagggcgtgg	gacagacata	attcttggtg	gaaacgcaga	gttcatggca	1740
cgtttgaagc	ttcgtgagat	acttatgccc	agagtggtaa	agcctactga	tggtgttttt	1800
gtatctgtga	agaaggcccc	tcccaagaga	acatggaagg	tgaatgagaa	gttattttcca	1860
tgcaaactgt	caaatgagaa	agcaaagcta	gctgaagaag	ctgtacaatc	agctgtagag	1920
gcttggggcc	agaaatcggt	aactgagctt	gaagcagagg	aacgtttatc	ttattcttgt	1980
gaaaagggtc	ctgtccaaga	tgaagttata	ggtaaaactga	ggactgcatt	tctggcgata	2040
gcgaaagaat	ataagggcta	cactgatgaa	gaaaggaaga	aggtggtgga	agctggtgga	2100
cttcacgtgg	tggggacaga	gcggcatgaa	tcacgtcgaa	tagacaatca	gttgcggtgg	2160
cgaagtggcc	ggcaagggga	tcctggaagt	tcccgattct	tccttagtct	tgaagataac	2220
atattccgca	tttttggtgg	agatcggatt	caggggtatga	tgagggcatt	caggggtgga	2280
gatttaccga	tcgaatccaa	gatgcttact	aaagctctag	atgaagctca	gagaaaagtt	2340
gagaattact	tctttgacat	cagaaagcaa	ttattcgaat	ttgacgaggt	tctcaatagc	2400
caaagagatc	gtgttttatac	agagagaagg	cgtgctcttg	tgtcggacag	ccttgagcct	2460
ctgattatcg	agtatgctga	attgacaatg	gatgacattc	tagaggcaaa	tattggccca	2520
gataactcaa	aggaaagctg	ggattttgaa	aagctcattg	cgaaagttca	gcagtactgt	2580
tacctgttga	acgatctcac	tcccgatttg	ctgaaaagcg	aaggatcaag	ttatgaaggg	2640
ttgcaagatt	atctccgtgc	ccgtggccgc	gatgcatact	tacagaaaag	agaaatcggt	2700
gagaaacaat	caccagggct	aatgaaagat	gccgaacgat	tcttaatctt	gagcaatatt	2760
gataggttat	ggaaagaaca	ccttcaagca	ctcaagttcg	tgcaacaagc	tgtggggctc	2820
agaggatatg	cgcaacgcga	tccactcatc	gagtataagc	tcgaaggata	caatctatct	2880
ctggaaatga	tggctcaaat	acgaagaaat	gtgatatact	ccatatatca	gtttcaacca	2940

047-E2F-PCT.ST25.txt

gtgcgggtaa agaaggacga agagaagaag tctcagaacg ggaaaccgag caaacaagta 3000  
gataatgcta gtgagaagcc taaacaagtt ggtgtcacag atgagccatc ctcaattgca 3060  
agcgcctaa 3069

<210> 156

<211> 1022

<212> PRT

<213> Arabidopsis thaliana

<400> 156

Met Val Ser Pro Leu Cys Asp Ser Gln Leu Leu Tyr His Arg Pro Ser  
1 5 10 15

Ile Ser Pro Thr Ala Ser Gln Phe Val Ile Ala Asp Gly Ile Ile Leu  
20 25 30

Arg Gln Asn Arg Leu Leu Ser Ser Ser Ser Phe Trp Gly Thr Lys Phe  
35 40 45

Gly Asn Thr Val Lys Leu Gly Val Ser Gly Cys Ser Ser Cys Ser Arg  
50 55 60

Lys Arg Ser Thr Ser Val Asn Ala Ser Leu Gly Gly Leu Leu Ser Gly  
65 70 75 80

Ile Phe Lys Gly Ser Asp Asn Gly Glu Ser Thr Arg Gln Gln Tyr Ala  
85 90 95

Ser Ile Val Ala Ser Val Asn Arg Leu Glu Thr Glu Ile Ser Ala Leu  
100 105 110

Ser Asp Ser Glu Leu Arg Glu Arg Thr Asp Ala Leu Lys Gln Arg Ala  
115 120 125

Gln Lys Gly Glu Ser Met Asp Ser Leu Leu Pro Glu Ala Phe Ala Val  
130 135 140

Val Arg Glu Ala Ser Lys Arg Val Leu Gly Leu Arg Pro Phe Asp Val  
145 150 155 160

Gln Leu Ile Gly Gly Met Val Leu His Lys Gly Glu Ile Ala Glu Met  
165 170 175

047-E2F-PCT.ST25.txt

Arg Thr Gly Glu Gly Lys Thr Leu Val Ala Ile Leu Pro Ala Tyr Leu  
180 185 190

Asn Ala Leu Ser Gly Lys Gly Val His Val Val Thr Val Asn Asp Tyr  
195 200 205

Leu Ala Arg Arg Asp Cys Glu Trp Val Gly Gln Val Pro Arg Phe Leu  
210 215 220

Gly Leu Lys Val Gly Leu Ile Gln Gln Asn Met Thr Pro Glu Gln Arg  
225 230 235 240

Lys Glu Asn Tyr Leu Cys Asp Ile Thr Tyr Val Thr Asn Ser Glu Leu  
245 250 255

Gly Phe Asp Tyr Leu Arg Asp Asn Leu Ala Thr Ser Val Glu Glu Leu  
260 265 270

Val Leu Arg Asp Phe Asn Tyr Cys Val Ile Asp Glu Val Asp Ser Ile  
275 280 285

Leu Ile Asp Glu Ala Arg Thr Pro Leu Ile Ile Ser Gly Pro Ala Glu  
290 295 300

Lys Pro Ser Asp Gln Tyr Tyr Lys Ala Ala Lys Ile Ala Ser Ala Phe  
305 310 315 320

Glu Arg Asp Ile His Tyr Thr Val Asp Glu Lys Gln Lys Thr Val Leu  
325 330 335

Leu Thr Glu Gln Gly Tyr Glu Asp Ala Glu Glu Ile Leu Asp Val Lys  
340 345 350

Asp Leu Tyr Asp Pro Arg Glu Gln Trp Ala Ser Tyr Val Leu Asn Ala  
355 360 365

Ile Lys Ala Lys Glu Leu Phe Leu Arg Asp Val Asn Tyr Ile Ile Arg  
370 375 380

Ala Lys Glu Val Leu Ile Val Asp Glu Phe Thr Gly Arg Val Met Gln  
385 390 395 400

Gly Arg Arg Trp Ser Asp Gly Leu His Gln Ala Val Glu Ala Lys Glu  
405 410 415

Gly Leu Pro Ile Gln Asn Glu Ser Ile Thr Leu Ala Ser Ile Ser Tyr  
420 425 430

047-E2F-PCT.ST25.txt

Gln Asn Phe Phe Leu Gln Phe Pro Lys Leu Cys Gly Met Thr Gly Thr  
435 440 445

Ala Ser Thr Glu Ser Ala Glu Phe Glu Ser Ile Tyr Lys Leu Lys Val  
450 455 460

Thr Ile Val Pro Thr Asn Lys Pro Met Ile Arg Lys Asp Glu Ser Asp  
465 470 475 480

Val Val Phe Lys Ala Val Asn Gly Lys Trp Arg Ala Val Val Val Glu  
485 490 495

Ile Ser Arg Met His Lys Thr Gly Arg Ala Val Leu Val Gly Thr Thr  
500 505 510

Ser Val Glu Gln Ser Asp Glu Leu Ser Gln Leu Leu Arg Glu Ala Gly  
515 520 525

Ile Thr His Glu Val Leu Asn Ala Lys Pro Glu Asn Val Glu Arg Glu  
530 535 540

Ala Glu Ile Val Ala Gln Ser Gly Arg Leu Gly Ala Val Thr Ile Ala  
545 550 555 560

Thr Asn Met Ala Gly Arg Gly Thr Asp Ile Ile Leu Gly Gly Asn Ala  
565 570 575

Glu Phe Met Ala Arg Leu Lys Leu Arg Glu Ile Leu Met Pro Arg Val  
580 585 590

Val Lys Pro Thr Asp Gly Val Phe Val Ser Val Lys Lys Ala Pro Pro  
595 600 605

Lys Arg Thr Trp Lys Val Asn Glu Lys Leu Phe Pro Cys Lys Leu Ser  
610 615 620

Asn Glu Lys Ala Lys Leu Ala Glu Glu Ala Val Gln Ser Ala Val Glu  
625 630 635 640

Ala Trp Gly Gln Lys Ser Leu Thr Glu Leu Glu Ala Glu Glu Arg Leu  
645 650 655

Ser Tyr Ser Cys Glu Lys Gly Pro Val Gln Asp Glu Val Ile Gly Lys  
660 665 670

Leu Arg Thr Ala Phe Leu Ala Ile Ala Lys Glu Tyr Lys Gly Tyr Thr

675

680

685

Asp Glu Glu Arg Lys Lys Val Val Glu Ala Gly Gly Leu His Val Val  
 690 695 700  
 Gly Thr Glu Arg His Glu Ser Arg Arg Ile Asp Asn Gln Leu Arg Gly  
 705 710 715 720  
 Arg Ser Gly Arg Gln Gly Asp Pro Gly Ser Ser Arg Phe Phe Leu Ser  
 725 730 735  
 Leu Glu Asp Asn Ile Phe Arg Ile Phe Gly Gly Asp Arg Ile Gln Gly  
 740 745 750  
 Met Met Arg Ala Phe Arg Val Glu Asp Leu Pro Ile Glu Ser Lys Met  
 755 760 765  
 Leu Thr Lys Ala Leu Asp Glu Ala Gln Arg Lys Val Glu Asn Tyr Phe  
 770 775 780  
 Phe Asp Ile Arg Lys Gln Leu Phe Glu Phe Asp Glu Val Leu Asn Ser  
 785 790 795 800  
 Gln Arg Asp Arg Val Tyr Thr Glu Arg Arg Arg Ala Leu Val Ser Asp  
 805 810 815  
 Ser Leu Glu Pro Leu Ile Ile Glu Tyr Ala Glu Leu Thr Met Asp Asp  
 820 825 830  
 Ile Leu Glu Ala Asn Ile Gly Pro Asp Thr Pro Lys Glu Ser Trp Asp  
 835 840 845  
 Phe Glu Lys Leu Ile Ala Lys Val Gln Gln Tyr Cys Tyr Leu Leu Asn  
 850 855 860  
 Asp Leu Thr Pro Asp Leu Leu Lys Ser Glu Gly Ser Ser Tyr Glu Gly  
 865 870 875 880  
 Leu Gln Asp Tyr Leu Arg Ala Arg Gly Arg Asp Ala Tyr Leu Gln Lys  
 885 890 895  
 Arg Glu Ile Val Glu Lys Gln Ser Pro Gly Leu Met Lys Asp Ala Glu  
 900 905 910  
 Arg Phe Leu Ile Leu Ser Asn Ile Asp Arg Leu Trp Lys Glu His Leu  
 915 920 925



Gln Ala Leu Lys Phe Val Gln Gln Ala Val Gly Leu Arg Gly Tyr Ala  
 930 935 940

Gln Arg Asp Pro Leu Ile Glu Tyr Lys Leu Glu Gly Tyr Asn Leu Phe  
 945 950 955 960

Leu Glu Met Met Ala Gln Ile Arg Arg Asn Val Ile Tyr Ser Ile Tyr  
 965 970 975

Gln Phe Gln Pro Val Arg Val Lys Lys Asp Glu Glu Lys Lys Ser Gln  
 980 985 990

Asn Gly Lys Pro Ser Lys Gln Val Asp Asn Ala Ser Glu Lys Pro Lys  
 995 1000 1005

Gln Val Gly Val Thr Asp Glu Pro Ser Ser Ile Ala Ser Ala  
 1010 1015 1020

<210> 157

<211> 897

<212> DNA

<213> Arabidopsis thaliana

<400> 157

atggccgacg attgggatct ccacgccgta gtcagaggct gctcagccgt aagctcatca	60
gctactacca ccgtatatcc ccccggcgtt tcattctaca caaacctat attcaccgtc	120
ggacgacaaa gtaatgccgt ctcttcgga gagattcgag atctctacac accgttcaca	180
caagaatctg tcgtctcttc gttttcttgt ataaactacc cagaagaacc tagaaagcca	240
cagaaccaga aacgtcctct ttctctctct gtttcttcg gtagcgtcac tagcaaacc	300
agtggctcca atacctctag atctaaaaga agaaagatac agcataagaa agtgtgcat	360
gtagcagcag aagcttttaa ctccgatgtc tgggcatggc gaaagtacgg acagaaacc	420
atcaaagggt caccatatcc aagaggatac tacagatgta gtacatcaa aggttgttta	480
gcccgtaaac aagtggagcg aaatagatcc gaccgaaga tgtttatcgt cacttacacg	540
gcggagcata atcatccagc tccgacacac cgtaattctc tcgccggaag cacacgtcag	600
aaaccatccg atcaacagac gagtaaatct ccgacgacca ctattgctac ttattcatcg	660
tctccggtga cttcagccga cgaatttggt ttgcctgttg aggatcatct agcgggtggga	720
gatcttgacg gagaagaaga tctgttatct ttgtcggata cggtgggttag cgatgatttc	780
ttcgtgggt tagaggaatt cgcagccgga gatagctttt ccgggaactc ggctccggcg	840

agttttgatc tctcttgggt tgtgaacagt gccgccacta ccaccggagg aatatga

897

&lt;210&gt; 158

&lt;211&gt; 298

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 158

Met Ala Asp Asp Trp Asp Leu His Ala Val Val Arg Gly Cys Ser Ala  
1 5 10 15Val Ser Ser Ser Ala Thr Thr Thr Val Tyr Ser Pro Gly Val Ser Ser  
20 25 30His Thr Asn Pro Ile Phe Thr Val Gly Arg Gln Ser Asn Ala Val Ser  
35 40 45Phe Gly Glu Ile Arg Asp Leu Tyr Thr Pro Phe Thr Gln Glu Ser Val  
50 55 60Val Ser Ser Phe Ser Cys Ile Asn Tyr Pro Glu Glu Pro Arg Lys Pro  
65 70 75 80Gln Asn Gln Lys Arg Pro Leu Ser Leu Ser Ala Ser Ser Gly Ser Val  
85 90 95Thr Ser Lys Pro Ser Gly Ser Asn Thr Ser Arg Ser Lys Arg Arg Lys  
100 105 110Ile Gln His Lys Lys Val Cys His Val Ala Ala Glu Ala Leu Asn Ser  
115 120 125Asp Val Trp Ala Trp Arg Lys Tyr Gly Gln Lys Pro Ile Lys Gly Ser  
130 135 140Pro Tyr Pro Arg Gly Tyr Tyr Arg Cys Ser Thr Ser Lys Gly Cys Leu  
145 150 155 160Ala Arg Lys Gln Val Glu Arg Asn Arg Ser Asp Pro Lys Met Phe Ile  
165 170 175Val Thr Tyr Thr Ala Glu His Asn His Pro Ala Pro Thr His Arg Asn  
180 185 190

Ser Leu Ala Gly Ser Thr Arg Gln Lys Pro Ser Asp Gln Gln Thr Ser  
 195 200 205

Lys Ser Pro Thr Thr Thr Ile Ala Thr Tyr Ser Ser Ser Pro Val Thr  
 210 215 220

Ser Ala Asp Glu Phe Val Leu Pro Val Glu Asp His Leu Ala Val Gly  
 225 230 235 240

Asp Leu Asp Gly Glu Glu Asp Leu Leu Ser Leu Ser Asp Thr Val Val  
 245 250 255

Ser Asp Asp Phe Phe Asp Gly Leu Glu Glu Phe Ala Ala Gly Asp Ser  
 260 265 270

Phe Ser Gly Asn Ser Ala Pro Ala Ser Phe Asp Leu Ser Trp Val Val  
 275 280 285

Asn Ser Ala Ala Thr Thr Thr Gly Gly Ile  
 290 295

<210> 159

<211> 396

<212> DNA

<213> Arabidopsis thaliana

<400> 159

atgagccgaa gtttggaat accggtgaag cttcttcacg aggcctcagg tcatatcgtg	60
acggtggagc taaagagcgg cgagctttac agaggaagta tgattgagtg tgaggataac	120
tggaactgtc agctcgagga tattacttat accgccaagg atggtaaggt atcacagctt	180
gagcatgtct tcattcgagg cagtaaagtc aggtttatgg tcataccaga cattctcaaa	240
catgctccaa tgttcaagcg gtttagatgct agaatacagg gaaagagctc atcactgggt	300
gttggcagag gtagaggtgc aatgcgaggg aaaccggctg ccgggcccgg gcgtggaact	360
ggaggaaggg gagcggtacc acctgtgagg agatga	396

<210> 160

<211> 131

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 160

Met Ser Arg Ser Leu Gly Ile Pro Val Lys Leu Leu His Glu Ala Ser  
1 5 10 15

Gly His Ile Val Thr Val Glu Leu Lys Ser Gly Glu Leu Tyr Arg Gly  
20 25 30

Ser Met Ile Glu Cys Glu Asp Asn Trp Asn Cys Gln Leu Glu Asp Ile  
35 40 45

Thr Tyr Thr Ala Lys Asp Gly Lys Val Ser Gln Leu Glu His Val Phe  
50 55 60

Ile Arg Gly Ser Lys Val Arg Phe Met Val Ile Pro Asp Ile Leu Lys  
65 70 75 80

His Ala Pro Met Phe Lys Arg Leu Asp Ala Arg Ile Lys Gly Lys Ser  
85 90 95

Ser Ser Leu Gly Val Gly Arg Gly Arg Gly Ala Met Arg Gly Lys Pro  
100 105 110

Ala Ala Gly Pro Gly Arg Gly Thr Gly Gly Arg Gly Ala Val Pro Pro  
115 120 125

Val Arg Arg  
130

&lt;210&gt; 161

&lt;211&gt; 1455

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 161

atgggaaagg ataagacttt gccgttgctt gaccctcgtg agccaccgga actcaccgga 60  
accaagtcgg cgtcaaaagt atgggccaaa gagttcggcg aagagtcgaa gcggcctttgg 120  
gagtttagcag gaccagcgat tttcactgcc ataagtcaat actctcttgg tgctctcact 180  
cagactttct ccggccgtct cgggtgaactt gagctcgccg ccgtctcagt tgaaaactct 240  
gttatctccg gtcttgccct cgggtgtcatg ttagggatgg ggagtgcatg ggagacgttg 300  
tgtggacaag catatggcgc gggacagatt aggatgatgg gaatatatat gcaacgttca 360  
tgggtcattc tctttactac tgctttgttt ttgcttcccg tctacatttg ggctcctcct 420

047-E2F-PCT.ST25.txt

```

attctttcct tcttcggcga ggctcctcac atctctaaag ccgcggggaa gttcgcattg 480
tggatgatcc cgcaactatt tgcctatgca gccaaacttcc cgatacagaa attcttgcag 540
tcacagagga aagttcttgt gatggccttg atctctggag tggttttagt tatacatgca 600
gttttttagct ggctcttcat tctttacttt aagtggggac ttgtaggtgc agctatcact 660
ctcaatacct cgtgggtggtt gattgttatt ggtcagcttt tgtatatctt aatcaccaaa 720
tcagacggtg cgtggactgg attttctatg ctagcgtttc gggacctcta tggatttgct 780
aaactttcct tagcctctgc tcttatgctt tgtttggagt tttggtactt gatggttctg 840
gttgttgtta ccggtctcct tcctaaccg ttgataccag tcgatgccat ctccatttgc 900
atgaatatag aagggtggac tgccatgatt tcgatcgggt ttaacgctgc gattagtgtg 960
agagtatcga atgagctggg tgcaggaaac gcagcgttag ccaaattctc agtgatagtc 1020
gtctccataa cttcaactct tatcgggata gtgtgcatga ttgttgtctt agccacaaaa 1080
gacagcttcc cttatctttt cacttcaagc gaagctgtgg cagcagaaac cacgagaata 1140
gccgtcttgt tgggcttcac tgtcctcttg aacagcctcc agcccgtctt gtcaggggtt 1200
gcggttggag cggggtggca ggctctgggt gcatacgtga acattgcgtg ttattacatt 1260
atcggactac ctgctggtct tgttcttgga ttcacactag acctcggcgt tcaggaata 1320
tggggaggta tggtagctgg aatatgcttg cagacactta tattgattgg aatcatctac 1380
ttcactaact ggaacaaaga ggctgagcaa gcggagagtc gagttcagag atggggagga 1440
acggcgcagg agtga 1455

```

<210> 162

<211> 484

<212> PRT

<213> Arabidopsis thaliana

<400> 162

Met Gly Lys Asp Lys Thr Leu Pro Leu Leu Asp Pro Arg Glu Pro Pro  
1 5 10 15

Glu Leu Thr Gly Thr Lys Ser Ala Ser Lys Val Trp Ala Lys Glu Phe  
20 25 30

Gly Glu Glu Ser Lys Arg Leu Trp Glu Leu Ala Gly Pro Ala Ile Phe  
35 40 45

Thr Ala Ile Ser Gln Tyr Ser Leu Gly Ala Leu Thr Gln Thr Phe Ser  
Page 247

50

55

Gly Arg Leu Gly Glu Leu Glu Leu Ala Ala Val Ser Val Glu Asn Ser  
65 70 75 80

Val Ile Ser Gly Leu Ala Phe Gly Val Met Leu Gly Met Gly Ser Ala  
85 90 95

Leu Glu Thr Leu Cys Gly Gln Ala Tyr Gly Ala Gly Gln Ile Arg Met  
100 105 110

Met Gly Ile Tyr Met Gln Arg Ser Trp Val Ile Leu Phe Thr Thr Ala  
115 120 125

Leu Phe Leu Leu Pro Val Tyr Ile Trp Ala Pro Pro Ile Leu Ser Phe  
130 135 140

Phe Gly Glu Ala Pro His Ile Ser Lys Ala Ala Gly Lys Phe Ala Leu  
145 150 155 160

Trp Met Ile Pro Gln Leu Phe Ala Tyr Ala Ala Asn Phe Pro Ile Gln  
165 170 175

Lys Phe Leu Gln Ser Gln Arg Lys Val Leu Val Met Ala Trp Ile Ser  
180 185 190

Gly Val Val Leu Val Ile His Ala Val Phe Ser Trp Leu Phe Ile Leu  
195 200 205

Tyr Phe Lys Trp Gly Leu Val Gly Ala Ala Ile Thr Leu Asn Thr Ser  
210 215 220

Trp Trp Leu Ile Val Ile Gly Gln Leu Leu Tyr Ile Leu Ile Thr Lys  
225 230 235 240

Ser Asp Gly Ala Trp Thr Gly Phe Ser Met Leu Ala Phe Arg Asp Leu  
245 250 255

Tyr Gly Phe Val Lys Leu Ser Leu Ala Ser Ala Leu Met Leu Cys Leu  
260 265 270

Glu Phe Trp Tyr Leu Met Val Leu Val Val Val Thr Gly Leu Leu Pro  
275 280 285

Asn Pro Leu Ile Pro Val Asp Ala Ile Ser Ile Cys Met Asn Ile Glu  
290 295 300

047-E2F-PCT.ST25.txt

Gly Trp Thr Ala Met Ile Ser Ile Gly Phe Asn Ala Ala Ile Ser Val  
305 310 315 320

Arg Val Ser Asn Glu Leu Gly Ala Gly Asn Ala Ala Leu Ala Lys Phe  
325 330 335

Ser Val Ile Val Val Ser Ile Thr Ser Thr Leu Ile Gly Ile Val Cys  
340 345 350

Met Ile Val Val Leu Ala Thr Lys Asp Ser Phe Pro Tyr Leu Phe Thr  
355 360 365

Ser Ser Glu Ala Val Ala Ala Glu Thr Thr Arg Ile Ala Val Leu Leu  
370 375 380

Gly Phe Thr Val Leu Leu Asn Ser Leu Gln Pro Val Leu Ser Gly Val  
385 390 395 400

Ala Val Gly Ala Gly Trp Gln Ala Leu Val Ala Tyr Val Asn Ile Ala  
405 410 415

Cys Tyr Tyr Ile Ile Gly Leu Pro Ala Gly Leu Val Leu Gly Phe Thr  
420 425 430

Leu Asp Leu Gly Val Gln Gly Ile Trp Gly Gly Met Val Ala Gly Ile  
435 440 445

Cys Leu Gln Thr Leu Ile Leu Ile Gly Ile Ile Tyr Phe Thr Asn Trp  
450 455 460

Asn Lys Glu Ala Glu Gln Ala Glu Ser Arg Val Gln Arg Trp Gly Gly  
465 470 475 480

Thr Ala Gln Glu

<210> 163

<211> 1485

<212> DNA

<213> Arabidopsis thaliana

<400> 163

atggagaatc atcatccttc tactctattg tctatggatt caagtgcctc ttctcatgag 60

gagcttgatt tggagatgaa taacaacagg caatctctgc tctctggccc tcctgatatc 120

047-E2F-PCT.ST25.txt

aattttacctc tctcagctga gagaagtcct cctcctccgc cgtggaattht agatgcttgt 180  
gatatttttg atgtttgggtt aggtttcaca gcttatgaga ctgagaatta catgagtgtt 240  
gtacctaaagg ttgggaggaa atgtgctaaa cgtgttgata gtatctgggg tgcttggttt 300  
ttcttcagtt tctacttcaa gcctgcgtta aacgagaaat caaaggcgaa aatcgtccgg 360  
gatagtaatg ggatatctgg ttttgacaag tcggatttga agcttgatgt gtttttagtt 420  
cagcatgata tggagaatat gtatatgtgg gtgtttaagg aaagacctga gaatgcacta 480  
gggaagatgc agttgaggag ttacatgaat ggtcattcta gacaagggga tcgtttgttt 540  
ccatttagtg ttgagaaagg gtttgttagg tctcacagaa tgcagaggaa aactacaga 600  
ggtttgctga atccgcagtg cgttcattgg attgagcttg ttcctttgcc aaacctcacg 660  
tgtctagatg aagaagagag gaaaagggtg atggagctta cgggtcgtga tttgaatttc 720  
accattccac ctgaagctag tgactttggt tcttgagaa accttcccaa cactgacttt 780  
gagcttgaga ggcctacacc ttccttgaa aatcctactg caaaccactc taagaaacta 840  
ctcaatggct cggggctcaa tctctcgact caaccatcca accattctaa tgggtgaagca 900  
accgatttat ctccttcgag ccacaagaag aggaaggact tgttctcaaa tgggattcat 960  
gaggaggagt gttgcttaac tgtaaaccga caacctctg ttatcgaagc tcaccagaat 1020  
gagctaccta cttggtcaaa cgagtttact ggggccatga aaaacgttta tggacctgtt 1080  
actgctgcaa aaacgatcta tgaggacgaa gaaggctact tgatcataat cagccttcct 1140  
tttgtggatt tgaacagcgt taaagtctcc tggaggaaca ctctcacaca tggaatcata 1200  
aaagtttcat gcctcagcac atcgcgcgta cctttcataa agagacatga tagaacattc 1260  
aagttgactg attcagcctc tgagcattgc ccgccagggtg aatttgctag agagatccca 1320  
ttatcaaacc gaatcccgga agatgcaaac attgaagcgt attacgatgg acctggatca 1380  
gttcttgaga tacttgctcc aaaactaaga gctggcccgg aagagcacga ggtgcgggtg 1440  
tgtctccgtc ccaacctcgg tggaaacgat cttatgctga cttaa 1485

<210> 164

<211> 494

<212> PRT

<213> Arabidopsis thaliana

<400> 164

Met Glu Asn His His Pro Ser Thr Leu Leu Ser Met Asp Ser Ser Ala  
1 5 10 15



Ser Ser His Glu Glu Leu Asp Leu Glu Met Asn Asn Asn Arg Gln Ser  
 20 25 30  
 Leu Leu Ser Gly Pro Pro Asp Ile Asn Leu Pro Leu Ser Ala Glu Arg  
 35 40 45  
 Ser Pro Pro Pro Pro Pro Trp Asn Leu Asp Ala Cys Asp Ile Leu Asp  
 50 55 60  
 Val Gly Leu Gly Ser Gln Ala Tyr Glu Thr Glu Asn Tyr Met Ser Val  
 65 70 75 80  
 Val Pro Lys Val Gly Arg Lys Cys Ala Lys Arg Val Asp Ser Ile Trp  
 85 90 95  
 Gly Ala Trp Phe Phe Phe Ser Phe Tyr Phe Lys Pro Ala Leu Asn Glu  
 100 105 110  
 Lys Ser Lys Ala Lys Ile Val Arg Asp Ser Asn Gly Ile Ser Gly Phe  
 115 120 125  
 Asp Lys Ser Asp Leu Lys Leu Asp Val Phe Leu Val Gln His Asp Met  
 130 135 140  
 Glu Asn Met Tyr Met Trp Val Phe Lys Glu Arg Pro Glu Asn Ala Leu  
 145 150 155 160  
 Gly Lys Met Gln Leu Arg Ser Tyr Met Asn Gly His Ser Arg Gln Gly  
 165 170 175  
 Asp Arg Leu Phe Pro Phe Ser Val Glu Lys Gly Phe Val Arg Ser His  
 180 185 190  
 Arg Met Gln Arg Lys His Tyr Arg Gly Leu Ser Asn Pro Gln Cys Val  
 195 200 205  
 His Gly Ile Glu Leu Val Pro Leu Pro Asn Leu Thr Cys Leu Asp Glu  
 210 215 220  
 Glu Glu Arg Lys Arg Trp Met Glu Leu Thr Gly Arg Asp Leu Asn Phe  
 225 230 235 240  
 Thr Ile Pro Pro Glu Ala Ser Asp Phe Gly Ser Trp Arg Asn Leu Pro  
 245 250 255  
 Asn Thr Asp Phe Glu Leu Glu Arg Pro Thr Pro Ser Leu Lys Asn Pro  
 260 265 270

047-E2F-PCT.ST25.txt

Thr Ala Asn His Ser Lys Lys Leu Leu Asn Gly Ser Gly Leu Asn Leu  
 275 280 285  
 Ser Thr Gln Pro Ser Asn His Ser Asn Gly Glu Ala Thr Asp Leu Ser  
 290 295 300  
 Pro Ser Ser His Lys Lys Arg Lys Asp Leu Phe Ser Asn Gly Ile His  
 305 310 315 320  
 Glu Glu Glu Cys Cys Leu Thr Val Asn Pro Gln Pro Pro Val Ile Glu  
 325 330 335  
 Ala His Gln Asn Glu Leu Pro Thr Trp Ser Asn Glu Phe Thr Gly Ala  
 340 345 350  
 Met Lys Asn Val Tyr Gly Pro Val Thr Ala Ala Lys Thr Ile Tyr Glu  
 355 360 365  
 Asp Glu Glu Gly Tyr Leu Ile Ile Ile Ser Leu Pro Phe Val Asp Leu  
 370 375 380  
 Asn Ser Val Lys Val Ser Trp Arg Asn Thr Leu Thr His Gly Ile Ile  
 385 390 395 400  
 Lys Val Ser Cys Leu Ser Thr Ser Arg Val Pro Phe Ile Lys Arg His  
 405 410 415  
 Asp Arg Thr Phe Lys Leu Thr Asp Ser Ala Ser Glu His Cys Pro Pro  
 420 425 430  
 Gly Glu Phe Val Arg Glu Ile Pro Leu Ser Asn Arg Ile Pro Glu Asp  
 435 440 445  
 Ala Asn Ile Glu Ala Tyr Tyr Asp Gly Pro Gly Ser Val Leu Glu Ile  
 450 455 460  
 Leu Val Pro Lys Leu Arg Ala Gly Pro Glu Glu His Glu Val Arg Val  
 465 470 475 480  
 Cys Leu Arg Pro Asn Leu Gly Gly Asn Asp Leu Met Leu Thr  
 485 490

<210> 165

<211> 441

<212> DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 165

```

atgggggtcgt tgcaaatgca aacaagtcct gaatccgata atgatccgag gtacgccacg      60
gtgacggatg agaggaagag gaagagaatg atctctaaca gagaatctgc tcggagggtca      120
aggatgagga aacagaagca acttggtgat ttgatcaacg aagtcactct tctcaagaat      180
gataacgcta aaatcactga gcaggttgat gaagcttcaa agaaatacat tgaaatggag      240
tctaagaaca atgtcttgag ggcacaggct tcggagttga cggatagggt gagatcattg      300
aactctgtgc ttgagatggt tgaagaaatt agtggtcagg ctttggatat tcctgagatt      360
cctgaatcta tgcagaaccc ttggcagatg ccttgtccaa tgcaaccaat cagagcttct      420
gctgatatgt ttgattgctg a                                          441

```

&lt;210&gt; 166

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 166

```

Met Gly Ser Leu Gln Met Gln Thr Ser Pro Glu Ser Asp Asn Asp Pro
1      5      10      15
Arg Tyr Ala Thr Val Thr Asp Glu Arg Lys Arg Lys Arg Met Ile Ser
20     25     30
Asn Arg Glu Ser Ala Arg Arg Ser Arg Met Arg Lys Gln Lys Gln Leu
35     40     45
Gly Asp Leu Ile Asn Glu Val Thr Leu Leu Lys Asn Asp Asn Ala Lys
50     55     60
Ile Thr Glu Gln Val Asp Glu Ala Ser Lys Lys Tyr Ile Glu Met Glu
65     70     75     80
Ser Lys Asn Asn Val Leu Arg Ala Gln Ala Ser Glu Leu Thr Asp Arg
85     90     95
Leu Arg Ser Leu Asn Ser Val Leu Glu Met Val Glu Glu Ile Ser Gly
100    105    110
Gln Ala Leu Asp Ile Pro Glu Ile Pro Glu Ser Met Gln Asn Pro Trp

```

115 047-E2F-PCT.ST25.txt 120 125

Gln Met Pro Cys Pro Met Gln Pro Ile Arg Ala Ser Ala Asp Met Phe  
130 135 140

Asp Cys  
145

<210> 167

<211> 1161

<212> DNA

<213> Arabidopsis thaliana

<400> 167  
atggacaccg aactgaattc tcctccgcat gatgatggtg gtgataccac taccgctttt 60  
cgaaagcctt ccaatgacgg gactagcaga aaatatcgcc gtcgagcttt agctgacgat 120  
ggctcatctt catctgatgg aagtcctgaa cgtaatcaga gccctaatacc aaagcattct 180  
aggaaagatt ctgaaccagt tcatgtgagg aaagaggata gatgggaatc tgatcgcagt 240  
cgttatggta gaggaggtgt tgattcacat agacatgata ggtactctag ggatgataat 300  
tacggatata agcgtgatga gtataacaga catgggaggg atgcgcgttc tactagccgt 360  
gattcaagag gtggcagaca ttctgaccgt agaagagtgg agactgaata tagcaggtta 420  
agaaatgact cagacagaag ttcccatgat aagtatagca actctggaca tagagtcaaa 480  
agtaacgaga aaggtgaaga tttgtcatct ggtaggagac actcagactc aagagtggag 540  
gataatgaga aaagagggtt tcgctgggggt tttggtgacc gtcattcccg tgttgaaaga 600  
aaggaacatg aggaccctga gattagcaag gagaaggagg ttcattgtcaa atcttcaaga 660  
gaccgttctg atgggaaatg tttggctaca gaggatcgag atactcattc taagaaactg 720  
aagggtttca tatcagacaa gtttactact ggcaatacta atgaagagaa acagacatca 780  
atcttaaagc cttcccccg tgatgttgat gctgcaaaag ttgcagctat gcaggctgct 840  
gaattagtga ataaaaacct tgttggaacg ggttacctga caacagatca aaagaagaag 900  
ttattgtggg gaaaaaagaa aagcacggct tcagaagagt ctgctcatcg ttgggataat 960  
gcgagtgcgc taattggtga ccctgaacgg caagaaaagt tcaacaaact tatgggtgtg 1020  
aaagcgaagg tagtaaacca agagcaaac ctgggcgaag tcgaggccga gaagcagaaa 1080  
gagttgcaga tggatctaga gaagcagtag acagcagggt taaggaggag agatggacga 1140  
acagtaggggt taggtctttg a 1161

&lt;210&gt; 168

&lt;211&gt; 386

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 168

Met Asp Thr Glu Leu Asn Ser Pro Pro His Asp Asp Gly Gly Asp Thr  
 1 5 10 15

Thr Thr Ala Phe Arg Lys Pro Ser Asn Asp Gly Thr Ser Arg Lys Tyr  
 20 25 30

Arg Arg Arg Ala Leu Ala Asp Asp Gly Ser Ser Ser Ser Asp Gly Ser  
 35 40 45

Pro Glu Arg Asn Gln Ser Pro Asn Pro Lys His Ser Arg Lys Asp Ser  
 50 55 60

Glu Pro Val His Val Arg Lys Glu Asp Arg Trp Glu Ser Asp Arg Ser  
 65 70 75 80

Arg Tyr Gly Arg Gly Gly Val Asp Ser His Arg His Asp Arg Tyr Ser  
 85 90 95

Arg Asp Asp Asn Tyr Gly Tyr Lys Arg Asp Glu Tyr Asn Arg His Gly  
 100 105 110

Arg Asp Ala Arg Ser Thr Ser Arg Asp Ser Arg Gly Gly Arg His Ser  
 115 120 125

Asp Arg Arg Arg Val Glu Thr Glu Tyr Ser Arg Leu Arg Asn Asp Ser  
 130 135 140

Asp Arg Ser Ser His Asp Lys Tyr Ser Asn Ser Gly His Arg Val Lys  
 145 150 155 160

Ser Asn Glu Lys Gly Glu Asp Leu Ser Ser Gly Arg Arg His Ser Asp  
 165 170 175

Ser Arg Val Glu Asp Asn Glu Lys Arg Gly Ser Arg Trp Gly Phe Gly  
 180 185 190

Asp Arg His Ser Arg Val Glu Arg Lys Glu His Glu Asp Pro Glu Ile  
 195 200 205

047-E2F-PCT.ST25.txt

Ser Lys Glu Lys Glu Val His Val Lys Ser Ser Arg Asp Arg Ser Asp  
 210 215 220

Gly Lys Cys Leu Ala Thr Glu Asp Arg Asp Thr His Ser Lys Lys Leu  
 225 230 235 240

Lys Gly Phe Ile Ser Asp Lys Phe Thr Thr Gly Asn Thr Asn Glu Glu  
 245 250 255

Lys Gln Thr Ser Ile Leu Lys Pro Ser Pro Gly Asp Val Asp Ala Ala  
 260 265 270

Lys Val Ala Ala Met Gln Ala Ala Glu Leu Val Asn Lys Asn Leu Val  
 275 280 285

Gly Thr Gly Tyr Leu Thr Thr Asp Gln Lys Lys Lys Leu Leu Trp Gly  
 290 295 300

Lys Lys Lys Ser Thr Ala Ser Glu Glu Ser Ala His Arg Trp Asp Asn  
 305 310 315 320

Ala Ser Ala Leu Ile Gly Asp Pro Glu Arg Gln Glu Lys Phe Asn Lys  
 325 330 335

Leu Met Gly Val Lys Ala Lys Val Val Asn Gln Glu Gln Asn Leu Gly  
 340 345 350

Glu Val Glu Ala Glu Lys Gln Lys Glu Leu Gln Met Asp Leu Glu Lys  
 355 360 365

Gln Tyr Thr Ala Gly Leu Arg Arg Arg Asp Gly Arg Thr Val Gly Leu  
 370 375 380

Gly Leu  
 385

<210> 169

<211> 297

<212> DNA

<213> Arabidopsis thaliana

<400> 169

atgtccggcg aggaagaagc caccgtgagg gagccactag atctgattag gctgagtctc 60

gacgagagaa tctatgtcaa gctccggtca gaccgcgaac ttcgcggaac gcttcacgcg 120

047-E2F-PCT.ST25.txt

tttgatcagc atttgaatat gattctgggt gatgttgaag aaactatcac tacagtagaa 180  
atcgatgacg agacatatga agagattggt cggactacaa agcggacgat tgagtttcta 240  
ttcgtgagag gagatggagt gatattggtg tctccaccgc tgaggacagc agcctga 297

<210> 170

<211> 98

<212> PRT

<213> Arabidopsis thaliana

<400> 170

Met Ser Gly Glu Glu Glu Ala Thr Val Arg Glu Pro Leu Asp Leu Ile  
1 5 10 15  
Arg Leu Ser Leu Asp Glu Arg Ile Tyr Val Lys Leu Arg Ser Asp Arg  
20 25 30  
Glu Leu Arg Gly Lys Leu His Ala Phe Asp Gln His Leu Asn Met Ile  
35 40 45  
Leu Gly Asp Val Glu Glu Thr Ile Thr Thr Val Glu Ile Asp Asp Glu  
50 55 60  
Thr Tyr Glu Glu Ile Val Arg Thr Thr Lys Arg Thr Ile Glu Phe Leu  
65 70 75 80  
Phe Val Arg Gly Asp Gly Val Ile Leu Val Ser Pro Pro Leu Arg Thr  
85 90 95  
Ala Ala

<210> 171

<211> 1464

<212> DNA

<213> Arabidopsis thaliana

<400> 171

atggagtccg tcgctctatc tcgcataggt ctcgccggtc tcgcagtcac gggacaaaac 60  
ctcgcccttaa acatcgccga taaaggattc ccaatctccg tctacaatcg aaccacttcc 120

047-E2F-PCT.ST25.txt

```

aaagtcgacg aaaccttaga tcgtgcctcc aacgaaggaa aactcccagt cgctggtcaa 180
tactcgcctc gcgatttcgt tctctcgatc caacggccta gatccgttat catccttgtc 240
aaagccggtg ctcccgttga ccaaaccatc tctgctctct ctgaatacat ggagcctggt 300
gattgtatca tcgacggtgg aaatgagtggt tatcagaaca cagagcgacg aatcgttgaa 360
gctgagaaga aaggattgct ttatttaggt atgggagtcct ccggtggtga agaaggagct 420
cgtaatggtc cttctcttat gcctgggtgga tctttcactg cgtataacaa tgttaaagat 480
attccttgaga aagttgctgc tcaagtcgaa gatggtcctt gtgttacata cattggagaa 540
gggtgatctg ggaattttgt gaaaatgggt cataatggga ttgaatatgg tgatatgcag 600
ctgatttcgg aggcgtatga cgtgttgaag aacggttggtg gattgagtaa tgatgaattg 660
gctgagatct tcacggagtg gaatcgaggt gagcttgaga gtttcttggt tgagattact 720
tcggatatat ttaggggttaa ggatgattat ggtgatggag agttagtgga taagattttg 780
gataagactg gtatgaaagg tacagggaaa tggacggttc agcaggcggc tgagctttct 840
gttgcgggcg ctacgattgc tgcgtcgttg gattgtagat acttgagtgg attgaaggat 900
gagagggaga atgctgctaa agttttggaa gaagctggat tgaaggagga tatcggttct 960
gcgtctcgtg gtgttgataa gaagagggtg attgatgatg tgaggcaagc tttgtatgct 1020
tctaagatct gtagttatgc tcaagggatg aatttgctta gggctaagag tttagagaaa 1080
ggttgggact tgaatttggg tgaaatggct aggatttgga aagggtgggtg tattatcagg 1140
gcggttttct tggacaggat caagaaagct taccagagaa acccgaattt ggcgagctta 1200
gtggttgatc ctgattttgc taaagagatg gttcagaggc aagctgcatg gaggagagtg 1260
gtgggtcttg ctatatctgc tgggattagc acaccaggaa tgtgcaag tttagcgat 1320
ttcgacactt acaggcgtgc tagattacct gcgaatctgg ttcaggcgca gagagatctc 1380
tttgagctc atacatatga gagaaccgat cgtcctggtg cataccacac tgaatggact 1440
aagcttgcaa ggaagagtca gtaa 1464

```

<210> 172

<211> 487

<212> PRT

<213> Arabidopsis thaliana

<400> 172

Met Glu Ser Val Ala Leu Ser Arg Ile Gly Leu Ala Gly Leu Ala Val  
1 5 10 15



Met Gly Gln Asn Leu Ala Leu Asn Ile Ala Asp Lys Gly Phe Pro Ile  
 20 25 30  
 Ser Val Tyr Asn Arg Thr Thr Ser Lys Val Asp Glu Thr Leu Asp Arg  
 35 40 45  
 Ala Ser Asn Glu Gly Lys Leu Pro Val Ala Gly Gln Tyr Ser Pro Arg  
 50 55 60  
 Asp Phe Val Leu Ser Ile Gln Arg Pro Arg Ser Val Ile Ile Leu Val  
 65 70 75 80  
 Lys Ala Gly Ala Pro Val Asp Gln Thr Ile Ser Ala Leu Ser Glu Tyr  
 85 90 95  
 Met Glu Pro Gly Asp Cys Ile Ile Asp Gly Gly Asn Glu Trp Tyr Gln  
 100 105 110  
 Asn Thr Glu Arg Arg Ile Val Glu Ala Glu Lys Lys Gly Leu Leu Tyr  
 115 120 125  
 Leu Gly Met Gly Val Ser Gly Gly Glu Glu Gly Ala Arg Asn Gly Pro  
 130 135 140  
 Ser Leu Met Pro Gly Gly Ser Phe Thr Ala Tyr Asn Asn Val Lys Asp  
 145 150 155 160  
 Ile Leu Glu Lys Val Ala Ala Gln Val Glu Asp Gly Pro Cys Val Thr  
 165 170 175  
 Tyr Ile Gly Glu Gly Gly Ser Gly Asn Phe Val Lys Met Val His Asn  
 180 185 190  
 Gly Ile Glu Tyr Gly Asp Met Gln Leu Ile Ser Glu Ala Tyr Asp Val  
 195 200 205  
 Leu Lys Asn Val Gly Gly Leu Ser Asn Asp Glu Leu Ala Glu Ile Phe  
 210 215 220  
 Thr Glu Trp Asn Arg Gly Glu Leu Glu Ser Phe Leu Val Glu Ile Thr  
 225 230 235 240  
 Ser Asp Ile Phe Arg Val Lys Asp Asp Tyr Gly Asp Gly Glu Leu Val  
 245 250 255  
 Asp Lys Ile Leu Asp Lys Thr Gly Met Lys Gly Thr Gly Lys Trp Thr  
 260 265 270

047-E2F-PCT.ST25.txt

Val Gln Gln Ala Ala Glu Leu Ser Val Ala Ala Pro Thr Ile Ala Ala  
275 280 285

Ser Leu Asp Cys Arg Tyr Leu Ser Gly Leu Lys Asp Glu Arg Glu Asn  
290 295 300

Ala Ala Lys Val Leu Glu Glu Ala Gly Leu Lys Glu Asp Ile Gly Ser  
305 310 315 320

Ala Ser Arg Gly Val Asp Lys Lys Arg Leu Ile Asp Asp Val Arg Gln  
325 330 335

Ala Leu Tyr Ala Ser Lys Ile Cys Ser Tyr Ala Gln Gly Met Asn Leu  
340 345 350

Leu Arg Ala Lys Ser Leu Glu Lys Gly Trp Asp Leu Asn Leu Gly Glu  
355 360 365

Met Ala Arg Ile Trp Lys Gly Gly Cys Ile Ile Arg Ala Val Phe Leu  
370 375 380

Asp Arg Ile Lys Lys Ala Tyr Gln Arg Asn Pro Asn Leu Ala Ser Leu  
385 390 395 400

Val Val Asp Pro Asp Phe Ala Lys Glu Met Val Gln Arg Gln Ala Ala  
405 410 415

Trp Arg Arg Val Val Gly Leu Ala Ile Ser Ala Gly Ile Ser Thr Pro  
420 425 430

Gly Met Cys Ala Ser Leu Ala Tyr Phe Asp Thr Tyr Arg Arg Ala Arg  
435 440 445

Leu Pro Ala Asn Leu Val Gln Ala Gln Arg Asp Leu Phe Gly Ala His  
450 455 460

Thr Tyr Glu Arg Thr Asp Arg Pro Gly Ala Tyr His Thr Glu Trp Thr  
465 470 475 480

Lys Leu Ala Arg Lys Ser Gln  
485

<210> 173

<211> 768

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 173

```

atggcctcaa acgcactctc gtctttcacc gccgctaata ccgctctgtc tcctaagcca      60
ctactccctc acggctctgc ttctccgtcg gtttctctcg gcttctccag gaaagttggc      120
ggcggcagag cagtggtcgt tgcagcggct acggtggaca caaacaacat gccgatgacc      180
ggagtcgtgt tccagccttt cgaagaggtg aagaaagccg atctggccat tccaatcaca      240
tctcatgcct ctctcgctcg ccagaggttt gccgacgcta gcgaggcagt cattaatgag      300
caaatcaatg tggaatacaa cgtctcctat gtgtaccatt caatgtacgc atactttgac      360
agagacaacg ttgctatgaa gggactagcc aaatttttca aggaatcaag tgaggaagag      420
agagggcatg ctgagaagtt tatggagtac cagaaccaa gagggaggaag agtgaaactc      480
caccctatcg tctcacctat ctcagaattc gaacatgctg aaaaaggaga tgctttatat      540
gcaatggagt tggctctgtc tctagagaaa ctactaatg agaagcttct aaacgttcac      600
aaagtggcct cagagaacaa tgatccccag ttagctgatt tcgttgagag tgaatttctg      660
ggagagcaga ttgaagcaat caagaagatc tcagactaca tcaccagct aaggatgatc      720
ggcaaaggcc acggagtttg gcatttcgac cagatgcttc tgaactag      768

```

&lt;210&gt; 174

&lt;211&gt; 255

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 174

```

Met Ala Ser Asn Ala Leu Ser Ser Phe Thr Ala Ala Asn Pro Ala Leu
1          5          10          15

Ser Pro Lys Pro Leu Leu Pro His Gly Ser Ala Ser Pro Ser Val Ser
          20          25          30

Leu Gly Phe Ser Arg Lys Val Gly Gly Gly Arg Ala Val Val Val Ala
          35          40          45

Ala Ala Thr Val Asp Thr Asn Asn Met Pro Met Thr Gly Val Val Phe
          50          55          60

Gln Pro Phe Glu Glu Val Lys Lys Ala Asp Leu Ala Ile Pro Ile Thr
65          70          75          80

```

047-E2F-PCT.ST25.txt

Ser His Ala Ser Leu<sub>85</sub> Ala Arg Gln Arg Phe<sub>90</sub> Ala Asp Ala Ser Glu<sub>95</sub> Ala  
Val Ile Asn Glu<sub>100</sub> Gln Ile Asn Val Glu<sub>105</sub> Tyr Asn Val Ser Tyr<sub>110</sub> Val Tyr  
His Ser Met<sub>115</sub> Tyr Ala Tyr Phe Asp<sub>120</sub> Arg Asp Asn Val Ala<sub>125</sub> Met Lys Gly  
Leu Ala<sub>130</sub> Lys Phe Phe Lys Glu<sub>135</sub> Ser Ser Glu Glu Glu<sub>140</sub> Arg Gly His Ala  
Glu<sub>145</sub> Lys Phe Met Glu Tyr<sub>150</sub> Gln Asn Gln Arg Gly<sub>155</sub> Gly Arg Val Lys Leu<sub>160</sub>  
His Pro Ile Val Ser<sub>165</sub> Pro Ile Ser Glu Phe<sub>170</sub> Glu His Ala Glu Lys<sub>175</sub> Gly  
Asp Ala Leu Tyr<sub>180</sub> Ala Met Glu Leu Ala<sub>185</sub> Leu Ser Leu Glu Lys<sub>190</sub> Leu Thr  
Asn Glu Lys<sub>195</sub> Leu Leu Asn Val His<sub>200</sub> Lys Val Ala Ser Glu<sub>205</sub> Asn Asn Asp  
Pro Gln Leu Ala Asp Phe Val<sub>215</sub> Glu Ser Glu Phe Leu<sub>220</sub> Gly Glu Gln Ile  
Glu Ala Ile Lys Lys Ile<sub>230</sub> Ser Asp Tyr Ile Thr<sub>235</sub> Gln Leu Arg Met Ile<sub>240</sub>  
Gly Lys Gly His Gly<sub>245</sub> Val Trp His Phe Asp<sub>250</sub> Gln Met Leu Leu Asn<sub>255</sub>

<210> 175

<211> 975

<212> DNA

<213> Arabidopsis thaliana

<400> 175

atggatagag aacgatatga taaggtgatt gaagcatggt ctttgagtaa agatctggag	60
atactttcat tcggtgatca gaccgtcatt ggagaacgcg gcatcaattt gagtgggtgga	120
caaaagcaaa gaatacatat tgcacgcgct ctctaccaag atgcggacat ctatctgttt	180
gatgatcctt ttagtgctgt cgatgcacac acagggtcac atctctttta ggaagctcta	240

047-E2F-PCT.ST25.txt

cgagggccttt tatgtttctaa atcgggttata tatgtaaccc atcaagttga gttctttacct 300  
tctgctgatac ttacactggg catgaaagat gggagaatca gccaaagctgg aaaatataat 360  
gatatacctca tctctggaac agattttcagg gagcttatag gtgcgcatca agagtctctg 420  
gcagtagttg ggtcggctga tgccagttct gtttctgaaa actcagcttt agacgaagaa 480  
aatggtggtg tgagagatga tattgggttc gacgggaaac aagaaagtca agatctgaag 540  
aacgataaat tagattctgg ggagccccaag agacaatttg ttcaagagga agagagggcg 600  
aaaggtagcg tcgctttgga tgtatactgg aaatatatca cactggcata cggaggagct 660  
cttgtgcctt tcatattgtt ggggcaaatt ctctttcagc ttctacagat tggaagtaac 720  
tactggatgg cttgggctac tcctatttct gaggatgtgc aagctcctgt gaaactttct 780  
acgttaatgg ttgtgtatgt tgctttggca tttggaagtt ccctctgcat tcttgttaga 840  
gccacgcttc ttgtcacggc tggttacaag actgctactg aactgtttca taaaatgcat 900  
cactgcattt tccgttctcc aatgtctttt aaaattgcaa aaacttgttc aaaaacttgt 960  
atatattcat cataa 975

<210> 176

<211> 324

<212> PRT

<213> Arabidopsis thaliana

<400> 176

Met Asp Arg Glu Arg Tyr Asp Lys Val Ile Glu Ala Cys Ser Leu Ser  
1 5 10 15

Lys Asp Leu Glu Ile Leu Ser Phe Gly Asp Gln Thr Val Ile Gly Glu  
20 25 30

Arg Gly Ile Asn Leu Ser Gly Gly Gln Lys Gln Arg Ile His Ile Ala  
35 40 45

Arg Ala Leu Tyr Gln Asp Ala Asp Ile Tyr Leu Phe Asp Asp Pro Phe  
50 55 60

Ser Ala Val Asp Ala His Thr Gly Ser His Leu Phe Lys Glu Ala Leu  
65 70 75 80

Arg Gly Leu Leu Cys Ser Lys Ser Val Ile Tyr Val Thr His Gln Val  
85 90 95

047-E2F-PCT.ST25.txt

Glu Phe Leu Pro Ser Ala Asp Leu Thr Leu Val Met Lys Asp Gly Arg  
 100 105 110  
 Ile Ser Gln Ala Gly Lys Tyr Asn Asp Ile Leu Ile Ser Gly Thr Asp  
 115 120 125  
 Phe Arg Glu Leu Ile Gly Ala His Gln Glu Ser Leu Ala Val Val Gly  
 130 135 140  
 Ser Ala Asp Ala Ser Ser Val Ser Glu Asn Ser Ala Leu Asp Glu Glu  
 145 150 155 160  
 Asn Gly Val Val Arg Asp Asp Ile Gly Phe Asp Gly Lys Gln Glu Ser  
 165 170 175  
 Gln Asp Leu Lys Asn Asp Lys Leu Asp Ser Gly Glu Pro Gln Arg Gln  
 180 185 190  
 Phe Val Gln Glu Glu Glu Arg Ala Lys Gly Ser Val Ala Leu Asp Val  
 195 200 205  
 Tyr Trp Lys Tyr Ile Thr Leu Ala Tyr Gly Gly Ala Leu Val Pro Phe  
 210 215 220  
 Ile Leu Leu Gly Gln Ile Leu Phe Gln Leu Leu Gln Ile Gly Ser Asn  
 225 230 235 240  
 Tyr Trp Met Ala Trp Ala Thr Pro Ile Ser Glu Asp Val Gln Ala Pro  
 245 250 255  
 Val Lys Leu Ser Thr Leu Met Val Val Tyr Val Ala Leu Ala Phe Gly  
 260 265 270  
 Ser Ser Leu Cys Ile Leu Val Arg Ala Thr Leu Leu Val Thr Ala Gly  
 275 280 285  
 Tyr Lys Thr Ala Thr Glu Leu Phe His Lys Met His His Cys Ile Phe  
 290 295 300  
 Arg Ser Pro Met Ser Phe Lys Ile Ala Lys Thr Cys Ser Lys Thr Cys  
 305 310 315 320  
 Ile Tyr Ser Ser

<210> 177

&lt;211&gt; 603

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 177

```

atggagtcca gtaggatgt ggagaatctg agtagagcta ttgagaagct tcttcatgag    60
aagaggaaga gagaagcttc tggtgacgcc ttcatagaag acgctgatga tcagcttttc    120
ctctctagcc ttatctctca gttggaatca ccaaacccca aggggaaaga agatgtcata    180
accggagaag aagaagaaaa agaagaagaa tctgcagatt cttcaccatc caaaggaaaa    240
agcgagggcc agagacaatt ggaagaaagt atagaagaaa tagctaaaga catcaagaag    300
gtgaagaagc agaacaaaat aacccatgta cttctctcgg ctacgatcat cctgacattg    360
gtttggcagc tctctgagta ctccatgatt ttcatgttga aagatagaat aagccacca    420
gtcagatcca tcggaggtat gcttaatgga atgttcaaag gtaagttacg tccaatcaag    480
aaccaacttg cggggacttc caactccaat gaccaaaca accatgggaa tggatcacac    540
actggacctc aacttcaagt gcccgagctg ttgcgagaat tcggtttcga cgatgaagaa    600
tga                                                                    603

```

&lt;210&gt; 178

&lt;211&gt; 200

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 178

```

Met Glu Ser Ser Glu Asp Val Glu Asn Leu Ser Arg Ala Ile Glu Lys
1          5          10          15
Leu Leu His Glu Lys Arg Lys Arg Glu Ala Ser Gly Asp Ala Phe Ile
20          25          30
Glu Asp Ala Asp Asp Gln Leu Phe Leu Ser Ser Leu Ile Ser Gln Leu
35          40          45
Glu Ser Pro Asn Pro Lys Gly Lys Glu Asp Val Ile Thr Gly Glu Glu
50          55          60
Glu Glu Lys Glu Glu Glu Ser Ala Asp Ser Ser Pro Ser Lys Gly Lys
65          70          75          80

```

047-E2F-PCT.ST25.txt

Ser Glu Gly Gln Arg Gln Leu Glu Glu Ser Ile Glu Glu Ile Ala Lys  
85 90 95

Asp Ile Lys Lys Val Lys Lys Gln Asn Lys Ile Thr His Val Leu Leu  
100 105 110

Ser Ala Thr Ile Ile Leu Thr Leu Val Trp Gln Leu Ser Glu Tyr Ser  
115 120 125

Met Ile Phe Met Leu Lys Asp Arg Ile Ser His Pro Val Arg Ser Ile  
130 135 140

Gly Gly Met Leu Asn Gly Met Phe Lys Gly Lys Leu Arg Pro Ile Lys  
145 150 155 160

Asn Gln Leu Ala Gly Thr Ser Asn Ser Asn Asp Gln Asn Asn His Gly  
165 170 175

Asn Gly Ser His Thr Gly Pro Gln Leu Gln Val Pro Glu Leu Leu Arg  
180 185 190

Glu Phe Gly Phe Asp Asp Glu Glu  
195 200

<210> 179

<211> 1626

<212> DNA

<213> Arabidopsis thaliana

<400> 179

atgaagcttc ttatgctcgc ctttgttttt ctattagctt tggcgacttg taaaggtgac	60
gagtttgttt gtgaagagaa cgagccattc acatgtaacc aaactaaact tttcaacagt	120
ggcaatttcg aaaaaggctt catcttcggt gttgcatctt ctgcttacca ggtggaaggc	180
ggtagaggcc gtggacttaa cgtttgggat agcttcactc accgattccc agagaaagggt	240
ggagctgatt tgggaaatgg agacactact tgtgactcat atactctttg gcagaaagat	300
atagacgtga tggacgagct caactctact ggctacagat tctccattgc gtggtcaaga	360
ctccttccaa aaggaaagag gagcagggga gtgaaccag gagctattaa gtactacaac	420
ggtctcatag atggcctcgt cgcaaagaat atgacgccct ttgttaccct ctttcattgg	480
gaccttcctc aaacactaca agatgaatat aacggtttct tgaacaaaac gatcgtagac	540
gatttcaagg attacgcgga tctatgtttc gagttatttg gtgatagggt aaagaactgg	600



047-E2F-PCT.ST25.txt

atcaccatca accagctata cacagtgcct actagaggat atgcattggg aacagatgca 660  
cccggtcgat gttctcctaa gattgacgtt agatgtcccg gcggaaattc gtcaacagaa 720  
ccctatatgg ttgcacataa ccagcttctt gctcatgcag cggccgttga tgtttacagg 780  
acgaaatata aggatgacca aaaaggtatg attggaccag tgatgataac tagatggttt 840  
cttccatttg atcatagtca agagagcaaa gatgcaactg agcgggctaa aatatttttc 900  
catggatggg tcatggggcc tctaacagaa ggtaaatacc cagacatcat gaggggaatat 960  
gttggatgat ggcttccaga gttcagtga acagaagccg cacttgtaaa gggttcatat 1020  
gattttcttg gtctcaacta ttacgtcact caatacgccc aaaataatca gacgattggt 1080  
ccttcggacg tacacactgc cttgatggac tcacgcacaa ctctcacatc taaaaatgca 1140  
actggatcat ctctgggtcc accgttcaat gcagccagtt actactacc aaaaggcatt 1200  
tactacgtaa tggattactt caaaaccact tacgggtgacc ctttaatat tgtcactgag 1260  
aatggattta gtaccccgagg tgatgaggac tttgagaagg ctactgccga ttacaagcgg 1320  
attgattatc tctgtagtca tctctgtttc ctcagtaaag tcatcaagga gaagaatgtc 1380  
aacgtgaaag gatattttgc ttgggtctctt ggggataatt acgaattctg taacggattt 1440  
accgtcagat tcggactaag ttacgttgat ttcgcaaata tcaactggtga tagagacctc 1500  
aaagcatctg gcaaattggt ccagaagttc ataaacgtta ccgacgaaga ctctacgaac 1560  
caagatctac tccgctcaag cgtctcctcc aagaaccgtg atcggaagag tcttgcagat 1620  
gcatga 1626

<210> 180

<211> 541

<212> PRT

<213> Arabidopsis thaliana

<400> 180

Met Lys Leu Leu Met Leu Ala Phe Val Phe Leu Leu Ala Leu Ala Thr  
1 5 10 15

Cys Lys Gly Asp Glu Phe Val Cys Glu Glu Asn Glu Pro Phe Thr Cys  
20 25 30

Asn Gln Thr Lys Leu Phe Asn Ser Gly Asn Phe Glu Lys Gly Phe Ile  
35 40 45

Phe Gly Val Ala Ser Ser Ala Tyr Gln Val Glu Gly Gly Arg Gly Arg  
Page 267

50

55

Gly Leu Asn Val Trp Asp Ser Phe Thr His Arg Phe Pro Glu Lys Gly  
65 70 75 80

Gly Ala Asp Leu Gly Asn Gly Asp Thr Thr Cys Asp Ser Tyr Thr Leu  
85 90 95

Trp Gln Lys Asp Ile Asp Val Met Asp Glu Leu Asn Ser Thr Gly Tyr  
100 105 110

Arg Phe Ser Ile Ala Trp Ser Arg Leu Leu Pro Lys Gly Lys Arg Ser  
115 120 125

Arg Gly Val Asn Pro Gly Ala Ile Lys Tyr Tyr Asn Gly Leu Ile Asp  
130 135 140

Gly Leu Val Ala Lys Asn Met Thr Pro Phe Val Thr Leu Phe His Trp  
145 150 155 160

Asp Leu Pro Gln Thr Leu Gln Asp Glu Tyr Asn Gly Phe Leu Asn Lys  
165 170 175

Thr Ile Val Asp Asp Phe Lys Asp Tyr Ala Asp Leu Cys Phe Glu Leu  
180 185 190

Phe Gly Asp Arg Val Lys Asn Trp Ile Thr Ile Asn Gln Leu Tyr Thr  
195 200 205

Val Pro Thr Arg Gly Tyr Ala Leu Gly Thr Asp Ala Pro Gly Arg Cys  
210 215 220

Ser Pro Lys Ile Asp Val Arg Cys Pro Gly Gly Asn Ser Ser Thr Glu  
225 230 235 240

Pro Tyr Ile Val Ala His Asn Gln Leu Leu Ala His Ala Ala Ala Val  
245 250 255

Asp Val Tyr Arg Thr Lys Tyr Lys Asp Asp Gln Lys Gly Met Ile Gly  
260 265 270

Pro Val Met Ile Thr Arg Trp Phe Leu Pro Phe Asp His Ser Gln Glu  
275 280 285

Ser Lys Asp Ala Thr Glu Arg Ala Lys Ile Phe Phe His Gly Trp Phe  
290 295 300

Met Gly Pro Leu Thr Glu Gly Lys Tyr Pro Asp Ile Met Arg Glu Tyr  
 305 310 315 320  
 Val Gly Asp Arg Leu Pro Glu Phe Ser Glu Thr Glu Ala Ala Leu Val  
 325 330 335  
 Lys Gly Ser Tyr Asp Phe Leu Gly Leu Asn Tyr Tyr Val Thr Gln Tyr  
 340 345 350  
 Ala Gln Asn Asn Gln Thr Ile Val Pro Ser Asp Val His Thr Ala Leu  
 355 360 365  
 Met Asp Ser Arg Thr Thr Leu Thr Ser Lys Asn Ala Thr Gly His Ala  
 370 375 380  
 Pro Gly Pro Pro Phe Asn Ala Ala Ser Tyr Tyr Tyr Pro Lys Gly Ile  
 385 390 395 400  
 Tyr Tyr Val Met Asp Tyr Phe Lys Thr Thr Tyr Gly Asp Pro Leu Ile  
 405 410 415  
 Tyr Val Thr Glu Asn Gly Phe Ser Thr Pro Gly Asp Glu Asp Phe Glu  
 420 425 430  
 Lys Ala Thr Ala Asp Tyr Lys Arg Ile Asp Tyr Leu Cys Ser His Leu  
 435 440 445  
 Cys Phe Leu Ser Lys Val Ile Lys Glu Lys Asn Val Asn Val Lys Gly  
 450 455 460  
 Tyr Phe Ala Trp Ser Leu Gly Asp Asn Tyr Glu Phe Cys Asn Gly Phe  
 465 470 475 480  
 Thr Val Arg Phe Gly Leu Ser Tyr Val Asp Phe Ala Asn Ile Thr Gly  
 485 490 495  
 Asp Arg Asp Leu Lys Ala Ser Gly Lys Trp Phe Gln Lys Phe Ile Asn  
 500 505 510  
 Val Thr Asp Glu Asp Ser Thr Asn Gln Asp Leu Leu Arg Ser Ser Val  
 515 520 525  
 Ser Ser Lys Asn Arg Asp Arg Lys Ser Leu Ala Asp Ala  
 530 535 540

&lt;210&gt; 181

&lt;211&gt; 2742

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 181

```

atgtctctca gtcacctcct ccgccgtctc tgtacaacca ctaccactac ccgtagccct    60
ctttccatct cgttcctcca ccaacgcata cacaacatct cactttcccc ggcaaataaa    120
gatccggaga cgaccactgg taataatcag gattcagaga aatacccaaa ccttaatccc    180
attccaaatg atccttccca attccagatt cctcagaatc acaccctcc aattccctat    240
ccacccatcc cgcatactac catggccttc tcttcagccg aagaagccgc tgctgagcgc    300
cgccgccgta aacgtcgtct ccgaattgaa cctcctctcc acgctctccg tcgcatcct    360
tcagctcctc ctccaaaacg tgatcccaac gcgccacggc ttccggattc aacttccgct    420
ctcgtcggcc aaaggcttaa ccttcacaac agagtccaat cactgatcag agcatcagat    480
ctcgacgctg catcaaagct cgctcgccag tctgtgtttt ccaatactcg acctactgtc    540
ttcacctgta acgcatcat cgccgctatg taccgagcca agcgttacag tgaatcgatt    600
tctctatttc agtatttctt taagcagtct aacatcgtcc ccaatgtagt ctcatacaat    660
cagatcatca acgctcattg tgatgaaggg aatgtcgacg aagcccttga agtgtacaga    720
cacatattgg ctaatgctcc ttttgctcca tcctcagtta cttatagaca tttgaccaa    780
ggtttggttc aagctggaag gatcggagat gctgagagtt tattaaggga gatgttgagc    840
aaaggtaag ctgaggattc cacggtgtac aacaatctga ttaggggata tttggacctt    900
ggtgatttcg ataaggctgt tgagttcttt gatgaattga agtctaagtg tactgtttat    960
gatgggattg tgaatgctac ctttatggag tactggtttg agaaaggga cgataaggaa   1020
gctatggagt cttacaggtc tttgttagat aagaaattca gaatgcatcc accgactgg    1080
aatgtacttt tggaagtgtt tcttaagttt ggtaagaagg atgaagcttg ggctttgttt   1140
aatgagatgt tggataatca cgctcctccg aatatccttt cggatgaattc ggatacggtt   1200
ggtataatgg tcaatgaatg tttcaagatg ggagagttta gtgaagctat taatacattc   1260
aagaaggctc gaagtaaggc cacctccaaa ccgtttgtga tggattattt aggttactgt   1320
aacatagtaa caagattctg tgaacaaggg atgttaacag aagctgaaag gttctttgct   1380
gaagggtgat ctagatcttt gcctgctgat gctccaagtc atagagcaat gatcgatgct   1440
tatctcaagg cagagagaat tgacgatgct gtcaagatgt tggacaggat ggttgatgtg   1500
aatctacggg tggttgctga tttcgggtga agagtctttg gtgagctgat taagaatggt   1560
aagctcacgg aatctgcaga agttttgact aagatgggag agagggaacc aaaaccagat   1620
ccttccattt atgatgtggt ggtagaggt ctttgtgatg gtgatgcact tgaccaagcc   1680

```

047-E2F-PCT.ST25.txt

aaggacattg ttggtgagat gattagacat aatgttgggg ttactactgt gctgcgggaa 1740  
 ttcatcattg aggtttttga gaaggcagga cgtcgtgagg agattgagaa aattttgaac 1800  
 tctgttgccc ggccggttag aaacgctggg cagtctggta acactccacc tagggtagcc 1860  
 gcagtgtttg gaaccacacc tgcagctccg cagcagccta gagacagggc cccatggacg 1920  
 agccaaggag tgggtgattc caattcaggt tgggccaatg gaactgcagg tcaaacagca 1980  
 ggaggagctt acaaggctaa taatggccag aatccctctt ggtccaacac gtctgataac 2040  
 cagcagcaac aatcgtggtc gaatcagacg gcagggcaac agccaccgtc atgggtcgaga 2100  
 caggcaccgg gatataca gcagcaatct tgggtctcagc aatcgggggtg gtcaagtcct 2160  
 tcaggtcatc agcaatcatg gactaatcag acagctggcc agcagcaacc ttgggctaata 2220  
 cagacgcctg gtcagcagca acagtgggct aatcaaacgc ctgggtcagca gcaacaattg 2280  
 gctaatacaga cgcttgcca gcagcaacag tgggctaatac aaacgcctgg ccagcagcaa 2340  
 caatgggcta atcagaataa tggtcaccag caaccgtggg ctaatacagaa cactgggtcat 2400  
 cagcaatcat gggctaatac gactcctagc cagcagcaac catgggctaa tcagacaacc 2460  
 ggccagcaac aaggggtgggg aaatcagaca accggccagc aacagcagtg ggctaaccag 2520  
 acagctggcc agcagtcagg gtggacagcg cagcaacagt ggtctaatac gacagctagc 2580  
 catcagcagt cacagtgggt aaatcccgtg ccaggagagg tggctaatac gacaccgtgg 2640  
 tcaaactctg tggacagtca tcttcctcaa caacaggagc cagggccttc ccatgagtg 2700  
 caagagacac aagaaaaaaa ggtagtggag ttgaggaact ag 2742

<210> 182

<211> 913

<212> PRT

<213> Arabidopsis thaliana

<400> 182

Met Ser Leu Ser His Leu Leu Arg Arg Leu Cys Thr Thr Thr Thr Thr  
 1 5 10 15

Thr Arg Ser Pro Leu Ser Ile Ser Phe Leu His Gln Arg Ile His Asn  
 20 25 30

Ile Ser Leu Ser Pro Ala Asn Glu Asp Pro Glu Thr Thr Thr Gly Asn  
 35 40 45

Asn Gln Asp Ser Glu Lys Tyr Pro Asn Leu Asn Pro Ile Pro Asn Asp  
 Page 271

50

55

Pro Ser Gln Phe Gln Ile Pro Gln Asn His Thr Pro Pro Ile Pro Tyr  
65 70 75 80

Pro Pro Ile Pro His Arg Thr Met Ala Phe Ser Ser Ala Glu Glu Ala  
85 90 95

Ala Ala Glu Arg Arg Arg Arg Lys Arg Arg Leu Arg Ile Glu Pro Pro  
100 105 110

Leu His Ala Leu Arg Arg Asp Pro Ser Ala Pro Pro Pro Lys Arg Asp  
115 120 125

Pro Asn Ala Pro Arg Leu Pro Asp Ser Thr Ser Ala Leu Val Gly Gln  
130 135 140

Arg Leu Asn Leu His Asn Arg Val Gln Ser Leu Ile Arg Ala Ser Asp  
145 150 155 160

Leu Asp Ala Ala Ser Lys Leu Ala Arg Gln Ser Val Phe Ser Asn Thr  
165 170 175

Arg Pro Thr Val Phe Thr Cys Asn Ala Ile Ile Ala Ala Met Tyr Arg  
180 185 190

Ala Lys Arg Tyr Ser Glu Ser Ile Ser Leu Phe Gln Tyr Phe Phe Lys  
195 200 205

Gln Ser Asn Ile Val Pro Asn Val Val Ser Tyr Asn Gln Ile Ile Asn  
210 215 220

Ala His Cys Asp Glu Gly Asn Val Asp Glu Ala Leu Glu Val Tyr Arg  
225 230 235 240

His Ile Leu Ala Asn Ala Pro Phe Ala Pro Ser Ser Val Thr Tyr Arg  
245 250 255

His Leu Thr Lys Gly Leu Val Gln Ala Gly Arg Ile Gly Asp Ala Ala  
260 265 270

Ser Leu Leu Arg Glu Met Leu Ser Lys Gly Gln Ala Ala Asp Ser Thr  
275 280 285

Val Tyr Asn Asn Leu Ile Arg Gly Tyr Leu Asp Leu Gly Asp Phe Asp  
290 295 300

## 047-E2F-PCT.ST25.txt

Lys Ala Val Glu Phe Phe Asp Glu Leu Lys Ser Lys Cys Thr Val Tyr  
 305 310 315 320  
 Asp Gly Ile Val Asn Ala Thr Phe Met Glu Tyr Trp Phe Glu Lys Gly  
 325 330 335  
 Asn Asp Lys Glu Ala Met Glu Ser Tyr Arg Ser Leu Leu Asp Lys Lys  
 340 345 350  
 Phe Arg Met His Pro Pro Thr Gly Asn Val Leu Leu Glu Val Phe Leu  
 355 360 365  
 Lys Phe Gly Lys Lys Asp Glu Ala Trp Ala Leu Phe Asn Glu Met Leu  
 370 375 380  
 Asp Asn His Ala Pro Pro Asn Ile Leu Ser Val Asn Ser Asp Thr Val  
 385 390 395 400  
 Gly Ile Met Val Asn Glu Cys Phe Lys Met Gly Glu Phe Ser Glu Ala  
 405 410 415  
 Ile Asn Thr Phe Lys Lys Val Gly Ser Lys Val Thr Ser Lys Pro Phe  
 420 425 430  
 Val Met Asp Tyr Leu Gly Tyr Cys Asn Ile Val Thr Arg Phe Cys Glu  
 435 440 445  
 Gln Gly Met Leu Thr Glu Ala Glu Arg Phe Phe Ala Glu Gly Val Ser  
 450 455 460  
 Arg Ser Leu Pro Ala Asp Ala Pro Ser His Arg Ala Met Ile Asp Ala  
 465 470 475 480  
 Tyr Leu Lys Ala Glu Arg Ile Asp Asp Ala Val Lys Met Leu Asp Arg  
 485 490 495  
 Met Val Asp Val Asn Leu Arg Val Val Ala Asp Phe Gly Ala Arg Val  
 500 505 510  
 Phe Gly Glu Leu Ile Lys Asn Gly Lys Leu Thr Glu Ser Ala Glu Val  
 515 520 525  
 Leu Thr Lys Met Gly Glu Arg Glu Pro Lys Pro Asp Pro Ser Ile Tyr  
 530 535 540  
 Asp Val Val Val Arg Gly Leu Cys Asp Gly Asp Ala Leu Asp Gln Ala  
 545 550 555 560

047-E2F-PCT.ST25.txt

Lys Asp Ile Val Gly Glu Met Ile Arg His Asn Val Gly Val Thr Thr  
 565 570 575  
 Val Leu Arg Glu Phe Ile Ile Glu Val Phe Glu Lys Ala Gly Arg Arg  
 580 585 590  
 Glu Glu Ile Glu Lys Ile Leu Asn Ser Val Ala Arg Pro Val Arg Asn  
 595 600 605  
 Ala Gly Gln Ser Gly Asn Thr Pro Pro Arg Val Pro Ala Val Phe Gly  
 610 615 620  
 Thr Thr Pro Ala Ala Pro Gln Gln Pro Arg Asp Arg Ala Pro Trp Thr  
 625 630 635 640  
 Ser Gln Gly Val Val His Ser Asn Ser Gly Trp Ala Asn Gly Thr Ala  
 645 650 655  
 Gly Gln Thr Ala Gly Gly Ala Tyr Lys Ala Asn Asn Gly Gln Asn Pro  
 660 665 670  
 Ser Trp Ser Asn Thr Ser Asp Asn Gln Gln Gln Gln Ser Trp Ser Asn  
 675 680 685  
 Gln Thr Ala Gly Gln Gln Pro Pro Ser Trp Ser Arg Gln Ala Pro Gly  
 690 695 700  
 Tyr Gln Gln Gln Gln Ser Trp Ser Gln Gln Ser Gly Trp Ser Ser Pro  
 705 710 715 720  
 Ser Gly His Gln Gln Ser Trp Thr Asn Gln Thr Ala Gly Gln Gln Gln  
 725 730 735  
 Pro Trp Ala Asn Gln Thr Pro Gly Gln Gln Gln Gln Trp Ala Asn Gln  
 740 745 750  
 Thr Pro Gly Gln Gln Gln Gln Leu Ala Asn Gln Thr Pro Gly Gln Gln  
 755 760 765  
 Gln Gln Trp Ala Asn Gln Thr Pro Gly Gln Gln Gln Gln Trp Ala Asn  
 770 775 780  
 Gln Asn Asn Gly His Gln Gln Pro Trp Ala Asn Gln Asn Thr Gly His  
 785 790 795 800  
 Gln Gln Ser Trp Ala Asn Gln Thr Pro Ser Gln Gln Gln Pro Trp Ala  
 805 810 815



Asn Gln Thr Thr Gly Gln Gln Gln Gly Trp Gly Asn Gln Thr Thr Gly  
                   820                                  825                                  830  
 Gln Gln Gln Gln Trp Ala Asn Gln Thr Ala Gly Gln Gln Ser Gly Trp  
                   835                                  840                                  845  
 Thr Ala Gln Gln Gln Trp Ser Asn Gln Thr Ala Ser His Gln Gln Ser  
           850                                  855                                  860  
 Gln Trp Leu Asn Pro Val Pro Gly Glu Val Ala Asn Gln Thr Pro Trp  
  865                                  870                                  875                                  880  
 Ser Asn Ser Val Asp Ser His Leu Pro Gln Gln Gln Glu Pro Gly Pro  
                                   885                                  890                                  895  
 Ser His Glu Cys Gln Glu Thr Gln Glu Lys Lys Val Val Glu Leu Arg  
                   900                                  905                                  910

Asn

<210> 183

<211> 804

<212> DNA

<213> Arabidopsis thaliana

<400> 183

atggaagctt cacccaatga tcgacttcat tttggcaaaa tgggtttcgg gtgtaagcat	60
tacaagagga gatgccaaat cagagctcca tgttgcaacg aagtcttcga ttgtcgccat	120
tgtcacaacg agagcactag cacattgcgc aatatctacg accgtcacga tcttgttcgt	180
caagacgtta aacaagtgat ttgttctggt tgcgatacag agcagccggc agctcaagtt	240
tgttcgaatt gtggtgtcaa catgggagaa tttttttgca gcatctgcat attctatgat	300
gatgatactg aaaaacaaca gtttcattgc gatgactgtg gaatttgag agttgggtggg	360
cgtgagaatt tcttccattg caagaagtgt ggatcttggt atgcggttgg tctgcgcaac	420
aaccatcgct gcgttgagaa ttcaatgcgt catcactgtc ccatttggtta cgagtacctt	480
tttgactctc taaaggacac aaatgtgatg aaatgcgggc acacaatgca cgtagaatgc	540
tacaacgaga tgatcaaacg tgacaagttt tgttggtccaa tttgctcgag gtcagtgatt	600
gatatgtcta aaacatggca gagactcgat gaagagatcg aagccactgc tatgccttca	660

gattaccgtg acaagaaggt ttggatactt tgcaacgatt gtaacgacac aacagaagtg 720  
 cacttccaca taatcggaca gaaatgtgga cattgcagat catacaacac acgagcgatt 780  
 ggcgcctcctg ttcttctctca atga 804

<210> 184

<211> 267

<212> PRT

<213> Arabidopsis thaliana

<400> 184

Met Glu Ala Ser Pro Asn Asp Arg Leu His Phe Gly Lys Met Gly Phe  
 1 5 10 15

Gly Cys Lys His Tyr Lys Arg Arg Cys Gln Ile Arg Ala Pro Cys Cys  
 20 25 30

Asn Glu Val Phe Asp Cys Arg His Cys His Asn Glu Ser Thr Ser Thr  
 35 40 45

Leu Arg Asn Ile Tyr Asp Arg His Asp Leu Val Arg Gln Asp Val Lys  
 50 55 60

Gln Val Ile Cys Ser Val Cys Asp Thr Glu Gln Pro Ala Ala Gln Val  
 65 70 75 80

Cys Ser Asn Cys Gly Val Asn Met Gly Glu Tyr Phe Cys Ser Ile Cys  
 85 90 95

Ile Phe Tyr Asp Asp Asp Thr Glu Lys Gln Gln Phe His Cys Asp Asp  
 100 105 110

Cys Gly Ile Cys Arg Val Gly Gly Arg Glu Asn Phe Phe His Cys Lys  
 115 120 125

Lys Cys Gly Ser Cys Tyr Ala Val Gly Leu Arg Asn Asn His Arg Cys  
 130 135 140

Val Glu Asn Ser Met Arg His His Cys Pro Ile Cys Tyr Glu Tyr Leu  
 145 150 155 160

Phe Asp Ser Leu Lys Asp Thr Asn Val Met Lys Cys Gly His Thr Met  
 165 170 175

His Val Glu Cys Tyr Asn Glu Met Ile Lys Arg Asp Lys Phe Cys Cys  
 180 185 190

Pro Ile Cys Ser Arg Ser Val Ile Asp Met Ser Lys Thr Trp Gln Arg  
 195 200 205

Leu Asp Glu Glu Ile Glu Ala Thr Ala Met Pro Ser Asp Tyr Arg Asp  
 210 215 220

Lys Lys Val Trp Ile Leu Cys Asn Asp Cys Asn Asp Thr Thr Glu Val  
 225 230 235 240

His Phe His Ile Ile Gly Gln Lys Cys Gly His Cys Arg Ser Tyr Asn  
 245 250 255

Thr Arg Ala Ile Ala Pro Pro Val Leu Pro Gln  
 260 265

<210> 185

<211> 954

<212> DNA

<213> Arabidopsis thaliana

<400> 185

atggctaatt cctcctcctt ctccccctct accaccgtaa cagatttaat ctccaccgtc	60
catgacgaca tcatagagtc tcacatcttg acacgtctcg acggcgcaac cttagcatcc	120
gtctcttgcg cctcctcaca tcttcatcat ctcgcttcca atgagatcct ctggtccaaa	180
atctgccgat ccacgtggcc ttcttgctcc ggtggttctc gttctttctt ctccgacgct	240
tattctatgg tggaaccgc cggtacagtc tctgatctcg accgtccgtt tccggaattg	300
atctccgccg tggatcttca ctacagaggg aagttgattt ttagtagagt cgtgaagacg	360
gagactacga cggcgtgggt taagagttcg ccgttgagga ttgatctggt ggatacaaag	420
gatacggtag cgacgccgat taagagaaga cagaggacgg aagacacgtg tcgtgatcta	480
gagaaggatt tgactttgag ctggatcgtg attgatccga tcgggaaacg agcggcgaat	540
atttcgagtc accggccggt gtcggtgcag aggaactgga taagcggaga agtggaggcg	600
caattcgca cgggtggtggg ggcggtggag tgtgtgatca cggtggtcac gtgcggtgag	660
gaggagatgc acgtgaggga agtgagtctc aaggtagaga agatggaggg aacgcattta	720
aacgggaggg acagtttggt tattttaagg agtgtcatgg agggtaaaag ggtaaattga	780
agtaggaggg aagtagaatc gaagaagaga cacgaagagt ttatggagaa gaagagagag	840

atgaaggaga agaagatgag ggtagaatcg gtatttgaca ttttgactgt agcttttggt 900  
 attttaggct ttgtgttgct tgttgtgttt tgtcttttga gaacctctat atga 954

<210> 186

<211> 317

<212> PRT

<213> Arabidopsis thaliana

<400> 186

Met Ala Asn Ser Ser Ser Phe Ser Pro Ser Thr Thr Val Thr Asp Leu  
 1 5 10 15  
 Ile Ser Thr Val His Asp Asp Ile Ile Glu Ser His Ile Leu Thr Arg  
 20 25 30  
 Leu Asp Gly Ala Thr Leu Ala Ser Val Ser Cys Ala Ser Ser His Leu  
 35 40 45  
 His His Leu Ala Ser Asn Glu Ile Leu Trp Ser Lys Ile Cys Arg Ser  
 50 55 60  
 Thr Trp Pro Ser Cys Ser Gly Gly Ser Arg Ser Phe Phe Ser Asp Ala  
 65 70 75 80  
 Tyr Ser Met Val Glu Thr Ala Gly Thr Val Ser Asp Leu Asp Arg Pro  
 85 90 95  
 Phe Pro Glu Leu Ile Ser Ala Val Asp Leu His Tyr Arg Gly Lys Leu  
 100 105 110  
 Ile Phe Ser Arg Val Val Lys Thr Glu Thr Thr Thr Ala Trp Phe Lys  
 115 120 125  
 Ser Ser Pro Leu Arg Ile Asp Leu Val Asp Thr Lys Asp Thr Val Ala  
 130 135 140  
 Thr Pro Ile Lys Arg Arg Gln Arg Thr Glu Asp Thr Cys Arg Asp Leu  
 145 150 155 160  
 Glu Lys Asp Leu Thr Leu Ser Trp Ile Val Ile Asp Pro Ile Gly Lys  
 165 170 175  
 Arg Ala Ala Asn Ile Ser Ser His Arg Pro Val Ser Val Gln Arg Asn  
 180 185 190

047-E2F-PCT.ST25.txt

Trp Ile Ser Gly Glu Val Glu Ala Gln Phe Ala Thr Val Val Gly Ala  
195 200 205

Val Glu Cys Val Ile Thr Val Val Thr Cys Gly Glu Glu Glu Met His  
210 215 220

Val Arg Glu Val Ser Leu Lys Val Glu Lys Met Glu Gly Thr His Leu  
225 230 235 240

Asn Gly Arg Asp Ser Leu Val Ile Leu Arg Ser Val Met Glu Gly Lys  
245 250 255

Arg Val Asn Gly Ser Arg Arg Glu Val Glu Ser Lys Lys Arg His Glu  
260 265 270

Glu Phe Met Glu Lys Lys Arg Glu Met Lys Glu Lys Lys Met Arg Val  
275 280 285

Glu Ser Val Phe Asp Ile Leu Thr Val Ala Phe Gly Ile Leu Gly Phe  
290 295 300

Val Leu Leu Val Val Phe Cys Leu Trp Arg Thr Ser Ile  
305 310 315

<210> 187

<211> 1428

<212> DNA

<213> Arabidopsis thaliana

<400> 187

atggcgactc tttatagtca agttccttct gtatcagcag ttttctctct ttacacatct	60
ttttccgcaa tcacgatgct ttttcgaaca atcctcaacg agattgtgcc taaaagaatc	120
agagagtaca tagctatgaa agctgtagac ttcttctctt cttactttca atctgatttc	180
acttttgtga tagagcaacg ttggggagttt gttgagaatc agacgttccg tgctgctgaa	240
gtttactttac ctacctgtct cgccggactt tctacaggca aacttcttgt gggttcaagt	300
aatcttaaga atccagctgc tgagccaaaa cttggtatcc ctgtgaacac taagatcatt	360
gataactttg aagggattca tctagaatgg actcttctact ctgttgaaac taagaagtat	420
ctacccgaaa aacgggtactt tcatttgaca tgtaagaagg agtttcgtga gaagataatg	480
acggattact tcacttactt agcgaaatca gcggagaaga taatgagcca tcgcgagaat	540

047-E2F-PCT.ST25.txt

ctcaagatct atacttataa ccaagaccgg tctaaatggg aatctgctat cttcgagcat 600  
cacacgacct ttgagacggt agctgttgag ccagacctaa agaagacttt gattgacgat 660  
cttgatgctt tctctaaagg aaaagacttc ttcaagagcg taggacgtgc ttggaagcga 720  
ggatatcttc ttacgggtcc accgggaacc gggaagtctt ctatggtagc tgccattgct 780  
aatcatatga agtatcatat ctatgatctt cagattcaaa gtgttagaga tgatggtgag 840  
ttgcgggaga ttcttacttc gaccaagaac cggtcgattc ttcttattga agatattgat 900  
tgtggagctg atgcttctcg tagacgtcag agtaagaaga aggaagaaga tgggtggagaa 960  
gatgatggtg agccacaaaa gaggaagaag aagtttgaag ttgggatatc tttgtctggt 1020  
ctattgaact ttgttgatgg actttggtca agttgtggag aagagaaaat cataattttc 1080  
actactaatc acaaggagaa gctcgacccg gcgttgctta gaccaggacg gatggatggt 1140  
catatttctca tggacaattg tactcccttt gtgttcaaga agcttgtggc tttgtacctt 1200  
aaaaccgatg agcatgtctt gtttgatccc attgagaagc tcattcttga agtgagttcg 1260  
actcccgctg aagtcacgca gcagctcatg gcgagtaaga acgctgatat cgcgcttaaa 1320  
ggccttgctg aattcttgga gaacaagaag ttgaaaaagg gagaagattc tagtgtggag 1380  
gaagagggag agattgaaga tgctgagact aaagaagcag aaacataa 1428

<210> 188

<211> 475

<212> PRT

<213> Arabidopsis thaliana

<400> 188

Met Ala Thr Leu Tyr Ser Gln Val Pro Ser Val Ser Ala Val Phe Ser  
1 5 10 15

Leu Tyr Thr Ser Phe Ser Ala Ile Thr Met Leu Phe Arg Thr Ile Leu  
20 25 30

Asn Glu Ile Val Pro Lys Arg Ile Arg Glu Tyr Ile Ala Met Lys Ala  
35 40 45

Val Asp Phe Phe Ser Ser Tyr Phe Gln Ser Asp Phe Thr Phe Val Ile  
50 55 60

Glu Gln Arg Trp Glu Phe Val Glu Asn Gln Thr Phe Arg Ala Ala Glu  
65 70 75 80

Val Tyr Leu Pro Thr Cys Leu Ala Gly Leu Ser Thr Gly Lys Leu Leu  
 85 90 95  
 Val Gly Ser Ser Asn Leu Lys Asn Pro Ala Ala Glu Pro Lys Leu Gly  
 100 105 110  
 Ile Pro Val Asn Thr Lys Ile Ile Asp Asn Phe Glu Gly Ile His Leu  
 115 120 125  
 Glu Trp Thr Leu His Ser Val Glu Thr Lys Lys Tyr Leu Pro Glu Lys  
 130 135 140  
 Arg Tyr Phe His Leu Thr Cys Lys Lys Glu Phe Arg Glu Lys Ile Met  
 145 150 155 160  
 Thr Asp Tyr Phe Thr Tyr Leu Ala Lys Ser Ala Glu Lys Ile Met Ser  
 165 170 175  
 His Arg Glu Asn Leu Lys Ile Tyr Thr Tyr Asn Gln Asp Arg Ser Lys  
 180 185 190  
 Trp Glu Ser Ala Ile Phe Glu His His Thr Thr Phe Glu Thr Leu Ala  
 195 200 205  
 Val Glu Pro Asp Leu Lys Lys Thr Leu Ile Asp Asp Leu Asp Ala Phe  
 210 215 220  
 Ser Lys Gly Lys Asp Phe Phe Lys Ser Val Gly Arg Ala Trp Lys Arg  
 225 230 235 240  
 Gly Tyr Leu Leu Tyr Gly Pro Pro Gly Thr Gly Lys Ser Ser Met Val  
 245 250 255  
 Ala Ala Ile Ala Asn His Met Lys Tyr His Ile Tyr Asp Leu Gln Ile  
 260 265 270  
 Gln Ser Val Arg Asp Asp Gly Glu Leu Arg Glu Ile Leu Thr Ser Thr  
 275 280 285  
 Lys Asn Arg Ser Ile Leu Leu Ile Glu Asp Ile Asp Cys Gly Ala Asp  
 290 295 300  
 Ala Ser Arg Arg Arg Gln Ser Lys Lys Lys Glu Glu Asp Gly Gly Glu  
 305 310 315 320  
 Asp Asp Gly Glu Pro Gln Lys Arg Lys Lys Lys Phe Glu Val Gly Ile  
 325 330 335

047-E2F-PCT.ST25.txt

Ser Leu Ser Gly Leu Leu Asn Phe Val Asp Gly Leu Trp Ser Ser Cys  
340 345 350

Gly Glu Glu Lys Ile Ile Ile Phe Thr Thr Asn His Lys Glu Lys Leu  
355 360 365

Asp Pro Ala Leu Leu Arg Pro Gly Arg Met Asp Val His Ile Leu Met  
370 375 380

Asp Asn Cys Thr Pro Phe Val Phe Lys Lys Leu Val Ala Leu Tyr Leu  
385 390 395 400

Lys Thr Asp Glu His Val Leu Phe Asp Pro Ile Glu Lys Leu Ile Leu  
405 410 415

Glu Val Ser Ser Thr Pro Ala Glu Val Thr Gln Gln Leu Met Ala Ser  
420 425 430

Lys Asn Ala Asp Ile Ala Leu Lys Gly Leu Ala Glu Phe Leu Glu Asn  
435 440 445

Lys Lys Leu Lys Lys Gly Glu Asp Ser Ser Val Glu Glu Glu Gly Glu  
450 455 460

Ile Glu Asp Ala Glu Thr Lys Glu Ala Glu Thr  
465 470 475

<210> 189

<211> 1800

<212> DNA

<213> Arabidopsis thaliana

<400> 189

atggctgaag ccggtgacga gaatctttac gccgccgcca gagacatcgc cagagctctc	60
ggcaaggatc caagtgccgc cggagatatc ttacagattc tctccggtta tggcgcttcc	120
ggaaaccgcg gcggagatcc tcgaccacc ccatcccgcg gcggctcaaa cgtcaacttt	180
gaccgagccc tcacctcttt agagagacag atctccagct acatcgtgga agatcgaccg	240
atctggtctg atcccgttga ctgcgcacc ttcctcgact ctgttgatga gctacttgcg	300
attgccggag acttgagatc catggccgga gataaatccg tcgccgtctg tcaatcccgt	360
gccgatgagc tgattcaaca ggtgatgttt aggcttcaag aagagtttgg atttgtaatg	420
gaccgagccc ctgactcggt tgactcggac gatgagttcc ccggcgaaga agacaacgac	480



047-E2F-PCT.ST25.txt

acaagcgacg gggtaatcgt tgctcgtcca atcactgatt acaaaatcgt gatcgaggcg 540  
 ttacaatcta gcgttatttg cgatctaaac gcgatcgctg tgcgcatggt cgctggtgga 600  
 tttgcaaaag agtgttcaag agtgtacagc agtcgacgaa gagagtttct agaggagagt 660  
 ttgtcgaggt tacatctcag aggactaagt atggaggaag tgcaagagag tccatggcaa 720  
 gatcttgaag acgaaatcga ccgttggatt aaagccgtaa cgctgatatt ccacgttttc 780  
 ttcccagacg agcgtcttct ctgcatcgcc gttttctctg atcttctctgt ttcctctgta 840  
 accgatcttt ctttcatgga agtttgtcgc ggaaccacaa cacagcttct gaatttcgca 900  
 gacgcatcg ctttaggaag ccgtttacct gaacgtttgt ttaaggttgt ggatttatac 960  
 gaagcgatgc aagaccttat tcctaagatg gaaacgctat tttctgatcg atattgttcg 1020  
 ccgctaaggc atgaggcgct cgcgattcat aaacggttag gagaagcgat tagagggata 1080  
 tttatggagc tggagaatth aatccgacgt gaccctccca aaacagcggt tcctggcggt 1140  
 gggattcacc cgatcacgcg gtacgtgatg aattatctgc gtgcggcggtg taaatcgcgg 1200  
 caatcgttgg agcagatact tgaccagaca ggaaatgaaa ccggatcaga tacgagaccg 1260  
 ttgtctgtgc aaatcatatg ggttttggag ttgttggaga gtaacttgga aggcaagaaa 1320  
 agaacttatc gtgatccgtc tttgtgtttc ttgttcatga tgaacaatga caagtatatt 1380  
 cttgataagg ctaaggataa cgagctaggt ttagtcctag gagaagattg gattgtgaag 1440  
 cacgcagcga aactgaggca ataccattct aattaccgaa ggagctcatg gaaccaagtg 1500  
 gtgggattgc ttaggaccga tgggtccgtat cccaagttag tagagaacct aagattgttc 1560  
 aaatcacagt tcgatgaggt gtgtaagggt caatctcaat gggttgttag tgatgggcaa 1620  
 ttgagggagg agttaagaag ctctgttgcc ggaattgtat ctccggcgta ctcgaatttc 1680  
 atcagaagat tgaaggagtc accggagatt aatgggaggc gtggagagcc gtttattccg 1740  
 tatactgttg aagatgtgga gtttataatc aaacggttgt tcaaggaaag ctcaagttga 1800

<210> 190

<211> 599

<212> PRT

<213> Arabidopsis thaliana

<400> 190

Met Ala Glu Ala Gly Asp Glu Asn Leu Tyr Ala Ala Ala Arg Asp Ile  
 1 5 10 15

Ala Arg Ala Leu Gly Lys Asp Pro Ser Ala Ala Gly Asp Ile Leu Gln  
 Page 283

Ile Leu Ser Gly Tyr Gly Ala Ser Gly Asn Arg Gly Gly Asp Pro Arg  
 35 40 45  
 Pro Thr Pro Ser Arg Gly Gly Ser Asn Val Asn Phe Asp Arg Ala Leu  
 50 55 60  
 Thr Ser Leu Glu Arg Gln Ile Ser Ser Tyr Ile Val Glu Asp Arg Pro  
 65 70 75 80  
 Ile Trp Ser Asp Pro Val Asp Ser Arg Thr Phe Leu Asp Ser Val Asp  
 85 90 95  
 Glu Leu Leu Ala Ile Ala Gly Asp Leu Arg Ser Met Ala Gly Asp Lys  
 100 105 110  
 Ser Val Ala Val Cys Gln Ser Arg Ala Asp Glu Leu Ile Gln Gln Val  
 115 120 125  
 Met Phe Arg Leu Gln Glu Glu Phe Gly Phe Val Met Asp Arg Ala Pro  
 130 135 140  
 Asp Ser Phe Asp Ser Asp Asp Glu Phe Pro Gly Glu Glu Asp Asn Asp  
 145 150 155 160  
 Thr Ser Asp Gly Val Ile Val Ala Arg Pro Ile Thr Asp Tyr Lys Ile  
 165 170 175  
 Val Ile Glu Ala Leu Gln Ser Ser Val Ile Gly Asp Leu Asn Ala Ile  
 180 185 190  
 Ala Val Arg Met Val Ala Gly Gly Phe Ala Lys Glu Cys Ser Arg Val  
 195 200 205  
 Tyr Ser Ser Arg Arg Arg Glu Phe Leu Glu Glu Ser Leu Ser Arg Leu  
 210 215 220  
 His Leu Arg Gly Leu Ser Met Glu Glu Val Gln Glu Ser Pro Trp Gln  
 225 230 235 240  
 Asp Leu Glu Asp Glu Ile Asp Arg Trp Ile Lys Ala Val Thr Leu Ile  
 245 250 255  
 Phe His Val Phe Phe Pro Ser Glu Arg Leu Leu Cys Asp Arg Val Phe  
 260 265 270

Ser Asp Leu Pro Val Ser Ser Val Thr Asp Leu Ser Phe Met Glu Val  
 275 280 285  
 Cys Arg Gly Thr Thr Thr Gln Leu Leu Asn Phe Ala Asp Ala Ile Ala  
 290 295 300  
 Leu Gly Ser Arg Leu Pro Glu Arg Leu Phe Lys Val Val Asp Leu Tyr  
 305 310 315 320  
 Glu Ala Met Gln Asp Leu Ile Pro Lys Met Glu Thr Leu Phe Ser Asp  
 325 330 335  
 Arg Tyr Cys Ser Pro Leu Arg His Glu Ala Leu Ala Ile His Lys Arg  
 340 345 350  
 Leu Gly Glu Ala Ile Arg Gly Ile Phe Met Glu Leu Glu Asn Leu Ile  
 355 360 365  
 Arg Arg Asp Pro Pro Lys Thr Ala Phe Pro Gly Gly Gly Ile His Pro  
 370 375 380  
 Ile Thr Arg Tyr Val Met Asn Tyr Leu Arg Ala Ala Cys Lys Ser Arg  
 385 390 395 400  
 Gln Ser Leu Glu Gln Ile Leu Asp Gln Thr Gly Asn Glu Thr Gly Ser  
 405 410 415  
 Asp Thr Arg Pro Leu Ser Val Gln Ile Ile Trp Val Leu Glu Leu Leu  
 420 425 430  
 Glu Ser Asn Leu Glu Gly Lys Lys Arg Thr Tyr Arg Asp Pro Ser Leu  
 435 440 445  
 Cys Phe Leu Phe Met Met Asn Asn Asp Lys Tyr Ile Leu Asp Lys Ala  
 450 455 460  
 Lys Asp Asn Glu Leu Gly Leu Val Leu Gly Glu Asp Trp Ile Val Lys  
 465 470 475 480  
 His Ala Ala Lys Leu Arg Gln Tyr His Ser Asn Tyr Arg Arg Ser Ser  
 485 490 495  
 Trp Asn Gln Val Val Gly Leu Leu Arg Thr Asp Gly Pro Tyr Pro Lys  
 500 505 510  
 Leu Val Glu Asn Leu Arg Leu Phe Lys Ser Gln Phe Asp Glu Val Cys  
 515 520 525

047-E2F-PCT.ST25.txt

Lys Val Gln Ser Gln Trp Val Val Ser Asp Gly Gln Leu Arg Glu Glu  
530 535 540

Leu Arg Ser Ser Val Ala Gly Ile Val Ser Pro Ala Tyr Ser Asn Phe  
545 550 555 560

Ile Arg Arg Leu Lys Glu Ser Pro Glu Ile Asn Gly Arg Arg Gly Glu  
565 570 575

Pro Phe Ile Pro Tyr Thr Val Glu Asp Val Glu Phe Ile Ile Lys Arg  
580 585 590

Leu Phe Lys Glu Ser Ser Ser  
595

<210> 191

<211> 2037

<212> DNA

<213> Arabidopsis thaliana

<400> 191

atgagaatat	taagctacgg	aatcggttatt	ctctcttttac	tcgttttctc	tttcattgaa	60
tttggcgttc	acgctcgtcc	cgtcgtttctc	gtcctctcaa	atgacgatct	caatagcggc	120
ggcgatgata	acggagtcgg	agagtcctct	gacttcgatg	agtttggaga	atccgaacct	180
aagtccgaag	aggagcttga	tcccggttca	tggcgatcga	tcttcgagcc	agatgactca	240
acagtccaag	cagcctcgcc	gcagtactac	tccggcctca	aaaagattct	atcggcggcg	300
agtgagggaa	atttcaggtt	gatggaagaa	gcagtggatg	agatagaggc	tgcttcttca	360
gctggagatc	cacacgcaca	gtcgataatg	gggttcgttt	acgggatagg	aatgatgcga	420
gagaagagca	aaagcaagtc	gtttcttcac	cataatttcg	cagctgctgg	tgggaatatg	480
cagtcgaaga	tggcacttgc	gttcacgtat	cttcgtcaag	atatgcatga	taaagctggt	540
caattatatg	ctgaattagc	agagacagct	gtcaatagtt	ttctgatctc	aaaggattct	600
ccggtgggtt	aaccaactag	aattcatagc	ggaactgaag	agaacaaagg	tgctctaagg	660
aaatctcgag	gcgaggagga	tgaagatttc	cagatattgg	aatatcaggc	acagaaaggg	720
aatgctaata	gcaatgtaca	aattggactg	ttctactact	ttggcctgcg	aggattaagg	780
cgtgatcaca	ccaaggcatt	gcattgggtt	ttgaaagcag	tagataaagg	agagccgagg	840
tcaatggaac	ttctggggga	gatatatgct	agaggagctg	gtgttgaaag	aaattatacc	900
aaggcacttg	aatggcttac	acttgctgca	aaagaaggtc	tctattcagc	atttaatgga	960

047-E2F-PCT.ST25.txt

```

attggctact tgtatgtcaa aggctatgga gtagataaga aaaactatac taaggcaaga 1020
gaatatttttg agaaggctgt tgacaatgaa gaccccagtg ggcattataa ccttggagtt 1080
ttgtatctta aaggcatcgg agtcaacagg gatgtgagggc aggcaacaaa atacttcttt 1140
gttgctgcaa atgctggtca accaaaggct ttctatcaac tcgccaagat gttccatact 1200
gggtgttgggc ttaagaagaa tctggagatg gcgacttcat ttataagct agtagcagaa 1260
agggggccgt ggagttctct ctctagatgg gctcttgaag cttacttaaa aggtgatgtg 1320
ggtaaggctt tgattttgta ctcaaggatg gcagagatgg gttatgaagt ggcacaaagt 1380
aatgctgcct ggatcctcga taaatacggc gaaagaagca tgtgcatggg agtatctgga 1440
ttttgcacag acaaagagag acatgagcgg gcacattctt tgtggtggcg ggcctctgaa 1500
caaggcaatg aacatgctgc tctgcttatt ggagatgcat attactatgg ccggggaact 1560
gagagagatt ttgtgctgctc ggcagaagca tacatgcatg ctaaatacaca gtccaatgctg 1620
caagcaatgt tcaacctcgg ttacatgcat gaacatggac aaggacttcc ctttgatctc 1680
catttagcaa aacgttacta tgatgaatcc cttcagagcg atgcagccgc gagattgcca 1740
gtcacacttg ctctcgctag cttatggctc cgtagaaact atgctgatac cgtcctggtg 1800
agagttgtgg attcattacc agaagtgtat ccgaaggtag agacttggat agagaatgtg 1860
gtgtttgaag aaggtaatgc aacaatactt acactctttg tctgtctcat cacaattctc 1920
tatctccggg aaagacaacg tagacaagtc gtcgttgttg ccgatccagt ggctgctgac 1980
gtggcacaac cgctcgacgc tgatgtggcg caacacctcg ctgcgttccc acggtaa 2037

```

<210> 192

<211> 678

<212> PRT

<213> Arabidopsis thaliana

<400> 192

Met Arg Ile Leu Ser Tyr Gly Ile Val Ile Leu Ser Leu Leu Val Phe  
1 5 10 15

Ser Phe Ile Glu Phe Gly Val His Ala Arg Pro Val Val Leu Val Leu  
20 25 30

Ser Asn Asp Asp Leu Asn Ser Gly Gly Asp Asp Asn Gly Val Gly Glu  
35 40 45

Ser Ser Asp Phe Asp Glu Phe Gly Glu Ser Glu Pro Lys Ser Glu Glu  
Page 287

50

55

Glu Leu Asp Pro Gly Ser Trp Arg Ser Ile Phe Glu Pro Asp Asp Ser  
65 70 75 80

Thr Val Gln Ala Ala Ser Pro Gln Tyr Tyr Ser Gly Leu Lys Lys Ile  
85 90 95

Leu Ser Ala Ala Ser Glu Gly Asn Phe Arg Leu Met Glu Glu Ala Val  
100 105 110

Asp Glu Ile Glu Ala Ala Ser Ser Ala Gly Asp Pro His Ala Gln Ser  
115 120 125

Ile Met Gly Phe Val Tyr Gly Ile Gly Met Met Arg Glu Lys Ser Lys  
130 135 140

Ser Lys Ser Phe Leu His His Asn Phe Ala Ala Ala Gly Gly Asn Met  
145 150 155 160

Gln Ser Lys Met Ala Leu Ala Phe Thr Tyr Leu Arg Gln Asp Met His  
165 170 175

Asp Lys Ala Val Gln Leu Tyr Ala Glu Leu Ala Glu Thr Ala Val Asn  
180 185 190

Ser Phe Leu Ile Ser Lys Asp Ser Pro Val Val Glu Pro Thr Arg Ile  
195 200 205

His Ser Gly Thr Glu Glu Asn Lys Gly Ala Leu Arg Lys Ser Arg Gly  
210 215 220

Glu Glu Asp Glu Asp Phe Gln Ile Leu Glu Tyr Gln Ala Gln Lys Gly  
225 230 235 240

Asn Ala Asn Ala Met Tyr Lys Ile Gly Leu Phe Tyr Tyr Phe Gly Leu  
245 250 255

Arg Gly Leu Arg Arg Asp His Thr Lys Ala Leu His Trp Phe Leu Lys  
260 265 270

Ala Val Asp Lys Gly Glu Pro Arg Ser Met Glu Leu Leu Gly Glu Ile  
275 280 285

Tyr Ala Arg Gly Ala Gly Val Glu Arg Asn Tyr Thr Lys Ala Leu Glu  
290 295 300

Trp Leu Thr Leu Ala Ala Lys Glu Gly Leu Tyr Ser Ala Phe Asn Gly  
 305 310 315 320  
 Ile Gly Tyr Leu Tyr Val Lys Gly Tyr Gly Val Asp Lys Lys Asn Tyr  
 325 330 335  
 Thr Lys Ala Arg Glu Tyr Phe Glu Lys Ala Val Asp Asn Glu Asp Pro  
 340 345 350  
 Ser Gly His Tyr Asn Leu Gly Val Leu Tyr Leu Lys Gly Ile Gly Val  
 355 360 365  
 Asn Arg Asp Val Arg Gln Ala Thr Lys Tyr Phe Phe Val Ala Ala Asn  
 370 375 380  
 Ala Gly Gln Pro Lys Ala Phe Tyr Gln Leu Ala Lys Met Phe His Thr  
 385 390 395 400  
 Gly Val Gly Leu Lys Lys Asn Leu Glu Met Ala Thr Ser Phe Tyr Lys  
 405 410 415  
 Leu Val Ala Glu Arg Gly Pro Trp Ser Ser Leu Ser Arg Trp Ala Leu  
 420 425 430  
 Glu Ala Tyr Leu Lys Gly Asp Val Gly Lys Ala Leu Ile Leu Tyr Ser  
 435 440 445  
 Arg Met Ala Glu Met Gly Tyr Glu Val Ala Gln Ser Asn Ala Ala Trp  
 450 455 460  
 Ile Leu Asp Lys Tyr Gly Glu Arg Ser Met Cys Met Gly Val Ser Gly  
 465 470 475 480  
 Phe Cys Thr Asp Lys Glu Arg His Glu Arg Ala His Ser Leu Trp Trp  
 485 490 495  
 Arg Ala Ser Glu Gln Gly Asn Glu His Ala Ala Leu Leu Ile Gly Asp  
 500 505 510  
 Ala Tyr Tyr Tyr Gly Arg Gly Thr Glu Arg Asp Phe Val Arg Ala Ala  
 515 520 525  
 Glu Ala Tyr Met His Ala Lys Ser Gln Ser Asn Ala Gln Ala Met Phe  
 530 535 540  
 Asn Leu Gly Tyr Met His Glu His Gly Gln Gly Leu Pro Phe Asp Leu  
 545 550 555 560

047-E2F-PCT.ST25.txt

His Leu Ala Lys Arg Tyr Tyr Asp Glu Ser Leu Gln Ser Asp Ala Ala  
565 570 575

Ala Arg Leu Pro Val Thr Leu Ala Leu Ala Ser Leu Trp Leu Arg Arg  
580 585 590

Asn Tyr Ala Asp Thr Val Leu Val Arg Val Val Asp Ser Leu Pro Glu  
595 600 605

Val Tyr Pro Lys Val Glu Thr Trp Ile Glu Asn Val Val Phe Glu Glu  
610 615 620

Gly Asn Ala Thr Ile Leu Thr Leu Phe Val Cys Leu Ile Thr Ile Leu  
625 630 635 640

Tyr Leu Arg Glu Arg Gln Arg Arg Gln Val Val Val Val Ala Asp Pro  
645 650 655

Val Ala Ala Asp Val Ala Gln Pro Leu Asp Ala Asp Val Ala Gln His  
660 665 670

Leu Ala Ala Phe Pro Arg  
675

<210> 193

<211> 3090

<212> DNA

<213> Arabidopsis thaliana

<400> 193

atggtgtttc tctcgattcc aaacgggaag actttatcga tcgacgtgaa ccctaattca	60
accaccatct ccgccttcga acaattggcc caccaacgta gtgatgttcc acaatctttc	120
cttcgttact ctctccgtat gcgaaaccct agccgcgtgt ttgtagattc aaaggattcc	180
gattcgatct tattgtccga tctcgggtgtt tctcgtttct ctactgtgat tatccatgtc	240
ctgcttttgg gtggtatgca agcggctccg ccgaagcctc gtcttgattt cctcaattct	300
aagcctccgt caaattatgt agcgggtttg ggtcgtggtg ctactgggtt tactactcga	360
tctgatattg gtcctgctcg tgctgctccg gatcttcctg atcgggtctgc tttggctaca	420
gcggctgctc caggagtagg tcgtggagca gggaagccaa gtgaagcgga agcggaggac	480
gatgaagaag ctgaggagaa aaggtacgat gagaatcaga cgtttgatga gtttgaaggg	540
aatgatgttg gtttgttcgc taatgctgag tacgatgagg atgataaaga ggctgatgcc	600



## 047-E2F-PCT.ST25.txt

atctgggagt	ctattgatca	gaggatggat	tcgaggagga	aagatcggag	agaagcgaag	660
ctgaaggaag	aatcagaaa	ataccgagcc	tcgaacccta	agattactga	gcagtttgcg	720
gatttgaaga	ggaaattaca	cactttgtct	gcggatgagt	gggatagtat	tcctgagatt	780
ggggattact	cgctgaggaa	caagaagaag	aagtttgaga	gctttgtgcc	tattcctgat	840
acgcttttgg	agaaggcgaa	gaaagaaaag	gagcttgtca	tggccttaga	cccaaagagc	900
agagccgctg	gtgggtcgga	gacaccatgg	gggcagacgc	cggtgacaga	cttgactgct	960
gtcggtgagg	gaagaggtac	ggtgttgtct	ctgaagcttg	ataacctatc	agattcagtt	1020
tcggggcaaa	ctgtagtgga	tcctaaaggc	tacttaactg	acctgaagag	tatgaaaaga	1080
accactgatg	aagagatata	cgatcgcaat	agagctagat	tgttatacaa	gagtctgacc	1140
cagtcgaatc	caaagaatcc	aaatggctgg	attgctgctg	ctagagtgga	ggaggtggat	1200
gggaagatta	aagcagctag	gtttcagatt	cagaggggct	gcgaagagtg	cccgaaaaat	1260
gaggatgttt	ggcttgaagc	ttgtaggtta	gctaattccag	aagatgccaa	gggggttatt	1320
gcgaagggag	ttaagctgat	acccaattca	gtgaagctat	ggttgagggc	tgcaaagctg	1380
gagcatgatg	tggagaacaa	gagtaggggtg	ttgagaaagg	gactggaaca	tattccagac	1440
tctgtaagac	tatggaaggc	tgttgttgag	ttggctaata	aggaggatgc	aaggattttg	1500
cttcacaggg	ctgtggagtg	ctgccctttg	catctggagc	tatgggtggc	acttgcgagg	1560
ctcgaaacat	atgctgaatc	aaagaagggtg	ttgaacaaag	cgagagagaa	gctcccaaag	1620
gagcctgcaa	tttgatcac	cgctgctaag	ttagaagaag	ctaattggga	gctagatgaa	1680
gctaattgata	acacggctat	ggtgggaaag	attattgata	gggtataaaa	gactctccag	1740
agagaagggg	ttgttattga	ccgagaaaat	tggatgagtg	aggctgaggc	atgtgagaga	1800
gttgatctg	tcgctacatg	ccaggccatt	attaagaaca	caatagggtat	tggagtggaa	1860
gaagaggata	gaaagagaac	ttgggttgct	gatgcagatg	agtgcaagaa	gaggggttcc	1920
attgagaccg	caagagcaat	atacgcccat	gctcttagtg	tattcttgac	caagaaaagt	1980
atctggctta	aagcggcgca	gcttgagaag	agccatggga	gtcgggagtc	ccttgatgcc	2040
ttgttgcgta	aggctgtaac	atatgtcccg	caagctgagg	ttctctggct	catgggtgcc	2100
aaagagaagt	ggctcgctgg	agatgttcca	gcagcccgtg	ctattctaca	agaggcttat	2160
gctgcaattc	ccaactctga	ggaaatctgg	cttgctgctt	tcaagcttga	gtttgagaac	2220
aaggagccgg	agagggcaag	aatgctgctt	gcaaaagcaa	gggaaagagg	agggactgaa	2280
agggtctgga	tgaaatcagc	cattgttgag	agagaacttg	gcaacgtaga	ggaggagagg	2340
agattgctta	atgaaggttt	gaagcaattc	ccaacattct	tcaagctttg	gttaatgctt	2400
gggcagctcg	aggaacggtt	caagcatcta	gaacaggcca	ggaaagctta	tgacactggt	2460

047-E2F-PCT.ST25.txt

ttgaagcact gtccccactg cataccactg tggctctcac tcgctgatct tgaagagaaa 2520  
 gtgaatgggc taaacaaagc tcgggctatt ctcaccacgg ccaggaagaa gaatcctggg 2580  
 ggggctgagc tatggttagc tgctattcgc gctgaactga ggcattgacaa caagagagaa 2640  
 gcagagcact tgatgtcaaa ggctctgcaa gactgtccca agagtgggtat cctctgggct 2700  
 gcggacattg agatggcgcc acgtcctcga cggaaaacaa agagtattga tgctatgaag 2760  
 aagtgtgatt gcgaccctca tgctaccata gctgttgcca agctcttttg gcaagacaag 2820  
 aaggtggaga aagccagagc atggtttgaa cgtgctgtta ccgttggccc agatattggc 2880  
 gatttctggg cgttgttcta caaatttgaa cttcaacatg gctctgatga ggacaggaag 2940  
 gaagttgtgg cgaagtgtgt agcttgtgag ccgaagcatg gcgagaaatg gcaagccatc 3000  
 tccaaagcgg ttgaaaatgc tcaccagcct attgaagtta tcttgaagag agttgtgaat 3060  
 gcgttgagca aggaagagaa ttctgcttga 3090

<210> 194

<211> 1029

<212> PRT

<213> Arabidopsis thaliana

<400> 194

Met Val Phe Leu Ser Ile Pro Asn Gly Lys Thr Leu Ser Ile Asp Val  
 1 5 10 15  
 Asn Pro Asn Ser Thr Thr Ile Ser Ala Phe Glu Gln Leu Ala His Gln  
 20 25 30  
 Arg Ser Asp Val Pro Gln Ser Phe Leu Arg Tyr Ser Leu Arg Met Arg  
 35 40 45  
 Asn Pro Ser Arg Val Phe Val Asp Ser Lys Asp Ser Asp Ser Ile Leu  
 50 55 60  
 Leu Ser Asp Leu Gly Val Ser Arg Phe Ser Thr Val Ile Ile His Val  
 65 70 75 80  
 Leu Leu Leu Gly Gly Met Gln Ala Ala Pro Pro Lys Pro Arg Leu Asp  
 85 90 95  
 Phe Leu Asn Ser Lys Pro Pro Ser Asn Tyr Val Ala Gly Leu Gly Arg  
 100 105 110

Gly Ala Thr Gly Phe Thr Thr Arg Ser Asp Ile Gly Pro Ala Arg Ala  
 115 120 125  
 Ala Pro Asp Leu Pro Asp Arg Ser Ala Leu Ala Thr Ala Ala Ala Pro  
 130 135 140  
 Gly Val Gly Arg Gly Ala Gly Lys Pro Ser Glu Ala Glu Ala Glu Asp  
 145 150 155 160  
 Asp Glu Glu Ala Glu Glu Lys Arg Tyr Asp Glu Asn Gln Thr Phe Asp  
 165 170 175  
 Glu Phe Glu Gly Asn Asp Val Gly Leu Phe Ala Asn Ala Glu Tyr Asp  
 180 185 190  
 Glu Asp Asp Lys Glu Ala Asp Ala Ile Trp Glu Ser Ile Asp Gln Arg  
 195 200 205  
 Met Asp Ser Arg Arg Lys Asp Arg Arg Glu Ala Lys Leu Lys Glu Glu  
 210 215 220  
 Ile Glu Lys Tyr Arg Ala Ser Asn Pro Lys Ile Thr Glu Gln Phe Ala  
 225 230 235 240  
 Asp Leu Lys Arg Lys Leu His Thr Leu Ser Ala Asp Glu Trp Asp Ser  
 245 250 255  
 Ile Pro Glu Ile Gly Asp Tyr Ser Leu Arg Asn Lys Lys Lys Lys Phe  
 260 265 270  
 Glu Ser Phe Val Pro Ile Pro Asp Thr Leu Leu Glu Lys Ala Lys Lys  
 275 280 285  
 Glu Lys Glu Leu Val Met Ala Leu Asp Pro Lys Ser Arg Ala Ala Gly  
 290 295 300  
 Gly Ser Glu Thr Pro Trp Gly Gln Thr Pro Val Thr Asp Leu Thr Ala  
 305 310 315 320  
 Val Gly Glu Gly Arg Gly Thr Val Leu Ser Leu Lys Leu Asp Asn Leu  
 325 330 335  
 Ser Asp Ser Val Ser Gly Gln Thr Val Val Asp Pro Lys Gly Tyr Leu  
 340 345 350  
 Thr Asp Leu Lys Ser Met Lys Arg Thr Thr Asp Glu Glu Ile Tyr Asp  
 355 360 365

## 047-E2F-PCT.ST25.txt

Arg Asn Arg Ala Arg Leu Leu Tyr Lys Ser Leu Thr Gln Ser Asn Pro  
 370 375 380  
 Lys Asn Pro Asn Gly Trp Ile Ala Ala Ala Arg Val Glu Glu Val Asp  
 385 390 395 400  
 Gly Lys Ile Lys Ala Ala Arg Phe Gln Ile Gln Arg Gly Cys Glu Glu  
 405 410 415  
 Cys Pro Lys Asn Glu Asp Val Trp Leu Glu Ala Cys Arg Leu Ala Asn  
 420 425 430  
 Pro Glu Asp Ala Lys Gly Val Ile Ala Lys Gly Val Lys Leu Ile Pro  
 435 440 445  
 Asn Ser Val Lys Leu Trp Leu Glu Ala Ala Lys Leu Glu His Asp Val  
 450 455 460  
 Glu Asn Lys Ser Arg Val Leu Arg Lys Gly Leu Glu His Ile Pro Asp  
 465 470 475 480  
 Ser Val Arg Leu Trp Lys Ala Val Val Glu Leu Ala Asn Glu Glu Asp  
 485 490 495  
 Ala Arg Ile Leu Leu His Arg Ala Val Glu Cys Cys Pro Leu His Leu  
 500 505 510  
 Glu Leu Trp Val Ala Leu Ala Arg Leu Glu Thr Tyr Ala Glu Ser Lys  
 515 520 525  
 Lys Val Leu Asn Lys Ala Arg Glu Lys Leu Pro Lys Glu Pro Ala Ile  
 530 535 540  
 Trp Ile Thr Ala Ala Lys Leu Glu Glu Ala Asn Gly Lys Leu Asp Glu  
 545 550 555 560  
 Ala Asn Asp Asn Thr Ala Met Val Gly Lys Ile Ile Asp Arg Gly Ile  
 565 570 575  
 Lys Thr Leu Gln Arg Glu Gly Val Val Ile Asp Arg Glu Asn Trp Met  
 580 585 590  
 Ser Glu Ala Glu Ala Cys Glu Arg Val Gly Ser Val Ala Thr Cys Gln  
 595 600 605  
 Ala Ile Ile Lys Asn Thr Ile Gly Ile Gly Val Glu Glu Glu Asp Arg  
 610 615 620

047-E2F-PCT.ST25.txt

Lys Arg Thr Trp Val Ala Asp Ala Asp Glu Cys Lys Lys Arg Gly Ser  
 625 630 635 640  
 Ile Glu Thr Ala Arg Ala Ile Tyr Ala His Ala Leu Ser Val Phe Leu  
 645 650 655  
 Thr Lys Lys Ser Ile Trp Leu Lys Ala Ala Gln Leu Glu Lys Ser His  
 660 665 670  
 Gly Ser Arg Glu Ser Leu Asp Ala Leu Leu Arg Lys Ala Val Thr Tyr  
 675 680 685  
 Val Pro Gln Ala Glu Val Leu Trp Leu Met Gly Ala Lys Glu Lys Trp  
 690 695 700  
 Leu Ala Gly Asp Val Pro Ala Ala Arg Ala Ile Leu Gln Glu Ala Tyr  
 705 710 715 720  
 Ala Ala Ile Pro Asn Ser Glu Glu Ile Trp Leu Ala Ala Phe Lys Leu  
 725 730 735  
 Glu Phe Glu Asn Lys Glu Pro Glu Arg Ala Arg Met Leu Leu Ala Lys  
 740 745 750  
 Ala Arg Glu Arg Gly Gly Thr Glu Arg Val Trp Met Lys Ser Ala Ile  
 755 760 765  
 Val Glu Arg Glu Leu Gly Asn Val Glu Glu Glu Arg Arg Leu Leu Asn  
 770 775 780  
 Glu Gly Leu Lys Gln Phe Pro Thr Phe Phe Lys Leu Trp Leu Met Leu  
 785 790 795 800  
 Gly Gln Leu Glu Glu Arg Phe Lys His Leu Glu Gln Ala Arg Lys Ala  
 805 810 815  
 Tyr Asp Thr Gly Leu Lys His Cys Pro His Cys Ile Pro Leu Trp Leu  
 820 825 830  
 Ser Leu Ala Asp Leu Glu Glu Lys Val Asn Gly Leu Asn Lys Ala Arg  
 835 840 845  
 Ala Ile Leu Thr Thr Ala Arg Lys Lys Asn Pro Gly Gly Ala Glu Leu  
 850 855 860  
 Trp Leu Ala Ala Ile Arg Ala Glu Leu Arg His Asp Asn Lys Arg Glu

Page 296

047-E2F-PCT.ST25.txt

tctactctga cttctttcgg aaaactgatt ggcttagatg tattacagct tagtgaaata 360  
 tgccaagaga gtgattcctt tccttctgat gccacatcat ctaaactact aaagctgctt 420  
 ggatttgaag gaggaaagtg cttggatgtg aacctatatg acttggtttt tgttcatttc 480  
 ggggttgatg aatataataa cgggaacaac atgggaattc tcgactcttt gattggcagt 540  
 attatgggaa tggctcaacc aggttcagag attctatcgc gggtgcatct gtctgtcgtt 600  
 cttagctatg gttctgtcac agacaaagat gtttcagttt ttccaatcaa gactccacaa 660  
 gaagacatta acccggcatt tataggactt gtcccgcgtc agagctacac catgcgaggt 720  
 gaaaagacac gggatgatgt tcggcactac tgtcctatgt tggtagctca gtggcagcat 780  
 ggggtgaccc ggaagactt agttgatacc ttatcatttg aagctctcaa aaagctctgt 840  
 ggaaatcttg ttataccggc tgatcggttc atccacgaag ttgctttcaa actttggaaa 900  
 gccccaaaat atggagctta a 921

<210> 196

<211> 306

<212> PRT

<213> Arabidopsis thaliana

<400> 196

Met Ala Asp Lys Ser Ser Arg Ser Leu Ile Leu Tyr Gly Asp Gly Leu  
 1 5 10 15

Ala Arg Phe Val Asp Pro Ser Asn Thr Asn Ile His Ser Leu Ala Ser  
 20 25 30

Val Ala Thr Cys Gly Phe Leu Ser Leu Pro Asn Ala Pro Pro Glu Thr  
 35 40 45

Glu Asn Glu Arg Ile Val Arg Glu Phe Ser His Leu Leu Asp Ala Ser  
 50 55 60

Glu Ala Tyr Ser Ile Ala Ser Gly Leu Lys Pro Lys Gly Asn Gly Asn  
 65 70 75 80

Asp Ile Ser Thr Leu Ala Glu Arg Phe Met Gly Leu Lys Ala Ala Leu  
 85 90 95

Val Thr Asp Ser Ser Thr Leu Thr Ser Phe Gly Lys Leu Ile Gly Leu  
 100 105 110

047-E2F-PCT.ST25.txt

Asp Val Leu Gln Leu Ser Glu Ile Cys Gln Glu Ser Asp Ser Phe Pro  
115 120 125

Ser Asp Ala Thr Ser Ser Lys Leu Leu Lys Leu Leu Gly Phe Glu Gly  
130 135 140

Gly Lys Cys Leu Asp Val Asn Leu Tyr Asp Leu Val Phe Val His Phe  
145 150 155 160

Gly Val Asp Glu Tyr Asn Asn Gly Asn Asn Met Gly Ile Leu Asp Ser  
165 170 175

Leu Ile Gly Ser Ile Met Gly Met Ala Gln Pro Gly Ser Glu Ile Leu  
180 185 190

Ser Arg Leu His Leu Ser Val Val Leu Ser Tyr Gly Ser Val Thr Asp  
195 200 205

Lys Asp Val Ser Val Phe Pro Ile Lys Thr Pro Gln Glu Asp Ile Asn  
210 215 220

Pro Ala Phe Ile Gly Leu Val Pro Arg Gln Ser Tyr Thr Met Arg Gly  
225 230 235 240

Glu Lys Thr Arg Asp Asp Val Arg His Tyr Cys Pro Met Leu Val Ala  
245 250 255

Gln Trp Gln His Gly Val Thr Arg Lys Asp Leu Val Asp Thr Leu Ser  
260 265 270

Phe Glu Ala Leu Lys Lys Leu Cys Gly Asn Leu Val Ile Pro Ala Asp  
275 280 285

Arg Phe Ile His Glu Val Ala Phe Lys Leu Trp Lys Ala Pro Lys Tyr  
290 295 300

Gly Ala  
305

<210> 197

<211> 6030

<212> DNA

<213> Arabidopsis thaliana



&lt;400&gt; 197

atgttgaaaa	ggaagcttac	gagtccgaag	aaatctaagc	cgtcgaagaa	gacgaagaag	60
aactctaaaa	cccaattcga	tgattctcca	gtagaggtcg	tagaaaccaa	agctgaagag	120
cttccgcgta	cgggttcgaa	gaaatcgaat	ccgtcgaaga	agagaaagca	gacgaagaag	180
aattctgaaa	ctcaatttga	agattcttca	gtagaggtcg	tagaaaccaa	agcttgtgac	240
caggaggaaa	cggttacgga	cattgttggt	gaagagggtc	catggaagaa	ccttgaactc	300
atactttcgt	tgcagagcaa	tacattgggc	tttaaaaaga	aggtggagtt	ggcttttagt	360
tttgttaaag	gttatggagg	agaaaatggg	actaatgagg	atgaagaatg	tcaagcggtt	420
aagatatcgc	ggctgattat	atctctcagc	gactggatcc	agtctctttt	gattccttca	480
gagaagaata	ttaaagttaa	gtgtgattta	gattctgaac	catgtttgga	cttcagggtgt	540
tgggagatct	tcagtttctg	cttgaaggag	gcgacaatct	tgggagtctc	tttaaatttg	600
tcaagaaacc	tattaaaggc	tattgggctt	atcacgggaa	gattttttatc	tgccctgaac	660
gaatccttgg	ctacgggggt	tgatttctgc	aatgggtcaag	gttttgtagt	ttacagttct	720
gtggttgatt	gtctcggctt	gttattttca	tcgaaaagtg	gcatgtctaa	tgacaattta	780
gacttgtggt	tttcgactgt	tgaaccagtt	ctgaagctca	cacatacggg	tcttgtagag	840
aatatcaagg	atagtcttgg	tgacagacat	gtccttaaata	tctcttgctt	ggttcttgag	900
ccattctcta	ggttcttaata	gactcatcca	actacgaaga	atgggttttg	tgattttctg	960
gacaagcttt	ttgagccatt	tatggatgtg	ttgggtttat	taaatctcat	cgaggacaaa	1020
aacaaggatt	tggagatatc	cttgctgagg	ttgattgaag	acatattatc	tctggctctg	1080
tttcattcag	ctcatattga	tgggttctta	ggcctgggtg	gagcgaaaaa	gtatttacca	1140
gaatcgaaag	agaacaaaac	tattctgaaa	agctatcatc	ggcatttttt	taccaagttc	1200
aaaaatatgc	tattaatgaa	gaaggagttg	gagctgagct	gtatgggggtc	attgtttaaa	1260
gtgtttattt	acagagtgat	gaaacaacaa	agagatccta	atcagttgca	ggaaggcatg	1320
atgacaaagg	cctcaaagtc	gaggcaagca	gaagaaaggc	catggaagct	ggcggacaca	1380
gctacaaatg	ataatgggtc	ttctacaaaa	agtcattact	caagttccct	ccggctggag	1440
acacgaaaat	caatttttga	tttcttcctg	catcttatgg	aacctatatt	acttgagatc	1500
aatggatata	atcagtctgg	ctctgaaatg	gctcctttat	tgggtgattt	ttgttggtgt	1560
attaagtcag	caaatagttt	gctgttcaac	tttgctcatg	agcgaatgta	tgtgaagaca	1620
gaagatgcat	ctgaaggagc	ttgctcttgt	tttttgagga	cgatcttcaa	aacaatagtt	1680
tcagttgctt	ctgaattaaa	gaaacattgt	ccatatgata	atgggtcaga	gatgcatgtt	1740
ttgttagcca	aggagctagt	aaccgcaata	ggctatctgt	tacatatattga	atacgaaatc	1800
attgagagtg	atttagttac	tttgtggcta	atcattctct	ctttcctgga	gttttagtagt	1860

ttgtcaccag	agaattcaga	aggggactgc	ccgttgactt	cattgttagt	tggccttgga	1920
tgccagctga	taactttata	tagtgacctt	cgccaggtaa	gtgttgctgt	atcttctctg	1980
ttcaaagctg	taaggcttgt	gatgcctgtt	gtgacacctg	ctgatggtga	tgatgatgag	2040
atgattgcca	ctgaagagct	tccactatca	actgtgttcc	ctttccgttt	agagagaagt	2100
gaaaaatcag	tgaaaaagct	cttgtcatct	caagctttaa	gacttgctat	acataaagct	2160
attaaagtga	taccagaagg	ccaagcaagt	ggttgtatca	agagcttgac	tgcatatgta	2220
tcaaaaacca	tgaaatggat	aaaacaagtt	tgttgtctaa	caggtgctac	agaacaagat	2280
ggacaggtgg	cagcattctt	ggctggatct	ttgtctgata	tttattcact	aattctcgac	2340
tcaataacta	ttacaacagg	gaatagtaac	cttgttggcc	agtccatgaa	agatctgttg	2400
gatctcatca	gtccttgctt	aaccacacctg	gtttcttcag	actccgattg	catcgaat	2460
ttcctttctg	ctctcaccgg	aaaagatttg	gagattgtga	tggtgaaaa	gaagatagag	2520
acctacagaa	agtctgtgcg	cttgtttggt	atattcgtct	tgctgattta	catgtcttcc	2580
agaagcttat	ataggcaggt	gattagtctt	atgcctccga	aaaaaaciaa	ggatatggct	2640
ggtattaagg	gcgactctgt	tgcatgtcgt	tgcggaagcg	attggataaa	agagaaaagt	2700
tggaattatg	aaggatattt	ttcatggatc	tcccaacctt	ctgcttccat	tggtgacact	2760
attaaacaca	tttcagcttt	ttaccttaag	gatgacagtg	cagattgctc	cttgctgata	2820
tatatattgt	atggagtcgc	tcttcagaga	cttgttgatt	taaacagcca	cataaatca	2880
cttgattatg	tgtcacagat	aagtgataat	cagataaatg	atacaatgct	caagcatgta	2940
tcagttctta	agcgtgaagg	agaagagctt	actgatttcc	ttttaggcaa	caacatcata	3000
tcaggttttg	ttgatgatgg	aacatttgag	acgataaaag	acactgatca	gtgggttctt	3060
agggtttctg	gcatcaacgg	gaagtgtttg	cctactatgc	gtttgtgggt	tcttagccag	3120
catattgatc	tttggtgccc	ccatgcagga	aaaaagaaat	tgaagaattt	cctgtctcag	3180
ctaataaggta	gttccgttcc	ttgtatatgt	aacggagtg	gtatgtctac	tcttggtg	3240
gaaaataatg	tagacaagg	ctctcaaaag	aagaaaatag	ggttggaaca	gttctcggtt	3300
ggacttctat	ttgattcagt	actgtatgaa	cacgaatttg	ttcgcaggta	tttggtcccg	3360
agtttttctc	acgtactgaa	aatgacagca	gaaacgtttt	tcaaggatat	tactgaagaa	3420
gtaaactttg	attctccatc	agattgggtca	gaggtgttaa	ttttgcttga	aagttcaatt	3480
gctaacttat	ctggaaagct	taaatcagaa	gcctttctag	aggcacatgt	gtcactgctg	3540
gacaatcgga	agttcacagc	ttgccaaaat	ttgctaaatc	tgttaggtgt	gatgcccaag	3600
gagtatacga	ataagaagtc	gttccaactt	tatgcaagtt	atgttctcga	ccttgagagg	3660
tttatagttt	ttagcatgtt	gagatgtttg	aacaagctgt	cctgtggtga	tatgcaaac	3720
cttttcagcc	ttttcagtag	ttgcagaaaa	actttgaaaa	gtattgctat	gatttcttgc	3780

## 047-E2F-PCT.ST25.txt

gacaaggtac	taggagctac	caagttgcct	ttatctgata	gttcgttggt	ggcttcttgg	3840
ctttttaaat	cagcacaagc	tgcgacttgt	caagtgagat	ttaggaatga	tgttacagga	3900
aaagcaaggg	acgccctctt	ttctttgatg	gatcacacat	cgtatatgtt	tctaaccgta	3960
agtaaataatc	aatttagcaa	ggcactacca	ttttctgatg	aaaaactcat	ttcatcagaa	4020
atctctgagg	gaactggaca	agcgaacctt	ataattgaga	acttgacaga	acaggcagaa	4080
actctactaa	atgctttgag	ggctaccttc	agagatgaga	aaacagcctt	taaatgtgag	4140
agtctgatac	tgaacaagtt	aacacctata	ttttcttggt	ttagtggggt	gttgtgggga	4200
ttagcatctg	cagttagtaa	cagagatatg	cagaagaatc	atcagaacgc	aaaactgaga	4260
tggaatcag	aacagttctc	aaagctttcc	cgcattatcc	atgtgcttag	caattttttc	4320
gaggtttttg	cacagtgtct	gtttcttagt	ggtgatgtgc	agcgagaaat	ccaaaccaat	4380
atcaactgga	ccagattgct	tgatgggacc	gagggttcaa	atggctcttg	gtgtgggtgac	4440
gtagtagaga	ctagtgatgt	gaaaaagaaa	attattgaga	gcttgataaa	gggtgattct	4500
tcagaagtag	tattggcact	caagcatctg	ttaattgctt	ctgctgctat	tttaaggtta	4560
aacctgcaaa	ttgatggcat	tacatttctc	cctacatttg	tctctgttct	cacgaacatt	4620
tcgaatgatt	tactgtctgt	attcgctgac	atgagcgagg	caccacttga	attctcattt	4680
atgtggttg	atggtgcagt	taaagttgta	gaagaactag	ggagccaatt	ctgcttatct	4740
aaccttacat	taaacataga	tctgtactca	aagttgattg	agttgcacct	gaagggtgatt	4800
gggaaatgca	tatcactaca	aggaaaagag	gctaccttgg	aatctcatga	gacaggattt	4860
ggtactaatg	caatccatgc	taagctagtg	ctaacagaaa	aaaaacggtc	tcacagattg	4920
cattggttgg	acgaattaaa	acagaggctt	aggatgtcat	ttaaagtgtt	tatacatagt	4980
tcctcagagc	tacacttatt	gtcaggagta	caagctatag	aaagagcact	ggttggagta	5040
tggaagtgt	gcccagctat	ctattgcata	cagactggaa	atagagatgg	aggcagaatt	5100
tctgaaaccg	tcgtgctgg	tcttgactgt	ctggacctaa	ttctggaaca	tgccacaggt	5160
cgcaaacggt	tgaatgtggt	taaaaggcac	attcaaggct	taatgtctgc	agtgtttggt	5220
ataatggctc	acatgcagag	tccatttatt	ttcttctcaa	atgcagtcgt	tggcaaccag	5280
ggttccaatt	ctccagattc	tggggcagtc	attctcatgt	gtgttggagt	cttgataaga	5340
atagcaggga	aacacgcttt	gtttcggatg	gattcatccc	acgtaagtca	atccatacat	5400
atacccggag	caatttttct	tgattacctc	cacgcaacaa	gggtgggatt	ctcggttttg	5460
gatggaaatc	tgttatctaa	ggatgatcag	caacaagatc	ttttaggatg	ctcaaaagaa	5520
cttcaagtag	acaggaaatt	ctcagtgagc	ctgtatgctg	cttgctgccg	actactatat	5580
acagctgtta	agcatcataa	gagtcaaact	gaggggtcca	ttgctacact	ccaagaatct	5640

047-E2F-PCT.ST25.txt

gtttccgcgc ttcttcattg tctggagaca gcaggaaaaa atttgggtaa ttgtgtttca 5700  
 tgggaagtgg aagaggggaat tagatgtgct tgtttcctcc ggaggatcta tgaagagcta 5760  
 agacagcaga aggaggtctt tggacagcat tgtttcaagt tcttgtcaac ttacatatgg 5820  
 gtttcttccg gatatggacc tcttaagacg ggtcttgaaa gggaggtaga tgaagcttta 5880  
 aggccctggtg tgtatgctct tatagactct tgctcaccta acgatcttca atatctccat 5940  
 acagtatttg gtgaagggtcc ttgtagaaac tccctagcaa ctctgcaaca agactacaag 6000  
 ttgaatttca agtatggagg aaaagtctag 6030

<210> 198

<211> 2009

<212> PRT

<213> Arabidopsis thaliana

<400> 198

Met Leu Lys Arg Lys Leu Thr Ser Pro Lys Lys Ser Lys Pro Ser Lys  
 1 5 10 15  
 Lys Thr Lys Lys Asn Ser Lys Thr Gln Phe Asp Asp Ser Pro Val Glu  
 20 25 30  
 Val Val Glu Thr Lys Ala Glu Glu Leu Pro Arg Thr Gly Ser Lys Lys  
 35 40 45  
 Ser Asn Pro Ser Lys Lys Arg Lys Gln Thr Lys Lys Asn Ser Glu Thr  
 50 55 60  
 Gln Phe Glu Asp Ser Ser Val Glu Val Val Glu Thr Lys Ala Cys Asp  
 65 70 75 80  
 Gln Glu Glu Thr Val Thr Asp Ile Val Val Glu Glu Gly Pro Trp Lys  
 85 90 95  
 Asn Leu Glu Leu Ile Leu Ser Leu Gln Ser Asn Thr Leu Gly Phe Lys  
 100 105 110  
 Lys Lys Val Glu Leu Ala Phe Ser Phe Val Lys Gly Tyr Gly Gly Glu  
 115 120 125  
 Asn Gly Thr Asn Glu Asp Glu Glu Cys Gln Ala Val Lys Ile Ser Arg  
 130 135 140

Leu Ile Ile Phe Leu Ser Asp Trp Ile Gln Ser Leu Leu Ile Pro Ser  
 145 150 155 160  
 Glu Lys Asn Ile Lys Val Lys Cys Asp Leu Asp Ser Glu Pro Cys Leu  
 165 170 175  
 Asp Phe Arg Cys Trp Glu Ile Phe Ser Phe Cys Leu Lys Glu Ala Thr  
 180 185 190  
 Ile Leu Gly Val Ser Leu Asn Leu Ser Arg Asn Leu Leu Lys Ala Ile  
 195 200 205  
 Gly Leu Ile Thr Gly Arg Phe Leu Ser Ala Leu Asn Glu Ser Leu Ala  
 210 215 220  
 Thr Gly Val Asp Phe Cys Asn Gly Gln Gly Phe Val Val Tyr Ser Ser  
 225 230 235 240  
 Val Val Asp Cys Leu Gly Leu Leu Phe Ser Ser Lys Ser Gly Met Ser  
 245 250 255  
 Asn Asp Asn Leu Asp Leu Trp Phe Ser Thr Val Glu Pro Val Leu Lys  
 260 265 270  
 Leu Thr His Thr Val Leu Val Glu Asn Ile Lys Asp Ser Leu Gly Asp  
 275 280 285  
 Arg His Val Leu Lys Phe Ser Cys Leu Val Leu Glu Pro Phe Ser Arg  
 290 295 300  
 Phe Leu Met Thr His Pro Thr Thr Lys Asn Gly Phe Cys Asp Phe Leu  
 305 310 315 320  
 Asp Lys Leu Phe Glu Pro Phe Met Asp Val Leu Gly Leu Leu Asn Leu  
 325 330 335  
 Ile Glu Asp Lys Asn Lys Asp Leu Glu Ile Ser Leu Leu Arg Leu Ile  
 340 345 350  
 Glu Asp Ile Leu Ser Leu Ala Leu Phe His Ser Ala His Ile Asp Gly  
 355 360 365  
 Phe Leu Gly Leu Gly Gly Ala Lys Lys Tyr Leu Pro Glu Ser Lys Glu  
 370 375 380  
 Asn Lys Thr Ile Leu Lys Ser Tyr His Arg His Phe Phe Thr Lys Phe  
 385 390 395 400

047-E2F-PCT.ST25.txt

Lys Asn Met Leu Leu Met Lys Lys Glu Leu Glu Leu Ser Cys Met Gly  
 405 410 415  
 Ser Leu Phe Lys Val Phe Ile Tyr Arg Val Met Lys Gln Gln Arg Asp  
 420 425 430  
 Pro Asn Gln Leu Gln Glu Gly Met Met Thr Lys Ala Ser Asn Ala Arg  
 435 440 445  
 Gln Ala Glu Glu Arg Pro Trp Lys Leu Ala Asp Thr Ala Thr Asn Asp  
 450 455 460  
 Asn Gly Ser Ser Thr Lys Ser His Tyr Ser Ser Ser Leu Arg Leu Glu  
 465 470 475 480  
 Thr Arg Lys Ser Ile Phe Asp Phe Phe Leu His Leu Met Glu Pro Ile  
 485 490 495  
 Leu Leu Glu Ile Asn Gly Tyr Asn Gln Ser Gly Ser Glu Met Ala Pro  
 500 505 510  
 Leu Leu Gly Asp Phe Cys Cys Val Ile Lys Ser Ala Asn Ser Leu Leu  
 515 520 525  
 Phe Asn Phe Ala His Glu Arg Met Tyr Val Lys Thr Glu Asp Ala Ser  
 530 535 540  
 Glu Gly Ala Cys Ser Cys Phe Leu Arg Thr Ile Phe Lys Thr Ile Val  
 545 550 555 560  
 Ser Val Ala Ser Glu Leu Lys Lys His Cys Pro Tyr Asp Asn Gly Ser  
 565 570 575  
 Glu Met His Val Leu Leu Ala Lys Glu Leu Val Thr Ala Ile Gly Tyr  
 580 585 590  
 Leu Leu His Ile Glu Tyr Glu Ile Ile Glu Ser Asp Leu Val Thr Leu  
 595 600 605  
 Trp Leu Ile Ile Leu Ser Phe Leu Glu Phe Ser Ser Leu Ser Pro Glu  
 610 615 620  
 Asn Ser Glu Gly Asp Cys Pro Leu Thr Ser Leu Leu Val Gly Leu Gly  
 625 630 635 640  
 Cys Gln Leu Ile Thr Leu Tyr Ser Asp Leu Arg Gln Val Ser Val Ala  
 645 650 655

047-E2F-PCT.ST25.txt

Val Phe Ser Leu Phe Lys Ala Val Arg Leu Val Met Pro Val Val Thr  
660 665 670

Pro Ala Asp Gly Asp Asp Asp Glu Met Ile Ala Thr Glu Glu Leu Pro  
675 680 685

Leu Ser Thr Val Phe Pro Phe Arg Leu Glu Arg Ser Glu Lys Ser Val  
690 695 700

Glu Lys Leu Leu Ser Ser Gln Ala Leu Arg Leu Ala Ile His Lys Ala  
705 710 715 720

Ile Lys Val Ile Pro Glu Gly Gln Ala Ser Gly Cys Ile Lys Ser Leu  
725 730 735

Thr Ala Asp Val Ser Lys Thr Met Lys Trp Ile Lys Gln Val Cys Cys  
740 745 750

Ser Thr Gly Ala Thr Glu Gln Asp Gly Gln Val Ala Ala Phe Leu Ala  
755 760 765

Gly Ser Leu Ser Asp Ile Tyr Ser Leu Ile Leu Asp Ser Ile Thr Ile  
770 775 780

Thr Thr Gly Asn Ser Asn Leu Val Gly Gln Ser Met Lys Asp Leu Leu  
785 790 795 800

Asp Leu Ile Ser Pro Cys Leu Thr His Leu Val Ser Ser Asp Ser Asp  
805 810 815

Cys Ile Glu Asn Phe Leu Ser Ala Leu Thr Gly Lys Asp Leu Glu Ile  
820 825 830

Val Met Ala Glu Lys Lys Ile Glu Thr Tyr Arg Lys Ser Val Arg Leu  
835 840 845

Phe Val Ile Phe Val Leu Arg Ile Tyr Met Ser Ser Arg Ser Leu Tyr  
850 855 860

Arg Gln Val Ile Ser Leu Met Pro Pro Lys Lys Thr Lys Asp Met Ala  
865 870 875 880

Gly Ile Lys Gly Asp Ser Val Ala Val Arg Cys Gly Ser Asp Trp Ile  
885 890 895

Lys Glu Lys Ser Trp Asn Tyr Glu Gly Tyr Phe Ser Trp Ile Ser Gln

900 905 910  
 Pro Ser Ala Ser Ile Val Asp Thr Ile Lys His Ile Ser Ala Phe Tyr  
 915 920 925  
 Leu Lys Asp Asp Ser Ala Asp Cys Ser Leu Leu Ile Tyr Ile Leu Tyr  
 930 935 940  
 Gly Val Ala Leu Gln Arg Leu Val Asp Leu Asn Ser His Ile Lys Ser  
 945 950 955 960  
 Leu Asp Tyr Val Ser Gln Ile Ser Asp Asn Gln Ile Asn Asp Thr Met  
 965 970 975  
 Leu Lys His Val Ser Val Leu Lys Arg Glu Gly Glu Glu Leu Thr Asp  
 980 985 990  
 Phe Leu Leu Gly Asn Asn Ile Ile Ser Gly Phe Val Asp Asp Gly Thr  
 995 1000 1005  
 Phe Glu Thr Ile Lys Asp Thr Asp Gln Trp Val Leu Arg Val Ser  
 1010 1015 1020  
 Gly Ile Asn Gly Lys Cys Leu Pro Thr Met Arg Leu Trp Val Leu  
 1025 1030 1035  
 Ser Gln His Ile Asp Leu Trp Cys Pro His Ala Gly Lys Lys Lys  
 1040 1045 1050  
 Leu Lys Asn Phe Leu Ser Gln Leu Ile Gly Ser Ser Val Pro Cys  
 1055 1060 1065  
 Ile Leu Asn Gly Val Gly Met Ser Thr Leu Gly Trp Glu Asn Asn  
 1070 1075 1080  
 Val Asp Lys Gly Ser Gln Lys Lys Lys Ile Gly Leu Glu Gln Phe  
 1085 1090 1095  
 Ser Phe Gly Leu Leu Phe Asp Ser Val Leu Tyr Glu His Glu Phe  
 1100 1105 1110  
 Val Arg Arg Tyr Leu Ala Pro Ser Phe Ser His Val Leu Lys Met  
 1115 1120 1125  
 Thr Ala Glu Thr Phe Phe Lys Asp Ile Thr Glu Glu Val Asn Phe  
 1130 1135 1140



Asp	Ser	Pro	Ser	Asp	Trp	Ser	Glu	Val	Leu	Ile	Leu	Leu	Glu	Ser
	1145					1150					1155			
Ser	Ile	Ala	Asn	Leu	Ser	Gly	Lys	Leu	Lys	Ser	Glu	Ala	Phe	Leu
	1160					1165					1170			
Glu	Ala	His	Val	Ser	Leu	Leu	Asp	Asn	Arg	Lys	Phe	Thr	Ala	Cys
	1175					1180					1185			
Gln	Asn	Leu	Leu	Asn	Leu	Leu	Gly	Val	Met	Pro	Lys	Glu	Tyr	Thr
	1190					1195					1200			
Asn	Lys	Lys	Ser	Phe	Gln	Leu	Tyr	Ala	Ser	Tyr	Val	Leu	Asp	Leu
	1205					1210					1215			
Glu	Arg	Phe	Ile	Val	Phe	Ser	Met	Leu	Arg	Cys	Leu	Asn	Lys	Leu
	1220					1225					1230			
Ser	Cys	Gly	Asp	Met	Gln	Asn	Leu	Phe	Ser	Leu	Phe	Ser	Thr	Cys
	1235					1240					1245			
Arg	Lys	Thr	Leu	Lys	Ser	Ile	Ala	Met	Ile	Ser	Cys	Asp	Lys	Val
	1250					1255					1260			
Leu	Gly	Ala	Thr	Lys	Leu	Pro	Leu	Ser	Asp	Ser	Ser	Leu	Leu	Ala
	1265					1270					1275			
Ser	Trp	Leu	Phe	Lys	Ser	Ala	Gln	Ala	Ala	Thr	Cys	Gln	Val	Arg
	1280					1285					1290			
Phe	Arg	Asn	Asp	Val	Thr	Gly	Lys	Ala	Arg	Asp	Ala	Leu	Phe	Ser
	1295					1300					1305			
Leu	Met	Asp	His	Thr	Ser	Tyr	Met	Phe	Leu	Thr	Val	Ser	Lys	Tyr
	1310					1315					1320			
Gln	Phe	Ser	Lys	Ala	Leu	Pro	Phe	Ser	Asp	Glu	Lys	Leu	Ile	Ser
	1325					1330					1335			
Ser	Glu	Ile	Ser	Glu	Gly	Thr	Gly	Gln	Ala	Asn	Leu	Ile	Ile	Glu
	1340					1345					1350			
Asn	Leu	Thr	Glu	Gln	Ala	Glu	Thr	Leu	Leu	Asn	Ala	Leu	Arg	Ala
	1355					1360					1365			
Thr	Phe	Arg	Asp	Glu	Lys	Thr	Ala	Phe	Lys	Cys	Glu	Ser	Leu	Ile
	1370					1375					1380			

## 047-E2F-PCT.ST25.txt

Leu	Asn 1385	Lys	Leu	Thr	Pro	Ile 1390	Phe	Ser	Cys	Phe	Ser 1395	Gly	Leu	Leu
Trp	Gly 1400	Leu	Ala	Ser	Ala	Val 1405	Ser	Asn	Arg	Asp	Met 1410	Gln	Lys	Asn
His	Gln 1415	Asn	Ala	Lys	Leu	Arg 1420	Trp	Lys	Ser	Glu	Gln 1425	Phe	Ser	Lys
Leu	Ser 1430	Arg	Ile	Ile	His	Val 1435	Leu	Ser	Asn	Phe	Phe 1440	Glu	Val	Phe
Ala	Gln 1445	Cys	Leu	Phe	Leu	Ser 1450	Gly	Asp	Val	Gln	Arg 1455	Glu	Ile	Gln
Thr	Asn 1460	Ile	Asn	Trp	Thr	Arg 1465	Leu	Leu	Asp	Gly	Thr 1470	Glu	Gly	Ser
Asn	Gly 1475	Leu	Val	Cys	Gly	Asp 1480	Val	Val	Glu	Thr	Ser 1485	Asp	Val	Lys
Lys	Lys 1490	Ile	Ile	Glu	Ser	Leu 1495	Ile	Lys	Gly	Asp	Ser 1500	Ser	Glu	Val
Val	Leu 1505	Ala	Leu	Lys	His	Leu 1510	Leu	Ile	Ala	Ser	Ala 1515	Ala	Ile	Leu
Arg	Leu 1520	Asn	Leu	Gln	Ile	Asp 1525	Gly	Ile	Thr	Phe	Ser 1530	Pro	Thr	Phe
Val	Ser 1535	Val	Leu	Thr	Asn	Ile 1540	Ser	Asn	Asp	Leu	Leu 1545	Ser	Val	Phe
Ala	Asp 1550	Met	Ser	Glu	Ala	Pro 1555	Leu	Glu	Phe	Ser	Phe 1560	Ile	Trp	Leu
Asp	Gly 1565	Ala	Val	Lys	Val	Val 1570	Glu	Glu	Leu	Gly	Ser 1575	Gln	Phe	Cys
Leu	Ser 1580	Asn	Pro	Thr	Leu	Asn 1585	Ile	Asp	Leu	Tyr	Ser 1590	Lys	Leu	Ile
Glu	Leu 1595	His	Leu	Lys	Val	Ile 1600	Gly	Lys	Cys	Ile	Ser 1605	Leu	Gln	Gly
Lys	Glu 1610	Ala	Thr	Leu	Glu	Ser 1615	His	Glu	Thr	Gly	Phe 1620	Gly	Thr	Asn

## 047-E2F-PCT.ST25.txt

Ala Ile His Ala Lys Leu Val Leu Thr Glu Lys Lys Arg Ser His  
 1625 1630 1635  
 Arg Leu His Trp Leu Asp Glu Leu Lys Gln Arg Leu Arg Met Ser  
 1640 1645 1650  
 Phe Lys Val Phe Ile His Ser Ser Ser Glu Leu His Leu Leu Ser  
 1655 1660 1665  
 Gly Val Gln Ala Ile Glu Arg Ala Leu Val Gly Val Trp Glu Val  
 1670 1675 1680  
 Cys Pro Ala Ile Tyr Cys Ile Gln Thr Gly Asn Arg Asp Gly Gly  
 1685 1690 1695  
 Arg Ile Ser Glu Thr Val Ala Ala Gly Leu Asp Cys Leu Asp Leu  
 1700 1705 1710  
 Ile Leu Glu His Ala Thr Gly Arg Lys Arg Leu Asn Val Val Lys  
 1715 1720 1725  
 Arg His Ile Gln Gly Leu Met Ser Ala Val Phe Gly Ile Met Ala  
 1730 1735 1740  
 His Met Gln Ser Pro Phe Ile Phe Phe Ser Asn Ala Val Val Gly  
 1745 1750 1755  
 Asn Gln Gly Ser Asn Ser Pro Asp Ser Gly Ala Val Ile Leu Met  
 1760 1765 1770  
 Cys Val Gly Val Leu Ile Arg Ile Ala Gly Lys His Ala Leu Phe  
 1775 1780 1785  
 Arg Met Asp Ser Ser His Val Ser Gln Ser Ile His Ile Pro Gly  
 1790 1795 1800  
 Ala Ile Phe Leu Asp Tyr Leu His Ala Thr Arg Val Gly Phe Ser  
 1805 1810 1815  
 Val Leu Asp Gly Asn Leu Leu Ser Lys Asp Asp Gln Gln Gln Asp  
 1820 1825 1830  
 Leu Leu Gly Cys Ser Lys Glu Leu Gln Val Asp Arg Lys Phe Ser  
 1835 1840 1845  
 Val Ser Leu Tyr Ala Ala Cys Cys Arg Leu Leu Tyr Thr Ala Val

047-E2F-PCT.ST25.txt

1850

1855

1860

Lys His His Lys Ser Gln Thr Glu Gly Ser Ile Ala Thr Leu Gln  
1865 1870 1875

Glu Ser Val Ser Ala Leu Leu His Cys Leu Glu Thr Ala Gly Lys  
1880 1885 1890

Asn Leu Gly Asn Cys Val Ser Trp Glu Val Glu Glu Gly Ile Arg  
1895 1900 1905

Cys Ala Cys Phe Leu Arg Arg Ile Tyr Glu Glu Leu Arg Gln Gln  
1910 1915 1920

Lys Glu Val Phe Gly Gln His Cys Phe Lys Phe Leu Ser Thr Tyr  
1925 1930 1935

Ile Trp Val Ser Ser Gly Tyr Gly Pro Leu Lys Thr Gly Leu Glu  
1940 1945 1950

Arg Glu Val Asp Glu Ala Leu Arg Pro Gly Val Tyr Ala Leu Ile  
1955 1960 1965

Asp Ser Cys Ser Pro Asn Asp Leu Gln Tyr Leu His Thr Val Phe  
1970 1975 1980

Gly Glu Gly Pro Cys Arg Asn Ser Leu Ala Thr Leu Gln Gln Asp  
1985 1990 1995

Tyr Lys Leu Asn Phe Lys Tyr Gly Gly Lys Val  
2000 2005

<210> 199

$\langle 211 \rangle$  2466

<212> DNA

<213> *Arabidopsis thaliana*

<400> 199

atgagagggc tcttcacgt catcgtaacg tgtctggtt tcttaccgga tcctctacgt 60

gccggtgtag cgtccatcgg gacatcact ccaggttttg gaggatctca gatgaattac 120

atcaacaacg atggtatctt cctcgaatcc aacaactcag ccttcggttt cggtttcgta 180

actacacaag attccgttac tctgttcaca ctcaqtatca tccacaagaq cagcacgaaa 240

ctgatctggt ccgcqaacag agcttcccct gtttccaatt ccgacaagtt tgtgttcgat 300

## 047-E2F-PCT.ST25.txt

gacaacggaa atgtggtgat ggaaggaact gaggtttgga gattggataa ttcaggcaaa	360
aacgcttcaa gaatcgagct gcgtgactcc gggaatctcg ttgttggttc cgttgacgga	420
acttcgatct gggagagttt tgatcatccg acagatactc tgatcacgaa tcaagctttc	480
aaagaaggca tgaagctcac tagcagtcct tcttcgagca acatgactta tgcccttgag	540
atcaaatacag gagatatggt tttatctggt aacagcttaa cccctcaagt gtattggtca	600
atggcaaatg ccagagagag gatcatcaac aaagatggcg gcgtagtgcac ttcacgtctt	660
ctccttgga attcatggcg gttctttgat cagaaacagg ttttggtgtg gcagtttgta	720
ttctcagaca ataaagatga taacacaact tggatcgctg ttttgggaaa caacggtgtg	780
atctcttttt ctaatcttgg aagcggagca tctgctgccg attcttcgac taaaatacct	840
agcgatctgt gcggaacacc tgagccttgc gggccttact atgtctgctc gggttctaaa	900
gtgtgtggat gtgtgtccgg gttgtctcgg gctcggctcg attgcaaaac cgggattact	960
tctccctgta agaaaaccaa ggataatgca acattgcctt tgcagctagt aagtgcctga	1020
gacggtgtag actatttcgc tcttgggtat gctcctccgt tctccaagaa aactgatctt	1080
gatagctgta aagagttctg ccacaacaat tgctcgtgcc ttggtctttt cttccagaac	1140
agttctggta attgcttctt gtttgattat attggaagct ttaaaacctc tggcaatgga	1200
ggctctgggt ttgtgtctta catcaagatc gcaagtactg gttctggagg tggagataac	1260
ggagaagatg atgggaaaca ttttccttat gtagtgatta ttgtcgtggt aacagttttt	1320
atcatcgctg ttttgatctt tgtggccttc cggattcata agagaaagaa aatgattttg	1380
gaggctcctc aagagagttc agaagaagat aacttcttgg agaacttata cgggatgcct	1440
attcggttcg cttacaaaga tcttcagtca gcgacgaata acttctcggg gaagttaggt	1500
caaggagggg ttggatcggg ctatgaaggg actttaccag atggttctcg tctagctgtg	1560
aagaaacttg aaggaatcgg tcaagggaag aaagaattca gagccgaggg tagtataatc	1620
ggaagtattc atcatctgca cttggtgcgg ctaagaggat tctgcgcaga aggggctcat	1680
aggctgctcg catacgagtt cttatccaaa ggttcgttgg agagatggat atttaggaaa	1740
aaggatggcg atgttcttct agattgggac acaagattta acatagcact cggaacagcc	1800
aaaggtttag cgtatctaca tgaagattgt gatgcaagga ttgttctact cgatataaaa	1860
cccgagaaca tcctattaga cgataacttc aatgccaaagg tatccgattt cggactggcg	1920
aagctcatga cccgcgaaca aagccatgtc ttcacaacaa tgcgcgggac aagaggctac	1980
ttggctccag aatggatcac aaactatgcg atatcagaga agagtgatgt ttacagctac	2040
ggaatggtgt tgctagagtt aataggagga agaaagaact atgatccatc agaaacttcg	2100
gagaaatgcc attttccttc ttttgctttc aagaagatgg aagaagggaa gcttatggat	2160

047-E2F-PCT.ST25.txt

attgtcgaatg ggaagatgaa gaatgttgat gtgactgacg aaaggggttca aagggctatg 2220  
 aaaaccgcac tttggtgtat acaagaagat atgcaaacga gaccctcgat gagcaaagtt 2280  
 gttcaaattgc ttgaagggtgt ttttccggtg gtccagccac ctagttcttc cactatggga 2340  
 tcgagactttt actcaagctt ctttaagtcc atcagcgagg acggcggtgc tactacgtca 2400  
 tctggaccgt ccgattgtaa cagtgagaat tatctctccg ccgtgagact ctccggtccg 2460  
 agatag 2466

<210> 200

<211> 821

<212> PRT

<213> Arabidopsis thaliana

<400> 200

Met Arg Gly Val Phe Ile Val Ile Val Thr Cys Leu Val Phe Leu Pro  
 1 5 10 15

Asp Pro Leu Arg Ala Gly Val Ala Ser Ile Gly Ser Ile Thr Pro Gly  
 20 25 30

Phe Gly Gly Ser Gln Met Asn Tyr Ile Asn Asn Asp Gly Ile Phe Leu  
 35 40 45

Glu Ser Asn Asn Ser Ala Phe Gly Phe Gly Phe Val Thr Thr Gln Asp  
 50 55 60

Ser Val Thr Leu Phe Thr Leu Ser Ile Ile His Lys Ser Ser Thr Lys  
 65 70 75 80

Leu Ile Trp Ser Ala Asn Arg Ala Ser Pro Val Ser Asn Ser Asp Lys  
 85 90 95

Phe Val Phe Asp Asp Asn Gly Asn Val Val Met Glu Gly Thr Glu Val  
 100 105 110

Trp Arg Leu Asp Asn Ser Gly Lys Asn Ala Ser Arg Ile Glu Leu Arg  
 115 120 125

Asp Ser Gly Asn Leu Val Val Val Ser Val Asp Gly Thr Ser Ile Trp  
 130 135 140

Glu Ser Phe Asp His Pro Thr Asp Thr Leu Ile Thr Asn Gln Ala Phe  
 145 150 155 160

047-E2F-PCT.ST25.txt

Lys Glu Gly Met Lys Leu Thr Ser Ser Pro Ser Ser Ser Asn Met Thr  
 165 170 175  
 Tyr Ala Leu Glu Ile Lys Ser Gly Asp Met Val Leu Ser Val Asn Ser  
 180 185 190  
 Leu Thr Pro Gln Val Tyr Trp Ser Met Ala Asn Ala Arg Glu Arg Ile  
 195 200 205  
 Ile Asn Lys Asp Gly Gly Val Val Thr Ser Ser Ser Leu Leu Gly Asn  
 210 215 220  
 Ser Trp Arg Phe Phe Asp Gln Lys Gln Val Leu Leu Trp Gln Phe Val  
 225 230 235 240  
 Phe Ser Asp Asn Lys Asp Asp Asn Thr Thr Trp Ile Ala Val Leu Gly  
 245 250 255  
 Asn Asn Gly Val Ile Ser Phe Ser Asn Leu Gly Ser Gly Ala Ser Ala  
 260 265 270  
 Ala Asp Ser Ser Thr Lys Ile Pro Ser Asp Leu Cys Gly Thr Pro Glu  
 275 280 285  
 Pro Cys Gly Pro Tyr Tyr Val Cys Ser Gly Ser Lys Val Cys Gly Cys  
 290 295 300  
 Val Ser Gly Leu Ser Arg Ala Arg Ser Asp Cys Lys Thr Gly Ile Thr  
 305 310 315 320  
 Ser Pro Cys Lys Lys Thr Lys Asp Asn Ala Thr Leu Pro Leu Gln Leu  
 325 330 335  
 Val Ser Ala Gly Asp Gly Val Asp Tyr Phe Ala Leu Gly Tyr Ala Pro  
 340 345 350  
 Pro Phe Ser Lys Lys Thr Asp Leu Asp Ser Cys Lys Glu Phe Cys His  
 355 360 365  
 Asn Asn Cys Ser Cys Leu Gly Leu Phe Phe Gln Asn Ser Ser Gly Asn  
 370 375 380  
 Cys Phe Leu Phe Asp Tyr Ile Gly Ser Phe Lys Thr Ser Gly Asn Gly  
 385 390 395 400  
 Gly Ser Gly Phe Val Ser Tyr Ile Lys Ile Ala Ser Thr Gly Ser Gly

Gly Gly Asp Asn Gly Glu Asp Asp Gly Lys His Phe Pro Tyr Val Val  
420 425 430  
Ile Ile Val Val Val Thr Val Phe Ile Ile Ala Val Leu Ile Phe Val  
435 440 445  
Ala Phe Arg Ile His Lys Arg Lys Lys Met Ile Leu Glu Ala Pro Gln  
450 455 460  
Glu Ser Ser Glu Glu Asp Asn Phe Leu Glu Asn Leu Ser Gly Met Pro  
465 470 475 480  
Ile Arg Phe Ala Tyr Lys Asp Leu Gln Ser Ala Thr Asn Asn Phe Ser  
485 490 495  
Val Lys Leu Gly Gln Gly Gly Phe Gly Ser Val Tyr Glu Gly Thr Leu  
500 505 510  
Pro Asp Gly Ser Arg Leu Ala Val Lys Lys Leu Glu Gly Ile Gly Gln  
515 520 525  
Gly Lys Lys Glu Phe Arg Ala Glu Val Ser Ile Ile Gly Ser Ile His  
530 535 540  
His Leu His Leu Val Arg Leu Arg Gly Phe Cys Ala Glu Gly Ala His  
545 550 555 560  
Arg Leu Leu Ala Tyr Glu Phe Leu Ser Lys Gly Ser Leu Glu Arg Trp  
565 570 575  
Ile Phe Arg Lys Lys Asp Gly Asp Val Leu Leu Asp Trp Asp Thr Arg  
580 585 590  
Phe Asn Ile Ala Leu Gly Thr Ala Lys Gly Leu Ala Tyr Leu His Glu  
595 600 605  
Asp Cys Asp Ala Arg Ile Val His Cys Asp Ile Lys Pro Glu Asn Ile  
610 615 620  
Leu Leu Asp Asp Asn Phe Asn Ala Lys Val Ser Asp Phe Gly Leu Ala  
625 630 635 640  
Lys Leu Met Thr Arg Glu Gln Ser His Val Phe Thr Thr Met Arg Gly  
645 650 655



Thr Arg Gly Tyr Leu Ala Pro Glu Trp Ile Thr Asn Tyr Ala Ile Ser  
 660 665 670  
 Glu Lys Ser Asp Val Tyr Ser Tyr Gly Met Val Leu Leu Glu Leu Ile  
 675 680 685  
 Gly Gly Arg Lys Asn Tyr Asp Pro Ser Glu Thr Ser Glu Lys Cys His  
 690 695 700  
 Phe Pro Ser Phe Ala Phe Lys Lys Met Glu Glu Gly Lys Leu Met Asp  
 705 710 715 720  
 Ile Val Asp Gly Lys Met Lys Asn Val Asp Val Thr Asp Glu Arg Val  
 725 730 735  
 Gln Arg Ala Met Lys Thr Ala Leu Trp Cys Ile Gln Glu Asp Met Gln  
 740 745 750  
 Thr Arg Pro Ser Met Ser Lys Val Val Gln Met Leu Glu Gly Val Phe  
 755 760 765  
 Pro Val Val Gln Pro Pro Ser Ser Ser Thr Met Gly Ser Arg Leu Tyr  
 770 775 780  
 Ser Ser Phe Phe Lys Ser Ile Ser Glu Asp Gly Gly Ala Thr Thr Ser  
 785 790 795 800  
 Ser Gly Pro Ser Asp Cys Asn Ser Glu Asn Tyr Leu Ser Ala Val Arg  
 805 810 815  
 Leu Ser Gly Pro Arg  
 820

&lt;210&gt; 201

&lt;211&gt; 4350

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 201

atggcggcctt cttcttcttc tggcagacgg agatacgacg tttttccaag cttcagtggg 60  
 gttgatgttc gcaagacggt cctcagccat ctaatcgagg cgctcgacgg caaatcaatc 120  
 aatacattca tcgatcatgg aatcgagaga agccgcacaa tcgcccctga gcttatatcg 180  
 gcgattagag aagctaggat ctcaatcgtc atcttctcta agaactatgc ttcttcaacg 240

tggtgcttaa atgaattggt tgagatccac aagtgcctta atgatttagg tcaaattggtg	300
attccagttt tctacgacgt tgatccttcg gaagttagaa aacagaccgg cgaatttgga	360
aaggctctttg aaaagacatg cgaggtcagc aaggacaaac aaccagggga tcagaaacaa	420
agatgggtgc aagctctcac agatatagca aatatagccg gagaggatct tctgaacggg	480
cctaataaag cgcatatggt tgaaaagata tccaatgatg tttcgaataa acttatcact	540
cgggtcaaagt gttttgatga cttcgtcggg attgaagctc atattgaggc aataaaatca	600
gtattgtgct tggaatccaa ggaagctaga atggctcggg tttggggaca atcagggtt	660
ggtaagagta ccataggaag agctcttttc agtcaactct ctatccaatt ccccttcgc	720
gctttcctaa cttataaaag caccagtggg agtgacgtct ctggcatgaa gttgagttgg	780
gaaaaagaac ttctctctga aatcttaggt caaaaggaca taaagataga gcattttggt	840
gtggtggagc aaaggttgaa gcacaagaaa gttcttatcc ttcttgatga tgtggataat	900
ctagagtttc ttaagacctt ggtgggaaaa gctgaatggt ttggatcggg aagcagaatt	960
attgtgatca ctcaagatag gcaatttctc aaggctcatg acattgacct tgtatatgag	1020
gtgaagctgc catctcaagg tcttgctctt acgatgttat gccgatctgc ttttgggaaa	1080
gactctccac ctgatgattt taaggaacta gcatttgaag ttgcgaagct tgccggccat	1140
cttccttttg gtctcaatgt cctgggttcg tcattaagaa gaaggggcaa aaaagagtgg	1200
atggagatga tgcctaggct ccgaaatggt ttgaacggag atattatgaa aacattaaga	1260
gtcagctacg atagattaca tcaaaaagat caagatatgt tcctttgcat tgcgtgttta	1320
ttcaatggtt ttgaggtcag ttacgtcaaa gatttacttg aagataatgt tgggcttaca	1380
atgttgtctg agaagtcctt catacgtatt acaccggatg gacatataga gatgcacaat	1440
ttgctagaga aattgggtag agaaattgat cgtgcaaagt ccaagggtaa tcctggaaaa	1500
cgtcaatttc tgacgaattt tgaggatatt catgaagtag tgaccgagaa aactgggaca	1560
gaaactcttc ttggaatacg tttgccattc gaggaatatt tttcgacaag gccgttatta	1620
atagataaag aatcgttcaa aggcattcgt aatctccaat atctaaaaat tgggtgattg	1680
tcagatgggg gtcaacctca gagcctcgtt tatttgcccc ttaaactcag attgctagac	1740
tgggatgatt gtccattgaa gtctttgcca tctactttta aggcggaata tctagttaac	1800
ctcataatga agtatagtaa gcttgagaaa ctgtgggaag gaactctgcc ccttggaagt	1860
ctcaagaaga tgaatttggt gtgttccaaa aatttgaaag aaattccaga tctttcta	1920
gccagaaacc tcgaggaatt agatcttgaa ggatgcgaat ctttggtgac acttccttcc	1980
tcgattcaga atgccattaa actgaggaag ttacattggt cgggggtgat attaatagat	2040
ttaaaatcat tagaaggcat gtgtaatctc gaatatctat cagttgattg ctcacgtgtg	2100
gaaggcactc agggcatcgt ttatttcctt agtaaaactca gattgctatt gtggaataat	2160

## 047-E2F-PCT.ST25.txt

tgtccattga	agcgtttgca	ttctaatttt	aagggttgagt	atctggttaa	actcagaatg	2220
gagaatagtg	accttgagaa	gctgtgggat	ggaactcagc	cacttggaag	actcaagcag	2280
atgtttctgc	gtggttccaa	atatttgaaa	gagattccag	atctttcttt	agccataaac	2340
ctcgaggaag	tagatatattg	taaatgcgaa	tccttggtga	catttccttc	ctcgatgcag	2400
aatgccatta	aacttatcta	tttagatatt	agtgattgca	aaaagctaga	gagttttcca	2460
accgatctca	acttggaatc	tctcgagtac	ctcaatctca	ctggatgccc	gaatttgaga	2520
aatttcccag	caatcaaaat	gggatgttca	gacgttgact	ttccggaagg	gagaaatgag	2580
atcgtggtag	aagattgttt	ctggaacaag	aatctccctg	ctggactaga	ttatctcgac	2640
tgcccttatga	gatgtatgcc	ttgtgaattt	cgcccagaat	atctcgtttt	tctcaatgtg	2700
aggtgctaca	agcatgagaa	gctatgggaa	ggcatccagt	cgcttggaag	tctcgaagag	2760
atggatctgt	cagaatctga	aaacctgaca	gaaattccag	atctttcaaa	ggccaccaat	2820
ctgaagcatt	tatatctcaa	caactgcaaa	agtttggtga	cacttccttc	tactattggg	2880
aatctccaaa	aattggtgag	gttggaaatg	aaagaatgca	cagggctgga	ggttcttcca	2940
accgatgtca	acttgtcatc	tctcgaaacc	ctcgatctca	gtggttgctc	aagtttgaga	3000
acttttcctc	tgatttcaaa	gagtatcaaa	tggctctatc	tgghaaacac	cgccattgaa	3060
gaaattctag	atctttcaaa	ggccaccaag	ctcgagtctt	tgatactcaa	caactgcaaa	3120
agtttggtga	cacttccttc	tacaattggg	aatcttcaaa	atttgagacg	tttgtacatg	3180
aaaagatgca	cagggctgga	ggttcttcca	accgatgtca	acttgtcatc	tctgggtatc	3240
ctcgatctca	gtggttgctc	aagtttgaga	acttttcctc	tgatttcaac	taatattgta	3300
tggctctatc	tggaaaacac	cgccattgga	gaagttccct	gctgcattga	ggatttcacg	3360
aggctccgtg	tactactgat	gtattgttgc	cagaggttga	aaaacatctc	cccaaacatt	3420
ttcagactga	gaagtctaata	gttcgccgac	tttacagact	gtagaggtgt	catcaaggcg	3480
ttgagtgatg	caactgtggt	agcgacaatg	gaagatagcg	tttcttgtgt	accattatct	3540
gaaaacattg	aatatacatg	tgaacgtttc	tggggtgagt	tgtatggtga	tggtgattgg	3600
gacttaggta	ctgaatattt	tagcttccgt	aattgcttca	aattggatag	agatgcgcga	3660
gagctcatcc	tacgatcatg	cttcaagcct	gtggccttac	caggtggaga	aatccctaag	3720
tatttcacgt	atcgagctta	tggagattcc	ctaactgtca	ctttacctcg	gagctctctt	3780
tctcaatcct	tcttgcgatt	taaggcttgt	ctcgtggttg	accctctctc	cgagggcaag	3840
ggtttttatc	gatatttgga	ggtaaaacttt	ggcttcaatg	gcaaacagta	tcagaaatca	3900
tttttggaag	atgaagaact	ggagttttgt	aagacggatc	atctgttttt	ctgttccttc	3960
aagttcgagt	ctgaaatgac	tttcaacgat	gtggagttta	agttttgttg	ctccaatagg	4020

atcaaagaat gcggtgtacg actcatgtat gtctctcaag aaacagagta caaccaacag 4080  
 actacgagaa gcaagaagcg gatgcggatg acatcgggaa catctgaaga atatatcaac 4140  
 ttagccggtg accaaattgt agcagacaca ggattggccg ctctaaatat ggagctttcg 4200  
 ttaggggagg gagaagcatc atcatcaaca tctctagagg gggaagcttt gtctgttgat 4260  
 tatatgataa ctaaagaaca agatgaagac attcctttct tggatcctgt ttctgatggt 4320  
 acatggagat cattttattc tgcagaatga 4350

<210> 202

<211> 1449

<212> PRT

<213> Arabidopsis thaliana

<400> 202

Met Ala Ala Ser Ser Ser Ser Gly Arg Arg Arg Tyr Asp Val Phe Pro  
 1 5 10 15

Ser Phe Ser Gly Val Asp Val Arg Lys Thr Phe Leu Ser His Leu Ile  
 20 25 30

Glu Ala Leu Asp Gly Lys Ser Ile Asn Thr Phe Ile Asp His Gly Ile  
 35 40 45

Glu Arg Ser Arg Thr Ile Ala Pro Glu Leu Ile Ser Ala Ile Arg Glu  
 50 55 60

Ala Arg Ile Ser Ile Val Ile Phe Ser Lys Asn Tyr Ala Ser Ser Thr  
 65 70 75 80

Trp Cys Leu Asn Glu Leu Val Glu Ile His Lys Cys Phe Asn Asp Leu  
 85 90 95

Gly Gln Met Val Ile Pro Val Phe Tyr Asp Val Asp Pro Ser Glu Val  
 100 105 110

Arg Lys Gln Thr Gly Glu Phe Gly Lys Val Phe Glu Lys Thr Cys Glu  
 115 120 125

Val Ser Lys Asp Lys Gln Pro Gly Asp Gln Lys Gln Arg Trp Val Gln  
 130 135 140

Ala Leu Thr Asp Ile Ala Asn Ile Ala Gly Glu Asp Leu Leu Asn Gly  
 145 150 155 160

047-E2F-PCT.ST25.txt

Pro Asn Glu Ala His Met Val Glu Lys Ile Ser Asn Asp Val Ser Asn  
165 170 175

Lys Leu Ile Thr Arg Ser Lys Cys Phe Asp Asp Phe Val Gly Ile Glu  
180 185 190

Ala His Ile Glu Ala Ile Lys Ser Val Leu Cys Leu Glu Ser Lys Glu  
195 200 205

Ala Arg Met Val Gly Ile Trp Gly Gln Ser Gly Ile Gly Lys Ser Thr  
210 215 220

Ile Gly Arg Ala Leu Phe Ser Gln Leu Ser Ile Gln Phe Pro Leu Arg  
225 230 235 240

Ala Phe Leu Thr Tyr Lys Ser Thr Ser Gly Ser Asp Val Ser Gly Met  
245 250 255

Lys Leu Ser Trp Glu Lys Glu Leu Leu Ser Glu Ile Leu Gly Gln Lys  
260 265 270

Asp Ile Lys Ile Glu His Phe Gly Val Val Glu Gln Arg Leu Lys His  
275 280 285

Lys Lys Val Leu Ile Leu Leu Asp Asp Val Asp Asn Leu Glu Phe Leu  
290 295 300

Lys Thr Leu Val Gly Lys Ala Glu Trp Phe Gly Ser Gly Ser Arg Ile  
305 310 315 320

Ile Val Ile Thr Gln Asp Arg Gln Phe Leu Lys Ala His Asp Ile Asp  
325 330 335

Leu Val Tyr Glu Val Lys Leu Pro Ser Gln Gly Leu Ala Leu Thr Met  
340 345 350

Leu Cys Arg Ser Ala Phe Gly Lys Asp Ser Pro Pro Asp Asp Phe Lys  
355 360 365

Glu Leu Ala Phe Glu Val Ala Lys Leu Ala Gly His Leu Pro Leu Gly  
370 375 380

Leu Asn Val Leu Gly Ser Ser Leu Arg Arg Arg Gly Lys Lys Glu Trp  
385 390 395 400

Met Glu Met Met Pro Arg Leu Arg Asn Gly Leu Asn Gly Asp Ile Met  
Page 319

405

415

Lys Thr Leu Arg Val Ser Tyr Asp Arg Leu His Gln Lys Asp Gln Asp  
420 425 430

Met Phe Leu Cys Ile Ala Cys Leu Phe Asn Gly Phe Glu Val Ser Tyr  
435 440 445

Val Lys Asp Leu Leu Glu Asp Asn Val Gly Leu Thr Met Leu Ser Glu  
450 455 460

Lys Ser Leu Ile Arg Ile Thr Pro Asp Gly His Ile Glu Met His Asn  
465 470 475 480

Leu Leu Glu Lys Leu Gly Arg Glu Ile Asp Arg Ala Lys Ser Lys Gly  
485 490 495

Asn Pro Gly Lys Arg Gln Phe Leu Thr Asn Phe Glu Asp Ile His Glu  
500 505 510

Val Val Thr Glu Lys Thr Gly Thr Glu Thr Leu Leu Gly Ile Arg Leu  
515 520 525

Pro Phe Glu Glu Tyr Phe Ser Thr Arg Pro Leu Leu Ile Asp Lys Glu  
530 535 540

Ser Phe Lys Gly Met Arg Asn Leu Gln Tyr Leu Lys Ile Gly Asp Trp  
545 550 555 560

Ser Asp Gly Gly Gln Pro Gln Ser Leu Val Tyr Leu Pro Leu Lys Leu  
565 570 575

Arg Leu Leu Asp Trp Asp Asp Cys Pro Leu Lys Ser Leu Pro Ser Thr  
580 585 590

Phe Lys Ala Glu Tyr Leu Val Asn Leu Ile Met Lys Tyr Ser Lys Leu  
595 600 605

Glu Lys Leu Trp Glu Gly Thr Leu Pro Leu Gly Ser Leu Lys Lys Met  
610 615 620

Asn Leu Leu Cys Ser Lys Asn Leu Lys Glu Ile Pro Asp Leu Ser Asn  
625 630 635 640

Ala Arg Asn Leu Glu Glu Leu Asp Leu Glu Gly Cys Glu Ser Leu Val  
645 650 655

Thr Leu Pro Ser Ser Ile Gln Asn Ala Ile Lys Leu Arg Lys Leu His  
 660 665 670  
 Cys Ser Gly Val Ile Leu Ile Asp Leu Lys Ser Leu Glu Gly Met Cys  
 675 680 685  
 Asn Leu Glu Tyr Leu Ser Val Asp Cys Ser Arg Val Glu Gly Thr Gln  
 690 695 700  
 Gly Ile Val Tyr Phe Pro Ser Lys Leu Arg Leu Leu Leu Trp Asn Asn  
 705 710 715 720  
 Cys Pro Leu Lys Arg Leu His Ser Asn Phe Lys Val Glu Tyr Leu Val  
 725 730 735  
 Lys Leu Arg Met Glu Asn Ser Asp Leu Glu Lys Leu Trp Asp Gly Thr  
 740 745 750  
 Gln Pro Leu Gly Arg Leu Lys Gln Met Phe Leu Arg Gly Ser Lys Tyr  
 755 760 765  
 Leu Lys Glu Ile Pro Asp Leu Ser Leu Ala Ile Asn Leu Glu Glu Val  
 770 775 780  
 Asp Ile Cys Lys Cys Glu Ser Leu Val Thr Phe Pro Ser Ser Met Gln  
 785 790 795 800  
 Asn Ala Ile Lys Leu Ile Tyr Leu Asp Ile Ser Asp Cys Lys Lys Leu  
 805 810 815  
 Glu Ser Phe Pro Thr Asp Leu Asn Leu Glu Ser Leu Glu Tyr Leu Asn  
 820 825 830  
 Leu Thr Gly Cys Pro Asn Leu Arg Asn Phe Pro Ala Ile Lys Met Gly  
 835 840 845  
 Cys Ser Asp Val Asp Phe Pro Glu Gly Arg Asn Glu Ile Val Val Glu  
 850 855 860  
 Asp Cys Phe Trp Asn Lys Asn Leu Pro Ala Gly Leu Asp Tyr Leu Asp  
 865 870 875 880  
 Cys Leu Met Arg Cys Met Pro Cys Glu Phe Arg Pro Glu Tyr Leu Val  
 885 890 895  
 Phe Leu Asn Val Arg Cys Tyr Lys His Glu Lys Leu Trp Glu Gly Ile  
 900 905 910

047-E2F-PCT.ST25.txt

Gln Ser Leu Gly Ser Leu Glu Glu Met Asp Leu Ser Glu Ser Glu Asn  
915 920 925

Leu Thr Glu Ile Pro Asp Leu Ser Lys Ala Thr Asn Leu Lys His Leu  
930 935 940

Tyr Leu Asn Asn Cys Lys Ser Leu Val Thr Leu Pro Ser Thr Ile Gly  
945 950 955 960

Asn Leu Gln Lys Leu Val Arg Leu Glu Met Lys Glu Cys Thr Gly Leu  
965 970 975

Glu Val Leu Pro Thr Asp Val Asn Leu Ser Ser Leu Glu Thr Leu Asp  
980 985 990

Leu Ser Gly Cys Ser Ser Leu Arg Thr Phe Pro Leu Ile Ser Lys Ser  
995 1000 1005

Ile Lys Trp Leu Tyr Leu Glu Asn Thr Ala Ile Glu Glu Ile Leu  
1010 1015 1020

Asp Leu Ser Lys Ala Thr Lys Leu Glu Ser Leu Ile Leu Asn Asn  
1025 1030 1035

Cys Lys Ser Leu Val Thr Leu Pro Ser Thr Ile Gly Asn Leu Gln  
1040 1045 1050

Asn Leu Arg Arg Leu Tyr Met Lys Arg Cys Thr Gly Leu Glu Val  
1055 1060 1065

Leu Pro Thr Asp Val Asn Leu Ser Ser Leu Gly Ile Leu Asp Leu  
1070 1075 1080

Ser Gly Cys Ser Ser Leu Arg Thr Phe Pro Leu Ile Ser Thr Asn  
1085 1090 1095

Ile Val Trp Leu Tyr Leu Glu Asn Thr Ala Ile Gly Glu Val Pro  
1100 1105 1110

Cys Cys Ile Glu Asp Phe Thr Arg Leu Arg Val Leu Leu Met Tyr  
1115 1120 1125

Cys Cys Gln Arg Leu Lys Asn Ile Ser Pro Asn Ile Phe Arg Leu  
1130 1135 1140

Arg Ser Leu Met Phe Ala Asp Phe Thr Asp Cys Arg Gly Val Ile  
1145 1150 1155



## 047-E2F-PCT.ST25.txt

Lys Ala Leu Ser Asp Ala Thr Val Val Ala Thr Met Glu Asp Ser  
 1160 1165 1170  
 Val Ser Cys Val Pro Leu Ser Glu Asn Ile Glu Tyr Thr Cys Glu  
 1175 1180 1185  
 Arg Phe Trp Gly Glu Leu Tyr Gly Asp Gly Asp Trp Asp Leu Gly  
 1190 1195 1200  
 Thr Glu Tyr Phe Ser Phe Arg Asn Cys Phe Lys Leu Asp Arg Asp  
 1205 1210 1215  
 Ala Arg Glu Leu Ile Leu Arg Ser Cys Phe Lys Pro Val Ala Leu  
 1220 1225 1230  
 Pro Gly Gly Glu Ile Pro Lys Tyr Phe Thr Tyr Arg Ala Tyr Gly  
 1235 1240 1245  
 Asp Ser Leu Thr Val Thr Leu Pro Arg Ser Ser Leu Ser Gln Ser  
 1250 1255 1260  
 Phe Leu Arg Phe Lys Ala Cys Leu Val Val Asp Pro Leu Ser Glu  
 1265 1270 1275  
 Gly Lys Gly Phe Tyr Arg Tyr Leu Glu Val Asn Phe Gly Phe Asn  
 1280 1285 1290  
 Gly Lys Gln Tyr Gln Lys Ser Phe Leu Glu Asp Glu Glu Leu Glu  
 1295 1300 1305  
 Phe Cys Lys Thr Asp His Leu Phe Phe Cys Ser Phe Lys Phe Glu  
 1310 1315 1320  
 Ser Glu Met Thr Phe Asn Asp Val Glu Phe Lys Phe Cys Cys Ser  
 1325 1330 1335  
 Asn Arg Ile Lys Glu Cys Gly Val Arg Leu Met Tyr Val Ser Gln  
 1340 1345 1350  
 Glu Thr Glu Tyr Asn Gln Gln Thr Thr Arg Ser Lys Lys Arg Met  
 1355 1360 1365  
 Arg Met Thr Ser Gly Thr Ser Glu Glu Tyr Ile Asn Leu Ala Gly  
 1370 1375 1380  
 Asp Gln Ile Val Ala Asp Thr Gly Leu Ala Ala Leu Asn Met Glu

1385

1390

Leu Ser Leu Gly Glu Gly Glu Ala Ser Ser Ser Thr Ser Leu Glu  
1400 1405 1410

Gly Glu Ala Leu Ser Val Asp Tyr Met Ile Thr Lys Glu Gln Asp  
1415 1420 1425

Glu Asp Ile Pro Phe Leu Asp Pro Val Ser Asp Gly Thr Trp Arg  
1430 1435 1440

Ser Phe Tyr Ser Ala Glu  
1445

<210> 203

<211> 1173

<212> DNA

<213> Arabidopsis thaliana

<400> 203

atggtgaagc	ttttggagct	gttcataact	tcatcaaac	cagtcgttga	gattctgttg	60
ataacatcag	tcggatttta	tatggctctc	gatggagtca	atcttcttgg	tcatgatgct	120
cgtaaataatc	tgaacaacat	tgtcttctat	gtgttttagtc	cttcgcttat	tggaagccgt	180
ttagctgata	gtgttacata	cgaaagcttg	gtcaaaatgt	ggttcatgcc	ggtgaatggt	240
ctgcttacat	tcatcattgg	ttcattactt	ggctggattg	ttattgtcat	cactaagcct	300
ccttcacacc	ttcgtggctc	cattcttggg	tgttggtgctg	ctgggaattt	ggggaatatg	360
ccactgatta	taatcccagc	tgtttgtaaa	gaaaaaggag	gtccctttgg	agatcctgag	420
agttgccaga	aatatggaat	gggttatggt	gctctctcca	tggtatggg	atctatttac	480
atatggactt	atgtatacaa	tcttatgcgt	gtgctatcga	actctcccgt	tgaaaccctt	540
ccctctgttg	aatccaacta	cgacagctac	aaagtccccc	ttatttcttc	caaggaagaa	600
gaaaacaacc	aaaaggctgg	gaggtgggaa	aaagtcaagc	ggagattggg	ttcactgtca	660
caaaaagtca	accttaagac	aatttttgct	ccatcaacta	ttgctgcat	gattgcactt	720
gtgatcgggc	tcattactcc	tttaaggaag	ctaataatcg	gcacggaagc	tcctctccgg	780
gtgcttcaag	actcagtaac	tctagtggga	gatggggcag	ttcctgcaat	gaccatgatt	840
ataggaggaa	acctactcaa	aggtttgagg	agttcaggaa	tgaaaatgtc	cagtattatc	900
ggcgtcttgg	ttgcgcgtta	cgttttactg	cctatgagcg	gtgttttaat	cgtaagagga	960
gcatataagt	tggatttagt	tacatcagag	cccttatacc	aattcgttct	tcttcttcaa	1020

047-E2F-PCT.ST25.txt

tatgctgtcc caccagccat gaatctaggt acaattactc agttatttgg aactggggag 1080  
 agtgaatgct cagtgattat gctctggact tactcttttg cttcgattgc actcactggt 1140  
 tggccaacat tcttcatgtg gctttagct tag 1173

<210> 204

<211> 390

<212> PRT

<213> Arabidopsis thaliana

<400> 204

Met Val Lys Leu Leu Glu Leu Phe Ile Thr Ser Ser Lys Pro Val Val  
 1 5 10 15

Glu Ile Leu Leu Ile Thr Ser Val Gly Phe Tyr Met Ala Leu Asp Gly  
 20 25 30

Val Asn Leu Leu Gly His Asp Ala Arg Lys Tyr Leu Asn Asn Ile Val  
 35 40 45

Phe Tyr Val Phe Ser Pro Ser Leu Ile Gly Ser Arg Leu Ala Asp Ser  
 50 55 60

Val Thr Tyr Glu Ser Leu Val Lys Met Trp Phe Met Pro Val Asn Val  
 65 70 75 80

Leu Leu Thr Phe Ile Ile Gly Ser Leu Leu Gly Trp Ile Val Ile Val  
 85 90 95

Ile Thr Lys Pro Pro Ser His Leu Arg Gly Leu Ile Leu Gly Cys Cys  
 100 105 110

Ala Ala Gly Asn Leu Gly Asn Met Pro Leu Ile Ile Ile Pro Ala Val  
 115 120 125

Cys Lys Glu Lys Gly Gly Pro Phe Gly Asp Pro Glu Ser Cys Gln Lys  
 130 135 140

Tyr Gly Met Gly Tyr Val Ala Leu Ser Met Ala Met Gly Ser Ile Tyr  
 145 150 155 160

Ile Trp Thr Tyr Val Tyr Asn Leu Met Arg Val Leu Ser Asn Ser Pro  
 165 170 175

047-E2F-PCT.ST25.txt

Val Glu Thr Pro Pro Ser Val Glu Ser Asn Tyr Asp Ser Tyr Lys Val  
180 185 190

Pro Leu Ile Ser Ser Lys Glu Glu Glu Asn Asn Gln Lys Ala Gly Arg  
195 200 205

Trp Glu Lys Val Lys Arg Arg Leu Val Ser Leu Ser Gln Lys Val Asn  
210 215 220

Leu Lys Thr Ile Phe Ala Pro Ser Thr Ile Ala Ala Met Ile Ala Leu  
225 230 235 240

Val Ile Gly Leu Ile Thr Pro Leu Arg Lys Leu Ile Ile Gly Thr Glu  
245 250 255

Ala Pro Leu Arg Val Leu Gln Asp Ser Val Thr Leu Val Gly Asp Gly  
260 265 270

Ala Val Pro Ala Met Thr Met Ile Ile Gly Gly Asn Leu Leu Lys Gly  
275 280 285

Leu Arg Ser Ser Gly Met Lys Met Ser Ser Ile Ile Gly Val Leu Val  
290 295 300

Ala Arg Tyr Val Leu Leu Pro Met Ser Gly Val Leu Ile Val Arg Gly  
305 310 315 320

Ala Tyr Lys Leu Asp Leu Val Thr Ser Glu Pro Leu Tyr Gln Phe Val  
325 330 335

Leu Leu Leu Gln Tyr Ala Val Pro Pro Ala Met Asn Leu Gly Thr Ile  
340 345 350

Thr Gln Leu Phe Gly Thr Gly Glu Ser Glu Cys Ser Val Ile Met Leu  
355 360 365

Trp Thr Tyr Ser Leu Ala Ser Ile Ala Leu Thr Val Trp Pro Thr Phe  
370 375 380

Phe Met Trp Leu Val Ala  
385 390

<210> 205

<211> 1407

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 205

```

atggggacag ggaattctaa agaaaactgg agacagtcac cgtttaggtc aacttctgct    60
tcatacagcat caccatcttc atcttcatgg gcttctcaac aaagttatcc tcagtatggt    120
gcagaaagct ataattaccc tcctccacct tcttatgccc aacctcctga gtatacgcaa    180
cctcctcctc ctttatatag tactcagcct tactctgctc cgtcttattc tgcaccgcct    240
tctcaaagtt atggtagtga taataagaag aggttggagc gcaagtattc gaaaatttct    300
gatgattact cttcttttga gcaggtgacg gaggtctttg cacgggaggg tctagaatct    360
tcaaattctca tcgttgggtat tgatttctact aagagtaacg aatggacagg ggccagggtcc    420
ttcaatagga aaagcttaca cttcataggc agtagtccca atccttatga acaagcgata    480
actatcatag gaagaacctt agccgccttt gacgaggaca acttgattcc atgttatggt    540
tttgagagatg catcaacaca tgatcaagac gtgttcagtt tcaattcaga ggatagattc    600
tgtaatggat ttgaggaagt actttcccg g tataaggaga tcgtgcctca acttaagctt    660
gcagggccaa cctcctttgc tccgatcatc gatatggcca tgaccattgt tgagcagagt    720
ggtgggcaat atcacgtcct agtgataata gcagatgggc aggttacaag aagtgttgac    780
acggaaaatg gacagttaag tccacaagaa cagaagacgg tagatgcgat cgtgcaagcg    840
agtaagcttc ctctatcaat cgtcttagtc ggggtggggg atggaccttg ggacatgatg    900
agggaatttg acgataatat tccggccaga gcgtttgata acttccaatt cgtgaacttc    960
acagagatca tggcaaagaa caaagctcaa tccttgaagg aaacagagtt tgccctttct   1020
gctctcatgg agattcctca acaatacaag gcgacaatag agcttaacct tttaggaaga   1080
agaaatggat atatcccgga gagattccct cttccgcctc caatgcgcgg tggatcatcg   1140
tcctacaaca gtccaaagcc ttcacgtctt ccaagtttca aaccgagtgt tcctcctcat   1200
ccaactgaag gctatcacgt aaggtctagt cccgtccac cccctacaag ctctgcttct   1260
gataaccagc tatgtccgat ttgtttgagc aacccgaaag acatggcctt tggttgtggc   1320
catcagactt gttgcgagtg tggaccagat cttcaaagt gtccgatttg ccgtgcacca   1380
atccagacaa gaataaagct ctactaa                                     1407

```

&lt;210&gt; 206

&lt;211&gt; 468

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 206

Met Gly Thr Gly Asn Ser Lys Glu Asn Trp Arg Gln Ser Ser Phe Arg  
 1 5 10 15  
 Ser Thr Ser Ala Ser Ser Ala Ser Pro Ser Ser Ser Ser Trp Ala Ser  
 20 25 30  
 Gln Gln Ser Tyr Pro Gln Tyr Gly Ala Glu Ser Tyr Asn Tyr Pro Pro  
 35 40 45  
 Pro Pro Ser Tyr Ala Gln Pro Pro Glu Tyr Thr Gln Pro Pro Pro Pro  
 50 55 60  
 Leu Tyr Ser Thr Gln Pro Tyr Ser Ala Pro Ser Tyr Ser Ala Pro Pro  
 65 70 75 80  
 Ser Gln Ser Tyr Gly Ser Asp Asn Lys Lys Arg Leu Glu Arg Lys Tyr  
 85 90 95  
 Ser Lys Ile Ser Asp Asp Tyr Ser Ser Leu Glu Gln Val Thr Glu Ala  
 100 105 110  
 Leu Ala Arg Ala Gly Leu Glu Ser Ser Asn Leu Ile Val Gly Ile Asp  
 115 120 125  
 Phe Thr Lys Ser Asn Glu Trp Thr Gly Ala Arg Ser Phe Asn Arg Lys  
 130 135 140  
 Ser Leu His Phe Ile Gly Ser Ser Pro Asn Pro Tyr Glu Gln Ala Ile  
 145 150 155 160  
 Thr Ile Ile Gly Arg Thr Leu Ala Ala Phe Asp Glu Asp Asn Leu Ile  
 165 170 175  
 Pro Cys Tyr Gly Phe Gly Asp Ala Ser Thr His Asp Gln Asp Val Phe  
 180 185 190  
 Ser Phe Asn Ser Glu Asp Arg Phe Cys Asn Gly Phe Glu Glu Val Leu  
 195 200 205  
 Ser Arg Tyr Lys Glu Ile Val Pro Gln Leu Lys Leu Ala Gly Pro Thr  
 210 215 220  
 Ser Phe Ala Pro Ile Ile Asp Met Ala Met Thr Ile Val Glu Gln Ser  
 225 230 235 240

Gly Gly Gln Tyr His Val Leu Val Ile Ile Ala Asp Gly Gln Val Thr  
 245 250 255  
 Arg Ser Val Asp Thr Glu Asn Gly Gln Leu Ser Pro Gln Glu Gln Lys  
 260 265 270  
 Thr Val Asp Ala Ile Val Gln Ala Ser Lys Leu Pro Leu Ser Ile Val  
 275 280 285  
 Leu Val Gly Val Gly Asp Gly Pro Trp Asp Met Met Arg Glu Phe Asp  
 290 295 300  
 Asp Asn Ile Pro Ala Arg Ala Phe Asp Asn Phe Gln Phe Val Asn Phe  
 305 310 315 320  
 Thr Glu Ile Met Ala Lys Asn Lys Ala Gln Ser Leu Lys Glu Thr Glu  
 325 330 335  
 Phe Ala Leu Ser Ala Leu Met Glu Ile Pro Gln Gln Tyr Lys Ala Thr  
 340 345 350  
 Ile Glu Leu Asn Leu Leu Gly Arg Arg Asn Gly Tyr Ile Pro Glu Arg  
 355 360 365  
 Phe Pro Leu Pro Pro Pro Met Arg Gly Gly Ser Ser Ser Tyr Asn Ser  
 370 375 380  
 Pro Lys Pro Ser Arg Leu Pro Ser Phe Lys Pro Ser Val Pro Pro His  
 385 390 395 400  
 Pro Thr Glu Gly Tyr His Val Arg Ser Ser Pro Val Pro Pro Pro Thr  
 405 410 415  
 Ser Ser Ala Ser Asp Asn Gln Leu Cys Pro Ile Cys Leu Ser Asn Pro  
 420 425 430  
 Lys Asp Met Ala Phe Gly Cys Gly His Gln Thr Cys Cys Glu Cys Gly  
 435 440 445  
 Pro Asp Leu Gln Met Cys Pro Ile Cys Arg Ala Pro Ile Gln Thr Arg  
 450 455 460  
 Ile Lys Leu Tyr  
 465

&lt;210&gt; 207

&lt;211&gt; 1671

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 207

atgtcaccat	ttttgaagtt	ctttctcttt	ctctatgatt	atctttcacc	ttcctctttc	60
tttctggtcc	aaagaaatac	cttaggagca	tcattagata	ctacagatgg	ggttgtgaga	120
agtggcataa	ttggagagat	tatatacatt	tggaagcaga	caagaatctt	tgtctttata	180
ccaatcttga	aatgcttagt	gacaatatgt	ttggtaatgt	cccttttggt	gttcatagaa	240
agagtttata	tgagcatagt	agtagtgttt	gtgaaattac	ttagacgaac	acctgagaaa	300
gtacacaagt	gggaacctat	aaacgatgat	gaccttgagc	ttgccaatac	aaactaccca	360
atggttctca	ttcagatccc	aatgtacaat	gaaaaagagg	tttgtcagtt	atctatagga	420
gcagcctgta	gactttcttg	gccattggat	cgaatgatag	ttcaagtact	tgatgattcc	480
acagatccag	ctagtaagga	attggtgaat	gcggaatgtg	ataaatgggc	gaggaaaggt	540
ataaacataa	tgtcagagat	tagagacaac	agaattggat	acaaagcagg	agcattaaag	600
gcaggaatga	tgcacaacta	tgtgaaacaa	tgcgaattcg	tcgccatttt	cgatgctgat	660
tttcagcctg	atcctgactt	tcttgaacga	accattcctt	ttcttattca	caaccatgaa	720
atctctcttg	ttcaatgccg	ttggaagttt	gtgaatgcaa	acgagtgcct	aatgacaaga	780
atgcaagaga	tgtcactaaa	ctaccatttt	gtggctgagc	aagaatctgg	atcttcaata	840
catgctttct	ttggattcaa	tggaaccgcg	ggtgtatgga	gaatcgcagc	tttaaacgaa	900
gctggaggat	ggaaagatcg	aacaaccgta	gaagatatgg	atttagcagt	aagagcttgt	960
cttcatgggt	ggaaatttgt	ctatgtccat	gacgtcgagg	tgaaaaatga	attgccaagt	1020
acattcaaag	catacagggt	tcagcaacat	agatggtctt	gtggaccagc	taatctatgg	1080
aggaagatga	caatggaaat	cttacagaac	aagaaagtgt	cggcctggaa	gaaattgtat	1140
ctcatataca	atttcttctt	cataaggaag	attgtagtac	acatcttcac	atttgtcttc	1200
tactgtctga	tattaccaac	aactgtgcta	ttccctgagc	tccaagttcc	taaatgggca	1260
actgtttatt	ttcctactac	aatcactatc	cttaacgcaa	tcgctacacc	tcgatcactc	1320
catcttcttg	tcttttggat	cttattcgag	aatgtaatgt	cgatgcatcg	cacaaaagcg	1380
acattcatcg	ggttactaga	ggcaggacgg	gttaacgaat	gggttgttac	tgaaaaatta	1440
ggtgacactc	tcaagtctaa	gttaataggt	aaagctacaa	ctaagcttta	taccagattt	1500
ggacaaagac	tcaactggag	agaactcggt	gttggattat	atatattctt	ctgcggatgt	1560
tacgatttcg	catatggagg	atcatacttt	tatgtttatc	tgtttttaca	gtcttgtgca	1620
ttttttgttg	ctggagttgg	ttatatgggc	acatttgttc	caactgttta	g	1671



<210> 208

<211> 556

<212> PRT

<213> Arabidopsis thaliana

<400> 208

Met Ser Pro Phe Leu Lys Phe Phe Leu Phe Leu Tyr Asp Tyr Leu Ser  
1 5 10 15

Pro Ser Ser Phe Phe Leu Val Gln Arg Asn Thr Leu Gly Ala Ser Leu  
20 25 30

Asp Thr Thr Asp Gly Val Val Arg Ser Gly Ile Ile Gly Glu Ile Ile  
35 40 45

Tyr Ile Trp Lys Gln Thr Arg Ile Phe Val Phe Ile Pro Ile Leu Lys  
50 55 60

Cys Leu Val Thr Ile Cys Leu Val Met Ser Leu Leu Phe Ile Glu  
65 70 75 80

Arg Val Tyr Met Ser Ile Val Val Val Phe Val Lys Leu Leu Arg Arg  
85 90 95

Thr Pro Glu Lys Val His Lys Trp Glu Pro Ile Asn Asp Asp Asp Leu  
100 105 110

Glu Leu Ala Asn Thr Asn Tyr Pro Met Val Leu Ile Gln Ile Pro Met  
115 120 125

Tyr Asn Glu Lys Glu Val Cys Gln Leu Ser Ile Gly Ala Ala Cys Arg  
130 135 140

Leu Ser Trp Pro Leu Asp Arg Met Ile Val Gln Val Leu Asp Asp Ser  
145 150 155 160

Thr Asp Pro Ala Ser Lys Glu Leu Val Asn Ala Glu Cys Asp Lys Trp  
165 170 175

Ala Arg Lys Gly Ile Asn Ile Met Ser Glu Ile Arg Asp Asn Arg Ile  
180 185 190

Gly Tyr Lys Ala Gly Ala Leu Lys Ala Gly Met Met His Asn Tyr Val  
Page 331

195

200

205

Lys Gln Cys Glu Phe Val Ala Ile Phe Asp Ala Asp Phe Gln Pro Asp  
 210 215 220  
 Pro Asp Phe Leu Glu Arg Thr Ile Pro Phe Leu Ile His Asn His Glu  
 225 230 235 240  
 Ile Ser Leu Val Gln Cys Arg Trp Lys Phe Val Asn Ala Asn Glu Cys  
 245 250 255  
 Leu Met Thr Arg Met Gln Glu Met Ser Leu Asn Tyr His Phe Val Ala  
 260 265 270  
 Glu Gln Glu Ser Gly Ser Ser Ile His Ala Phe Phe Gly Phe Asn Gly  
 275 280 285  
 Thr Ala Gly Val Trp Arg Ile Ala Ala Leu Asn Glu Ala Gly Gly Trp  
 290 295 300  
 Lys Asp Arg Thr Thr Val Glu Asp Met Asp Leu Ala Val Arg Ala Cys  
 305 310 315 320  
 Leu His Gly Trp Lys Phe Val Tyr Val His Asp Val Glu Val Lys Asn  
 325 330 335  
 Glu Leu Pro Ser Thr Phe Lys Ala Tyr Arg Phe Gln Gln His Arg Trp  
 340 345 350  
 Ser Cys Gly Pro Ala Asn Leu Trp Arg Lys Met Thr Met Glu Ile Leu  
 355 360 365  
 Gln Asn Lys Lys Val Ser Ala Trp Lys Lys Leu Tyr Leu Ile Tyr Asn  
 370 375 380  
 Phe Phe Phe Ile Arg Lys Ile Val Val His Ile Phe Thr Phe Val Phe  
 385 390 395 400  
 Tyr Cys Leu Ile Leu Pro Thr Thr Val Leu Phe Pro Glu Leu Gln Val  
 405 410 415  
 Pro Lys Trp Ala Thr Val Tyr Phe Pro Thr Thr Ile Thr Ile Leu Asn  
 420 425 430  
 Ala Ile Ala Thr Pro Arg Ser Leu His Leu Leu Val Phe Trp Ile Leu  
 435 440 445

Phe Glu Asn Val Met Ser Met His Arg Thr Lys Ala Thr Phe Ile Gly  
 450 455 460

Leu Leu Glu Ala Gly Arg Val Asn Glu Trp Val Val Thr Glu Lys Leu  
 465 470 475 480

Gly Asp Thr Leu Lys Ser Lys Leu Ile Gly Lys Ala Thr Thr Lys Leu  
 485 490 495

Tyr Thr Arg Phe Gly Gln Arg Leu Asn Trp Arg Glu Leu Val Val Gly  
 500 505 510

Leu Tyr Ile Phe Phe Cys Gly Cys Tyr Asp Phe Ala Tyr Gly Gly Ser  
 515 520 525

Tyr Phe Tyr Val Tyr Leu Phe Leu Gln Ser Cys Ala Phe Phe Val Ala  
 530 535 540

Gly Val Gly Tyr Ile Gly Thr Phe Val Pro Thr Val  
 545 550 555

<210> 209

<211> 3312

<212> DNA

<213> Arabidopsis thaliana

<400> 209

atggctccag ttccg gatcc gaacagtgtt ggcggtggtg cgaagcggga cgaagctacg	60
acgaagattc cttctaagga ttccaagaag aaagatgata aaaaggaaga ggatctgtct	120
gaagaggact tgcaactaaa gcagaatctg gagctctatg ttgagagagt tcaggacccc	180
aatcctgagt tacagaagat tgctcttgaa agcatgagga aggaaattcg tgactcaaca	240
agctccatga catcagttcc aaaaccctc aagtttctcc gccctcatta tggagttctt	300
aaagaatttc atgcaaaaat ggcagagtct gatctcaaaa aaatgttggc tgatatactt	360
tctgtcctgg cactgaccat gtctgttgaa ggtgaaagga tttgtgtttt gtggttcttg	420
gtagaatttg acttaagcta tttgttgctg atcctttgtt atgcaatact ctttcaggaa	480
agcttaaact ataggttgaa tggatcagag agtgacatcg gatcgtgggg tcacgagtat	540
gtcaggaatt tggctggaga gattgcaaaa gagtatacaa tacgtcaggg tgaagagtcc	600
tctattgaag acttaatgga tcttgtgcag caaattgttt cttttcacat gaagcataat	660
gccgaaaccg aagctgttga ctttttaatg gatgttgagg atcttgatct cttacttgag	720

catgttgaca atacaaat	ttt caggaggacg tgcaactatc	tcacgagtgc agcaaagtat	780
cttccaggac cagatgacat	gttgggttcta gatattgctt	acatgatcta cattaagttt	840
gcagaatatc caaacgcgct	gcaaattgca ttatttcttg	ataacatgca gtatgtgaag	900
caagtatttta cctcatgtac	cgatctggta aaaaagaaac	agttctgcta catgattgca	960
cgtcatggta tgacctttga	gcttgaccaa gagatggttg	caaatgacga agacaaagaa	1020
gcgctacagg atattgttaa	caactctaag ttgagtgaag	gatatctgac gcttgctagg	1080
gatattgagg tcatggaggc	caagacgcct gaagacatct	acaaggctca cttgcttgat	1140
ggtagggcta gctctgggtc	aagtgtggac tcagctaggc	aaaatctatc tgcgactttt	1200
gtgaatgcat ttgtaaatgc	tggattcggc caggacaaat	taatgacagt accatctgac	1260
tcaaccagtg gatcggctgg	aaactggctc ttcaaaaata	aagaacatgg aaagaccagt	1320
gcagttgcta gtctggtata	cctcatctta cttgataaat	tgattagcta tgtttttatt	1380
ttggaaggta tgattcaatt	gtgggatgtg gagaccggac	taggtcatct cgacaaatat	1440
ttccatagta acgataatcc	cgtcgttgct ggagctctgc	tgggagttgg gattgttaat	1500
tgtggcatta agaattgattg	tgaccctgca tttgcccttc	tttcaggtta tattgacaat	1560
gaggattcat ctgtccgaat	tgggtgctatt atgggtctcg	ggattgcata tgcgggttcc	1620
caaatgatc agataaaaat	caggttgtct ccaatactaa	atgatgcaa cgcacctctc	1680
gatgtgattg catttgctgc	acttagtttg gggatgattt	atgttggttc gtgtaacgaa	1740
gaggttgcac aatctattat	atttgctttg atggatcgga	gagaggcaga gctgggtgaa	1800
gccctcactc gtttcttgcc	tcttggactt ggtcttttgt	accttggcaa acagggtggc	1860
agccagtcac acttgattat	ttttcttggt cgtgaaagtg	tggaggctac tgcagaagtt	1920
tcaaagacgt tcaatgagaa	aatcagaaag tattgtgata	tgacacttct ttcattgtgca	1980
tatgctggaa cggggaatgt	ccttaaggta tctgatcaat	ttagtctgac tcttcaaact	2040
attcaaacta ttcagggtcca	agaccttctg gctcagtgtg	gagagcatct ggtgaaaggt	2100
gatatccacc aggggtccagc	tgtgattgga ttagctatgg	ttgctatgtc tgaggaattg	2160
ggtctggata tggagatccg	ttctttggag cgcgtactac	agtatggaga gcagaacatt	2220
cgacgtgcag tgcctttggc	tcttgggtct ctatgtatat	caaaccctaa ggtgactggt	2280
atggacactt tgagcagact	aagccatgac acagattcag	aagttgcaat ggcagcaatt	2340
atctcccttg gattgatagg	cgctggaacc aacaatgcaa	ggatagctgg catgcttaga	2400
aatctctcca gctattatta	caaggatgcc agccttcttt	tctgtgtaac gttttatgat	2460
ttctttttta gttttcatgg	aataaacacg gtttctactt	atgataggct tgttctcatt	2520
gtcttaagtc acaatgcagg	tgcgcatcgc tcaagggttt	gtgcatatgg gaaagggctc	2580
cttaactctc aatcctttcc	actccgaacg gctcttgcta	tgccaaccgc acttgctggg	2640

047-E2F-PCT.ST25.txt

atagtgcacat tgttgcatgc atgccttgac atgaaatcca ttatactggg gaaatatcac 2700  
 tatgtgctct acttccttgt tttggcgatg cagccaagga tgatgctgac ggtggatcag 2760  
 agcctgaagc ccatctcggt gccagtgcgg gtaggacaag cggttgatgt ggttggacag 2820  
 gcaggccgac ctaagacaat cactgggttc caaacgcact caacacctgt tctccttgct 2880  
 gctggggaga gagctgaact cgcaaccgag aagtatgttg ttcctctaata ccccttggtta 2940  
 cattatccta ctcgaaataa aactctgttt tacatatgtg aatctaaaaa aactctgctt 3000  
 ctttttgggt cacaggtaca ttccgttgct gcccatatta gaaggtttcg tcatattgaa 3060  
 ggaaaatcca gactacagag aggagtaaat ccaaagttgc aagcatttga agaaagagag 3120  
 agagcctttg aatactttca ctacggttgt caaaagtttt ttagtttatt cccgtctggt 3180  
 cccaggaaat ggttcacaat ctctcctttt aaaagaaaaa atagcttcat tgcaatatat 3240  
 aggaacttct tgtgcactac tttaatatcg cattctaaaa gctggataag tttccaaatc 3300  
 caattctctt aa 3312

<210> 210

<211> 1103

<212> PRT

<213> Arabidopsis thaliana

<400> 210

Met Ala Pro Val Pro Asp Pro Asn Ser Val Gly Gly Gly Ala Lys Arg  
 1 5 10 15

Asp Glu Ala Thr Thr Lys Ile Pro Ser Lys Asp Ser Lys Lys Lys Asp  
 20 25 30

Asp Lys Lys Glu Glu Asp Leu Ser Glu Glu Asp Leu Gln Leu Lys Gln  
 35 40 45

Asn Leu Glu Leu Tyr Val Glu Arg Val Gln Asp Pro Asn Pro Glu Leu  
 50 55 60

Gln Lys Ile Ala Leu Glu Ser Met Arg Lys Glu Ile Arg Asp Ser Thr  
 65 70 75 80

Ser Ser Met Thr Ser Val Pro Lys Pro Leu Lys Phe Leu Arg Pro His  
 85 90 95

Tyr Gly Val Leu Lys Glu Phe His Ala Lys Met Ala Glu Ser Asp Leu

100 105 110  
 Lys Lys Met Leu Ala Asp Ile Leu Ser Val Leu Ala Leu Thr Met Ser  
 115 120 125  
 Ala Glu Gly Glu Arg Ile Cys Val Leu Trp Phe Leu Val Glu Phe Asp  
 130 135 140  
 Leu Ser Tyr Leu Leu Leu Ile Leu Cys Tyr Ala Ile Leu Phe Gln Glu  
 145 150 155 160  
 Ser Leu Asn Tyr Arg Leu Asn Gly Ser Glu Ser Asp Ile Gly Ser Trp  
 165 170 175  
 Gly His Glu Tyr Val Arg Asn Leu Ala Gly Glu Ile Ala Lys Glu Tyr  
 180 185 190  
 Thr Ile Arg Gln Gly Glu Glu Ser Ser Ile Glu Asp Leu Met Asp Leu  
 195 200 205  
 Val Gln Gln Ile Val Ser Phe His Met Lys His Asn Ala Glu Thr Glu  
 210 215 220  
 Ala Val Asp Leu Leu Met Asp Val Glu Asp Leu Asp Leu Leu Glu  
 225 230 235 240  
 His Val Asp Asn Thr Asn Phe Arg Arg Thr Cys Asn Tyr Leu Thr Ser  
 245 250 255  
 Ala Ala Lys Tyr Leu Pro Gly Pro Asp Asp Met Leu Val Leu Asp Ile  
 260 265 270  
 Ala Tyr Met Ile Tyr Ile Lys Phe Ala Glu Tyr Pro Asn Ala Leu Gln  
 275 280 285  
 Ile Ala Leu Phe Leu Asp Asn Met Gln Tyr Val Lys Gln Val Phe Thr  
 290 295 300  
 Ser Cys Thr Asp Leu Val Lys Lys Lys Gln Phe Cys Tyr Met Ile Ala  
 305 310 315 320  
 Arg His Gly Met Thr Phe Glu Leu Asp Gln Glu Met Val Ala Asn Asp  
 325 330 335  
 Glu Asp Lys Glu Ala Leu Gln Asp Ile Val Asn Asn Ser Lys Leu Ser  
 340 345 350

Glu Gly Tyr Leu Thr Leu Ala Arg Asp Ile Glu Val Met Glu Ala Lys  
 355 360 365  
 Thr Pro Glu Asp Ile Tyr Lys Ala His Leu Leu Asp Gly Arg Ala Ser  
 370 375 380  
 Ser Gly Pro Ser Val Asp Ser Ala Arg Gln Asn Leu Ser Ala Thr Phe  
 385 390 395 400  
 Val Asn Ala Phe Val Asn Ala Gly Phe Gly Gln Asp Lys Leu Met Thr  
 405 410 415  
 Val Pro Ser Asp Ser Thr Ser Gly Ser Ala Gly Asn Trp Leu Phe Lys  
 420 425 430  
 Asn Lys Glu His Gly Lys Thr Ser Ala Val Ala Ser Leu Val Tyr Leu  
 435 440 445  
 Ile Leu Leu Asp Lys Leu Ile Ser Tyr Val Phe Ile Leu Glu Gly Met  
 450 455 460  
 Ile Gln Leu Trp Asp Val Glu Thr Gly Leu Gly His Leu Asp Lys Tyr  
 465 470 475 480  
 Phe His Ser Asn Asp Asn Pro Val Val Ala Gly Ala Leu Leu Gly Val  
 485 490 495  
 Gly Ile Val Asn Cys Gly Ile Lys Asn Asp Cys Asp Pro Ala Phe Ala  
 500 505 510  
 Leu Leu Ser Gly Tyr Ile Asp Asn Glu Asp Ser Ser Val Arg Ile Gly  
 515 520 525  
 Ala Ile Met Gly Leu Gly Ile Ala Tyr Ala Gly Ser Gln Asn Asp Gln  
 530 535 540  
 Ile Lys Ile Arg Leu Ser Pro Ile Leu Asn Asp Ala Asn Ala Pro Leu  
 545 550 555 560  
 Asp Val Ile Ala Phe Ala Ala Leu Ser Leu Gly Met Ile Tyr Val Gly  
 565 570 575  
 Ser Cys Asn Glu Glu Val Ala Gln Ser Ile Ile Phe Ala Leu Met Asp  
 580 585 590  
 Arg Ser Glu Ala Glu Leu Gly Glu Ala Leu Thr Arg Phe Leu Pro Leu  
 595 600 605

047-E2F-PCT.ST25.txt

Gly Leu Gly Leu Leu Tyr Leu Gly Lys Gln Val Gly Ser Gln Ser Tyr  
 610 615 620  
 Leu Ile Ile Phe Leu Val Arg Glu Ser Val Glu Ala Thr Ala Glu Val  
 625 630 635 640  
 Ser Lys Thr Phe Asn Glu Lys Ile Arg Lys Tyr Cys Asp Met Thr Leu  
 645 650 655  
 Leu Ser Cys Ala Tyr Ala Gly Thr Gly Asn Val Leu Lys Val Ser Asp  
 660 665 670  
 Gln Phe Ser Leu Thr Leu Gln Thr Ile Gln Thr Ile Gln Val Gln Asp  
 675 680 685  
 Leu Leu Ala Gln Cys Gly Glu His Leu Val Lys Gly Asp Ile His Gln  
 690 695 700  
 Gly Pro Ala Val Ile Gly Leu Ala Met Val Ala Met Ser Glu Glu Leu  
 705 710 715 720  
 Gly Leu Asp Met Glu Ile Arg Ser Leu Glu Arg Val Leu Gln Tyr Gly  
 725 730 735  
 Glu Gln Asn Ile Arg Arg Ala Val Pro Leu Ala Leu Gly Leu Leu Cys  
 740 745 750  
 Ile Ser Asn Pro Lys Val Thr Val Met Asp Thr Leu Ser Arg Leu Ser  
 755 760 765  
 His Asp Thr Asp Ser Glu Val Ala Met Ala Ala Ile Ile Ser Leu Gly  
 770 775 780  
 Leu Ile Gly Ala Gly Thr Asn Asn Ala Arg Ile Ala Gly Met Leu Arg  
 785 790 795 800  
 Asn Leu Ser Ser Tyr Tyr Tyr Lys Asp Ala Ser Leu Leu Phe Cys Val  
 805 810 815  
 Thr Phe Tyr Asp Phe Phe Leu Ser Phe His Gly Ile Asn Thr Val Ser  
 820 825 830  
 Thr Tyr Asp Arg Leu Val Leu Ile Val Leu Ser His Asn Ala Gly Ala  
 835 840 845  
 His Arg Ser Arg Val Cys Ala Tyr Gly Lys Gly Ser Leu Asn Ser Gln  
 850 855 860



Ser Phe Pro Leu Arg Thr Ala Leu Ala Met Pro Thr Ala Leu Ala Gly  
 865 870 875 880  
 Ile Val Thr Leu Leu His Ala Cys Leu Asp Met Lys Ser Ile Ile Leu  
 885 890 895  
 Gly Lys Tyr His Tyr Val Leu Tyr Phe Leu Val Leu Ala Met Gln Pro  
 900 905 910  
 Arg Met Met Leu Thr Val Asp Gln Ser Leu Lys Pro Ile Ser Val Pro  
 915 920 925  
 Val Arg Val Gly Gln Ala Val Asp Val Val Gly Gln Ala Gly Arg Pro  
 930 935 940  
 Lys Thr Ile Thr Gly Phe Gln Thr His Ser Thr Pro Val Leu Leu Ala  
 945 950 955 960  
 Ala Gly Glu Arg Ala Glu Leu Ala Thr Glu Lys Tyr Val Val Pro Leu  
 965 970 975  
 Ile Pro Leu Leu His Tyr Pro Thr Arg Asn Lys Thr Leu Phe Tyr Ile  
 980 985 990  
 Leu Glu Ser Lys Lys Thr Leu Leu Leu Phe Gly Ser Gln Val His Ser  
 995 1000 1005  
 Val Val Ala His Ile Arg Arg Phe Arg His Ile Glu Gly Lys Ser  
 1010 1015 1020  
 Arg Leu Gln Arg Gly Val Asn Pro Lys Leu Gln Ala Phe Glu Glu  
 1025 1030 1035  
 Arg Glu Arg Ala Phe Glu Tyr Phe His Tyr Gly Cys Gln Lys Phe  
 1040 1045 1050  
 Phe Ser Leu Phe Pro Ser Val Pro Arg Lys Trp Phe Thr Ile Ser  
 1055 1060 1065  
 Pro Phe Lys Arg Lys Asn Ser Phe Ile Ala Ile Tyr Arg Asn Phe  
 1070 1075 1080  
 Leu Cys Thr Thr Leu Ile Ser His Ser Lys Ser Trp Ile Ser Phe  
 1085 1090 1095  
 Gln Ile Gln Phe Ser

1100

&lt;210&gt; 211

&lt;211&gt; 966

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 211

```

atgaaactcg caggtctgaa atcgatcgag aacgctcacg aagattccgt ttgggcagcg      60
acgtgggttc cggcgacgga agatcgaccg gcgttgcttc tgactggatc tcttgacgag      120
acggtgaagt tatggcgacc ggacgagctg gatcttgtgc ggactaatac tggacactct      180
ttgggagtag cagctttggc tgcgcatcct tctgggatta ttgcagcatc ttcttcgatt      240
gatagctttg tccgtgtgtt tgatgttgat actaatgcta cgattgctgt tttggaagct      300
cctccttctg aggtttgggg aatgcaattht gaacctaagg gtacgatcct tgctgttgca      360
ggtggaagta gtgcctcagt caagctttgg gacactgcaa gctggagatt aatctcaact      420
ctatcaatcc caccgccaga tgcacaaaaa ccttccgata aaaccagcag caagaaattc      480
gttctctcgg tggcttggtc tcctaattgg aaacgacttg cttgtgggtc aatggatggt      540
acgatctgtg tttttgatgt tgaccgctca aagctacttc accagctaga aggtcacaat      600
atgcctgtaa ggtcccttgt gttctccctt gtagaccgga gagtcctctt ctctggatca      660
gatgatgggc atgtgaacat gcacgatgca gaagggaaaa cgctgttggg gtccatgtca      720
gggcacacga gttgggtgct gagcgttgat gctagcccag acggtggagc catagcaacc      780
ggctcaagcg atagaactgt gaggctatgg gatcttaaaa tgagagctgc gattcagaca      840
atgagcaacc acaatgacca ggtttggtct gtggccttta gaccaccagg tggaaccggt      900
gtccgggctg gtcgacttgc tagtgtctct gatgacaaga gtgtatcgct ctatgattac      960
tcatga                                           966

```

&lt;210&gt; 212

&lt;211&gt; 321

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 212

```

Met Lys Leu Ala Gly Leu Lys Ser Ile Glu Asn Ala His Glu Asp Ser
1           5           10           15

```

047-E2F-PCT.ST25.txt

Val Trp Ala Ala Thr Trp Val Pro Ala Thr Glu Asp Arg Pro Ala Leu  
20 25 30

Leu Leu Thr Gly Ser Leu Asp Glu Thr Val Lys Leu Trp Arg Pro Asp  
35 40 45

Glu Leu Asp Leu Val Arg Thr Asn Thr Gly His Ser Leu Gly Val Ala  
50 55 60

Ala Leu Ala Ala His Pro Ser Gly Ile Ile Ala Ala Ser Ser Ser Ile  
65 70 75 80

Asp Ser Phe Val Arg Val Phe Asp Val Asp Thr Asn Ala Thr Ile Ala  
85 90 95

Val Leu Glu Ala Pro Pro Ser Glu Val Trp Gly Met Gln Phe Glu Pro  
100 105 110

Lys Gly Thr Ile Leu Ala Val Ala Gly Gly Ser Ser Ala Ser Val Lys  
115 120 125

Leu Trp Asp Thr Ala Ser Trp Arg Leu Ile Ser Thr Leu Ser Ile Pro  
130 135 140

Arg Pro Asp Ala Pro Lys Pro Ser Asp Lys Thr Ser Ser Lys Lys Phe  
145 150 155 160

Val Leu Ser Val Ala Trp Ser Pro Asn Gly Lys Arg Leu Ala Cys Gly  
165 170 175

Ser Met Asp Gly Thr Ile Cys Val Phe Asp Val Asp Arg Ser Lys Leu  
180 185 190

Leu His Gln Leu Glu Gly His Asn Met Pro Val Arg Ser Leu Val Phe  
195 200 205

Ser Pro Val Asp Pro Arg Val Leu Phe Ser Gly Ser Asp Asp Gly His  
210 215 220

Val Asn Met His Asp Ala Glu Gly Lys Thr Leu Leu Gly Ser Met Ser  
225 230 235 240

Gly His Thr Ser Trp Val Leu Ser Val Asp Ala Ser Pro Asp Gly Gly  
245 250 255

Ala Ile Ala Thr Gly Ser Ser Asp Arg Thr Val Arg Leu Trp Asp Leu  
Page 341

260

265

270

Lys Met Arg Ala Ala Ile Gln Thr Met Ser Asn His Asn Asp Gln Val  
 275 280 285

Trp Ser Val Ala Phe Arg Pro Pro Gly Gly Thr Gly Val Arg Ala Gly  
 290 295 300

Arg Leu Ala Ser Val Ser Asp Asp Lys Ser Val Ser Leu Tyr Asp Tyr  
 305 310 315 320

Ser

<210> 213

<211> 321

<212> DNA

<213> Arabidopsis thaliana

<400> 213

atgtgggatg aaactgtagc cggacctaaa ccggagcatg gccttggccg cctccgcaat 60  
 aagatcacca cccaaccctt tgacatcaaa ggagaaggga gcagtagtaa aactgtggcg 120  
 gcggtggccg ggagtcctgg aactccgacg acgccaggat cggcgcgtaa ggaaaacgtg 180  
 tggagaagtg tgtttcatcc aggaagtaac atcgccacta gaggaatggg caciaacctc 240  
 ttcgacaagc cttctcacc aaactctccc accgtctacg attggctata cagcgacgac 300  
 actaggagca agcaccgttg a 321

<210> 214

<211> 106

<212> PRT

<213> Arabidopsis thaliana

<400> 214

Met Trp Asp Glu Thr Val Ala Gly Pro Lys Pro Glu His Gly Leu Gly  
 1 5 10 15

Arg Leu Arg Asn Lys Ile Thr Thr Gln Pro Leu Asp Ile Lys Gly Glu  
 20 25 30

Gly Ser Ser Ser Lys Thr Val Ala Ala Val Ala Gly Ser Pro Gly Thr  
 35 40 45

Pro Thr Thr Pro Gly Ser Ala Arg Lys Glu Asn Val Trp Arg Ser Val  
 50 55 60

Phe His Pro Gly Ser Asn Ile Ala Thr Arg Gly Met Gly Thr Asn Leu  
 65 70 75 80

Phe Asp Lys Pro Ser His Pro Asn Ser Pro Thr Val Tyr Asp Trp Leu  
 85 90 95

Tyr Ser Asp Asp Thr Arg Ser Lys His Arg  
 100 105

<210> 215

<211> 2538

<212> DNA

<213> Arabidopsis thaliana

<400> 215

atggaagaga	aaaaagtagt	aagagcggtta	agcgaacacc	tatcactacc	tcctccacca	60
tctccttctg	tagcggtagc	catcaacggg	aagaagaaga	gcaaatacgt	cgtttttttg	120
gctcttgaga	agttttatacc	tgaaggtttc	actgatttca	aattgctcta	tgttcgtcct	180
cctgtctctt	acatccctac	cccaatgggg	attgcggtag	cggtatcaga	gcttagagag	240
gatgtagtat	cagcttacia	acaagaactg	gattggagcg	caaacgagat	gcttcgtcct	300
tacaagaaaa	tgtttgaaag	gagaaagggtg	caagtagagg	ttttgttgct	ggattcactt	360
gagcctgcag	ccgcgatagc	ggaagagatt	gctggaactg	gagtcacaaa	actggtaata	420
ggaatgtctc	tccgcggatt	cttttcaaga	aagatcgata	tgtcttcttt	gatcgcaaca	480
gctgttccga	gattctgcac	tgtctatgtg	atctcgaagg	ggaaactagc	ttccgtgcgt	540
ccttctgagt	cagacgctag	cggaagcata	agattcgaga	gaagcagttc	cacaagtggc	600
tccactgata	gtcctagact	ccctcctgag	taccaagact	ttctctccgc	tgtttcggaa	660
gcacaatccc	gagtctctcc	tttttctcct	gctctgaaac	attcgatggg	aagcaacgca	720
gtggctcaga	tggatacgag	ttcgagcggg	acggaccaag	aggaagtatc	tacggggaga	780
gggatggaga	ttgtccatag	cggtattgaa	ggaaagaaga	ataaggatga	gagcttttagc	840
gcttcgttcc	caatgggtac	agaggcttac	aactcgatga	gctggacgtc	taaatggaga	900
gatcacgagg	ataggagaga	gatgaggagc	tcttcttcga	gtaacaacca	cgatctagtc	960

## 047-E2F-PCT.ST25.txt

aatatggact ggggtgccgt ggttcctgag aactattctt gggtttctca tactgcctct 1020  
cacatgtctg atggactcct cagtgtccat tctattaccg ataatcaggt gaatctgaac 1080  
tttgagatag agaaactgag agcggagctg aagcatgttc aggagatgta tgccatggct 1140  
caaaccgaga ctgttggtgc ttcaaaaaag ctgactgagc taaaccagag gcggttcgag 1200  
gaatccgaga agcttgtgga actgaaggaa aaagaagaag tagcaaaaga tacagcttca 1260  
aaggagaagc aaaggtacga agagggcgatg aaggaagcag agaagggttaa agaactcatg 1320  
atgaaagagg ctttacatag aagagaagct gagttcaaag cagagcgcgga tgctagagag 1380  
aaagataagc tccaggcttc tctcgtctct cccgggggtcc aataccaaca ttatacctgg 1440  
gaggaaatcg cagccgcaac ttctgacttc gcagaaaatc tcaagattgg aatcggagcc 1500  
tatggatcag tctacaaatg taatctacat cacacgaccg gtgctgtcaa ggtccttcac 1560  
gctggagaaa ctgagctctc gaaacagttt gatcaagagc ttgagatctt aagcaaaatt 1620  
cgacatcctc acttagtcct cctactaggg gcgtgtcccg aacgcggctg ccttgtctac 1680  
gagtacatgg acaacggaag cttagatgac cggttgatgc tagtcaacga cacaccaccg 1740  
atcccttggg ttgagcgttt caggatcgct ttagaagtcg cttcagcgct tgtattcctc 1800  
cacaaatcca agcctagacc aatcattcac cgtgacctca aaccaggaaa catcttgctt 1860  
gaccacaact tcgtcagcaa actcggcgat gttggtctct caacaatggg taaccaagac 1920  
gatgtttcat ctagaactat cttcaagcaa accagtcccg tgggcacgct ctgttacatt 1980  
gaccctgagt atcagcgaac cgggattatc tcacctaaat cggatgtgta ctccctcgga 2040  
gttgtgattc tgcagctaata aaccgcgaaa cccgccatag cgattactca tatggtggaa 2100  
gaagctatcg gagacgatgc tgaatttatg gcaatcttgg ataagaaagc tgggtcttgg 2160  
cccatcagtg atactcgtga gttagccgct ttgggactgt gttgtacaga aatgagacgc 2220  
agagacagac cggatcttaa agatcaaadc atcccggctt tggaacggct caggaaagtc 2280  
gccgacaaag ctcaaaactt gctttcgaga actccgtctg gtcctccatc tcatttcatt 2340  
tgcccacttt tgaagggagt aatgaacgag ccgtgcgtgg ctgcggatgg gtacacgtac 2400  
gatcgggaag ctatagagga atggctgaga cagaaagata catcaccggg gacgaatctt 2460  
ccattgccta acaagaacct tattgctaata tacactcttt actcagcaat catggagtgg 2520  
aaatctaata aacggtag 2538

&lt;210&gt; 216

&lt;211&gt; 845

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 216

```

Met Glu Glu Lys Lys Val Val Arg Ala Leu Ser Glu His Leu Ser Leu
 1      5      10      15
Pro Pro Pro Pro Ser Pro Ser Val Ala Val Ala Ile Asn Gly Lys Lys
 20      25      30
Lys Ser Lys Tyr Val Val Phe Trp Ala Leu Glu Lys Phe Ile Pro Glu
 35      40      45
Gly Phe Thr Asp Phe Lys Leu Leu Tyr Val Arg Pro Pro Val Ser Tyr
 50      55      60
Ile Pro Thr Pro Met Gly Ile Ala Val Ala Val Ser Glu Leu Arg Glu
 65      70      75      80
Asp Val Val Ser Ala Tyr Lys Gln Glu Leu Asp Trp Ser Ala Asn Glu
 85      90      95
Met Leu Arg Pro Tyr Lys Lys Met Phe Glu Arg Arg Lys Val Gln Val
100      105      110
Glu Val Leu Leu Leu Asp Ser Leu Glu Pro Ala Ala Ala Ile Ala Glu
115      120      125
Glu Ile Ala Gly Thr Gly Val Thr Lys Leu Val Ile Gly Met Ser Leu
130      135      140
Arg Gly Phe Phe Ser Arg Lys Ile Asp Met Ser Ser Leu Ile Ala Thr
145      150      155      160
Ala Val Pro Arg Phe Cys Thr Val Tyr Val Ile Ser Lys Gly Lys Leu
165      170      175
Ala Ser Val Arg Pro Ser Glu Ser Asp Ala Ser Gly Ser Ile Arg Phe
180      185      190
Glu Arg Ser Ser Ser Thr Ser Gly Ser Thr Asp Ser Pro Arg Leu Pro
195      200      205
Pro Glu Tyr Gln Asp Phe Leu Ser Ala Val Ser Glu Ala Gln Ser Arg
210      215      220
Val Ser Pro Phe Ser Pro Ala Leu Lys His Ser Met Gly Ser Asn Ala
225      230      235      240

```

047-E2F-PCT.ST25.txt

Val Ala Gln Met Asp Thr Ser Ser Ser Gly Thr Asp Gln Glu Glu Val  
 245 250 255  
 Ser Thr Gly Arg Gly Met Glu Ile Val His Ser Gly Ile Glu Gly Lys  
 260 265 270  
 Lys Asn Lys Asp Glu Ser Phe Ser Ala Ser Phe Pro Met Gly Thr Glu  
 275 280 285  
 Ala Tyr Asn Ser Met Ser Trp Thr Ser Lys Trp Arg Asp His Glu Asp  
 290 295 300  
 Arg Arg Glu Met Arg Ser Ser Ser Ser Ser Asn Asn His Asp Leu Val  
 305 310 315 320  
 Asn Met Asp Trp Gly Ala Val Val Pro Glu Asn Tyr Ser Trp Val Ser  
 325 330 335  
 His Thr Ala Ser His Met Ser Asp Gly Leu Leu Ser Val His Ser Ile  
 340 345 350  
 Thr Asp Asn Gln Val Asn Leu Asn Phe Glu Ile Glu Lys Leu Arg Ala  
 355 360 365  
 Glu Leu Lys His Val Gln Glu Met Tyr Ala Met Ala Gln Thr Glu Thr  
 370 375 380  
 Val Gly Ala Ser Lys Lys Leu Thr Glu Leu Asn Gln Arg Arg Phe Glu  
 385 390 395 400  
 Glu Ser Glu Lys Leu Val Glu Leu Lys Glu Lys Glu Glu Val Ala Lys  
 405 410 415  
 Asp Thr Ala Ser Lys Glu Lys Gln Arg Tyr Glu Glu Ala Met Lys Glu  
 420 425 430  
 Ala Glu Lys Val Lys Glu Leu Met Met Lys Glu Ala Leu His Arg Arg  
 435 440 445  
 Glu Ala Glu Phe Lys Ala Glu Arg Asp Ala Arg Glu Lys Asp Lys Leu  
 450 455 460  
 Gln Ala Ser Leu Val Ser Pro Gly Val Gln Tyr Gln His Tyr Thr Trp  
 465 470 475 480  
 Glu Glu Ile Ala Ala Ala Thr Ser Asp Phe Ala Glu Asn Leu Lys Ile  
 485 490 495



047-E2F-PCT.ST25.txt

Gly Ile Gly Ala Tyr Gly Ser Val Tyr Lys Cys Asn Leu His His Thr  
500 505 510

Thr Gly Ala Val Lys Val Leu His Ala Gly Glu Thr Gln Leu Ser Lys  
515 520 525

Gln Phe Asp Gln Glu Leu Glu Ile Leu Ser Lys Ile Arg His Pro His  
530 535 540

Leu Val Leu Leu Leu Gly Ala Cys Pro Glu Arg Gly Cys Leu Val Tyr  
545 550 555 560

Glu Tyr Met Asp Asn Gly Ser Leu Asp Asp Arg Leu Met Leu Val Asn  
565 570 575

Asp Thr Pro Pro Ile Pro Trp Phe Glu Arg Phe Arg Ile Ala Leu Glu  
580 585 590

Val Ala Ser Ala Leu Val Phe Leu His Lys Ser Lys Pro Arg Pro Ile  
595 600 605

Ile His Arg Asp Leu Lys Pro Gly Asn Ile Leu Leu Asp His Asn Phe  
610 615 620

Val Ser Lys Leu Gly Asp Val Gly Leu Ser Thr Met Val Asn Gln Asp  
625 630 635 640

Asp Val Ser Ser Arg Thr Ile Phe Lys Gln Thr Ser Pro Val Gly Thr  
645 650 655

Leu Cys Tyr Ile Asp Pro Glu Tyr Gln Arg Thr Gly Ile Ile Ser Pro  
660 665 670

Lys Ser Asp Val Tyr Ser Leu Gly Val Val Ile Leu Gln Leu Ile Thr  
675 680 685

Ala Lys Pro Ala Ile Ala Ile Thr His Met Val Glu Glu Ala Ile Gly  
690 695 700

Asp Asp Ala Glu Phe Met Ala Ile Leu Asp Lys Lys Ala Gly Ser Trp  
705 710 715 720

Pro Ile Ser Asp Thr Arg Glu Leu Ala Ala Leu Gly Leu Cys Cys Thr  
725 730 735

Glu Met Arg Arg Arg Asp Arg Pro Asp Leu Lys Asp Gln Ile Ile Pro  
Page 347

740

745

750

Ala Leu Glu Arg Leu Arg Lys Val Ala Asp Lys Ala Gln Asn Leu Leu  
 755 760 765

Ser Arg Thr Pro Ser Gly Pro Pro Ser His Phe Ile Cys Pro Leu Leu  
 770 775 780

Lys Gly Val Met Asn Glu Pro Cys Val Ala Ala Asp Gly Tyr Thr Tyr  
 785 790 795 800

Asp Arg Glu Ala Ile Glu Glu Trp Leu Arg Gln Lys Asp Thr Ser Pro  
 805 810 815

Val Thr Asn Leu Pro Leu Pro Asn Lys Asn Leu Ile Ala Asn Tyr Thr  
 820 825 830

Leu Tyr Ser Ala Ile Met Glu Trp Lys Ser Asn Lys Arg  
 835 840 845

&lt;210&gt; 217

&lt;211&gt; 891

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 217

atgaacaaga aactttctcaa ccctcttgaa gatccaccaa ccgcttcttc aagcgaagac 60  
 gtcgacgaag agatttcatc aggagaagat gaaaaagaac atatctccaa ttcttcttct 120  
 tctgaagaag aaaacgaact caaagatctc tccactcaaa ccctaaattc tccttccacc 180  
 gaggctccaa ctctcgattc tggatctgag acaaattccg actcagataa gccaatcgtc 240  
 ttaaccagtc agaagaagaa agaaggtact gattcatcag ggacgaagcg agctagtga 300  
 ggaactagct caaaggacat caaaagagct aagaaagttt caggagatga cgataacaaa 360  
 aaatttcaga gtttatggac taaagaagat gagatctctc tgttacaagg tatgattgat 420  
 ttcaaagctg agacaggtac aagtgtcat gatgatatga atgggttttt tgatattgct 480  
 aagagataca taagctttga tgttagtaag atccaattcg gtgacaagat tagaggttta 540  
 aagaagaagt attttggtgt aaggaagaag aaaggtttag acttgatca tgataagaaa 600  
 tgtttgggat tggctaagtc tatttgggga cttgatggta aggaagtggg ggttcttgga 660  
 ggagattcgg agacgtcgaa ttggtttgag aagtcgtttt tggttcgggt tgttgagagg 720  
 cttggtgtgg atgagtgtat tgtgaagtgg aaatggagta aggtgtctaa ggagactaag 780

aagaggattg aagagaagat gaagatggtg gaggctaagg aacttgagtt gttgtcgcag 840  
aagatagatg ttttgaagga ggtggcttct gtgattgctg aaactatcta a 891

<210> 218

<211> 296

<212> PRT

<213> Arabidopsis thaliana

<400> 218

Met Asn Lys Lys Leu Leu Asn Pro Leu Glu Asp Pro Pro Thr Ala Ser  
1 5 10 15

Ser Ser Glu Asp Val Asp Glu Glu Ile Ser Ser Gly Glu Asp Glu Lys  
20 25 30

Glu His Ile Ser Asn Ser Ser Ser Glu Glu Glu Asn Glu Leu Lys  
35 40 45

Asp Leu Ser Thr Gln Thr Leu Asn Ser Pro Ser Thr Glu Ala Pro Thr  
50 55 60

Leu Asp Ser Gly Ser Glu Thr Asn Ser Asp Ser Asp Lys Pro Ile Val  
65 70 75 80

Leu Thr Ser Gln Lys Lys Lys Glu Gly Thr Asp Ser Ser Gly Thr Lys  
85 90 95

Arg Ala Ser Glu Gly Thr Ser Ser Lys Asp Ile Lys Arg Ala Lys Lys  
100 105 110

Val Ser Gly Asp Asp Asp Asn Lys Lys Phe Gln Ser Leu Trp Thr Lys  
115 120 125

Glu Asp Glu Ile Ser Leu Leu Gln Gly Met Ile Asp Phe Lys Ala Glu  
130 135 140

Thr Gly Thr Ser Ala His Asp Asp Met Asn Gly Phe Phe Asp Ile Ala  
145 150 155 160

Lys Arg Tyr Ile Ser Phe Asp Val Ser Lys Ile Gln Phe Gly Asp Lys  
165 170 175

Ile Arg Gly Leu Lys Lys Lys Tyr Phe Gly Val Arg Lys Lys Lys Gly  
Page 349

180

185

190

Leu Asp Leu Asp His Asp Lys Lys Cys Leu Gly Leu Ala Lys Ser Ile  
 195 200 205

Trp Gly Leu Asp Gly Lys Glu Val Val Val Leu Gly Gly Asp Ser Glu  
 210 215 220

Thr Ser Asn Trp Phe Glu Lys Ser Phe Leu Val Arg Val Val Ala Arg  
 225 230 235 240

Leu Gly Val Asp Glu Cys Ile Val Lys Trp Lys Trp Ser Lys Val Ser  
 245 250 255

Lys Glu Thr Lys Lys Arg Ile Glu Glu Lys Met Lys Met Val Glu Ala  
 260 265 270

Lys Glu Leu Glu Leu Leu Ser Gln Lys Ile Asp Val Leu Lys Glu Val  
 275 280 285

Ala Ser Val Ile Ala Glu Thr Ile  
 290 295

&lt;210&gt; 219

&lt;211&gt; 1113

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 219

atggttaaac cctgttggag aataggtgcc ggtatggaga gaagtaagat caatcccaca 60  
 aaggttgatg gtttgacatg gtacaaagat cttggtcttc acacctttgg agagttttcc 120  
 atggcaatga tccaagccaa cagtgtgatg gaggatcagt gccagatcga atcagggccg 180  
 cttacattca acaatccgac agttcaaggc acatttggtg gagtttacga tggccatgga 240  
 ggtccagagg cttccagatt cattgcagac aacatcttcc ccaagttaaa gaagtttgcg 300  
 tccgagggta gggagatttc agagcaggtg atcagcaaag catttgccga gacagacaaa 360  
 gattttctca agacagtgac gaagcaatgg cctacgaacc cacagatggc atcagtgggg 420  
 tcatgttgct tggcaggagt gatatgcaac ggattggtgt atattgcaaa cacgggagat 480  
 tccagagctg tggtgggcag atctgagaga ggtggagtga gagctgttca gttatctgta 540  
 gagcacaatg ccaatcttga gtctgagagg caagagctat ggtcattgca tcctaagac 600  
 cccaccattc ttgtgatgaa gcaccgcttg tggcgtgtga aaggcggtat ccaggtcaca 660

047-E2F-PCT.ST25.txt

agatccatag gtgatgcata cctcaaaaga gcagagttca acagagaacc tttgctgccc 720  
aaattcagac taccagaaca ttctactaag ccaatcctta gtgcggatcc atcagtcacc 780  
attacgcggc ttagcccaca agatgagttt ataattcttg cttcagatgg gctttgggag 840  
catcttagca accaggaagc tgttgatatt gtgcataatt cccctcgaca aggaatagca 900  
aggagactac ttaaagctgc attgaaggaa gcagcaaaga aaagagagat gagataactca 960  
gacctaacag agatccatcc tgggtgtaaga aggcatttcc acgacgatat aaccgttatt 1020  
gtggtctatc tcaaccccca cccggtcaaa accaattctt gggcttcacc tctgtcaatt 1080  
agaggggggat acccgatgca ttcaacatca tga 1113

<210> 220

<211> 370

<212> PRT

<213> Arabidopsis thaliana

<400> 220

Met Val Lys Pro Cys Trp Arg Ile Gly Ala Gly Met Glu Arg Ser Lys  
1 5 10 15

Ile Asn Pro Thr Lys Val Asp Gly Leu Thr Trp Tyr Lys Asp Leu Gly  
20 25 30

Leu His Thr Phe Gly Glu Phe Ser Met Ala Met Ile Gln Ala Asn Ser  
35 40 45

Val Met Glu Asp Gln Cys Gln Ile Glu Ser Gly Pro Leu Thr Phe Asn  
50 55 60

Asn Pro Thr Val Gln Gly Thr Phe Val Gly Val Tyr Asp Gly His Gly  
65 70 75 80

Gly Pro Glu Ala Ser Arg Phe Ile Ala Asp Asn Ile Phe Pro Lys Leu  
85 90 95

Lys Lys Phe Ala Ser Glu Gly Arg Glu Ile Ser Glu Gln Val Ile Ser  
100 105 110

Lys Ala Phe Ala Glu Thr Asp Lys Asp Phe Leu Lys Thr Val Thr Lys  
115 120 125

Gln Trp Pro Thr Asn Pro Gln Met Ala Ser Val Gly Ser Cys Cys Leu  
Page 351

130

135

Ala Gly Val Ile Cys Asn Gly Leu Val Tyr Ile Ala Asn Thr Gly Asp  
145 150 155 160

Ser Arg Ala Val Leu Gly Arg Ser Glu Arg Gly Gly Val Arg Ala Val  
165 170 175

Gln Leu Ser Val Glu His Asn Ala Asn Leu Glu Ser Ala Arg Gln Glu  
180 185 190

Leu Trp Ser Leu His Pro Asn Asp Pro Thr Ile Leu Val Met Lys His  
195 200 205

Arg Leu Trp Arg Val Lys Gly Val Ile Gln Val Thr Arg Ser Ile Gly  
210 215 220

Asp Ala Tyr Leu Lys Arg Ala Glu Phe Asn Arg Glu Pro Leu Leu Pro  
225 230 235 240

Lys Phe Arg Leu Pro Glu His Phe Thr Lys Pro Ile Leu Ser Ala Asp  
245 250 255

Pro Ser Val Thr Ile Thr Arg Leu Ser Pro Gln Asp Glu Phe Ile Ile  
260 265 270

Leu Ala Ser Asp Gly Leu Trp Glu His Leu Ser Asn Gln Glu Ala Val  
275 280 285

Asp Ile Val His Asn Ser Pro Arg Gln Gly Ile Ala Arg Arg Leu Leu  
290 295 300

Lys Ala Ala Leu Lys Glu Ala Ala Lys Lys Arg Glu Met Arg Tyr Ser  
305 310 315 320

Asp Leu Thr Glu Ile His Pro Gly Val Arg Arg His Phe His Asp Asp  
325 330 335

Ile Thr Val Ile Val Val Tyr Leu Asn Pro His Pro Val Lys Thr Asn  
340 345 350

Ser Trp Ala Ser Pro Leu Ser Ile Arg Gly Gly Tyr Pro Met His Ser  
355 360 365

Thr Ser  
370

&lt;210&gt; 221

&lt;211&gt; 879

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 221

```

atggctggtc ttgatctagg cacagctttt cgttacgtta atcaccagct ccatcgcccc    60
gatctccacc ttcaccacaa ttcctcctcc gatgacgtca ctcccggagc cgggatgggt    120
catttcaccg tcgacgacga agacaacaac aacaaccatc aaggctttga cttagcctct    180
ggtggaggat caggaagctc tggaggagga ggaggtcacg gcgggggagg agacgtcgtt    240
ggtcgtcgtc cacgtggcag accaccggga tccaagaaca aaccgaaacc tccggttaatt    300
atcacgcgcg agagcgcaaa cactctaaga gctcacattc ttgaagtaac aaacggctgc    360
gatgttttcg actgcgttgc gacttatgct cgtcggagac agcgagggat ctgcgttctg    420
agcggtagcg gaacggtcac gaacgtcagc atacgtcagc catctgcggc tggagcggtt    480
gtgacgctac aaggaacggt cgagattctt tctctctccg gatcgtttct tcctcctccg    540
gcacctcccg gagcaacgag ttgacaattt ttcttagccg gaggacaagg tcagggtggtt    600
ggaggaagcg ttgtgggtga gcttacggcg gctggaccgg tgattgtgat tgcagcttcg    660
tttactaatg ttgcttatga gagacttcct ttagaagaag atgagcagca gcaacagctt    720
ggaggaggat ctaacggcgg aggttaatttg tttccggagg tggcagctgg aggaggagga    780
ggacttccgt tctttaattt accgatgaat atgcaaccaa atgtgcaact tccggtggaa    840
ggttggccgg ggaattccgg tggaagaggt cctttctga                        879

```

&lt;210&gt; 222

&lt;211&gt; 292

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 222

```

Met Ala Gly Leu Asp Leu Gly Thr Ala Phe Arg Tyr Val Asn His Gln
1           5           10          15

```

```

Leu His Arg Pro Asp Leu His Leu His His Asn Ser Ser Ser Asp Asp
          20          25          30

```

```

Val Thr Pro Gly Ala Gly Met Gly His Phe Thr Val Asp Asp Glu Asp

```

35

40

45

Asn Asn Asn Asn His Gln Gly Leu Asp Leu Ala Ser Gly Gly Gly Ser  
 50 55 60  
 Gly Ser Ser Gly Gly Gly Gly His Gly Gly Gly Asp Val Val  
 65 70 75 80  
 Gly Arg Arg Pro Arg Gly Arg Pro Pro Gly Ser Lys Asn Lys Pro Lys  
 85 90 95  
 Pro Pro Val Ile Ile Thr Arg Glu Ser Ala Asn Thr Leu Arg Ala His  
 100 105 110  
 Ile Leu Glu Val Thr Asn Gly Cys Asp Val Phe Asp Cys Val Ala Thr  
 115 120 125  
 Tyr Ala Arg Arg Arg Gln Arg Gly Ile Cys Val Leu Ser Gly Ser Gly  
 130 135 140  
 Thr Val Thr Asn Val Ser Ile Arg Gln Pro Ser Ala Ala Gly Ala Val  
 145 150 155 160  
 Val Thr Leu Gln Gly Thr Phe Glu Ile Leu Ser Leu Ser Gly Ser Phe  
 165 170 175  
 Leu Pro Pro Pro Ala Pro Pro Gly Ala Thr Ser Leu Thr Ile Phe Leu  
 180 185 190  
 Ala Gly Gly Gln Gly Gln Val Val Gly Gly Ser Val Val Gly Glu Leu  
 195 200 205  
 Thr Ala Ala Gly Pro Val Ile Val Ile Ala Ala Ser Phe Thr Asn Val  
 210 215 220  
 Ala Tyr Glu Arg Leu Pro Leu Glu Glu Asp Glu Gln Gln Gln Gln Leu  
 225 230 235 240  
 Gly Gly Gly Ser Asn Gly Gly Gly Asn Leu Phe Pro Glu Val Ala Ala  
 245 250 255  
 Gly Gly Gly Gly Gly Leu Pro Phe Phe Asn Leu Pro Met Asn Met Gln  
 260 265 270  
 Pro Asn Val Gln Leu Pro Val Glu Gly Trp Pro Gly Asn Ser Gly Gly  
 275 280 285



Arg Gly Pro Phe  
290

<210> 223

<211> 1281

<212> DNA

<213> *Arabidopsis thaliana*

<400> 223

```

atgcagaatc aaaggcttat taagcagcaa caacaacaac aacaacagca acatcaacaa      60
gctatgattc aacaagctat gatgcaacaa catccttctc tttatcatcc tgggtgttatg    120
gctcctcctc agatggagcc tttaaccaagt ggaaaccttc ctcttggttt tgatccaact    180
acttgccgta gtgtgtatgc tggaaacatt catacgagg tcacagagat tcttcttcaa    240
gagatTTTTG caagtactgg tcctattgaa agctgtaaac tcatcagaaa ggataagtca    300
tcatatggat ttgttacta ctttgatcga agatgtgcta gtatggctat aatgactctt    360
aacggaaggc atatatttgg acagcctatg aaagttaatt gggcgatatgc aactgggtcaa    420
aggggaagata catcaagtca tttcaacatt tttgttgagg atcttagtcc agaggttact    480
gatgcagcat tgtttgatag cttttctgct tttaacagct gctcggacgc aagagtaatg    540
tgggaccaga aaactggacg ctcaagaggc tttgggtttt tttccttccg taatcagcag    600
gatgctcaaa ctgccataaa tgagatgaat ggtaaatggg taagtagcag acagatcaga    660
tgcaactggg cgacaaaagg tgctactttt ggcgaggaca aacatagctc tgatggaaaa    720
agtgtttag aacttactaa cggatcttca gaggatggta gagagctgtc aaatgaagat    780
gcccctgaaa acaatcctca atttacaact gtctatgtag gaaatctctc tccagaagta    840
actcagcttg atctacaccg tctattctat acccttggtg ctggagtgat cgaagaggtc    900
cgtgtccagc gagacaaagg gtttgggttt gtgagatata acactcatga cgaggctgct    960
cttgctattc agatgggcaa cgctcagcct ttcctcttta gcagacagat aagggtgttcc   1020
tggggaaaca aaccaactcc atcaggcaca gcctcaaacc cacttcccc accagccccg   1080
gcatcagtc cttctctgtc tgcaatggac ctcttagcct acgagaggca actggctcta   1140
gccaagatgc atcctcaggc tcaacattct ctgaggcaag caggtcttgg agtcaatggt   1200
gctggaggaa ctgcagctat gtatgatggt ggctatcaga atgtagctgc ggcccatcag   1260
cagctcatgt actatcagta a                                     1281

```

<210> 224

<211> 426

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 224

Met Gln Asn Gln Arg Leu Ile Lys Gln Gln Gln Gln Gln Gln Gln  
 1 5 10 15

Gln His Gln Gln Ala Met Ile Gln Gln Ala Met Met Gln Gln His Pro  
 20 25 30

Ser Leu Tyr His Pro Gly Val Met Ala Pro Pro Gln Met Glu Pro Leu  
 35 40 45

Pro Ser Gly Asn Leu Pro Pro Gly Phe Asp Pro Thr Thr Cys Arg Ser  
 50 55 60

Val Tyr Ala Gly Asn Ile His Thr Gln Val Thr Glu Ile Leu Leu Gln  
 65 70 75 80

Glu Ile Phe Ala Ser Thr Gly Pro Ile Glu Ser Cys Lys Leu Ile Arg  
 85 90 95

Lys Asp Lys Ser Ser Tyr Gly Phe Val His Tyr Phe Asp Arg Arg Cys  
 100 105 110

Ala Ser Met Ala Ile Met Thr Leu Asn Gly Arg His Ile Phe Gly Gln  
 115 120 125

Pro Met Lys Val Asn Trp Ala Tyr Ala Thr Gly Gln Arg Glu Asp Thr  
 130 135 140

Ser Ser His Phe Asn Ile Phe Val Gly Asp Leu Ser Pro Glu Val Thr  
 145 150 155 160

Asp Ala Ala Leu Phe Asp Ser Phe Ser Ala Phe Asn Ser Cys Ser Asp  
 165 170 175

Ala Arg Val Met Trp Asp Gln Lys Thr Gly Arg Ser Arg Gly Phe Gly  
 180 185 190

Phe Val Ser Phe Arg Asn Gln Gln Asp Ala Gln Thr Ala Ile Asn Glu  
 195 200 205

Met Asn Gly Lys Trp Val Ser Ser Arg Gln Ile Arg Cys Asn Trp Ala  
 210 215 220

047-E2F-PCT.ST25.txt

Thr Lys Gly Ala Thr Phe Gly Glu Asp Lys His Ser Ser Asp Gly Lys  
 225 230 235 240  
 Ser Val Val Glu Leu Thr Asn Gly Ser Ser Glu Asp Gly Arg Glu Leu  
 245 250 255  
 Ser Asn Glu Asp Ala Pro Glu Asn Asn Pro Gln Phe Thr Thr Val Tyr  
 260 265 270  
 Val Gly Asn Leu Ser Pro Glu Val Thr Gln Leu Asp Leu His Arg Leu  
 275 280 285  
 Phe Tyr Thr Leu Gly Ala Gly Val Ile Glu Glu Val Arg Val Gln Arg  
 290 295 300  
 Asp Lys Gly Phe Gly Phe Val Arg Tyr Asn Thr His Asp Glu Ala Ala  
 305 310 315 320  
 Leu Ala Ile Gln Met Gly Asn Ala Gln Pro Phe Leu Phe Ser Arg Gln  
 325 330 335  
 Ile Arg Cys Ser Trp Gly Asn Lys Pro Thr Pro Ser Gly Thr Ala Ser  
 340 345 350  
 Asn Pro Leu Pro Pro Pro Ala Pro Ala Ser Val Pro Ser Leu Ser Ala  
 355 360 365  
 Met Asp Leu Leu Ala Tyr Glu Arg Gln Leu Ala Leu Ala Lys Met His  
 370 375 380  
 Pro Gln Ala Gln His Ser Leu Arg Gln Ala Gly Leu Gly Val Asn Val  
 385 390 395 400  
 Ala Gly Gly Thr Ala Ala Met Tyr Asp Gly Gly Tyr Gln Asn Val Ala  
 405 410 415  
 Ala Ala His Gln Gln Leu Met Tyr Tyr Gln  
 420 425

<210> 225

<211> 999

<212> DNA

<213> Arabidopsis thaliana

047-E2F-PCT.ST25.txt

```

<400> 225
atggggtttta taactcgatt tttagttttc atgtcactct tcaccagttt ggtttctgga      60
tttgctctac aaaagcttcc tcttatacag ttcgacgaag gttacacaca gctcttttgg      120
gaccagaatc ttattgttca cagagatgga aaatctgtcc ggттаacgct tgatgaaaga      180
accggttctg gatttgtctc aaatgatatt tacttgcatg gcttcttcag ttcctctatc      240
aaattgccag cagattactc tgcaggagtt gttatcgcct tttatttatc aaatggggac      300
ttatatgaga agaatcatga cgagattgat tttgagtttt tggggaatat tagaggcaga      360
gaatggagga ttcagaccaa tatatacggg aatggaagca cacacttggg cagagaagaa      420
agatacaatc tttggtttga tccaacagag gatttccatc aatacagtat cctttgggtct      480
ctatctcaca tcatatttta tgtagacaat gttccgatca gagaagtcaa acgtacggcg      540
tcgatgggcg gtgacttccc ggcgaagcca atgtctttat attcaaccat atgggatggg      600
tccaaatggg cgactgatgg aggcaagtac ggtgtaaatt acaaatatgc cccttacgtc      660
tctcaattca ctgatctgat cctccacggc tgcgccgttg accccaccga gaagtttccg      720
agctgcaaag atgaagcggg tcagaatctc cggctagcat cggagataac ggagtctcag      780
aggaacaaga tggagatttt cgcacagaaa cacatgactt attcgtattg ttacgatcat      840
atgaggtaca aggtgggttt gtcggagtgt gttgtgaatc cggctgaggc taagcgtctc      900
agggctctatg atccggtcac gttcgggtggg attcctcacg gccaccgtcg tgggaagcat      960
cggagcagga gccgattagc tcgaactgag tcgatatga      999

```

<210> 226

<211> 332

<212> PRT

<213> Arabidopsis thaliana

<400> 226

```

Met Gly Phe Ile Thr Arg Phe Leu Val Phe Met Ser Leu Phe Thr Ser
1           5           10           15

Leu Val Ser Gly Phe Ala Leu Gln Lys Leu Pro Leu Ile Gln Phe Asp
          20           25           30

Glu Gly Tyr Thr Gln Leu Phe Gly Asp Gln Asn Leu Ile Val His Arg
          35           40           45

Asp Gly Lys Ser Val Arg Leu Thr Leu Asp Glu Arg Thr Gly Ser Gly
50           55           60

```

047-E2F-PCT.ST25.txt

Phe Val Ser Asn Asp Ile Tyr Leu His Gly Phe Phe Ser Ser Ser Ile  
 65 70 75 80  
 Lys Leu Pro Ala Asp Tyr Ser Ala Gly Val Val Ile Ala Phe Tyr Leu  
 85 90 95  
 Ser Asn Gly Asp Leu Tyr Glu Lys Asn His Asp Glu Ile Asp Phe Glu  
 100 105 110  
 Phe Leu Gly Asn Ile Arg Gly Arg Glu Trp Arg Ile Gln Thr Asn Ile  
 115 120 125  
 Tyr Gly Asn Gly Ser Thr His Leu Gly Arg Glu Glu Arg Tyr Asn Leu  
 130 135 140  
 Trp Phe Asp Pro Thr Glu Asp Phe His Gln Tyr Ser Ile Leu Trp Ser  
 145 150 155 160  
 Leu Ser His Ile Ile Phe Tyr Val Asp Asn Val Pro Ile Arg Glu Val  
 165 170 175  
 Lys Arg Thr Ala Ser Met Gly Gly Asp Phe Pro Ala Lys Pro Met Ser  
 180 185 190  
 Leu Tyr Ser Thr Ile Trp Asp Gly Ser Lys Trp Ala Thr Asp Gly Gly  
 195 200 205  
 Lys Tyr Gly Val Asn Tyr Lys Tyr Ala Pro Tyr Val Ser Gln Phe Thr  
 210 215 220  
 Asp Leu Ile Leu His Gly Cys Ala Val Asp Pro Thr Glu Lys Phe Pro  
 225 230 235 240  
 Ser Cys Lys Asp Glu Ala Val Gln Asn Leu Arg Leu Ala Ser Glu Ile  
 245 250 255  
 Thr Glu Ser Gln Arg Asn Lys Met Glu Ile Phe Arg Gln Lys His Met  
 260 265 270  
 Thr Tyr Ser Tyr Cys Tyr Asp His Met Arg Tyr Lys Val Val Leu Ser  
 275 280 285  
 Glu Cys Val Val Asn Pro Ala Glu Ala Lys Arg Leu Arg Val Tyr Asp  
 290 295 300  
 Pro Val Thr Phe Gly Gly Ile Pro His Gly His Arg Arg Gly Lys His

305

310

320

Arg Ser Arg Ser Arg Leu Ala Arg Thr Glu Ser Ile  
325 330

<210> 227

<211> 1065

<212> DNA

<213> Arabidopsis thaliana

<400> 227

atgtttgggt caagaggtct ctgttgcagc agaatctgga atcgttctct gtttctcaaa	60
cgttcttcaa acttccgagc tagtttctct acgaaacgtg ttgggacca taatggaaca	120
ttccactgcg acgaagcttt agcttgcttc atccttcgtc gttccaatag attctccgat	180
gctcaaatcg tccgaaccag agatcatcag gttttggaga agcttgatgc ggcacttgat	240
gttggaggtg tgtatgatcc tcagagtga cgttatgacc atcaccagaa aggatttagt	300
gaagtgtttg gccttgggtt taatactaaa ctcagtagtg ctgggcttgt ctataagcat	360
tatggattgg aaataatttc caaggagctt caacttgagc agagacatcc tgatgtgttt	420
cgattgtttc tagctgtgta caaaaacttc attgaggcag tagatgcttt agacaatggt	480
atccatcaat atgatactga ccaacctcca agatatgtaa acaatactag cctggggcat	540
aggattggaa gattgaactt agactggatt gaacctgac agtctagtgc caaagaagat	600
gaagcctttc atcgggcaat ggagcttgct ggctctgagt tcttggagtg tgttcatttt	660
cacgcgaaat cgtggttacc agctcggta attgttatgg agtgtcttgc aaaacggtat	720
gatatagact ccagtggaga aattatgaag ctcaagtaa aatgccccatg gaaactccat	780
atattcgagc tcgaggaaga aatgaagatt gatcctcaa taaaatatgt tctttaccag	840
gatgatagaa gcgaaaactg gagaatacaa gcagtttcgg tttcaccaga gaggtttgag	900
agccgtaaag ctttaccatt agcatggaga ggttttagaaa aggagaagct ctcaaggaa	960
agctcaattc cacgctgtgt ttttgtgcat atgagtgggt tcattgggtgc aaaccaaacc	1020
tatgaaggtg ccttagcaat ggcaagagct tctttgatgg cttag	1065

<210> 228

<211> 354

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 228

```

Met Phe Gly Ser Arg Gly Leu Cys Cys Ser Arg Ile Trp Asn Arg Ser
 1      5      10      15

Leu Phe Leu Lys Arg Ser Ser Asn Phe Arg Ala Ser Phe Ser Thr Lys
 20      25      30

Arg Val Gly Thr His Asn Gly Thr Phe His Cys Asp Glu Ala Leu Ala
 35      40      45

Cys Phe Ile Leu Arg Arg Ser Asn Arg Phe Ser Asp Ala Gln Ile Val
 50      55      60

Arg Thr Arg Asp His Gln Val Leu Glu Lys Leu Asp Ala Ala Leu Asp
 65      70      75      80

Val Gly Gly Val Tyr Asp Pro Gln Ser Glu Arg Tyr Asp His His Gln
 85      90      95

Lys Gly Phe Ser Glu Val Phe Gly Leu Gly Phe Asn Thr Lys Leu Ser
100      105      110

Ser Ala Gly Leu Val Tyr Lys His Tyr Gly Leu Glu Ile Ile Ser Lys
115      120      125

Glu Leu Gln Leu Glu Gln Arg His Pro Asp Val Phe Arg Leu Phe Leu
130      135      140

Ala Val Tyr Lys Asn Phe Ile Glu Ala Val Asp Ala Leu Asp Asn Gly
145      150      155      160

Ile His Gln Tyr Asp Thr Asp Gln Pro Pro Arg Tyr Val Asn Asn Thr
165      170      175

Ser Leu Gly His Arg Ile Gly Arg Leu Asn Leu Asp Trp Ile Glu Pro
180      185      190

Asp Gln Ser Ser Ala Lys Glu Asp Glu Ala Phe His Arg Ala Met Glu
195      200      205

Leu Ala Gly Ser Glu Phe Leu Glu Cys Val His Phe His Ala Lys Ser
210      215      220

Trp Leu Pro Ala Arg Ser Ile Val Met Glu Cys Leu Ala Lys Arg Tyr
225      230      235      240

```

047-E2F-PCT.ST25.txt

Asp Ile Asp Ser Ser Gly Glu Ile Met Lys Leu Ser Lys Gln Cys Pro  
245 250 255  
Trp Lys Leu His Ile Phe Glu Leu Glu Glu Glu Met Lys Ile Asp Pro  
260 265 270  
Pro Ile Lys Tyr Val Leu Tyr Gln Asp Asp Arg Ser Glu Asn Trp Arg  
275 280 285  
Ile Gln Ala Val Ser Val Ser Pro Glu Arg Phe Glu Ser Arg Lys Ala  
290 295 300  
Leu Pro Leu Ala Trp Arg Gly Leu Glu Lys Glu Lys Leu Ser Glu Glu  
305 310 315 320  
Ser Ser Ile Pro Arg Cys Val Phe Val His Met Ser Gly Phe Ile Gly  
325 330 335  
Ala Asn Gln Thr Tyr Glu Gly Ala Leu Ala Met Ala Arg Ala Ser Leu  
340 345 350

Met Ala

<210> 229

<211> 1350

<212> DNA

<213> Arabidopsis thaliana

<400> 229

atggccaaag cgccaccgtc aatctctctt ctcctcctcc tctgcgccgc cgtattcctc	60
accatccccg ccgtgatctc cgccatcggt gttaactacg gaactctcgg aaacctccca	120
ccaccgactc aggtggctaa ctttatcaag acacaaactt cgattgatag cgtcaagatc	180
ttcgatgtga atcccgatat cctacgtgcc ttcgctggaa ctggtatctc cgtcgttgtc	240
accgttccta acggtgatat tccggcgttg gctaacggaa gacaagctcg tcggtggggt	300
tcggttaaca ttttgccgtt tcatcctcag acgaagatta agtatatctc agtcggaaat	360
gagattctgc tcaccggaga taataacatg atcaataatc tcttaccggc gatgaggaat	420
cttaacaacg ctttggttcg tgctgggtgc agagatgtta aggttacaac cgcacactca	480
cttaacatca tagcctatga cctgaccggt gcaccaagca gcggtagatt caggccgggt	540
tgggacaaag gcatattggc tccaatccta gcttaccatc gccgaaccaa gtcacctttc	600



047-E2F-PCT.ST25.txt

```

atggttaacc cgtaccctta ctttggtttt gaccccaaaa acgtcaactt cgcaattttc 660
cgaacaccgt acaaggcagt ccgtgaccgc ttcacccgcc acgtctacac caacatgttt 720
gatgcactca tggactcgac atactcagcc atgaaagctc ttggatacgg tgatgttaac 780
attgtcgttg gcgagactgg ctggccatct gcttgtgacg caccttggtg ctcgcctgcg 840
aatgctgctt ggttcaacct caacattatc aaacgtgcac aaggccaagg gacacctctc 900
atgcctaaca gacggttcga gacatacatt ttcgggtctct tcaacgaaga aggcaaaccc 960
ggtccgaccg cagagcgtaa ctggggactt ttccgagcag atttctcccc ggtttacgat 1020
gttggtcttc tccgaaacgg acaaggcggg ggaggccgcc cagcattgcc cgcacctagt 1080
actgccggcg gtaaagtgtg tgtagcgagg tccggggcga cgaatactca gctgcaagac 1140
agtattaatt ggggtgtgtg tcagggtgtt gactgtaaac cgatccaagc tgggtggttcg 1200
tgctttaacc cgagcagttt gaggacgcac gcattctttt ttatgaatgc ttatttccag 1260
agccacggcc gactgatgg tgcttgtaac ttcagtggaa ctggtatgat cgtagggaac 1320
aacccaagca atggtgcatg taagtactaa 1350

```

<210> 230

<211> 449

<212> PRT

<213> Arabidopsis thaliana

<400> 230

```

Met Ala Lys Ala Pro Pro Ser Ile Ser Leu Leu Leu Leu Leu Cys Ala
1          5          10          15

```

```

Ala Val Phe Leu Thr Ile Pro Ala Val Ile Ser Ala Ile Gly Val Asn
20          25          30

```

```

Tyr Gly Thr Leu Gly Asn Leu Pro Pro Pro Thr Gln Val Ala Asn Phe
35          40          45

```

```

Ile Lys Thr Gln Thr Ser Ile Asp Ser Val Lys Ile Phe Asp Val Asn
50          55          60

```

```

Pro Asp Ile Leu Arg Ala Phe Ala Gly Thr Gly Ile Ser Val Val Val
65          70          75          80

```

```

Thr Val Pro Asn Gly Asp Ile Pro Ala Leu Ala Asn Gly Arg Gln Ala
85          90          95

```

047-E2F-PCT.ST25.txt

Arg Arg Trp Val Ser Val Asn Ile Leu Pro Phe His Pro Gln Thr Lys  
100 105 110

Ile Lys Tyr Ile Ser Val Gly Asn Glu Ile Leu Leu Thr Gly Asp Asn  
115 120 125

Asn Met Ile Asn Asn Leu Leu Pro Ala Met Arg Asn Leu Asn Asn Ala  
130 135 140

Leu Val Arg Ala Gly Val Arg Asp Val Lys Val Thr Thr Ala His Ser  
145 150 155 160

Leu Asn Ile Ile Ala Tyr Asp Leu Thr Gly Ala Pro Ser Ser Gly Arg  
165 170 175

Phe Arg Pro Gly Trp Asp Lys Gly Ile Leu Ala Pro Ile Leu Ala Tyr  
180 185 190

His Arg Arg Thr Lys Ser Pro Phe Met Val Asn Pro Tyr Pro Tyr Phe  
195 200 205

Gly Phe Asp Pro Lys Asn Val Asn Phe Ala Ile Phe Arg Thr Pro Tyr  
210 215 220

Lys Ala Val Arg Asp Pro Phe Thr Arg His Val Tyr Thr Asn Met Phe  
225 230 235 240

Asp Ala Leu Met Asp Ser Thr Tyr Ser Ala Met Lys Ala Leu Gly Tyr  
245 250 255

Gly Asp Val Asn Ile Val Val Gly Glu Thr Gly Trp Pro Ser Ala Cys  
260 265 270

Asp Ala Pro Trp Cys Ser Pro Ala Asn Ala Ala Trp Phe Asn Leu Asn  
275 280 285

Ile Ile Lys Arg Ala Gln Gly Gln Gly Thr Pro Leu Met Pro Asn Arg  
290 295 300

Arg Phe Glu Thr Tyr Ile Phe Gly Leu Phe Asn Glu Glu Gly Lys Pro  
305 310 315 320

Gly Pro Thr Ala Glu Arg Asn Trp Gly Leu Phe Arg Ala Asp Phe Ser  
325 330 335

Pro Val Tyr Asp Val Gly Leu Leu Arg Asn Gly Gln Gly Gly Gly Gly  
340 345 350

047-E2F-PCT.ST25.txt

Arg Pro Ala Leu Pro Ala Pro Ser Thr Ala Gly Gly Lys Trp Cys Val  
355 360 365

Ala Arg Ser Gly Ala Thr Asn Thr Gln Leu Gln Asp Ser Ile Asn Trp  
370 375 380

Val Cys Gly Gln Gly Val Asp Cys Lys Pro Ile Gln Ala Gly Gly Ser  
385 390 395 400

Cys Phe Asn Pro Ser Ser Leu Arg Thr His Ala Ser Phe Val Met Asn  
405 410 415

Ala Tyr Phe Gln Ser His Gly Arg Thr Asp Gly Ala Cys Asn Phe Ser  
420 425 430

Gly Thr Gly Met Ile Val Gly Asn Asn Pro Ser Asn Gly Ala Cys Lys  
435 440 445

Tyr

<210> 231

<211> 219

<212> DNA

<213> Arabidopsis thaliana

<400> 231

atggagcttc catctcctta cagctcaaga aaggaggaat caactgttcc tccgaagaga 60

ggccgagtca agatcatgat ctttcgtgat ctagtcagat cggaacctc gatggcaccg 120

actccgagga gaggccgaat caagaaaatg atcgcggtg atctagtcgg atcagggaaa 180

cagaacaact acgacggaga cggtaaagaga ggaggctag 219

<210> 232

<211> 72

<212> PRT

<213> Arabidopsis thaliana

<400> 232

Met Glu Leu Pro Ser Pro Tyr Ser Ser Arg Lys Glu Glu Ser Thr Val  
Page 365

1 5 15  
Pro Pro Lys Arg Gly Arg Val Lys Ile Met Ile Phe Arg Asp Leu Val  
20 25 30  
Arg Ser Glu Thr Ser Met Ala Pro Thr Pro Arg Arg Gly Arg Ile Lys  
35 40 45  
Lys Met Ile Ala Gly Asp Leu Val Gly Ser Gly Lys Gln Asn Asn Tyr  
50 55 60  
Asp Gly Asp Gly Lys Arg Gly Gly  
65 70

<210> 233  
<211> 564  
<212> DNA  
<213> Arabidopsis thaliana

<400> 233  
atgtcttcgc caagcaaacg cagagaaatg gatatgatga agctgatgat gagcgattat 60  
aaagtggaaa cgatcaacga tggcatgcaa gaattctatg ttgaattcaa tgggtcccaa 120  
gacagtctct atcaaggagg tgtgtggaag ataagagttg agcttccaga tgcttattct 180  
tataaatctc catctgttgg ttctattact aaaatttata atcctaattgt tgatgaactg 240  
tcgggttctg tttgtttaga tgtgattaac caaacttgga gtcctatgtt cgaccttggtg 300  
aatgtgtttg agacatttct tcctcagctt cttctgtatc caaaccatc agatccattg 360  
aatggagaag ctgctgcgtt aatgatgcgt gatcgtcctg cttatgagca acgagttaaa 420  
gaatactgtg agaagtatgc aaagccaggg gaaggttcag aagataagtc tagcgatgaa 480  
gaactaagtg aagaggaata cggctcagat aatgaggatg atgatgatga tgatgttgca 540  
attgctggca aaccagatcc ttga 564

<210> 234  
<211> 187  
<212> PRT  
<213> Arabidopsis thaliana

<400> 234

Met Ser Ser Pro Ser Lys Arg Arg Glu Met Asp Met Met Lys Leu Met  
1 5 10 15

Met Ser Asp Tyr Lys Val Glu Thr Ile Asn Asp Gly Met Gln Glu Phe  
20 25 30

Tyr Val Glu Phe Asn Gly Pro Lys Asp Ser Leu Tyr Gln Gly Gly Val  
35 40 45

Trp Lys Ile Arg Val Glu Leu Pro Asp Ala Tyr Pro Tyr Lys Ser Pro  
50 55 60

Ser Val Gly Phe Ile Thr Lys Ile Tyr His Pro Asn Val Asp Glu Leu  
65 70 75 80

Ser Gly Ser Val Cys Leu Asp Val Ile Asn Gln Thr Trp Ser Pro Met  
85 90 95

Phe Asp Leu Val Asn Val Phe Glu Thr Phe Leu Pro Gln Leu Leu Leu  
100 105 110

Tyr Pro Asn Pro Ser Asp Pro Leu Asn Gly Glu Ala Ala Ala Leu Met  
115 120 125

Met Arg Asp Arg Pro Ala Tyr Glu Gln Arg Val Lys Glu Tyr Cys Glu  
130 135 140

Lys Tyr Ala Lys Pro Gly Glu Gly Ser Glu Asp Lys Ser Ser Asp Glu  
145 150 155 160

Glu Leu Ser Glu Glu Glu Tyr Gly Ser Asp Asn Glu Asp Asp Asp Asp  
165 170 175

Asp Asp Val Ala Ile Ala Gly Lys Pro Asp Pro  
180 185

<210> 235

<211> 1584

<212> DNA

<213> Arabidopsis thaliana

<400> 235

atggagaaat tgctcgtgat ctctttgcta ctactgatct caacatcagt tacaacttca 60

caatccgtga ccgatccaat agctttcctc cgatgtctcg atagacaacc aacggaccca 120

047-E2F-PCT.ST25.txt

acaagtccta actccgccgt tgcttacatc ccaacaaact cttctttcac cactgtcctc	180
cgcagccgta tacctaacct ccgtttcgac aaaccacta ctccaaaacc catctccgtg	240
gtggctgccg ccacgtggac acacatacaa gctgctgtag gatgcgacg tgagctctct	300
ctccaagtca ggatcagaag tgggtggccac gacttcgaag gactctctta cacttccacc	360
gtccctttct ttgtttctga catgttcggt tttaaaaccg tggacgtaaa tctcaccgag	420
agaacggctt gggttgattc tgggtgctacc ctcgagagc tttactatag aatctctgag	480
aagagcaatg ttcttgatt tccggcggtt ttgtctacca cattgggcgt tgggtggacac	540
tttagcggcg gaggatacgg taatctgatg agaaagtatg gtttgctcgtt ggataacgtt	600
ttcggctccg ggatcgttga ttcgaacgga aatatcttca ccgatcgggt ttcgatggg	660
gaagaccgtt tttgggcgat tcgtggaggt ggtgcagcga gctacggtgt tgcctcggc	720
tacaagatcc agctagtacc ggtgcctgag aaagttacg tttttaagt cgaaaaact	780
gtcggagaag gagccgttga tcttataatg aagtggcaga gttttgctca tagtacggat	840
cggaatttgt tcgtgaggtt aactttgact ttagtcaacg gtacgaagcc tggtgagaat	900
acggttttag cgactttcat tgggatgtat ttaggccggt cggataagct gttgaccgtg	960
atgaaccggg atttcccgga gttgaagctg aagaaaaccg attgtaccga gatgagatgg	1020
atcgattcgg ttctgttttg ggacgattat ccggttggtta caccgacttc tgtgctacta	1080
aatccgctag tcgcaaaaaa gttgttcatg aaacgaaaat cggactacgt gaagcgtctg	1140
atttcgagaa ccgatctcgg ttgatactc aagaaattgg tagaggttga gaaagttaa	1200
atgaattgga atccgtatgg aggaaggatg ggtgagatcc cgagttcgag gacaccattc	1260
ccacatagag caggcaattt gttcaacatt gagtatatca tagactggtc agaagctgga	1320
gataatgtgg agaagaaata tttggcactc gcgaatgaat tttatagatt catgaccccg	1380
tacgtgtcta gtaatccgag ggaggcgttt ttgaattacc gtgatcttga cataggggtca	1440
agtgttaagt ctacgtacca ggaaggtaaa atctacggg ctaaataattt caaggagaat	1500
ttcgagagat tagtgatat taaaaccacg attgatgcgg aaaacttttg gaaaaacgaa	1560
caaagcattc cggttagaag ataa	1584

<210> 236

<211> 527

<212> PRT

<213> Arabidopsis thaliana

<400> 236

## 047-E2F-PCT.ST25.txt

Met Glu Lys Leu Leu Val Ile Ser Leu Leu Leu Leu Ile Ser Thr Ser  
 1 5 10 15  
 Val Thr Thr Ser Gln Ser Val Thr Asp Pro Ile Ala Phe Leu Arg Cys  
 20 25 30  
 Leu Asp Arg Gln Pro Thr Asp Pro Thr Ser Pro Asn Ser Ala Val Ala  
 35 40 45  
 Tyr Ile Pro Thr Asn Ser Ser Phe Thr Thr Val Leu Arg Ser Arg Ile  
 50 55 60  
 Pro Asn Leu Arg Phe Asp Lys Pro Thr Thr Pro Lys Pro Ile Ser Val  
 65 70 75 80  
 Val Ala Ala Ala Thr Trp Thr His Ile Gln Ala Ala Val Gly Cys Ala  
 85 90 95  
 Arg Glu Leu Ser Leu Gln Val Arg Ile Arg Ser Gly Gly His Asp Phe  
 100 105 110  
 Glu Gly Leu Ser Tyr Thr Ser Thr Val Pro Phe Phe Val Leu Asp Met  
 115 120 125  
 Phe Gly Phe Lys Thr Val Asp Val Asn Leu Thr Glu Arg Thr Ala Trp  
 130 135 140  
 Val Asp Ser Gly Ala Thr Leu Gly Glu Leu Tyr Tyr Arg Ile Ser Glu  
 145 150 155 160  
 Lys Ser Asn Val Leu Gly Phe Pro Ala Gly Leu Ser Thr Thr Leu Gly  
 165 170 175  
 Val Gly Gly His Phe Ser Gly Gly Gly Tyr Gly Asn Leu Met Arg Lys  
 180 185 190  
 Tyr Gly Leu Ser Val Asp Asn Val Phe Gly Ser Gly Ile Val Asp Ser  
 195 200 205  
 Asn Gly Asn Ile Phe Thr Asp Arg Val Ser Met Gly Glu Asp Arg Phe  
 210 215 220  
 Trp Ala Ile Arg Gly Gly Gly Ala Ala Ser Tyr Gly Val Val Leu Gly  
 225 230 235 240  
 Tyr Lys Ile Gln Leu Val Pro Val Pro Glu Lys Val Thr Val Phe Lys  
 245 250 255

047-E2F-PCT.ST25.txt

Val Gly Lys Thr Val Gly Glu Gly Ala Val Asp Leu Ile Met Lys Trp  
 260 265 270  
 Gln Ser Phe Ala His Ser Thr Asp Arg Asn Leu Phe Val Arg Leu Thr  
 275 280 285  
 Leu Thr Leu Val Asn Gly Thr Lys Pro Gly Glu Asn Thr Val Leu Ala  
 290 295 300  
 Thr Phe Ile Gly Met Tyr Leu Gly Arg Ser Asp Lys Leu Leu Thr Val  
 305 310 315 320  
 Met Asn Arg Asp Phe Pro Glu Leu Lys Leu Lys Lys Thr Asp Cys Thr  
 325 330 335  
 Glu Met Arg Trp Ile Asp Ser Val Leu Phe Trp Asp Asp Tyr Pro Val  
 340 345 350  
 Gly Thr Pro Thr Ser Val Leu Leu Asn Pro Leu Val Ala Lys Lys Leu  
 355 360 365  
 Phe Met Lys Arg Lys Ser Asp Tyr Val Lys Arg Leu Ile Ser Arg Thr  
 370 375 380  
 Asp Leu Gly Leu Ile Leu Lys Lys Leu Val Glu Val Glu Lys Val Lys  
 385 390 395 400  
 Met Asn Trp Asn Pro Tyr Gly Gly Arg Met Gly Glu Ile Pro Ser Ser  
 405 410 415  
 Arg Thr Pro Phe Pro His Arg Ala Gly Asn Leu Phe Asn Ile Glu Tyr  
 420 425 430  
 Ile Ile Asp Trp Ser Glu Ala Gly Asp Asn Val Glu Lys Lys Tyr Leu  
 435 440 445  
 Ala Leu Ala Asn Glu Phe Tyr Arg Phe Met Thr Pro Tyr Val Ser Ser  
 450 455 460  
 Asn Pro Arg Glu Ala Phe Leu Asn Tyr Arg Asp Leu Asp Ile Gly Ser  
 465 470 475 480  
 Ser Val Lys Ser Thr Tyr Gln Glu Gly Lys Ile Tyr Gly Ala Lys Tyr  
 485 490 495  
 Phe Lys Glu Asn Phe Glu Arg Leu Val Asp Ile Lys Thr Thr Ile Asp  
 500 505 510



Ala Glu Asn Phe Trp Lys Asn Glu Gln Ser Ile Pro Val Arg Arg  
 515 520 525

<210> 237

<211> 4605

<212> DNA

<213> Arabidopsis thaliana

<400> 237

atggtgaaa atggggctaa agctgcgaag cgaaagaaga gaccacttcc agagattcaa	60
gaggtagaag atgtacctag gacgaggaga ccaaggcgtg ctgcagcgtg taccagtttc	120
aaggagaaat ctattcgagt ctgtgagaaa tctgctacta ttgaagtaaa gaaacagcag	180
attgtggagg aagagtttct cgcgttacgg ttaacggctc tggaaactga tgttgaagat	240
cgtccaacca ggagactgaa tgattttggt ttgtttgatt cagatggagt tccacaacct	300
ctggagatgt tggagattca tgacatatcc gtttcagggtg ctatcttacc ttcagatgtg	360
tgtactgata aggagaaaga gaagggtgtg aggtgtacat cgtttggacg gggttgagcat	420
tggagtatct ctggttatga agatggttcc cctgttattt ggatctcaac ggaattggcg	480
gattatgatt gtcgtaaacc tgctgctagc tacaggaagg tttatgatta cttctatgag	540
aaagctcgtg cttcagtggc tgtgtataag aaattgtcca agtcatctgg tggggatcct	600
gatataggtc ttgaggagtt acttgcggcg gttgtcagat caatgagcag tggagcaag	660
tacttttcta gtggtgcggc aatcatcgat tttgttatat cccagggaga ttttatatat	720
aaccaactcg ctggtttgga tgagacagcc aagaaacatg aatcaagcta tgttgagatt	780
cctgttcttg tagctctcag agagaagagt agtaagattg acaagcctct gcagagggaa	840
agaaacccat ctaatggtgt gaggattaaa gaagtttctc aagttgcgga gagcgaggcc	900
ttgacatctg atcaactggt tgatggtact gatgatgaca gaagatatgc tatactctta	960
caagacgaag agaataggaa atctatgcaa cagcccagaa aaaacagcag ctcaggttct	1020
gcttcaaata tgttctacat taagataaat gaagatgaga ttgccaatga ttatcctctc	1080
ccatcgtact ataagacctc cgaagaagaa acagatgaac ttatacttta tgatgcttcc	1140
tatgaggttc aatctgaaca cctgcctcac aggatgcttc acaactgggc tctttataac	1200
tctgatttac gattcatatc actggaactt ctaccgatga aacaatgtga tgatattgat	1260
gtcaacatth ttgggtcagg tgtggtgact gatgataatg gaagttggat ttctttaaac	1320
gacctgaca gcggttctca gtcacacgat cctgatggga tgtgcatatt cctcagtcaa	1380

attaaagaat	ggatgattga	gtttgggagc	gatgatatta	tctccatttc	tatacgaaca	1440
gatgtggcct	ggtaccgtct	tgggaaacca	tcaaaacttt	atgccccttg	gtggaaacct	1500
gttctgaaaa	cagcaagggt	tgggataagc	attcttactt	ttcttagggg	ggaaagtagg	1560
gttgctaggc	tttcatttgc	agatgtcaca	aaaagactgt	ctgggttaca	ggcgaatgat	1620
aaagcttaca	tttcttctga	ccccttggct	gttgagagat	atgtggctcg	ccatgggcaa	1680
attattttac	agctttttgc	agtttatccg	gacgacaatg	tcaaaagggtg	tccatttggt	1740
gttggctctg	caagcaaatt	ggaggatagg	caccacacaa	aatggatcat	caagaagaag	1800
aaaatttcgc	tgaaggaact	gaatctgaat	ccaagggcag	gcatggcacc	agtagcatcg	1860
aagaggaaag	ctatgcaagc	aacaacaact	cgcctgggtca	acagaatttg	gggagagttt	1920
tactccaatt	actctccaga	ggatccattg	caggcgactg	ctgcagaaaa	tggggaggat	1980
gaggtggaag	aggaaggcgg	aaatggggag	gaagagggtg	aagaggaagg	tgaaaatggt	2040
ctcacagagg	acactgtacc	agaacctgtt	gagggttcaga	agcctcatac	tcctaagaaa	2100
atccgaggca	gttctggaaa	aagggaaata	aaatgggatg	gtgagagtct	aggaaaaact	2160
tctgctggcg	agcctctcta	tcaacaagcc	cttgttggag	gggaaatggt	ggctgtaggt	2220
ggcgctgtca	ccttggaagt	tgatgatcca	gatgaaatgc	cggccatcta	ttttgtggag	2280
tacatgttcg	aaagtacaga	tactgcaaaa	atgttacatg	gtagattctt	acaaagagga	2340
tctatgactg	ttctggggaa	tgctgctaac	gagaggggaac	tattcctgac	taatgaatgc	2400
atgactacac	agctcaagga	cattaaagga	gtagccagtt	ttgagattcg	atcaaggcca	2460
tgggggcatc	agtataggaa	aaagaacatc	actgcggata	agcttgactg	ggctagagca	2520
ttagaaagaa	aagtaaaaga	tttgccaaca	gagtattact	gcaaaagctt	gtactcacct	2580
gagagagggg	gattcttttag	tcttccacta	agtgatattg	gtcgcagttc	tgggttctgc	2640
acttcatgta	agataaggga	ggatgaagag	aagagggtcta	caattaaact	aaatgtttca	2700
aagacaggct	ttttcatcaa	tgggattgag	tattctgttg	aggattttgt	ctatgtcaac	2760
cctgactcta	ttggtggggt	gaaggagggt	agtaaaactt	cttttaagtc	tgggcgaaac	2820
attgggttaa	gagcgtatgt	tgtttgccaa	ttgctggaaa	ttgttcctaaa	ggaatctaga	2880
aaggctgatt	tgggttcctt	tgatgttaaa	gtgagaagggt	tttataggcc	tgaggatggt	2940
tctgcagaga	aggcctatgc	ttcagacatc	caagaattgt	atctcagcca	ggacacagtt	3000
gttctccctc	cagggtgctct	agagggaaaa	tgtgaagtaa	gaaagaaaag	tgatatgccc	3060
ttatcccgtg	aatatccaat	atcagaccat	atcttcttct	gtgatctttt	ctttgacacc	3120
tccaaagggt	ctctcaagca	gctgcccgcc	aatatgaagc	caaagttctc	tactattaag	3180
gacgacacac	ttttaagaaa	gaaaaagggg	aagggagtag	agagtgaaat	tgagtctgag	3240
attgtcaagc	ctgttgagcc	acctaaagag	attcgtctgg	ctactctaga	tatttttgct	3300

047-E2F-PCT.ST25.txt

```

ggttgtggtg gcctgtctca tggactgaaa aaggcgggtg tatctgatgc aaagtgggcg 3360
attgagtatg aagagccagc tgggcaggct tttaaacaaa accatcctga gtcaacagtt 3420
tttgttgaca actgcaatgt gattcttagg gctataatgg agaaaggtgg agatcaagat 3480
gattgtgtct ctactacaga ggcaaataaa ttagcagcta aactaactga ggagcagaag 3540
agtactctgc cactgcctgg tcaagtggac ttcataaatg gtggacctcc atgtcaggga 3600
ttttctggta tgaacagggt caaccaaagc tcttgaggta aagttcagtg tgaaatgata 3660
ttagcattct tgtcctttgc tgactatttc cggccaagggt attttcttct ggagaacgtg 3720
aggacctttg tgtcattcaa taaagggcag acatttcagc ttactttggc ttcccttctc 3780
gaaatgggtt accagggtgag atttggaatc ctggaggccg gtgcatatgg agtatcccaa 3840
tctcgtaaac gagctttcat ttgggctgct gcaccagaag aagttctccc tgaatggcct 3900
gagccgatgc atgtctttgg tgttccaaag ttgaaaatct cactatctca aggtttacat 3960
tatgctgctg ttcgtagtac tgcacttggt gcccttttcc gtccaatcac cgtgagagac 4020
acaattggtg atcttccatc agtagaaaac ggagactcta ggacaaaca agagtataaa 4080
gaggttgcag tctcgtgggt ccaaaaggag ataagaggaa acacgattgc tctcactgat 4140
catatctgca aggctatgaa tgagcttaac ctcatcagat gcaaattaat cccaactagg 4200
cctggggctg attggcatga cttgccaaag agaaaggtta cgttatctga tgggcgcgta 4260
gaagaaatga ttcctttttg tctcccaaac acagctgagc gccacaacgg ttggaaggga 4320
ctatatggga gattagattg gcaaggaaac tttccgactt ccgtcacgga tcctcagccc 4380
atgggtaagg ttggaatgtg ctttcatcct gaacagcaca gaatccttac agtccgtgaa 4440
tgcgcccgat ctgaggggtt tccggatagc tacgagtttg cagggaacat aaatcacaag 4500
cacaggcaga ttgggaatgc agtccctcca ccattggcat ttgctctagg tcgtaagctc 4560
aaagaagccc tacatctcaa gaagtctcct caacaccaac cctag 4605

```

<210> 238

<211> 1534

<212> PRT

<213> Arabidopsis thaliana

<400> 238

Met Val Glu Asn Gly Ala Lys Ala Ala Lys Arg Lys Lys Arg Pro Leu  
1 5 10 15

Pro Glu Ile Gln Glu Val Glu Asp Val Pro Arg Thr Arg Arg Pro Arg  
Page 373

Arg Ala Ala Ala Cys Thr Ser Phe Lys Glu Lys Ser Ile Arg Val Cys  
           35                  40                  45  
 Glu Lys Ser Ala Thr Ile Glu Val Lys Lys Gln Gln Ile Val Glu Glu  
       50                  55                  60  
 Glu Phe Leu Ala Leu Arg Leu Thr Ala Leu Glu Thr Asp Val Glu Asp  
   65                  70                  75                  80  
 Arg Pro Thr Arg Arg Leu Asn Asp Phe Val Leu Phe Asp Ser Asp Gly  
           85                  90  
 Val Pro Gln Pro Leu Glu Met Leu Glu Ile His Asp Ile Phe Val Ser  
          100                 105                 110  
 Gly Ala Ile Leu Pro Ser Asp Val Cys Thr Asp Lys Glu Lys Glu Lys  
          115                 120                 125  
 Gly Val Arg Cys Thr Ser Phe Gly Arg Val Glu His Trp Ser Ile Ser  
      130                 135                 140  
 Gly Tyr Glu Asp Gly Ser Pro Val Ile Trp Ile Ser Thr Glu Leu Ala  
   145                 150                 155                 160  
 Asp Tyr Asp Cys Arg Lys Pro Ala Ala Ser Tyr Arg Lys Val Tyr Asp  
          165                 170                 175  
 Tyr Phe Tyr Glu Lys Ala Arg Ala Ser Val Ala Val Tyr Lys Lys Leu  
          180                 185                 190  
 Ser Lys Ser Ser Gly Gly Asp Pro Asp Ile Gly Leu Glu Glu Leu Leu  
      195                 200                 205  
 Ala Ala Val Val Arg Ser Met Ser Ser Gly Ser Lys Tyr Phe Ser Ser  
      210                 215                 220  
 Gly Ala Ala Ile Ile Asp Phe Val Ile Ser Gln Gly Asp Phe Ile Tyr  
   225                 230                 235                 240  
 Asn Gln Leu Ala Gly Leu Asp Glu Thr Ala Lys Lys His Glu Ser Ser  
          245                 250                 255  
 Tyr Val Glu Ile Pro Val Leu Val Ala Leu Arg Glu Lys Ser Ser Lys  
          260                 265                 270

Ile Asp Lys Pro Leu Gln Arg Glu Arg Asn Pro Ser Asn Gly Val Arg  
 275 280 285

Ile Lys Glu Val Ser Gln Val Ala Glu Ser Glu Ala Leu Thr Ser Asp  
 290 295 300

Gln Leu Val Asp Gly Thr Asp Asp Asp Arg Arg Tyr Ala Ile Leu Leu  
 305 310 315 320

Gln Asp Glu Glu Asn Arg Lys Ser Met Gln Gln Pro Arg Lys Asn Ser  
 325 330 335

Ser Ser Gly Ser Ala Ser Asn Met Phe Tyr Ile Lys Ile Asn Glu Asp  
 340 345 350

Glu Ile Ala Asn Asp Tyr Pro Leu Pro Ser Tyr Tyr Lys Thr Ser Glu  
 355 360 365

Glu Glu Thr Asp Glu Leu Ile Leu Tyr Asp Ala Ser Tyr Glu Val Gln  
 370 375 380

Ser Glu His Leu Pro His Arg Met Leu His Asn Trp Ala Leu Tyr Asn  
 385 390 395 400

Ser Asp Leu Arg Phe Ile Ser Leu Glu Leu Leu Pro Met Lys Gln Cys  
 405 410 415

Asp Asp Ile Asp Val Asn Ile Phe Gly Ser Gly Val Val Thr Asp Asp  
 420 425 430

Asn Gly Ser Trp Ile Ser Leu Asn Asp Pro Asp Ser Gly Ser Gln Ser  
 435 440 445

His Asp Pro Asp Gly Met Cys Ile Phe Leu Ser Gln Ile Lys Glu Trp  
 450 455 460

Met Ile Glu Phe Gly Ser Asp Asp Ile Ile Ser Ile Ser Ile Arg Thr  
 465 470 475 480

Asp Val Ala Trp Tyr Arg Leu Gly Lys Pro Ser Lys Leu Tyr Ala Pro  
 485 490 495

Trp Trp Lys Pro Val Leu Lys Thr Ala Arg Val Gly Ile Ser Ile Leu  
 500 505 510

Thr Phe Leu Arg Val Glu Ser Arg Val Ala Arg Leu Ser Phe Ala Asp  
 515 520 525

047-E2F-PCT.ST25.txt

Val Thr Lys Arg Leu Ser Gly Leu Gln Ala Asn Asp Lys Ala Tyr Ile  
530 535 540

Ser Ser Asp Pro Leu Ala Val Glu Arg Tyr Leu Val Val His Gly Gln  
545 550 555 560

Ile Ile Leu Gln Leu Phe Ala Val Tyr Pro Asp Asp Asn Val Lys Arg  
565 570 575

Cys Pro Phe Val Val Gly Leu Ala Ser Lys Leu Glu Asp Arg His His  
580 585 590

Thr Lys Trp Ile Ile Lys Lys Lys Lys Ile Ser Leu Lys Glu Leu Asn  
595 600 605

Leu Asn Pro Arg Ala Gly Met Ala Pro Val Ala Ser Lys Arg Lys Ala  
610 615 620

Met Gln Ala Thr Thr Thr Arg Leu Val Asn Arg Ile Trp Gly Glu Phe  
625 630 635 640

Tyr Ser Asn Tyr Ser Pro Glu Asp Pro Leu Gln Ala Thr Ala Ala Glu  
645 650 655

Asn Gly Glu Asp Glu Val Glu Glu Glu Gly Gly Asn Gly Glu Glu Glu  
660 665 670

Val Glu Glu Glu Gly Glu Asn Gly Leu Thr Glu Asp Thr Val Pro Glu  
675 680 685

Pro Val Glu Val Gln Lys Pro His Thr Pro Lys Lys Ile Arg Gly Ser  
690 695 700

Ser Gly Lys Arg Glu Ile Lys Trp Asp Gly Glu Ser Leu Gly Lys Thr  
705 710 715 720

Ser Ala Gly Glu Pro Leu Tyr Gln Gln Ala Leu Val Gly Gly Glu Met  
725 730 735

Val Ala Val Gly Gly Ala Val Thr Leu Glu Val Asp Asp Pro Asp Glu  
740 745 750

Met Pro Ala Ile Tyr Phe Val Glu Tyr Met Phe Glu Ser Thr Asp His  
755 760 765

Cys Lys Met Leu His Gly Arg Phe Leu Gln Arg Gly Ser Met Thr Val  
770 775 780

047-E2F-PCT.ST25.txt

Leu Gly Asn Ala Ala Asn Glu Arg Glu Leu Phe Leu Thr Asn Glu Cys  
785 790 795 800

Met Thr Thr Gln Leu Lys Asp Ile Lys Gly Val Ala Ser Phe Glu Ile  
805 810 815

Arg Ser Arg Pro Trp Gly His Gln Tyr Arg Lys Lys Asn Ile Thr Ala  
820 825 830

Asp Lys Leu Asp Trp Ala Arg Ala Leu Glu Arg Lys Val Lys Asp Leu  
835 840 845

Pro Thr Glu Tyr Tyr Cys Lys Ser Leu Tyr Ser Pro Glu Arg Gly Gly  
850 855 860

Phe Phe Ser Leu Pro Leu Ser Asp Ile Gly Arg Ser Ser Gly Phe Cys  
865 870 875 880

Thr Ser Cys Lys Ile Arg Glu Asp Glu Glu Lys Arg Ser Thr Ile Lys  
885 890 895

Leu Asn Val Ser Lys Thr Gly Phe Phe Ile Asn Gly Ile Glu Tyr Ser  
900 905 910

Val Glu Asp Phe Val Tyr Val Asn Pro Asp Ser Ile Gly Gly Leu Lys  
915 920 925

Glu Gly Ser Lys Thr Ser Phe Lys Ser Gly Arg Asn Ile Gly Leu Arg  
930 935 940

Ala Tyr Val Val Cys Gln Leu Leu Glu Ile Val Pro Lys Glu Ser Arg  
945 950 955 960

Lys Ala Asp Leu Gly Ser Phe Asp Val Lys Val Arg Arg Phe Tyr Arg  
965 970 975

Pro Glu Asp Val Ser Ala Glu Lys Ala Tyr Ala Ser Asp Ile Gln Glu  
980 985 990

Leu Tyr Phe Ser Gln Asp Thr Val Val Leu Pro Pro Gly Ala Leu Glu  
995 1000 1005

Gly Lys Cys Glu Val Arg Lys Lys Ser Asp Met Pro Leu Ser Arg  
1010 1015 1020

Glu Tyr Pro Ile Ser Asp His Ile Phe Phe Cys Asp Leu Phe Phe  
Page 377

047-E2F-PCT.ST25.txt

1025

1030

1035

Asp Thr Ser Lys Gly Ser Leu Lys Gln Leu Pro Ala Asn Met Lys  
1040 1045 1050

Pro Lys Phe Ser Thr Ile Lys Asp Asp Thr Leu Leu Arg Lys Lys  
1055 1060 1065

Lys Gly Lys Gly Val Glu Ser Glu Ile Glu Ser Glu Ile Val Lys  
1070 1075 1080

Pro Val Glu Pro Pro Lys Glu Ile Arg Leu Ala Thr Leu Asp Ile  
1085 1090 1095

Phe Ala Gly Cys Gly Gly Leu Ser His Gly Leu Lys Lys Ala Gly  
1100 1105 1110

Val Ser Asp Ala Lys Trp Ala Ile Glu Tyr Glu Glu Pro Ala Gly  
1115 1120 1125

Gln Ala Phe Lys Gln Asn His Pro Glu Ser Thr Val Phe Val Asp  
1130 1135 1140

Asn Cys Asn Val Ile Leu Arg Ala Ile Met Glu Lys Gly Gly Asp  
1145 1150 1155

Gln Asp Asp Cys Val Ser Thr Thr Glu Ala Asn Glu Leu Ala Ala  
1160 1165 1170

Lys Leu Thr Glu Glu Gln Lys Ser Thr Leu Pro Leu Pro Gly Gln  
1175 1180 1185

Val Asp Phe Ile Asn Gly Gly Pro Pro Cys Gln Gly Phe Ser Gly  
1190 1195 1200Met Asn Arg Phe Asn Gln Ser Ser Trp Ser Lys Val Gln Cys Glu  
1205 1210 1215Met Ile Leu Ala Phe Leu Ser Phe Ala Asp Tyr Phe Arg Pro Arg  
1220 1225 1230

Tyr<sub>1235</sub> Phe Leu Leu Glu Asn Val<sub>1240</sub> Arg Thr Phe Val<sub>1245</sub> Ser Phe Asn Lys

Gly Gln Thr Phe Gln Leu Thr Leu Ala Ser Leu Leu Gln Met Gly  
1250 1255 1260



Tyr	Gln	Val	Arg	Phe	Gly	Ile	Leu	Glu	Ala	Gly	Ala	Tyr	Gly	Val
1265						1270					1275			
Ser	Gln	Ser	Arg	Lys	Arg	Ala	Phe	Ile	Trp	Ala	Ala	Ala	Pro	Glu
1280						1285					1290			
Glu	Val	Leu	Pro	Glu	Trp	Pro	Glu	Pro	Met	His	Val	Phe	Gly	Val
1295						1300					1305			
Pro	Lys	Leu	Lys	Ile	Ser	Leu	Ser	Gln	Gly	Leu	His	Tyr	Ala	Ala
1310						1315					1320			
Val	Arg	Ser	Thr	Ala	Leu	Gly	Ala	Pro	Phe	Arg	Pro	Ile	Thr	Val
1325						1330					1335			
Arg	Asp	Thr	Ile	Gly	Asp	Leu	Pro	Ser	Val	Glu	Asn	Gly	Asp	Ser
1340						1345					1350			
Arg	Thr	Asn	Lys	Glu	Tyr	Lys	Glu	Val	Ala	Val	Ser	Trp	Phe	Gln
1355						1360					1365			
Lys	Glu	Ile	Arg	Gly	Asn	Thr	Ile	Ala	Leu	Thr	Asp	His	Ile	Cys
1370						1375					1380			
Lys	Ala	Met	Asn	Glu	Leu	Asn	Leu	Ile	Arg	Cys	Lys	Leu	Ile	Pro
1385						1390					1395			
Thr	Arg	Pro	Gly	Ala	Asp	Trp	His	Asp	Leu	Pro	Lys	Arg	Lys	Val
1400						1405					1410			
Thr	Leu	Ser	Asp	Gly	Arg	Val	Glu	Glu	Met	Ile	Pro	Phe	Cys	Leu
1415						1420					1425			
Pro	Asn	Thr	Ala	Glu	Arg	His	Asn	Gly	Trp	Lys	Gly	Leu	Tyr	Gly
1430						1435					1440			
Arg	Leu	Asp	Trp	Gln	Gly	Asn	Phe	Pro	Thr	Ser	Val	Thr	Asp	Pro
1445						1450					1455			
Gln	Pro	Met	Gly	Lys	Val	Gly	Met	Cys	Phe	His	Pro	Glu	Gln	His
1460						1465					1470			
Arg	Ile	Leu	Thr	Val	Arg	Glu	Cys	Ala	Arg	Ser	Gln	Gly	Phe	Pro
1475						1480					1485			
Asp	Ser	Tyr	Glu	Phe	Ala	Gly	Asn	Ile	Asn	His	Lys	His	Arg	Gln
1490						1495					1500			

047-E2F-PCT.ST25.txt

Ile Gly Asn Ala Val Pro Pro Leu Ala Phe Ala Leu Gly Arg  
1505 1510 1515

Lys Leu Lys Glu Ala Leu His Leu Lys Lys Ser Pro Gln His Gln  
1520 1525 1530

Pro

<210> 239

<211> 762

<212> DNA

<213> Arabidopsis thaliana

<400> 239

atgaagaagg ttacatcgtc taagattccg gccaaggatg attgggtggc tgtagcgata	60
actgacgacg atttggtcgt tgagcttctt ttacggctga agcatgccgg aacggtagtg	120
tcggataatc cggcgggtgat tctccctccg ttgcggtggg gaatccgtca acgacgggtct	180
cgttcctcaa gatttggtgg cggcggcggc gttctcgttt cttgaagaa agatgtcgat	240
tccgttagag ccagtccgaa gactcctctc tcgtggagcg gcggatctgg aagtgggtggc	300
ggctctgctt ctccttccgc cgatggattc gaggataaca gtcgccaagc tagctgctct	360
acatctacag gatctggatc taagggtttt cccacaaacg aaatcaccag ttgtttctcc	420
aagagattga agaagaggaa gtcattcttt gagcttaaaa atgaagagaa cttgaagttg	480
aaggagagac ttgacctga aaaggagatt gcaagtctcc gagcaacatt cgatgaacaa	540
aaccttagga accaaaagct gaagaggatt aagcttgact taaactcagg ccgtgtcaca	600
aacaagaaac ctgttgattt gattcgtaaa tcacaactcg agcggctaca gggatcaaaa	660
tcttgcaaaa ccagtgactc gcaaaatcag gggagtttct tcgtcctccc tgatctcaac	720
atggcgccat ccgaggaaga gatattgtac ggaactagct aa	762

<210> 240

<211> 253

<212> PRT

<213> Arabidopsis thaliana

<400> 240

Met Lys Lys Val Thr Ser Ser Lys Ile Pro Ala Lys Asp Asp Trp Val  
 1 5 10 15  
 Ala Val Ala Ile Thr Asp Asp Asp Leu Val Val Glu Leu Leu Leu Arg  
 20 25 30  
 Leu Lys His Ala Gly Thr Val Val Ser Asp Asn Pro Ala Val Ile Leu  
 35 40 45  
 Pro Pro Leu Arg Trp Gly Ile Arg Gln Arg Arg Ser Arg Ser Ser Arg  
 50 55 60  
 Phe Gly Gly Gly Gly Gly Val Leu Val Ser Leu Lys Lys Asp Val Asp  
 65 70 75 80  
 Ser Val Arg Ala Ser Pro Lys Thr Pro Leu Ser Trp Ser Gly Gly Ser  
 85 90 95  
 Gly Ser Gly Gly Gly Ser Ala Ser Pro Ser Ala Asp Gly Phe Glu Asp  
 100 105 110  
 Asn Ser Arg Gln Ala Ser Cys Ser Thr Ser Thr Gly Ser Gly Ser Lys  
 115 120 125  
 Val Phe Pro Thr Asn Glu Ile Thr Ser Cys Phe Ser Lys Arg Leu Lys  
 130 135 140  
 Lys Arg Lys Ser Ser Phe Glu Leu Lys Asn Glu Glu Asn Leu Lys Leu  
 145 150 155 160  
 Lys Glu Arg Leu Asp Leu Glu Lys Glu Ile Ala Ser Leu Arg Ala Thr  
 165 170 175  
 Phe Asp Glu Gln Asn Leu Arg Asn Gln Lys Leu Lys Arg Ile Lys Leu  
 180 185 190  
 Asp Leu Asn Ser Gly Arg Val Thr Asn Lys Lys Pro Val Asp Leu Ile  
 195 200 205  
 Arg Lys Ser Gln Leu Glu Arg Leu Gln Gly Ser Lys Ser Cys Lys Thr  
 210 215 220  
 Ser Asp Ser Gln Asn Gln Gly Ser Phe Phe Val Leu Pro Asp Leu Asn  
 225 230 235 240  
 Met Ala Pro Ser Glu Glu Glu Ile Leu Tyr Gly Thr Ser  
 245 250

&lt;210&gt; 241

&lt;211&gt; 870

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 241

```

atggggaaat acataagaaa gagcaaaatc gacggagctg gagctggagc tgggtggtgga      60
ggtggaggcg gaggtggagg tgaatcctct attgctttaa tggatgttgt ttcaccttct      120
tcctcttctt cacttggtgt tttaactcga gctaaatctc tagctcttca acaacaacaa      180
caacgctgtc ttcttcaaaa accctcttct ccttcttcgt taccaccgac ttctgcttct      240
cctaattcac cgtcaaagca gaagatgaag aagaagcagc agcagatgaa cgattgtggt      300
tcgtatcttc agctacggag tcgtcggctt cagaagaaac caccaattgt tgtgattcgt      360
tctactaaac ggaggaaaca gcaacggagg aatgagacat gcggaagaaa ccctaaccct      420
aggagtaatt tggattcgat tcgtggtgat ggggtctaggt ctgattctgt ttctgaaagt      480
gttgctcttg gtaaagacaa ggatttgatt tctgaaatca ataaagatcc aacctttggc      540
caaaatttct tcgaccttga agaagaacac actcaaagct tcaacaggac cacaagggaa      600
tccacaccat gcagtttgat aagaaggcct gaaatcatga caaccccggg atcgtctaca      660
aagcttaaca tttgtgtaag tgaaagcaac cagagagaag acagtttgtc acgcagccat      720
cgtcgccgac caactacacc tgaaatggac gagtttttct cgggtgctga agaagaacaa      780
cagaagcaat tcattgagaa gtacaacttt gatcctgtga acgaacaacc actaccagga      840
cggtttgaat ggacgaaggt agatgattag      870

```

&lt;210&gt; 242

&lt;211&gt; 289

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 242

```

Met Gly Lys Tyr Ile Arg Lys Ser Lys Ile Asp Gly Ala Gly Ala Gly
1           5           10           15
Ala Gly Gly Gly Gly Gly Gly Gly Gly Gly Glu Ser Ser Ile Ala
          20           25           30

```

Leu Met Asp Val Val Ser Pro Ser Ser Ser Ser Ser Leu Gly Val Leu  
 35 40 45  
 Thr Arg Ala Lys Ser Leu Ala Leu Gln Gln Gln Gln Gln Arg Cys Leu  
 50 55 60  
 Leu Gln Lys Pro Ser Ser Pro Ser Ser Leu Pro Pro Thr Ser Ala Ser  
 65 70 75 80  
 Pro Asn Pro Pro Ser Lys Gln Lys Met Lys Lys Lys Gln Gln Gln Met  
 85 90 95  
 Asn Asp Cys Gly Ser Tyr Leu Gln Leu Arg Ser Arg Arg Leu Gln Lys  
 100 105 110  
 Lys Pro Pro Ile Val Val Ile Arg Ser Thr Lys Arg Arg Lys Gln Gln  
 115 120 125  
 Arg Arg Asn Glu Thr Cys Gly Arg Asn Pro Asn Pro Arg Ser Asn Leu  
 130 135 140  
 Asp Ser Ile Arg Gly Asp Gly Ser Arg Ser Asp Ser Val Ser Glu Ser  
 145 150 155 160  
 Val Val Phe Gly Lys Asp Lys Asp Leu Ile Ser Glu Ile Asn Lys Asp  
 165 170 175  
 Pro Thr Phe Gly Gln Asn Phe Phe Asp Leu Glu Glu Glu His Thr Gln  
 180 185 190  
 Ser Phe Asn Arg Thr Thr Arg Glu Ser Thr Pro Cys Ser Leu Ile Arg  
 195 200 205  
 Arg Pro Glu Ile Met Thr Thr Pro Gly Ser Ser Thr Lys Leu Asn Ile  
 210 215 220  
 Cys Val Ser Glu Ser Asn Gln Arg Glu Asp Ser Leu Ser Arg Ser His  
 225 230 235 240  
 Arg Arg Arg Pro Thr Thr Pro Glu Met Asp Glu Phe Phe Ser Gly Ala  
 245 250 255  
 Glu Glu Glu Gln Gln Lys Gln Phe Ile Glu Lys Tyr Asn Phe Asp Pro  
 260 265 270  
 Val Asn Glu Gln Pro Leu Pro Gly Arg Phe Glu Trp Thr Lys Val Asp  
 275 280 285

Asp

&lt;210&gt; 243

&lt;211&gt; 1410

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 243

```

atgtctgaag aagtacctca acaattccca tcttctaagc ggcagcttca tccttctctt    60
tcttctatga agcctcctct agttgctcct ggtgagtatc accggtttga tgcggcggag    120
actcgcggtg gtggagctgt tgctgatcag gttgtctctg acgcgattgt gatcaaattct    180
actctgaagc gtaagacaga tttggtaaac caaatagttg aggtcaatga attgaataacc    240
ggtgttcttc aaacacctgt atcagggaaa ggggggaaaag ccaagaaaac ttctaggtct    300
gcgaagtcta ataagtctgg aacgctagct tctggctcta atgcaggttc tcctggaaat    360
aactttgcac aggccggtac ttgtcgatat gatagttcgt taggtctttt gacaaagaaa    420
tttatcaatt tgataaaaca agcagaggat ggtattcttg atctaaacaa agcagctgat    480
acttttagagg tacaaaagag aaggatatat gatataacca atgtgttaga aggaataggt    540
ttgatagaga agacgcttaa gaacaggatt cagtggaagg gtctcgatgt ctcaaaacca    600
ggagaaacaa tcgaaagcat agctaacctc caggatgaag taaaaaacct cgcagctgag    660
gaggcaagat tagatgacca aatcagagaa tcacaagaaa gattaacaag cttgagttag    720
gatgaaaaca acaaaagggt actgttcgtc actgaaaacg acattaagaa cctaccatgc    780
ttccagaata agacgtgat agctgtaaag gcaccgcatg gaacaactct tgaggttcca    840
gatcctgatg aggctggtgg ttatcagagg aggtacagaa tcattctgag aagcacaatg    900
ggaccaatag acgtgtacct agtcagtcaa ttcgaagaga gctttgagga cattcctcag    960
gctgatgaac cttcaaattgt tcctgatgaa ccctctaattg tccctgatgt accttcaa    1020
cttccatcaa catctggtct ccctgagaac catgatgtat ctatgccgat gaaagaggaa    1080
agcaccgaaa gaaacatgga aacacaggaa gttgatgata cgcaaagagt ttactctgac    1140
atcgaatctc atgactttgt cgatggtatc atgaagattg ttcctccaga tttggatatg    1200
ggtgtagatt actggttttcg atcagaggta ggcgaagtca gcatcacaga catgtggcca    1260
gatgaatctg gaccagactg gaaccagatg attacatttg atcaagacca cgctggaccg    1320
agcgacaaca aaatcttggg gcagccacaa actccatcga gcccaacacc agaagaatcc    1380
actgctacga gatcacctac aggtagctga                                1410

```

&lt;210&gt; 244

&lt;211&gt; 469

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 244

Met Ser Glu Glu Val Pro Gln Gln Phe Pro Ser Ser Lys Arg Gln Leu  
 1 5 10 15

His Pro Ser Leu Ser Ser Met Lys Pro Pro Leu Val Ala Pro Gly Glu  
 20 25 30

Tyr His Arg Phe Asp Ala Ala Glu Thr Arg Gly Gly Gly Ala Val Ala  
 35 40 45

Asp Gln Val Val Ser Asp Ala Ile Val Ile Lys Ser Thr Leu Lys Arg  
 50 55 60

Lys Thr Asp Leu Val Asn Gln Ile Val Glu Val Asn Glu Leu Asn Thr  
 65 70 75 80

Gly Val Leu Gln Thr Pro Val Ser Gly Lys Gly Gly Lys Ala Lys Lys  
 85 90 95

Thr Ser Arg Ser Ala Lys Ser Asn Lys Ser Gly Thr Leu Ala Ser Gly  
 100 105 110

Ser Asn Ala Gly Ser Pro Gly Asn Asn Phe Ala Gln Ala Gly Thr Cys  
 115 120 125

Arg Tyr Asp Ser Ser Leu Gly Leu Leu Thr Lys Lys Phe Ile Asn Leu  
 130 135 140

Ile Lys Gln Ala Glu Asp Gly Ile Leu Asp Leu Asn Lys Ala Ala Asp  
 145 150 155 160

Thr Leu Glu Val Gln Lys Arg Arg Ile Tyr Asp Ile Thr Asn Val Leu  
 165 170 175

Glu Gly Ile Gly Leu Ile Glu Lys Thr Leu Lys Asn Arg Ile Gln Trp  
 180 185 190

Lys Gly Leu Asp Val Ser Lys Pro Gly Glu Thr Ile Glu Ser Ile Ala  
 Page 385

195

200

205

Asn Leu Gln Asp Glu Val Gln Asn Leu Ala Ala Glu Glu Ala Arg Leu  
 210 215 220  
 Asp Asp Gln Ile Arg Glu Ser Gln Glu Arg Leu Thr Ser Leu Ser Glu  
 225 230 235 240  
 Asp Glu Asn Asn Lys Arg Leu Leu Phe Val Thr Glu Asn Asp Ile Lys  
 245 250 255  
 Asn Leu Pro Cys Phe Gln Asn Lys Thr Leu Ile Ala Val Lys Ala Pro  
 260 265 270  
 His Gly Thr Thr Leu Glu Val Pro Asp Pro Asp Glu Ala Gly Gly Tyr  
 275 280 285  
 Gln Arg Arg Tyr Arg Ile Ile Leu Arg Ser Thr Met Gly Pro Ile Asp  
 290 295 300  
 Val Tyr Leu Val Ser Gln Phe Glu Glu Ser Phe Glu Asp Ile Pro Gln  
 305 310 315 320  
 Ala Asp Glu Pro Ser Asn Val Pro Asp Glu Pro Ser Asn Val Pro Asp  
 325 330 335  
 Val Pro Ser Asn Leu Pro Ser Thr Ser Gly Leu Pro Glu Asn His Asp  
 340 345 350  
 Val Ser Met Pro Met Lys Glu Glu Ser Thr Glu Arg Asn Met Glu Thr  
 355 360 365  
 Gln Glu Val Asp Asp Thr Gln Arg Val Tyr Ser Asp Ile Glu Ser His  
 370 375 380  
 Asp Phe Val Asp Gly Ile Met Lys Ile Val Pro Pro Asp Leu Asp Met  
 385 390 395 400  
 Gly Val Asp Tyr Trp Phe Arg Ser Glu Val Gly Glu Val Ser Ile Thr  
 405 410 415  
 Asp Met Trp Pro Asp Glu Ser Gly Pro Asp Trp Asn Gln Met Ile Thr  
 420 425 430  
 Phe Asp Gln Asp His Ala Gly Pro Ser Asp Asn Lys Ile Leu Glu Gln  
 435 440 445



Pro Gln Thr Pro Ser Ser Pro Thr Pro Glu Glu Ser Thr Ala Thr Arg  
 450 455 460

Ser Pro Thr Gly Ser  
 465

<210> 245

<211> 669

<212> DNA

<213> Arabidopsis thaliana

<400> 245

```

atggggaaat acatgaagaa atcaaagata actggcgata tcagcgtcat ggaagtctct 60
aaagcaacag ctccaagtcc aggtgttcga accagagccg ctaaaaccct agccttgaag 120
cggcttaatt cctccgccgc tgattcagct ctacctaacg actcttcttg ctatcttcag 180
ctccgtagcc gccgtctcga gaaaccctct tcgctgattg aaccgaaaca gccgccgaga 240
gttcacagat cgggaattaa agagtctggg tccagggtctc gcgttgactc ggttaactcg 300
gttcctgtag ctcaagagctc taatgaagat gaatgttttg acaatttcgt gagtgtccaa 360
gtttcttggt gtgaaaacag tctcggtttt gaatcaagac acagcacaag ggagagcacg 420
ccttgtaact ttgttgagga tatggagatc atgggttacac caggggtctag cacgaggctg 480
atgtgcagag caaccaaaga gtacacaagg gaacaagata acgtgatccc gaccactagt 540
gaaatggagg agttctttgc atatgcagag cagcagcaac agaggctatt catggagaag 600
tacaacttcg acattgtgaa tgatatcccc ctcaagcgac gttacgaatg ggtgcaagtc 660
aaaccatga 669

```

<210> 246

<211> 222

<212> PRT

<213> Arabidopsis thaliana

<400> 246

Met Gly Lys Tyr Met Lys Lys Ser Lys Ile Thr Gly Asp Ile Ser Val  
 1 5 10 15

Met Glu Val Ser Lys Ala Thr Ala Pro Ser Pro Gly Val Arg Thr Arg  
 20 25 30

047-E2F-PCT.ST25.txt

Ala Ala Lys Thr Leu Ala Leu Lys Arg Leu Asn Ser Ser Ala Ala Asp  
35 40 45

Ser Ala Leu Pro Asn Asp Ser Ser Cys Tyr Leu Gln Leu Arg Ser Arg  
50 55 60

Arg Leu Glu Lys Pro Ser Ser Leu Ile Glu Pro Lys Gln Pro Pro Arg  
65 70 75 80

Val His Arg Ser Gly Ile Lys Glu Ser Gly Ser Arg Ser Arg Val Asp  
85 90 95

Ser Val Asn Ser Val Pro Val Ala Gln Ser Ser Asn Glu Asp Glu Cys  
100 105 110

Phe Asp Asn Phe Val Ser Val Gln Val Ser Cys Gly Glu Asn Ser Leu  
115 120 125

Gly Phe Glu Ser Arg His Ser Thr Arg Glu Ser Thr Pro Cys Asn Phe  
130 135 140

Val Glu Asp Met Glu Ile Met Val Thr Pro Gly Ser Ser Thr Arg Ser  
145 150 155 160

Met Cys Arg Ala Thr Lys Glu Tyr Thr Arg Glu Gln Asp Asn Val Ile  
165 170 175

Pro Thr Thr Ser Glu Met Glu Glu Phe Phe Ala Tyr Ala Glu Gln Gln  
180 185 190

Gln Gln Arg Leu Phe Met Glu Lys Tyr Asn Phe Asp Ile Val Asn Asp  
195 200 205

Ile Pro Leu Ser Gly Arg Tyr Glu Trp Val Gln Val Lys Pro  
210 215 220

<210> 247

<211> 1458

<212> DNA

<213> Arabidopsis thaliana

<400> 247

atgtccggtg tcgtacgata ttctcccgtt tcttctcagc cgccaccgcc gccgccgcac 60

catccaccgt catctccggt tccggttaca tctacgccgg ttataccacc tatacgtcgt 120

047-E2F-PCT.ST25.txt

cacttagctt tcgcctcaac aaaacctccg tttcatcctt ccgatgatta ccatcgattt 180  
aacccttctt cgctcagtaa taataacgac aggagcttcg ttcattggtt tggtgttgta 240  
gatcgggagg aagatgctgt cgttggttaga tctccttcac gaaagagaaa ggcgacaatg 300  
gatatggttg ttgctccatc taataatgga ttcacgagtt ctggtttcac taacatacct 360  
agcagtccct gtcaaaactcc tagaaaaggg ggcagagtca acatcaagtc aaaggccaaa 420  
ggaaacaagt caactcctca aacacccatc tcgacaaacg ctggttctcc tatcacactt 480  
actccatcag gaagtgtgctg ttatgacagt tcttttaggtc tccttataaaa aaagtctgctc 540  
aatctaatta aacaagccaa agatggaatg ctggacctaa acaaagctgc agaaacattg 600  
gaggtgcaga aacgacgtat atatgatatt acaaacgttt tggaggggat agatctcatt 660  
gaaaagcctt tcaagaatcg aatacttttg aagggagttg atgcgtgtcc tggcgatgag 720  
gatgctgacg tatctgtatt acagctgcag gcagaaattg aaaacctcgc cctcgaagag 780  
caagcattag acaaccaaata cagacaaaca gaggaagat taagagacct gagcgaaaat 840  
gaaaagaatc agaaatggct ttttgtaact gaagaggata tcaagagttt accaggtttc 900  
cagaaccaga ctctgatagc cgtcaaagct cctcatggca caactttgga agtgcctgat 960  
ccagatgaag cggctgacca cccacaaagg agatacagga tcattcttag aagtacaatg 1020  
ggacctattg acgtatacct cgtcagcgaa tttgaaggga aattcgaaga cacaaatggg 1080  
agtgggtgcag caccaccagc atgcttgctt attgcttcta gctcaggatc tacaggacac 1140  
catgacatcg aagccttaac tgttgacaac ccagaaactg ctattgtgtc tcatgatcat 1200  
cctcatcctc aaccggcgca tacctctgat ctttaattatt tgcaagagca agtaggagga 1260  
atgcttaaga ttactccctc tgatgttgaa aatgatgagt cggactactg gcttctctca 1320  
aatgctgaga ttagcatgac ggatattttg aaaactgact ctggtatcga ttgggattat 1380  
ggaatagccg acgtgagtac tccaccacca ggaatgggag aaatagcacc aacagctggt 1440  
gactcaaccc cgagatga 1458

<210> 248

<211> 485

<212> PRT

<213> Arabidopsis thaliana

<400> 248

Met Ser Gly Val Val Arg Ser Ser Pro Gly Ser Ser Gln Pro Pro Pro  
1 5 10 15

047-E2F-PCT.ST25.txt

Pro Pro Pro His His Pro Pro Ser Ser Pro Val Pro Val Thr Ser Thr  
20 25 30

Pro Val Ile Pro Pro Ile Arg Arg His Leu Ala Phe Ala Ser Thr Lys  
35 40 45

Pro Pro Phe His Pro Ser Asp Asp Tyr His Arg Phe Asn Pro Ser Ser  
50 55 60

Leu Ser Asn Asn Asn Asp Arg Ser Phe Val His Gly Cys Gly Val Val  
65 70 75 80

Asp Arg Glu Glu Asp Ala Val Val Val Arg Ser Pro Ser Arg Lys Arg  
85 90 95

Lys Ala Thr Met Asp Met Val Val Ala Pro Ser Asn Asn Gly Phe Thr  
100 105 110

Ser Ser Gly Phe Thr Asn Ile Pro Ser Ser Pro Cys Gln Thr Pro Arg  
115 120 125

Lys Gly Gly Arg Val Asn Ile Lys Ser Lys Ala Lys Gly Asn Lys Ser  
130 135 140

Thr Pro Gln Thr Pro Ile Ser Thr Asn Ala Gly Ser Pro Ile Thr Leu  
145 150 155 160

Thr Pro Ser Gly Ser Cys Arg Tyr Asp Ser Ser Leu Gly Leu Leu Thr  
165 170 175

Lys Lys Phe Val Asn Leu Ile Lys Gln Ala Lys Asp Gly Met Leu Asp  
180 185 190

Leu Asn Lys Ala Ala Glu Thr Leu Glu Val Gln Lys Arg Arg Ile Tyr  
195 200 205

Asp Ile Thr Asn Val Leu Glu Gly Ile Asp Leu Ile Glu Lys Pro Phe  
210 215 220

Lys Asn Arg Ile Leu Trp Lys Gly Val Asp Ala Cys Pro Gly Asp Glu  
225 230 235 240

Asp Ala Asp Val Ser Val Leu Gln Leu Gln Ala Glu Ile Glu Asn Leu  
245 250 255

Ala Leu Glu Glu Gln Ala Leu Asp Asn Gln Ile Arg Gln Thr Glu Glu  
260 265 270

047-E2F-PCT.ST25.txt

Arg Leu Arg Asp Leu Ser Glu Asn Glu Lys Asn Gln Lys Trp Leu Phe  
275 280 285

Val Thr Glu Glu Asp Ile Lys Ser Leu Pro Gly Phe Gln Asn Gln Thr  
290 295 300

Leu Ile Ala Val Lys Ala Pro His Gly Thr Thr Leu Glu Val Pro Asp  
305 310 315 320

Pro Asp Glu Ala Ala Asp His Pro Gln Arg Arg Tyr Arg Ile Ile Leu  
325 330 335

Arg Ser Thr Met Gly Pro Ile Asp Val Tyr Leu Val Ser Glu Phe Glu  
340 345 350

Gly Lys Phe Glu Asp Thr Asn Gly Ser Gly Ala Ala Pro Pro Ala Cys  
355 360 365

Leu Pro Ile Ala Ser Ser Ser Gly Ser Thr Gly His His Asp Ile Glu  
370 375 380

Ala Leu Thr Val Asp Asn Pro Glu Thr Ala Ile Val Ser His Asp His  
385 390 395 400

Pro His Pro Gln Pro Gly Asp Thr Ser Asp Leu Asn Tyr Leu Gln Glu  
405 410 415

Gln Val Gly Gly Met Leu Lys Ile Thr Pro Ser Asp Val Glu Asn Asp  
420 425 430

Glu Ser Asp Tyr Trp Leu Leu Ser Asn Ala Glu Ile Ser Met Thr Asp  
435 440 445

Ile Trp Lys Thr Asp Ser Gly Ile Asp Trp Asp Tyr Gly Ile Ala Asp  
450 455 460

Val Ser Thr Pro Pro Pro Gly Met Gly Glu Ile Ala Pro Thr Ala Val  
465 470 475 480

Asp Ser Thr Pro Arg  
485

<210> 249

<211> 930

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 249

```

atggagaagt acgagaagct agagaaggct ggagaaggaa catacgggaa agtctacaaa      60
gcgatggaga aaggaactgg taagcttggt gctctgaaga aaactcgtct cgagatggac      120
gaagaaggta ttccaccaac tgctcttcgt gagatctcgc ttctccagat gttatcaaca      180
tcgatctatg ttgttcgatt actctgcgtc gaacatgttc atcaaccatc aaccaaattct      240
caatctacca aatccaattct ctatctcgtt ttcgagtatc tcgatactga tcttaagaaa      300
ttcatcgatt cgtataggaa aggacctaat cctaagcctc ttgagccttt ttgattcag      360
aagttgatgt ttcagctttg taaagggtgt ggcgattgtc atagtcattg tgtgcttcac      420
cgtgatctta aaccgcagaa tcttcttctg gtgaaagata aagagcttct taagattgct      480
gatttggtgc ttggtcgtgc ttttactgtt cctcttaagt cttatacgca tgagattggt      540
actctttggt atagagctcc tgaagttctt cttggatcta ctcattattc aactggtggt      600
gacatgtggt ctgttggttg tatctttgct gagatgggtc ggaggcaagc tcttttcctt      660
ggtgattctg agtttcagca attgcttcat atcttcaggt tgctaggaac accaactgag      720
cagcaatggc cgggtgtttc cacactgcgt gactggcatg tttaccctaa gtgggagccg      780
caagacttaa ctcttgctgt tccttctctt tcacctcaag gagttgatct tctcacgaaa      840
atgctcaagt acaatccagc cgaaagaatt tcagcaaaaa cagcacttga tcaccatat      900
tttgacagcc ttgacaagtc tcagttctga      930

```

&lt;210&gt; 250

&lt;211&gt; 309

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 250

```

Met Glu Lys Tyr Glu Lys Leu Glu Lys Val Gly Glu Gly Thr Tyr Gly
1      5      10
Lys Val Tyr Lys Ala Met Glu Lys Gly Thr Gly Lys Leu Val Ala Leu
20     25     30
Lys Lys Thr Arg Leu Glu Met Asp Glu Glu Gly Ile Pro Pro Thr Ala
35     40     45

```

Leu Arg Glu Ile Ser Leu Leu Gln Met Leu Ser Thr Ser Ile Tyr Val  
 50 55 60  
 Val Arg Leu Leu Cys Val Glu His Val His Gln Pro Ser Thr Lys Ser  
 65 70 75 80  
 Gln Ser Thr Lys Ser Asn Leu Tyr Leu Val Phe Glu Tyr Leu Asp Thr  
 85 90 95  
 Asp Leu Lys Lys Phe Ile Asp Ser Tyr Arg Lys Gly Pro Asn Pro Lys  
 100 105 110  
 Pro Leu Glu Pro Phe Leu Ile Gln Lys Leu Met Phe Gln Leu Cys Lys  
 115 120 125  
 Gly Val Ala His Cys His Ser His Gly Val Leu His Arg Asp Leu Lys  
 130 135 140  
 Pro Gln Asn Leu Leu Leu Val Lys Asp Lys Glu Leu Leu Lys Ile Ala  
 145 150 155 160  
 Asp Leu Gly Leu Gly Arg Ala Phe Thr Val Pro Leu Lys Ser Tyr Thr  
 165 170 175  
 His Glu Ile Val Thr Leu Trp Tyr Arg Ala Pro Glu Val Leu Leu Gly  
 180 185 190  
 Ser Thr His Tyr Ser Thr Gly Val Asp Met Trp Ser Val Gly Cys Ile  
 195 200 205  
 Phe Ala Glu Met Val Arg Arg Gln Ala Leu Phe Pro Gly Asp Ser Glu  
 210 215 220  
 Phe Gln Gln Leu Leu His Ile Phe Arg Leu Leu Gly Thr Pro Thr Glu  
 225 230 235 240  
 Gln Gln Trp Pro Gly Val Ser Thr Leu Arg Asp Trp His Val Tyr Pro  
 245 250 255  
 Lys Trp Glu Pro Gln Asp Leu Thr Leu Ala Val Pro Ser Leu Ser Pro  
 260 265 270  
 Gln Gly Val Asp Leu Leu Thr Lys Met Leu Lys Tyr Asn Pro Ala Glu  
 275 280 285  
 Arg Ile Ser Ala Lys Thr Ala Leu Asp His Pro Tyr Phe Asp Ser Leu  
 290 295 300

Asp Lys Ser Gln Phe  
305

<210> 251

<211> 1542

<212> DNA

<213> *Arabidopsis thaliana*

<400> 251

```

atggcggaga aggaagaaaa agaaccatcg aagttaaaat catccaccgg agtttcacgg      60
ccaacgattt cactacctcc tcgaccgttt ggtgaaatgt tttttagcgg tggcgttgga      120
tttagtcctg gaccaatgac tctcgtctca aattttattct ctgatcctga tgagttcaag      180
tctttctctc agcttttagc tggagctatg gcttctccgg cggcagctgc tgttgccgcc      240
gctgctgtgg ttgctactgc tcatcatcag acacctgtga gctctgtcgg tgatggcggt      300
ggaagcgggt gtgatgttga cccgagggtt aagcagagta gaccaacggg attgatgata      360
actcaaccac cggggatggt tactgtaccg cgggggttaa gtccgggtac tcttttggtat      420
tctccgagct tctttggtct tttttcacct cttcagggaa catttggtat gacacatcaa      480
caagcttttag cacaagtcac tgcacaagca gttcaaggca ataatgttca tatgcagcaa      540
tcacaacaat ctgaatatcc ttctttctaca caacaacaac aacaacaaca acaacaagct      600
tcattgactg agattccatc attttcttct gcacctaggt ctcagattcg agcctcgggt      660
caagaaacat cgcaggggtca gagagagact tcggaaatat ctgtctttga gcatcgggtca      720
cagcctcaaa atgctgacaa accagctgat gatggataca actggcgga aatatgggcag      780
aagcaagtga aggggagcga ttttcctcgg agttattaca aatgtacgca tccagcttgt      840
cctgtcaaga agaaagtgga gaggtcactc gatggacaag taacggaaat catctacaag      900
ggtcaacaca atcatgagct tcctcaaaag cgcggttaaca ataacgggag ttgtaaaagt      960
tctgatattg caaatcagtt tcaaacaagt aatagcagtc tcaacaagag taagagggac     1020
caggaaacaa gccaagttac aacaacagag cagatgtctg aagcaagtga tagcgaggag     1080
gttgggaatg cagagactag tgtgggagaa agacatgagg atgagcctga tccaagcga     1140
agaaatacag aagttcgggt ttcagaacca gttgcttcat cgcatagaac tgtgacagag     1200
cctaggatta ttgtccaaac gacgagtga gttgacctct tagatgatgg atataggtgg     1260
cgcaagtatg gtcagaaagt agtcaaagga aatccttatc cgaggagcta ctataagtgt     1320
acaacaccag attgcggagt aaggaaacat gtagagagag cagcaactga cccaaaagct     1380
gttgtaacaa catatgaagg taaacataac catgatgttc cagctgctag aaccagcagc     1440

```



047-E2F-PCT.ST25.txt

catcagttaa gaccaaaca tcaacacaac acctcaacgg ttaacttcaa tcatcaacag 1500  
cctgttgac gtttaaggct taaagaagag caaatcactt ga 1542

<210> 252

<211> 513

<212> PRT

<213> Arabidopsis thaliana

<400> 252

Met Ala Glu Lys Glu Glu Lys Glu Pro Ser Lys Leu Lys Ser Ser Thr  
1 5 10 15

Gly Val Ser Arg Pro Thr Ile Ser Leu Pro Pro Arg Pro Phe Gly Glu  
20 25 30

Met Phe Phe Ser Gly Gly Val Gly Phe Ser Pro Gly Pro Met Thr Leu  
35 40 45

Val Ser Asn Leu Phe Ser Asp Pro Asp Glu Phe Lys Ser Phe Ser Gln  
50 55 60

Leu Leu Ala Gly Ala Met Ala Ser Pro Ala Ala Ala Ala Val Ala Ala  
65 70 75 80

Ala Ala Val Val Ala Thr Ala His His Gln Thr Pro Val Ser Ser Val  
85 90 95

Gly Asp Gly Gly Gly Ser Gly Gly Asp Val Asp Pro Arg Phe Lys Gln  
100 105 110

Ser Arg Pro Thr Gly Leu Met Ile Thr Gln Pro Pro Gly Met Phe Thr  
115 120 125

Val Pro Pro Gly Leu Ser Pro Ala Thr Leu Leu Asp Ser Pro Ser Phe  
130 135 140

Phe Gly Leu Phe Ser Pro Leu Gln Gly Thr Phe Gly Met Thr His Gln  
145 150 155 160

Gln Ala Leu Ala Gln Val Thr Ala Gln Ala Val Gln Gly Asn Asn Val  
165 170 175

His Met Gln Gln Ser Gln Gln Ser Glu Tyr Pro Ser Ser Thr Gln Gln

180  
 185  
 190  
 Gln Gln Gln Gln Gln Gln Gln Ala Ser Leu Thr Glu Ile Pro Ser Phe  
 195 200 205  
 Ser Ser Ala Pro Arg Ser Gln Ile Arg Ala Ser Val Gln Glu Thr Ser  
 210 215 220  
 Gln Gly Gln Arg Glu Thr Ser Glu Ile Ser Val Phe Glu His Arg Ser  
 225 230 235 240  
 Gln Pro Gln Asn Ala Asp Lys Pro Ala Asp Asp Gly Tyr Asn Trp Arg  
 245 250 255  
 Lys Tyr Gly Gln Lys Gln Val Lys Gly Ser Asp Phe Pro Arg Ser Tyr  
 260 265 270  
 Tyr Lys Cys Thr His Pro Ala Cys Pro Val Lys Lys Lys Val Glu Arg  
 275 280 285  
 Ser Leu Asp Gly Gln Val Thr Glu Ile Ile Tyr Lys Gly Gln His Asn  
 290 295 300  
 His Glu Leu Pro Gln Lys Arg Gly Asn Asn Asn Gly Ser Cys Lys Ser  
 305 310 315 320  
 Ser Asp Ile Ala Asn Gln Phe Gln Thr Ser Asn Ser Ser Leu Asn Lys  
 325 330 335  
 Ser Lys Arg Asp Gln Glu Thr Ser Gln Val Thr Thr Thr Glu Gln Met  
 340 345 350  
 Ser Glu Ala Ser Asp Ser Glu Glu Val Gly Asn Ala Glu Thr Ser Val  
 355 360 365  
 Gly Glu Arg His Glu Asp Glu Pro Asp Pro Lys Arg Arg Asn Thr Glu  
 370 375 380  
 Val Arg Val Ser Glu Pro Val Ala Ser Ser His Arg Thr Val Thr Glu  
 385 390 395 400  
 Pro Arg Ile Ile Val Gln Thr Thr Ser Glu Val Asp Leu Leu Asp Asp  
 405 410 415  
 Gly Tyr Arg Trp Arg Lys Tyr Gly Gln Lys Val Val Lys Gly Asn Pro  
 420 425 430

Tyr Pro Arg Ser Tyr Tyr Lys Cys Thr Thr Pro Asp Cys Gly Val Arg  
 435 440 445

Lys His Val Glu Arg Ala Ala Thr Asp Pro Lys Ala Val Val Thr Thr  
 450 455 460

Tyr Glu Gly Lys His Asn His Asp Val Pro Ala Ala Arg Thr Ser Ser  
 465 470 475 480

His Gln Leu Arg Pro Asn Asn Gln His Asn Thr Ser Thr Val Asn Phe  
 485 490 495

Asn His Gln Gln Pro Val Ala Arg Leu Arg Leu Lys Glu Glu Gln Ile  
 500 505 510

Thr

<210> 253

<211> 1164

<212> DNA

<213> Arabidopsis thaliana

<400> 253

atggcttctt cttctctacc tctttctctt ccgtttccac tccgatctct tactagtacc	60
actcgatctc taccatttca atgttctcct ctctttttct ctattccttc ttcaatcgtt	120
tgcttctcca ctcaaaatcc cgaccgcgaa gaggtccggt ggctccggga agagcagaga	180
tggattcgcg aggagcaacg atggattcgt gaagaacaga gatggatacg cgaacgtgaa	240
tcgcttctac aagagatttc ggatctacag ctcagaattc aatccctaga gtcacgaaat	300
tcgcaattgg ggaattctat tcccgatacg atttcgaata tcgctgcttt gcttcagggt	360
ttgaaggaga agaatcggat ttctgagagt ggattgagcg caacgccgat ggtattggag	420
agtacgagag aacaaattgt tgaggaggtg gaagaagaag agaagcgagt gattattgct	480
gaagagaaag ttagggtttc ggagccggtg aagaagatca agaggaggat attgaaagtt	540
ggaagcgaag gcgacgatgt tcaagctttg caggaagctc tgttgaaatt aggattctat	600
tcgggcgaag aggatatgga gttctcgagc ttttcaagtg ggactgcaag tgctgttaag	660
acttggcaag catcgcttgg ggtccgtgag gatggggtaa tgacagcaga gcttcttcag	720
aggttgttca tggatgaaga cgtagagaca gataaggatg aagcaagtac aatgaagaaa	780
gaggaagctg gtaatggggc ggtatttact tcagtgcacac aagtcctga gaagaagcaa	840

047-E2F-PCT.ST25.txt

tcaatcgtga aagatcaaag tgacagagaa gttgacgtta ctcaaaatcg gggttttctt 900  
 cttggagaaa acagatggga agatccctcc aggctcattg gcaggaacaa accggtagac 960  
 agaagtgaat caacaaacac caaaacgagg tgcatacatt gtcgagggga gggtcgattg 1020  
 atgtgcctag agtgcgatgg aaccggtgag ccaaacattg agccgcagtt catggagtgg 1080  
 gttggtgaag atacgaagtg tccgtactgt gaaggtcttg gctatacagt ttgcgatgtc 1140  
 tgcgacggca aaaaaaactt ataa 1164

<210> 254

<211> 387

<212> PRT

<213> Arabidopsis thaliana

<400> 254

Met Ala Ser Ser Ser Leu Pro Leu Ser Leu Pro Phe Pro Leu Arg Ser  
 1 5 10 15

Leu Thr Ser Thr Thr Arg Ser Leu Pro Phe Gln Cys Ser Pro Leu Phe  
 20 25 30

Phe Ser Ile Pro Ser Ser Ile Val Cys Phe Ser Thr Gln Asn Pro Asp  
 35 40 45

Arg Glu Glu Val Arg Trp Leu Arg Glu Glu Gln Arg Trp Ile Arg Glu  
 50 55 60

Glu Gln Arg Trp Ile Arg Glu Glu Gln Arg Trp Ile Arg Glu Arg Glu  
 65 70 75 80

Ser Leu Leu Gln Glu Ile Ser Asp Leu Gln Leu Arg Ile Gln Ser Leu  
 85 90 95

Glu Ser Arg Asn Ser Gln Leu Gly Asn Ser Ile Pro Asp Thr Ile Ser  
 100 105 110

Asn Ile Ala Ala Leu Leu Gln Val Leu Lys Glu Lys Asn Arg Ile Ser  
 115 120 125

Glu Ser Gly Leu Ser Ala Thr Pro Met Val Leu Glu Ser Thr Arg Glu  
 130 135 140

Gln Ile Val Glu Glu Val Glu Glu Glu Glu Lys Arg Val Ile Ile Ala  
 145 150 155 160

047-E2F-PCT.ST25.txt

Glu Glu Lys Val Arg Val Ser Glu Pro Val Lys Lys Ile Lys Arg Arg  
 165 170 175  
 Ile Leu Lys Val Gly Ser Glu Gly Asp Asp Val Gln Ala Leu Gln Glu  
 180 185 190  
 Ala Leu Leu Lys Leu Gly Phe Tyr Ser Gly Glu Glu Asp Met Glu Phe  
 195 200 205  
 Ser Ser Phe Ser Ser Gly Thr Ala Ser Ala Val Lys Thr Trp Gln Ala  
 210 215 220  
 Ser Leu Gly Val Arg Glu Asp Gly Val Met Thr Ala Glu Leu Leu Gln  
 225 230 235 240  
 Arg Leu Phe Met Asp Glu Asp Val Glu Thr Asp Lys Asp Glu Ala Ser  
 245 250 255  
 Thr Met Lys Lys Glu Glu Ala Gly Asn Gly Ala Val Phe Thr Ser Val  
 260 265 270  
 Thr Gln Val Pro Glu Lys Lys Gln Ser Ile Val Lys Asp Gln Ser Asp  
 275 280 285  
 Arg Glu Val Asp Val Thr Gln Asn Arg Val Phe Leu Leu Gly Glu Asn  
 290 295 300  
 Arg Trp Glu Asp Pro Ser Arg Leu Ile Gly Arg Asn Lys Pro Val Asp  
 305 310 315 320  
 Arg Ser Glu Ser Thr Asn Thr Lys Thr Arg Cys Ile Thr Cys Arg Gly  
 325 330 335  
 Glu Gly Arg Leu Met Cys Leu Glu Cys Asp Gly Thr Gly Glu Pro Asn  
 340 345 350  
 Ile Glu Pro Gln Phe Met Glu Trp Val Gly Glu Asp Thr Lys Cys Pro  
 355 360 365  
 Tyr Cys Glu Gly Leu Gly Tyr Thr Val Cys Asp Val Cys Asp Gly Lys  
 370 375 380  
 Lys Asn Leu  
 385

<210> 255

&lt;211&gt; 849

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 255

```

atgaagcttt cttgtggtac aagttttgcg ttcttgatta tgtttctctt tgcggcacaa      60
tctatgcatg tctatgcggg tagcttccac aaagatgttc agatacattg gggtgacggc      120
cgtggaaagg tgcgcgacag agatggaaag cttctatctc tctcgctcga caaatcctct      180
ggatccggtt ttcagtccaa ccaggagttt ctctatggca aagccgaggt tcaaataaaa      240
cttgtccctg gtaactcagc tggaacagta acaacattct atcttaagtc tccgggaact      300
acgtgggatg agattgattt cgagttctta ggaaaccta gtggtcatcc gtatactctc      360
catactaatag ttacacaaa aggctcagga gacaaagaac aacaatttca tctatggttc      420
gacccaactg ttaactttca cacttattgc atcacatgga atcccaaag gattatTTTT      480
acagttgatg gaattcctat tagagagttc aagaactccg agtcaattgg agttccgttc      540
ccaacgaagc aaccaatgag gctttacgag agtctctggg aagccgagca ttgggctaca      600
aggggagggg tagagaaaac agattggtca aaggctcctt tcaccgcttt ctacagaaac      660
tacaatgttg aaggatgtgt atgggctaata ggaaaatcat cttgtcccg c aaattcctca      720
tggttcactc aacaactcga ttcaaacggc cagacaagaa tgaaaggggt acagagtaag      780
tacatggtct acaactattg taacgacaaa agaaggtttc ctcgaggtgt tcctgtagag      840
tgcagttaa                                         849

```

&lt;210&gt; 256

&lt;211&gt; 282

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 256

```

Met Lys Leu Ser Cys Gly Thr Ser Phe Ala Phe Leu Ile Met Phe Leu
1           5           10          15

Phe Ala Ala Gln Ser Met His Val Tyr Ala Gly Ser Phe His Lys Asp
          20          25          30

Val Gln Ile His Trp Gly Asp Gly Arg Gly Lys Val Arg Asp Arg Asp
      35          40          45

```

047-E2F-PCT.ST25.txt

Gly Lys Leu Leu Ser Leu Ser Leu Asp Lys Ser Ser Gly Ser Gly Phe  
50 55 60

Gln Ser Asn Gln Glu Phe Leu Tyr Gly Lys Ala Glu Val Gln Met Lys  
65 70 75 80

Leu Val Pro Gly Asn Ser Ala Gly Thr Val Thr Thr Phe Tyr Leu Lys  
85 90 95

Ser Pro Gly Thr Thr Trp Asp Glu Ile Asp Phe Glu Phe Leu Gly Asn  
100 105 110

Leu Ser Gly His Pro Tyr Thr Leu His Thr Asn Val Tyr Thr Lys Gly  
115 120 125

Ser Gly Asp Lys Glu Gln Gln Phe His Leu Trp Phe Asp Pro Thr Val  
130 135 140

Asn Phe His Thr Tyr Cys Ile Thr Trp Asn Pro Gln Arg Ile Ile Phe  
145 150 155 160

Thr Val Asp Gly Ile Pro Ile Arg Glu Phe Lys Asn Ser Glu Ser Ile  
165 170 175

Gly Val Pro Phe Pro Thr Lys Gln Pro Met Arg Leu Tyr Ala Ser Leu  
180 185 190

Trp Glu Ala Glu His Trp Ala Thr Arg Gly Gly Leu Glu Lys Thr Asp  
195 200 205

Trp Ser Lys Ala Pro Phe Thr Ala Phe Tyr Arg Asn Tyr Asn Val Glu  
210 215 220

Gly Cys Val Trp Ala Asn Gly Lys Ser Ser Cys Pro Ala Asn Ser Ser  
225 230 235 240

Trp Phe Thr Gln Gln Leu Asp Ser Asn Gly Gln Thr Arg Met Lys Gly  
245 250 255

Val Gln Ser Lys Tyr Met Val Tyr Asn Tyr Cys Asn Asp Lys Arg Arg  
260 265 270

Phe Pro Arg Gly Val Pro Val Glu Cys Ser  
275 280

<210> 257

&lt;211&gt; 468

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 257

```

atgcattaca tgggtttggt tagtagagct ggaaacatat ttaggcagcc tagagcggtg      60
caggcctcaa acgctatggt acagggcaat ctttcattaa ctccatccaa aatctttggt      120
ggaggtctct caccatctac tgatgtggag ctcttgaaag aagcttttgg cagttttgga      180
aaaattgttg atgcggtagt ggttttggac cgtgaaagtg gtttatcaag gggctttggt      240
ttcgtaacat atgattcgat cgaagttgct aataacgcaa tgcaagctat gcaaaataag      300
gagcttgatg ggcgaataat tggagtgcac ccagctgatt caggaggtgg tgggggtggt      360
ggtgggtttt caagaagggg aggttatggt ggtggtcgtg ggggatatgc tcgtggtgga      420
tttggtcgcg gtggatttgg tgggtggtggc tatggctttg ttcgttaa      468

```

&lt;210&gt; 258

&lt;211&gt; 155

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 258

```

Met His Tyr Met Gly Leu Phe Ser Arg Ala Gly Asn Ile Phe Arg Gln
1      5      10     15
Pro Arg Ala Leu Gln Ala Ser Asn Ala Met Leu Gln Gly Asn Leu Ser
20     25     30
Leu Thr Pro Ser Lys Ile Phe Val Gly Gly Leu Ser Pro Ser Thr Asp
35     40     45
Val Glu Leu Leu Lys Glu Ala Phe Gly Ser Phe Gly Lys Ile Val Asp
50     55     60
Ala Val Val Val Leu Asp Arg Glu Ser Gly Leu Ser Arg Gly Phe Gly
65     70     75     80
Phe Val Thr Tyr Asp Ser Ile Glu Val Ala Asn Asn Ala Met Gln Ala
85     90     95

```



Met Gln Asn Lys Glu Leu Asp Gly Arg Ile Ile Gly Val His Pro Ala  
 100 105 110

Asp Ser Gly Gly Gly Gly Gly Gly Gly Gly Phe Ala Arg Arg Gly Gly  
 115 120 125

Tyr Gly Gly Gly Arg Gly Gly Tyr Ala Arg Gly Gly Phe Gly Arg Gly  
 130 135 140

Gly Phe Gly Gly Gly Gly Tyr Gly Phe Val Arg  
 145 150 155

<210> 259

<211> 1215

<212> DNA

<213> Arabidopsis thaliana

<400> 259

atggaccgaa cacaatctcc aaagacagct ctgttcgccg tgttggcaac actccttgtc	60
ttaaccgtga acggccagtc actttgtaac acacacaggt tcaccaataa cctcgccttc	120
gcagattgct ctgacctctc ggccttaggc tctttccttc actggacctt caatgaacaa	180
aacggtaccg tctcaatcgc ctatcgccac cctggaacct ctgcttcttc ttggggttgct	240
tggggactta acccaagtag tactcagatg gttgggacgc aagctctcgt agccttcaca	300
aacacaacaa ctaaccaatt ccaggcctat acctcttccg tgagttccta tggtagcgcg	360
cttgaacgta gtagcctaag tttcgggtgtg agtggcctct ccgcgactct ggtcagtggc	420
gaggttacga tctttgcaac tcttgagttg tctccgaatc tgatcacggc caaccagctt	480
tggcagggtg gacctgttgt caacggtgtt cctgcgagtc atcaaacctc aggagataat	540
atgagatcga gtggtaggat tgatttccgg actgggtcagg catcagctgg tgggtggtggt	600
tccggtgaca ggctgaggaa gagaaacacg catggagtac taaatgcggt cagctgggga	660
gtactaatgc caatgggagc aatgatggct cggtacatga aagtcttcgc cgatccaaca	720
tggttctatc tccacattgc ctttcaagtg tcggggttacg tcatcggggt agccggttg	780
gccaccggaa tcaagcttgg taacgactca ccaggcacat cttactcaac ccatcgtaac	840
cttggaatag cactcttcac atttgccaca cttcaagtat ttgctctgct tgtaaggcca	900
aagccagacc acaaatatcg aacgtactgg aacgtgtacc atcacaccgt tggatacaca	960
accatcatcc tctctattgt caacatcttc aaaggattcg acattttgga cccggaggat	1020
aaatggcgat gggcttacat tgggatcctc atctttcttg gtgcttgtgt ccttattctc	1080

gagccactca cttggttcat tgttcttcgc cgtaagagcc gtggaggtaa cacagtcgct 1140  
gcaccaactt cgagcaagta ctctaacggc gtcaatggta ccaccaccac tggaccacat 1200  
caccaggacg cctag 1215

<210> 260

<211> 404

<212> PRT

<213> Arabidopsis thaliana

<400> 260

Met Asp Arg Thr Gln Ser Pro Lys Thr Ala Leu Phe Ala Val Leu Ala  
1 5 10 15  
Thr Leu Leu Val Leu Thr Val Asn Gly Gln Ser Leu Cys Asn Thr His  
20 25 30  
Arg Phe Thr Asn Asn Leu Ala Phe Ala Asp Cys Ser Asp Leu Ser Ala  
35 40 45  
Leu Gly Ser Phe Leu His Trp Thr Tyr Asn Glu Gln Asn Gly Thr Val  
50 55 60  
Ser Ile Ala Tyr Arg His Pro Gly Thr Ser Ala Ser Ser Trp Val Ala  
65 70 75 80  
Trp Gly Leu Asn Pro Ser Ser Thr Gln Met Val Gly Thr Gln Ala Leu  
85 90 95  
Val Ala Phe Thr Asn Thr Thr Thr Asn Gln Phe Gln Ala Tyr Thr Ser  
100 105 110  
Ser Val Ser Ser Tyr Gly Thr Arg Leu Glu Arg Ser Ser Leu Ser Phe  
115 120 125  
Gly Val Ser Gly Leu Ser Ala Thr Leu Val Ser Gly Glu Val Thr Ile  
130 135 140  
Phe Ala Thr Leu Glu Leu Ser Pro Asn Leu Ile Thr Ala Asn Gln Leu  
145 150 155 160  
Trp Gln Val Gly Pro Val Val Asn Gly Val Pro Ala Ser His Gln Thr  
165 170 175

Ser Gly Asp Asn Met Arg Ser Ser Gly Arg Ile Asp Phe Arg Thr Gly  
 180 185 190  
 Gln Ala Ser Ala Gly Gly Gly Gly Ser Gly Asp Arg Leu Arg Lys Arg  
 195 200 205  
 Asn Thr His Gly Val Leu Asn Ala Val Ser Trp Gly Val Leu Met Pro  
 210 215 220  
 Met Gly Ala Met Met Ala Arg Tyr Met Lys Val Phe Ala Asp Pro Thr  
 225 230 235 240  
 Trp Phe Tyr Leu His Ile Ala Phe Gln Val Ser Gly Tyr Val Ile Gly  
 245 250 255  
 Val Ala Gly Trp Ala Thr Gly Ile Lys Leu Gly Asn Asp Ser Pro Gly  
 260 265 270  
 Thr Ser Tyr Ser Thr His Arg Asn Leu Gly Ile Ala Leu Phe Thr Phe  
 275 280 285  
 Ala Thr Leu Gln Val Phe Ala Leu Leu Val Arg Pro Lys Pro Asp His  
 290 295 300  
 Lys Tyr Arg Thr Tyr Trp Asn Val Tyr His His Thr Val Gly Tyr Thr  
 305 310 315 320  
 Thr Ile Ile Leu Ser Ile Val Asn Ile Phe Lys Gly Phe Asp Ile Leu  
 325 330 335  
 Asp Pro Glu Asp Lys Trp Arg Trp Ala Tyr Ile Gly Ile Leu Ile Phe  
 340 345 350  
 Leu Gly Ala Cys Val Leu Ile Leu Glu Pro Leu Thr Trp Phe Ile Val  
 355 360 365  
 Leu Arg Arg Lys Ser Arg Gly Gly Asn Thr Val Ala Ala Pro Thr Ser  
 370 375 380  
 Ser Lys Tyr Ser Asn Gly Val Asn Gly Thr Thr Thr Thr Gly Pro His  
 385 390 395 400  
 His Gln Asp Ala

&lt;210&gt; 261

&lt;211&gt; 1098

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 261

```

atgagttgct ttgggtgttg tggggaggat gatgatatgc ataaaactgc tgattatgga      60
ggtcgtcata accaagccaa acactttcct ccaggaaatg atgcaaggca ccaccaagcc      120
tctgaaactg cacagaaggg tcctccagtt gtgaagttgc agcctattga agtacctatt      180
atccctttta gtgaactcaa agaagcaact gatgattttg gatcgaattc tctcatcggt      240
gaaggctcct atggaagagt atactacggg gtattaaaca atgatctgcc ttcagcgatt      300
aaaaagttgg attctaacaa acagcctgac aatgaattcc ttgctcaggt ttccatgggt      360
tctaggctta aacatgataa ctttgttcaa cttcttggtc actgtgttga tgggaattca      420
cggatacttt cttatgaatt tgccaataat ggatctcttc atgatattct tcatgggaga      480
aaaggtgtga aaggagcaca gccaggctct gtcttgtcgt ggtatcaacg agtcaaaatt      540
gcagttggag ctgcaagagg ccttgagtac ttgcatgaaa aagctaattc tcacatcatt      600
caccgtgaca ttaaattccag caatgtcctc ctctttgaag atgatgttgc caaaattgct      660
gactttgatc tctctaatac agctcctgat atggcagctc gccttcattc caccgagtt      720
cttgggactt ttggttacca tgcccctgaa tatgcaatga ccgggcagtt aaatgccaag      780
agtgatgtct acagcttttg agttgtctta ctgcaacttc ttacagggtcg aaagcctgtt      840
gatcatagac taccagagg ccagcaaagt ttagtcacat gggctacacc taaactgagt      900
gaagacaagg ttaaacaatg cgttgatgca agactcggtg gcgattaccc tccaaaagct      960
gttgctaagt tagccgcggt tgctgcgttg tgtgtgcaat atgaagcaga ttttaggccg     1020
aatatgagta tcgttgtcaa agctcttcaa cctttgttga atgctcgagc cgtagctcca     1080
ggggaaggag tacattag                                     1098

```

&lt;210&gt; 262

&lt;211&gt; 365

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 262

```

Met Ser Cys Phe Gly Cys Cys Gly Glu Asp Asp Asp Met His Lys Thr
1          5          10          15

```

Ala Asp Tyr Gly Gly Arg His Asn Gln Ala Lys His Phe Pro Pro Gly  
 20 25 30  
 Asn Asp Ala Arg His His Gln Ala Ser Glu Thr Ala Gln Lys Gly Pro  
 35 40 45  
 Pro Val Val Lys Leu Gln Pro Ile Glu Val Pro Ile Ile Pro Phe Ser  
 50 55 60  
 Glu Leu Lys Glu Ala Thr Asp Asp Phe Gly Ser Asn Ser Leu Ile Gly  
 65 70 75 80  
 Glu Gly Ser Tyr Gly Arg Val Tyr Tyr Gly Val Leu Asn Asn Asp Leu  
 85 90 95  
 Pro Ser Ala Ile Lys Lys Leu Asp Ser Asn Lys Gln Pro Asp Asn Glu  
 100 105 110  
 Phe Leu Ala Gln Val Ser Met Val Ser Arg Leu Lys His Asp Asn Phe  
 115 120 125  
 Val Gln Leu Leu Gly Tyr Cys Val Asp Gly Asn Ser Arg Ile Leu Ser  
 130 135 140  
 Tyr Glu Phe Ala Asn Asn Gly Ser Leu His Asp Ile Leu His Gly Arg  
 145 150 155 160  
 Lys Gly Val Lys Gly Ala Gln Pro Gly Pro Val Leu Ser Trp Tyr Gln  
 165 170 175  
 Arg Val Lys Ile Ala Val Gly Ala Ala Arg Gly Leu Glu Tyr Leu His  
 180 185 190  
 Glu Lys Ala Asn Pro His Ile Ile His Arg Asp Ile Lys Ser Ser Asn  
 195 200 205  
 Val Leu Leu Phe Glu Asp Asp Val Ala Lys Ile Ala Asp Phe Asp Leu  
 210 215 220  
 Ser Asn Gln Ala Pro Asp Met Ala Ala Arg Leu His Ser Thr Arg Val  
 225 230 235 240  
 Leu Gly Thr Phe Gly Tyr His Ala Pro Glu Tyr Ala Met Thr Gly Gln  
 245 250 255  
 Leu Asn Ala Lys Ser Asp Val Tyr Ser Phe Gly Val Val Leu Leu Glu  
 260 265 270

047-E2F-PCT.ST25.txt

Leu Leu Thr Gly Arg Lys Pro Val Asp His Arg Leu Pro Arg Gly Gln  
275 280 285

Gln Ser Leu Val Thr Trp Ala Thr Pro Lys Leu Ser Glu Asp Lys Val  
290 295 300

Lys Gln Cys Val Asp Ala Arg Leu Gly Gly Asp Tyr Pro Pro Lys Ala  
305 310 315 320

Val Ala Lys Leu Ala Ala Val Ala Ala Leu Cys Val Gln Tyr Glu Ala  
325 330 335

Asp Phe Arg Pro Asn Met Ser Ile Val Val Lys Ala Leu Gln Pro Leu  
340 345 350

Leu Asn Ala Arg Ala Val Ala Pro Gly Glu Gly Val His  
355 360 365

<210> 263

<211> 1608

<212> DNA

<213> Arabidopsis thaliana

<400> 263

atgtccaaag	acaaagtctc	ttctcccacc	gccgatctca	tcccgcagct	tgctgctaca	60
ctcgtcgctg	ctcttggcgc	tcaatgctac	cgcctcacac	taccgccgtc	tcctccgccc	120
agaatcctga	cgccgcaagt	gccaccttcg	tctgctacca	tggtttcctc	cttcaatcct	180
acccgaatcc	ttgaccatcg	cgcgagctct	caccggaatc	gtcgtggggc	ttttccggct	240
agcaaacgtc	gccgtctggt	cgatgagccc	atcgattacc	cggatctctc	caaccgggct	300
taccaggttc	tctccactcc	gcttttcgcc	tctggaattg	ggtcgattcg	cgagcttctg	360
tcgtcctctc	ctccgccgac	gacgtcttct	cagcctccgt	ctgtctcgat	tccaccaccg	420
tccgctccac	cgctcgttct	cagcgattct	aaggatgccg	aaccgcgtgg	tctaccaaat	480
ccgtctgctc	ctccgtcccc	gttggtctcc	aaaaacatca	ctccggttgc	ttcaccggtc	540
gcagacgtcc	cgatgcctga	tcctctgatt	tcgcccaccg	ctgagactgc	agaggggtgct	600
agtgtgccag	atgcggctgt	ctcttatgct	gctcgtgctg	cagctcatcg	tcagggttttt	660
gccgagagag	atgaactgga	tagaactctt	cgtcgccctt	tggtgccgcc	acacaccaag	720
cgttttttgt	ctgccgctgc	tgctgaaagg	tacaaacaca	tcgctaaacg	cgatttcata	780
ttccagaaaa	ctctgccctt	agatcctgag	gtcctgaccg	ccaccaagta	ttttctggaa	840

047-E2F-PCT.ST25.txt

cactcgggta tggctcagac tgtcgttgcg gtggaacagt ttgtcccaga agttgttcgt 900  
gaattctatg cgaatctgcc agagatggaa taticgagaat gtggtcttga tctggtgtat 960  
gttcggggca agatgtatga gttctcgcct gctcttatca atcacatggt ctcgattgat 1020  
gactccgctt tagatccaga ggctccggtt accctctcta cagcttctcg tgatgatctt 1080  
gctctcatga tgacaggtgg gactacacga cgttggctcc gcttgcaacc tgctgatcat 1140  
ctagatacca tgaagatgct gcacaagggt tgctgtggaa attggtttcc aacgaccaat 1200  
accagcactc ttcgggttga ccgtctccgg ttgattgaca tggggactca tggtaagagt 1260  
ttcaacctgg gcaaattggg ggtaactcat accatgagtt tggcacgttt gggacccctt 1320  
tcttcacatc gtctggctta cccaaatctg atctaccagc tgctcacctt tcagcgtgat 1380  
gtgcgctctc gtcctcgtga tactctctct gacgaaccgg gtgtctttgt caacgatccg 1440  
ccaccacgc agcctacca agcaccacct ccgatgggtc ataaactcct tcttgaagac 1500  
attaatgata ttcttgagat aggggaagcg atacgacgct gcttgacagt tgaggaagaa 1560  
cctaggaaga ggaagaggaa gaatttgatc ctggctgagt tactatag 1608

<210> 264

<211> 535

<212> PRT

<213> Arabidopsis thaliana

<400> 264

Met Ser Lys Asp Lys Val Ser Ser Pro Thr Ala Asp Leu Ile Pro Gln  
1 5 10 15

Leu Ala Ala Thr Leu Val Ala Ala Leu Gly Ala Gln Cys Tyr Arg Leu  
20 25 30

Thr Leu Pro Pro Ser Pro Pro Pro Arg Ile Leu Thr Pro Gln Val Pro  
35 40 45

Pro Ser Ser Ala Thr Met Ala Ser Ser Phe Asn Pro Thr Arg Ile Leu  
50 55 60

Asp His Arg Ala Ser Ser His Arg Asn Arg Arg Gly Ala Phe Pro Ala  
65 70 75 80

Ser Lys Arg Arg Arg Leu Val Asp Glu Pro Ile Asp Tyr Pro Asp Leu  
85 90 95

047-E2F-PCT.ST25.txt

Ser Asn Pro Ala Tyr Gln Val Leu Ser Thr Pro Leu Phe Ala Ser Gly  
100 105 110

Ile Gly Ser Ile Arg Glu Leu Leu Ser Ser Ser Pro Pro Pro Thr Thr  
115 120 125

Ser Ser Gln Pro Pro Ser Val Ser Ile Pro Pro Pro Ser Ala Pro Pro  
130 135 140

Leu Val Leu Ser Asp Ser Lys Asp Ala Glu Pro Ala Gly Leu Thr Asn  
145 150 155 160

Pro Ser Ala Pro Pro Ser Pro Leu Ala Pro Lys Asn Ile Thr Pro Val  
165 170 175

Ala Ser Pro Val Ala Asp Val Pro Met Pro Asp Pro Leu Ile Ser Pro  
180 185 190

Thr Ala Glu Thr Ala Glu Gly Ala Ser Val Pro Asp Ala Ala Val Ser  
195 200 205

Tyr Ala Ala Arg Ala Ala Ala His Arg Gln Val Phe Ala Glu Arg Asp  
210 215 220

Glu Leu Asp Arg Thr Leu Arg Arg Pro Leu Val Pro Pro His Thr Lys  
225 230 235 240

Arg Phe Leu Ser Ala Ala Ala Ala Glu Arg Tyr Lys His Ile Ala Lys  
245 250 255

Arg Asp Phe Ile Phe Gln Lys Thr Leu Pro Leu Asp Pro Glu Val Leu  
260 265 270

Thr Ala Thr Lys Tyr Phe Leu Glu His Ser Gly Met Ala Gln Thr Val  
275 280 285

Val Ala Val Glu Gln Phe Val Pro Glu Val Val Arg Glu Phe Tyr Ala  
290 295 300

Asn Leu Pro Glu Met Glu Tyr Arg Glu Cys Gly Leu Asp Leu Val Tyr  
305 310 315 320

Val Arg Gly Lys Met Tyr Glu Phe Ser Pro Ala Leu Ile Asn His Met  
325 330 335

Phe Ser Ile Asp Asp Ser Ala Leu Asp Pro Glu Ala Pro Val Thr Leu  
340 345 350



047-E2F-PCT.ST25.txt

Ser Thr Ala Ser Arg Asp Asp Leu Ala Leu Met Met Thr Gly Gly Thr  
355 360 365

Thr Arg Arg Trp Leu Arg Leu Gln Pro Ala Asp His Leu Asp Thr Met  
370 375 380

Lys Met Leu His Lys Val Cys Cys Gly Asn Trp Phe Pro Thr Thr Asn  
385 390 395 400

Thr Ser Thr Leu Arg Val Asp Arg Leu Arg Leu Ile Asp Met Gly Thr  
405 410 415

His Gly Lys Ser Phe Asn Leu Gly Lys Leu Val Val Thr His Thr Met  
420 425 430

Ser Leu Ala Arg Leu Gly Pro Leu Ser Ser His Arg Leu Ala Tyr Pro  
435 440 445

Asn Leu Ile Tyr Gln Leu Leu Thr Phe Gln Arg Asp Val Arg Ser Arg  
450 455 460

Pro Arg Asp Thr Leu Ser Asp Glu Pro Gly Val Phe Val Asn Asp Pro  
465 470 475 480

Pro Pro Thr Gln Pro Thr Gln Ala Pro Pro Pro Met Gly His Lys Leu  
485 490 495

Leu Leu Glu Asp Ile Asn Asp Leu Leu Glu Ile Gly Lys Arg Ile Arg  
500 505 510

Arg Arg Leu Thr Val Glu Glu Glu Pro Arg Lys Arg Lys Arg Lys Asn  
515 520 525

Leu Ile Leu Ala Glu Leu Leu  
530 535

<210> 265

<211> 1692

<212> DNA

<213> Arabidopsis thaliana

<400> 265

atggcagaag cagcatacac agtagcatca gacagtgaac acactggaga ggagaaatca

60

## 047-E2F-PCT.ST25.txt

tcacatcatctc	cttcattacc	cgaaatcgcc	cttggtatcg	acattggtac	ttctcaatgc	120
agtatagctg	tttggaacgg	ttctcaagtt	cacatcttga	ggaacacaag	aaaccagaag	180
ctcatcaaat	catttgtcac	tttcaaagat	gaagttcctg	ctggtggtgt	tagcaaccag	240
ctcgcacatg	agcaggaaat	gctaaccgga	gccgctatct	tcaacatgaa	gcggctcgtt	300
ggtcgtgtag	acactgatcc	tgtggttcac	gctagcaaga	accttccttt	cttggttcaa	360
actcttgata	ttggagttag	accgtttatt	gcagctttgg	tgaacaatgc	ttggagatca	420
acaacaccag	aggaagtttt	agctatatatt	ctggtggagt	tacgtctgat	ggctgaagct	480
cagttgaaac	gtcctgtgag	aaatgtagtg	cttacggttc	cggtttcggt	ctctaggttc	540
cagctcacac	ggttcgaaag	agcttgcgct	atggctggac	ttcatgttct	tcgtttgatg	600
ccggaaccaa	ctgctattgc	gttgctttat	gcgcaacagc	agcagatgac	tacccatgat	660
aacatgggaa	gcggaagcga	gaggcttgcg	gttatattca	atatgggagc	tggttactgc	720
gatgttgcgg	ttactgctac	tgctggtggt	gtttcacaga	taaaagcttt	agctggtagc	780
cccattgggg	gtgaagacat	tttgcagaac	acaattcgcc	atatcgctcc	acctaataaa	840
gaagcttcgg	ggttgcttcg	tgtagcggca	caggacgcga	ttcacaggct	aacggatcaa	900
gaaaatgtcc	aaattgaagt	ggatttgga	aatggtaaca	agatatccaa	ggttcttgat	960
aggtttagagt	ttgaggaagt	gaaccagaag	gtatttgagg	aatgtgagag	acttgttgtg	1020
cagtgcctgc	gagatgagag	agtcaatggt	ggtgatatcg	atgatttgat	aatggttgga	1080
gggtgttcgt	acatcccgaa	agtaagaact	attatcaaga	acgtatgcaa	gaaggatgag	1140
atatacaaag	gcgtgaatcc	tttagaagct	gcggtttagag	gagctgcttt	ggaagggtcg	1200
gtgacttcag	ggattcatga	tccttttggt	agcttagatc	tgtaaacat	acaagccaca	1260
cctcttgtag	ttggagtaag	agctaaccga	aacaaattca	taccctgat	tccgcgtaac	1320
acaatgggtc	cagcgcggaa	agacctcttc	ttcacaacgg	ttcaagacaa	ccagaaggaa	1380
gctctgatca	ttatatacga	aggagaagga	gagactgttg	aagagaatca	tcttcttggt	1440
tatttcaagc	tcgttgggat	tccgccagca	ccgaaagggt	ttccagagat	caatgtgtgt	1500
atggacattg	atgcatcaaa	tgctttacgg	gttttcgcag	ctgtgttgat	gccgggatct	1560
tcgagtccag	tggttcctgt	gattgaggtg	aggatgccta	cggttgatga	tgacatggt	1620
tggtgtgctc	aagctttgaa	tgtgaaatat	ggagctactc	ttgatttgat	tactcttcag	1680
agaaagatgt	aa					1692

&lt;210&gt; 266

&lt;211&gt; 563

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 266

Met Ala Glu Ala Ala Tyr Thr Val Ala Ser Asp Ser Glu Asn Thr Gly  
 1 5 10 15

Glu Glu Lys Ser Ser Ser Ser Pro Ser Leu Pro Glu Ile Ala Leu Gly  
 20 25 30

Ile Asp Ile Gly Thr Ser Gln Cys Ser Ile Ala Val Trp Asn Gly Ser  
 35 40 45

Gln Val His Ile Leu Arg Asn Thr Arg Asn Gln Lys Leu Ile Lys Ser  
 50 55 60

Phe Val Thr Phe Lys Asp Glu Val Pro Ala Gly Gly Val Ser Asn Gln  
 65 70 75 80

Leu Ala His Glu Gln Glu Met Leu Thr Gly Ala Ala Ile Phe Asn Met  
 85 90 95

Lys Arg Leu Val Gly Arg Val Asp Thr Asp Pro Val Val His Ala Ser  
 100 105 110

Lys Asn Leu Pro Phe Leu Val Gln Thr Leu Asp Ile Gly Val Arg Pro  
 115 120 125

Phe Ile Ala Ala Leu Val Asn Asn Ala Trp Arg Ser Thr Thr Pro Glu  
 130 135 140

Glu Val Leu Ala Ile Phe Leu Val Glu Leu Arg Leu Met Ala Glu Ala  
 145 150 155 160

Gln Leu Lys Arg Pro Val Arg Asn Val Val Leu Thr Val Pro Val Ser  
 165 170 175

Phe Ser Arg Phe Gln Leu Thr Arg Phe Glu Arg Ala Cys Ala Met Ala  
 180 185 190

Gly Leu His Val Leu Arg Leu Met Pro Glu Pro Thr Ala Ile Ala Leu  
 195 200 205

Leu Tyr Ala Gln Gln Gln Gln Met Thr Thr His Asp Asn Met Gly Ser  
 210 215 220

Gly Ser Glu Arg Leu Ala Val Ile Phe Asn Met Gly Ala Gly Tyr Cys  
 Page 413

047-E2F-PCT.ST25.txt															
225				230				235				240			
Asp	Val	Ala	Val	Thr 245	Ala	Thr	Ala	Gly	Gly 250	Val	Ser	Gln	Ile	Lys 255	Ala
Leu	Ala	Gly	Ser 260	Pro	Ile	Gly	Gly	Glu 265	Asp	Ile	Leu	Gln	Asn 270	Thr	Ile
Arg	His	Ile 275	Ala	Pro	Pro	Asn	Glu 280	Glu	Ala	Ser	Gly	Leu 285	Leu	Arg	Val
Ala	Ala 290	Gln	Asp	Ala	Ile	His 295	Arg	Leu	Thr	Asp	Gln 300	Glu	Asn	Val	Gln
Ile 305	Glu	Val	Asp	Leu	Gly 310	Asn	Gly	Asn	Lys	Ile 315	Ser	Lys	Val	Leu	Asp 320
Arg	Leu	Glu	Phe	Glu 325	Glu	Val	Asn	Gln	Lys 330	Val	Phe	Glu	Glu	Cys 335	Glu
Arg	Leu	Val	Val 340	Gln	Cys	Leu	Arg	Asp 345	Ala	Arg	Val	Asn	Gly 350	Gly	Asp
Ile	Asp	Asp 355	Leu	Ile	Met	Val	Gly 360	Gly	Cys	Ser	Tyr	Ile 365	Pro	Lys	Val
Arg	Thr 370	Ile	Ile	Lys	Asn	Val 375	Cys	Lys	Lys	Asp	Glu 380	Ile	Tyr	Lys	Gly
Val 385	Asn	Pro	Leu	Glu	Ala 390	Ala	Val	Arg	Gly	Ala 395	Ala	Leu	Glu	Gly	Ala 400
Val	Thr	Ser	Gly	Ile 405	His	Asp	Pro	Phe	Gly 410	Ser	Leu	Asp	Leu	Leu 415	Thr
Ile	Gln	Ala	Thr 420	Pro	Leu	Ala	Val	Gly 425	Val	Arg	Ala	Asn	Gly 430	Asn	Lys
Phe	Ile	Pro 435	Val	Ile	Pro	Arg	Asn 440	Thr	Met	Val	Pro	Ala 445	Arg	Lys	Asp
Leu	Phe 450	Phe	Thr	Thr	Val	Gln 455	Asp	Asn	Gln	Lys	Glu 460	Ala	Leu	Ile	Ile
Ile 465	Tyr	Glu	Gly	Glu	Gly 470	Glu	Thr	Val	Glu	Glu 475	Asn	His	Leu	Leu	Gly 480

Tyr Phe Lys Leu Val Gly Ile Pro Pro Ala Pro Lys Gly Val Pro Glu  
 485 490 495

Ile Asn Val Cys Met Asp Ile Asp Ala Ser Asn Ala Leu Arg Val Phe  
 500 505 510

Ala Ala Val Leu Met Pro Gly Ser Ser Ser Pro Val Val Pro Val Ile  
 515 520 525

Glu Val Arg Met Pro Thr Val Asp Asp Gly His Gly Trp Cys Ala Gln  
 530 535 540

Ala Leu Asn Val Lys Tyr Gly Ala Thr Leu Asp Leu Ile Thr Leu Gln  
 545 550 555 560

Arg Lys Met

<210> 267

<211> 2754

<212> DNA

<213> Arabidopsis thaliana

<400> 267

atggcggcct ctgtagataa tcgccaatac gctcgtctcg agccagggtt gaacggcgtg	60
gttcgttctt acaaacctcc cgttccaggc cgggtccgatt cccctaaggc gcaccagaac	120
caaaccacca accaaaccgt gttcttgaaa ccagccaagg ttcattgacga tgacgaagac	180
gtgtcgagcg aagacgagaa cgagacacac aacagcaacg ccgtgtacta caaggagatg	240
ataagaaaat ccaacgccga gcttgaaccg tccgttttgg acccgaggga cgaatacacg	300
gctgatagct ggatcgagcg taacccttcc atggtacgtc tcacaggga acatcccttc	360
aactccgagg cgcctcttaa ccgtttaatg caccacgggt ttatcacccc tgtcccgttg	420
cactacgttc gtaaccacgg ccacgtccct aaagcccaat gggccgaatg gacggtcgag	480
gtgaccggat tcgtcaaacg gcccatgaaa ttcaccatgg accagctcgt ctccgagttt	540
gcttaccgcg agttcgccgc gacgctagtc tgcgcgggga accgccgtaa ggaacagaac	600
atggtgaaga agtcaaaggg attcaactgg ggatccgccg gagtttccac ctccgtgtgg	660
cgtggtgtcc ctctctgcga cgtactgcgt cgctgcggga tctttagccg aaaaggcggc	720
gctctcaacg tctgcttcga agggctcgag gatcttccgg gcggtgccgg aactgctggt	780
tccaaatacg gaacgagcat caagaaggaa tatgccatgg atccatcaag agacatcatt	840

ttggcttata	tgcaaaacgg	agagtatcta	acaccagacc	acggttttcc	ggttcggatc	900
atcatccccg	gtttcattgg	tggccggatg	gttaaattgg	tgaaacgaat	cattgtcaca	960
actaaagaat	ccgacaat	ctaccatttc	aaggacaaca	gagttttacc	ttcttttgta	1020
gacgccgaac	tcgccgacga	agaaggttgg	tggtataagc	cagagtacat	aatcaacgag	1080
ctaaacataa	actccgtgat	tacgacgcca	tgtcacgagg	agattcttcc	catcaacgct	1140
ttcacaaccc	aaagacctta	tacttttaag	ggttacgcat	attccggagg	tggaaaaaaa	1200
gtgaccctg	tggagggtcac	ggtagatgg	ggagagacat	ggaacgtatg	tgcacttgac	1260
catcaagaga	agccaaacaa	gtatgggaag	ttctggtgtt	ggtgtttttg	gtcacttgag	1320
gttgagggtt	tggacttgct	tagtgccaaa	gagattgctg	ttcgtgcatg	ggacgagact	1380
ctcaacacgc	agcccgagaa	aatgatattg	aatctcatgg	ggatgatgaa	taactgctgg	1440
tttagagtga	agactaacgt	gtgcaagcca	cacaaggagg	agattgggat	tgtgttcgag	1500
catccaacgc	ttcttggtta	tgaatctggt	ggatggatgg	cgaaggaacg	tcacctcgaa	1560
aaatcggctg	acgcgcctcc	tagtctaaag	aagtctgtct	cgacgccgtt	tatgaacaca	1620
actgcgaaga	tgtactcgat	gtccgaggtc	aagaagcata	attcggctga	ctcttgctgg	1680
atcattgtcc	atggacatat	ctatgattgt	acacgattcc	ttatggatca	cccgggtggt	1740
tcggattcaa	tcttgatcaa	tgctggtacg	gattgtacgg	aggagtttga	agccattcac	1800
tcggataaag	ccaagaagat	gcttgaggat	taccgtatcg	gtgagctcat	caccactggt	1860
tattcctctg	actcttctc	gcctaacaac	tcggttcacg	gttcatccgc	cgtgttctcg	1920
ctgttggtc	ccattggaga	ggcgactccg	gttaggaacc	tcgctttggt	taatccccgg	1980
gctaaagtcc	cggttcaact	cgtcgaaaag	acttccattt	ctcatgatgt	tcgtaaattc	2040
cggtttgctt	taccggttga	ggatatgggt	ctaggcttac	cggttggtta	gcacattttc	2100
ctttgcgcca	ccatcaatga	caagctctgc	ctcagagctt	acacaccaag	cagcaccggt	2160
gatgtgggtg	gctacttcga	gctcgtggtc	aagatttact	ttggcgggtg	ccaccaaga	2220
ttccctaacg	gcggggtcat	gtctcagtac	ctagactctt	tgcctatagg	gtcaactttg	2280
gagattaaag	gaccattggg	tcacgttgag	tatctcggca	agggtagttt	cacggttcac	2340
ggtaaacc	agtttgctga	taaattggca	atggtggcag	gtggaaccgg	aataactccg	2400
gtttaccaaa	ttatccaagc	cattctcaag	gatccagagg	atgagactga	aatgtacgtc	2460
atztatgcta	accggaccga	ggaagatatt	ctcctaaggg	aggaactgga	tggttgggca	2520
gagcaatacc	cggaccgggt	aaaggtttgg	tacgtagtgg	aatcagctaa	ggaaggttgg	2580
gcatacagta	ccgggtttat	ttccgaggcg	attatgagag	aacatatccc	tgatggatta	2640
gatggctcag	cccttgccat	ggcttgcgga	ccaccaccga	tgattcagtt	tgcggttcag	2700
ccgaatttgg	agaagatgca	atataacatc	aaggaggatt	tcttgatatt	ctag	2754

<210> 268

<211> 917

<212> PRT

<213> Arabidopsis thaliana

<400> 268

Met Ala Ala Ser Val Asp Asn Arg Gln Tyr Ala Arg Leu Glu Pro Gly  
1 5 10 15

Leu Asn Gly Val Val Arg Ser Tyr Lys Pro Pro Val Pro Gly Arg Ser  
20 25 30

Asp Ser Pro Lys Ala His Gln Asn Gln Thr Thr Asn Gln Thr Val Phe  
35 40 45

Leu Lys Pro Ala Lys Val His Asp Asp Asp Glu Asp Val Ser Ser Glu  
50 55 60

Asp Glu Asn Glu Thr His Asn Ser Asn Ala Val Tyr Tyr Lys Glu Met  
65 70 75 80

Ile Arg Lys Ser Asn Ala Glu Leu Glu Pro Ser Val Leu Asp Pro Arg  
85 90 95

Asp Glu Tyr Thr Ala Asp Ser Trp Ile Glu Arg Asn Pro Ser Met Val  
100 105 110

Arg Leu Thr Gly Lys His Pro Phe Asn Ser Glu Ala Pro Leu Asn Arg  
115 120 125

Leu Met His His Gly Phe Ile Thr Pro Val Pro Leu His Tyr Val Arg  
130 135 140

Asn His Gly His Val Pro Lys Ala Gln Trp Ala Glu Trp Thr Val Glu  
145 150 155 160

Val Thr Gly Phe Val Lys Arg Pro Met Lys Phe Thr Met Asp Gln Leu  
165 170 175

Val Ser Glu Phe Ala Tyr Arg Glu Phe Ala Ala Thr Leu Val Cys Ala  
180 185 190

Gly Asn Arg Arg Lys Glu Gln Asn Met Val Lys Lys Ser Lys Gly Phe  
Page 417

195

200

205

Asn Trp Gly Ser Ala Gly Val Ser Thr Ser Val Trp Arg Gly Val Pro  
 210 215 220  
 Leu Cys Asp Val Leu Arg Arg Cys Gly Ile Phe Ser Arg Lys Gly Gly  
 225 230 235 240  
 Ala Leu Asn Val Cys Phe Glu Gly Ser Glu Asp Leu Pro Gly Gly Ala  
 245 250 255  
 Gly Thr Ala Gly Ser Lys Tyr Gly Thr Ser Ile Lys Lys Glu Tyr Ala  
 260 265 270  
 Met Asp Pro Ser Arg Asp Ile Ile Leu Ala Tyr Met Gln Asn Gly Glu  
 275 280 285  
 Tyr Leu Thr Pro Asp His Gly Phe Pro Val Arg Ile Ile Ile Pro Gly  
 290 295 300  
 Phe Ile Gly Gly Arg Met Val Lys Trp Leu Lys Arg Ile Ile Val Thr  
 305 310 315 320  
 Thr Lys Glu Ser Asp Asn Phe Tyr His Phe Lys Asp Asn Arg Val Leu  
 325 330 335  
 Pro Ser Leu Val Asp Ala Glu Leu Ala Asp Glu Glu Gly Trp Trp Tyr  
 340 345 350  
 Lys Pro Glu Tyr Ile Ile Asn Glu Leu Asn Ile Asn Ser Val Ile Thr  
 355 360 365  
 Thr Pro Cys His Glu Glu Ile Leu Pro Ile Asn Ala Phe Thr Thr Gln  
 370 375 380  
 Arg Pro Tyr Thr Leu Lys Gly Tyr Ala Tyr Ser Gly Gly Gly Lys Lys  
 385 390 395 400  
 Val Thr Arg Val Glu Val Thr Val Asp Gly Gly Glu Thr Trp Asn Val  
 405 410 415  
 Cys Ala Leu Asp His Gln Glu Lys Pro Asn Lys Tyr Gly Lys Phe Trp  
 420 425 430  
 Cys Trp Cys Phe Trp Ser Leu Glu Val Glu Val Leu Asp Leu Leu Ser  
 435 440 445



Ala Lys Glu Ile Ala Val Arg Ala Trp Asp Glu Thr Leu Asn Thr Gln  
 450 455 460  
 Pro Glu Lys Met Ile Trp Asn Leu Met Gly Met Met Asn Asn Cys Trp  
 465 470 475 480  
 Phe Arg Val Lys Thr Asn Val Cys Lys Pro His Lys Gly Glu Ile Gly  
 485 490 495  
 Ile Val Phe Glu His Pro Thr Leu Pro Gly Asn Glu Ser Gly Gly Trp  
 500 505 510  
 Met Ala Lys Glu Arg His Leu Glu Lys Ser Ala Asp Ala Pro Pro Ser  
 515 520 525  
 Leu Lys Lys Ser Val Ser Thr Pro Phe Met Asn Thr Thr Ala Lys Met  
 530 535 540  
 Tyr Ser Met Ser Glu Val Lys Lys His Asn Ser Ala Asp Ser Cys Trp  
 545 550 555 560  
 Ile Ile Val His Gly His Ile Tyr Asp Cys Thr Arg Phe Leu Met Asp  
 565 570 575  
 His Pro Gly Gly Ser Asp Ser Ile Leu Ile Asn Ala Gly Thr Asp Cys  
 580 585 590  
 Thr Glu Glu Phe Glu Ala Ile His Ser Asp Lys Ala Lys Lys Met Leu  
 595 600 605  
 Glu Asp Tyr Arg Ile Gly Glu Leu Ile Thr Thr Gly Tyr Ser Ser Asp  
 610 615 620  
 Ser Ser Ser Pro Asn Asn Ser Val His Gly Ser Ser Ala Val Phe Ser  
 625 630 635 640  
 Leu Leu Ala Pro Ile Gly Glu Ala Thr Pro Val Arg Asn Leu Ala Leu  
 645 650 655  
 Val Asn Pro Arg Ala Lys Val Pro Val Gln Leu Val Glu Lys Thr Ser  
 660 665 670  
 Ile Ser His Asp Val Arg Lys Phe Arg Phe Ala Leu Pro Val Glu Asp  
 675 680 685  
 Met Val Leu Gly Leu Pro Val Gly Lys His Ile Phe Leu Cys Ala Thr  
 690 695 700

047-E2F-PCT.ST25.txt

Ile Asn Asp Lys Leu Cys Leu Arg Ala Tyr Thr Pro Ser Ser Thr Val  
705 710 715 720

Asp Val Val Gly Tyr Phe Glu Leu Val Val Lys Ile Tyr Phe Gly Gly  
725 730 735

Val His Pro Arg Phe Pro Asn Gly Gly Leu Met Ser Gln Tyr Leu Asp  
740 745 750

Ser Leu Pro Ile Gly Ser Thr Leu Glu Ile Lys Gly Pro Leu Gly His  
755 760 765

Val Glu Tyr Leu Gly Lys Gly Ser Phe Thr Val His Gly Lys Pro Lys  
770 775 780

Phe Ala Asp Lys Leu Ala Met Leu Ala Gly Gly Thr Gly Ile Thr Pro  
785 790 795 800

Val Tyr Gln Ile Ile Gln Ala Ile Leu Lys Asp Pro Glu Asp Glu Thr  
805 810 815

Glu Met Tyr Val Ile Tyr Ala Asn Arg Thr Glu Glu Asp Ile Leu Leu  
820 825 830

Arg Glu Glu Leu Asp Gly Trp Ala Glu Gln Tyr Pro Asp Arg Leu Lys  
835 840 845

Val Trp Tyr Val Val Glu Ser Ala Lys Glu Gly Trp Ala Tyr Ser Thr  
850 855 860

Gly Phe Ile Ser Glu Ala Ile Met Arg Glu His Ile Pro Asp Gly Leu  
865 870 875 880

Asp Gly Ser Ala Leu Ala Met Ala Cys Gly Pro Pro Pro Met Ile Gln  
885 890 895

Phe Ala Val Gln Pro Asn Leu Glu Lys Met Gln Tyr Asn Ile Lys Glu  
900 905 910

Asp Phe Leu Ile Phe  
915

<210> 269

<211> 1455

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 269

```

atgattcctc ctttcaaacg cggtcgtttc atcactaagt tgcgttccgt cgccgggaac      60
agccgaatct ttagcatgga tgctcgagag aaatcacgat cgtttgtgtt ggtatcatca      120
aggcacaaga gagttccagt ttttgtgatg atgccgattg atacatttgg aattgatgct      180
tctgggtgtc caaagattaa aaggctcaag gctttaactg tatctcttaa ggcactcaag      240
ttagctggtg ttcattggaat cgcagttgag gtttgggtgg ggattgtaga gcgtttctct      300
cctcttgagt ttaaagtgtc actgtatgaa gagcttttta gactgatttc tgaggcaggg      360
ttgaagttac atgttgctct ttgctttcat tcaaataatgc atttgtttgg tgggaaagga      420
ggcatcagtc ttccactctg gatccgagag attggagacg tcaataagga catatactat      480
agagataaaa gcggattttc caacaatgac tatctcacac ttggagtcga tcaacttcct      540
ttgttcggtg gccgtactgc tgttcaatgc tatgaagatt ttatgctcag tttttcaaca      600
aaatttgagc catatcttgg gaatgtgatt gaagaaataa gtataggtct tggtccttcg      660
ggggagctta gatatcctgc acatccttct ggagatggga ggtggaaatt tcctggaatt      720
ggtgaattcc aatgccatga caagtacatg atggaagact tgatggcagt ggcattccaa      780
gaaggcaaac ctcaatgggg aagcagagat cctccgaata ccggctgcta taatagcttt      840
ccatctggag ttccgttctt tgaggagggc aatgatagct ttctctctga ctatggtcgt      900
ttctttctag aatggtacag tgggaagttg atttgtcatg ctgatgctat tcttgcaaag      960
gcagccgatg tcttgcgagg acgtcaggaa gaagagaaaa gctctgtaat gctggttgca     1020
aaaattggtg gaatctattg gtggtataag acatcttcac accccgctga actaactgca     1080
ggttattaca acacctcctt cagggatggt tatgatcctg tagcttccgt cttgtctcgt     1140
catggtgctg ctctcaacat cccctgcttg gatatggcag atagtgaaat acctgagaaa     1200
tatctttgca gccctgaagg attacgtaga cagatacatg atgtttcgaa gaagtggaca     1260
atacatgtga ctggtagaaa cacaagcgaa agatttgatg agatgggact aaggcaaata     1320
cgagagaact gtgtgcaacc gaatggcgac actctaagat catttacgtt ttgcagaatg     1380
aatgagaaga tctttagggt cgagaactgg aacaactttg tccctttcat tagacagatg     1440
agtgacagata tgtaa                                           1455

```

&lt;210&gt; 270

&lt;211&gt; 484

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 270

```

Met Ile Pro Pro Phe Lys Arg Gly Arg Phe Ile Thr Lys Leu Arg Ser
1      5      10      15
Val Ala Gly Asn Ser Arg Ile Phe Ser Met Asp Ala Arg Glu Lys Ser
20     25     30
Arg Ser Phe Val Leu Val Ser Ser Arg His Lys Arg Val Pro Val Phe
35     40     45
Val Met Met Pro Ile Asp Thr Phe Gly Ile Asp Ala Ser Gly Cys Pro
50     55     60
Lys Ile Lys Arg Leu Lys Ala Leu Thr Val Ser Leu Lys Ala Leu Lys
65     70     75     80
Leu Ala Gly Val His Gly Ile Ala Val Glu Val Trp Trp Gly Ile Val
85     90     95
Glu Arg Phe Ser Pro Leu Glu Phe Lys Trp Ser Leu Tyr Glu Glu Leu
100    105    110
Phe Arg Leu Ile Ser Glu Ala Gly Leu Lys Leu His Val Ala Leu Cys
115    120    125
Phe His Ser Asn Met His Leu Phe Gly Gly Lys Gly Gly Ile Ser Leu
130    135    140
Pro Leu Trp Ile Arg Glu Ile Gly Asp Val Asn Lys Asp Ile Tyr Tyr
145    150    155    160
Arg Asp Lys Ser Gly Phe Ser Asn Asn Asp Tyr Leu Thr Leu Gly Val
165    170    175
Asp Gln Leu Pro Leu Phe Gly Gly Arg Thr Ala Val Gln Cys Tyr Glu
180    185    190
Asp Phe Met Leu Ser Phe Ser Thr Lys Phe Glu Pro Tyr Leu Gly Asn
195    200    205
Val Ile Glu Glu Ile Ser Ile Gly Leu Gly Pro Ser Gly Glu Leu Arg
210    215    220
Tyr Pro Ala His Pro Ser Gly Asp Gly Arg Trp Lys Phe Pro Gly Ile
225    230    235    240

```

047-E2F-PCT.ST25.txt

Gly Glu Phe Gln Cys His Asp Lys Tyr Met Met Glu Asp Leu Met Ala  
 245 250 255  
 Val Ala Ser Gln Glu Gly Lys Pro Gln Trp Gly Ser Arg Asp Pro Pro  
 260 270  
 Asn Thr Gly Cys Tyr Asn Ser Phe Pro Ser Gly Val Pro Phe Phe Glu  
 275 280 285  
 Glu Gly Asn Asp Ser Phe Leu Ser Asp Tyr Gly Arg Phe Phe Leu Glu  
 290 300  
 Trp Tyr Ser Gly Lys Leu Ile Cys His Ala Asp Ala Ile Leu Ala Lys  
 305 310 315 320  
 Ala Ala Asp Val Leu Arg Arg Arg Gln Glu Glu Glu Lys Ser Ser Val  
 325 330 335  
 Met Leu Val Ala Lys Ile Gly Gly Ile Tyr Trp Trp Tyr Lys Thr Ser  
 340 345 350  
 Ser His Pro Ala Glu Leu Thr Ala Gly Tyr Tyr Asn Thr Ser Leu Arg  
 355 360 365  
 Asp Gly Tyr Asp Pro Val Ala Ser Val Leu Ser Arg His Gly Ala Ala  
 370 375 380  
 Leu Asn Ile Pro Cys Leu Asp Met Ala Asp Ser Glu Ile Pro Glu Lys  
 385 390 395 400  
 Tyr Leu Cys Ser Pro Glu Gly Leu Arg Arg Gln Ile His Asp Val Ser  
 405 410 415  
 Lys Lys Trp Thr Ile His Val Thr Gly Arg Asn Thr Ser Glu Arg Phe  
 420 425 430  
 Asp Glu Met Gly Leu Arg Gln Ile Arg Glu Asn Cys Val Gln Pro Asn  
 435 440 445  
 Gly Asp Thr Leu Arg Ser Phe Thr Phe Cys Arg Met Asn Glu Lys Ile  
 450 455 460  
 Phe Arg Val Glu Asn Trp Asn Asn Phe Val Pro Phe Ile Arg Gln Met  
 465 470 475 480  
 Ser Ala Asp Met

&lt;210&gt; 271

&lt;211&gt; 753

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 271

```

atggcgagat acgatcgagc aatcactgta ttctcccccg atggtcacct cttccaagta      60
gagtatgccc tagaagccgt ccgaaagggg aacgccgccg tcggagtccg cggcacagat      120
actgtcgtcc tcgccgtcga aaagaaatcc acccctaagc tccaggattc cagatcagca      180
aggaagatag tgagccttga taatcacatt gcattggcct gtgctggact gaaagcagat      240
gctcgtgtct tgataaaca ggcgaggata gagtgtcaaa gccacaggct tacgttggag      300
gaccagttta ctgttgagta cttactcgg tacatagcag ggcttcaaca gaagtatact      360
caaagtgggtg gtgtgaggcc ttttggctct tccactctta ttgttgggtt tgatccctac      420
actcgtatac ccgcgcttta tcagaccgat ccatctggta cattctctgc ttggaaagct      480
aatgcaactg ggagaaactc taactcaatt agggagtttc tggagaaaaa ctacaaagaa      540
agcgcgtggcc aagaaactgt taagcttgct atccgtgctc tgcttgaggt tgttgagagt      600
gggggaaaga acattgaggt tgctgtaatg acacgagagg aagggtgttct gaagcaacta      660
gaagaagaag aaattgatat cattgtggct gagatcgaag cagagaaggc tgcagctgaa      720
gcagccaaga aaggccctgc gaaggaaaca tga                                     753

```

&lt;210&gt; 272

&lt;211&gt; 250

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 272

```

Met Ala Arg Tyr Asp Arg Ala Ile Thr Val Phe Ser Pro Asp Gly His
1          5          10          15

Leu Phe Gln Val Glu Tyr Ala Leu Glu Ala Val Arg Lys Gly Asn Ala
          20          25          30

Ala Val Gly Val Arg Gly Thr Asp Thr Val Val Leu Ala Val Glu Lys
          35          40          45

```

047-E2F-PCT.ST25.txt

Lys Ser Thr Pro Lys Leu Gln Asp Ser Arg Ser Ala Arg Lys Ile Val  
 50 55 60  
 Ser Leu Asp Asn His Ile Ala Leu Ala Cys Ala Gly Leu Lys Ala Asp  
 65 70 75 80  
 Ala Arg Val Leu Ile Asn Lys Ala Arg Ile Glu Cys Gln Ser His Arg  
 85 90 95  
 Leu Thr Leu Glu Asp Pro Val Thr Val Glu Tyr Ile Thr Arg Tyr Ile  
 100 105 110  
 Ala Gly Leu Gln Gln Lys Tyr Thr Gln Ser Gly Gly Val Arg Pro Phe  
 115 120 125  
 Gly Leu Ser Thr Leu Ile Val Gly Phe Asp Pro Tyr Thr Arg Ile Pro  
 130 135 140  
 Ala Leu Tyr Gln Thr Asp Pro Ser Gly Thr Phe Ser Ala Trp Lys Ala  
 145 150 155 160  
 Asn Ala Thr Gly Arg Asn Ser Asn Ser Ile Arg Glu Phe Leu Glu Lys  
 165 170 175  
 Asn Tyr Lys Glu Ser Ala Gly Gln Glu Thr Val Lys Leu Ala Ile Arg  
 180 185 190  
 Ala Leu Leu Glu Val Val Glu Ser Gly Gly Lys Asn Ile Glu Val Ala  
 195 200 205  
 Val Met Thr Arg Glu Glu Gly Val Leu Lys Gln Leu Glu Glu Glu Glu  
 210 215 220  
 Ile Asp Ile Ile Val Ala Glu Ile Glu Ala Glu Lys Ala Ala Ala Glu  
 225 230 235 240  
 Ala Ala Lys Lys Gly Pro Ala Lys Glu Thr  
 245 250

<210> 273

<211> 438

<212> DNA

<213> Arabidopsis thaliana

047-E2F-PCT.ST25.txt

<400> 273  
 atgctctcat accaacttat atttttcact gcaatggttt attggtattg ttatacatcg 60  
 ccaacgatga catcaagctt gcggttacga acccttattt tgggcaaaca aaggtggatc 120  
 aaacctagaa atttttatca gttttgtgac aagtacgcta tcggatacga gaacaagaag 180  
 aacaactcac ttcgtaacca caagatcttg agatttaatg atggatccgt cgcgaactac 240  
 cgaatttatg agtttgaaat ctacaatttt aactctgatt catggaaggt ttttgacttc 300  
 actcccgact gggatatctc ttttactgac cttagcgtgt ctctcaaggg gtatacttac 360  
 tggctgatcc gttccaacgg gctgatccaa gaatattatg ctcgaagtct gaggaaaatg 420  
 atgatcaaga attattga 438

<210> 274

<211> 145

<212> PRT

<213> Arabidopsis thaliana

<400> 274

Met	Leu	Ser	Tyr	Gln	Leu	Ile	Phe	Phe	Thr	Ala	Met	Val	Tyr	Cys	Tyr
1				5					10					15	
Cys	Tyr	Thr	Ser	Pro	Thr	Met	Thr	Ser	Ser	Leu	Arg	Leu	Arg	Thr	Leu
			20					25					30		
Ile	Leu	Gly	Lys	Gln	Arg	Trp	Ile	Lys	Pro	Arg	Asn	Phe	Tyr	Gln	Phe
		35					40					45			
Cys	Asp	Lys	Tyr	Ala	Ile	Gly	Tyr	Glu	Asn	Lys	Lys	Asn	Asn	Ser	Leu
	50					55					60				
Arg	Asn	His	Lys	Ile	Leu	Arg	Phe	Asn	Asp	Gly	Ser	Val	Ala	Asn	Tyr
65					70					75					80
Arg	Ile	Tyr	Glu	Phe	Glu	Ile	Tyr	Asn	Phe	Asn	Ser	Asp	Ser	Trp	Lys
				85					90					95	
Val	Phe	Asp	Phe	Thr	Pro	Asp	Trp	Asp	Ile	Ser	Phe	Thr	Asp	Leu	Ser
			100					105					110		
Val	Ser	Leu	Lys	Gly	Tyr	Thr	Tyr	Trp	Leu	Ile	Arg	Ser	Asn	Gly	Leu
		115					120					125			



Ile Gln Glu Tyr Tyr Ala Arg Ser Leu Arg Lys Met Met Ile Lys Asn  
 130 135 140

Tyr  
 145

<210> 275

<211> 1488

<212> DNA

<213> Arabidopsis thaliana

<400> 275

```

atgtcagacg caagagataa tgatgaccgt gtggatttcg aggagggtag ctacagtgag      60
atggaggatg aagtggagga ggaacaagta gaagagtatg aagaggagga agaagaagat      120
gatgatgatg atgacgttgg caatcagaat gccgaagaac gtgagggtgga ggattatggt      180
gatacaaaag gtggggatat ggaagatggt caggaggaaa tagctgaaga tgacgacaac      240
catattgata ttgagacagc agatgatgat gagaaaccac catctcctat tgatgatgaa      300
gatagggaaa agtattccca ctttctttca cttcctcctc atggttctga agtttttatt      360
ggtgggctcc caagggatgt tggagaagag gacctgaggg atctatgtga agagataggc      420
gagatctttg aggtgagact gatgaaagat agggactctg gtgatagcaa aggctatgct      480
tttgtagctt tcaaaaccaa agacgttgca caaaaggcca ttgaggagtt gcacagtaaa      540
gagtttaagg gaaaaaccat aaggtgctct ctttccgaaa cgaagaatag gttgttcatt      600
ggtaacatac caaagaactg gactgaggat gagtttagaa aagtcataga ggatgttggt      660
cctggagtgg agaacatcga gtcataaaa gaccaacaa ataccactcg taaccgtggt      720
tttgcatctg ttttgtacta taacaatgca tgtgctgatt attcaagaca gaaaatgata      780
gattctaatt ttaagcttga gggtaacgct ccaactgtga cttgggcaga cccaaaaagc      840
tctcctgagc attctgctgc tgctgctcag gtgaaagccc tttatgtcaa gaatattcca      900
gagaatacct caacagagca gctaaaggaa ctctttcaga ggcatggaga agtgaccaaa      960
atcgttacac ctcttgaaaa gggtggaata cgtgattttg ggtttgtcca ctatgctgaa     1020
agatctagtg cattgaaggc tgtcaaagat accgagagat atgaagtcaa tgggtcaacca     1080
ctagaagtgg tgcttgctaa accccaggct gaaaggaagc atgacccttc ttcttattct     1140
tacggggctg cacctactcc tgcccccttt gtgcatccca cgtttggtgg ttttgctgcg     1200
gctccttacg gtgctatggg tgccggtttg ggtattgccg gtagtttttag tcagccaatg     1260
atctatggta gaggagcaat gccaacaggg atgcaaattg ttccaatgct tcttcccgat     1320

```

ggccgagttg gctatgttct gcaacagcct ggtatgccga tggcagcagc accaccacaa 1380  
 cgaccaagaa gaaatgaccg gaataacggc tcaagcggag ggtcaggcag agataacagt 1440  
 catgaacatg atggtaaccg aggaggccga aggtaccgac cctactag 1488

<210> 276

<211> 495

<212> PRT

<213> *Arabidopsis thaliana*

<400> 276

Met Ser Asp Ala Arg Asp Asn Asp Asp Arg Val Asp Phe Glu Glu Gly  
 1 5 10 15  
 Ser Tyr Ser Glu Met Glu Asp Glu Val Glu Glu Glu Gln Val Glu Glu  
 20 25 30  
 Tyr Glu Glu Glu Glu Glu Glu Asp Asp Asp Asp Asp Asp Val Gly Asn  
 35 40 45  
 Gln Asn Ala Glu Glu Arg Glu Val Glu Asp Tyr Gly Asp Thr Lys Gly  
 50 55 60  
 Gly Asp Met Glu Asp Val Gln Glu Glu Ile Ala Glu Asp Asp Asp Asn  
 65 70 75 80  
 His Ile Asp Ile Glu Thr Ala Asp Asp Asp Glu Lys Pro Pro Ser Pro  
 85 90 95  
 Ile Asp Asp Glu Asp Arg Glu Lys Tyr Ser His Leu Leu Ser Leu Pro  
 100 105 110  
 Pro His Gly Ser Glu Val Phe Ile Gly Gly Leu Pro Arg Asp Val Gly  
 115 120 125  
 Glu Glu Asp Leu Arg Asp Leu Cys Glu Glu Ile Gly Glu Ile Phe Glu  
 130 135 140  
 Val Arg Leu Met Lys Asp Arg Asp Ser Gly Asp Ser Lys Gly Tyr Ala  
 145 150 155 160  
 Phe Val Ala Phe Lys Thr Lys Asp Val Ala Gln Lys Ala Ile Glu Glu  
 165 170 175

Leu His Ser Lys Glu Phe Lys Gly Lys Thr Ile Arg Cys Ser Leu Ser  
 180 185 190  
 Glu Thr Lys Asn Arg Leu Phe Ile Gly Asn Ile Pro Lys Asn Trp Thr  
 195 200 205  
 Glu Asp Glu Phe Arg Lys Val Ile Glu Asp Val Gly Pro Gly Val Glu  
 210 215 220  
 Asn Ile Glu Leu Ile Lys Asp Pro Thr Asn Thr Thr Arg Asn Arg Gly  
 225 230 235 240  
 Phe Ala Phe Val Leu Tyr Tyr Asn Asn Ala Cys Ala Asp Tyr Ser Arg  
 245 250 255  
 Gln Lys Met Ile Asp Ser Asn Phe Lys Leu Glu Gly Asn Ala Pro Thr  
 260 265 270  
 Val Thr Trp Ala Asp Pro Lys Ser Ser Pro Glu His Ser Ala Ala Ala  
 275 280 285  
 Ala Gln Val Lys Ala Leu Tyr Val Lys Asn Ile Pro Glu Asn Thr Ser  
 290 295 300  
 Thr Glu Gln Leu Lys Glu Leu Phe Gln Arg His Gly Glu Val Thr Lys  
 305 310 315 320  
 Ile Val Thr Pro Pro Gly Lys Gly Gly Lys Arg Asp Phe Gly Phe Val  
 325 330 335  
 His Tyr Ala Glu Arg Ser Ser Ala Leu Lys Ala Val Lys Asp Thr Glu  
 340 345 350  
 Arg Tyr Glu Val Asn Gly Gln Pro Leu Glu Val Val Leu Ala Lys Pro  
 355 360 365  
 Gln Ala Glu Arg Lys His Asp Pro Ser Ser Tyr Ser Tyr Gly Ala Ala  
 370 375 380  
 Pro Thr Pro Ala Pro Phe Val His Pro Thr Phe Gly Gly Phe Ala Ala  
 385 390 395 400  
 Ala Pro Tyr Gly Ala Met Gly Ala Gly Leu Gly Ile Ala Gly Ser Phe  
 405 410 415  
 Ser Gln Pro Met Ile Tyr Gly Arg Gly Ala Met Pro Thr Gly Met Gln  
 420 425 430

047-E2F-PCT.ST25.txt

Met Val Pro Met Leu Leu Pro Asp Gly Arg Val Gly Tyr Val Leu Gln  
435 440 445

Gln Pro Gly Met Pro Met Ala Ala Ala Pro Pro Gln Arg Pro Arg Arg  
450 455 460

Asn Asp Arg Asn Asn Gly Ser Ser Gly Gly Ser Gly Arg Asp Asn Ser  
465 470 475 480

His Glu His Asp Gly Asn Arg Gly Gly Arg Arg Tyr Arg Pro Tyr  
485 490 495

<210> 277

<211> 1308

<212> DNA

<213> Arabidopsis thaliana

<400> 277

atggcagaag	aaaagagctt	caagtatgtg	atcgtcggag	gtggtgtcgc	cgccggatac	60
gcggcgagag	agttcttcaa	ccaaggtgtc	aagcctggtg	aacttgctat	catttccagg	120
gaacaagttc	ctccatatga	gcgtcctgca	cttagcaagg	gatatatcca	cctcgaaaat	180
aaagctacac	ttccgaatth	ctatgttgct	gctggaattg	ggggagagag	acagttccct	240
caatggtaca	aagagaaagg	tattgagctg	atthttgggca	cagagattgt	caaagcagat	300
cttgctgcga	agacacttgt	cagtgggact	ggacaagtct	tcaagtacca	aactttgcta	360
gctgcaactg	gttcttctgt	cataagggtg	tcagattttg	gcgtcccagg	tgcagatgct	420
aagaatatat	tctacctgag	agaactcgaa	gatgctgatt	accttgctta	tgcaatggaa	480
acaaaggaaa	aaggaaaggc	tgtggttggt	ggtggcgggt	acatcgggtc	tgaactcggg	540
gctgctctga	aggctaacaa	cctcgacgtt	accatgggtt	atccagaacc	ttggtgcatg	600
cctcggctth	tcaccgctgg	cattgcttcc	ttctacgagg	gttactatgc	caacaaagga	660
attaacattg	tcaaaggcac	tgttgcatct	ggtttcacta	ccaactcaaa	tgagagagtc	720
actgaggtga	aattgaaaga	cggaagaacg	ttagaagctg	atattgtgat	agtgggtgtc	780
ggtggttagac	caattatatc	actcttcaaa	gatcaagttg	aagaagagaa	gggtggtttg	840
aagactgatg	ggttcttcaa	aacaagcctt	ccagatgtat	acgccattgg	tgatgtagcc	900
accttcccaa	tgaaactcta	caatgaaatg	agacgcgttg	aacacgttga	ccatgctcgc	960
aaatccgctg	aacaagccgt	aaaggcaatc	aaggcggctg	aggaagggaa	ctcaattccg	1020
gaatatgact	atcttccata	cttttactct	cgagcctttg	atctctcatg	gcaattctac	1080

047-E2F-PCT.ST25.txt

ggtgacaacg ttggagaaag cgtattgttt ggggacaatg acccggaatc gccaaagccg 1140  
aaattcggga gctactggat taaagaacgg aaagtgggtg gagcattttt agaaggtgga 1200  
agtcctgaag agaacaatgc aattgctaaa cttgcacgag cacaaccttc tgttgagagc 1260  
cttgaagtgc tatctaagga aggcctttcc ttcgccacaa atatataa 1308

<210> 278

<211> 435

<212> PRT

<213> Arabidopsis thaliana

<400> 278

Met Ala Glu Glu Lys Ser Phe Lys Tyr Val Ile Val Gly Gly Gly Val  
1 5 10 15

Ala Ala Gly Tyr Ala Ala Arg Glu Phe Phe Asn Gln Gly Val Lys Pro  
20 25 30

Gly Glu Leu Ala Ile Ile Ser Arg Glu Gln Val Pro Pro Tyr Glu Arg  
35 40 45

Pro Ala Leu Ser Lys Gly Tyr Ile His Leu Glu Asn Lys Ala Thr Leu  
50 55 60

Pro Asn Phe Tyr Val Ala Ala Gly Ile Gly Gly Glu Arg Gln Phe Pro  
65 70 75 80

Gln Trp Tyr Lys Glu Lys Gly Ile Glu Leu Ile Leu Gly Thr Glu Ile  
85 90 95

Val Lys Ala Asp Leu Ala Ala Lys Thr Leu Val Ser Gly Thr Gly Gln  
100 105 110

Val Phe Lys Tyr Gln Thr Leu Leu Ala Ala Thr Gly Ser Ser Val Ile  
115 120 125

Arg Leu Ser Asp Phe Gly Val Pro Gly Ala Asp Ala Lys Asn Ile Phe  
130 135 140

Tyr Leu Arg Glu Leu Glu Asp Ala Asp Tyr Leu Ala Tyr Ala Met Glu  
145 150 155 160

Thr Lys Glu Lys Gly Lys Ala Val Val Val Gly Gly Gly Tyr Ile Gly  
Page 431

Leu Glu Leu Gly Ala Ala Leu Lys Ala Asn Asn Leu Asp Val Thr Met  
180 185 190

Val Tyr Pro Glu Pro Trp Cys Met Pro Arg Leu Phe Thr Ala Gly Ile  
195 200 205

Ala Ser Phe Tyr Glu Gly Tyr Tyr Ala Asn Lys Gly Ile Asn Ile Val  
210 215 220

Lys Gly Thr Val Ala Ser Gly Phe Thr Thr Asn Ser Asn Gly Glu Val  
225 230 235 240

Thr Glu Val Lys Leu Lys Asp Gly Arg Thr Leu Glu Ala Asp Ile Val  
245 250 255

Ile Val Gly Val Gly Gly Arg Pro Ile Ile Ser Leu Phe Lys Asp Gln  
260 265 270

Val Glu Glu Glu Lys Gly Gly Leu Lys Thr Asp Gly Phe Phe Lys Thr  
275 280 285

Ser Leu Pro Asp Val Tyr Ala Ile Gly Asp Val Ala Thr Phe Pro Met  
290 295 300

Lys Leu Tyr Asn Glu Met Arg Arg Val Glu His Val Asp His Ala Arg  
305 310 315 320

Lys Ser Ala Glu Gln Ala Val Lys Ala Ile Lys Ala Ala Glu Glu Gly  
325 330 335

Asn Ser Ile Pro Glu Tyr Asp Tyr Leu Pro Tyr Phe Tyr Ser Arg Ala  
340 345 350

Phe Asp Leu Ser Trp Gln Phe Tyr Gly Asp Asn Val Gly Glu Ser Val  
355 360 365

Leu Phe Gly Asp Asn Asp Pro Glu Ser Pro Lys Pro Lys Phe Gly Ser  
370 375 380

Tyr Trp Ile Lys Glu Arg Lys Val Val Gly Ala Phe Leu Glu Gly Gly  
385 390 395 400

Ser Pro Glu Glu Asn Asn Ala Ile Ala Lys Leu Ala Arg Ala Gln Pro  
405 410 415

047-E2F-PCT.ST25.txt

Ser Val Glu Ser Leu Glu Val Leu Ser Lys Glu Gly Leu Ser Phe Ala  
                   420                  425                  430

Thr Asn Ile  
           435

<210> 279

<211> 1704

<212> DNA

<213> Arabidopsis thaliana

<400> 279

atgtttgggt gtgattgttt ttactggagc agaggaatct ccgagttgga ttcggaatcg	60
tccgagccaa agcccttctc acttccggct cctcttccta gttggccgca aggtaaaggt	120
tttgccacag gaagaattag cctaggagaa atagaagtgg tgaaaatcac caagttccat	180
cgagtttgga gctctgattc atcacacgac aaatcaaaac gtgctacatt ttacagagcc	240
gatgacattc cagaaggatt ccattgcctt ggtcactatt gccagccaac cgatcagccc	300
ttgagagggt atgtacttgc agctcggact agcaaagccg tcaatgctga tgatttcccg	360
cccttgaaaa agcctgtgag ttattcttta gtttgagtg cagattcaga gaaaaatggt	420
ggtgggttatt tctggctacc taatcctccg gttggttaca gagcaatggg agttattgta	480
acccatgaac caggtgaacc tgaaacagag gaggtcagat gtgtaagaga ggatcttaca	540
gagagttgtg aaacctctga gatgatactt gaggtgggtt cttcgaagaa gtcgaacggc	600
tctagttctc cttttagtgat atggagcacc cgaccttgcg agagagggat gctgtcacia	660
ggtgtcgctg ttgggtcatt cttttgctgc acgtatgatc tgtcgtctga gaggacggtc	720
cctgatatcg gatgcttaaa gaatcttgat ccgaccttac acgcgatgcc aaatctcgac	780
caggtccatg cggttatcga acacttcgga ccaacagtct acttccaccc agaagaggct	840
tacatgcctt catctgtaca atggttcttt aagaatggag ctttgttgta ccggtcaggg	900
aaatcagaag gtcaaccgat taactccacg ggctcgaact tgcctgctgg aggatgcaat	960
gatatggatt tctggataga tcttcctgaa gacgaagaag caaagagtaa tctcaagaaa	1020
ggaaaccttg aaagctcgga gctttacgtt catgtgaaac cagcacttgg tggaactttc	1080
accgacatcg ttatgtggat tttctgcccc tttaatggcc cagccacgct caaaatcggc	1140
ctattcacgt tacctatgac ccgcatagga gaacatgtcg gtgattggga acatttctact	1200
ttccgcatat gtaatttctc tggtgagctt tggcaaagt tcttttctca gcatagtgggt	1260
ggtgggttggg ttgatgcac agatattgag tttgtgaaag ataacaaacc ggctgtgtac	1320

047-E2F-PCT.ST25.txt

tcattctaaac acggacatgc gagtttccct catccaggaa tgtacctcca aggctcgtca 1380  
aagctcggga ttggagtcag aaacgatggt gcaaaaagca agtacattgt ggattcaagc 1440  
caaaggtatg tgatagtagc agctgagtat ttaggtaaag gagctgtgat agagccgtgc 1500  
tggttacagt atatgagaga atgggggtccg accattgcat atgattcagg gtctgagatc 1560  
aataagatca tgaatcttct tcctttgggt gttagggttct ctattgagaa cattgttgat 1620  
ttgtttccca ttgctcttta tggagaagaa ggtcccacag ggccaaagga gaaagataac 1680  
tgggaaggag atgagatgtg ctga 1704

<210> 280

<211> 567

<212> PRT

<213> Arabidopsis thaliana

<400> 280

Met Phe Gly Cys Asp Cys Phe Tyr Trp Ser Arg Gly Ile Ser Glu Leu  
1 5 10 15

Asp Ser Glu Ser Ser Glu Pro Lys Pro Phe Ser Leu Pro Ala Pro Leu  
20 25 30

Pro Ser Trp Pro Gln Gly Lys Gly Phe Ala Thr Gly Arg Ile Ser Leu  
35 40 45

Gly Glu Ile Glu Val Val Lys Ile Thr Lys Phe His Arg Val Trp Ser  
50 55 60

Ser Asp Ser Ser His Asp Lys Ser Lys Arg Ala Thr Phe Tyr Arg Ala  
65 70 75 80

Asp Asp Ile Pro Glu Gly Phe His Cys Leu Gly His Tyr Cys Gln Pro  
85 90 95

Thr Asp Gln Pro Leu Arg Gly Tyr Val Leu Ala Ala Arg Thr Ser Lys  
100 105 110

Ala Val Asn Ala Asp Asp Phe Pro Pro Leu Lys Lys Pro Val Ser Tyr  
115 120 125

Ser Leu Val Trp Ser Ala Asp Ser Glu Lys Asn Gly Gly Gly Tyr Phe  
130 135 140



Trp Leu Pro Asn Pro Pro Val Gly Tyr Arg Ala Met Gly Val Ile Val  
 145 150 155 160  
 Thr His Glu Pro Gly Glu Pro Glu Thr Glu Glu Val Arg Cys Val Arg  
 165 170 175  
 Glu Asp Leu Thr Glu Ser Cys Glu Thr Ser Glu Met Ile Leu Glu Val  
 180 185 190  
 Gly Ser Ser Lys Lys Ser Asn Gly Ser Ser Ser Pro Phe Ser Val Trp  
 195 200 205  
 Ser Thr Arg Pro Cys Glu Arg Gly Met Leu Ser Gln Gly Val Ala Val  
 210 215 220  
 Gly Ser Phe Phe Cys Cys Thr Tyr Asp Leu Ser Ser Glu Arg Thr Val  
 225 230 235 240  
 Pro Asp Ile Gly Cys Leu Lys Asn Leu Asp Pro Thr Leu His Ala Met  
 245 250 255  
 Pro Asn Leu Asp Gln Val His Ala Val Ile Glu His Phe Gly Pro Thr  
 260 265 270  
 Val Tyr Phe His Pro Glu Glu Ala Tyr Met Pro Ser Ser Val Gln Trp  
 275 280 285  
 Phe Phe Lys Asn Gly Ala Leu Leu Tyr Arg Ser Gly Lys Ser Glu Gly  
 290 295 300  
 Gln Pro Ile Asn Ser Thr Gly Ser Asn Leu Pro Ala Gly Gly Cys Asn  
 305 310 315 320  
 Asp Met Asp Phe Trp Ile Asp Leu Pro Glu Asp Glu Glu Ala Lys Ser  
 325 330 335  
 Asn Leu Lys Lys Gly Asn Leu Glu Ser Ser Glu Leu Tyr Val His Val  
 340 345 350  
 Lys Pro Ala Leu Gly Gly Thr Phe Thr Asp Ile Val Met Trp Ile Phe  
 355 360 365  
 Cys Pro Phe Asn Gly Pro Ala Thr Leu Lys Ile Gly Leu Phe Thr Leu  
 370 375 380  
 Pro Met Thr Arg Ile Gly Glu His Val Gly Asp Trp Glu His Phe Thr  
 385 390 395 400

047-E2F-PCT.ST25.txt

Phe Arg Ile Cys Asn Phe Ser Gly Glu Leu Trp Gln Met Phe Phe Ser  
405 410 415

Gln His Ser Gly Gly Gly Trp Val Asp Ala Ser Asp Ile Glu Phe Val  
420 425 430

Lys Asp Asn Lys Pro Ala Val Tyr Ser Ser Lys His Gly His Ala Ser  
435 440 445

Phe Pro His Pro Gly Met Tyr Leu Gln Gly Ser Ser Lys Leu Gly Ile  
450 455 460

Gly Val Arg Asn Asp Val Ala Lys Ser Lys Tyr Ile Val Asp Ser Ser  
465 470 475 480

Gln Arg Tyr Val Ile Val Ala Ala Glu Tyr Leu Gly Lys Gly Ala Val  
485 490 495

Ile Glu Pro Cys Trp Leu Gln Tyr Met Arg Glu Trp Gly Pro Thr Ile  
500 505 510

Ala Tyr Asp Ser Gly Ser Glu Ile Asn Lys Ile Met Asn Leu Leu Pro  
515 520 525

Leu Val Val Arg Phe Ser Ile Glu Asn Ile Val Asp Leu Phe Pro Ile  
530 535 540

Ala Leu Tyr Gly Glu Glu Gly Pro Thr Gly Pro Lys Glu Lys Asp Asn  
545 550 555 560

Trp Glu Gly Asp Glu Met Cys  
565

<210> 281

<211> 1173

<212> DNA

<213> Arabidopsis thaliana

<400> 281

atgcggttgc gttttccgat gaaatctgcc gtttttagcgt ttgctatctt tctggtgttt	60
attccactgt tttccgtcgg tatacggatg attccgggaa gactcaccgc cgtatccgcc	120
accgtcggaa atggctttga tctggggctcg ttcgtggaag ctccggagta cagaaacggc	180
aaggagtgcg tgtctcaatc gttgaacaga gaaaacttcg tgtcgtcttg cgacgcttcg	240

047-E2F-PCT.ST25.txt

```

ttagttcatg tagctatgac gcttgactcg gagtacttac gtggctcaat cgcagccgta 300
cattcaatgc tccgccacgc gtcgtgtcca gaaaacgtct tcttccatct catcgctgca 360
gagtttgacc cggcgagtcc acgcgttctg agtcaactcg tccgatctac tttcccgtcg 420
ctaaacttca aagtctacat tttccgggaa gatacgggtga tcaaccttat ctcttcttca 480
atcagacaag ctttagagaa tccattgaac tatgctcgga actacctcgg agatattctt 540
gatccatgcg tagacagagt catttaccta gactcggaca tcatcgtcgt cgatgacata 600
acaaagcttt ggaacacgag ttgacaggg tcaagaatca tcggagctcc ggagtattgt 660
cacgctaact tcacaaagta cttcacttca ggtttctggt ccgacccggc tttaccgggt 720
ttcttctcgg gtcgaaagcc ttgttatttc aacacgggtg tgatggtgat ggatctagtt 780
agatggagag aaggaaacta cagagaaaag cttgaaactt ggatgcagat acagaagaag 840
aagagaatct acgatttggg ttctttgcct ccgtttcttc ttgtcttcgc agggaacgtt 900
gaagcaattg atcataggtg gaaccaacat ggtttaggag gagacaatgt acgaggaagt 960
tgtaggtctt tgcataaagg accagtgagt ttgttgcatt ggagtggtaa aggtaagcca 1020
tggggtgagac ttgatgagaa gagaccgtgt ccgttggatc atttatggga accgtatgat 1080
ttatatgagc ataagattga aagagctaaa gatcagtctt tgttcggggt ctcttctttg 1140
tctgagttaa cagaagattc aagctttttc tga 1173

```

<210> 282

<211> 390

<212> PRT

<213> Arabidopsis thaliana

<400> 282

Met Arg Leu Arg Phe Pro Met Lys Ser Ala Val Leu Ala Phe Ala Ile  
1 5 10 15

Phe Leu Val Phe Ile Pro Leu Phe Ser Val Gly Ile Arg Met Ile Pro  
20 25 30

Gly Arg Leu Thr Ala Val Ser Ala Thr Val Gly Asn Gly Phe Asp Leu  
35 40 45

Gly Ser Phe Val Glu Ala Pro Glu Tyr Arg Asn Gly Lys Glu Cys Val  
50 55 60

Ser Gln Ser Leu Asn Arg Glu Asn Phe Val Ser Ser Cys Asp Ala Ser  
Page 437

65					70														80
Leu	Val	His	Val	Ala	Met	Thr	Leu	Asp	Ser	Glu	Tyr	Leu	Arg	Gly	Ser				
				85					90					95					
Ile	Ala	Ala	Val	His	Ser	Met	Leu	Arg	His	Ala	Ser	Cys	Pro	Glu	Asn				
			100					105					110						
Val	Phe	Phe	His	Leu	Ile	Ala	Ala	Glu	Phe	Asp	Pro	Ala	Ser	Pro	Arg				
		115					120					125							
Val	Leu	Ser	Gln	Leu	Val	Arg	Ser	Thr	Phe	Pro	Ser	Leu	Asn	Phe	Lys				
	130					135					140								
Val	Tyr	Ile	Phe	Arg	Glu	Asp	Thr	Val	Ile	Asn	Leu	Ile	Ser	Ser	Ser				
145					150					155					160				
Ile	Arg	Gln	Ala	Leu	Glu	Asn	Pro	Leu	Asn	Tyr	Ala	Arg	Asn	Tyr	Leu				
				165					170					175					
Gly	Asp	Ile	Leu	Asp	Pro	Cys	Val	Asp	Arg	Val	Ile	Tyr	Leu	Asp	Ser				
			180					185					190						
Asp	Ile	Ile	Val	Val	Asp	Asp	Ile	Thr	Lys	Leu	Trp	Asn	Thr	Ser	Leu				
		195					200					205							
Thr	Gly	Ser	Arg	Ile	Ile	Gly	Ala	Pro	Glu	Tyr	Cys	His	Ala	Asn	Phe				
	210					215					220								
Thr	Lys	Tyr	Phe	Thr	Ser	Gly	Phe	Trp	Ser	Asp	Pro	Ala	Leu	Pro	Gly				
225					230					235					240				
Phe	Phe	Ser	Gly	Arg	Lys	Pro	Cys	Tyr	Phe	Asn	Thr	Gly	Val	Met	Val				
				245					250					255					
Met	Asp	Leu	Val	Arg	Trp	Arg	Glu	Gly	Asn	Tyr	Arg	Glu	Lys	Leu	Glu				
			260					265					270						
Thr	Trp	Met	Gln	Ile	Gln	Lys	Lys	Lys	Arg	Ile	Tyr	Asp	Leu	Gly	Ser				
		275					280					285							
Leu	Pro	Pro	Phe	Leu	Leu	Val	Phe	Ala	Gly	Asn	Val	Glu	Ala	Ile	Asp				
	290					295					300								
His	Arg	Trp	Asn	Gln	His	Gly	Leu	Gly	Gly	Asp	Asn	Val	Arg	Gly	Ser				
305					310					315					320				

Cys Arg Ser Leu His Lys Gly Pro Val Ser Leu Leu His Trp Ser Gly  
 325 330 335

Lys Gly Lys Pro Trp Val Arg Leu Asp Glu Lys Arg Pro Cys Pro Leu  
 340 345 350

Asp His Leu Trp Glu Pro Tyr Asp Leu Tyr Glu His Lys Ile Glu Arg  
 355 360 365

Ala Lys Asp Gln Ser Leu Phe Gly Phe Ser Ser Leu Ser Glu Leu Thr  
 370 375 380

Glu Asp Ser Ser Phe Phe  
 385 390

<210> 283

<211> 483

<212> DNA

<213> Arabidopsis thaliana

<400> 283

atggctagtg gaatcgctcg tggtcgttta gctgaagaga ggaaatcgtg gaggaagaat	60
catcctcatg gttttgtggc aaagccggag acggggcagg atggaactgt gaatctaata	120
gtgtggcatt gcactatacc tggtaaagct gggactgatt gggaaggtgg attctttcca	180
ttaacgatgc acttcagtga ggattatccg agcaaacctc cgaaatgtaa atttccacaa	240
gggtttttcc accctaatagt ctatccatct ggaactgtct gtctctctat ccttaacgag	300
gattatggat ggagaccagc catcaccgtg aagcagattc ttgttggtat tcaggattta	360
cttgacacac cgaatccgc tgaccctgca cagacagatg gttatcatct cttctgtcag	420
gatccagttg agtacaagaa aaggggtgaag ctgcagtgcca agcagtatcc tgctcttgtc	480
taa	483

<210> 284

<211> 160

<212> PRT

<213> Arabidopsis thaliana

<400> 284

Met Ala Ser Gly Ile Ala Arg Gly Arg Leu Ala Glu Glu Arg Lys Ser  
 Page 439

Trp	Arg	Lys	Asn 20	His	Pro	His	Gly	Phe 25	Val	Ala	Lys	Pro	Glu 30	Thr	Gly
Gln	Asp	Gly 35	Thr	Val	Asn	Leu	Met 40	Val	Trp	His	Cys	Thr 45	Ile	Pro	Gly
Lys	Ala 50	Gly	Thr	Asp	Trp	Glu 55	Gly	Gly	Phe	Phe	Pro 60	Leu	Thr	Met	His
Phe 65	Ser	Glu	Asp	Tyr	Pro 70	Ser	Lys	Pro	Pro	Lys 75	Cys	Lys	Phe	Pro	Gln 80
Gly	Phe	Phe	His	Pro 85	Asn	Val	Tyr	Pro	Ser 90	Gly	Thr	Val	Cys	Leu 95	Ser
Ile	Leu	Asn	Glu 100	Asp	Tyr	Gly	Trp	Arg 105	Pro	Ala	Ile	Thr	Val 110	Lys	Gln
Ile	Leu	Val 115	Gly	Ile	Gln	Asp	Leu 120	Leu	Asp	Thr	Pro	Asn 125	Pro	Ala	Asp
Pro	Ala 130	Gln	Thr	Asp	Gly	Tyr 135	His	Leu	Phe	Cys	Gln 140	Asp	Pro	Val	Glu
Tyr 145	Lys	Lys	Arg	Val	Lys 150	Leu	Gln	Ser	Lys	Gln 155	Tyr	Pro	Ala	Leu	Val 160

<210>	285
<211>	4044
<212>	DNA
<213>	<i>Arabidopsis thaliana</i>

<400>	285						
atggctccga	gccgcaagag	aggggggtggt	agggctgcgg	cggcatcatc	cgctcgccga		60
gagtggaagg	ttggcgatct	cgttcttgcc	aaagtcaaag	gatttcctgc	ttggcctgcc		120
gtggttgacg	aaccggaaaa	atggggccac	tcagccgatt	cgaagaaagt	aactgttcac		180
tttttttgca	ctcaacagat	agctttttgc	aatcatggtg	atgttgaatc	atttactgag		240
gagaagaagc	aatcactttt	gacaagacgg	cacgccaaag	gttcagattt	tgtccgtgct		300
gtcaaggaga	tcacagagag	ttacgagaag	ctgaagcagc	aggaccaagc	tagtgggcct		360
aaatatgctg	aagaaacaac	tgctggaagt	tctgggaaca	cttcacagct	gcctcaggcc		420

## 047-E2F-PCT.ST25.txt

tgtgaaaatc	taattgggttc	aagacttgac	actcaaatag	agtcaagttc	tagtcatggt	480
agagatgagt	tgactcttct	cagcgaagat	gcttcagctg	ctgaacaaat	gctagccctg	540
cgtcataaca	ctctagctca	taatgggtgcc	tgtgatagtg	cagcagctaa	agatctatgt	600
gagatagcta	catattcctc	aaggagaaga	aatgaaaggg	tgcgggctct	aaagtatgct	660
ccacagagta	taatattacc	ggttgagcac	tctaaaatct	catcaagggtt	ggaattggat	720
agagttcaaa	ggtccatgct	tcaatgcagt	gatgggtggc	caagtgtcaa	tagtataaat	780
ggcaaagcta	taagaaggag	aaaaagaatc	cgtacgtcag	gtcaatctga	atcagatgac	840
gtggtttcat	cagatctaaa	tctgcacgga	tctgatgagg	acaacgcatc	tgaaattgct	900
acagttgaat	ctaacaataa	tagtaggaat	gaaggcaatg	gtgtggattc	tggttccaaa	960
gttgagtatt	ctgatgccgt	tggtgagggg	tgtgacggag	gtcatgagct	taacaaaggg	1020
cttgattttc	atattagcac	catgggttaag	aggaagaaga	ggaaaccac	cagaaaacgt	1080
gaaaccagtg	acattattga	ccctcctgct	aaagttgaag	cagaagggtct	tgggccaat	1140
gcatgtgata	gctgccagag	atctcaaaat	tctcatgaaa	ggctgaatga	gaggccctgt	1200
gaagagaatg	gtgatgaaca	tttgcctctg	gtaaagcgag	ccagagttcg	aatgagtaga	1260
gctttttatg	ctgatgaaaa	ggtcaatgcc	tcttcacagg	tggaagagag	atcgtcgaaa	1320
gacaccctac	taagtgcagc	tttgcagaca	agcccttctg	tgaatcatga	aaatggtatt	1380
ggttctgggtc	atgatacttc	tgagccgaa	gaatttaaca	gctttgagtt	gtctgctaag	1440
ctttcaggtg	ttatggttga	tgtagtgcct	tctcatatgg	agaaaccttc	agacagaatg	1500
tctccttctg	tggcctgtgt	tcagactgta	ggagatagac	aaacggctgt	gaatttccat	1560
gagaacgagt	ttaccatgac	actagatgat	gaagtaactc	gagcacaatc	taaccaactt	1620
agcagtttgg	tagaaacaga	agctcgtggt	cctgaagtag	ttcagggatg	ttctgaggaa	1680
tcgcaaactg	ggaactgtct	aattagtgag	actgatccta	ttgatataca	atgctcacat	1740
caaagtgaga	aacatgaaac	ccctttgaat	cctgatatcg	ttgattcatc	tgcaaataag	1800
tcccccggtt	tatgctcgag	tttggatatg	acaacaacag	tggtacctgc	tcaatctcct	1860
caccaacaca	aaatccagga	gtatgattct	agtgaccatt	cattgggtcat	tgttggagat	1920
tctcttaatg	gaaaatgtga	gaaaattgat	tactgtatga	ctcaggttgt	tcagtcccaa	1980
gccttagaac	cgccgcctcc	attgttctgt	tcagtgggtca	attatcagga	ggttgaaaac	2040
ctgcaggaga	ctgaaaatac	tctttgaaa	gaaaaccaag	gaagtcccg	ttaaagaactt	2100
gatagtgaca	aacaagctca	catgatacag	aatccagtac	tctctgctac	tgaaagtga	2160
atgatcgtag	atgatgcgga	acctcagtat	gaaactgtat	atagtcactg	tgagatgct	2220
gtggagaaca	gagagctgga	aaagagttgt	gaggttgatg	agcagaagga	gcagatgcaa	2280

gccaccaatt ctatctcagt atctgagaac ttttcacgtg aaaaattgaa ttcattctcct 2340  
 gcaaggggta ctccaaattg caactcagta tgccgaattt ctaccgcaga aagtgaaaat 2400  
 gctatgcaga acaacagtta ttacagcacc aatgttcagt atggtgagaa caaatcatta 2460  
 aatgttgaca ctgtcaaaga agaaagcaaa gttgaaacag gcacaactca ggtgaagaaa 2520  
 gttgttagtt ctgatgtgca atgcactggt gagtcttttg agactgcact tgactcattg 2580  
 gtgaggacaa aggagaccat tggccgagca actcgttgg ctatggactt ggcgaaattt 2640  
 ggcgtttcag caaaggcgat ggaaattctg gcccacactt tggaaagtga gtcaaattta 2700  
 caaaggaggg tggatttatt tttccttgtg gattctattg ctcagtgtc caaaggtttg 2760  
 aatggtgatg ctggtggtgt ttatctttca tccattcagg ctatgtctacc tcgcctatta 2820  
 actgctgctg tcccagctgg agctaccaca caagaaaacc gaaaacagtg cttgaagggt 2880  
 ttgaggcttt ggcttgaaag acggatcctt cctgaatcta tagttcgtca ccatataaga 2940  
 gaacttgatt cgcttagtaa tgttcctgct tgcctctatt ctcggcgatc cgctcgaaca 3000  
 gaaagggcgc tggatgacct tgtagagat atggagggta tactggtgga tgaatatgga 3060  
 agtaattcaa ctctccagct tcatggattc tgcatactc caatacttag ggatgaagac 3120  
 gaaggaagtg actcggatgg gggtgatttt gagtctgtca cccctgaaca cgagtcaaga 3180  
 agccttgaag aacatgtcac accgtccatt accgaaaggc ataccggtat actggaagat 3240  
 gttgatggtg agcttgaaat ggaagacgtg gctccacctt gggaagggtg aagcagtgt 3300  
 agtgcgatca cagatcaagc tgataataga gagtctgcaa attgtctgct tgtccctgga 3360  
 acttcacatc agaatgttac ctcgctcatc ccaccagctc gcccttcgca gaatgctcag 3420  
 ttggcaatgt ctaattccta ctcaaattggc tttgactacc gcagaaatcc cagcatgcag 3480  
 ggcgactatc atgccggtcc tccaaggatg aatcccccaa tgcattacgg aagtcctgaa 3540  
 ccatcttata gttcccagat atctttgtca aaaagcatgc cacgtgggga gggttctaac 3600  
 ttccagcata ggccatatcc atcttctcat cccccacctc ctccgccatc acatcattat 3660  
 tcatatatgg agccggacca ccatataaag tcgcgagag aaggtctatc ataccctcac 3720  
 agatctcatt acacactgga atttgacgaa aggaattatc aagacagcta tgagagaatg 3780  
 aggctgaac catgcgagaa tcgagacaat tggagatatc atccgccctc ttctcatggt 3840  
 ccacgatatc atgacagaca caaaggacct catcaatcga gtcatacag tgggcatcac 3900  
 cgtgactcag gaaggttgca gaacaatagg tggagtgatt ctccgcgtgc atataacaat 3960  
 agacactctt atcactataa gcagcattcg gaaggctctg ttccagtagg aatgagagat 4020  
 ccagggacgt ggcattcaaag gtga 4044



&lt;211&gt; 1347

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 286

Met Ala Pro Ser Arg Lys Arg Gly Gly Gly Arg Ala Ala Ala Ala Ser  
 1 5 10 15

Ser Ala Arg Arg Glu Trp Lys Val Gly Asp Leu Val Leu Ala Lys Val  
 20 25 30

Lys Gly Phe Pro Ala Trp Pro Ala Val Val Asp Glu Pro Glu Lys Trp  
 35 40 45

Gly His Ser Ala Asp Ser Lys Lys Val Thr Val His Phe Phe Gly Thr  
 50 55 60

Gln Gln Ile Ala Phe Cys Asn His Gly Asp Val Glu Ser Phe Thr Glu  
 65 70 75 80

Glu Lys Lys Gln Ser Leu Leu Thr Arg Arg His Ala Lys Gly Ser Asp  
 85 90 95

Phe Val Arg Ala Val Lys Glu Ile Thr Glu Ser Tyr Glu Lys Leu Lys  
 100 105 110

Gln Gln Asp Gln Ala Ser Gly Pro Lys Tyr Ala Glu Glu Thr Thr Ala  
 115 120 125

Gly Ser Ser Gly Asn Thr Ser Gln Leu Pro Gln Ala Cys Glu Asn Leu  
 130 135 140

Ile Gly Ser Arg Leu Asp Thr Gln Ile Glu Ser Ser Ser Ser His Gly  
 145 150 155 160

Arg Asp Glu Leu Thr Leu Leu Ser Glu Asp Ala Ser Ala Ala Glu Gln  
 165 170 175

Met Leu Ala Leu Arg His Asn Thr Leu Ala His Asn Gly Ala Cys Asp  
 180 185 190

Ser Ala Ala Ala Lys Asp Leu Cys Glu Ile Ala Thr Tyr Ser Ser Arg  
 195 200 205

Arg Arg Asn Glu Arg Val Arg Ala Leu Lys Tyr Ala Pro Gln Ser Ile  
 Page 443

210

215

Ile Leu Pro Val Glu His Ser Lys Ile Ser Ser Arg Leu Glu Leu Asp  
225 230 235 240

Arg Val Gln Arg Ser Met Leu Gln Cys Ser Asp Gly Gly Pro Ser Val  
245 250 255

Asn Ser Ile Asn Gly Lys Ala Ile Arg Arg Arg Lys Arg Ile Arg Thr  
260 265 270

Ser Gly Gln Ser Glu Ser Asp Asp Val Val Ser Ser Asp Leu Asn Leu  
275 280 285

His Gly Ser Asp Glu Asp Asn Ala Ser Glu Ile Ala Thr Val Glu Ser  
290 295 300

Asn Asn Asn Ser Arg Asn Glu Gly Asn Gly Val Asp Ser Gly Ser Lys  
305 310 315 320

Val Glu Tyr Ser Asp Ala Val Gly Glu Gly Cys Asp Gly Gly His Glu  
325 330 335

Leu Asn Lys Gly Leu Asp Phe His Ile Ser Thr Met Val Lys Arg Lys  
340 345 350

Lys Arg Lys Pro Thr Arg Lys Arg Glu Thr Ser Asp Ile Ile Asp Pro  
355 360 365

Pro Ala Lys Val Glu Ala Glu Gly Leu Gly Pro Asn Ala Cys Asp Ser  
370 375 380

Cys Gln Arg Ser Gln Asn Ser His Glu Arg Leu Asn Glu Arg Pro Cys  
385 390 395 400

Glu Glu Asn Gly Asp Glu His Leu Pro Leu Val Lys Arg Ala Arg Val  
405 410 415

Arg Met Ser Arg Ala Phe Tyr Ala Asp Glu Lys Val Asn Ala Ser Ser  
420 425 430

Gln Val Glu Glu Arg Ser Ser Lys Asp Thr Leu Leu Ser Ala Ala Leu  
435 440 445

Gln Thr Ser Pro Ser Val Asn His Glu Asn Gly Ile Gly Ser Gly His  
450 455 460

Asp Thr Ser Ala Ala Glu Glu Phe Asn Ser Phe Glu Leu Ser Ala Lys  
 465 470 475 480  
 Leu Ser Gly Val Met Val Asp Val Val Pro Ser His Met Glu Lys Pro  
 485 490 495  
 Ser Asp Arg Met Ser Pro Ser Val Ala Cys Val Gln Thr Val Gly Asp  
 500 505 510  
 Arg Gln Thr Ala Val Asn Phe His Glu Asn Glu Phe Thr Met Thr Leu  
 515 520 525  
 Asp Asp Glu Val Thr Arg Ala Gln Ser Asn Gln Leu Ser Ser Leu Val  
 530 535 540  
 Glu Thr Glu Ala Arg Val Pro Glu Val Val Gln Gly Cys Ser Glu Glu  
 545 550 555 560  
 Ser Gln Thr Gly Asn Cys Leu Ile Ser Glu Thr Asp Pro Ile Asp Ile  
 565 570 575  
 Gln Cys Ser His Gln Ser Glu Lys His Glu Thr Pro Leu Asn Pro Asp  
 580 585 590  
 Ile Val Asp Ser Ser Ala Asn Lys Ser Pro Gly Leu Cys Ser Ser Leu  
 595 600 605  
 Asp Met Thr Thr Thr Val Val Pro Ala Gln Ser Pro His Gln His Lys  
 610 615 620  
 Ile Gln Glu Tyr Asp Ser Ser Asp His Ser Leu Val Ile Val Gly Asp  
 625 630 635 640  
 Ser Leu Asn Gly Lys Cys Glu Lys Ile Asp Tyr Cys Met Thr Gln Val  
 645 650 655  
 Val Gln Ser Gln Ala Leu Glu Pro Pro Pro Pro Leu Phe Cys Ser Val  
 660 665 670  
 Val Asn Tyr Gln Glu Val Glu Asn Leu Gln Glu Thr Glu Asn Thr Leu  
 675 680 685  
 Trp Lys Glu Asn Gln Gly Ser Pro Gly Lys Glu Leu Asp Ser Asp Lys  
 690 695 700  
 Gln Ala His Met Ile Gln Asn Pro Val Leu Ser Ala Thr Glu Ser Glu  
 705 710 715 720

047-E2F-PCT.ST25.txt

Met Ile Val Asp Asp Ala Glu Pro Gln Tyr Glu Thr Val Tyr Ser His  
725 730 735

Cys Ala Asp Ala Val Glu Asn Arg Glu Leu Glu Lys Ser Cys Glu Val  
740 745 750

Asp Glu Gln Lys Glu Gln Met Gln Ala Thr Asn Ser Ile Ser Val Ser  
755 760 765

Glu Asn Phe Ser Arg Glu Lys Leu Asn Ser Ser Pro Ala Arg Gly Thr  
770 775 780

Pro Asn Cys Asn Ser Val Cys Arg Ile Ser Thr Ala Glu Ser Glu Asn  
785 790 795 800

Ala Met Gln Asn Asn Ser Tyr Tyr Ser Thr Asn Val Gln Tyr Gly Glu  
805 810 815

Asn Lys Ser Leu Asn Val Asp Thr Val Lys Glu Glu Ser Lys Val Glu  
820 825 830

Thr Gly Thr Thr Gln Val Lys Lys Val Val Ser Ser Asp Val Gln Cys  
835 840 845

Thr Val Glu Ser Phe Glu Thr Ala Leu Asp Ser Leu Val Arg Thr Lys  
850 855 860

Glu Thr Ile Gly Arg Ala Thr Arg Leu Ala Met Asp Leu Ala Lys Phe  
865 870 875 880

Gly Val Ser Ala Lys Ala Met Glu Ile Leu Ala His Thr Leu Glu Ser  
885 890 895

Glu Ser Asn Leu Gln Arg Arg Val Asp Leu Phe Phe Leu Val Asp Ser  
900 905 910

Ile Ala Gln Cys Ser Lys Gly Leu Asn Gly Asp Ala Gly Gly Val Tyr  
915 920 925

Leu Ser Ser Ile Gln Ala Met Leu Pro Arg Leu Leu Thr Ala Ala Val  
930 935 940

Pro Ala Gly Ala Thr Thr Gln Glu Asn Arg Lys Gln Cys Leu Lys Val  
945 950 955 960

Leu Arg Leu Trp Leu Glu Arg Arg Ile Leu Pro Glu Ser Ile Val Arg  
965 970 975

047-E2F-PCT.ST25.txt

His His Ile Arg Glu Leu Asp Ser Leu Ser Asn Val Pro Ala Cys Leu  
 980 985 990  
 Tyr Ser Arg Arg Ser Ala Arg Thr Glu Arg Ala Leu Asp Asp Pro Val  
 995 1000 1005  
 Arg Asp Met Glu Gly Ile Leu Val Asp Glu Tyr Gly Ser Asn Ser  
 1010 1015 1020  
 Thr Leu Gln Leu His Gly Phe Cys Ile Pro Pro Ile Leu Arg Asp  
 1025 1030 1035  
 Glu Asp Glu Gly Ser Asp Ser Asp Gly Gly Asp Phe Glu Ser Val  
 1040 1045 1050  
 Thr Pro Glu His Glu Ser Arg Ser Leu Glu Glu His Val Thr Pro  
 1055 1060 1065  
 Ser Ile Thr Glu Arg His Thr Arg Ile Leu Glu Asp Val Asp Gly  
 1070 1075 1080  
 Glu Leu Glu Met Glu Asp Val Ala Pro Pro Trp Glu Gly Gly Ser  
 1085 1090 1095  
 Ser Ala Ser Ala Ile Thr Asp Gln Ala Asp Asn Arg Glu Ser Ala  
 1100 1105 1110  
 Asn Cys Leu Leu Val Pro Gly Thr Ser His Gln Asn Val Thr Ser  
 1115 1120 1125  
 Ser Ser Pro Pro Ala Arg Pro Ser Gln Asn Ala Gln Leu Ala Met  
 1130 1135 1140  
 Ser Asn Ser Tyr Ser Asn Gly Phe Asp Tyr Arg Arg Asn Pro Ser  
 1145 1150 1155  
 Met Gln Gly Asp Tyr His Ala Gly Pro Pro Arg Met Asn Pro Pro  
 1160 1165 1170  
 Met His Tyr Gly Ser Pro Glu Pro Ser Tyr Ser Ser Arg Val Ser  
 1175 1180 1185  
 Leu Ser Lys Ser Met Pro Arg Gly Glu Gly Ser Asn Phe Gln His  
 1190 1195 1200  
 Arg Pro Tyr Pro Ser Ser His Pro Pro Pro Pro Pro Pro Ser His

1205

1210

1215

His Tyr Ser Tyr Met Glu Pro Asp His His Ile Lys Ser Arg Arg  
 1220 1225 1230

Glu Gly Leu Ser Tyr Pro His Arg Ser His Tyr Thr Leu Glu Phe  
 1235 1240 1245

Asp Glu Arg Asn Tyr Gln Asp Ser Tyr Glu Arg Met Arg Pro Glu  
 1250 1255 1260

Pro Cys Glu Asn Arg Asp Asn Trp Arg Tyr His Pro Pro Ser Ser  
 1265 1270 1275

His Gly Pro Arg Tyr His Asp Arg His Lys Gly Pro His Gln Ser  
 1280 1285 1290

Ser Ser Tyr Ser Gly His His Arg Asp Ser Gly Arg Leu Gln Asn  
 1295 1300 1305

Asn Arg Trp Ser Asp Ser Pro Arg Ala Tyr Asn Asn Arg His Ser  
 1310 1315 1320

Tyr His Tyr Lys Gln His Ser Glu Gly Pro Val Pro Val Gly Met  
 1325 1330 1335

Arg Asp Pro Gly Thr Trp His Gln Arg  
 1340 1345

&lt;210&gt; 287

&lt;211&gt; 450

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 287

```

atgacctcgt acaagttggt tttagaggtt ataagcaaga gaagaacatg ggcctgtctg      60
tttctttagtag tctacgcgat cctattgtct tcttcatgga attcgttgaa ttcaatagtt      120
aattggtacg gagagaatca tcagacatca tctggtttgc ctgcgattta cgcgtcggtg      180
cttcttggtg cgggtgttcgg agttttatct atggcggcgg cgctgttcat agccgtgcct      240
gcgatcgtgg tgatctggat atcagtgggtg gtgacgatgg cgttcgccgg aaaatctagg      300
aagagagtgg tgattgaagg aaggaaagtg acgaaagaga tcgctggttt tgtgtttagg      360
gttctttctta aagaaggaaa ctttgtggct cttctttgtg ctcttcttgc ttacttcgtc      420

```

ttctttaact cttactcttc atcttcttga

450

&lt;210&gt; 288

&lt;211&gt; 149

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 288

Met Thr Ser Tyr Lys Leu Phe Leu Arg Val Ile Ser Lys Arg Arg Thr  
 1 5 10 15

Trp Ala Cys Leu Phe Leu Val Val Tyr Ala Ile Leu Leu Ser Ser Ser  
 20 25 30

Trp Asn Ser Leu Asn Ser Ile Val Asn Trp Tyr Gly Glu Asn His Gln  
 35 40 45

Thr Ser Ser Gly Leu Pro Ala Ile Tyr Ala Ser Val Leu Leu Gly Ala  
 50 55 60

Val Phe Gly Val Leu Ser Met Ala Ala Ala Leu Phe Ile Ala Val Pro  
 65 70 75 80

Ala Ile Val Val Ile Trp Ile Ser Val Val Val Thr Met Ala Phe Ala  
 85 90 95

Gly Lys Ser Arg Lys Arg Val Val Ile Glu Gly Arg Lys Val Thr Lys  
 100 105 110

Glu Ile Ala Gly Phe Val Phe Arg Val Leu Leu Lys Glu Gly Asn Phe  
 115 120 125

Val Ala Leu Leu Cys Ala Leu Leu Ala Tyr Phe Val Phe Phe Asn Ser  
 130 135 140

Tyr Ser Ser Ser Ser  
 145

&lt;210&gt; 289

&lt;211&gt; 2190

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 289

atggtaaac	aagacgaccg	gatttagaccg	gttcatgaag	ccgacgggtga	accgcttttt	60
gagactagga	gaagaaccgg	tagagtgatt	gcgtaccgg	ttttctcagc	ctcgggttttc	120
gtgtgtatct	gtttgatttg	gttctacaga	attggtgaga	ttggtgataa	ccgtaccggt	180
ttagatcgat	taatctggtt	tgttatgttt	attgtggaga	tttggttcgg	tttatattgg	240
gtagtcacac	aatcttcccg	gtggaatccg	gtttggcgat	ttcccttctc	cgatagactc	300
tctcggagat	acggaagcga	ccttccgagg	ctcgacgtct	tcgtttgcac	ggcggatccg	360
gtgattgagc	cgccgttggt	ggtggtaaac	acagtcttat	ctgtgacggc	tcttgactac	420
ccaccggaga	aactcgccgt	ttatctctca	gatgacgggtg	gttctgagct	gacgttctat	480
gctctcacgg	aggcagctga	gtttgctaaa	acttggggttc	ccttctgcaa	gaagttcaac	540
gttgagccaa	catctccgc	tgcttacttg	tcttccaagg	caaactgtct	tgattctgcy	600
gctgaggagg	tggctaagct	gtatagagaa	atggcggcga	ggattgaaac	ggcggcgaga	660
ctgggacgaa	taccggagga	ggcgcgggtg	aagtacgggtg	acgggttttc	acagtgggat	720
gctgacgcta	ctcgaagaaa	ccatggaacc	attcttcaag	ttttggtaga	tggaagagaa	780
gggaatacaa	tagcaatacc	aacgttggtg	tatttatcaa	gagaaaagag	acctcaacat	840
catcataact	tcaaggctgg	agcaatgaac	gcattgctga	gggtttcttc	gaaaattact	900
tgtgggaaaa	tcatactaaa	cttggactgt	gatatgtacg	caaacaactc	aaagtcaaca	960
cgcgacgcgc	tctgcatcct	cctcgatgag	aaagagggaa	aagagattgc	tttcgtgcag	1020
tttccgcagt	gttttgacaa	tgttacaaga	aatgatttgt	atggaagcat	gatgcgagta	1080
ggaattgatg	tggaatttct	tggattggat	ggaaatggtg	gtccgttata	cattggaact	1140
ggatgctttc	acagaagaga	tgtgatctgt	ggaagaaagt	atggagagga	agaagaagaa	1200
gaagaatctg	agagaattca	cgaaaattta	gagcctgaga	tgattaaggc	tctcgcgagc	1260
tgcacttatg	aggaaaacac	tcaatgggga	aaggagatgg	gtgtgaaata	tggttgcccg	1320
gtagaggatg	taataactgg	tttgacgatt	cagtgtcgcg	gatggaaatc	agcctacctg	1380
aacccggaaa	agcaagcatt	tctcggggta	gcgccgacca	atttgcatca	aatgctagtg	1440
cagcagagga	gatggctcaga	gggagacttt	cagattatgc	tttcgaagta	tagtccgggt	1500
tggtatggaa	aaggaaagat	cagtttagga	ctgatacttg	gttactgttg	ctattgtctt	1560
tgggctccat	cttcactacc	tgtgctcatt	tactctgttt	tgacttctct	ctgtctcttc	1620
aaaggcattc	ctctgtttcc	aaaggctctg	agctcgtggt	ttattccgtt	tggatacgtc	1680
actgttgacg	ctaccgcata	tagcctagcc	gagttcttgt	ggtgcggagg	gacgttccgt	1740
ggatggtgga	acgagcaaag	gatgtggctt	tatagaagaa	caagctcggt	tcttttcgga	1800



047-E2F-PCT.ST25.txt

tttatggaca cgattaagaa gctacttgga gtttctgagt ctgcgtttgt gatcacagca 1860  
aaagtagcag aagaagaagc agcagagaga tacaaggaag aggtaatgga gtttggagtg 1920  
gagtctccca tgtttctcgt cctcggaaca ctcggtatgc tcaatctctt ctgcttcgcc 1980  
gcagcggttg cgagacttgt ttccggagac ggtggagatt tgaaaacaat ggggatgcaa 2040  
tttgtgataa caggagtact agttgtcata aactggcctc tgtataaagg tatgttgttg 2100  
aggcaagaca aaggaaagat gccaatgagc gttacagtta aatcagttgt tttagcttta 2160  
tctgcctgta cctgttttagc gtttttgtaa 2190

<210> 290

<211> 729

<212> PRT

<213> Arabidopsis thaliana

<400> 290

Met Val Asn Lys Asp Asp Arg Ile Arg Pro Val His Glu Ala Asp Gly  
1 5 10 15  
Glu Pro Leu Phe Glu Thr Arg Arg Arg Thr Gly Arg Val Ile Ala Tyr  
20 25 30  
Arg Phe Phe Ser Ala Ser Val Phe Val Cys Ile Cys Leu Ile Trp Phe  
35 40 45  
Tyr Arg Ile Gly Glu Ile Gly Asp Asn Arg Thr Val Leu Asp Arg Leu  
50 55 60  
Ile Trp Phe Val Met Phe Ile Val Glu Ile Trp Phe Gly Leu Tyr Trp  
65 70 75 80  
Val Val Thr Gln Ser Ser Arg Trp Asn Pro Val Trp Arg Phe Pro Phe  
85 90 95  
Ser Asp Arg Leu Ser Arg Arg Tyr Gly Ser Asp Leu Pro Arg Leu Asp  
100 105 110  
Val Phe Val Cys Thr Ala Asp Pro Val Ile Glu Pro Pro Leu Leu Val  
115 120 125  
Val Asn Thr Val Leu Ser Val Thr Ala Leu Asp Tyr Pro Pro Glu Lys  
130 135 140

047-E2F-PCT.ST25.txt

Leu Ala Val Tyr Leu Ser Asp Asp Gly Gly Ser Glu Leu Thr Phe Tyr  
 145 150 155 160  
 Ala Leu Thr Glu Ala Ala Glu Phe Ala Lys Thr Trp Val Pro Phe Cys  
 165 170 175  
 Lys Lys Phe Asn Val Glu Pro Thr Ser Pro Ala Ala Tyr Leu Ser Ser  
 180 185 190  
 Lys Ala Asn Cys Leu Asp Ser Ala Ala Glu Glu Val Ala Lys Leu Tyr  
 195 200 205  
 Arg Glu Met Ala Ala Arg Ile Glu Thr Ala Ala Arg Leu Gly Arg Ile  
 210 215 220  
 Pro Glu Glu Ala Arg Val Lys Tyr Gly Asp Gly Phe Ser Gln Trp Asp  
 225 230 235 240  
 Ala Asp Ala Thr Arg Arg Asn His Gly Thr Ile Leu Gln Val Leu Val  
 245 250 255  
 Asp Gly Arg Glu Gly Asn Thr Ile Ala Ile Pro Thr Leu Val Tyr Leu  
 260 265 270  
 Ser Arg Glu Lys Arg Pro Gln His His His Asn Phe Lys Ala Gly Ala  
 275 280 285  
 Met Asn Ala Leu Leu Arg Val Ser Ser Lys Ile Thr Cys Gly Lys Ile  
 290 295 300  
 Ile Leu Asn Leu Asp Cys Asp Met Tyr Ala Asn Asn Ser Lys Ser Thr  
 305 310 315 320  
 Arg Asp Ala Leu Cys Ile Leu Leu Asp Glu Lys Glu Gly Lys Glu Ile  
 325 330 335  
 Ala Phe Val Gln Phe Pro Gln Cys Phe Asp Asn Val Thr Arg Asn Asp  
 340 345 350  
 Leu Tyr Gly Ser Met Met Arg Val Gly Ile Asp Val Glu Phe Leu Gly  
 355 360 365  
 Leu Asp Gly Asn Gly Gly Pro Leu Tyr Ile Gly Thr Gly Cys Phe His  
 370 375 380  
 Arg Arg Asp Val Ile Cys Gly Arg Lys Tyr Gly Glu Glu Glu Glu Glu  
 385 390 395 400

047-E2F-PCT.ST25.txt

Glu Glu Ser Glu Arg Ile His Glu Asn Leu Glu Pro Glu Met Ile Lys  
 405 410 415  
 Ala Leu Ala Ser Cys Thr Tyr Glu Glu Asn Thr Gln Trp Gly Lys Glu  
 420 425 430  
 Met Gly Val Lys Tyr Gly Cys Pro Val Glu Asp Val Ile Thr Gly Leu  
 435 440 445  
 Thr Ile Gln Cys Arg Gly Trp Lys Ser Ala Tyr Leu Asn Pro Glu Lys  
 450 455 460  
 Gln Ala Phe Leu Gly Val Ala Pro Thr Asn Leu His Gln Met Leu Val  
 465 470 475 480  
 Gln Gln Arg Arg Trp Ser Glu Gly Asp Phe Gln Ile Met Leu Ser Lys  
 485 490 495  
 Tyr Ser Pro Val Trp Tyr Gly Lys Gly Lys Ile Ser Leu Gly Leu Ile  
 500 505 510  
 Leu Gly Tyr Cys Cys Tyr Cys Leu Trp Ala Pro Ser Ser Leu Pro Val  
 515 520 525  
 Leu Ile Tyr Ser Val Leu Thr Ser Leu Cys Leu Phe Lys Gly Ile Pro  
 530 535 540  
 Leu Phe Pro Lys Val Ser Ser Ser Trp Phe Ile Pro Phe Gly Tyr Val  
 545 550 555 560  
 Thr Val Ala Ala Thr Ala Tyr Ser Leu Ala Glu Phe Leu Trp Cys Gly  
 565 570 575  
 Gly Thr Phe Arg Gly Trp Trp Asn Glu Gln Arg Met Trp Leu Tyr Arg  
 580 585 590  
 Arg Thr Ser Ser Phe Leu Phe Gly Phe Met Asp Thr Ile Lys Lys Leu  
 595 600 605  
 Leu Gly Val Ser Glu Ser Ala Phe Val Ile Thr Ala Lys Val Ala Glu  
 610 615 620  
 Glu Glu Ala Ala Glu Arg Tyr Lys Glu Glu Val Met Glu Phe Gly Val  
 625 630 635 640

Glu Ser Pro Met Phe Leu Val Leu Gly Thr Leu Gly Met Leu Asn Leu  
 Page 453

645

650

655

Phe Cys Phe Ala Ala Ala Val Ala Arg Leu Val Ser Gly Asp Gly Gly  
660 665 670

Asp Leu Lys Thr Met Gly Met Gln Phe Val Ile Thr Gly Val Leu Val  
675 680 685

Val Ile Asn Trp Pro Leu Tyr Lys Gly Met Leu Leu Arg Gln Asp Lys  
690 695 700

Gly Lys Met Pro Met Ser Val Thr Val Lys Ser Val Val Leu Ala Leu  
705 710 715 720

Ser Ala Cys Thr Cys Leu Ala Phe Leu  
725

&lt;210&gt; 291

&lt;211&gt; 1362

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 291

```

atgccatata tagaaatgaa gagcaagata agcaagggttc ttggtgtctg taagaaacat      60
aaagcaagta caagaaattc ttgctctttg tccaaaatat caggagactt ggaaagcata      120
accgcagcta ttactacttg ccacgacgat gagaaacagc accctggggt ggatactttt      180
tctcgggaga gtgaaactaa tgagcccgtc gaaatgcttg ttgaagatac ttctcagtct      240
cagggggttg caccttgggt cgatggttct caatctgtcg aaaatatgga aaatgcttgc      300
aatcacatgt caaactcaga tacaatat ttcacctgttc tgaatgatga actggatgga      360
actggtcgag tttttacagc aggaaattct gtgatctggg aaacccccag gtggggagcc      420
gacgagagca gcaacaagat ttgctttgac aaccaaactg gcaacgtttc tgatttctat      480
atttctgacg ttcttattgc gagcttgccg tttgatgaga gtggaaacaa cgatgcgttc      540
actgaaataa gccccttgcc tcattacatc tttcctgagc agtacatggt actaccttac      600
ttagaagatg gatcagccaa caaagatgat attaagtcag atactgacaa gattaatctc      660
gataaccatg acttgtttct ggcattcaac cggacaagat cgtacaatgt ggaaccagat      720
gatcgtgctg aatctgaagt agctgaagac tttgatcctc agctttttat aaaaaatcag      780
ccggaattat cggatgttgt atccaattat tggcctcggg ataccctaag aaagaagtct      840
gtgacccttg tccttgattt ggatgaaact ttggtccatt cgactctgga atcgtgtaat      900

```

047-E2F-PCT.ST25.txt

gttgcagatt tttccttcag agtctttttc aacatgcaag aaaacacggt ctatgtgaga 960  
 caaaggccac acctttacag gttcttggag aggggtgggag agttgtttca tgtcgttatc 1020  
 ttcacagcaa gccacagcat ctatgcctca caacttctag atatactgga cccagatgga 1080  
 aagttcatat cacagcggtt ttatcgcgat tcatgcattc ttttgatgg aatttacacc 1140  
 aaggatttaa ctgttctggg tcttgatctg gccaaagtgg ctataattga caactgtccg 1200  
 caggtgtaca gattgcaaat aaataatggg atccctatca aaagttggta cgatgatcca 1260  
 actgatgatg ggttgattac tataacttccc ttcttagaga ctttggtgtg tgctgatgat 1320  
 gttcggccta tcattggcag gagatttggt aacaaggaat aa 1362

<210> 292

<211> 453

<212> PRT

<213> Arabidopsis thaliana

<400> 292

Met Pro Tyr Ile Glu Met Lys Ser Lys Ile Ser Lys Val Leu Gly Val  
 1 5 10 15

Cys Lys Lys His Lys Ala Ser Thr Arg Asn Ser Cys Ser Leu Ser Lys  
 20 25 30

Ile Ser Gly Asp Leu Glu Ser Ile Thr Ala Ala Ile Thr Thr Cys His  
 35 40 45

Asp Asp Glu Lys Gln His Pro Gly Leu Asp Thr Phe Ser Arg Glu Ser  
 50 55 60

Glu Thr Asn Glu Pro Ala Glu Met Leu Val Glu Asp Thr Ser Gln Ser  
 65 70 75 80

Gln Gly Phe Ala Pro Trp Val Asp Gly Ser Gln Ser Val Glu Asn Met  
 85 90 95

Glu Asn Ala Cys Asn His Met Ser Asn Ser Asp Thr Ile Phe Ser Pro  
 100 105 110

Val Leu Asn Asp Glu Leu Asp Gly Thr Gly Arg Val Phe Thr Ala Gly  
 115 120 125

Asn Ser Val Ile Trp Glu Thr Pro Arg Trp Gly Ala Asp Glu Ser Ser  
 Page 455

130

135

Asn Lys Ile Cys Phe Asp Asn Gln Thr Cys Asn Val Ser Asp Phe Tyr  
145 150 155 160

Ile Ser Asp Val Leu Ile Ala Ser Leu Pro Phe Asp Glu Ser Gly Asn  
165 170 175

Asn Asp Ala Phe Thr Glu Ile Ser Pro Leu Pro His Tyr Ile Phe Pro  
180 185 190

Glu Gln Tyr Met Val Leu Pro Tyr Leu Glu Asp Gly Ser Ala Asn Lys  
195 200 205

Asp Asp Ile Lys Ser Asp Thr Asp Lys Ile Asn Leu Asp Asn His Asp  
210 215 220

Leu Phe Leu Ala Phe Asn Arg Thr Arg Ser Tyr Asn Val Glu Pro Asp  
225 230 235 240

Asp Arg Ala Glu Ser Glu Val Ala Glu Asp Phe Asp Pro Gln Leu Phe  
245 250 255

Ile Lys Asn Gln Pro Glu Leu Ser Asp Val Val Ser Asn Tyr Trp Pro  
260 265 270

Arg Asp Thr Leu Arg Lys Lys Ser Val Thr Leu Val Leu Asp Leu Asp  
275 280 285

Glu Thr Leu Val His Ser Thr Leu Glu Ser Cys Asn Val Ala Asp Phe  
290 295 300

Ser Phe Arg Val Phe Phe Asn Met Gln Glu Asn Thr Val Tyr Val Arg  
305 310 315 320

Gln Arg Pro His Leu Tyr Arg Phe Leu Glu Arg Val Gly Glu Leu Phe  
325 330 335

His Val Val Ile Phe Thr Ala Ser His Ser Ile Tyr Ala Ser Gln Leu  
340 345 350

Leu Asp Ile Leu Asp Pro Asp Gly Lys Phe Ile Ser Gln Arg Phe Tyr  
355 360 365

Arg Asp Ser Cys Ile Leu Leu Asp Gly Ile Tyr Thr Lys Asp Leu Thr  
370 375 380

Val Leu Gly Leu Asp Leu Ala Lys Val Ala Ile Ile Asp Asn Cys Pro  
 385 390 395 400

Gln Val Tyr Arg Leu Gln Ile Asn Asn Gly Ile Pro Ile Lys Ser Trp  
 405 410 415

Tyr Asp Asp Pro Thr Asp Asp Gly Leu Ile Thr Ile Leu Pro Phe Leu  
 420 425 430

Glu Thr Leu Ala Val Ala Asp Asp Val Arg Pro Ile Ile Gly Arg Arg  
 435 440 445

Phe Gly Asn Lys Glu  
 450

<210> 293

<211> 2769

<212> DNA

<213> Arabidopsis thaliana

<400> 293

atgttgacga	gtcccagtaa	cgcaattcac	agtagtactc	cacaattctg	gccacttcgc	60
cggagcaagc	tttgccgttc	ccggaatttc	cctcgttttc	actccggcga	acgcagcagc	120
ggcggaggag	gaaaattgtg	ctcgctctct	cttctctccg	gaagtggcgc	cggtaaattc	180
agtgtcagag	ctctagttag	gcctgatgat	accgacgacg	ctgactccgt	cggcgatggg	240
tctctggctt	ttcctaacca	cgtttctgtc	aaaattccat	tcggaaatag	agagatttta	300
gttgagactg	gtctcatggg	gagacaagca	agttctgcag	tcacgggtcac	agatggagaa	360
actattgtct	acacatccgt	ttgtctagct	gatgttccga	gtgagccatc	agattttctt	420
cccctttatg	ttcactatca	ggagcgattc	tcagctgtag	gtcgaactag	tggtggattt	480
tttaagcgag	aaggggagaac	caaagatcac	gaggttctga	tttgtagggt	gatcgataga	540
cctctacgcc	ccactatgcc	caaagggttc	tacaatgaaa	ctcagatttt	atcctggggt	600
ttgagctacg	atggattaca	cgcacctgat	gcttttagctg	ttacatctgc	tggaattgct	660
gtagctcttt	cagaagtacc	aaatgcgaaa	gcgattgcag	gagttcgggt	tggtcttatt	720
gggggtgaat	tcattgtcaa	tccaaccgtg	aaggagatgg	aagaatcaca	gctagatttg	780
tttctagctg	gaacagatac	tgcaattcta	acgatagagg	gatacagtaa	ttttcttcct	840
gaggaaatgc	ttctccaagc	tgttaaagtt	ggacaggatg	ctgtacaggc	tacatgcatt	900
gctattgaag	ttttagcaaa	gaaatatgga	aagcctaaaa	tgcttgacgc	tatcagatta	960

ccacctccag	agctatacaa	gcatgtgaaa	gaacttgctg	gtgaggaatt	gacaaaagcg	1020
ttacaaatta	agagtaaaat	atcgagaagg	aaagccatat	cgtccctgga	agaaaaggtc	1080
ttgacaatac	tgacagagaa	gggatatggt	attgatgagg	tagcttttgg	aaccatagaa	1140
gcacaaccgg	atctgttgga	ggatgaagac	gaggatgagg	aagttgttcc	tgaagggtgag	1200
gtggaccaag	gcatgtttca	cattagaccc	atccctcgga	aacctattcc	tttactattt	1260
tctgaagtag	atgtcaagct	agtcttcaaa	gaagtatcgt	cgaagcttct	acgtaggcga	1320
attgttgagg	gaggtaaaag	aagtgatggt	cggactctgg	atgagattcg	tccaattaat	1380
tcaagatgtg	gactgcttcc	cagggcacat	ggaagtactc	tgttcacacg	tggggaaaca	1440
caggcactgg	cagttgttac	gcttggtgat	aaacaaatgg	cgcagagaat	tgacaacctt	1500
gagggttctg	atgaatacaa	gaggttctat	cttcagtaca	cttttcctcc	atcgtctggt	1560
ggtgaagttg	gacgaattgg	tgacccagct	agaagagaaa	taggtcatgg	gacactagca	1620
gagcgagcat	tggagaccat	tctacctagt	gatgatgact	ttccttacac	aatacgtggt	1680
gaaagtacag	taattgaaag	caatggttct	tcaagtatgg	catctgtttg	tggcggttgc	1740
ttggctttgc	aagatgctgg	agttccagtc	aaatgttctg	ttgctgggat	agcaatggga	1800
atggtttggg	atactgaaga	atgtggaggt	gatggatctc	cccttatcct	ttctgacatc	1860
actggagctg	aagatgcata	tggtgatatg	gactttaagg	ttgctgggaa	tgaagatggc	1920
gttaccgcct	ttcagatgga	catcaaggta	ggaggaatta	ctttagagat	aatggaaaag	1980
gctctaatac	aggcaaaagc	tgggcgctgc	catattcttg	ctgaaatggc	aaagtgctca	2040
ccgcctccca	cgctaagcct	ctcaaaatat	gctccattga	tacttattat	gaaggttcat	2100
ccaagcaaag	tatactctct	tattggttct	ggaggttaaga	aagtaaagag	catcattgaa	2160
gaatctggag	ttgaggccat	tgacatgcaa	gatgatggaa	ctgtcaaaat	tatggcaatt	2220
gatgtagcga	gtctagaaaag	ggcgaaagcg	attattagtg	gattgacaat	ggttccctct	2280
gttggtgata	tctacaggaa	ttgtgaaatc	aagtcaatgg	ctccttatgg	tgcatttgta	2340
gagatagcgc	ctgggcggga	aggtctttgc	catatcagtg	agctgagtg	tgaatggctt	2400
gcaaaaccag	aggatgccta	taaagtagga	gaccgcattg	acgtcaaatt	aatagaggta	2460
aatgaaaagg	gtcagcttcg	acttagtgta	cgggctttac	ttcccgaatc	agagacagac	2520
aaagacagtc	agaaacaaca	gccggcaggt	gattctacca	aagacaagag	ttcgcaaagg	2580
aaatatgtaa	atacttcgtc	aaaggaccgt	gcagctgcag	gagcatcaaa	ggtttcatct	2640
ggggatgaac	ttgtcctgaa	gaagaaagat	gtaaggagag	caactggtgg	tagtagtgac	2700
aagacaatga	atagcaatag	cagtaccaac	gaagaaagtt	tagtcaacgg	tgaagctaca	2760
atcagctag						2769



&lt;210&gt; 294

&lt;211&gt; 922

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 294

Met Leu Thr Ser Pro Ser Asn Ala Leu His Ser Ser Thr Pro Gln Phe  
 1 5 10 15

Trp Pro Leu Arg Arg Ser Lys Leu Cys Arg Ser Arg Asn Phe Pro Arg  
 20 25 30

Phe His Ser Gly Glu Arg Ser Ser Gly Gly Gly Gly Lys Leu Cys Ser  
 35 40 45

Leu Ser Leu Leu Ser Gly Ser Gly Ala Gly Lys Phe Ser Val Arg Ala  
 50 55 60

Leu Val Arg Pro Asp Asp Thr Asp Asp Ala Asp Ser Val Gly Asp Gly  
 65 70 75 80

Ser Leu Ala Phe Pro Asn His Val Ser Val Lys Ile Pro Phe Gly Asn  
 85 90 95

Arg Glu Ile Leu Val Glu Thr Gly Leu Met Gly Arg Gln Ala Ser Ser  
 100 105 110

Ala Val Thr Val Thr Asp Gly Glu Thr Ile Val Tyr Thr Ser Val Cys  
 115 120 125

Leu Ala Asp Val Pro Ser Glu Pro Ser Asp Phe Leu Pro Leu Tyr Val  
 130 135 140

His Tyr Gln Glu Arg Phe Ser Ala Val Gly Arg Thr Ser Gly Gly Phe  
 145 150 155 160

Phe Lys Arg Glu Gly Arg Thr Lys Asp His Glu Val Leu Ile Cys Arg  
 165 170 175

Leu Ile Asp Arg Pro Leu Arg Pro Thr Met Pro Lys Gly Phe Tyr Asn  
 180 185 190

Glu Thr Gln Ile Leu Ser Trp Val Leu Ser Tyr Asp Gly Leu His Ala  
 195 200 205

047-E2F-PCT.ST25.txt

Pro Asp Ala Leu Ala Val Thr Ser Ala Gly Ile Ala Val Ala Leu Ser  
210 215 220

Glu Val Pro Asn Ala Lys Ala Ile Ala Gly Val Arg Val Gly Leu Ile  
225 230 235 240

Gly Gly Glu Phe Ile Val Asn Pro Thr Val Lys Glu Met Glu Glu Ser  
245 250 255

Gln Leu Asp Leu Phe Leu Ala Gly Thr Asp Thr Ala Ile Leu Thr Ile  
260 265 270

Glu Gly Tyr Ser Asn Phe Leu Pro Glu Glu Met Leu Leu Gln Ala Val  
275 280 285

Lys Val Gly Gln Asp Ala Val Gln Ala Thr Cys Ile Ala Ile Glu Val  
290 295 300

Leu Ala Lys Lys Tyr Gly Lys Pro Lys Met Leu Asp Ala Ile Arg Leu  
305 310 315 320

Pro Pro Pro Glu Leu Tyr Lys His Val Lys Glu Leu Ala Gly Glu Glu  
325 330 335

Leu Thr Lys Ala Leu Gln Ile Lys Ser Lys Ile Ser Arg Arg Lys Ala  
340 345 350

Ile Ser Ser Leu Glu Glu Lys Val Leu Thr Ile Leu Thr Glu Lys Gly  
355 360 365

Tyr Val Ile Asp Glu Val Ala Phe Gly Thr Ile Glu Ala Gln Pro Asp  
370 375 380

Leu Leu Glu Asp Glu Asp Glu Asp Glu Glu Val Val Pro Glu Gly Glu  
385 390 395 400

Val Asp Gln Gly Asp Val His Ile Arg Pro Ile Pro Arg Lys Pro Ile  
405 410 415

Pro Leu Leu Phe Ser Glu Val Asp Val Lys Leu Val Phe Lys Glu Val  
420 425 430

Ser Ser Lys Leu Leu Arg Arg Arg Ile Val Glu Gly Gly Lys Arg Ser  
435 440 445

Asp Gly Arg Thr Leu Asp Glu Ile Arg Pro Ile Asn Ser Arg Cys Gly  
450 455 460

047-E2F-PCT.ST25.txt

Leu Leu Pro Arg Ala His Gly Ser Thr Leu Phe Thr Arg Gly Glu Thr  
 465 470 475 480  
 Gln Ala Leu Ala Val Val Thr Leu Gly Asp Lys Gln Met Ala Gln Arg  
 485 490 495  
 Ile Asp Asn Leu Glu Gly Ser Asp Glu Tyr Lys Arg Phe Tyr Leu Gln  
 500 505 510  
 Tyr Thr Phe Pro Pro Ser Ser Val Gly Glu Val Gly Arg Ile Gly Ala  
 515 520 525  
 Pro Ser Arg Arg Glu Ile Gly His Gly Thr Leu Ala Glu Arg Ala Leu  
 530 535 540  
 Glu Thr Ile Leu Pro Ser Asp Asp Asp Phe Pro Tyr Thr Ile Arg Val  
 545 550 555 560  
 Glu Ser Thr Val Ile Glu Ser Asn Gly Ser Ser Ser Met Ala Ser Val  
 565 570 575  
 Cys Gly Gly Cys Leu Ala Leu Gln Asp Ala Gly Val Pro Val Lys Cys  
 580 585 590  
 Ser Val Ala Gly Ile Ala Met Gly Met Val Trp Asp Thr Glu Glu Phe  
 595 600 605  
 Gly Gly Asp Gly Ser Pro Leu Ile Leu Ser Asp Ile Thr Gly Ala Glu  
 610 615 620  
 Asp Ala Ser Gly Asp Met Asp Phe Lys Val Ala Gly Asn Glu Asp Gly  
 625 630 635 640  
 Val Thr Ala Phe Gln Met Asp Ile Lys Val Gly Gly Ile Thr Leu Glu  
 645 650 655  
 Ile Met Glu Lys Ala Leu Ile Gln Ala Lys Ala Gly Arg Arg His Ile  
 660 665 670  
 Leu Ala Glu Met Ala Lys Cys Ser Pro Pro Pro Thr Leu Ser Leu Ser  
 675 680 685  
 Lys Tyr Ala Pro Leu Ile Leu Ile Met Lys Val His Pro Ser Lys Val  
 690 695 700  
 Tyr Ser Leu Ile Gly Ser Gly Gly Lys Lys Val Lys Ser Ile Ile Glu

705 710 720  
Glu Ser Gly Val Glu Ala Ile Asp Met Gln Asp Asp Gly Thr Val Lys  
725 730 735  
Ile Met Ala Ile Asp Val Ala Ser Leu Glu Arg Ala Lys Ala Ile Ile  
740 745 750  
Ser Gly Leu Thr Met Val Pro Ser Val Gly Asp Ile Tyr Arg Asn Cys  
755 760 765  
Glu Ile Lys Ser Met Ala Pro Tyr Gly Ala Phe Val Glu Ile Ala Pro  
770 775 780  
Gly Arg Glu Gly Leu Cys His Ile Ser Glu Leu Ser Ala Glu Trp Leu  
785 790 795 800  
Ala Lys Pro Glu Asp Ala Tyr Lys Val Gly Asp Arg Ile Asp Val Lys  
805 810 815  
Leu Ile Glu Val Asn Glu Lys Gly Gln Leu Arg Leu Ser Val Arg Ala  
820 825 830  
Leu Leu Pro Glu Ser Glu Thr Asp Lys Asp Ser Gln Lys Gln Gln Pro  
835 840 845  
Ala Gly Asp Ser Thr Lys Asp Lys Ser Ser Gln Arg Lys Tyr Val Asn  
850 855 860  
Thr Ser Ser Lys Asp Arg Ala Ala Ala Gly Ala Ser Lys Val Ser Ser  
865 870 875 880  
Gly Asp Glu Leu Val Leu Lys Lys Lys Asp Val Arg Arg Ala Thr Gly  
885 890 895  
Gly Ser Ser Asp Lys Thr Met Asn Ser Asn Ser Ser Thr Asn Glu Glu  
900 905 910  
Ser Leu Val Asn Gly Glu Ala Thr Ile Ser  
915 920

<210> 295

<211> 762

<212> DNA

<213> Arabidopsis thaliana

```

<400> 295
atgtcgagtt ctatggaatg ttctgagttc gtcggtagcc ggagatttac tgggaagaag      60
cctagctttct cacagacgtg tagtcgattg agtcagtatc taaaagagaa cggtagcttt      120
ggagatctga gcttaggaat ggcattgcaag cctgatgtca atggaacttt aggcaactca      180
cgtcagccga caacaaccat gagttttattc ccttgtgaag cttctaacat ggattccatg      240
gttcaagatg ttaaaccgac gaatctgttt cctaggcaac caagcttttc ttcctcatct      300
tcctctcttc caaaggaaga tgttttgaaa atgacacaga ctaccagatc tgtgaaacca      360
gagtctcaaa ctgcaccatt gactatatctc tacgccgggc aagtgattgt attcaatgac      420
ttttctgctg agaaagccaa agaagtgatc aacttggcga gcaaaggcac cgctaatagc      480
ttagccaaga atcaaaccga tatcagaagc aacatcgcta ctatcgcaaa ccaagttcct      540
catccaagaa aaaccacaac acaagagcca atccaatcct cccaacacc attgacagaa      600
cttcctattg ctagaagagc ttcacttcac cggttcttgga agaagagaaa ggacagagtt      660
acgtcaaagg caccatacca attatgcgat ccagccaaag cgtcttcaaa ccctcaaacc      720
acaggcaaca tgtcgtggct cggtttagca gctgaaatat ga                          762

```

<210> 296

<211> 253

<212> PRT

<213> *Arabidopsis thaliana*

<400> 296

```

Met Ser Ser Ser Met Glu Cys Ser Glu Phe Val Gly Ser Arg Arg Phe
 1           5           10          15

```

```

Thr Gly Lys Lys Pro Ser Phe Ser Gln Thr Cys Ser Arg Leu Ser Gln
 20          25          30

```

```

Tyr Leu Lys Glu Asn Gly Ser Phe Gly Asp Leu Ser Leu Gly Met Ala
 35          40          45

```

```

Cys Lys Pro Asp Val Asn Gly Thr Leu Gly Asn Ser Arg Gln Pro Thr
 50          55          60

```

```

Thr Thr Met Ser Leu Phe Pro Cys Glu Ala Ser Asn Met Asp Ser Met
 65          70          75          80

```

```

Val Gln Asp Val Lys Pro Thr Asn Leu Phe Pro Arg Gln Pro Ser Phe

```

Ser Ser Ser Ser Ser Ser Leu Pro Lys Glu Asp Val Leu Lys Met Thr  
100 105 110  
Gln Thr Thr Arg Ser Val Lys Pro Glu Ser Gln Thr Ala Pro Leu Thr  
115 120 125  
Ile Phe Tyr Ala Gly Gln Val Ile Val Phe Asn Asp Phe Ser Ala Glu  
130 135 140  
Lys Ala Lys Glu Val Ile Asn Leu Ala Ser Lys Gly Thr Ala Asn Ser  
145 150 155 160  
Leu Ala Lys Asn Gln Thr Asp Ile Arg Ser Asn Ile Ala Thr Ile Ala  
165 170 175  
Asn Gln Val Pro His Pro Arg Lys Thr Thr Thr Gln Glu Pro Ile Gln  
180 185 190  
Ser Ser Pro Thr Pro Leu Thr Glu Leu Pro Ile Ala Arg Arg Ala Ser  
195 200 205  
Leu His Arg Phe Leu Glu Lys Arg Lys Asp Arg Val Thr Ser Lys Ala  
210 215 220  
Pro Tyr Gln Leu Cys Asp Pro Ala Lys Ala Ser Ser Asn Pro Gln Thr  
225 230 235 240  
Thr Gly Asn Met Ser Trp Leu Gly Leu Ala Ala Glu Ile  
245 250

<210> 297

<211> 1773

<212> DNA

<213> Arabidopsis thaliana

<400> 297

atggtgaagc acgagattct caactacagc gaggatgaag aagaaaatta ctcagacgaa	60
ggagattggg gagactggaa agctgatgat aatggtatag aaggaggaga ggaggaggag	120
gaggatgatg gtgacgactc ggaatctgat tttctgtgtt tgttttgtga ttctcattc	180
gtttcctgtg atttactctt cgaacactgt cgtctaagcc acggattcga ctttcatgga	240
gttagaaagg aattgaagct cgatttctac tcttctttta agctcatcaa ctatattcgc	300

047-E2F-PCT.ST25.txt

tcacaggtgg	ctgagaacat	gtgtttcagt	tggaagattg	aagctgatga	ttacaaagat	360
gttaagtttc	cttgggatga	agagaagtat	ctgaagcctt	tttggcagga	ggattcactt	420
ttgtactcgt	ttgcagatga	tgaggaagat	gaagaagtca	cgtttgacag	agaggaagtg	480
atggaggaat	tgcagaagct	tggggattta	agcattgatg	tcgaggcttt	aggggaaagc	540
tcaatgtcga	acagtgataa	atgcaatata	aatggaagta	aggatgtaac	ttcgctctca	600
aactgcaatg	gcctaaagca	aagttctgcg	gatgatttga	tagtcaatgg	gaaagatgca	660
gaaccaaagg	tttgtgatgg	aaggctagtt	aataggaaca	tcagaaaggt	gaatgagaac	720
tattttggat	cttatagttc	gtttggcatt	cacagggaga	tgctaagtga	taaggttaga	780
acagaagcat	accgagatgc	acttttgaag	aatcctactc	tcttgaatgg	ctctgttgta	840
atggatgttg	gttgtggaac	tgggatattg	agtctttttg	ctgctaaagc	tggggcttca	900
agggtagttg	cagttgaagc	tagtgagaag	atggccaaag	ataacaaagt	attcaatgat	960
aacgagcata	atgggggtact	tgaagttgca	cactcaatgg	tagaagagct	agataaatcg	1020
atacagattc	agcctcatag	tgttgatgtg	ttagtcagcg	aatggatggg	atactgcctt	1080
ttatatgagt	caatgctcag	ttctgtgctc	tatgcaagag	atcggtggtt	gaaacctgga	1140
ggtgcaatcc	tccctgacac	ggccactatg	tttgttgcg	gatttggaaa	aggtgcaaca	1200
agtcttcctt	tctggaaga	tgtctatggc	tttgacatgt	cttcaattgg	gaaggagata	1260
catgacgaca	ctactcgact	tcccattggt	gacgttatag	cggagcgtga	tttagtgaca	1320
cagcctaccc	ttcttcagac	at ttgacctg	gctaccatga	aaccggatga	agtagatttc	1380
acagcaacgg	caacgctgga	gcccactgag	tcagaagcaa	aaactagggt	gtgccatggt	1440
gttgtgttgt	ggtttgacac	aggtttcacc	agtaggttct	gtaaggaaaa	cccaaccgta	1500
ctatccacat	caccctacac	tcccccaaca	cactgggctc	agacaatctt	aacttttcaa	1560
gaaccaatct	cagtggcacc	ggcctcggtt	ctgtctggta	atgacagaag	agaagccatc	1620
ggaaccgaag	agtgtccgc	ctcaagcatt	catctgcgtg	tgagtgttgc	acgagcacat	1680
gagcatcgca	gcatagacat	ctcgttagag	gctactgggc	tgagctcaaa	gggtcagaag	1740
cgtcactggc	cggttcagat	atttaattcta	tga			1773

<210> 298

<211> 590

<212> PRT

<213> Arabidopsis thaliana

<400> 298

047-E2F-PCT.ST25.txt

Met Val Lys His Glu Ile Leu Asn Tyr Ser Glu Asp Glu Glu Glu Asn  
1 5 10 15  
Tyr Ser Asp Glu Gly Asp Trp Gly Asp Trp Lys Ala Asp Asp Asn Gly  
20 25 30  
Ile Glu Gly Gly Glu Glu Glu Glu Glu Asp Asp Gly Asp Asp Ser Glu  
35 40 45  
Ser Asp Phe Leu Cys Leu Phe Cys Asp Ser His Phe Val Ser Cys Asp  
50 55 60  
Leu Leu Phe Glu His Cys Arg Leu Ser His Gly Phe Asp Phe His Gly  
65 70 75 80  
Val Arg Lys Glu Leu Lys Leu Asp Phe Tyr Ser Ser Phe Lys Leu Ile  
85 90 95  
Asn Tyr Ile Arg Ser Gln Val Ala Glu Asn Met Cys Phe Ser Trp Lys  
100 105 110  
Ile Glu Ala Asp Asp Tyr Lys Asp Val Lys Phe Pro Trp Asp Glu Glu  
115 120 125  
Lys Tyr Leu Lys Pro Phe Trp Gln Glu Asp Ser Leu Leu Tyr Ser Phe  
130 135 140  
Ala Asp Asp Glu Glu Asp Glu Glu Val Thr Phe Asp Arg Glu Glu Val  
145 150 155 160  
Met Glu Glu Leu Gln Lys Leu Gly Asp Leu Ser Ile Asp Val Glu Ala  
165 170 175  
Leu Gly Glu Ser Ser Met Ser Asn Ser Asp Lys Cys Asn Ile Asn Gly  
180 185 190  
Ser Lys Asp Val Thr Ser Leu Ser Asn Cys Asn Gly Leu Lys Gln Ser  
195 200 205  
Ser Ala Asp Asp Leu Ile Val Asn Gly Lys Asp Ala Glu Pro Lys Val  
210 215 220  
Cys Asp Gly Arg Leu Val Asn Arg Asn Ile Arg Lys Val Asn Glu Asn  
225 230 235 240  
Tyr Phe Gly Ser Tyr Ser Ser Phe Gly Ile His Arg Glu Met Leu Ser  
245 250 255



047-E2F-PCT.ST25.txt

Asp Lys Val Arg Thr Glu Ala Tyr Arg Asp Ala Leu Leu Lys Asn Pro  
 260 265 270  
 Thr Leu Leu Asn Gly Ser Val Val Met Asp Val Gly Cys Gly Thr Gly  
 275 280 285  
 Ile Leu Ser Leu Phe Ala Ala Lys Ala Gly Ala Ser Arg Val Val Ala  
 290 295 300  
 Val Glu Ala Ser Glu Lys Met Ala Lys Asp Asn Lys Val Phe Asn Asp  
 305 310 315 320  
 Asn Glu His Asn Gly Val Leu Glu Val Ala His Ser Met Val Glu Glu  
 325 330 335  
 Leu Asp Lys Ser Ile Gln Ile Gln Pro His Ser Val Asp Val Leu Val  
 340 345 350  
 Ser Glu Trp Met Gly Tyr Cys Leu Leu Tyr Glu Ser Met Leu Ser Ser  
 355 360 365  
 Val Leu Tyr Ala Arg Asp Arg Trp Leu Lys Pro Gly Gly Ala Ile Leu  
 370 375 380  
 Pro Asp Thr Ala Thr Met Phe Val Ala Gly Phe Gly Lys Gly Ala Thr  
 385 390 395 400  
 Ser Leu Pro Phe Trp Glu Asp Val Tyr Gly Phe Asp Met Ser Ser Ile  
 405 410 415  
 Gly Lys Glu Ile His Asp Asp Thr Thr Arg Leu Pro Ile Val Asp Val  
 420 425 430  
 Ile Ala Glu Arg Asp Leu Val Thr Gln Pro Thr Leu Leu Gln Thr Phe  
 435 440 445  
 Asp Leu Ala Thr Met Lys Pro Asp Glu Val Asp Phe Thr Ala Thr Ala  
 450 455 460  
 Thr Leu Glu Pro Thr Glu Ser Glu Ala Lys Thr Arg Leu Cys His Gly  
 465 470 475 480  
 Val Val Leu Trp Phe Asp Thr Gly Phe Thr Ser Arg Phe Cys Lys Glu  
 485 490 495  
 Asn Pro Thr Val Leu Ser Thr Ser Pro Tyr Thr Pro Pro Thr His Trp

500

505

510

Ala Gln Thr Ile Leu Thr Phe Gln Glu Pro Ile Ser Val Ala Pro Ala  
515 520 525

Ser Val Leu Ser Gly Asn Asp Arg Arg Glu Ala Ile Gly Thr Glu Glu  
530 535 540

Cys Pro Ala Ser Ser Ile His Leu Arg Val Ser Val Ala Arg Ala His  
545 550 555 560

Glu His Arg Ser Ile Asp Ile Ser Leu Glu Ala Thr Gly Leu Ser Ser  
565 570 575

Lys Gly Gln Lys Arg His Trp Pro Val Gln Ile Phe Asn Leu  
580 585 590

&lt;210&gt; 299

&lt;211&gt; 1482

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 299

```

atggccgatc aaatctccgg cgagaagccg gccggagtta atagattcgc tcttcaatgt    60
gctatcgtcg cctccatcgt ctccatcatc tttggttacg atactggtgt tatgagtgga    120
gcgatggtgt ttatagaaga agatttgaag acaaacgacg ttcaaataga agttctcact    180
ggaattctca acctttgtgc ccttgtcgga tcattgctcg ccggaagaac gtcggacata    240
atcggacggc gttacacaat cgtcttggcc tcaatactat tcatgttagg ctcaatattg    300
atggggttggg gtccgaatta tccggttctc ctatccggtg gatgcaccgc tggactcgga    360
gtcgggttttg ctctgatggg tgctccgggt tactctgccg agatcgcaac tgcttcacat    420
agaggactct tagcttctct tcctcacctt tgtatcagta tagggatttt actaggttat    480
atcgtgaatt acttcttctc caagttacct atgcatatcg gttggagact catgctcggt    540
atagccgcgg ttccgtccct agtgctagcg ttcgggatct tgaaaatgcc ggaatctcca    600
cggtggttga ttatgcaagg ccgtcttaag gaaggcaagg agatattgga attggtatct    660
aattcccctg aagaagcaga actccgcttt caagacatca aagctgctgc gggaatcgac    720
ccgaaatgcg tagacgatgt tgtgaaaatg gagggtaaga agactcatgg tgaaggagtg    780
tggaagagc tcattctaag accaactcct gcagtgagac gtgttctttt aactgctctt    840
gggattcatt tcttccaaca cgcctccgga atcgaagcag tgcttttata cgggtccgagg    900

```

047-E2F-PCT.ST25.txt

```

atctttaaga aagcaggaat cacgactaaa gacaagcttt tcttggttac tatcggtgtc 960
ggaatcatga aaacgacggt tatttttact gcgactttat tgtagacaa ggtaggtcga 1020
aggaagcttt tgtagaccag cgtaggagga atggtcattg cgtagacaat gttgggattt 1080
gggcttaciaa tggcccaaaa tgctggcggg aaattagcgt gggctttagt actgagcata 1140
gttgcggtct atagtttcgt ggcgtttttc tctattgggc tcggcccaat aacttgggtc 1200
tacagttctg aggttttccc gttgaagctt agggcacaag gagcgagtct cggtgtgtcg 1260
gtgaacagag taatgaacgc caccgtgtcg atgtcgtttt tgtagttgac tagtgcgata 1320
accaccggtg gagcttttct tatgttcgcc ggagttgcgg cagtggcgtg gaatttcttc 1380
ttcttctctt tgccggagac gaaaggaaaa tcacttgaag aaatcgaagc gctttttcaa 1440
agagacggtg ataaagtacg cggtgaaaac ggtgcagctt ag 1482

```

<210> 300

<211> 493

<212> PRT

<213> Arabidopsis thaliana

<400> 300

Met Ala Asp Gln Ile Ser Gly Glu Lys Pro Ala Gly Val Asn Arg Phe  
1 5 10 15

Ala Leu Gln Cys Ala Ile Val Ala Ser Ile Val Ser Ile Ile Phe Gly  
20 25 30

Tyr Asp Thr Gly Val Met Ser Gly Ala Met Val Phe Ile Glu Glu Asp  
35 40 45

Leu Lys Thr Asn Asp Val Gln Ile Glu Val Leu Thr Gly Ile Leu Asn  
50 55 60

Leu Cys Ala Leu Val Gly Ser Leu Leu Ala Gly Arg Thr Ser Asp Ile  
65 70 75 80

Ile Gly Arg Arg Tyr Thr Ile Val Leu Ala Ser Ile Leu Phe Met Leu  
85 90 95

Gly Ser Ile Leu Met Gly Trp Gly Pro Asn Tyr Pro Val Leu Leu Ser  
100 105 110

Gly Arg Cys Thr Ala Gly Leu Gly Val Gly Phe Ala Leu Met Val Ala  
Page 469

115

120

125

Pro Val Tyr Ser Ala Glu Ile Ala Thr Ala Ser His Arg Gly Leu Leu  
 130 135 140  
 Ala Ser Leu Pro His Leu Cys Ile Ser Ile Gly Ile Leu Leu Gly Tyr  
 145 150 155 160  
 Ile Val Asn Tyr Phe Phe Ser Lys Leu Pro Met His Ile Gly Trp Arg  
 165 170 175  
 Leu Met Leu Gly Ile Ala Ala Val Pro Ser Leu Val Leu Ala Phe Gly  
 180 185 190  
 Ile Leu Lys Met Pro Glu Ser Pro Arg Trp Leu Ile Met Gln Gly Arg  
 195 200 205  
 Leu Lys Glu Gly Lys Glu Ile Leu Glu Leu Val Ser Asn Ser Pro Glu  
 210 215 220  
 Glu Ala Glu Leu Arg Phe Gln Asp Ile Lys Ala Ala Ala Gly Ile Asp  
 225 230 235 240  
 Pro Lys Cys Val Asp Asp Val Val Lys Met Glu Gly Lys Lys Thr His  
 245 250 255  
 Gly Glu Gly Val Trp Lys Glu Leu Ile Leu Arg Pro Thr Pro Ala Val  
 260 265 270  
 Arg Arg Val Leu Leu Thr Ala Leu Gly Ile His Phe Phe Gln His Ala  
 275 280 285  
 Ser Gly Ile Glu Ala Val Leu Leu Tyr Gly Pro Arg Ile Phe Lys Lys  
 290 295 300  
 Ala Gly Ile Thr Thr Lys Asp Lys Leu Phe Leu Val Thr Ile Gly Val  
 305 310 315 320  
 Gly Ile Met Lys Thr Thr Phe Ile Phe Thr Ala Thr Leu Leu Leu Asp  
 325 330 335  
 Lys Val Gly Arg Arg Lys Leu Leu Leu Thr Ser Val Gly Gly Met Val  
 340 345 350  
 Ile Ala Leu Thr Met Leu Gly Phe Gly Leu Thr Met Ala Gln Asn Ala  
 355 360 365

Gly Gly Lys Leu Ala Trp Ala Leu Val Leu Ser Ile Val Ala Ala Tyr  
 370 375 380

Ser Phe Val Ala Phe Phe Ser Ile Gly Leu Gly Pro Ile Thr Trp Val  
 385 390 395 400

Tyr Ser Ser Glu Val Phe Pro Leu Lys Leu Arg Ala Gln Gly Ala Ser  
 405 410 415

Leu Gly Val Ala Val Asn Arg Val Met Asn Ala Thr Val Ser Met Ser  
 420 425 430

Phe Leu Ser Leu Thr Ser Ala Ile Thr Thr Gly Gly Ala Phe Phe Met  
 435 440 445

Phe Ala Gly Val Ala Ala Val Ala Trp Asn Phe Phe Phe Phe Leu Leu  
 450 455 460

Pro Glu Thr Lys Gly Lys Ser Leu Glu Glu Ile Glu Ala Leu Phe Gln  
 465 470 475 480

Arg Asp Gly Asp Lys Val Arg Gly Glu Asn Gly Ala Ala  
 485 490

<210> 301

<211> 1311

<212> DNA

<213> Arabidopsis thaliana

<400> 301

atgaacttta caaaagaaaa ttgtcaattt cgaaaaatgt tgagcacaag ctctgatctt	60
catggccgctc ttctccgatt atcagaacca atagcagaga ttcttagacg tacacagtac	120
acaccgcaag agagcagcaa agtatccacc aaagatatatac tcttgctcctt gttaccaaac	180
acttcgtctt ctcgtctcgc caatgaagaa tcgatcaaaa gtctcgcgct tgcttggtgcc	240
cttctcgctt cttcacgttc atccactcac gaacttctct catggattcc agaaaacctc	300
tctgtcatgg gggaatctac attttgggag atttcaaggg attgtttcag tgatttttct	360
agcaacagta atgctgagaa gcttggtggaa ttggtagagg atagtgagaa gatcgaaatg	420
ttgccgatag ttttgccgga gttaaaagat ggaatcgaaa agagttcact tggtaaaggc	480
agtgatgcag aggatgtttc agctgcaatg gctagaacac ctgttggtta tgctatactt	540
gctgctcacc agctcaggtg gtttggttact cagggttaaaa aaccgaattt ggtgaaattt	600

047-E2F-PCT.ST25.txt

tgtaacttgg tggttccttg tgctttgaca gcacttgatc attggtctcc tgaagtcaaa 660  
 gggcagggta tgataacctt tgttcatctt gctaaaaatg tgagttccgg tgatcttggt 720  
 ttgtatggag atgtggttct tgatgcgtgt tgccagaata tagcttccga tgatgagatt 780  
 tggatacatg tggtagagtt atctgtgctt cttgttacta aaatccaccc aaataatcct 840  
 cgaagcccgt ggtatgagaa gatcatgaat gagatgctcg ggcatttgga acgccaacca 900  
 agaaataagg agcgacgtat cacttggcta agatttggtg agccactctt gaactctcta 960  
 gggcttttct tacttgctca ttttcgacgt atcttccctc ttttctttca gtggatgcat 1020  
 tcagacgacg ccgaaacagt tctgttggtt cttgagagac tggagacagt tgtgaggttg 1080  
 acgtggatta gacactcacc tgtgttccca agattggtg atgagcttgt ttccttgtag 1140  
 aaagagtcac cgatgcgtaa ggatcgcgat gatattagac ctcttatacct ccgtatcttg 1200  
 atgctactcc gccagtcaa aggtctacgg tttgagtcag cgtggagtca ataccaggag 1260  
 gatccaaatc tgagtactgt tagtcaacat atatggacta gttcaagttg a 1311

<210> 302

<211> 436

<212> PRT

<213> Arabidopsis thaliana

<400> 302

Met Asn Phe Thr Lys Glu Asn Cys Gln Phe Arg Lys Met Leu Ser Thr  
 1 5 10 15

Ser Ser Asp Leu His Gly Arg Leu Leu Arg Leu Ser Glu Pro Ile Ala  
 20 25 30

Glu Ile Leu Arg Arg Thr Gln Tyr Thr Pro Gln Glu Ser Ser Lys Val  
 35 40 45

Ser Thr Lys Asp Ile Leu Leu Ser Leu Leu Pro Asn Thr Ser Ser Ser  
 50 55 60

Arg Leu Ala Asn Glu Glu Ser Ile Lys Ser Leu Ala Leu Ala Cys Ala  
 65 70 75 80

Leu Leu Ala Ser Ser Arg Ser Ser Thr His Glu Leu Leu Ser Trp Ile  
 85 90 95

Pro Glu Asn Leu Ser Val Met Gly Glu Ser Thr Phe Trp Glu Ile Ser  
 100 105 110

047-E2F-PCT.ST25.txt

Arg Asp Cys Phe Ser Asp Phe Ser Ser Asn Ser Asn Ala Glu Lys Leu  
115 120 125

Val Glu Leu Val Glu Asp Ser Glu Lys Ile Glu Met Leu Pro Ile Val  
130 135 140

Leu Pro Glu Leu Lys Asp Gly Ile Glu Lys Ser Ser Leu Gly Lys Gly  
145 150 155 160

Ser Asp Ala Glu Asp Val Ser Ala Ala Met Ala Arg Thr Pro Val Gly  
165 170 175

Tyr Ala Ile Leu Ala Ala His Gln Leu Arg Trp Phe Val Thr Gln Val  
180 185 190

Lys Lys Pro Asn Leu Val Lys Phe Cys Asn Leu Val Val Pro Cys Ala  
195 200 205

Leu Thr Ala Leu Asp His Trp Ser Pro Glu Val Lys Gly Gln Gly Met  
210 215 220

Ile Thr Phe Val His Leu Ala Lys Asn Val Ser Ser Gly Asp Leu Gly  
225 230 235 240

Leu Tyr Gly Asp Val Val Leu Asp Ala Cys Cys Gln Asn Ile Ala Ser  
245 250 255

Asp Asp Glu Ile Trp Ile His Val Val Glu Leu Ser Val Leu Leu Val  
260 265 270

Thr Lys Ile His Pro Asn Asn Pro Arg Ser Pro Trp Tyr Glu Lys Ile  
275 280 285

Met Asn Glu Met Leu Gly His Leu Glu Arg Gln Pro Arg Asn Lys Glu  
290 295 300

Arg Arg Ile Thr Trp Leu Arg Phe Val Glu Pro Leu Leu Asn Ser Leu  
305 310 315 320

Gly Leu Phe Leu Leu Ala His Phe Arg Arg Ile Phe Pro Leu Phe Phe  
325 330 335

Gln Trp Met His Ser Asp Asp Ala Glu Thr Val Leu Leu Val Leu Glu  
340 345 350

Arg Leu Glu Thr Val Val Arg Leu Thr Trp Ile Arg His Ser Pro Val

355 047-E2F-PCT.ST25.txt 360 365

Phe Pro Arg Leu Val Asp Glu Leu Val Ser Leu Tyr Lys Glu Ser Ser  
370 375 380

Met Arg Lys Asp Arg Asp Asp Ile Arg Pro Leu Ile Leu Arg Ile Leu  
385 390 395 400

Met Leu Leu Arg Gln Cys Lys Gly Leu Arg Phe Glu Ser Ala Trp Ser  
405 410 415

Gln Tyr Gln Glu Asp Pro Asn Leu Ser Thr Val Ser Gln His Ile Trp  
420 425 430

Thr Ser Ser Ser  
435

<210> 303

<211> 3369

<212> DNA

<213> Arabidopsis thaliana

<400> 303  
atgtcaggct ctaggccgac tcagtcctct gagggctcaa ggcgatcaag gcacagcgct 60  
aggatcattg cgcagaccac tgtagatgcg aaactccatg ctgattttga ggagtcaggc 120  
agctcctttg attactcaac ctcaagtgcgt gtcactggcc cggttgtgga gaatcagcca 180  
ccaaggtctg acaaagttac cagcacttat cttcatcata tacagaaggg aaagctgatt 240  
cagcccttcg gttgtttact tgccttggat gagaagacct tcaaagttat tgcatacagc 300  
gagaatgcat ctgagctggt gacaatggcc agtcatgcag ttcctagtgt tggcgaacac 360  
cctgttctag gcattgggac agatataagg agtcttttca ctgctcctag tgcgtctgca 420  
ttgcagaaag cccttggatt tggagatgtc tctcttttga atcccattct tgtgcactgc 480  
aggacttctg caaagccctt ttatgcgatt atccacaggg ttacaggag catcatcatc 540  
gactttgaac ccgtgaagcc ttatgaagtc cccatgacag ctgctggtgc cttacaatca 600  
tacaagctcg ctgccaaagc aatcactagg ctgcaatctt taccagcgg gagtatggaa 660  
aggctttgtg atacaatggt tcaagaggtt tttgaactca cggggtatga cagggtgatg 720  
gcttataagt ttcataaga tgatcacggt gaggttgtct ccgagggttac aaaacctggg 780  
ctggagcctt atcttgggct gcattatcct gccaccgaca tccctcaagc agcccgtttt 840  
ctgtttatga agaacaaggt ccggatgata gttgattgca atgcaaaaca tgctagggtg 900



## 047-E2F-PCT.ST25.txt

cttcaagatg aaaagctttc ctttgacctt accttgtgtg gctccaccct tagagcaccg 960  
 cacagctgcc atttgcagta catggccaac atggattcaa ttgcatctct ggttatggcg 1020  
 gttgtagtta acgaggaaga tggagaaggg gatgctcctg atgctactac acagcctcaa 1080  
 aagagaaaga gactatgggg tttagtgggt tgtcacaata cgactccgag gtttgttcca 1140  
 tttcctctca ggtatgcctg tgagtttcta gctcaagtgt ttgccataca cgtcaataag 1200  
 gaggtggaac tcgataacca gatggtggag aagaacattt tgcgcacgca gacactcttg 1260  
 tgcgatatgc tgatgcgtga tgctccactg ggtattgtgt cgcaaagccc caacataatg 1320  
 gaccttgtga aatgtgatgg agcagctctc ttgtataaag acaagatatg gaaactggga 1380  
 acaactccaa gtgagttcca cctgcaggag atagcttcat ggttgtgtga ataccacatg 1440  
 gattcaacgg gtttgagcac tgatagtttg catgacgccg ggtttcctag ggctctatct 1500  
 ctcggggatt cggatatgtg gatggcagct gtgaggatat catcgaaaga catgattttc 1560  
 tggttccgtt ctcataccgc tggatgaagt agatggggag gtgcgaagca tgatccagat 1620  
 gatagggatg atgcaaggag aatgcaccca aggtcatcgt tcaaggcttt ccttgaagtg 1680  
 gtcaagacaa ggagtttacc ttggaaggac tatgagatgg atgccataca ctcttgcaa 1740  
 cttattttga ggaatgcttt caaggatagt gaaactactg atgtgaatac aaaggctatt 1800  
 tactcgaagc taaatgatct caaaattgat ggtatacaag aactagaagc tgtgaccagt 1860  
 gagatggttc gtttaattga gactgctacg gtgccaatat tggcggttga ttctgatgga 1920  
 ctggttaatg gttggaacac gaaaattgct gagctgactg gtctttcggg tgatgaagca 1980  
 atcgggaagc atttcctcac acttgttgaa gattcttcag tggaaatcgt taaaaggatg 2040  
 ctagagaacg cattagaagg aactgaggag cagaatgtcc agtttgagat caagacacat 2100  
 ctgtccaggg ctgatgctgg gccataaagt ttagttgtaa atgcatgcgc aagtagagat 2160  
 ctccatgaaa acgtggttgg ggtgtgtttt gtagcccatg atcttactgg ccagaagact 2220  
 gtgatggaca agtttacgcg gattgaagggt gattacaagg caatcatcca aaatccaaac 2280  
 ccgctgatcc cgccaatatt tggtagcgat gagtttggtt ggtgcacaga gtggaatcca 2340  
 gcaatgtcaa agttaaccgg tttgaagcga gaggaagtga ttgacaaaat gctcttagga 2400  
 gaagtatttg ggacgcagaa gtcatgttgt cgtctaaaga atcaagaagc ctttgtaaac 2460  
 cttgggattg tgctgaacaa tgctgtgacc agtcaagatc cagagaaaagt atcgtttgct 2520  
 ttctttacaa gaggtggcaa gtatgtggag tgtctgttgt gtgtgagtaa gaaactggac 2580  
 aggggaagggt tagtgacagg tgtcttctgt ttcttgcaac ttgccagcca tgagctgcag 2640  
 caagcgctcc atgttcaacg tttagctgag cgaaccgcag tgaagagact aaaggctcta 2700  
 gcatacataa aaagacagat caggaatccg ctatctggga tcatgtttac aaggaaaatg 2760

atagagggtta ctgaattagg accagagcaa agacggattt tgcaaactag cgcgttatgt 2820  
 cagaagcaac taagcaagat cctcgatgat tcggatcttg aaagcatcat tgaaggatgc 2880  
 ttggattttgg aaatgaaaga attcacctta aatgaagtgt tgactgcttc cacaagtcaa 2940  
 gtaatgatga agagtaacgg aaagagtgtt cggataacaa atgagaccgg agaagaagta 3000  
 atgtctgaca ctttgtatgg agacagtatt aggccttcaac aagtcttggc agatttcatg 3060  
 ctgatggctg taaactttac accatccgga ggtcagctaa ctgtttcagc ttccctgagg 3120  
 aaggatcagc tcgggcggtt tgtgcatctt gctaacttag agatcagggtt aacgcatacc 3180  
 ggagctggga tacctgagtt ttactaaac caaatgtttg ggactgagga agatgtgtca 3240  
 gaagaaggat tgagcttaat ggtagccgg aaactggtga agctgatgaa tggagatgtt 3300  
 cagtacttga gacaagctgg gaaatcaagt ttcattatca ctgcggaact cgctgcagca 3360  
 aacaagtag 3369

<210> 304

<211> 1122

<212> PRT

<213> Arabidopsis thaliana

<400> 304

Met Ser Gly Ser Arg Pro Thr Gln Ser Ser Glu Gly Ser Arg Arg Ser  
1 5 10 15

Arg His Ser Ala Arg Ile Ile Ala Gln Thr Thr Val Asp Ala Lys Leu  
20 25 30

His Ala Asp Phe Glu Glu Ser Gly Ser Ser Phe Asp Tyr Ser Thr Ser  
35 40 45

Val Arg Val Thr Gly Pro Val Val Glu Asn Gln Pro Pro Arg Ser Asp  
50 55 60

Lys Val Thr Thr Thr Tyr Leu His His Ile Gln Lys Gly Lys Leu Ile  
65 70 75 80

Gln Pro Phe Gly Cys Leu Leu Ala Leu Asp Glu Lys Thr Phe Lys Val  
85 90 95

Ile Ala Tyr Ser Glu Asn Ala Ser Glu Leu Leu Thr Met Ala Ser His  
100 105 110

Ala Val Pro Ser Val Gly Glu His Pro Val Leu Gly Ile Gly Thr Asp  
 115 120 125  
 Ile Arg Ser Leu Phe Thr Ala Pro Ser Ala Ser Ala Leu Gln Lys Ala  
 130 135 140  
 Leu Gly Phe Gly Asp Val Ser Leu Leu Asn Pro Ile Leu Val His Cys  
 145 150 155 160  
 Arg Thr Ser Ala Lys Pro Phe Tyr Ala Ile Ile His Arg Val Thr Gly  
 165 170 175  
 Ser Ile Ile Ile Asp Phe Glu Pro Val Lys Pro Tyr Glu Val Pro Met  
 180 185 190  
 Thr Ala Ala Gly Ala Leu Gln Ser Tyr Lys Leu Ala Ala Lys Ala Ile  
 195 200 205  
 Thr Arg Leu Gln Ser Leu Pro Ser Gly Ser Met Glu Arg Leu Cys Asp  
 210 215 220  
 Thr Met Val Gln Glu Val Phe Glu Leu Thr Gly Tyr Asp Arg Val Met  
 225 230 235 240  
 Ala Tyr Lys Phe His Glu Asp Asp His Gly Glu Val Val Ser Glu Val  
 245 250 255  
 Thr Lys Pro Gly Leu Glu Pro Tyr Leu Gly Leu His Tyr Pro Ala Thr  
 260 265 270  
 Asp Ile Pro Gln Ala Ala Arg Phe Leu Phe Met Lys Asn Lys Val Arg  
 275 280 285  
 Met Ile Val Asp Cys Asn Ala Lys His Ala Arg Val Leu Gln Asp Glu  
 290 295 300  
 Lys Leu Ser Phe Asp Leu Thr Leu Cys Gly Ser Thr Leu Arg Ala Pro  
 305 310 315 320  
 His Ser Cys His Leu Gln Tyr Met Ala Asn Met Asp Ser Ile Ala Ser  
 325 330 335  
 Leu Val Met Ala Val Val Val Asn Glu Glu Asp Gly Glu Gly Asp Ala  
 340 345 350  
 Pro Asp Ala Thr Thr Gln Pro Gln Lys Arg Lys Arg Leu Trp Gly Leu  
 355 360 365

047-E2F-PCT.ST25.txt

Val Val Cys His Asn Thr Thr Pro Arg Phe Val Pro Phe Pro Leu Arg  
370 375 380

Tyr Ala Cys Glu Phe Leu Ala Gln Val Phe Ala Ile His Val Asn Lys  
385 390 395 400

Glu Val Glu Leu Asp Asn Gln Met Val Glu Lys Asn Ile Leu Arg Thr  
405 410 415

Gln Thr Leu Leu Cys Asp Met Leu Met Arg Asp Ala Pro Leu Gly Ile  
420 425 430

Val Ser Gln Ser Pro Asn Ile Met Asp Leu Val Lys Cys Asp Gly Ala  
435 440 445

Ala Leu Leu Tyr Lys Asp Lys Ile Trp Lys Leu Gly Thr Thr Pro Ser  
450 455 460

Glu Phe His Leu Gln Glu Ile Ala Ser Trp Leu Cys Glu Tyr His Met  
465 470 475 480

Asp Ser Thr Gly Leu Ser Thr Asp Ser Leu His Asp Ala Gly Phe Pro  
485 490 495

Arg Ala Leu Ser Leu Gly Asp Ser Val Cys Gly Met Ala Ala Val Arg  
500 505 510

Ile Ser Ser Lys Asp Met Ile Phe Trp Phe Arg Ser His Thr Ala Gly  
515 520 525

Glu Val Arg Trp Gly Gly Ala Lys His Asp Pro Asp Asp Arg Asp Asp  
530 535 540

Ala Arg Arg Met His Pro Arg Ser Ser Phe Lys Ala Phe Leu Glu Val  
545 550 555 560

Val Lys Thr Arg Ser Leu Pro Trp Lys Asp Tyr Glu Met Asp Ala Ile  
565 570 575

His Ser Leu Gln Leu Ile Leu Arg Asn Ala Phe Lys Asp Ser Glu Thr  
580 585 590

Thr Asp Val Asn Thr Lys Val Ile Tyr Ser Lys Leu Asn Asp Leu Lys  
595 600 605

Ile Asp Gly Ile Gln Glu Leu Glu Ala Val Thr Ser Glu Met Val Arg  
610 615 620

047-E2F-PCT.ST25.txt

Leu Ile Glu Thr Ala Thr Val Pro Ile Leu Ala Val Asp Ser Asp Gly  
 625 630 635 640  
 Leu Val Asn Gly Trp Asn Thr Lys Ile Ala Glu Leu Thr Gly Leu Ser  
 645 650 655  
 Val Asp Glu Ala Ile Gly Lys His Phe Leu Thr Leu Val Glu Asp Ser  
 660 665 670  
 Ser Val Glu Ile Val Lys Arg Met Leu Glu Asn Ala Leu Glu Gly Thr  
 675 680 685  
 Glu Glu Gln Asn Val Gln Phe Glu Ile Lys Thr His Leu Ser Arg Ala  
 690 695 700  
 Asp Ala Gly Pro Ile Ser Leu Val Val Asn Ala Cys Ala Ser Arg Asp  
 705 710 715 720  
 Leu His Glu Asn Val Val Gly Val Cys Phe Val Ala His Asp Leu Thr  
 725 730 735  
 Gly Gln Lys Thr Val Met Asp Lys Phe Thr Arg Ile Glu Gly Asp Tyr  
 740 745 750  
 Lys Ala Ile Ile Gln Asn Pro Asn Pro Leu Ile Pro Pro Ile Phe Gly  
 755 760 765  
 Thr Asp Glu Phe Gly Trp Cys Thr Glu Trp Asn Pro Ala Met Ser Lys  
 770 775 780  
 Leu Thr Gly Leu Lys Arg Glu Glu Val Ile Asp Lys Met Leu Leu Gly  
 785 790 795 800  
 Glu Val Phe Gly Thr Gln Lys Ser Cys Cys Arg Leu Lys Asn Gln Glu  
 805 810 815  
 Ala Phe Val Asn Leu Gly Ile Val Leu Asn Asn Ala Val Thr Ser Gln  
 820 825 830  
 Asp Pro Glu Lys Val Ser Phe Ala Phe Phe Thr Arg Gly Gly Lys Tyr  
 835 840 845  
 Val Glu Cys Leu Leu Cys Val Ser Lys Lys Leu Asp Arg Glu Gly Val  
 850 855 860  
 Val Thr Gly Val Phe Cys Phe Leu Gln Leu Ala Ser His Glu Leu Gln

865                      870                      875                      880  
 Gln Ala Leu His Val Gln Arg Leu Ala Glu Arg Thr Ala Val Lys Arg  
                                  885                                   890                                   895  
 Leu Lys Ala Leu Ala Tyr Ile Lys Arg Gln Ile Arg Asn Pro Leu Ser  
                                  900                                   905                                   910  
 Gly Ile Met Phe Thr Arg Lys Met Ile Glu Gly Thr Glu Leu Gly Pro  
                                  915                                   920                                   925  
 Glu Gln Arg Arg Ile Leu Gln Thr Ser Ala Leu Cys Gln Lys Gln Leu  
                                  930                                   935                                   940  
 Ser Lys Ile Leu Asp Asp Ser Asp Leu Glu Ser Ile Ile Glu Gly Cys  
                                  945                                   950                                   955                                   960  
 Leu Asp Leu Glu Met Lys Glu Phe Thr Leu Asn Glu Val Leu Thr Ala  
                                  965                                   970                                   975  
 Ser Thr Ser Gln Val Met Met Lys Ser Asn Gly Lys Ser Val Arg Ile  
                                  980                                   985                                   990  
 Thr Asn Glu Thr Gly Glu Glu Val Met Ser Asp Thr Leu Tyr Gly Asp  
                                  995                                   1000                                   1005  
 Ser Ile Arg Leu Gln Gln Val Leu Ala Asp Phe Met Leu Met Ala  
                                  1010                                   1015                                   1020  
 Val Asn Phe Thr Pro Ser Gly Gly Gln Leu Thr Val Ser Ala Ser  
                                  1025                                   1030                                   1035  
 Leu Arg Lys Asp Gln Leu Gly Arg Ser Val His Leu Ala Asn Leu  
                                  1040                                   1045                                   1050  
 Glu Ile Arg Leu Thr His Thr Gly Ala Gly Ile Pro Glu Phe Leu  
                                  1055                                   1060                                   1065  
 Leu Asn Gln Met Phe Gly Thr Glu Glu Asp Val Ser Glu Glu Gly  
                                  1070                                   1075                                   1080  
 Leu Ser Leu Met Val Ser Arg Lys Leu Val Lys Leu Met Asn Gly  
                                  1085                                   1090                                   1095  
 Asp Val Gln Tyr Leu Arg Gln Ala Gly Lys Ser Ser Phe Ile Ile  
                                  1100                                   1105                                   1110

Thr Ala Glu Leu Ala Ala Ala Asn Lys  
 1115 1120

<210> 305

<211> 1614

<212> DNA

<213> *Arabidopsis thaliana*

<400> 305

```

atggcgaatg cccagaaagt cttcactgta gaaaccctaa gatctgcatc gaaacagtgt    60
ctccgctgcc tagtcgtccc cgtccgtctc cgccgcgcta ttaagaaata tctccgcgag    120
gaagatgatc ctcacattag gaagaagggtg cgtcagttat cggaatcatt ccaagagatc    180
aaggacacca atcttcagtt acctgaaacc acggccaaga gtctgggtga ttctatgaac    240
tcgctagaga ccaaacgatg gaagatacaa accgtttatg gagatagcgg tctccaatac    300
agagacgggtg agactgctgc ttacattgct tctcgtatgc ctgccgtctt ttccgtctgc    360
tatagagtcc tcatcgagat tcgtcgaaga gtaccagggtt ttacgcctac aagagtgtctg    420
gatttttggtg ctggcactgg ttcaggtttc tgggcggtta aagagggttg gcctaagtct    480
gtggagaaag taaatatagt ggaaccatct caatcaatgc agcgtgcagg acgtaactta    540
atccagggcc ttaaggattht gcctctgata catgggtata ctagcctgct agctcttaat    600
aaagagatca acaaaaagtc tgagaggaaa catgatcttg tcatcgcttc ctatgtgtta    660
ggggagatac catctctgaa agacaggatt actgtggttc gccagctctg ggaccttaca    720
gatgatctct tggtttttgg tgaaccagga acgccacacg gtgctaatat tatatctcag    780
atgcggtccc atatactgtg gatggagaag aggaaactgc gtaaaactgga aaagaaaatg    840
aagaaagatg gaaaggaggt gctcgatctc aaatctggtg cgcataattgt tgctccatgc    900
cctcatgatg gaaagtgtcc gctggaaaac actggaaagt actgtcattt tgttcagcgg    960
ttgcagagaa cttcgtctca gcgttcctac aagcgtacaa aggggtgtccc cctacgtggg   1020
tttgaggatg agaagttttg ttttgtggct ttcaggagag gtcagcgccc acgggagttg   1080
tggcctcttg acggtatgaa gttggagaca ttgaaggaga gacgcgcaaa taagaaaccc   1140
gaggatcttg agattgatta tgaggacttt atcaaatcac aggtggttga agtgccttac   1200
attgatccaa gagcttatga ctccgacacc atggatgaga acgaggagga acaagaagac   1260
ggtggaggta ctgatgagga tgaagaagac aagattgaag aggaaataga agaggagagt   1320
gagagggcga gtgtgggagg cggatgggga agaatacat tccctccatt ccgcaaaggg   1380
aaacaagtga cgttggatat gtgtgtgcca accaaagaag atgggtccga gggagccttt   1440

```

gaaaggagag tgataacaaa aagcaaaaac ccg gatcttc atttgcaggc caagaaatcc 1500  
 ttttggggag acttatggcc tctcacgact caacaagaaa atggcaaaaa gaagcaagta 1560  
 gatgctgagt ggtgtcgccc agacgaagac cagaaatgga gtggttggcc ttag 1614

<210> 306

<211> 537

<212> PRT

<213> Arabidopsis thaliana

<400> 306

Met Ala Asn Ala Gln Lys Val Phe Thr Val Glu Thr Leu Arg Ser Ala  
 1 5 10 15  
 Ser Lys Gln Cys Leu Arg Cys Leu Val Val Pro Val Arg Leu Arg Arg  
 20 25 30  
 Ala Ile Lys Lys Tyr Leu Arg Glu Glu Asp Asp Pro His Ile Arg Lys  
 35 40 45  
 Lys Val Arg Gln Leu Ser Glu Ser Phe Gln Glu Ile Lys Asp Thr Asn  
 50 55 60  
 Leu Gln Leu Pro Glu Thr Thr Ala Lys Ser Leu Ala Asp Ser Met Asn  
 65 70 75 80  
 Ser Leu Glu Thr Lys Arg Trp Lys Ile Gln Thr Val Tyr Gly Asp Ser  
 85 90 95  
 Gly Leu Gln Tyr Arg Asp Gly Glu Thr Ala Ala Tyr Ile Ala Ser Arg  
 100 105 110  
 Met Pro Ala Val Phe Ser Val Cys Tyr Arg Val Leu Ile Glu Ile Arg  
 115 120 125  
 Arg Arg Val Pro Gly Phe Thr Pro Thr Arg Val Leu Asp Phe Gly Ala  
 130 135 140  
 Gly Thr Gly Ser Gly Phe Trp Ala Val Lys Glu Val Trp Pro Lys Ser  
 145 150 155 160  
 Val Glu Lys Val Asn Ile Val Glu Pro Ser Gln Ser Met Gln Arg Ala  
 165 170 175



Gly Arg Asn Leu Ile Gln Gly Leu Lys Asp Leu Pro Leu Ile His Gly  
 180 185 190  
 Tyr Thr Ser Leu Leu Ala Leu Asn Lys Glu Ile Asn Lys Lys Ser Glu  
 195 200 205  
 Arg Lys His Asp Leu Val Ile Ala Ser Tyr Val Leu Gly Glu Ile Pro  
 210 215 220  
 Ser Leu Lys Asp Arg Ile Thr Val Val Arg Gln Leu Trp Asp Leu Thr  
 225 230 235 240  
 Asp Asp Leu Leu Val Leu Val Glu Pro Gly Thr Pro His Gly Ala Asn  
 245 250 255  
 Ile Ile Ser Gln Met Arg Ser His Ile Leu Trp Met Glu Lys Arg Lys  
 260 265 270  
 Leu Arg Lys Leu Glu Lys Lys Met Lys Lys Asp Gly Lys Glu Val Leu  
 275 280 285  
 Asp Leu Lys Ser Gly Ala His Ile Val Ala Pro Cys Pro His Asp Gly  
 290 295 300  
 Lys Cys Pro Leu Glu Asn Thr Gly Lys Tyr Cys His Phe Val Gln Arg  
 305 310 315 320  
 Leu Gln Arg Thr Ser Ser Gln Arg Ser Tyr Lys Arg Thr Lys Gly Val  
 325 330 335  
 Pro Leu Arg Gly Phe Glu Asp Glu Lys Phe Cys Phe Val Ala Phe Arg  
 340 345 350  
 Arg Gly Gln Arg Pro Arg Glu Leu Trp Pro Leu Asp Gly Met Lys Leu  
 355 360 365  
 Glu Thr Leu Lys Glu Arg Arg Ala Asn Lys Lys Pro Glu Asp Leu Glu  
 370 375 380  
 Ile Asp Tyr Glu Asp Phe Ile Lys Ser Gln Val Val Glu Val Pro Tyr  
 385 390 395 400  
 Ile Asp Pro Arg Ala Tyr Asp Ser Asp Thr Met Asp Glu Asn Glu Glu  
 405 410 415  
 Glu Gln Glu Asp Gly Gly Gly Thr Asp Glu Asp Glu Glu Asp Lys Ile  
 420 425 430

047-E2F-PCT.ST25.txt

Glu Glu Glu Ile Glu Glu Glu Ser Glu Arg Ala Ser Val Gly Gly Gly  
435 440 445

Trp Gly Arg Ile Ile Phe Pro Pro Phe Arg Lys Gly Lys Gln Val Thr  
450 455 460

Leu Asp Met Cys Val Pro Thr Lys Glu Asp Gly Ser Glu Gly Ala Phe  
465 470 475 480

Glu Arg Arg Val Ile Thr Lys Ser Lys Asn Pro Asp Leu His Leu Gln  
485 490 495

Ala Lys Lys Ser Phe Trp Gly Asp Leu Trp Pro Leu Thr Thr Gln Gln  
500 505 510

Glu Asn Gly Lys Lys Lys Gln Val Asp Ala Glu Trp Cys Arg Pro Asp  
515 520 525

Glu Asp Gln Lys Trp Ser Gly Trp Pro  
530 535

<210> 307

<211> 1395

<212> DNA

<213> Arabidopsis thaliana

<400> 307

atggctgctg gtcgggtggt tatcaagcgc gaaactgaag atactcctgg agaagaagaa	60
gaaggtaaca cctctagaga caacgccttg gttgaagtca agttagagaa gcaagaagaa	120
cttggtcttc tcgttacttg tggaatccag aaacgaaaac gactcgctcg tggagcaaga	180
tctcgaagat attcagacac cagcttcgag gaaaagccga ttattatccc tccgaagcac	240
aagcagcaga gagtattaac cactcgatgg aacaatgaaa ggattaagtt cgcagagcaa	300
accttagcgg atattatgaa ggagaaaggt gctacttttg aaaaacctgt tacgcgacaa	360
ctgttaagag ttattgctcg aagcaagata ggtgatactg ggctcttgga tcattccttg	420
aagcacatgg atggcaaagt aacaccaggt ggttctgatac ggtttaggag gtgttacaat	480
actgatggat gcatgcagta ttggctcgaa agtgctgacc ttgtcaagat taaacttgaa	540
tctggaattc ctgatcctac ttgggttccc ccagcttggt ggatgggttca gactgcatca	600
tcacatgata aatctgcggt tacgtcaaag cttcttatgg gggagattga gcaaataag	660
agtgaatatca aagaacttgt atcaaagcaa aatttaccag atcatgctga tgcaaataag	720

047-E2F-PCT.ST25.txt

aaactattca aggaacttaa gagttggagg gaaaacactg ataagcaa at tgtggagatc 780  
tcagaatcgt tgacttcaac tcagggcatg ttcaaggaat tgaattcgtg gaaagataaa 840  
gtagatcagc agttactggg aatttcaaac acgctgagca atctgcagcc gaatgggagc 900  
acgtcattca gtccagctca ggaaaattgg gaacatatat tgaagacttc caatttggaa 960  
gattttacaa cgaatggttt tgaccaatgg gatgacctta ttgatggtct accagaggct 1020  
gtcaggccgg agacctacgc gcttccaaca aatccttgca aaagctctct ccaagatcag 1080  
tcattgatct ctctccaaga ccagtcattg gtctctctcc aagaccagtc attggtcaac 1140  
gtagatatgc aaatgacaga aagcatgact agaggtgaat ccagaagctc cagtcaggaa 1200  
aaagctgaaa tgactccggg ttcttcgatt actgcaggtc caaatcaga tattgacgac 1260  
ccaacaatcc agactcagga aaccttgaag gagttggtga catggaaagc caaagcggag 1320  
cagcagctga tggaattatc aaacgctgtc cttgctctta aggacagaa tcaaccaac 1380  
tggcgttacc cgtga 1395

<210> 308

<211> 464

<212> PRT

<213> Arabidopsis thaliana

<400> 308

Met Ala Ala Gly Pro Val Val Ile Lys Arg Glu Thr Glu Asp Thr Pro  
1 5 10 15

Gly Glu Glu Glu Glu Gly Asn Thr Ser Arg Asp Asn Ala Leu Val Glu  
20 25 30

Val Lys Leu Glu Lys Gln Glu Glu Leu Gly Leu Leu Val Thr Cys Gly  
35 40 45

Ile Gln Lys Arg Lys Arg Leu Ala Arg Gly Ala Arg Ser Arg Arg Tyr  
50 55 60

Ser Asp Thr Ser Phe Glu Glu Lys Pro Ile Ile Ile Pro Pro Lys His  
65 70 75 80

Lys Gln Gln Arg Val Leu Thr Thr Arg Trp Asn Asn Glu Arg Ile Lys  
85 90 95

Phe Ala Glu Gln Thr Leu Ala Asp Ile Met Lys Glu Lys Gly Ala Thr  
Page 485

100  
 105  
 110  
 Phe Glu Lys Pro Val Thr Arg Gln Leu Leu Arg Val Ile Ala Arg Ser  
 115 120 125  
 Lys Ile Gly Asp Thr Gly Leu Leu Asp His Ser Leu Lys His Met Asp  
 130 135 140  
 Gly Lys Val Thr Pro Gly Gly Ser Asp Arg Phe Arg Arg Cys Tyr Asn  
 145 150 155 160  
 Thr Asp Gly Cys Met Gln Tyr Trp Leu Glu Ser Ala Asp Leu Val Lys  
 165 170 175  
 Ile Lys Leu Glu Ser Gly Ile Pro Asp Pro Thr Trp Val Pro Pro Ala  
 180 185 190  
 Trp Trp Met Val Gln Thr Ala Ser Ser His Asp Gln Ser Ala Val Thr  
 195 200 205  
 Ser Lys Leu Leu Met Gly Glu Ile Glu Gln Met Lys Ser Glu Ile Lys  
 210 215 220  
 Glu Leu Val Ser Lys Gln Asn Leu Pro Asp His Ala Asp Ala Asn Glu  
 225 230 235 240  
 Lys Leu Phe Lys Glu Leu Lys Ser Trp Arg Glu Asn Thr Asp Lys Gln  
 245 250 255  
 Ile Val Glu Ile Ser Glu Ser Leu Thr Ser Thr Gln Gly Met Phe Lys  
 260 265 270  
 Glu Leu Asn Ser Trp Lys Asp Lys Val Asp Gln Gln Leu Leu Gly Ile  
 275 280 285  
 Ser Asn Thr Leu Ser Asn Leu Gln Pro Asn Gly Ser Thr Ser Phe Ser  
 290 295 300  
 Pro Ala Gln Glu Asn Trp Glu His Ile Leu Lys Thr Ser Asn Leu Glu  
 305 310 315 320  
 Asp Phe Thr Thr Asn Gly Phe Asp Gln Trp Asp Asp Leu Ile Asp Gly  
 325 330 335  
 Leu Pro Glu Ala Val Arg Pro Glu Thr Tyr Ala Leu Pro Thr Asn Pro  
 340 345 350

Cys Lys Ser Ser Leu Gln Asp Gln Ser Leu Ile Ser Leu Gln Asp Gln  
 355 360 365

Ser Leu Val Ser Leu Gln Asp Gln Ser Leu Val Asn Val Asp Met Gln  
 370 375 380

Met Thr Glu Ser Met Thr Arg Gly Glu Ser Arg Ser Ser Ser Gln Glu  
 385 390 395 400

Lys Ala Glu Met Thr Pro Gly Ser Ser Ile Thr Ala Gly Pro Lys Ser  
 405 410 415

Asp Ile Asp Asp Pro Thr Ile Gln Thr Gln Glu Thr Leu Lys Glu Leu  
 420 425 430

Val Thr Trp Lys Ala Lys Ala Glu Gln Gln Leu Met Glu Leu Ser Asn  
 435 440 445

Ala Val Leu Ala Leu Lys Gly Gln Asn Gln Pro Asn Trp Arg Tyr Pro  
 450 455 460

<210> 309

<211> 702

<212> DNA

<213> Arabidopsis thaliana

<400> 309

atggcgacgt ctgcgaggat ttgttgcgga ggaggaagtg catgcgccgt tcgtttgtgat	60
cgtcgcacgt taaatttgaa ttctcgatcg tcatgtgttg ttccagtgcac gaatcgacgg	120
aatatgtgtg cgatcgggaa gatttcgatg tcgatggagg atttgtcacc accgtctgcg	180
gcggtgaaga ttgaaaggat cgggtggaagg aaacgcggtg gatctgttgt gtcgagggag	240
aagctagatg tgtggttgag agattcgggtg gttgagatcg tgaagaatct tagagagtcg	300
ccgttattga tgcatttata cgcgagggt aatggtggtt tgacgacgac ggcaacgaat	360
ccaaaggcgg aggattggac agagatggaa ggaaagtggg gtagaggaga agagaggacg	420
ccggaaggag ttatattggt ggagaagctc gcagacggtg acatagcaga tgatgatgat	480
cacgatggtg gcgcgtgtgg ggaagataca agcgcgtggg ggattgtggc gcaaggaaga	540
ggatcggata ctgggccggt ttgttatcta ttgaaaacga cccgggtccg gtcgggtatg	600
ggtacggttt gcaccattt ctgtttggtt aaggtaaga gttttaggga aacggctatg	660
tcacagttga ataattcgtg gttggtgcag actggtcaat ga	702

&lt;210&gt; 310

&lt;211&gt; 233

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 310

Met Ala Thr Ser Ala Arg Ile Cys Cys Gly Gly Gly Ser Ala Cys Ala  
 1 5 10 15

Val Arg Cys Asp Arg Arg Thr Leu Asn Leu Asn Ser Arg Ser Ser Cys  
 20 25 30

Val Val Pro Val Thr Asn Arg Arg Asn Met Cys Ala Ile Gly Lys Ile  
 35 40 45

Ser Met Ser Met Glu Asp Leu Ser Pro Pro Ser Ala Ala Val Lys Ile  
 50 55 60

Glu Arg Ile Gly Gly Arg Lys Arg Gly Gly Ser Val Val Ser Arg Glu  
 65 70 75 80

Lys Leu Asp Val Trp Leu Arg Asp Ser Val Val Glu Ile Val Lys Asn  
 85 90 95

Leu Arg Glu Ser Pro Leu Leu Met His Leu Tyr Ala Glu Ala Asn Gly  
 100 105 110

Gly Leu Thr Thr Thr Ala Thr Asn Pro Lys Ala Glu Asp Trp Thr Glu  
 115 120 125

Met Glu Gly Lys Trp Gly Arg Gly Glu Glu Arg Thr Pro Glu Gly Val  
 130 135 140

Ile Leu Val Glu Lys Leu Ala Asp Gly Asp Ile Ala Asp Asp Asp Asp  
 145 150 155 160

His Asp Gly Gly Ala Cys Gly Glu Asp Thr Ser Ala Trp Gly Ile Val  
 165 170 175

Ala Gln Gly Arg Gly Ser Asp Thr Gly Pro Val Cys Tyr Leu Leu Lys  
 180 185 190

Thr Thr Arg Val Arg Ser Gly Met Gly Thr Val Cys Thr His Phe Cys  
 195 200 205

Leu Val Lys Val Lys Ser Phe Arg Glu Thr Ala Met Ser Gln Leu Asn  
 210 215 220

Asn Ser Trp Leu Val Gln Thr Gly Gln  
 225 230

<210> 311

<211> 1713

<212> DNA

<213> Arabidopsis thaliana

<400> 311

atgactaaaa	agaagaatcc	taatgttttc	ttggatgtat	caattggtgg	ggatcccgtt	60
caacggattg	tcattgagct	ttttgctgat	gttgtcccca	agacagcgga	aaacttccgt	120
gccctctgca	caggtgaggc	gggcgttgga	aagtccactg	ggaagcctct	acatttcaaa	180
ggatcatctt	tccatcgggt	tatcaaagga	ttcatggctc	aggggtggtga	tttttccaat	240
gggaatggca	ctggtgggga	gagcatctat	ggtgggaagt	tttcagatga	gaactttaga	300
ttggaccatg	atggagctgg	agtcctttca	atggcaaatt	gtggcccaaa	taccaacggg	360
tccaattttt	ttatactttt	taaacgcca	ccacatcttg	atgggaagca	tgttgtat	420
ggcaaagtcg	ttgaagggat	ggcagtaatc	aagaaaatgg	aacttgtggg	gacgagtgat	480
gggaaaccta	ctagcccagt	caaaataata	gactgtggtg	aaacgtctca	gataagagca	540
catgatgctg	ctgaaagaga	aaaagggaaa	tcgaaaaaat	caaacaagaa	cttttctcct	600
ggtgacgtat	ctgaccgtga	agctaaggag	acacgcaaaa	aagaatctaa	cgagaaaagg	660
ataaaacgaa	aaagaagata	ctcttcgtca	gattcatata	gctcaagtcc	cgactcagat	720
tcagattcgg	aatcagaagc	atattcatct	tcctcctatg	agtctagtcc	ttccagtgat	780
gggaagcata	ggaagaggaa	gtcaacaaca	agacacaaa	gccgacgcgg	ggaaagaaa	840
agtaaaggac	gaagcgggaa	aaagaaagct	cggccagata	gaaaaccaag	cacgaatagt	900
tcaagtgaca	cggagagtag	cagcagttct	gatgatgaga	aagtgggcca	caaagccata	960
aagtcagtga	aagttgataa	cgctgatcaa	cacgccaaact	tggtgactc	agtgaaatca	1020
aggagcagga	gcccatttcg	taggagaaac	caaaacagca	ggagcaaaa	tcctagtagg	1080
agccctgtga	gagttcttgg	aaatggaaac	agaagtccta	gtaggagccc	tgtgagagat	1140
cttggaatg	gaagcagaag	tcctcgtgag	aagccaacag	aggaaactgt	ggggaaatct	1200
ttcagaagcc	catctccaag	tggtgtgccc	aagcgcattc	gaaagggg	cg tgggttcacc	1260

047-E2F-PCT.ST25.txt

gaacgctatt cctttgctcg gaagtaccat actccttctc ctgagcgttc tcctcctaga 1320  
cattggcctg acagaagaaa ctttcaggat aggaacaggg ataggtatcc gagcaacaga 1380  
agttactctg agcgctcacc gaggggacgc tttagaagcc caccagaag aaggagccct 1440  
ccaaggtaca accggaggag aaggagcact tctcggagtc cagatgggta ccgtagacga 1500  
ttgagagacg gaagcaggag ccagagtccg aggcacgta gccgtagcca gagccctaga 1560  
aagaggcagc caattagcca agacctgaaa tcccgtctcg ggccacagag atccccatc 1620  
agaggaggac gcacctctcc tgcagaatca ctcagccctt ctcactcacc ttctccacca 1680  
ggaaagagag gtctgggttag ctatgcggat tga 1713

<210> 312

<211> 570

<212> PRT

<213> Arabidopsis thaliana

<400> 312

Met Thr Lys Lys Lys Asn Pro Asn Val Phe Leu Asp Val Ser Ile Gly  
1 5 10 15

Gly Asp Pro Val Gln Arg Ile Val Ile Glu Leu Phe Ala Asp Val Val  
20 25 30

Pro Lys Thr Ala Glu Asn Phe Arg Ala Leu Cys Thr Gly Glu Ala Gly  
35 40 45

Val Gly Lys Ser Thr Gly Lys Pro Leu His Phe Lys Gly Ser Ser Phe  
50 55 60

His Arg Val Ile Lys Gly Phe Met Ala Gln Gly Gly Asp Phe Ser Asn  
65 70 75 80

Gly Asn Gly Thr Gly Gly Glu Ser Ile Tyr Gly Gly Lys Phe Ser Asp  
85 90 95

Glu Asn Phe Arg Leu Asp His Asp Gly Ala Gly Val Leu Ser Met Ala  
100 105 110

Asn Cys Gly Pro Asn Thr Asn Gly Ser Gln Phe Phe Ile Leu Phe Lys  
115 120 125

Arg Gln Pro His Leu Asp Gly Lys His Val Val Phe Gly Lys Val Val  
130 135 140



047-E2F-PCT.ST25.txt

Glu Gly Met Ala Val Ile Lys Lys Met Glu Leu Val Gly Thr Ser Asp  
 145 150 155 160  
 Gly Lys Pro Thr Ser Pro Val Lys Ile Ile Asp Cys Gly Glu Thr Ser  
 165 170 175  
 Gln Ile Arg Ala His Asp Ala Ala Glu Arg Glu Lys Gly Lys Ser Lys  
 180 185 190  
 Lys Ser Asn Lys Asn Phe Ser Pro Gly Asp Val Ser Asp Arg Glu Ala  
 195 200 205  
 Lys Glu Thr Arg Lys Lys Glu Ser Asn Glu Lys Arg Ile Lys Arg Lys  
 210 215 220  
 Arg Arg Tyr Ser Ser Ser Asp Ser Tyr Ser Ser Ser Ser Asp Ser Asp  
 225 230 235 240  
 Ser Asp Ser Glu Ser Glu Ala Tyr Ser Ser Ser Tyr Glu Ser Ser  
 245 250 255  
 Ser Ser Ser Asp Gly Lys His Arg Lys Arg Lys Ser Thr Thr Arg His  
 260 265 270  
 Lys Gly Arg Arg Gly Glu Arg Lys Ser Lys Gly Arg Ser Gly Lys Lys  
 275 280 285  
 Lys Ala Arg Pro Asp Arg Lys Pro Ser Thr Asn Ser Ser Ser Asp Thr  
 290 295 300  
 Glu Ser Ser Ser Ser Ser Asp Asp Glu Lys Val Gly His Lys Ala Ile  
 305 310 315 320  
 Lys Ser Val Lys Val Asp Asn Ala Asp Gln His Ala Asn Leu Asp Asp  
 325 330 335  
 Ser Val Lys Ser Arg Ser Arg Ser Pro Ile Arg Arg Arg Asn Gln Asn  
 340 345 350  
 Ser Arg Ser Lys Ser Pro Ser Arg Ser Pro Val Arg Val Leu Gly Asn  
 355 360 365  
 Gly Asn Arg Ser Pro Ser Arg Ser Pro Val Arg Asp Leu Gly Asn Gly  
 370 375 380

Ser Arg Ser Pro Arg Glu Lys Pro Thr Glu Glu Thr Val Gly Lys Ser  
 Page 491

047-E2F-PCT.ST25.txt

385 390 395 400

Phe Arg Ser Pro Ser Pro Ser Gly Val Pro Lys Arg Ile Arg Lys Gly  
405 410 415

Arg Gly Phe Thr Glu Arg Tyr Ser Phe Ala Arg Lys Tyr His Thr Pro  
420 425 430

Ser Pro Glu Arg Ser Pro Pro Arg His Trp Pro Asp Arg Arg Asn Phe  
435 440 445

Gln Asp Arg Asn Arg Asp Arg Tyr Pro Ser Asn Arg Ser Tyr Ser Glu  
450 455 460

Arg Ser Pro Arg Gly Arg Phe Arg Ser Pro Pro Arg Arg Arg Ser Pro  
465 470 475 480

Pro Arg Tyr Asn Arg Arg Arg Arg Ser Thr Ser Arg Ser Pro Asp Gly  
485 490 495

Tyr Arg Arg Arg Leu Arg Asp Gly Ser Arg Ser Gln Ser Pro Arg His  
500 505 510

Arg Ser Arg Ser Gln Ser Pro Arg Lys Arg Gln Pro Ile Ser Gln Asp  
515 520 525

Leu Lys Ser Arg Leu Gly Pro Gln Arg Ser Pro Ile Arg Gly Gly Arg  
530 535 540

Thr Ser Pro Ala Glu Ser Leu Ser Pro Ser His Ser Pro Ser Pro Pro  
545 550 555 560

Gly Lys Arg Gly Leu Val Ser Tyr Ala Asp  
565 570

<210> 313

<211> 918

<212> DNA

<213> Arabidopsis thaliana

<400> 313

<400> 315  
atgacacttt atattcgctcg tgaatcttcc aagctatgga agagattttg ctctgagata 60

tcgacggaga ttggtcttct tgctgagaac tqgaaatata ttctcgctgg tcttatctgt 120

cagtacattc atggttttagc tgctaaagga gttcattata ttcatcgcgc gggaccgcaca 180

047-E2F-PCT.ST25.txt

cttcaggatc ttggcttctt tcttcttccg gagcttggtc aagagagaag ctacataagt 240  
gaaaccgtgt tcactagtgt gtttctttcg tttttcctgt ggactttcca tccattcatt 300  
ctgaaaacca aaaagatata caccgttttg atatggtgca gagttctagc attcttagtt 360  
gcctgccagt ttctccgtgt tataactttc tattcaactc agcttcctgg ccctaactat 420  
cactgccgtg agggctctaa agtttctagg ttgccatggc ccaaaagcgc tcttgaggtt 480  
ctcgagatta accctcatgg ggtgatgtat ggatgctggag acctgatttt ctcatcgcac 540  
atgatattca ctctagtctt tgtccgtact taccagaaat atggcactaa aaggttcata 600  
aagctgtttg ggtggctcac tgcaattgtg cagagcctct tgatcattgc ctctcgtaaa 660  
cattacagtg tcgatgtagt tgttgcatgg tatactgtga atttggtggt gttctgtcta 720  
gacaagaaat taccagaatt accagatcgg actgctgtgt tgctcccagt aatctcaaaa 780  
gacagaacaa aagaagagaa ccacaagctg ttgaatggaa acgggtgttg ccctgctgat 840  
tgagagaccga gggctcaggt gaacgggaag attgacagca acggagttca cacggataac 900  
acaatgaatg gcgcgtga 918

<210> 314

<211> 305

<212> PRT

<213> Arabidopsis thaliana

<400> 314

Met Thr Leu Tyr Ile Arg Arg Glu Ser Ser Lys Leu Trp Lys Arg Phe  
1 5 10 15

Cys Ser Glu Ile Ser Thr Glu Ile Gly Leu Leu Ala Glu Asn Trp Lys  
20 25 30

Tyr Leu Leu Ala Gly Leu Ile Cys Gln Tyr Ile His Gly Leu Ala Ala  
35 40 45

Lys Gly Val His Tyr Ile His Arg Pro Gly Pro Thr Leu Gln Asp Leu  
50 55 60

Gly Phe Phe Leu Leu Pro Glu Leu Gly Gln Glu Arg Ser Tyr Ile Ser  
65 70 75 80

Glu Thr Val Phe Thr Ser Val Phe Leu Ser Phe Phe Leu Trp Thr Phe  
85 90 95

047-E2F-PCT.ST25.txt

His Pro Phe Ile Leu Lys Thr Lys Lys Ile Tyr Thr Val Leu Ile Trp  
100 105 110

Cys Arg Val Leu Ala Phe Leu Val Ala Cys Gln Phe Leu Arg Val Ile  
115 120 125

Thr Phe Tyr Ser Thr Gln Leu Pro Gly Pro Asn Tyr His Cys Arg Glu  
130 135 140

Gly Ser Lys Val Ser Arg Leu Pro Trp Pro Lys Ser Ala Leu Glu Val  
145 150 155 160

Leu Glu Ile Asn Pro His Gly Val Met Tyr Gly Cys Gly Asp Leu Ile  
165 170 175

Phe Ser Ser His Met Ile Phe Thr Leu Val Phe Val Arg Thr Tyr Gln  
180 185 190

Lys Tyr Gly Thr Lys Arg Phe Ile Lys Leu Phe Gly Trp Leu Thr Ala  
195 200 205

Ile Val Gln Ser Leu Leu Ile Ile Ala Ser Arg Lys His Tyr Ser Val  
210 215 220

Asp Val Val Val Ala Trp Tyr Thr Val Asn Leu Val Val Phe Cys Leu  
225 230 235 240

Asp Lys Lys Leu Pro Glu Leu Pro Asp Arg Thr Ala Val Leu Leu Pro  
245 250 255

Val Ile Ser Lys Asp Arg Thr Lys Glu Glu Asn His Lys Leu Leu Asn  
260 265 270

Gly Asn Gly Val Asp Pro Ala Asp Trp Arg Pro Arg Ala Gln Val Asn  
275 280 285

Gly Lys Ile Asp Ser Asn Gly Val His Thr Asp Asn Thr Met Asn Gly  
290 295 300

Ala  
305

<210> 315

<211> 996

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 315

```

atgaagatca ggtgcgacgt ctgcgataaa gaagaagcgt cgggtgttttg cacggccgac      60
gaagcatctc tctgcgggcg ctgcgaccac caagtccacc acgctaacaa actcgccctct      120
aaacatctcc gtttctctct cttttatcct tcttctttcca acacctcctc tcctctctgc      180
gacatctgtc aggataaaaa agctctgttg ttctgtcaac aagatagagc tattttatgc      240
aaagattgcg attcatcgat ccacgctgcg aacgaacaca caaagaaaca cgatagggttt      300
cttctttacag ggggttaagct ctctgcaaca tcgtctgttt acaaacctac ttcgaaatct      360
tcttcttctt cttcaagcaa ccaagatttc tctgtccctg gatcatcaat ctctaatacct      420
cctcctctca agaaacctct ctcagctcct cctcagagca acaagatcca acccttttcg      480
aagatcaacg gcggtgatgc gtcggtgaat cagtggggat ccacaagcac gattttctgag      540
tatttgatgg atacgttacc tgggtggcac gttgaggatt tcctcgattc ctctcttcct      600
acttatggtt tctctaagag tggatgatgat gatggagtgt taccatatat ggaaccagaa      660
gatgacaaca aactaagag aaacaacaac aacaacaaca acaacaacaa caatacagtg      720
tcacttccat ctaagaattht agggatttgg gtccctcaga ttccacaaac tcttccttct      780
tcatacccaa atcaatactt ttctcaagac aacaacatac agtttgggat gtacaacaaa      840
gaaacatcac cagaagtagt gtcttttgc tccaatacaaa acatgaaaca acaaggacag      900
aacaacaaga gatggtatga tgatggtggc ttactgtcc cacagatcac tcctcctcct      960
ctttcttcta ataaaaagtt tagatctttc tggtaa                                996

```

&lt;210&gt; 316

&lt;211&gt; 331

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 316

```

Met Lys Ile Arg Cys Asp Val Cys Asp Lys Glu Glu Ala Ser Val Phe
1          5          10          15

Cys Thr Ala Asp Glu Ala Ser Leu Cys Gly Gly Cys Asp His Gln Val
          20          25          30

His His Ala Asn Lys Leu Ala Ser Lys His Leu Arg Phe Ser Leu Leu
          35          40          45

```

047-E2F-PCT.ST25.txt

Tyr Pro Ser Ser Ser Asn Thr Ser Ser Pro Leu Cys Asp Ile Cys Gln  
 50 55 60  
 Asp Lys Lys Ala Leu Leu Phe Cys Gln Gln Asp Arg Ala Ile Leu Cys  
 65 70 75 80  
 Lys Asp Cys Asp Ser Ser Ile His Ala Ala Asn Glu His Thr Lys Lys  
 85 90 95  
 His Asp Arg Phe Leu Leu Thr Gly Val Lys Leu Ser Ala Thr Ser Ser  
 100 105 110  
 Val Tyr Lys Pro Thr Ser Lys Ser Ser Ser Ser Ser Ser Asn Gln  
 115 120 125  
 Asp Phe Ser Val Pro Gly Ser Ser Ile Ser Asn Pro Pro Pro Leu Lys  
 130 135 140  
 Lys Pro Leu Ser Ala Pro Pro Gln Ser Asn Lys Ile Gln Pro Phe Ser  
 145 150 155 160  
 Lys Ile Asn Gly Gly Asp Ala Ser Val Asn Gln Trp Gly Ser Thr Ser  
 165 170 175  
 Thr Ile Ser Glu Tyr Leu Met Asp Thr Leu Pro Gly Trp His Val Glu  
 180 185 190  
 Asp Phe Leu Asp Ser Ser Leu Pro Thr Tyr Gly Phe Ser Lys Ser Gly  
 195 200 205  
 Asp Asp Asp Gly Val Leu Pro Tyr Met Glu Pro Glu Asp Asp Asn Asn  
 210 215 220  
 Thr Lys Arg Asn Asn Asn Asn Asn Asn Asn Asn Asn Asn Asn Thr Val  
 225 230 235 240  
 Ser Leu Pro Ser Lys Asn Leu Gly Ile Trp Val Pro Gln Ile Pro Gln  
 245 250 255  
 Thr Leu Pro Ser Ser Tyr Pro Asn Gln Tyr Phe Ser Gln Asp Asn Asn  
 260 265 270  
 Ile Gln Phe Gly Met Tyr Asn Lys Glu Thr Ser Pro Glu Val Val Ser  
 275 280 285  
 Phe Ala Pro Ile Gln Asn Met Lys Gln Gln Gly Gln Asn Asn Lys Arg  
 290 295 300

047-E2F-PCT.ST25.txt

Trp Tyr Asp Asp Gly Gly Phe Thr Val Pro Gln Ile Thr Pro Pro Pro  
305 310 315 320

Leu Ser Ser Asn Lys Lys Phe Arg Ser Phe Trp  
325 330

<210> 317

<211> 1236

<212> DNA

<213> Arabidopsis thaliana

<400> 317

atgctagaag gagcaaagtt caacgtgctt gctgtttggga atcatcacia caacgacaac	60
aattactatg cttttacgca agagttttat caaaaactta atgaagggtc aaacatgtcc	120
atggagagta tgcagacgag taacgctgga ggatctgtct caatgtctgt ggataacagt	180
agcgtttggtt ccagcgatgc tcttattggc caccggggtt tgaagcctgt acgccattac	240
tcactctcgg ttggtcaaag cgtgtttcgc ccgggaagag ttacccatgc gttgaatgat	300
gatgctttgg ctcaagcact gatggatacc aggtatccaa ctgaagggtc gacgaactat	360
gatgagtggg cgattgatct gaggaactc aacatgggtc ctgcctttgc tcaagggggt	420
tttggtaaat tatacaaagg gacatacaac ggtgaagatg tagctatcaa aatacttgag	480
cggccagaga acagcccaga aaaggcacag ttcattggaac aacagtttca gcaagaggtg	540
tctatgcttg ctaatttgaa gcacccaaac attgtgaggt tcattggtgc atgtcgcaag	600
ccaatggtgt ggtgtatagt gactgaatac gccaaaggag gttcagttag gacgtttttg	660
actaggagac agaaccgagc cgtccctttg aagtttagctg ttaaacaggc tttggatggt	720
gctaggggta tggcttatgt ccatggacgc aacttcatac acagagatct caagtcagat	780
aaccttctca tctcagcaga taagtccatc aagattgcag attttggtgt tgcaagaatt	840
gaagttcaaa ccgaaggaat gacaccagaa actggaactt acagatggat ggctccagag	900
atgatacagc atagagccta caatcaaaaa gtggatgtgt atagtttcgg gattgtgctg	960
tgggagttaa tcacaggact cttaccgttc cagaacatga cagctgtaca ggcagcgttt	1020
gcggttgtaa acagaggagt gcgtccaaca gtcccaaacg attgtctccc ggtgctgagt	1080
gacattatga ctcgatgttg ggatgctaata ccagaagtcc gtccatgttt tgtggagggt	1140
gtgaagctgc ttgaagctgc agaaacagag ataatgacga cagcgagaaa agcccgtttc	1200
agatgttgct tgagccagcc gatgacgatt gactaa	1236

&lt;210&gt; 318

&lt;211&gt; 411

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 318

Met Leu Glu Gly Ala Lys Phe Asn Val Leu Ala Val Gly Asn His His  
 1 5 10 15

Asn Asn Asp Asn Asn Tyr Tyr Ala Phe Thr Gln Glu Phe Tyr Gln Lys  
 20 25 30

Leu Asn Glu Gly Ser Asn Met Ser Met Glu Ser Met Gln Thr Ser Asn  
 35 40 45

Ala Gly Gly Ser Val Ser Met Ser Val Asp Asn Ser Ser Val Gly Ser  
 50 55 60

Ser Asp Ala Leu Ile Gly His Pro Gly Leu Lys Pro Val Arg His Tyr  
 65 70 75 80

Ser Leu Ser Val Gly Gln Ser Val Phe Arg Pro Gly Arg Val Thr His  
 85 90 95

Ala Leu Asn Asp Asp Ala Leu Ala Gln Ala Leu Met Asp Thr Arg Tyr  
 100 105 110

Pro Thr Glu Gly Leu Thr Asn Tyr Asp Glu Trp Thr Ile Asp Leu Arg  
 115 120 125

Lys Leu Asn Met Gly Pro Ala Phe Ala Gln Gly Ala Phe Gly Lys Leu  
 130 135 140

Tyr Lys Gly Thr Tyr Asn Gly Glu Asp Val Ala Ile Lys Ile Leu Glu  
 145 150 155 160

Arg Pro Glu Asn Ser Pro Glu Lys Ala Gln Phe Met Glu Gln Gln Phe  
 165 170 175

Gln Gln Glu Val Ser Met Leu Ala Asn Leu Lys His Pro Asn Ile Val  
 180 185 190

Arg Phe Ile Gly Ala Cys Arg Lys Pro Met Val Trp Cys Ile Val Thr  
 195 200 205



047-E2F-PCT.ST25.txt

Glu Tyr Ala Lys Gly Gly Ser Val Arg Gln Phe Leu Thr Arg Arg Gln  
 210 215 220  
 Asn Arg Ala Val Pro Leu Lys Leu Ala Val Lys Gln Ala Leu Asp Val  
 225 230 235 240  
 Ala Arg Gly Met Ala Tyr Val His Gly Arg Asn Phe Ile His Arg Asp  
 245 250 255  
 Leu Lys Ser Asp Asn Leu Leu Ile Ser Ala Asp Lys Ser Ile Lys Ile  
 260 265 270  
 Ala Asp Phe Gly Val Ala Arg Ile Glu Val Gln Thr Glu Gly Met Thr  
 275 280 285  
 Pro Glu Thr Gly Thr Tyr Arg Trp Met Ala Pro Glu Met Ile Gln His  
 290 295 300  
 Arg Ala Tyr Asn Gln Lys Val Asp Val Tyr Ser Phe Gly Ile Val Leu  
 305 310 315 320  
 Trp Glu Leu Ile Thr Gly Leu Leu Pro Phe Gln Asn Met Thr Ala Val  
 325 330 335  
 Gln Ala Ala Phe Ala Val Val Asn Arg Gly Val Arg Pro Thr Val Pro  
 340 345 350  
 Asn Asp Cys Leu Pro Val Leu Ser Asp Ile Met Thr Arg Cys Trp Asp  
 355 360 365  
 Ala Asn Pro Glu Val Arg Pro Cys Phe Val Glu Val Val Lys Leu Leu  
 370 375 380  
 Glu Ala Ala Glu Thr Glu Ile Met Thr Thr Ala Arg Lys Ala Arg Phe  
 385 390 395 400  
 Arg Cys Cys Leu Ser Gln Pro Met Thr Ile Asp  
 405 410

<210> 319

<211> 1383

<212> DNA

<213> Arabidopsis thaliana

047-E2F-PCT.ST25.txt

<400> 319  
atggccaagc ttttcgctag aagaggagcc aaatcaactc tcctcacaac cccaataaat 60  
gctaagatct tggagaaacc cattgaagca ttcaaagttc aaaatcctga tctcgaaatc 120  
ggaatcaaga tcctcaatth cccttggtga gagcttggat tgccagaagg atgcgagaac 180  
cgtgacttca ttaactcata ccaaaaatct gactcatttg acttggttctt gaagtttctt 240  
ttctctacca agtatatgaa acagcagttg gagagtttca ttgaaacaac caaaccgagt 300  
gctctttagtag ccgatatgth cttcccttgg gcaacagaat ccgcgagaga gatcgggtgtt 360  
ccaagacttg tgttccacgg cacatcatcc tttgccttgt gttgttcgta taacatgagg 420  
attcataagc cacacaagaa agtcgcttcg agttctactc catttgtaat ccctgggtctc 480  
cctggagaca tagttattac agaagaccaa gccaatgtca ccaacgaaga aactccattc 540  
ggaaagtttt ggaaagaagt cagggaaatca gagaccagta gctttggtgt tttggtgaat 600  
agcttctacg agctggaatc atcttatgct gattttttacc gtagttttgt ggcgaaaaaa 660  
gcgtggcata taggtccact ttcactatcc aacagaggga ttgcagagaa agccggaaga 720  
gggaaaaagg caaacattga tgagcaagaa tgctcaaath ggcttgactc taagacacct 780  
ggctcagtag tttacttgtc ctttggttagc ggaaccggct taccacaaga acagctgtta 840  
gagattgctt tcggccttga aggtctctga caaaatttca tttgggtggt tagcaaaaat 900  
gaaaaccaag ttgggacagg tgaathgaa gattggttgc ctaaagggtt tgaagagagg 960  
aataaaggaa aagggtgat aatacgcga tgggccccgc aagtgtgat acttgaccac 1020  
aaagcaatcg gaggatttgt gacgcattgc ggatggaact cgactttgga gggcattgcc 1080  
gcagggtgc ctatggtgac ttggccgatg ggggcagaac agttctacaa cgagaagtta 1140  
ttgacaaaag tgttgagaat aggagtgaac gttggagcta ccgagttggt gaaaaaagga 1200  
aagttgatta gtagagcaca agtggagaag gcagtaaggg aagtgattgg tggtgagaag 1260  
gcagaggaaa ggcggctaag ggctaaggag ctgggcgaga tggctaaagc cgctgtggaa 1320  
gaaggagggt cttcttataa tgatgtgaac aagtttatgg aagagctgaa tggtagaaag 1380  
tag 1383

<210> 320

<211> 460

<212> PRT

<213> *Arabidopsis thaliana*

<400> 320

047-E2F-PCT.ST25.txt

Met Ala Lys Leu Phe Ala Arg Arg Gly Ala Lys Ser Thr Leu Leu Thr  
1 5 10 15

Thr Pro Ile Asn Ala Lys Ile Leu Glu Lys Pro Ile Glu Ala Phe Lys  
20 25 30

Val Gln Asn Pro Asp Leu Glu Ile Gly Ile Lys Ile Leu Asn Phe Pro  
35 40 45

Cys Val Glu Leu Gly Leu Pro Glu Gly Cys Glu Asn Arg Asp Phe Ile  
50 55 60

Asn Ser Tyr Gln Lys Ser Asp Ser Phe Asp Leu Phe Leu Lys Phe Leu  
65 70 75 80

Phe Ser Thr Lys Tyr Met Lys Gln Gln Leu Glu Ser Phe Ile Glu Thr  
85 90 95

Thr Lys Pro Ser Ala Leu Val Ala Asp Met Phe Phe Pro Trp Ala Thr  
100 105 110

Glu Ser Ala Glu Lys Ile Gly Val Pro Arg Leu Val Phe His Gly Thr  
115 120 125

Ser Ser Phe Ala Leu Cys Cys Ser Tyr Asn Met Arg Ile His Lys Pro  
130 135 140

His Lys Lys Val Ala Ser Ser Ser Thr Pro Phe Val Ile Pro Gly Leu  
145 150 155 160

Pro Gly Asp Ile Val Ile Thr Glu Asp Gln Ala Asn Val Thr Asn Glu  
165 170 175

Glu Thr Pro Phe Gly Lys Phe Trp Lys Glu Val Arg Glu Ser Glu Thr  
180 185 190

Ser Ser Phe Gly Val Leu Val Asn Ser Phe Tyr Glu Leu Glu Ser Ser  
195 200 205

Tyr Ala Asp Phe Tyr Arg Ser Phe Val Ala Lys Lys Ala Trp His Ile  
210 215 220

Gly Pro Leu Ser Leu Ser Asn Arg Gly Ile Ala Glu Lys Ala Gly Arg  
225 230 235 240

Gly Lys Lys Ala Asn Ile Asp Glu Gln Glu Cys Leu Lys Trp Leu Asp  
245 250 255

047-E2F-PCT.ST25.txt

Ser Lys Thr Pro Gly Ser Val Val Tyr Leu Ser Phe Gly Ser Gly Thr  
260 265 270

Gly Leu Pro Asn Glu Gln Leu Leu Glu Ile Ala Phe Gly Leu Glu Gly  
275 280 285

Ser Gly Gln Asn Phe Ile Trp Val Val Ser Lys Asn Glu Asn Gln Val  
290 295 300

Gly Thr Gly Glu Asn Glu Asp Trp Leu Pro Lys Gly Phe Glu Glu Arg  
305 310 315 320

Asn Lys Gly Lys Gly Leu Ile Ile Arg Gly Trp Ala Pro Gln Val Leu  
325 330 335

Ile Leu Asp His Lys Ala Ile Gly Gly Phe Val Thr His Cys Gly Trp  
340 345 350

Asn Ser Thr Leu Glu Gly Ile Ala Ala Gly Leu Pro Met Val Thr Trp  
355 360 365

Pro Met Gly Ala Glu Gln Phe Tyr Asn Glu Lys Leu Leu Thr Lys Val  
370 375 380

Leu Arg Ile Gly Val Asn Val Gly Ala Thr Glu Leu Val Lys Lys Gly  
385 390 395 400

Lys Leu Ile Ser Arg Ala Gln Val Glu Lys Ala Val Arg Glu Val Ile  
405 410 415

Gly Gly Glu Lys Ala Glu Glu Arg Arg Leu Arg Ala Lys Glu Leu Gly  
420 425 430

Glu Met Ala Lys Ala Ala Val Glu Glu Gly Gly Ser Ser Tyr Asn Asp  
435 440 445

Val Asn Lys Phe Met Glu Glu Leu Asn Gly Arg Lys  
450 455 460

<210> 321

<211> 2586

<212> DNA

<213> Arabidopsis thaliana

## 047-E2F-PCT.ST25.txt

<400> 321  
atgggggtcaa aatcatttgg aaatctatta gacttggcct ctgggggatct tttggacatt 60  
cctcagactc cgagatatct tccaagagtg atgactgttc ctggcattat ctctgacgtt 120  
gatggatatg gaattagtga tggcgattca gatgtcattt cattaccttg ccgtgagcgg 180  
aaaatcattg tggccaattt tcttcctttg aatggtaaaa aggattcaga aactggaaag 240  
tggaattca gtctcgacaa tgattctccc ctgttacatc tcaaggatgg tttttctcca 300  
gagactgaag tcatttatgt tggatcgctc aagacgcatg ttgatgttag tgagcaagac 360  
gaggtttccc ataatctttt tgaggaattc aattgtgtag cgactttcct cccacaagat 420  
gtgcataaaa aattctacct tggcttttgt aaacagcaac tatggccact tttccattac 480  
atgttaccga tgtgtcctga tcatggtgaa cggtttgatc gtggtctttg gcaggcatat 540  
gtttctgcca acaagatatt tgcagataag gtaatgggtg tgattaatct tgaagaagat 600  
tatatctgga ttcattgacta tcatttaatg gttctcccaa cttttttgag aaggcgggtt 660  
cacagggtta agcttggttt cttcctccac agtccattcc cttcttcaga aatttatcga 720  
accttacctg ttcgagagga actactaaga gggctcttaa attgtgactt aattggtttt 780  
cacacgtttg attatgcacg gcatttcttg tcatgctgct gtagaatgct tggattggag 840  
tatgaatcta agagagggca tattgctctt gactacttgg gacgtacagt ttttctgaag 900  
attcttccta taggtattca catggaagg ctggaatccg ttctgaatct tcctgctaca 960  
gctgaaaagc tgaaagagat tcaagaaaag tatcggggta aaaagataat tctcgggtgtt 1020  
gatgacatgg atatatcaa aggtttaagt cttaaaattt tggcctttga acacctcctt 1080  
cagcaatatc ctagcatgct agggaaaata gttcttattc agattgtgaa cccagccaga 1140  
ggctcaggta aagacgttca ggaagcgagg aaagaaacgt atgatactgt taaaagaatc 1200  
aacgagcgtt atggttcaca tgattatgag ccagtgggtc tgattgatcg ccctgttcct 1260  
cggtttgaga agtctgccta ttatgccctg gcagaatgct gcatagtcaa tgcagtgagg 1320  
gatgggatga acttagttcc gtacaagtac actgtttgtc ggcagggaaac tcctagtatg 1380  
aataagtctt tgggagtaag tgatgatttg cctcgcacaa gcacccttgt tctgtccgag 1440  
ttcattgggt gctcgccttc tctaagtggg gcgattaggg ttaatccttg ggacgttgac 1500  
gcggtagccg attcactata ttctgctatt accatgtctg attttgagaa gcaactacga 1560  
cataaaaaac actttcacta cattagtaca catgatgtgg gttattgggc gcgcagcttt 1620  
tcgcaggatt tggagagggc atctcgagat cattacagta aacggtgctg ggggtgtgggt 1680  
tggggttttg gtttcaggct tgtcgctctc tctcctaatt tcagaaggct atccattgag 1740  
caaactgtta gtgcttacag aagatcgagc aagagagcaa tatttcttga ttatgatggt 1800  
acttttagttc ctgagacctc gattgtaaag gaccaagtg ctgaagttat atctgcgttg 1860

047-E2F-PCT.ST25.txt

aaggcactgt gtagtgatcc taacaacact atattttattg ttagcgggag gggaaaagtt 1920  
tctttgagcg agtggcttgc gccatgtgag aatcttgga tagcggctga acatgggttac 1980  
tttacaaggt ggaataagtc ttctgactgg gaaacaagcg gcttatctga tgaccttgag 2040  
tggaagaaag ttgtggaacc tattatgaga ctttatacag agactactga tggatccaat 2100  
atagaagcaa aagagagtgc tttagtctgg catcaccaag atgctgaccc agactttggt 2160  
tcttgtcaag ccaaggaact actggaccat ctagaaactg ttcttgtgaa tgaaccagtt 2220  
attgtgaaca gaggccacca aatcgttgaa gttaagcctc agggagtaag caaagggtt 2280  
gtcaccggga aaattcttag ccgaatgctt gaagatggga tagcgccaga ttttgtggta 2340  
tgcattgggg atgatagatc agacgaggag atgtttgaaa acatatcaac aaccctctca 2400  
gctcaatcat cgtcaatgtc tacagagata ttcgcgtgta ctgtgggaag aaaaccgagc 2460  
aaagccaaat acttcctcga tgaagtaagc gacgtggtga agttgcttca aggacttgcc 2520  
aacacttcga gcccaaagcc taggtaccct tctcacctca gagtctcctt cgaaagcgtg 2580  
gtatga 2586

<210> 322

<211> 861

<212> PRT

<213> Arabidopsis thaliana

<400> 322

Met Gly Ser Lys Ser Phe Gly Asn Leu Leu Asp Leu Ala Ser Gly Asp  
1 5 10 15

Leu Leu Asp Ile Pro Gln Thr Pro Arg Tyr Leu Pro Arg Val Met Thr  
20 25 30

Val Pro Gly Ile Ile Ser Asp Val Asp Gly Tyr Gly Ile Ser Asp Gly  
35 40 45

Asp Ser Asp Val Ile Ser Leu Pro Cys Arg Glu Arg Lys Ile Ile Val  
50 55 60

Ala Asn Phe Leu Pro Leu Asn Gly Lys Lys Asp Ser Glu Thr Gly Lys  
65 70 75 80

Trp Lys Phe Ser Leu Asp Asn Asp Ser Pro Leu Leu His Leu Lys Asp  
85 90 95

047-E2F-PCT.ST25.txt

Gly	Phe	Ser	Pro	Glu	Thr	Glu	Val	Ile	Tyr	Val	Gly	Ser	Leu	Lys	Thr
			100					105					110		
His	Val	Asp	Val	Ser	Glu	Gln	Asp	Glu	Val	Ser	His	Asn	Leu	Phe	Glu
		115					120					125			
Glu	Phe	Asn	Cys	Val	Ala	Thr	Phe	Leu	Pro	Gln	Asp	Val	His	Lys	Lys
	130					135					140				
Phe	Tyr	Leu	Gly	Phe	Cys	Lys	Gln	Gln	Leu	Trp	Pro	Leu	Phe	His	Tyr
145					150					155					160
Met	Leu	Pro	Met	Cys	Pro	Asp	His	Gly	Glu	Arg	Phe	Asp	Arg	Gly	Leu
				165					170					175	
Trp	Gln	Ala	Tyr	Val	Ser	Ala	Asn	Lys	Ile	Phe	Ala	Asp	Lys	Val	Met
			180					185					190		
Gly	Val	Ile	Asn	Leu	Glu	Glu	Asp	Tyr	Ile	Trp	Ile	His	Asp	Tyr	His
		195					200					205			
Leu	Met	Val	Leu	Pro	Thr	Phe	Leu	Arg	Arg	Arg	Phe	His	Arg	Val	Lys
	210					215					220				
Leu	Gly	Phe	Phe	Leu	His	Ser	Pro	Phe	Pro	Ser	Ser	Glu	Ile	Tyr	Arg
225					230					235					240
Thr	Leu	Pro	Val	Arg	Glu	Glu	Leu	Leu	Arg	Gly	Leu	Leu	Asn	Cys	Asp
				245					250					255	
Leu	Ile	Gly	Phe	His	Thr	Phe	Asp	Tyr	Ala	Arg	His	Phe	Leu	Ser	Cys
			260					265					270		
Cys	Cys	Arg	Met	Leu	Gly	Leu	Glu	Tyr	Glu	Ser	Lys	Arg	Gly	His	Ile
		275					280					285			
Ala	Leu	Asp	Tyr	Leu	Gly	Arg	Thr	Val	Phe	Leu	Lys	Ile	Leu	Pro	Ile
	290					295					300				
Gly	Ile	His	Met	Gly	Arg	Leu	Glu	Ser	Val	Leu	Asn	Leu	Pro	Ala	Thr
305					310					315					320
Ala	Glu	Lys	Leu	Lys	Glu	Ile	Gln	Glu	Lys	Tyr	Arg	Gly	Lys	Lys	Ile
				325					330					335	
Ile	Leu	Gly	Val	Asp	Asp	Met	Asp	Ile	Phe	Lys	Gly	Leu	Ser	Leu	Lys
			340					345					350		

## 047-E2F-PCT.ST25.txt

Ile Leu Ala Phe Glu His Leu Leu Gln Gln Tyr Pro Ser Met Leu Gly  
 355 360 365  
 Lys Ile Val Leu Ile Gln Ile Val Asn Pro Ala Arg Gly Ser Gly Lys  
 370 375 380  
 Asp Val Gln Glu Ala Arg Lys Glu Thr Tyr Asp Thr Val Lys Arg Ile  
 385 390 395 400  
 Asn Glu Arg Tyr Gly Ser His Asp Tyr Glu Pro Val Val Leu Ile Asp  
 405 410 415  
 Arg Pro Val Pro Arg Phe Glu Lys Ser Ala Tyr Tyr Ala Leu Ala Glu  
 420 425 430  
 Cys Cys Ile Val Asn Ala Val Arg Asp Gly Met Asn Leu Val Pro Tyr  
 435 440 445  
 Lys Tyr Thr Val Cys Arg Gln Gly Thr Pro Ser Met Asn Lys Ser Leu  
 450 455 460  
 Gly Val Ser Asp Asp Leu Pro Arg Thr Ser Thr Leu Val Leu Ser Glu  
 465 470 475 480  
 Phe Ile Gly Cys Ser Pro Ser Leu Ser Gly Ala Ile Arg Val Asn Pro  
 485 490 495  
 Trp Asp Val Asp Ala Val Ala Asp Ser Leu Tyr Ser Ala Ile Thr Met  
 500 505 510  
 Ser Asp Phe Glu Lys Gln Leu Arg His Lys Lys His Phe His Tyr Ile  
 515 520 525  
 Ser Thr His Asp Val Gly Tyr Trp Ala Arg Ser Phe Ser Gln Asp Leu  
 530 535 540  
 Glu Arg Ala Ser Arg Asp His Tyr Ser Lys Arg Cys Trp Gly Val Gly  
 545 550 555 560  
 Trp Gly Leu Gly Phe Arg Leu Val Ala Leu Ser Pro Asn Phe Arg Arg  
 565 570 575  
 Leu Ser Ile Glu Gln Thr Val Ser Ala Tyr Arg Arg Ser Ser Lys Arg  
 580 585 590  
 Ala Ile Phe Leu Asp Tyr Asp Gly Thr Leu Val Pro Glu Thr Ser Ile  
 595 600 605



047-E2F-PCT.ST25.txt

Val Lys Asp Pro Ser Ala Glu Val Ile Ser Ala Leu Lys Ala Leu Cys  
610 615 620

Ser Asp Pro Asn Asn Thr Ile Phe Ile Val Ser Gly Arg Gly Lys Val  
625 630 635 640

Ser Leu Ser Glu Trp Leu Ala Pro Cys Glu Asn Leu Gly Ile Ala Ala  
645 650 655

Glu His Gly Tyr Phe Thr Arg Trp Asn Lys Ser Ser Asp Trp Glu Thr  
660 665 670

Ser Gly Leu Ser Asp Asp Leu Glu Trp Lys Lys Val Val Glu Pro Ile  
675 680 685

Met Arg Leu Tyr Thr Glu Thr Thr Asp Gly Ser Asn Ile Glu Ala Lys  
690 695 700

Glu Ser Ala Leu Val Trp His His Gln Asp Ala Asp Pro Asp Phe Gly  
705 710 715 720

Ser Cys Gln Ala Lys Glu Leu Leu Asp His Leu Glu Thr Val Leu Val  
725 730 735

Asn Glu Pro Val Ile Val Asn Arg Gly His Gln Ile Val Glu Val Lys  
740 745 750

Pro Gln Gly Val Ser Lys Gly Leu Val Thr Gly Lys Ile Leu Ser Arg  
755 760 765

Met Leu Glu Asp Gly Ile Ala Pro Asp Phe Val Val Cys Ile Gly Asp  
770 775 780

Asp Arg Ser Asp Glu Glu Met Phe Glu Asn Ile Ser Thr Thr Leu Ser  
785 790 795 800

Ala Gln Ser Ser Ser Met Ser Thr Glu Ile Phe Ala Cys Thr Val Gly  
805 810 815

Arg Lys Pro Ser Lys Ala Lys Tyr Phe Leu Asp Glu Val Ser Asp Val  
820 825 830

Val Lys Leu Leu Gln Gly Leu Ala Asn Thr Ser Ser Pro Lys Pro Arg  
835 840 845

Tyr Pro Ser His Leu Arg Val Ser Phe Glu Ser Val Val  
Page 507

850

855

<210> 323

<211> 2634

<212> DNA

<213> *Arabidopsis thaliana*

<400> 323

atggtaccat	cagagccgcc	taatcctggt	gggggtggtg	aaaatgttcc	gccttcgata	60
ttaggaggac	aaggaggagc	tcctcttcct	tctcaaccag	catttccttc	acttgtctct	120
ccgcgtactc	agtttggtaa	caatatgagt	atgagtatgc	ttgggaatgc	tccaaatata	180
tcttctcttc	tcaataatca	gtcttttgta	aatggtatcc	ctggttctat	gatttctatg	240
gatacaagtg	gtgctgagtc	tgacccgatg	tctaacgtcg	ggtttagtgg	tttgctgtct	300
tttaatgcgt	cgagtatggt	gtctccgcgc	tcatcaggtc	aagttcaggg	tcagcagttt	360
tcgaatgttt	cggctaacca	gttggtggct	gagcaacaac	ggaataagaa	aatggagacg	420
cagagttttc	aacatggtca	gcagcagtc	atgcagcagc	agttttcgac	agtgcgtggt	480
ggtggattag	caggtgtggg	acctgttaag	atggagcctg	gtcaggtttc	gaatgatcag	540
cagcatggtc	aagtacaaca	gcagcaacag	aaaatgttga	gaaacctagg	gtcagttaag	600
ttggaaccgc	agcaaattca	ggccatgaga	aatttggtccc	aagtgaaaat	ggaacctcaa	660
cattctgagc	agtcattggt	tctccaacaa	cagcagaggc	aacaacagca	acaacaacaa	720
caacaatttc	ttcaaatgcc	ggggcaatct	ccgcaggctc	aaatgaacat	atttcagcag	780
cagagactta	tgcaacttca	acaacagcaa	ctcttgaaat	ctatgcctca	acagcgtcct	840
caattaccac	agcagttcca	acagcagaat	ttacctctaa	ggccacctct	gaaaccagtg	900
tatgaacctg	gcatgggtgc	tcagcgtctt	acacagtata	tgtacagaca	acaacatagg	960
cctgaagaca	ataatatcga	gttctggaga	aaatttgtag	ctgagtactt	tgctccta	1020
gccaaaaaga	gatggtgcgt	ctctatgtat	ggcagtggtc	ggcaaacaac	aggcgttttc	1080
cctcaggatg	tgtggcactg	tgagatatgt	aaccgaaagc	ctggacgtgg	ttttgaggca	1140
accgccgaag	tccttccgcg	gctgtttaag	attaagtatg	agagtgggac	gttagaagaa	1200
ctgttatatg	tagatatgcc	aagggagtcc	cagaattcat	ctggccaaat	tgtcctggag	1260
tatgcaaaag	caacacaaga	gagtgtcttt	gagcatcttc	gggttggttcg	tgatggccaa	1320
cttcgaatag	tcttctcgcc	agatcttaag	atattctcct	gggaattttg	tgctcggcgg	1380
catgaagagc	ttattccacg	aagacttttg	ataccgcagg	ttagtcagct	tggatcggca	1440
gctcagaaat	atcaacaagc	tgctcaaaat	gcaacaacag	attctgctct	tccggagcta	1500

047-E2F-PCT.ST25.txt

```

caaaataatt gcaatatgtt tgttgcattt gctagacaat tggcaaaggc cctggaagta 1560
ccacttgtga atgatttggg atacacaaag agatatgttc ggtgtttgca gatctcagag 1620
gtggttaaata gtatgaagga cctgatagat tatagcagag aaacacgaac aggaccaatc 1680
gagagtttag ccaagtttcc tcggagaaca ggcccttcat ctgcactgcc tggtccttct 1740
cctcagcaag ccagcgacca gcttaggcag cagcagcaac aacaacagca gcagcagcaa 1800
cagcaacaac aacaacaaca acaacagcag cagcagcaaa cagtttccca gaatacaaac 1860
agtgatcaaa gtagtaggca agttgcacta atgcagggta atccaagcaa tgggtgtaa 1920
tatgccttta atgcagcctc tgcattccact tccaccagca gcatcgagg gctcatccac 1980
cagaattcaa tgaagggaag acatcagaat gctgcttaca atcctccaaa cagcccctat 2040
ggaggaaact ctgttcagat gcaatcacct agttcctcgg gtaccatggg gccatcatca 2100
tcgcagcaac aacacaacct gccaacattt cagtctccaa catcctcatc taataacaat 2160
aatccctctc aaaacgggat accatctgtt aatcacatgg gttccacaaa ctcaccagca 2220
atgcaacagg caggtgaggt tgatggaaac gagtctagct cgggtgcagaa gatactgaat 2280
gaaatcctga tgaacaacca agctcataat aatagctcag gaggaagcat ggttgggcat 2340
gggtctttcg ggaatgatgg gaaggggtcaa gctaattgaa atagttctgg tgttttactg 2400
atgaatggcc aagtgaacaa caacaacaac acaaattttg gaggtgctgg tgggtttggt 2460
ggtgggattg gtcaatccat ggcagcaaac ggaatcaata atataaacgg taacaatagt 2520
ctcatgaacg gaagagttgg gatgatgggt cgggatccaa acgggtcaaca ggatttagga 2580
aaccaacttt taggagcagt gaatggtttc aacaattttg attggaacgc gtga 2634

```

<210> 324

<211> 877

<212> PRT

<213> Arabidopsis thaliana

<400> 324

Met Val Pro Ser Glu Pro Pro Asn Pro Val Gly Gly Gly Glu Asn Val  
1 5 10 15

Pro Pro Ser Ile Leu Gly Gly Gln Gly Gly Ala Pro Leu Pro Ser Gln  
20 25 30

Pro Ala Phe Pro Ser Leu Val Ser Pro Arg Thr Gln Phe Gly Asn Asn  
35 40 45

047-E2F-PCT.ST25.txt

Met Ser Met Ser Met Leu Gly Asn Ala Pro Asn Ile Ser Ser Leu Leu  
50 55 60

Asn Asn Gln Ser Phe Val Asn Gly Ile Pro Gly Ser Met Ile Ser Met  
65 70 75 80

Asp Thr Ser Gly Ala Glu Ser Asp Pro Met Ser Asn Val Gly Phe Ser  
85 90 95

Gly Leu Ser Ser Phe Asn Ala Ser Ser Met Val Ser Pro Arg Ser Ser  
100 105 110

Gly Gln Val Gln Gly Gln Gln Phe Ser Asn Val Ser Ala Asn Gln Leu  
115 120 125

Leu Ala Glu Gln Gln Arg Asn Lys Lys Met Glu Thr Gln Ser Phe Gln  
130 135 140

His Gly Gln Gln Gln Ser Met Gln Gln Gln Phe Ser Thr Val Arg Gly  
145 150 155 160

Gly Gly Leu Ala Gly Val Gly Pro Val Lys Met Glu Pro Gly Gln Val  
165 170 175

Ser Asn Asp Gln Gln His Gly Gln Val Gln Gln Gln Gln Gln Lys Met  
180 185 190

Leu Arg Asn Leu Gly Ser Val Lys Leu Glu Pro Gln Gln Ile Gln Ala  
195 200 205

Met Arg Asn Leu Ala Gln Val Lys Met Glu Pro Gln His Ser Glu Gln  
210 215 220

Ser Leu Phe Leu Gln Gln Gln Gln Arg Gln Gln Gln Gln Gln Gln Gln  
225 230 235 240

Gln Gln Phe Leu Gln Met Pro Gly Gln Ser Pro Gln Ala Gln Met Asn  
245 250 255

Ile Phe Gln Gln Gln Arg Leu Met Gln Leu Gln Gln Gln Gln Leu Leu  
260 265 270

Lys Ser Met Pro Gln Gln Arg Pro Gln Leu Pro Gln Gln Phe Gln Gln  
275 280 285

Gln Asn Leu Pro Leu Arg Pro Pro Leu Lys Pro Val Tyr Glu Pro Gly  
290 295 300

047-E2F-PCT.ST25.txt

Met Gly Ala Gln Arg Leu Thr Gln Tyr Met Tyr Arg Gln Gln His Arg  
305 310 315 320

Pro Glu Asp Asn Asn Ile Glu Phe Trp Arg Lys Phe Val Ala Glu Tyr  
325 330 335

Phe Ala Pro Asn Ala Lys Lys Arg Trp Cys Val Ser Met Tyr Gly Ser  
340 345 350

Gly Arg Gln Thr Thr Gly Val Phe Pro Gln Asp Val Trp His Cys Glu  
355 360 365

Ile Cys Asn Arg Lys Pro Gly Arg Gly Phe Glu Ala Thr Ala Glu Val  
370 375 380

Leu Pro Arg Leu Phe Lys Ile Lys Tyr Glu Ser Gly Thr Leu Glu Glu  
385 390 395 400

Leu Leu Tyr Val Asp Met Pro Arg Glu Ser Gln Asn Ser Ser Gly Gln  
405 410 415

Ile Val Leu Glu Tyr Ala Lys Ala Thr Gln Glu Ser Val Phe Glu His  
420 425 430

Leu Arg Val Val Arg Asp Gly Gln Leu Arg Ile Val Phe Ser Pro Asp  
435 440 445

Leu Lys Ile Phe Ser Trp Glu Phe Cys Ala Arg Arg His Glu Glu Leu  
450 455 460

Ile Pro Arg Arg Leu Leu Ile Pro Gln Val Ser Gln Leu Gly Ser Ala  
465 470 475 480

Ala Gln Lys Tyr Gln Gln Ala Ala Gln Asn Ala Thr Thr Asp Ser Ala  
485 490 495

Leu Pro Glu Leu Gln Asn Asn Cys Asn Met Phe Val Ala Ser Ala Arg  
500 505 510

Gln Leu Ala Lys Ala Leu Glu Val Pro Leu Val Asn Asp Leu Gly Tyr  
515 520 525

Thr Lys Arg Tyr Val Arg Cys Leu Gln Ile Ser Glu Val Val Asn Ser  
530 535 540

Met Lys Asp Leu Ile Asp Tyr Ser Arg Glu Thr Arg Thr Gly Pro Ile

545 550 560

Glu Ser Leu Ala Lys Phe Pro Arg Arg Thr Gly Pro Ser Ser Ala Leu  
565 570 575

Pro Gly Pro Ser Pro Gln Gln Ala Ser Asp Gln Leu Arg Gln Gln Gln  
580 585 590

Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln  
595 600 605

Gln Gln Gln Gln Gln Thr Val Ser Gln Asn Thr Asn Ser Asp Gln Ser  
610 615 620

Ser Arg Gln Val Ala Leu Met Gln Gly Asn Pro Ser Asn Gly Val Asn  
625 630 635 640

Tyr Ala Phe Asn Ala Ala Ser Ala Ser Thr Ser Thr Ser Ser Ile Ala  
645 650 655

Gly Leu Ile His Gln Asn Ser Met Lys Gly Arg His Gln Asn Ala Ala  
660 665 670

Tyr Asn Pro Pro Asn Ser Pro Tyr Gly Gly Asn Ser Val Gln Met Gln  
675 680 685

Ser Pro Ser Ser Ser Gly Thr Met Val Pro Ser Ser Ser Gln Gln Gln  
690 695 700

His Asn Leu Pro Thr Phe Gln Ser Pro Thr Ser Ser Ser Asn Asn Asn  
705 710 715 720

Asn Pro Ser Gln Asn Gly Ile Pro Ser Val Asn His Met Gly Ser Thr  
725 730 735

Asn Ser Pro Ala Met Gln Gln Ala Gly Glu Val Asp Gly Asn Glu Ser  
740 745 750

Ser Ser Val Gln Lys Ile Leu Asn Glu Ile Leu Met Asn Asn Gln Ala  
755 760 765

His Asn Asn Ser Ser Gly Gly Ser Met Val Gly His Gly Ser Phe Gly  
770 775 780

Asn Asp Gly Lys Gly Gln Ala Asn Val Asn Ser Ser Gly Val Leu Leu  
785 790 795 800

Met Asn Gly Gln Val Asn Asn Asn Asn Asn Thr Asn Ile Gly Gly Ala  
 805 810 815

Gly Gly Phe Gly Gly Gly Ile Gly Gln Ser Met Ala Ala Asn Gly Ile  
 820 825 830

Asn Asn Ile Asn Gly Asn Asn Ser Leu Met Asn Gly Arg Val Gly Met  
 835 840 845

Met Val Arg Asp Pro Asn Gly Gln Gln Asp Leu Gly Asn Gln Leu Leu  
 850 855 860

Gly Ala Val Asn Gly Phe Asn Asn Phe Asp Trp Asn Ala  
 865 870 875

<210> 325

<211> 3306

<212> DNA

<213> Arabidopsis thaliana

<400> 325

atggatatgg	atatggacac	ttcccctagc	tacttcgacc	ccgaggccct	cagtgttagg	60
gatcaattcc	gtcgctatcg	aaagagacac	tctacatcgc	cacatgagga	aatgttgagt	120
tcaaattgtca	gcgagaacag	attactgtat	gacgggcata	acattcatag	tccaacaaat	180
actgcattgc	tccttgaaaa	cattaaggaa	gaggttgaca	actttcacac	tgatcattac	240
gaaggaacac	ctacaaaccc	gatatctgct	tccaggaggg	agagtgttgg	aattcttaat	300
gatgacgatg	aggctttgtt	tcgtcgagta	gaaagtcaat	cactcaaggc	ttgcaagatt	360
gagaatgatg	agttagcggg	gagtggagat	acaacctttg	ctttgtttgc	ttccctgttt	420
gattctgcgc	ttcaaggact	aatgtccatt	ccaaatctaa	tgttgaggct	tgaagaatca	480
tgcaggaatg	tttcacaatc	aattagatat	ggatcagata	ttagacatcg	tgctgtggag	540
gataaactta	tgagacagaa	ggctcagctt	ttgcttggtg	aggctgcctc	ctggtcactt	600
ttatggaacc	tatatggaaa	aggtactgat	gaagttcctg	agaatttgat	cctgatccca	660
tcaacatctc	atgttgaggc	ttgtcagttt	gttttaaacg	accatacagc	tcagctatgc	720
cttcggatag	tcatgtggct	tgaagaactt	gcttcaaaat	cacttgactt	ggaaaggaag	780
gtgcagggat	ctcatgtggg	tacttatctt	cctaattgctg	gagtgtggca	tcacacacaa	840
agatatctca	agaaaaatgg	ctctaacgct	gacactttac	accatctgga	ttttgatgct	900
ccaacacgtg	aacatgctcg	tcttcttcct	gatgactata	aacaagatga	atctgttctt	960

gaggatgtat	ggactttgat	aagggctggg	agaatagaag	aggcatgtga	tctctgcagg	1020
tctgctgggc	agtcattggag	agctgcgact	ttatgccctt	tttctggaat	ggacatgttt	1080
ccttctattg	aggcactggg	aaagaatggg	gaaaatagga	ctctccaggc	catcgagcag	1140
gaaagtggct	ttggcaatca	actgcgtctt	tggaatggg	cttctactg	tgcatcagag	1200
aaaattgcag	agcaggacgg	cggcaaacat	gaagtgtctg	tttttgcaac	tcaatgtagc	1260
aacctgaacc	gcatgttacc	aatttgtact	gattgggagt	cagcttgctg	ggcgatggca	1320
aaatcctggc	ttgatgttca	ggttgatctt	gaactcggcc	aatcaaagcc	tggtttgaca	1380
gaaaggttta	aaagctgcat	tgatgaaagc	cctgaagcta	cgcaaatgg	ttgtcaggct	1440
tcatttgggc	cagaagattg	gcccctccat	gttctaaacc	aacaaccccg	cgaccttctt	1500
gctcttcttc	agaaacttca	ttcaggggaa	atggtgcacg	aagctgttgt	cagaggatgc	1560
aaagagcagc	accgccaaat	tcagatgaac	cttatgttgg	gggatatatc	acatctcctt	1620
gatatcatat	ggtcatggat	agcgccctta	gaagatgata	aaagcaactt	caggcccat	1680
ggagatcctc	atatgataaa	gttcggtgca	cacatggtac	ttgttcttag	gcttctat	1740
actgatgaaa	tcaacgactc	tttcaaggag	aagctcaata	atgttggtga	tcttattctt	1800
catatgtatg	cgatgtttct	atcttcaaaa	caacatgaag	aattggtagg	aatttatgct	1860
tctcagcttg	ctcgccatcg	atgcattgaa	ctttttgtac	acatgatgga	gttaaggatg	1920
catagcagcg	tacatgtgaa	gtacaaaatc	ttcctgtccg	ctatggagta	cttgtcattc	1980
tctcctgtgg	atgattttaca	tggaattttt	gaagaaatag	ttgacagggt	tttgtcaaga	2040
tctcgggaaa	tcaaacttgc	aaaatatgat	ccctcaattg	atgttgcgga	gcagcatcgt	2100
cagcagagtc	ttcaaaaagc	aatagccatt	cagtggctct	gttttacacc	tccatctact	2160
ataaaggatg	tgaaggatgt	tactttccaa	ttacttttgc	gatctttgat	gcacagcaac	2220
atacttttca	gagagtttgc	attgattgcc	atgtggaggg	tgcttgcaac	tcctgtgggt	2280
gcacacacac	ttcttagtta	tcttgctgaa	cctctgaagc	aactctcaga	aaatccagat	2340
accctcgagg	attatgtttc	cgagaatttg	caagagttcc	aagactggaa	tgagtattat	2400
tcctgtgatg	caaaatatcg	caactggctc	aaattccagt	tagagaatgc	tgaagtcact	2460
gaactgtcag	aagaggaaaa	tcagaaagct	gttgtagcag	caaagagac	tctggattct	2520
tctttgtcat	tgcttctcag	acaagacaac	ccctggatga	catttctcga	agaccatgta	2580
ttcgaatcag	aagaatattt	attccttgaa	ttgcatgcaa	ctgcgatgct	ctgtttgcct	2640
tctggtgaat	gtctgcgccc	agatgccact	gtttgtgctg	cactaatgag	tgacttttac	2700
tcttctgtca	gtgaggaagt	tgtttttagat	cgccagttaa	tggtaaatgt	atcgatttcg	2760
tcaagggaca	gctactgcat	cgaggttgtg	ctccggtgtt	tagcaattaa	gggcgatgga	2820
cttgggccac	ataatgcaaa	tgacggtggg	attctaagcg	cagtggctgc	agctggtttt	2880



047-E2F-PCT.ST25.txt

aaaggttcgg atatctatgg aacatatttc tcattcacct atgatttacc tcctttctcc 2940  
atagaaattht ggggatgtga gcttacacgg ttccaggcag gtgttacaat ggatatatcc 3000  
cgcctagacg cttggtattc aagcaaagaa ggctcgcttg aaacacctgc aacttatatt 3060  
gtccgggggtc tctgtagaag atgctgtctt ccagaactcg ttcttcgatc aatgcaggtt 3120  
tctgtttctc taatggagtc gggaaatcca cctgaagatc atgatgaact gattgagctt 3180  
gttgcttctg atgaaactgg ttttctctct ttgttcagtc ggcaacaatt acaggagttc 3240  
atgttatttg agagggagta tcgtatgtcc cagttggagc ttcaagagga actttcatca 3300  
ccttga 3306

<210> 326

<211> 1101

<212> PRT

<213> Arabidopsis thaliana

<400> 326

Met Asp Met Asp Met Asp Thr Ser Pro Ser Tyr Phe Asp Pro Glu Ala  
1 5 10 15

Leu Ser Val Arg Asp Gln Phe Arg Arg Tyr Arg Lys Arg His Ser Thr  
20 25 30

Ser Pro His Glu Glu Met Leu Ser Ser Asn Val Ser Glu Asn Arg Leu  
35 40 45

Leu Tyr Asp Gly His Asn Ile His Ser Pro Thr Asn Thr Ala Leu Leu  
50 55 60

Leu Glu Asn Ile Lys Glu Glu Val Asp Asn Phe His Thr Asp His Tyr  
65 70 75 80

Glu Gly Thr Pro Thr Asn Pro Ile Ser Ala Ser Arg Arg Glu Ser Val  
85 90 95

Gly Ile Leu Asn Asp Asp Asp Glu Ala Leu Phe Arg Arg Val Glu Ser  
100 105 110

Gln Ser Leu Lys Ala Cys Lys Ile Glu Asn Asp Glu Leu Ala Glu Ser  
115 120 125

Gly Asp Thr Thr Phe Ala Leu Phe Ala Ser Leu Phe Asp Ser Ala Leu  
Page 515

130

135

Gln Gly Leu Met Ser Ile Pro Asn Leu Met Leu Arg Leu Glu Glu Ser  
145 150 155 160

Cys Arg Asn Val Ser Gln Ser Ile Arg Tyr Gly Ser Asp Ile Arg His  
165 170 175

Arg Ala Val Glu Asp Lys Leu Met Arg Gln Lys Ala Gln Leu Leu Leu  
180 185 190

Gly Glu Ala Ala Ser Trp Ser Leu Leu Trp Asn Leu Tyr Gly Lys Gly  
195 200 205

Thr Asp Glu Val Pro Glu Asn Leu Ile Leu Ile Pro Ser Thr Ser His  
210 215 220

Leu Glu Ala Cys Gln Phe Val Leu Asn Asp His Thr Ala Gln Leu Cys  
225 230 235 240

Leu Arg Ile Val Met Trp Leu Glu Glu Leu Ala Ser Lys Ser Leu Asp  
245 250 255

Leu Glu Arg Lys Val Gln Gly Ser His Val Gly Thr Tyr Leu Pro Asn  
260 265 270

Ala Gly Val Trp His His Thr Gln Arg Tyr Leu Lys Lys Asn Gly Ser  
275 280 285

Asn Ala Asp Thr Leu His His Leu Asp Phe Asp Ala Pro Thr Arg Glu  
290 295 300

His Ala Arg Leu Leu Pro Asp Asp Tyr Lys Gln Asp Glu Ser Val Leu  
305 310 315 320

Glu Asp Val Trp Thr Leu Ile Arg Ala Gly Arg Ile Glu Glu Ala Cys  
325 330 335

Asp Leu Cys Arg Ser Ala Gly Gln Ser Trp Arg Ala Ala Thr Leu Cys  
340 345 350

Pro Phe Ser Gly Met Asp Met Phe Pro Ser Ile Glu Ala Leu Val Lys  
355 360 365

Asn Gly Glu Asn Arg Thr Leu Gln Ala Ile Glu Gln Glu Ser Gly Phe  
370 375 380

## 047-E2F-PCT.ST25.txt

Gly Asn Gln Leu Arg Leu Trp Lys Trp Ala Ser Tyr Cys Ala Ser Glu  
 385 390 395 400  
 Lys Ile Ala Glu Gln Asp Gly Gly Lys His Glu Val Ala Val Phe Ala  
 405 410 415  
 Thr Gln Cys Ser Asn Leu Asn Arg Met Leu Pro Ile Cys Thr Asp Trp  
 420 425 430  
 Glu Ser Ala Cys Trp Ala Met Ala Lys Ser Trp Leu Asp Val Gln Val  
 435 440 445  
 Asp Leu Glu Leu Ala Gln Ser Lys Pro Gly Leu Thr Glu Arg Phe Lys  
 450 455 460  
 Ser Cys Ile Asp Glu Ser Pro Glu Ala Thr Gln Asn Gly Cys Gln Ala  
 465 470 475 480  
 Ser Phe Gly Pro Glu Asp Trp Pro Leu His Val Leu Asn Gln Gln Pro  
 485 490 495  
 Arg Asp Leu Pro Ala Leu Leu Gln Lys Leu His Ser Gly Glu Met Val  
 500 505 510  
 His Glu Ala Val Val Arg Gly Cys Lys Glu Gln His Arg Gln Ile Gln  
 515 520 525  
 Met Asn Leu Met Leu Gly Asp Ile Ser His Leu Leu Asp Ile Ile Trp  
 530 535 540  
 Ser Trp Ile Ala Pro Leu Glu Asp Asp Gln Ser Asn Phe Arg Pro His  
 545 550 555 560  
 Gly Asp Pro His Met Ile Lys Phe Gly Ala His Met Val Leu Val Leu  
 565 570 575  
 Arg Leu Leu Phe Thr Asp Glu Ile Asn Asp Ser Phe Lys Glu Lys Leu  
 580 585 590  
 Asn Asn Val Gly Asp Leu Ile Leu His Met Tyr Ala Met Phe Leu Phe  
 595 600 605  
 Ser Lys Gln His Glu Glu Leu Val Gly Ile Tyr Ala Ser Gln Leu Ala  
 610 615 620  
 Arg His Arg Cys Ile Glu Leu Phe Val His Met Met Glu Leu Arg Met  
 625 630 635 640

047-E2F-PCT.ST25.txt

His Ser Ser Val His Val Lys Tyr Lys Ile Phe Leu Ser Ala Met Glu  
                   645                  650                  655  
 Tyr Leu Ser Phe Ser Pro Val Asp Asp Leu His Gly Asn Phe Glu Glu  
                   660                  665                  670  
 Ile Val Asp Arg Val Leu Ser Arg Ser Arg Glu Ile Lys Leu Ala Lys  
                   675                  680                  685  
 Tyr Asp Pro Ser Ile Asp Val Ala Glu Gln His Arg Gln Gln Ser Leu  
           690                  695                  700  
 Gln Lys Ala Ile Ala Ile Gln Trp Leu Cys Phe Thr Pro Pro Ser Thr  
 705                  710                  715                  720  
 Ile Lys Asp Val Lys Asp Val Thr Ser Lys Leu Leu Leu Arg Ser Leu  
                   725                  730                  735  
 Met His Ser Asn Ile Leu Phe Arg Glu Phe Ala Leu Ile Ala Met Trp  
                   740                  745                  750  
 Arg Val Pro Ala Thr Pro Val Gly Ala His Thr Leu Leu Ser Tyr Leu  
           755                  760                  765  
 Ala Glu Pro Leu Lys Gln Leu Ser Glu Asn Pro Asp Thr Leu Glu Asp  
           770                  775                  780  
 Tyr Val Ser Glu Asn Leu Gln Glu Phe Gln Asp Trp Asn Glu Tyr Tyr  
 785                  790                  795                  800  
 Ser Cys Asp Ala Lys Tyr Arg Asn Trp Leu Lys Phe Gln Leu Glu Asn  
                   805                  810                  815  
 Ala Glu Val Thr Glu Leu Ser Glu Glu Glu Asn Gln Lys Ala Val Val  
                   820                  825                  830  
 Ala Ala Lys Glu Thr Leu Asp Ser Ser Leu Ser Leu Leu Leu Arg Gln  
           835                  840                  845  
 Asp Asn Pro Trp Met Thr Phe Leu Glu Asp His Val Phe Glu Ser Glu  
           850                  855                  860  
 Glu Tyr Leu Phe Leu Glu Leu His Ala Thr Ala Met Leu Cys Leu Pro  
 865                  870                  875                  880  
 Ser Gly Glu Cys Leu Arg Pro Asp Ala Thr Val Cys Ala Ala Leu Met  
                   885                  890                  895

047-E2F-PCT.ST25.txt

Ser Ala Leu Tyr Ser Ser Val Ser Glu Glu Val Val Leu Asp Arg Gln  
900 905 910

Leu Met Val Asn Val Ser Ile Ser Ser Arg Asp Ser Tyr Cys Ile Glu  
915 920 925

Val Val Leu Arg Cys Leu Ala Ile Lys Gly Asp Gly Leu Gly Pro His  
930 935 940

Asn Ala Asn Asp Gly Gly Ile Leu Ser Ala Val Ala Ala Ala Gly Phe  
945 950 955 960

Lys Gly Ser Asp Ile Tyr Gly Thr Tyr Phe Ser Phe Thr Tyr Asp Leu  
965 970 975

Pro Pro Phe Ser Ile Glu Ile Trp Gly Cys Glu Leu Thr Arg Phe Gln  
980 985 990

Ala Gly Val Thr Met Asp Ile Ser Arg Leu Asp Ala Trp Tyr Ser Ser  
995 1000 1005

Lys Glu Gly Ser Leu Glu Thr Pro Ala Thr Tyr Ile Val Arg Gly  
1010 1015 1020

Leu Cys Arg Arg Cys Cys Leu Pro Glu Leu Val Leu Arg Ser Met  
1025 1030 1035

Gln Val Ser Val Ser Leu Met Glu Ser Gly Asn Pro Pro Glu Asp  
1040 1045 1050

His Asp Glu Leu Ile Glu Leu Val Ala Ser Asp Glu Thr Gly Phe  
1055 1060 1065

Leu Ser Leu Phe Ser Arg Gln Gln Leu Gln Glu Phe Met Leu Phe  
1070 1075 1080

Glu Arg Glu Tyr Arg Met Ser Gln Leu Glu Leu Gln Glu Glu Leu  
1085 1090 1095

Ser Ser Pro  
1100

<210> 327

<211> 1272

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 327

```

atggcgctcgg tgtcgtcgtc ggatcaagga cctaagacag aagcaggatg tagcggcgga      60
ggaggaggag agagctcggg gacagtggcg gcgagtgatc agatgttggt gtatagaggt      120
tttaagaagg cgaagaagga gagaggttgt acagctaagg agcgtattag taaaatgcct      180
ccgtgcactg ctgggaaaag gagttccata taccggggag tcaccagaca tagatggaca      240
ggtcgttatg aagctcacct ttgggataag agtacctgga accaaaacca gaacaagaag      300
ggaaaacaag tttatctagg agcatatgat gatgaagagg ctgctgctag agcttacgac      360
cttgcctgcct taaaatattg gggtcctggg acacttataa attttccggg gactgattat      420
accagggatt tagaagaaat gcaaaatctc tcaagggaag aataccttgc atctttacgt      480
agaaaaagca gcggtttctc taggggaata gcgaaatatc gtggacttca aagccgatgg      540
gacgcatcag ccagtcgtat gcctggacct gaatacttca gtaacattca ttacggggca      600
ggtgatgatc gtggaacaga aggtgacttt ctaggtagct tttgtctgga aagaaagatt      660
gatctaacag gatacataaa gtggtgggga gccaaacaaga accgtcaacc agaattctca      720
tcaaaagcat cagaggatgc aaacgtcgaa gatgctggta ctgagcttaa aacactggaa      780
cacacatccc atgcaacaga accatacaag gcgccaaacc ttggcgctct ttgtggaact      840
cagagaaaag aaaaagaaat atcatcacca tcaagctctt ctgctttaag catcttgtct      900
cagtcgcctg cttcaagag cctagaggag aaagtgttga agatccaaga aagctgcaat      960
aatgaaaacg atgagaatgc aaaccgtaac atcatcaata tggagaagaa taacggcaag     1020
gcaatagaga aaccagttgt gagtcatgga gttgcttttag gcggtgctgc tgctttgtct     1080
cttcagaaaa gcatgtaccc acttacctct ctcttaacgg ctccattgct caccaactac     1140
aatacattgg atcctcttgc agaccctatt ctctggacac catttcttcc ttcaggatcc     1200
tctcttactt cagaggtgac aaagacagag accagctggt ccacgtacag ctacctcca     1260
caagagaaat ga                                           1272

```

&lt;210&gt; 328

&lt;211&gt; 423

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 328

Met Ala Ser Val Ser Ser Ser Asp Gln Gly Pro Lys Thr Glu Ala Gly  
 1 5 10 15  
 Cys Ser Gly Gly Gly Gly Gly Glu Ser Ser Glu Thr Val Ala Ala Ser  
 20 25 30  
 Asp Gln Met Leu Leu Tyr Arg Gly Phe Lys Lys Ala Lys Lys Glu Arg  
 35 40 45  
 Gly Cys Thr Ala Lys Glu Arg Ile Ser Lys Met Pro Pro Cys Thr Ala  
 50 55 60  
 Gly Lys Arg Ser Ser Ile Tyr Arg Gly Val Thr Arg His Arg Trp Thr  
 65 70 75 80  
 Gly Arg Tyr Glu Ala His Leu Trp Asp Lys Ser Thr Trp Asn Gln Asn  
 85 90 95  
 Gln Asn Lys Lys Gly Lys Gln Val Tyr Leu Gly Ala Tyr Asp Asp Glu  
 100 105 110  
 Glu Ala Ala Ala Arg Ala Tyr Asp Leu Ala Ala Leu Lys Tyr Trp Gly  
 115 120 125  
 Pro Gly Thr Leu Ile Asn Phe Pro Val Thr Asp Tyr Thr Arg Asp Leu  
 130 135 140  
 Glu Glu Met Gln Asn Leu Ser Arg Glu Glu Tyr Leu Ala Ser Leu Arg  
 145 150 155 160  
 Arg Lys Ser Ser Gly Phe Ser Arg Gly Ile Ala Lys Tyr Arg Gly Leu  
 165 170 175  
 Gln Ser Arg Trp Asp Ala Ser Ala Ser Arg Met Pro Gly Pro Glu Tyr  
 180 185 190  
 Phe Ser Asn Ile His Tyr Gly Ala Gly Asp Asp Arg Gly Thr Glu Gly  
 195 200 205  
 Asp Phe Leu Gly Ser Phe Cys Leu Glu Arg Lys Ile Asp Leu Thr Gly  
 210 215 220  
 Tyr Ile Lys Trp Trp Gly Ala Asn Lys Asn Arg Gln Pro Glu Ser Ser  
 225 230 235 240  
 Ser Lys Ala Ser Glu Asp Ala Asn Val Glu Asp Ala Gly Thr Glu Leu  
 245 250 255

047-E2F-PCT.ST25.txt

Lys Thr Leu Glu His Thr Ser His Ala Thr Glu Pro Tyr Lys Ala Pro  
260 265 270

Asn Leu Gly Val Leu Cys Gly Thr Gln Arg Lys Glu Lys Glu Ile Ser  
275 280 285

Ser Pro Ser Ser Ser Ser Ala Leu Ser Ile Leu Ser Gln Ser Pro Ala  
290 295 300

Phe Lys Ser Leu Glu Glu Lys Val Leu Lys Ile Gln Glu Ser Cys Asn  
305 310 315 320

Asn Glu Asn Asp Glu Asn Ala Asn Arg Asn Ile Ile Asn Met Glu Lys  
325 330 335

Asn Asn Gly Lys Ala Ile Glu Lys Pro Val Val Ser His Gly Val Ala  
340 345 350

Leu Gly Gly Ala Ala Ala Leu Ser Leu Gln Lys Ser Met Tyr Pro Leu  
355 360 365

Thr Ser Leu Leu Thr Ala Pro Leu Leu Thr Asn Tyr Asn Thr Leu Asp  
370 375 380

Pro Leu Ala Asp Pro Ile Leu Trp Thr Pro Phe Leu Pro Ser Gly Ser  
385 390 395 400

Ser Leu Thr Ser Glu Val Thr Lys Thr Glu Thr Ser Cys Ser Thr Tyr  
405 410 415

Ser Tyr Leu Pro Gln Glu Lys  
420

<210> 329

<211> 1041

<212> DNA

<213> Arabidopsis thaliana

<400> 329

atggttacga gcagcgatca aatccaaaat ggttctgaag agcaatcaaa aagatcagag	60
atttacacat acgaagcacc atggcagatc tacgcaatga actggagcat tcgtcgagac	120
aagaagtatc ggctcgcaat cacaagcctc atcgagcaat atccgaatcg cgtcgaaatt	180
gttcagcttg atgaatcaaa tgggtgagatt cgttcagatc caaatctctg cttcgaacat	240



047-E2F-PCT.ST25.txt

ccttaccac caacgaaaac cagtttcata cccgataaag aatgtcaaag acccgatctt 300  
 ttagctactt ctagtgattt ctttcgttta tggcgaatct ctgatgatga atctcgtggt 360  
 gagcttaagt cttgtcttag tagtgataag aatagttagt ttagtggtcc aatcacttca 420  
 tttgattgga atgaagctga gcctagacga attggtactt ctagtattga taccacttgt 480  
 actatttggg atatagagcg tgaagttggt gatacccagc ttattgctca tgataaagag 540  
 gtttatgaca ttgcttgggg tgggtgttgg gtctttgcct ctgtctcaga ggatgggtcc 600  
 gtttagagtgt ttgatctccg tgataaggag cattcgacga ttatctacga gagtggtgag 660  
 cctagtactc ctttggtgcg acttagttgg aacaagcagg atccgaggta tatggctact 720  
 gttatcatgg gcagtgctaa aattgttgtg ttggatattc ggtttccggc tcttcctgtc 780  
 gtggagcttc agcgacatca ggctagtgtc aatgctatag cttgggctcc tcatagctct 840  
 tcccatatct gctccgctgg agatgattct caggcgttga tttgggatat atcttccatg 900  
 ggacagcatg ttgaaggtgg tctggatccg attctagctt acacagccgg cgctgagggt 960  
 gagcagcttc agtggctatc ttctcagcct gattgggttg ccattgcctt ctctaacaag 1020  
 ctgcagattc tccgggtctg a 1041

<210> 330

<211> 346

<212> PRT

<213> Arabidopsis thaliana

<400> 330

Met Val Thr Ser Ser Asp Gln Ile Gln Asn Gly Ser Glu Glu Gln Ser  
 1 5 10 15

Lys Arg Ser Glu Ile Tyr Thr Tyr Glu Ala Pro Trp Gln Ile Tyr Ala  
 20 25 30

Met Asn Trp Ser Ile Arg Arg Asp Lys Lys Tyr Arg Leu Ala Ile Thr  
 35 40 45

Ser Leu Ile Glu Gln Tyr Pro Asn Arg Val Glu Ile Val Gln Leu Asp  
 50 55 60

Glu Ser Asn Gly Glu Ile Arg Ser Asp Pro Asn Leu Cys Phe Glu His  
 65 70 75 80

Pro Tyr Pro Pro Thr Lys Thr Ser Phe Ile Pro Asp Lys Glu Cys Gln  
 Page 523

Arg Pro Asp Leu Leu Ala Thr Ser Ser Asp Phe Leu Arg Leu Trp Arg  
100 105 110

Ile Ser Asp Asp Glu Ser Arg Val Glu Leu Lys Ser Cys Leu Ser Ser  
115 120 125

Asp Lys Asn Ser Glu Phe Ser Gly Pro Ile Thr Ser Phe Asp Trp Asn  
130 135 140

Glu Ala Glu Pro Arg Arg Ile Gly Thr Ser Ser Ile Asp Thr Thr Cys  
145 150 155 160

Thr Ile Trp Asp Ile Glu Arg Glu Val Val Asp Thr Gln Leu Ile Ala  
165 170 175

His Asp Lys Glu Val Tyr Asp Ile Ala Trp Gly Gly Val Gly Val Phe  
180 185 190

Ala Ser Val Ser Glu Asp Gly Ser Val Arg Val Phe Asp Leu Arg Asp  
195 200 205

Lys Glu His Ser Thr Ile Ile Tyr Glu Ser Gly Glu Pro Ser Thr Pro  
210 215 220

Leu Val Arg Leu Ser Trp Asn Lys Gln Asp Pro Arg Tyr Met Ala Thr  
225 230 235 240

Val Ile Met Gly Ser Ala Lys Ile Val Val Leu Asp Ile Arg Phe Pro  
245 250 255

Ala Leu Pro Val Val Glu Leu Gln Arg His Gln Ala Ser Val Asn Ala  
260 265 270

Ile Ala Trp Ala Pro His Ser Ser Ser His Ile Cys Ser Ala Gly Asp  
275 280 285

Asp Ser Gln Ala Leu Ile Trp Asp Ile Ser Ser Met Gly Gln His Val  
290 295 300

Glu Gly Gly Leu Asp Pro Ile Leu Ala Tyr Thr Ala Gly Ala Glu Val  
305 310 315 320

Glu Gln Leu Gln Trp Ser Ser Ser Gln Pro Asp Trp Val Ala Ile Ala  
325 330 335

047-E2F-PCT.ST25.txt  
Phe Ser Asn Lys Leu Gln Ile Leu Arg Val  
340 345

<210> 331

<211> 927

<212> DNA

<213> Arabidopsis thaliana

<400> 331

```
atggcctttgg ttcattacat gaatgtttca cgtagcactt ttcctttgag tagatcttca    60
aagattaatt tgagctcatc ttttgcttct ttgccacttc agtttcataa aaacattaag    120
agattagaat cctctgttcc accatcagct tcagcttcag cttcaccggc gtttcctatt    180
gatgttgagt atctccggcg agagtttctc ggccatggag ccactttcga agatattggt    240
gagacatgta ttgctagact aaaactggac aatgggagtt cagcgaatgt gatgttgaca    300
cgtgggatga taacatcgta caaagtccga gtgtggcacg gtggcaaagt ggagcttctc    360
cacacatggg tcgaacaaga ggaggaagaa gtagtgatac gaggaggtgt ttcattctgca    420
tttagatcat cagattctga tgaaatcagt gactggagac tccaagggat cagtggatgat    480
tcaaaggatt gcgttcaa at ggagctgaga agaagtgaca agaagatcaa agagattgaa    540
ctgaaacaga ttattagtct gagagaaaac aacttgagca ttgagctttc tatgacaaac    600
aaaggcattt caccaatcaa gcttgaagggt tgttcacttg taagttatatt gacagtgagt    660
acaccagaag ctacatatgc agttggactg gaagggttcgg attttgtgga aacgactccg    720
tttcttcctc gtttcgggggt ggttcaaggc gagaaggaag aagaaaaacc cggggtttggt    780
ggggaagaag agagcaacta caaacagttg aatagagaga tgagtaggat atacacatgt    840
gctccaaaga gcttctactgt cattgatagg gtagtaatac ttactaaact tcaattatat    900
ttaaatatttc tctgtggatt catatga    927
```

<210> 332

<211> 308

<212> PRT

<213> Arabidopsis thaliana

<400> 332

Met Ala Leu Val His Tyr Met Asn Val Ser Arg Ser Thr Phe Pro Leu  
1 5 10 15

047-E2F-PCT.ST25.txt

Ser Arg Ser Ser Lys Ile Asn Leu Ser Ser Ser Phe Ala Ser Leu Pro  
 20 25 30  
 Leu Gln Phe His Lys Asn Ile Lys Arg Leu Glu Ser Ser Val Pro Pro  
 35 40 45  
 Ser Ala Ser Ala Ser Ala Ser Pro Ala Phe Pro Ile Asp Val Glu Tyr  
 50 55 60  
 Leu Arg Arg Glu Phe Ser Gly His Gly Ala Thr Phe Glu Asp Ile Gly  
 65 70 75 80  
 Glu Thr Cys Ile Ala Arg Leu Lys Leu Asp Asn Gly Ser Ser Ala Asn  
 85 90 95  
 Val Met Leu Thr Arg Gly Met Ile Thr Ser Tyr Lys Val Arg Val Trp  
 100 105 110  
 His Gly Gly Lys Val Glu Leu Leu His Thr Trp Val Glu Gln Glu Glu  
 115 120 125  
 Glu Glu Val Val Ile Arg Gly Gly Val Ser Ser Ala Phe Arg Ser Ser  
 130 135 140  
 Asp Ser Asp Glu Ile Ser Asp Trp Arg Leu Gln Gly Ile Ser Gly Asp  
 145 150 155 160  
 Ser Lys Asp Cys Val Gln Met Glu Leu Arg Arg Ser Asp Lys Lys Ile  
 165 170 175  
 Lys Glu Ile Glu Leu Lys Gln Ile Ile Ser Leu Arg Glu Asn Thr Leu  
 180 185 190  
 Ser Ile Glu Leu Ser Met Thr Asn Lys Gly Ile Ser Pro Ile Lys Leu  
 195 200 205  
 Glu Gly Cys Ser Leu Val Ser Tyr Leu Thr Val Ser Thr Pro Glu Ala  
 210 215 220  
 Thr Tyr Ala Val Gly Leu Glu Gly Ser Asp Phe Val Glu Thr Thr Pro  
 225 230 235 240  
 Phe Leu Pro Arg Phe Gly Val Val Gln Gly Glu Lys Glu Glu Glu Lys  
 245 250 255  
 Pro Gly Phe Gly Gly Glu Glu Glu Ser Asn Tyr Lys Gln Leu Asn Arg  
 260 265 270

047-E2F-PCT.ST25.txt

Glu Met Ser Arg Ile Tyr Thr Cys Ala Pro Lys Ser Phe Thr Val Ile  
275 280 285

Asp Arg Val Val Ile Leu Thr Lys Leu Gln Leu Tyr Leu Asn Phe Leu  
290 295 300

Cys Gly Phe Ile  
305

<210> 333

<211> 939

<212> DNA

<213> Arabidopsis thaliana

<400> 333  
atgcttgaag ttagatcaat ggatatgact ccaaaatcac cagaaccgga atccgaaact 60  
ccgacccgga tccaaccagc taaaccaatc tctttcagta acggaatcat caaacgccac 120  
caccaccacc accacaacaa caacaaagtc acttacaaag aatgtctcaa gaaccacgcg 180  
gcggcgattg gtggtcacgc gcttgacggt tgcggcgaat ttatgccgtc tccttcgtca 240  
acaccttccg atccaacttc tctcaagtgt gcagcttgtg gttgtcaccg taacttccac 300  
cgccgtgaaa ctgacgattc ctccgccgtt ccaccaccgt ctcttcttcc atcttcaaca 360  
acaaccgccg caattgagta tcagcctcat caccgtcatc atctctctcc tccgctagct 420  
cctccgttac cacgtagtcc taattcatct tctccgccgc ctatctcttc ctctacatg 480  
cttttagctc tctccggtaa taataaaacc gcaccgttct cagatctaaa cttcgccgcc 540  
gcggctaacc atctctccgc cagcctggc tcgaggaagc gattcaggac gaagtttagc 600  
tcaaatcaga aagagaagat gcatgaattc gccgatcgaa tcggttggaa gattcagaaa 660  
cgtgacgaag acgaagtctg tgatTTTTgc cgtgagatcg gagttgataa aggtgttctc 720  
aaagtttgga tgcataataa caaaaactcc ttcaaattct ccggcggagg agcaaccacc 780  
gtgcagagaa acgataacgg tatcggcggc gagaacagta acgatgatgg agttcgcggt 840  
ttagctaacg acggtgacgg tggtggtggg agatttgaga gtgatagtgg aggagctgat 900  
ggtggcggaa acgtaaacgc ctgctcgtct tcgctcgtga 939

<210> 334

<211> 312

<212> PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 334

```

Met Leu Glu Val Arg Ser Met Asp Met Thr Pro Lys Ser Pro Glu Pro
 1      5      10      15

Glu Ser Glu Thr Pro Thr Arg Ile Gln Pro Ala Lys Pro Ile Ser Phe
20      25      30

Ser Asn Gly Ile Ile Lys Arg His His His His His Asn Asn Asn
35      40      45

Lys Val Thr Tyr Lys Glu Cys Leu Lys Asn His Ala Ala Ala Ile Gly
50      55      60

Gly His Ala Leu Asp Gly Cys Gly Glu Phe Met Pro Ser Pro Ser Ser
65      70      75      80

Thr Pro Ser Asp Pro Thr Ser Leu Lys Cys Ala Ala Cys Gly Cys His
85      90      95

Arg Asn Phe His Arg Arg Glu Thr Asp Asp Ser Ser Ala Val Pro Pro
100     105     110

Pro Ser Leu Leu Pro Ser Ser Thr Thr Thr Ala Ala Ile Glu Tyr Gln
115     120     125

Pro His His Arg His His Pro Pro Pro Pro Leu Ala Pro Pro Leu Pro
130     135     140

Arg Ser Pro Asn Ser Ser Ser Pro Pro Pro Ile Ser Ser Ser Tyr Met
145     150     155     160

Leu Leu Ala Leu Ser Gly Asn Asn Lys Thr Ala Pro Phe Ser Asp Leu
165     170     175

Asn Phe Ala Ala Ala Ala Asn His Leu Ser Ala Thr Pro Gly Ser Arg
180     185     190

Lys Arg Phe Arg Thr Lys Phe Ser Ser Asn Gln Lys Glu Lys Met His
195     200     205

Glu Phe Ala Asp Arg Ile Gly Trp Lys Ile Gln Lys Arg Asp Glu Asp
210     215     220

```

Glu Val Arg Asp Phe Cys Arg Glu Ile Gly Val Asp Lys Gly Val Leu  
 225 230 235 240

Lys Val Trp Met His Asn Asn Lys Asn Ser Phe Lys Phe Ser Gly Gly  
 245 250 255

Gly Ala Thr Thr Val Gln Arg Asn Asp Asn Gly Ile Gly Gly Glu Asn  
 260 265 270

Ser Asn Asp Asp Gly Val Arg Gly Leu Ala Asn Asp Gly Asp Gly Gly  
 275 280 285

Gly Gly Arg Phe Glu Ser Asp Ser Gly Gly Ala Asp Gly Gly Gly Asn  
 290 295 300

Val Asn Ala Ser Ser Ser Ser Ser  
 305 310

<210> 335

<211> 1065

<212> DNA

<213> Arabidopsis thaliana

<400> 335

atgcagcgac tgcgagagtc accaccaccg aagacgcggt gtcttggaga agcttccgac	60
attattccgg cgcgcgatcg atttctccga tgtgcgaatt tgattctccc atggctaaac	120
cctcgagaac tcgccgttgt tgctcaaacc tgcaaaacct tatccctaata ctcgaaatct	180
ctaaccattc accgatctct cgacgctgca cgatccttgg aaaacatctc aatcccgttt	240
cacaactcca tcgattctca acgatacgcg tacttcatct acacaccttt tcagatcccc	300
gcttcatctc ctctccgcc gcgacaatgg tggggagctg ctgctaata atgtggatcg	360
gagtctagac cttgttttga ctacgtgagt gaaagcggac gttttggggt gagtttagtg	420
gacgagtcag gatgcgaatg cgagaggtgt gaggaaggat actgcaagtg tttagctttc	480
gcggggatgg aagagatagc taacgaatgt gggtcggggt gtggatgcgg gtccgattgt	540
tcgaaccggg ttacgcagaa gggggtttcg gttagtttga agattgtgag agatgagaag	600
aaaggttggt gcttgtacgc tgaccagctt atcaagcaag gccaatcat ctgtgaatat	660
gcaggtgagc tattgacaac agatgaagca cgtagacgtc aaaacattta cgacaaactc	720
agatcaacac aatccttcgc ttcagctctt ttggtcgtac gcgaacacct cccttcagga	780
caagcttggt taaggataaa catcgacgcc acaagaattg ggaacgttgc tagattcatc	840

aaccattcctt gtgacggtgg aaatctctcc actgttctgt tgagaagctc aggagcgttg 900  
 cttcctcggc tctgtttctt tgcagcaaag gacataatcg cagaggagga gttaagtttc 960  
 agttatggag acgtaagtgt ggccggagag aacagagacg acaagctaaa ctgctcttgt 1020  
 ggtagttcct gctgtttggg aacgttgcct tgtgagaata cctga 1065

<210> 336

<211> 354

<212> PRT

<213> *Arabidopsis thaliana*

<400> 336

Met Gln Arg Leu Arg Glu Ser Pro Pro Pro Lys Thr Arg Cys Leu Gly  
 1 5 10 15  
 Glu Ala Ser Asp Ile Ile Pro Ala Ala Asp Arg Phe Leu Arg Cys Ala  
 20 25 30  
 Asn Leu Ile Leu Pro Trp Leu Asn Pro Arg Glu Leu Ala Val Val Ala  
 35 40 45  
 Gln Thr Cys Lys Thr Leu Ser Leu Ile Ser Lys Ser Leu Thr Ile His  
 50 55 60  
 Arg Ser Leu Asp Ala Ala Arg Ser Leu Glu Asn Ile Ser Ile Pro Phe  
 65 70 75 80  
 His Asn Ser Ile Asp Ser Gln Arg Tyr Ala Tyr Phe Ile Tyr Thr Pro  
 85 90 95  
 Phe Gln Ile Pro Ala Ser Ser Pro Pro Pro Pro Arg Gln Trp Trp Gly  
 100 105 110  
 Ala Ala Ala Asn Glu Cys Gly Ser Glu Ser Arg Pro Cys Phe Asp Ser  
 115 120 125  
 Val Ser Glu Ser Gly Arg Phe Gly Val Ser Leu Val Asp Glu Ser Gly  
 130 135 140  
 Cys Glu Cys Glu Arg Cys Glu Glu Gly Tyr Cys Lys Cys Leu Ala Phe  
 145 150 155 160  
 Ala Gly Met Glu Glu Ile Ala Asn Glu Cys Gly Ser Gly Cys Gly Cys  
 165 170 175



047-E2F-PCT.ST25.txt

Gly Ser Asp Cys Ser Asn Arg Val Thr Gln Lys Gly Val Ser Val Ser  
180 185 190

Leu Lys Ile Val Arg Asp Glu Lys Lys Gly Trp Cys Leu Tyr Ala Asp  
195 200 205

Gln Leu Ile Lys Gln Gly Gln Phe Ile Cys Glu Tyr Ala Gly Glu Leu  
210 215 220

Leu Thr Thr Asp Glu Ala Arg Arg Arg Gln Asn Ile Tyr Asp Lys Leu  
225 230 235 240

Arg Ser Thr Gln Ser Phe Ala Ser Ala Leu Leu Val Val Arg Glu His  
245 250 255

Leu Pro Ser Gly Gln Ala Cys Leu Arg Ile Asn Ile Asp Ala Thr Arg  
260 265 270

Ile Gly Asn Val Ala Arg Phe Ile Asn His Ser Cys Asp Gly Gly Asn  
275 280 285

Leu Ser Thr Val Leu Leu Arg Ser Ser Gly Ala Leu Leu Pro Arg Leu  
290 295 300

Cys Phe Phe Ala Ala Lys Asp Ile Ile Ala Glu Glu Glu Leu Ser Phe  
305 310 315 320

Ser Tyr Gly Asp Val Ser Val Ala Gly Glu Asn Arg Asp Asp Lys Leu  
325 330 335

Asn Cys Ser Cys Gly Ser Ser Cys Cys Leu Gly Thr Leu Pro Cys Glu  
340 345 350

Asn Thr

<210> 337

<211> 1005

<212> DNA

<213> Arabidopsis thaliana

<400> 337

atgagtacac gaagaaatgg catttccaag catcagcgag gtgataaatt ttgtggtgaa

60

047-E2F-PCT.ST25.txt

```

gggccaaact ggataactaat tgcaggggggt gcattgttga gcacattgtc cattcgcttt 120
ggatacaagc taaagcagtc gcttgattcg aaacctcaat caaatggctc tgctggatta 180
aaacctaatg gaacatctga gaggcaaaaa tctacaagct gttgcttaca ctctaccaca 240
tcttcctgta cacaaaataa tgatTTTTgt tgcttccgct ccattccagg aactgagagt 300
gtggaaggaa aagaggtgac aagcgagcaa atgatatccg catctgacac ttcactgcct 360
cttgtgacag ttctgtctcc atcgagcaaa gagaatggag tcatgtgggc aacttctcct 420
gatcgcttgg aacttcccc aagaccatac aatcacaatt caaactgctc agattctcct 480
tgcgtatctg aaaccagctc agacattttc agcaaacgag aagtaataca gaaactaagg 540
cagcagctga agagacggga tgacatgata caggaaatgc aagaacagat tctagagctg 600
caaaactcgt ataacgcaca gacggcacac tcaagccatc tccaggcaca gctagacaca 660
ctgaacagag atctgtttga atcagaaaga gaagttcaaa gactgagaaa ggcaattgct 720
gatcacagcg tgggatgtgg cgcgacagc aatggcaaga catctccggt tggaccttgg 780
aatggcgggt ttatggacag cgaaagcaat tatgagtcac aagaaaagag cctaagggat 840
ggagaaagag tagagatgtt gagaaaggaa gtgagtgagc ttaaagaagt gatagatggg 900
aaagagtatc tacttagaag ctataaggag cagaagattg agctttcgca gaaggtaaaa 960
gagttgcagc agagactgga ctcacagctc caaaacttat tgtag 1005

```

<210> 338

<211> 334

<212> PRT

<213> Arabidopsis thaliana

<400> 338

```

Met Ser Thr Arg Arg Asn Gly Ile Ser Lys His Gln Arg Gly Asp Lys
1      5      10     15
Phe Cys Gly Glu Gly Pro Asn Trp Ile Leu Ile Ala Gly Gly Ala Leu
20     25     30
Leu Ser Thr Leu Ser Ile Arg Phe Gly Tyr Lys Leu Lys Gln Ser Leu
35     40     45
Asp Ser Lys Pro Gln Ser Asn Gly Ser Ala Gly Leu Lys Pro Asn Gly
50     55     60
Thr Ser Glu Arg Gln Lys Ser Thr Ser Cys Cys Leu His Ser Thr Thr
65     70     75     80

```

047-E2F-PCT.ST25.txt

Ser Ser Cys Thr Gln Asn Asn Asp Phe Cys Cys Phe Arg Ser Ile Pro  
85 90 95

Gly Thr Glu Ser Val Glu Gly Lys Glu Val Thr Ser Glu Gln Met Ile  
100 105 110

Ser Ala Ser Asp Thr Ser Leu Pro Leu Val Thr Val Pro Ala Pro Ser  
115 120 125

Ser Lys Glu Asn Gly Val Met Trp Ala Thr Ser Pro Asp Arg Leu Glu  
130 135 140

Leu Pro Pro Arg Pro Tyr Asn His Asn Ser Asn Cys Ser Asp Ser Pro  
145 150 155 160

Cys Val Ser Glu Thr Ser Ser Asp Ile Phe Ser Lys Arg Glu Val Ile  
165 170 175

Gln Lys Leu Arg Gln Gln Leu Lys Arg Arg Asp Asp Met Ile Gln Glu  
180 185 190

Met Gln Glu Gln Ile Leu Glu Leu Gln Asn Ser Tyr Asn Ala Gln Thr  
195 200 205

Ala His Ser Ser His Leu Gln Ala Gln Leu Asp Thr Leu Asn Arg Asp  
210 215 220

Leu Phe Glu Ser Glu Arg Glu Val Gln Arg Leu Arg Lys Ala Ile Ala  
225 230 235 240

Asp His Ser Val Gly Cys Gly Ala Asp Ser Asn Gly Lys Thr Ser Pro  
245 250 255

Val Gly Pro Trp Asn Gly Gly Phe Met Asp Ser Glu Ser Asn Tyr Glu  
260 265 270

Ser Gln Glu Lys Ser Leu Arg Asp Gly Glu Arg Val Glu Met Leu Arg  
275 280 285

Lys Glu Val Ser Glu Leu Lys Glu Val Ile Asp Gly Lys Glu Tyr Leu  
290 295 300

Leu Arg Ser Tyr Lys Glu Gln Lys Ile Glu Leu Ser Gln Lys Val Lys  
305 310 315 320

Glu Leu Gln Gln Arg Leu Asp Ser Gln Leu Gln Asn Leu Leu

325

<210> 339

<211> 807

<212> DNA

<213> Arabidopsis thaliana

<400> 339

```

atggctgatg aaatcaatga gataagggaa gagcaagaac agctcgcacc ctttgatcct    60
tccaagaaga aaaagaagaa gaaggttgtg attcaggaac ctgtcgagga cttagcagag    120
tcttcacaga ctgagaaatc tgattcattg cctgttaatg atggctcttg gagttcattt    180
actggaatga agaaaaagaa gaagaagcca actgaatcaa gcttattgaa caacgaaagt    240
gttgatgctg gggaagatct ggatgagatt gctaattgac agcaagaggg ggaagaagga    300
atagttctac agcaacgtta cccctgggag ggaagtgaga gggattacat atatgacgag    360
cttcttggtg gagtctttaa cattctccgt gaaaataatc cggagcttgc tggagatagg    420
cgctgtacag ttatgaggcc tcctcaagtt cttcgtgagg ggacaaagaa gactgtcttt    480
gtcaacttca tggacctttg caagacgatg catcgtcaac cagatcatgt tatgcaatac    540
ttgcttgctg agttgggtac tagtggttcg cttgatgggc agcaaagggt gggtgttaag    600
ggaagggttg cacctaagaa ttttgaagga attttgcggc gatatatcac tgactacgtc    660
atgtgccttg gttgcaagag cccagacacc attctctcca aggagaaccg tctcttcttt    720
ctgagatgtg aaaagtgtgg atctcaacga tctgtggctc cgatcaaaac aggggtttgtt    780
gctcgtgtta gtcgcaggaa gacttga                                     807

```

<210> 340

<211> 268

<212> PRT

<213> Arabidopsis thaliana

<400> 340

Met Ala Asp Glu Ile Asn Glu Ile Arg Glu Glu Gln Glu Gln Leu Ala  
1 5 10 15

Pro Phe Asp Pro Ser Lys Lys Lys Lys Lys Lys Val Val Ile Gln  
20 25 30

Glu Pro Val Glu Asp Leu Ala Glu Ser Ser Gln Thr Glu Lys Ser Asp  
 35 40 45  
 Ser Leu Pro Val Asn Asp Gly Leu Glu Ser Ser Phe Thr Gly Met Lys  
 50 55 60  
 Lys Lys Lys Lys Lys Pro Thr Glu Ser Ser Leu Leu Asn Asn Glu Ser  
 65 70 75 80  
 Val Asp Ala Gly Glu Asp Leu Asp Glu Ile Ala Asn Asp Glu Gln Glu  
 85 90 95  
 Gly Glu Glu Gly Ile Val Leu Gln Gln Arg Tyr Pro Trp Glu Gly Ser  
 100 105 110  
 Glu Arg Asp Tyr Ile Tyr Asp Glu Leu Leu Gly Arg Val Phe Asn Ile  
 115 120 125  
 Leu Arg Glu Asn Asn Pro Glu Leu Ala Gly Asp Arg Arg Arg Thr Val  
 130 135 140  
 Met Arg Pro Pro Gln Val Leu Arg Glu Gly Thr Lys Lys Thr Val Phe  
 145 150 155 160  
 Val Asn Phe Met Asp Leu Cys Lys Thr Met His Arg Gln Pro Asp His  
 165 170 175  
 Val Met Gln Tyr Leu Leu Ala Glu Leu Gly Thr Ser Gly Ser Leu Asp  
 180 185 190  
 Gly Gln Gln Arg Leu Val Val Lys Gly Arg Phe Ala Pro Lys Asn Phe  
 195 200 205  
 Glu Gly Ile Leu Arg Arg Tyr Ile Thr Asp Tyr Val Ile Cys Leu Gly  
 210 215 220  
 Cys Lys Ser Pro Asp Thr Ile Leu Ser Lys Glu Asn Arg Leu Phe Phe  
 225 230 235 240  
 Leu Arg Cys Glu Lys Cys Gly Ser Gln Arg Ser Val Ala Pro Ile Lys  
 245 250 255  
 Thr Gly Phe Val Ala Arg Val Ser Arg Arg Lys Thr  
 260 265

&lt;210&gt; 341

&lt;211&gt; 1704

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 341

atgagtttaa	caaagaaagc	aagtgaacca	aagctaagtg	gtactagtat	caagccaaca	60
acttttaaacc	ctcatgctgc	tgagtttggt	ccgtttactc	tacgtttctcc	ttcatctgga	120
ggtacaagta	ctttggatac	aagactttta	gcttcttcta	gttctgttgg	gaaagcgggt	180
ttggacagga	cagaatcatc	tgcgtcacat	cattcagatg	aagaagcacg	tcagttctgg	240
agtcataaac	ttcctgatga	tataactcca	gattttgggt	tgatgactca	agatgacaat	300
tcttatggat	ctggtagttt	gtcactagct	aacttgctcg	tgtttgacgg	taatgaagct	360
gagaagtttc	cttctgctag	tggaggatat	ggcttttcag	atcaaactgg	attagcttca	420
cataatgcta	atggtaatag	cttggctgat	aagagtagat	atcccatttc	ttcatttggg	480
gaagatcctc	agcgacagag	tttcatgcaa	ctgagtccaa	agccttggga	taagcaaadc	540
atgaatgctg	agcagcttct	tgggaatgac	agggaaagaa	acccttttag	tgggaaatct	600
cgacatggct	ttgttaacga	catgattact	gagagtccag	gggatatgga	ggtgaaccct	660
gtggattttc	tcgcttctca	gttccccgga	ttcgccgctg	agagtctagc	agaagtttat	720
tttgctaattg	ggtgtgattt	gcagttgaca	attgagatgc	ttactcagct	tgagctacaa	780
gtggatggtg	gcttgaatca	aaacataagc	cctaagactt	atgctcctcc	tagtctaact	840
ccaatggatt	ttcctgcact	aagcatctca	aatagccatg	gtattcctgc	ccagtttggt	900
ggggatgatt	tgcaacaaac	tggaaatcat	taccaatctc	ctgaaaagga	taacatgttc	960
ttcttcaagt	cgggaccatc	ggtttctcag	cctgggtgca	tcgattatgt	ttctgctgtc	1020
aggaagttag	catctcagga	ttctgggtatg	tggaaatatg	aacgaaatga	ttcagcagac	1080
tcattctattg	gctctagcag	gaattctggt	gcttacaaaa	gtggccgtgg	gaggagtata	1140
tattctgata	agctgcaaag	tcgagcccaa	actcgacctg	ctcctgtttg	ggtggagacc	1200
ggggatgctg	ttggcaatat	gtattctgag	ttacgcgagg	aagcacgtga	ctatgcacgt	1260
ttgcggaatg	tgtactttga	acaggcacga	caagcatacc	ttgttgggaa	taaggcctta	1320
gccaaagagc	taagtgttaa	gggacagttg	cataatatgc	aaatgaaggc	tgctcatggg	1380
aaagctcaag	aagccattta	ccgccagagg	aaccagtggt	gtcaaggaaa	cagtagaggg	1440
aatgagagaa	tgatagactt	gcatgggtta	catgtgagtg	aagcacttca	ggtgttgaag	1500
cacgaactga	gtgtgttgag	gagcacagct	cgagcaacgc	aagagaggct	tcagatttac	1560
atatgtgtag	ggacaggcca	ccacacaagg	ggttcccgca	ctccggctag	actcccagtt	1620
gctgtacagc	gctacctact	cgaagaagaa	ggtcttgact	attccgaacc	acaggccggt	1680

ctccttagag tcatcatata ctga

1704

&lt;210&gt; 342

&lt;211&gt; 567

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 342

Met Ser Leu Thr Lys Lys Ala Ser Glu Pro Lys Leu Ser Gly Thr Ser  
1 5 10 15

Ile Lys Pro Thr Thr Leu Asn Pro His Ala Ala Glu Phe Val Pro Phe  
20 25 30

Thr Leu Arg Ser Pro Ser Ser Gly Gly Thr Ser Thr Leu Asp Thr Arg  
35 40 45

Leu Leu Ala Ser Ser Ser Ser Val Gly Lys Ala Val Leu Asp Arg Thr  
50 55 60

Glu Ser Ser Ala Ser His His Ser Asp Glu Glu Ala Arg Gln Phe Trp  
65 70 75 80

Ser His Gln Leu Pro Asp Asp Ile Thr Pro Asp Phe Gly Leu Met Thr  
85 90 95

Gln Asp Asp Asn Ser Tyr Gly Ser Gly Ser Leu Ser Leu Ala Asn Leu  
100 105 110

Ser Leu Phe Asp Gly Asn Glu Ala Glu Lys Phe Pro Ser Ala Ser Gly  
115 120 125

Gly Tyr Gly Phe Ser Asp Gln Thr Gly Leu Ala Ser His Asn Ala Asn  
130 135 140

Gly Asn Ser Leu Ala Asp Lys Ser Arg Tyr Pro Ile Ser Ser Phe Gly  
145 150 155 160

Glu Asp Pro Gln Arg Gln Ser Phe Met Gln Leu Ser Pro Lys Pro Trp  
165 170 175

Asp Lys Gln Ile Met Asn Ala Glu Gln Leu Leu Gly Asn Asp Arg Glu  
180 185 190

## 047-E2F-PCT.ST25.txt

Arg Asn Pro Phe Ser Gly Lys Ser Arg His Gly Phe Val Asn Asp Met  
 195 200 205  
 Ile Thr Glu Ser Pro Gly Asp Met Glu Val Asn Pro Val Asp Phe Leu  
 210 215 220  
 Ala Ser Gln Phe Pro Gly Phe Ala Ala Glu Ser Leu Ala Glu Val Tyr  
 225 230 235 240  
 Phe Ala Asn Gly Cys Asp Leu Gln Leu Thr Ile Glu Met Leu Thr Gln  
 245 250 255  
 Leu Glu Leu Gln Val Asp Gly Gly Leu Asn Gln Asn Ile Ser Pro Lys  
 260 265 270  
 Thr Tyr Ala Pro Pro Ser Leu Thr Pro Met Asp Phe Pro Ala Leu Ser  
 275 280 285  
 Ile Ser Asn Ser His Gly Ile Pro Ala Gln Phe Gly Gly Asp Asp Leu  
 290 295 300  
 Gln Gln Thr Gly Asn His Tyr Gln Ser Pro Glu Lys Asp Asn Met Phe  
 305 310 315 320  
 Phe Phe Lys Ser Gly Pro Ser Val Ser Gln Pro Gly Ala Ile Asp Tyr  
 325 330 335  
 Val Ser Ala Val Arg Lys Leu Ala Ser Gln Asp Ser Gly Met Trp Lys  
 340 345 350  
 Tyr Glu Arg Asn Asp Ser Ala Asp Ser Ser Ile Gly Ser Ser Arg Asn  
 355 360 365  
 Ser Gly Ala Tyr Lys Ser Gly Arg Gly Arg Ser Ile Tyr Ser Asp Lys  
 370 375 380  
 Leu Gln Ser Arg Ala Gln Thr Arg Pro Ala Pro Val Trp Val Glu Thr  
 385 390 395 400  
 Gly Asp Ala Val Gly Asn Met Tyr Ser Glu Leu Arg Glu Glu Ala Arg  
 405 410 415  
 Asp Tyr Ala Arg Leu Arg Asn Val Tyr Phe Glu Gln Ala Arg Gln Ala  
 420 425 430  
 Tyr Leu Val Gly Asn Lys Ala Leu Ala Lys Glu Leu Ser Val Lys Gly  
 435 440 445



047-E2F-PCT.ST25.txt

Gln Leu His Asn Met Gln Met Lys Ala Ala His Gly Lys Ala Gln Glu  
 450 455 460

Ala Ile Tyr Arg Gln Arg Asn Pro Val Gly Gln Gly Asn Ser Arg Gly  
 465 470 475 480

Asn Glu Arg Met Ile Asp Leu His Gly Leu His Val Ser Glu Ala Leu  
 485 490 495

Gln Val Leu Lys His Glu Leu Ser Val Leu Arg Ser Thr Ala Arg Ala  
 500 505 510

Thr Gln Glu Arg Leu Gln Ile Tyr Ile Cys Val Gly Thr Gly His His  
 515 520 525

Thr Arg Gly Ser Arg Thr Pro Ala Arg Leu Pro Val Ala Val Gln Arg  
 530 535 540

Tyr Leu Leu Glu Glu Glu Gly Leu Asp Tyr Ser Glu Pro Gln Ala Gly  
 545 550 555 560

Leu Leu Arg Val Ile Ile Tyr  
 565

<210> 343

<211> 1206

<212> DNA

<213> Arabidopsis thaliana

<400> 343

atgggtaata agttgggaag gaagaggcaa gtggtggaag aaaggtatac aaagcctcaa	60
ggtttgtatg tgaataaaga tgtcgacgtt aaaaagctca gaaaactgat tgtggagtct	120
aagcttgctc cttgctatcc tggagacgat gaaagctgtc atgatcttga agaatgtcca	180
atttgttttc tgtactatcc tagcctcaat agatcaagat gttgcatgaa aagcatttgt	240
acagagtgtt ttttgcaaat gaagaatcct aattcagctc ggcctactca gtgccctttt	300
tgtaaaactc ccaactatgc tgtcgagtat cgtggagtca agtcaaagga ggaaaagggc	360
attgaacaag ttgaagagca acgggtaata gaagccaaaa taaggatgag gcagaaagaa	420
atgcaggatg atgaagagaa aatgcagaaa cgtcttgaat catgttcctc tagcacaagc	480
gcaatgactg gcgagatgga atatggttca acttcagcca tatcttataa ctccctcatg	540

047-E2F-PCT.ST25.txt

gatgacgggg aaattgctcc atcgcagaac gcatctgttg ttagacaaca ttcccgcgccg 600  
cgaggaaaca gggaggatga gggtgacgtt gaccttgagg aattgatggt catggaagca 660  
atatggctct ctgttcagga aacagggacg cagagaaatt cagcttcagg ggaaattacc 720  
tcttctaggg agtatgtaac agataatcat agttatgttt cttcaccacc acgagtgact 780  
ccaatcgtag aaccagcaac accgtcttca tcatctggtg ggctttcttg tgcaatctcc 840  
gcacttgctg aacgccaaat gggtggcgaa tcctccagtc acaatcataa tcacaatgtc 900  
aacgtttctt catacagtat gcttcccgga aattgtgaca gttactacga catagaacaa 960  
gaggtagatg gcatagacaa ccatcatcat catcgtcatc attacgagat gggagaaaca 1020  
ggaagcagca acagctatgt aagttcttac atgacaggcg agggcttcca caactttcct 1080  
cctcctccac ctctggtcat tgttccagag agttttgagg aacagatgat gatggctatg 1140  
gctgtgtcta tggcagaggt tcatgccacg acgacatgtg caccaactga agttacctgg 1200  
caataa 1206

<210> 344

<211> 401

<212> PRT

<213> Arabidopsis thaliana

<400> 344

Met Gly Asn Lys Leu Gly Arg Lys Arg Gln Val Val Glu Glu Arg Tyr  
1 5 10 15

Thr Lys Pro Gln Gly Leu Tyr Val Asn Lys Asp Val Asp Val Lys Lys  
20 25 30

Leu Arg Lys Leu Ile Val Glu Ser Lys Leu Ala Pro Cys Tyr Pro Gly  
35 40 45

Asp Asp Glu Ser Cys His Asp Leu Glu Glu Cys Pro Ile Cys Phe Leu  
50 55 60

Tyr Tyr Pro Ser Leu Asn Arg Ser Arg Cys Cys Met Lys Ser Ile Cys  
65 70 75 80

Thr Glu Cys Phe Leu Gln Met Lys Asn Pro Asn Ser Ala Arg Pro Thr  
85 90 95

Gln Cys Pro Phe Cys Lys Thr Pro Asn Tyr Ala Val Glu Tyr Arg Gly  
100 105 110

047-E2F-PCT.ST25.txt

Val Lys Ser Lys Glu Glu Lys Gly Ile Glu Gln Val Glu Glu Gln Arg  
115 120 125

Val Ile Glu Ala Lys Ile Arg Met Arg Gln Lys Glu Met Gln Asp Asp  
130 135 140

Glu Glu Lys Met Gln Lys Arg Leu Glu Ser Cys Ser Ser Ser Thr Ser  
145 150 155 160

Ala Met Thr Gly Glu Met Glu Tyr Gly Ser Thr Ser Ala Ile Ser Tyr  
165 170 175

Asn Ser Leu Met Asp Asp Gly Glu Ile Ala Pro Ser Gln Asn Ala Ser  
180 185 190

Val Val Arg Gln His Ser Arg Pro Arg Gly Asn Arg Glu Asp Glu Val  
195 200 205

Asp Val Asp Leu Glu Glu Leu Met Val Met Glu Ala Ile Trp Leu Ser  
210 215 220

Val Gln Glu Thr Gly Thr Gln Arg Asn Ser Ala Ser Gly Glu Ile Thr  
225 230 235 240

Ser Ser Arg Gln Tyr Val Thr Asp Asn His Ser Tyr Val Ser Ser Pro  
245 250 255

Pro Arg Val Thr Pro Ile Val Glu Pro Ala Thr Pro Ser Ser Ser  
260 265 270

Gly Gly Leu Ser Cys Ala Ile Ser Ala Leu Ala Glu Arg Gln Met Val  
275 280 285

Gly Glu Ser Ser Ser His Asn His Asn His Asn Val Asn Val Ser Ser  
290 295 300

Tyr Ser Met Leu Pro Gly Asn Cys Asp Ser Tyr Tyr Asp Ile Glu Gln  
305 310 315 320

Glu Val Asp Gly Ile Asp Asn His His His Arg His His Tyr Glu  
325 330 335

Met Gly Glu Thr Gly Ser Ser Asn Ser Tyr Val Ser Ser Tyr Met Thr  
340 345 350

Gly Glu Gly Phe His Asn Phe Pro Pro Pro Pro Leu Val Ile Val

355

360

365

Pro Glu Ser Phe Glu Glu Gln Met Met Met Ala Met Ala Val Ser Met  
 370 375 380

Ala Glu Val His Ala Thr Thr Thr Cys Ala Pro Thr Glu Val Thr Trp  
 385 390 395 400

Gln

&lt;210&gt; 345

&lt;211&gt; 2532

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 345

```

atggtgaagt ttacagctga tgagcttcga aggattatgg actacaaaca caacatccgt      60
aatatgtctg ttattgctca tgtcgaccac gggaaatcca ctcttactga ttctttggtt      120
gctgctgctg gtatcattgc ccaagagggtt gctggtgatg ttcgtatgac tgataccaga      180
gctgatgagg ctgaacgtgg tatcactatc aagtccactg gtatttctct ctactacgag      240
atgactgatg aatccttgaa gagtttctact ggagccagag acggaaacga gtacctcatc      300
aatcttattg attcacctgg gcacgttgac ttttcttctg aggttactgc tgctctccgt      360
attactgatg gtgctcttgt ggtggtcgac tgcattgagg gtgtgtgtgt tcagactgag      420
actgtttctac gtcaggctct tggtgagagg attcgacctg tcttgactgt caacaagatg      480
gacagggtgtt tccttgagct tcaggttgat ggtgaggagg cttaccagac tttctcgagg      540
gttattgaga acgctaattgt catcatggct acatacgagg atcctctcct tggatgatgtt      600
caggtttacc cagagaaggg aactgtggcg ttttctgctg gtctccatgg atgggcgttt      660
aactgacca acttcgccaa gatgtatgct tccaagttcg gtgttggtga atctaagatg      720
atggagaggc tctgggggtga gaatttcttt gaccctgcca ccaggaagtg gagtggcaaa      780
aacactgggt ccccgacctg caagcgtggg tttgttcagt tctgctatga acccatcaag      840
caaattattg ctacttgcac gaatgaccag aaggataagt tgtggcctat gttggcgaag      900
cttgggtgtc caatgaagaa tgatgagaag gagcttatgg gtaaacctct aatgaagcgt      960
gttatgcaga cttggctccc tgcaagtact gcactacttg agatgatgat ctttcatttg     1020
ccatctcccc aactgcccga gaggtaccgt gttgagaatc tgtatgaagg tcctcttgat     1080
gatcagtatg caaatgccat caggaactgt gaccccaatg gacctctcat gctctacgta     1140

```

047-E2F-PCT.ST25.txt

tccaagatga ttccagcctc tgacaagggg agattctttg ccttcggtcg tgtctttgct	1200
ggtaagggttt ctactggtat gaaggtcaga atcatgggtc ccaactatat ccctggtgag	1260
aagaaggatc tgtacactaa gagtgttcag aggactgtca tttggatggg taagaggcaa	1320
gagacagtgg aggatgtccc ttgtggtaac actgttgcta tggttgggct ggatcagttc	1380
atcaccaaga atgctacatt gactaatgag aaggaagttg atgctcacc cttcgtgct	1440
atgaagtttt ctgtgtctcc tgttggtcgt gttgctgttc agtgtaaggt tgcgtctgac	1500
cttcccaagt tggttgaggg tctcaagagg ttggccaagt ctgacccat gggtgtgtgt	1560
acaatggagg aatcagggtga gcacattggt gctggtgcag gagaactcca tcttgagatt	1620
tgtcttaagg atcttcagga tgatttcatt ggtggtgctg aaattatcaa gtcagaccct	1680
gtggtctcct tccgtgagac agtttgtgat agatctactc gcacagttat gagtaagtct	1740
cctaacaagc ataaccgtct gtacatggaa gcaagacca tggaggaagg tctagctgag	1800
gctattgatg atggacgtat tggccaagg gatgacccta agatcagatc caagatcttg	1860
gctgaggagt ttggatggga caaggatctt gcaaagaaga tctgggcttt tggacctgaa	1920
accacagggc ctaacatggt tgtcgatatg tgtaaggag ttcagttac taacgaaatc	1980
aaggattcag ttgttgctgg tttccagtgg gcgtccaagg aaggctcctt tgctgaagag	2040
aacatgagag gtatctgttt tgaggatatg gatgtggtgc ttcactctga tgccatccac	2100
agaggaggtg gtcaggttat cccacagcc agaaggggtca tatacgcttc ccagatcaca	2160
gctaagccca gacttttgga gccggtttac atggttgaga tccaggcacc agaggagct	2220
cttgaggaa tctacagtgt gctgaatcag aagcgtggac acgtgttcga ggagatgcag	2280
aggccaggaa ctcccttgta caacatcaag gcatacctgc ctgttggtgga gtctttcgga	2340
ttctcaagtc agcttagggc agcaacctca ggacaggcat tcccacagtg tgtgtttgat	2400
cattgggaaa tgatgtcttc tgaccctctt gagccaggta ctcaggcttc agttttggtg	2460
gctgatatca ggaagaggaa gggattgaag gaagcgatga ctccactatc tgagttcgaa	2520
gacaagcttt aa	2532

<210> 346

<211> 843

<212> PRT

<213> Arabidopsis thaliana

<400> 346

Met Val Lys Phe Thr Ala Asp Glu Leu Arg Arg Ile Met Asp Tyr Lys

1	5														15
His	Asn	Ile	Arg	Asn	Met	Ser	Val	Ile	Ala	His	Val	Asp	His	Gly	Lys
			20					25					30		
Ser	Thr	Leu	Thr	Asp	Ser	Leu	Val	Ala	Ala	Ala	Gly	Ile	Ile	Ala	Gln
		35					40					45			
Glu	Val	Ala	Gly	Asp	Val	Arg	Met	Thr	Asp	Thr	Arg	Ala	Asp	Glu	Ala
	50					55					60				
Glu	Arg	Gly	Ile	Thr	Ile	Lys	Ser	Thr	Gly	Ile	Ser	Leu	Tyr	Tyr	Glu
65					70					75					80
Met	Thr	Asp	Glu	Ser	Leu	Lys	Ser	Phe	Thr	Gly	Ala	Arg	Asp	Gly	Asn
				85					90					95	
Glu	Tyr	Leu	Ile	Asn	Leu	Ile	Asp	Ser	Pro	Gly	His	Val	Asp	Phe	Ser
			100					105					110		
Ser	Glu	Val	Thr	Ala	Ala	Leu	Arg	Ile	Thr	Asp	Gly	Ala	Leu	Val	Val
		115					120					125			
Val	Asp	Cys	Ile	Glu	Gly	Val	Cys	Val	Gln	Thr	Glu	Thr	Val	Leu	Arg
	130					135					140				
Gln	Ala	Leu	Gly	Glu	Arg	Ile	Arg	Pro	Val	Leu	Thr	Val	Asn	Lys	Met
145					150					155					160
Asp	Arg	Cys	Phe	Leu	Glu	Leu	Gln	Val	Asp	Gly	Glu	Glu	Ala	Tyr	Gln
				165					170					175	
Thr	Phe	Ser	Arg	Val	Ile	Glu	Asn	Ala	Asn	Val	Ile	Met	Ala	Thr	Tyr
			180					185					190		
Glu	Asp	Pro	Leu	Leu	Gly	Asp	Val	Gln	Val	Tyr	Pro	Glu	Lys	Gly	Thr
		195					200					205			
Val	Ala	Phe	Ser	Ala	Gly	Leu	His	Gly	Trp	Ala	Phe	Thr	Leu	Thr	Asn
	210					215					220				
Phe	Ala	Lys	Met	Tyr	Ala	Ser	Lys	Phe	Gly	Val	Val	Glu	Ser	Lys	Met
225					230					235					240
Met	Glu	Arg	Leu	Trp	Gly	Glu	Asn	Phe	Phe	Asp	Pro	Ala	Thr	Arg	Lys
				245					250					255	

Trp Ser Gly Lys Asn Thr Gly Ser Pro Thr Cys Lys Arg Gly Phe Val  
 260 265 270  
 Gln Phe Cys Tyr Glu Pro Ile Lys Gln Ile Ile Ala Thr Cys Met Asn  
 275 280 285  
 Asp Gln Lys Asp Lys Leu Trp Pro Met Leu Ala Lys Leu Gly Val Ser  
 290 295 300  
 Met Lys Asn Asp Glu Lys Glu Leu Met Gly Lys Pro Leu Met Lys Arg  
 305 310 315 320  
 Val Met Gln Thr Trp Leu Pro Ala Ser Thr Ala Leu Leu Glu Met Met  
 325 330 335  
 Ile Phe His Leu Pro Ser Pro His Thr Ala Gln Arg Tyr Arg Val Glu  
 340 345 350  
 Asn Leu Tyr Glu Gly Pro Leu Asp Asp Gln Tyr Ala Asn Ala Ile Arg  
 355 360 365  
 Asn Cys Asp Pro Asn Gly Pro Leu Met Leu Tyr Val Ser Lys Met Ile  
 370 375 380  
 Pro Ala Ser Asp Lys Gly Arg Phe Phe Ala Phe Gly Arg Val Phe Ala  
 385 390 395 400  
 Gly Lys Val Ser Thr Gly Met Lys Val Arg Ile Met Gly Pro Asn Tyr  
 405 410 415  
 Ile Pro Gly Glu Lys Lys Asp Leu Tyr Thr Lys Ser Val Gln Arg Thr  
 420 425 430  
 Val Ile Trp Met Gly Lys Arg Gln Glu Thr Val Glu Asp Val Pro Cys  
 435 440 445  
 Gly Asn Thr Val Ala Met Val Gly Leu Asp Gln Phe Ile Thr Lys Asn  
 450 455 460  
 Ala Thr Leu Thr Asn Glu Lys Glu Val Asp Ala His Pro Ile Arg Ala  
 465 470 475 480  
 Met Lys Phe Ser Val Ser Pro Val Val Arg Val Ala Val Gln Cys Lys  
 485 490 495  
 Val Ala Ser Asp Leu Pro Lys Leu Val Glu Gly Leu Lys Arg Leu Ala  
 500 505 510

047-E2F-PCT.ST25.txt

Lys Ser Asp Pro Met Val Val Cys Thr Met Glu Glu Ser Gly Glu His  
 515 520 525  
 Ile Val Ala Gly Ala Gly Glu Leu His Leu Glu Ile Cys Leu Lys Asp  
 530 535 540  
 Leu Gln Asp Asp Phe Met Gly Gly Ala Glu Ile Ile Lys Ser Asp Pro  
 545 550 555 560  
 Val Val Ser Phe Arg Glu Thr Val Cys Asp Arg Ser Thr Arg Thr Val  
 565 570 575  
 Met Ser Lys Ser Pro Asn Lys His Asn Arg Leu Tyr Met Glu Ala Arg  
 580 585 590  
 Pro Met Glu Glu Gly Leu Ala Glu Ala Ile Asp Asp Gly Arg Ile Gly  
 595 600 605  
 Pro Arg Asp Asp Pro Lys Ile Arg Ser Lys Ile Leu Ala Glu Glu Phe  
 610 615 620  
 Gly Trp Asp Lys Asp Leu Ala Lys Lys Ile Trp Ala Phe Gly Pro Glu  
 625 630 635 640  
 Thr Thr Gly Pro Asn Met Val Val Asp Met Cys Lys Gly Val Gln Tyr  
 645 650 655  
 Leu Asn Glu Ile Lys Asp Ser Val Val Ala Gly Phe Gln Trp Ala Ser  
 660 665 670  
 Lys Glu Gly Pro Leu Ala Glu Glu Asn Met Arg Gly Ile Cys Phe Glu  
 675 680 685  
 Val Cys Asp Val Val Leu His Ser Asp Ala Ile His Arg Gly Gly Gly  
 690 695 700  
 Gln Val Ile Pro Thr Ala Arg Arg Val Ile Tyr Ala Ser Gln Ile Thr  
 705 710 715 720  
 Ala Lys Pro Arg Leu Leu Glu Pro Val Tyr Met Val Glu Ile Gln Ala  
 725 730 735  
 Pro Glu Gly Ala Leu Gly Gly Ile Tyr Ser Val Leu Asn Gln Lys Arg  
 740 745 750  
 Gly His Val Phe Glu Glu Met Gln Arg Pro Gly Thr Pro Leu Tyr Asn  
 755 760 765



Ile Lys Ala Tyr Leu Pro Val Val Glu Ser Phe Gly Phe Ser Ser Gln  
 770 775 780

Leu Arg Ala Ala Thr Ser Gly Gln Ala Phe Pro Gln Cys Val Phe Asp  
 785 790 795 800

His Trp Glu Met Met Ser Ser Asp Pro Leu Glu Pro Gly Thr Gln Ala  
 805 810 815

Ser Val Leu Val Ala Asp Ile Arg Lys Arg Lys Gly Leu Lys Glu Ala  
 820 825 830

Met Thr Pro Leu Ser Glu Phe Glu Asp Lys Leu  
 835 840

<210> 347

<211> 1428

<212> DNA

<213> Arabidopsis thaliana

<400> 347

atgccttctt gttcggtaac tgaaatttca aaatgtatcg tctatccgga gaagaagtcc	60
accgtctccg atctccgtct ctccgtctcc gacctcccta tgctctcatg tcattacatt	120
caaaaaggcg tctctctcac cagccctcct ccttcttctt ccttcgacga ccttgtctcc	180
tctctccgcc gttctctctc ctccactctt tccctcttcc ctgcttttagc cggccgtttc	240
tccaccactc ccgccggtca catttccatt gtctgcaacg acgccggagt tgatttcgtc	300
gccgcttccg ctaaacacgt caaactctct gatgttctct taccaggtga agacgttcct	360
ctgcttttcc gtgagttttt cgtcttcgag cgtctcggtta gttacaacgg tcatcataag	420
cctctcgccg ccgttcaagt gacggagctc cacgacggtg tcttcatcgg atgtaccgtg	480
aatcattccg ttactgacgg aacttccttc tggcacttct tcaacacctt tgctgacgtc	540
actagcgggtg cttgtaagat caaacacctt ccagatttct cccgccacac cgtcttcgat	600
tctccggtcg ttcttccagt ccctcccggg ggtccacgtg tcaatttcga cgccgaccaa	660
cctctacggg agagaatttt tcatttcagc agagaggcga ttaccaaact gaaacagagg	720
acgaataaca gagttaacgg aattgagact gccgttaacg atggaaggaa atgtaacgga	780
gagattaacg gaaaaataac aaccgttttg gatagttttt tgaataataa gaagagttat	840
gatcggacgg ctgagatttc atcgttccaa tctctcagcg ctcagctatg gcgatccggt	900

acacgagcga ggaatctcga tccgagcaag acgacgacgt ttcgaatggc ggttaattgc 960  
 cggcaccggc ttgagccgaa gatggatccg tactacttcg gaaacgcgat acagagcata 1020  
 ccgacgttgg cgtctgcggg agatctgcta agcaaagatc tcaggtgggtc cgccgaacag 1080  
 ttacacagga acgtggtggc gcacgacgac gcgacgggtcc gccgtggaat cgccgcttgg 1140  
 gaaagcgatc cgaggctgtt tcctctcgga aatccagatg gagcttcgat cacgatgggg 1200  
 agctcgccga gattcccaat gtacgacaat gatttcggat ggggaaaacc gttagctgtg 1260  
 agaagcggcg gagcgaataa attcgacggg aagatctcgg cgtttcccg tagagaagga 1320  
 aacggaagcg tggatctgga agtagttctg gcgccggaga ctatgactgg gattgagaac 1380  
 gatgctgagt ttatgcaata cgtatcagaa gtcacttacg attgttga 1428

<210> 348

<211> 475

<212> PRT

<213> Arabidopsis thaliana

<400> 348

Met Pro Ser Cys Ser Val Thr Glu Ile Ser Lys Cys Ile Val Tyr Pro  
 1 5 10 15

Glu Lys Lys Ser Thr Val Ser Asp Leu Arg Leu Ser Val Ser Asp Leu  
 20 25 30

Pro Met Leu Ser Cys His Tyr Ile Gln Lys Gly Val Leu Leu Thr Ser  
 35 40 45

Pro Pro Pro Ser Phe Ser Phe Asp Asp Leu Val Ser Ser Leu Arg Arg  
 50 55 60

Ser Leu Ser Ser Thr Leu Ser Leu Phe Pro Ala Leu Ala Gly Arg Phe  
 65 70 75 80

Ser Thr Thr Pro Ala Gly His Ile Ser Ile Val Cys Asn Asp Ala Gly  
 85 90 95

Val Asp Phe Val Ala Ala Ser Ala Lys His Val Lys Leu Ser Asp Val  
 100 105 110

Leu Leu Pro Gly Glu Asp Val Pro Leu Leu Phe Arg Glu Phe Phe Val  
 115 120 125

Phe Glu Arg Leu Val Ser Tyr Asn Gly His His Lys Pro Leu Ala Ala  
 130 135 140  
 Val Gln Val Thr Glu Leu His Asp Gly Val Phe Ile Gly Cys Thr Val  
 145 150 155 160  
 Asn His Ser Val Thr Asp Gly Thr Ser Phe Trp His Phe Phe Asn Thr  
 165 170 175  
 Phe Ala Asp Val Thr Ser Gly Ala Cys Lys Ile Lys His Leu Pro Asp  
 180 185 190  
 Phe Ser Arg His Thr Val Phe Asp Ser Pro Val Val Leu Pro Val Pro  
 195 200 205  
 Pro Gly Gly Pro Arg Val Thr Phe Asp Ala Asp Gln Pro Leu Arg Glu  
 210 215 220  
 Arg Ile Phe His Phe Ser Arg Glu Ala Ile Thr Lys Leu Lys Gln Arg  
 225 230 235 240  
 Thr Asn Asn Arg Val Asn Gly Ile Glu Thr Ala Val Asn Asp Gly Arg  
 245 250 255  
 Lys Cys Asn Gly Glu Ile Asn Gly Lys Ile Thr Thr Val Leu Asp Ser  
 260 265 270  
 Phe Leu Asn Asn Lys Lys Ser Tyr Asp Arg Thr Ala Glu Ile Ser Ser  
 275 280 285  
 Phe Gln Ser Leu Ser Ala Gln Leu Trp Arg Ser Val Thr Arg Ala Arg  
 290 295 300  
 Asn Leu Asp Pro Ser Lys Thr Thr Thr Phe Arg Met Ala Val Asn Cys  
 305 310 315 320  
 Arg His Arg Leu Glu Pro Lys Met Asp Pro Tyr Tyr Phe Gly Asn Ala  
 325 330 335  
 Ile Gln Ser Ile Pro Thr Leu Ala Ser Ala Gly Asp Leu Leu Ser Lys  
 340 345 350  
 Asp Leu Arg Trp Ser Ala Glu Gln Leu His Arg Asn Val Val Ala His  
 355 360 365  
 Asp Asp Ala Thr Val Arg Arg Gly Ile Ala Ala Trp Glu Ser Asp Pro  
 370 375 380

047-E2F-PCT.ST25.txt

Arg Leu Phe Pro Leu Gly Asn Pro Asp Gly Ala Ser Ile Thr Met Gly  
385 390 395 400

Ser Ser Pro Arg Phe Pro Met Tyr Asp Asn Asp Phe Gly Trp Gly Lys  
405 410 415

Pro Leu Ala Val Arg Ser Gly Gly Ala Asn Lys Phe Asp Gly Lys Ile  
420 425 430

Ser Ala Phe Pro Gly Arg Glu Gly Asn Gly Ser Val Asp Leu Glu Val  
435 440 445

Val Leu Ala Pro Glu Thr Met Thr Gly Ile Glu Asn Asp Ala Glu Phe  
450 455 460

Met Gln Tyr Val Ser Glu Val Thr Tyr Asp Cys  
465 470 475

<210> 349

<211> 1902

<212> DNA

<213> Arabidopsis thaliana

<400> 349

atgtcgtcat cgccttttcc agtcttggac aaccgaccaa ttgataagtg gaaggttacg	60
gaattgaaag aagagcttaa aagacggaga ctaacaacaa gaggcttgaa ggaggaattg	120
gttaggcgtc ttgatgaagc acttcgtgct gagcaagaag agtctgaaag gatcaatagt	180
gctactgttg ctgctgctga aaaagccaat caagagcctc agatgtttcc tgttactgta	240
ggatgatcgta atcaaaccac tcctgttact cctgttgaag cggcatttag cactgagaca	300
actcctgtta cagctgagaa aaccccgaaa ccaactcaga ccaagataac aactgaagct	360
tcagctggtg ttgagactac accagccccg gtgttttcag aaccagaggt taacgctgtg	420
ccattcgcta gtgatgaaga tgagaaagag aaagttgatg atgttagaga catagctggt	480
cttgatagtt cagtggttgc acgtgatgca gcagttgtgc aagtggcgtc tagtgagcac	540
aaatctgaga ataatgaacc atttagtggg ttggatggtg gggattctaa ggctcaacca	600
tcagaggcag tgcttgaaaa atctgctatg tacaaccagg tatctgaggt catccccgtt	660
acagggtttg aggtaaaatc tgattgtatt tctactgatt ctgtgtcaaa taatgaaaaa	720
atagaactaa aggataacaa aattgctgat aatgtcaaata tagaacaaaa tgttaataag	780
ttccaagagc catcaacagt cgttggcgaa tcgcatccaa tggatgtcga ggagccactt	840

047-E2F-PCT.ST25.txt

gagcagaaga catctgttgg aggtggggat gacagcaatg ctgcaaacgc agatatgatc 900  
aaagaaaata atattatcga tgcaggcgac tcagaaaagt tgaatttaga tagaagttct 960  
ggtgatgagt ctatggagga tgagccggag acaaagcaat ccgagtcaat tacatctgat 1020  
gataagagtg caaaaattga aatgctttct aaggaggaaa gccgtgctga tatggatgcg 1080  
gggaaagggg aatcccctga aaataaaaagt caccactgg tggcttctga caaaagaaag 1140  
cttcctgcta atgatcaaga agctgttggg aacaatgaac ctgcaaagag gcgccgatgg 1200  
aactctaata gtattaaagt tcctgaagca cagatcacta atagtgttac acccactaca 1260  
acaccaaggt cgactgggtc gaagcgcgac ttctcaaggt ctgactcttc ggtagtgaa 1320  
gatggacca agaacgtgt ggttcctcca tctccaaagg agcctacaaa ttccctcagg 1380  
attgaccgtt tccttaggcc gttcactg aaagctgttc aggagctcct gggtaaaacc 1440  
ggaaatgtca ctagtttctg gatggaccac attaagacc actgctatgt atcgtatccc 1500  
tcggttgaag aagcagcagc aacaagagaa gcagtgtata acctccagt gccacctaata 1560  
ggaggccgcc atctgatagc tgaatttggt agagcagaag aagtaaaaga aaaactggaa 1620  
gctcctctgc ctcctcagcc tcagcatcag ccacaagctc agactctttc gcggccacct 1680  
ccaactgctc ttccaccacc accacctctg gccaaaccac ctcacgttgt agaactgtt 1740  
cctctgcctc cccctcctcc tatagcccct gaggaacaag aacctcccat tgtcactctt 1800  
gatgatctat tcaagaagac aaaagcgatc ccaggatat attacttacc cttgtcagag 1860  
gagcaagttg cagctaaact tgcagcgaat aataacaagt ga 1902

<210> 350

<211> 633

<212> PRT

<213> Arabidopsis thaliana

<400> 350

Met Ser Ser Ser Pro Phe Pro Val Leu Asp Asn Arg Pro Ile Asp Lys  
1 5 10 15

Trp Lys Val Thr Glu Leu Lys Glu Glu Leu Lys Arg Arg Arg Leu Thr  
20 25 30

Thr Arg Gly Leu Lys Glu Glu Leu Val Arg Arg Leu Asp Glu Ala Leu  
35 40 45

Arg Ala Glu Gln Glu Glu Ser Glu Arg Ile Asn Ser Ala Thr Val Ala  
Page 551

50

55

Ala Ala Glu Lys Ala Asn Gln Glu Pro Gln Met Phe Pro Val Thr Val  
65 70 75 80

Gly Asp Arg Asn Gln Thr Thr Pro Val Thr Pro Val Glu Ala Ala Phe  
85 90 95

Ser Thr Glu Thr Thr Pro Val Thr Ala Glu Lys Thr Pro Glu Pro Thr  
100 105 110

Gln Thr Lys Ile Thr Thr Glu Ala Ser Ala Gly Val Glu Thr Thr Pro  
115 120 125

Ala Pro Val Phe Ser Glu Pro Glu Val Asn Ala Val Pro Phe Ala Ser  
130 135 140

Asp Glu Asp Glu Lys Glu Lys Val Asp Asp Val Arg Asp Ile Ala Gly  
145 150 155 160

Leu Asp Ser Ser Val Val Ala Arg Asp Ala Ala Val Val Gln Val Ala  
165 170 175

Ser Ser Glu His Lys Ser Glu Asn Asn Glu Pro Phe Ser Gly Leu Asp  
180 185 190

Gly Gly Asp Ser Lys Ala Gln Pro Ser Glu Ala Val Leu Glu Lys Ser  
195 200 205

Ala Met Tyr Asn Gln Val Ser Glu Val Ile Pro Val Thr Gly Phe Glu  
210 215 220

Val Lys Ser Asp Cys Ile Ser Thr Asp Ser Val Ser Asn Asn Glu Lys  
225 230 235 240

Ile Glu Leu Lys Asp Asn Lys Ile Ala Asp Asn Val Lys Leu Glu Gln  
245 250 255

Asn Val Asn Lys Phe Gln Glu Pro Ser Thr Val Val Gly Glu Ser His  
260 265 270

Pro Met Asp Val Glu Glu Pro Leu Glu Gln Lys Thr Ser Val Gly Gly  
275 280 285

Gly Asp Asp Ser Asn Ala Ala Asn Ala Asp Met Ile Lys Glu Asn Asn  
290 295 300

Ile Ile Asp Ala Gly Asp Ser Glu Lys Leu Asn Leu Asp Arg Ser Ser  
 305 310 315 320  
 Gly Asp Glu Ser Met Glu Asp Glu Pro Glu Thr Lys Gln Ser Glu Ser  
 325 330 335  
 Ile Thr Ser Asp Asp Lys Ser Ala Lys Ile Glu Met Leu Ser Lys Glu  
 340 345 350  
 Glu Ser Arg Ala Asp Met Asp Ala Gly Lys Gly Lys Ser Pro Glu Asn  
 355 360 365  
 Lys Ser His Pro Leu Val Ala Ser Asp Lys Arg Lys Leu Pro Ala Asn  
 370 375 380  
 Asp Gln Glu Ala Val Gly Asn Asn Glu Pro Ala Lys Arg Arg Arg Trp  
 385 390 395 400  
 Asn Ser Asn Ser Ile Lys Val Pro Glu Ala Gln Ile Thr Asn Ser Ala  
 405 410 415  
 Thr Pro Thr Thr Thr Pro Arg Ser Thr Gly Leu Lys Arg Asp Phe Ser  
 420 425 430  
 Arg Ser Asp Ser Ser Val Ser Glu Asp Gly Pro Lys Glu Arg Val Val  
 435 440 445  
 Pro Pro Ser Pro Lys Glu Pro Thr Asn Ser Leu Arg Ile Asp Arg Phe  
 450 455 460  
 Leu Arg Pro Phe Thr Leu Lys Ala Val Gln Glu Leu Leu Gly Lys Thr  
 465 470 475 480  
 Gly Asn Val Thr Ser Phe Trp Met Asp His Ile Lys Thr His Cys Tyr  
 485 490 495  
 Val Ser Tyr Pro Ser Val Glu Glu Ala Ala Ala Thr Arg Glu Ala Val  
 500 505 510  
 Tyr Asn Leu Gln Trp Pro Pro Asn Gly Gly Arg His Leu Ile Ala Glu  
 515 520 525  
 Phe Val Arg Ala Glu Glu Val Lys Glu Lys Leu Glu Ala Pro Leu Pro  
 530 535 540  
 Pro Gln Pro Gln His Gln Pro Gln Ala Gln Thr Leu Ser Arg Pro Pro  
 545 550 555 560

047-E2F-PCT.ST25.txt

Pro Thr Ala Leu Pro Pro Pro Pro Pro Leu Ala Lys Pro Pro His Val  
565 570 575

Val Glu Arg Leu Pro Leu Pro Pro Pro Pro Pro Ile Ala Pro Glu Glu  
580 585 590

Gln Glu Pro Pro Ile Val Thr Leu Asp Asp Leu Phe Lys Lys Thr Lys  
595 600 605

Ala Ile Pro Arg Ile Tyr Tyr Leu Pro Leu Ser Glu Glu Gln Val Ala  
610 615 620

Ala Lys Leu Ala Ala Asn Asn Asn Lys  
625 630

<210> 351

<211> 3168

<212> DNA

<213> Arabidopsis thaliana

<400> 351

```
atggcaccag ttaggaagtc gaggagtgtg aacaagcgtt tcaccaatga aacttcccca 60
agaaaagatg ctgggaaatc gaaaaaaaaat aagctacgta agaagaaatt gtctgacaag 120
ctgggacctc agtggaccag attagaactt gagcgtttct atgatgctta ccgcaagcac 180
ggacaagagt ggagaagggg ggctgctgca attcgggaata gcagggtctgt tgacatgggtg 240
gaagctctat ttaatatgaa tcgggcgtat ttatctctcc ccgagggaac tgcctctgta 300
gctggcctta ttgcatgat gacagatcat tacagtgtca tggaagggag tggcagtga 360
ggagaaggcc atgatgcttc agaagtacca aggaacaac aaaagcgcaa acgtgctaaa 420
cctcaacgta gcgattctcc agaggaagtg gatatacaac agtcaattgg ttcaccagat 480
ggatgcctca cgtttttgaa gcaagcacga gctaattgtt atgtaggaac tcagcgacat 540
gccactggaa aacgtacacc acgggttcct gtacaaactt catttatgag ggatgataga 600
gaaggctcta ctccaccaa taaaagagcc aggaagcaat tcgatgccaa tgatgatgta 660
gcacatTTTT tagcgttagc attaacagat gcatcgagaa ggggaggggtc tccaaaagtt 720
tctgaatcac caaatagaag aacagaactt agcgatagct caccgataaa gagctggggg 780
aaaatgtcgc gaaccagaaa atctcagtct aagcactgtg gcagctccat tttcgaggag 840
tggaatggaaa gtagccgaga aaggaaactt gactctgata aagatactac cttgttgatg 900
gatatggaaa gggctggcga aatggaggct ccgcggaagg ggaaaagagt ctacaagaaa 960
```



## 047-E2F-PCT.ST25.txt

agagtgaag tcgaagaagc agaatgtaat gattctgatg acaatggaga agcatgcagt 1020  
 gccacacaag ggctcagaag taaatcacia agacgaaagg ctgctattga agcctcaaga 1080  
 gagaaatact caccgcgcag cccaaagaaa agagatgaca aacatacttc cggagctttt 1140  
 gatgccctgc aagcattggc cgaattgtca gcttcaatgc ttccagcaaa tttgatggag 1200  
 tcagaattat ctgctcagtt gaaggaagaa agaacagaat acgacatgga cgagaaatct 1260  
 agcacaccag aagctacttc cacaagcagt catggggaaa aagcaaattgt agagccagat 1320  
 gatagtctcc ttcatgcaat ttcttctggt gagaatgcta acaagagaaa gtcaaaacct 1380  
 tcaaggctgg tatccactga ttgtgatgat gttcccacag ggaagctaca accacaaact 1440  
 agtggcagtt taagaaaacg taaaccaaag gtactagggg atgaagctcc agcagagttt 1500  
 agtcagaaca aatccataaa caagaaggaa ttgcctcaag atgagaataa tatgaagtct 1560  
 ttggttaaaa caaaacgcgc tgggtcaagtt cgggctcagt caaaacagat gaaaactggt 1620  
 aaggcggttg aggaatctgc tataacaagt gataagaaaa gacctgggat ggatatagta 1680  
 gcgtcaccta aacaagtttc tgactcgggt ccaaccagtt tatcgcagaa acctccaaac 1740  
 aggcgaaaga agagtctgca gaaaagctta caagaaaagg ctaaattctt tgaaaccact 1800  
 cataaagctg cacgtagttc cagatctctt tcagaacaag agttgttggt aaaggataag 1860  
 cttgctactt ctctgtcgtt tccctttgca cgtcgaagg gcatatttga atggttttat 1920  
 agtgctatcg accatccctg gttttcaag atggagtttg tcgattacct aaatcacgtg 1980  
 gggcttggtc acattccaag acttactcgt cttgaatgga gcgtcattaa aagttctctt 2040  
 ggtagaccac gaagattctc tgagagattt ttacatgaag agcgggagaa acttaaacag 2100  
 taccgcgaat ctgtgcgaaa gcattataca gagcttcgaa cgggtgctag ggaggggctt 2160  
 cctacagatt tggctcggcc attagcagtt gggaacagag tcattgccat ccatcccaa 2220  
 acacgggaga ttcatgatgg aaaaattctc actgttgatc ataacaaatg caatgttctc 2280  
 ttcatgact tgggcgttga gttgggttatg gacattgatt gcatgccttt aaatccactg 2340  
 gaatacatgc cagaggggtc aaggaggcaa attgataagt gcttgtctat gaagaaagaa 2400  
 gcacagctaa gcgggaatac aaaccttggt gtgtctgtgc tattccctcc ttgcggactt 2460  
 gaaaatgtca gcttttccat gaatcctcct ctgaatcagg gtgatatgat tgctccatt 2520  
 ctgcatggta aagtatcaag caacactagt agtccacggc agactaatca ttcatatatc 2580  
 acaacttata acaaagcaaa agaagctgag attcaacggg cacaagcgct acagcatgct 2640  
 ttagatgaaa aggaaatgga gccagagatg ctagaaattg tcaagggttc aaaaacaaga 2700  
 gcgcaagcaa tgggtgatgc agctataaag gctgcatcat ctgtgaagga aggggaagat 2760  
 gtgaacacaa tgatccaaga agccttagag ttggttgga aaaatcagct attacgcagc 2820

047-E2F-PCT.ST25.txt

tctatggtca aacatcacga gcatgtaaatt ggcagtatag agcatcatca caacccatct 2880  
 ccttcaaattg gatcagagcc tgtggctaac aacgatttaa actcacaaga tggttcagag 2940  
 aaaaacgctc aaatgccttc agagcttatt acctcctgtg ttgccacttg gctcatgatt 3000  
 cagatgtgca cggagagaca gtaccctcca gctgatgtcg cacagcttat agacgcagca 3060  
 gtcacaagct tgcagccacg atgccacacag aacctaccga tctacagaga aatccaaacg 3120  
 tgcatgggac ggatcaagac tcaaatcatg tcccttgtac caacttga 3168

<210> 352

<211> 1055

<212> PRT

<213> Arabidopsis thaliana

<400> 352

Met Ala Pro Val Arg Lys Ser Arg Ser Val Asn Lys Arg Phe Thr Asn  
 1 5 10 15

Glu Thr Ser Pro Arg Lys Asp Ala Gly Lys Ser Lys Lys Asn Lys Leu  
 20 25 30

Arg Lys Lys Lys Leu Ser Asp Lys Leu Gly Pro Gln Trp Thr Arg Leu  
 35 40 45

Glu Leu Glu Arg Phe Tyr Asp Ala Tyr Arg Lys His Gly Gln Glu Trp  
 50 55 60

Arg Arg Val Ala Ala Ala Ile Arg Asn Ser Arg Ser Val Asp Met Val  
 65 70 75 80

Glu Ala Leu Phe Asn Met Asn Arg Ala Tyr Leu Ser Leu Pro Glu Gly  
 85 90 95

Thr Ala Ser Val Ala Gly Leu Ile Ala Met Met Thr Asp His Tyr Ser  
 100 105 110

Val Met Glu Gly Ser Gly Ser Glu Gly Glu Gly His Asp Ala Ser Glu  
 115 120 125

Val Pro Arg Lys Gln Gln Lys Arg Lys Arg Ala Lys Pro Gln Arg Ser  
 130 135 140

Asp Ser Pro Glu Glu Val Asp Ile Gln Gln Ser Ile Gly Ser Pro Asp  
 145 150 155 160

047-E2F-PCT.ST25.txt

Gly Cys Leu Thr Phe Leu Lys Gln Ala Arg Ala Asn Val His Val Gly  
 165 170 175  
 Thr Gln Arg His Ala Thr Gly Lys Arg Thr Pro Arg Val Pro Val Gln  
 180 185 190  
 Thr Ser Phe Met Arg Asp Asp Arg Glu Gly Ser Thr Pro Pro Asn Lys  
 195 200 205  
 Arg Ala Arg Lys Gln Phe Asp Ala Asn Asp Asp Val Ala His Phe Leu  
 210 215 220  
 Ala Leu Ala Leu Thr Asp Ala Ser Arg Arg Gly Gly Ser Pro Lys Val  
 225 230 235 240  
 Ser Glu Ser Pro Asn Arg Arg Thr Glu Leu Ser Asp Ser Ser Pro Ile  
 245 250 255  
 Lys Ser Trp Gly Lys Met Ser Arg Thr Arg Lys Ser Gln Ser Lys His  
 260 265 270  
 Cys Gly Ser Ser Ile Phe Glu Glu Trp Met Glu Ser Ser Arg Glu Arg  
 275 280 285  
 Lys Leu Asp Ser Asp Lys Asp Thr Thr Leu Leu Met Asp Met Glu Arg  
 290 295 300  
 Ala Gly Glu Met Glu Ala Pro Arg Lys Gly Lys Arg Val Tyr Lys Lys  
 305 310 315 320  
 Arg Val Lys Val Glu Glu Ala Glu Cys Asn Asp Ser Asp Asp Asn Gly  
 325 330 335  
 Glu Ala Cys Ser Ala Thr Gln Gly Leu Arg Ser Lys Ser Gln Arg Arg  
 340 345 350  
 Lys Ala Ala Ile Glu Ala Ser Arg Glu Lys Tyr Ser Pro Arg Ser Pro  
 355 360 365  
 Lys Lys Arg Asp Asp Lys His Thr Ser Gly Ala Phe Asp Ala Leu Gln  
 370 375 380  
 Ala Leu Ala Glu Leu Ser Ala Ser Met Leu Pro Ala Asn Leu Met Glu  
 385 390 395 400

Ser Glu Leu Ser Ala Gln Leu Lys Glu Glu Arg Thr Glu Tyr Asp Met  
 Page 557

Asp Glu Lys Ser Ser Thr Pro Glu Ala Thr Ser Thr Ser Ser His Gly  
420 425 430

Glu Lys Ala Asn Val Glu Pro Asp Asp Ser Leu Leu His Ala Ile Ser  
435 440 445

Ser Val Glu Asn Ala Asn Lys Arg Lys Ser Lys Pro Ser Arg Leu Val  
450 455 460

Ser Thr Asp Cys Asp Asp Val Pro Thr Gly Lys Leu Gln Pro Gln Thr  
465 470 475 480

Ser Gly Ser Leu Arg Lys Arg Lys Pro Lys Val Leu Gly Asp Glu Ala  
485 490 495

Pro Ala Glu Phe Ser Gln Asn Lys Ser Ile Asn Lys Lys Glu Leu Pro  
500 505 510

Gln Asp Glu Asn Asn Met Lys Ser Leu Val Lys Thr Lys Arg Ala Gly  
515 520 525

Gln Val Pro Ala Gln Ser Lys Gln Met Lys Thr Val Lys Ala Leu Glu  
530 535 540

Glu Ser Ala Ile Thr Ser Asp Lys Lys Arg Pro Gly Met Asp Ile Val  
545 550 555 560

Ala Ser Pro Lys Gln Val Ser Asp Ser Gly Pro Thr Ser Leu Ser Gln  
565 570 575

Lys Pro Pro Asn Arg Arg Lys Lys Ser Leu Gln Lys Ser Leu Gln Glu  
580 585 590

Lys Ala Lys Ser Ser Glu Thr Thr His Lys Ala Ala Arg Ser Ser Arg  
595 600 605

Ser Leu Ser Glu Gln Glu Leu Leu Leu Lys Asp Lys Leu Ala Thr Ser  
610 615 620

Leu Ser Phe Pro Phe Ala Arg Arg Arg Cys Ile Phe Glu Trp Phe Tyr  
625 630 635 640

Ser Ala Ile Asp His Pro Trp Phe Ser Lys Met Glu Phe Val Asp Tyr  
645 650 655

Leu Asn His Val Gly Leu Gly His Ile Pro Arg Leu Thr Arg Leu Glu  
 660 665 670  
 Trp Ser Val Ile Lys Ser Ser Leu Gly Arg Pro Arg Arg Phe Ser Glu  
 675 680 685  
 Arg Phe Leu His Glu Glu Arg Glu Lys Leu Lys Gln Tyr Arg Glu Ser  
 690 695 700  
 Val Arg Lys His Tyr Thr Glu Leu Arg Thr Gly Ala Arg Glu Gly Leu  
 705 710 715 720  
 Pro Thr Asp Leu Ala Arg Pro Leu Ala Val Gly Asn Arg Val Ile Ala  
 725 730 735  
 Ile His Pro Lys Thr Arg Glu Ile His Asp Gly Lys Ile Leu Thr Val  
 740 745 750  
 Asp His Asn Lys Cys Asn Val Leu Phe Asp Asp Leu Gly Val Glu Leu  
 755 760 765  
 Val Met Asp Ile Asp Cys Met Pro Leu Asn Pro Leu Glu Tyr Met Pro  
 770 775 780  
 Glu Gly Leu Arg Arg Gln Ile Asp Lys Cys Leu Ser Met Lys Lys Glu  
 785 790 795 800  
 Ala Gln Leu Ser Gly Asn Thr Asn Leu Gly Val Ser Val Leu Phe Pro  
 805 810 815  
 Pro Cys Gly Leu Glu Asn Val Ser Phe Ser Met Asn Pro Pro Leu Asn  
 820 825 830  
 Gln Gly Asp Met Ile Ala Pro Ile Leu His Gly Lys Val Ser Ser Asn  
 835 840 845  
 Thr Ser Ser Pro Arg Gln Thr Asn His Ser Tyr Ile Thr Thr Tyr Asn  
 850 855 860  
 Lys Ala Lys Glu Ala Glu Ile Gln Arg Ala Gln Ala Leu Gln His Ala  
 865 870 875 880  
 Leu Asp Glu Lys Glu Met Glu Pro Glu Met Leu Glu Ile Val Lys Gly  
 885 890 895  
 Ser Lys Thr Arg Ala Gln Ala Met Val Asp Ala Ala Ile Lys Ala Ala  
 900 905 910

047-E2F-PCT.ST25.txt

Ser Ser Val Lys Glu Gly Glu Asp Val Asn Thr Met Ile Gln Glu Ala  
915 920 925

Leu Glu Leu Val Gly Lys Asn Gln Leu Leu Arg Ser Ser Met Val Lys  
930 935 940

His His Glu His Val Asn Gly Ser Ile Glu His His His Asn Pro Ser  
945 950 955 960

Pro Ser Asn Gly Ser Glu Pro Val Ala Asn Asn Asp Leu Asn Ser Gln  
965 970 975

Asp Gly Ser Glu Lys Asn Ala Gln Met Pro Ser Glu Leu Ile Thr Ser  
980 985 990

Cys Val Ala Thr Trp Leu Met Ile Gln Met Cys Thr Glu Arg Gln Tyr  
995 1000 1005

Pro Pro Ala Asp Val Ala Gln Leu Ile Asp Ala Ala Val Thr Ser  
1010 1015 1020

Leu Gln Pro Arg Cys Pro Gln Asn Leu Pro Ile Tyr Arg Glu Ile  
1025 1030 1035

Gln Thr Cys Met Gly Arg Ile Lys Thr Gln Ile Met Ser Leu Val  
1040 1045 1050

Pro Thr  
1055

<210> 353

<211> 1053

<212> DNA

<213> Arabidopsis thaliana

<400> 353  
atgaagccag tcttctgtgg gaactttgag tatgatgcgc gcgaaggtga cctggaacga 60  
ctattcagga aatacggcaa ggttgagagg gttgatatga aagctggggtt tgcttttgta 120  
tacatggaag atgaaaggga tgcggaagat gccatccgag cacttgaccg ctttgaattt 180  
gggcgtaagg gacgcagact tcgtgttgaa tggacaaaga gtgaacgtgg aggtgataaa 240  
agatctggtg gtggttcaag gagatcctca tccagcatga gaccttccaa gactctcttt 300  
gtgattaact ttgatgcgga taatactagg acccgggatc tagagaaaca ctttgagccg 360

047-E2F-PCT.ST25.txt

tatggaaaga tcgtaaacgt taggatcagg aggaattttg cttttatcca gtacgaggca 420  
caagaggatg ccaccagagc attggatgct tcaaataaca gtaagctgat ggataagggtg 480  
atctcggtagt agtatgctgt gaaggatgat gatgctagag gaaatggaca cagtcctgaa 540  
agacgccgtg ataggtcacc tgaaaggaga aggcgatcac ctagtcctta caaaagagaa 600  
agaggaagcc ctgattatgg ccgaggagct agtcctgttg ctgcctacag aaaggaaagg 660  
accagtcctg actatggctg aagacgtagc ccaagtcctt acaagaaatc aagacgtggc 720  
agtcccgagt atggtcgtga ccgcagaggc aatgatagcc ctcgcaggag ggagagagtc 780  
gcaagcccta ctaagtacag ccgcagtccc aacaacaaga gagagaggat gagccctaata 840  
cacagcccgt tcaagaagga gagtccgaga aatgggggtg gtgaagttga aagtcctatt 900  
gaaaggagag agagatcgag gtctagcccc gagaatggcc aagttgaaag ccctgggtca 960  
ataggaagaa gagacagtga tgggtgggtat gatggtgcag agagcccaat gcagaagagc 1020  
cggctctctc gttcgccacc agctgacgag tga 1053

<210> 354

<211> 350

<212> PRT

<213> Arabidopsis thaliana

<400> 354

Met Lys Pro Val Phe Cys Gly Asn Phe Glu Tyr Asp Ala Arg Glu Gly  
1 5 10 15

Asp Leu Glu Arg Leu Phe Arg Lys Tyr Gly Lys Val Glu Arg Val Asp  
20 25 30

Met Lys Ala Gly Phe Ala Phe Val Tyr Met Glu Asp Glu Arg Asp Ala  
35 40 45

Glu Asp Ala Ile Arg Ala Leu Asp Arg Phe Glu Phe Gly Arg Lys Gly  
50 55 60

Arg Arg Leu Arg Val Glu Trp Thr Lys Ser Glu Arg Gly Gly Asp Lys  
65 70 75 80

Arg Ser Gly Gly Gly Ser Arg Arg Ser Ser Ser Ser Met Arg Pro Ser  
85 90 95

Lys Thr Leu Phe Val Ile Asn Phe Asp Ala Asp Asn Thr Arg Thr Arg  
Page 561

```

100                                     105                                     110
Asp Leu Glu Lys His Phe Glu Pro Tyr Gly Lys Ile Val Asn Val Arg
115                                     120                                     125
Ile Arg Arg Asn Phe Ala Phe Ile Gln Tyr Glu Ala Gln Glu Asp Ala
130                                     135                                     140
Thr Arg Ala Leu Asp Ala Ser Asn Asn Ser Lys Leu Met Asp Lys Val
145                                     150                                     155
Ile Ser Val Glu Tyr Ala Val Lys Asp Asp Asp Ala Arg Gly Asn Gly
165                                     170                                     175
His Ser Pro Glu Arg Arg Arg Asp Arg Ser Pro Glu Arg Arg Arg Arg
180                                     185                                     190
Ser Pro Ser Pro Tyr Lys Arg Glu Arg Gly Ser Pro Asp Tyr Gly Arg
195                                     200                                     205
Gly Ala Ser Pro Val Ala Ala Tyr Arg Lys Glu Arg Thr Ser Pro Asp
210                                     215                                     220
Tyr Gly Arg Arg Arg Ser Pro Ser Pro Tyr Lys Lys Ser Arg Arg Gly
225                                     230                                     235                                     240
Ser Pro Glu Tyr Gly Arg Asp Arg Arg Gly Asn Asp Ser Pro Arg Arg
245                                     250                                     255
Arg Glu Arg Val Ala Ser Pro Thr Lys Tyr Ser Arg Ser Pro Asn Asn
260                                     265                                     270
Lys Arg Glu Arg Met Ser Pro Asn His Ser Pro Phe Lys Lys Glu Ser
275                                     280                                     285
Pro Arg Asn Gly Val Gly Glu Val Glu Ser Pro Ile Glu Arg Arg Glu
290                                     295                                     300
Arg Ser Arg Ser Ser Pro Glu Asn Gly Gln Val Glu Ser Pro Gly Ser
305                                     310                                     315                                     320
Ile Gly Arg Arg Asp Ser Asp Gly Gly Tyr Asp Gly Ala Glu Ser Pro
325                                     330                                     335
Met Gln Lys Ser Arg Ser Pro Arg Ser Pro Pro Ala Asp Glu
340                                     345                                     350

```



&lt;210&gt; 355

&lt;211&gt; 1518

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 355

```

atggcgatgg catcattcgg gcagctaaat ctcgaggaac ctccctccaat ctgggggatct      60
cgcagcgttg attgctttga gaagctcgaa caaattggtg aaggcactta cgggtcaagtt      120
tacatggcta aagaaatcaa aactggtgaa attgtggctc tcaaaaagat acgtatggac      180
aatgaaagag aagggtttcc tataacagct attagagaga taaagattct gaagaagctt      240
catcatgaaa atgtcattca gctgaaagag attgtgactt caccaggctg ggacagggat      300
gaccaaggaa agccagataa taacaaatac aagggtggca tctacatggg ttttgagtac      360
atggatcatg atttgactgg actagcagat cgtcctggac tgagatttac tgttcctcaa      420
attaagtgtt acatgaagca attgcttacc gggcttcact attgtcatgt gaatcaagtg      480
cttcaccgtg atataaaagg ctcaaattct cttatcgaca atgagggaaa tttaaagctg      540
gctgattttg ggcttgacg gtcgtattct catgatcata ctggaaatct tacaatcgt      600
gtcatcacat tgtggtatag gccccctgaa ttactacttg gggctacaaa atatggccca      660
gcaattgaca tgtggtcggg tggttgcata tttgccgaac ttttgcattg aaaaccaatc      720
ttacctggga aaaatgagca agaacaattg aacaagatat ttgagctttg tggatcacct      780
gatgaaaaac tttggccttg ggtttccaag atgccttggt tcaacaattt caagcctgca      840
cggcccttga agaggcgtgt aagagagttc ttcagacact ttgatcgga tgctcttgaa      900
ttactggaga aaatgttggt gcttgatcca gcacagagaa tatcggcaaa ggatgctctt      960
gatgccgagt acttttggac tgatccgttg ccatgtgacc caaagagtct gccacatat      1020
gaatcatcac atgagttcca gacaaagaaa aagcggcaac agcagcgcca aaacgaggaa      1080
gcagcaaaaa gacagaaact gcagcatcca ccgctgcagc actctcgctt accccatta      1140
caacatggtg gacagtctca tgctgctcca cattggcctg cagggtccaaa ccatccact      1200
aacaacgcac caccacaagt acctgctgga ccagccaca acttctatgg gaagccgcgt      1260
ggtccacctg gtccaaaccg ctaccctcct agcggaaacc agagcggggg ttataatcaa      1320
agccgaggag gttacagcag tggatcatat cctccacaag gacgtggagc tccttatgtg      1380
gctggtccta gagggcctag tggtggcccg tacgggggtg gacctcctaa ctacacacaa      1440
ggtggtcagt atggtggctc tggtagctcg ggaagagggc agaatcagag aaaccagcaa      1500
tacggatggc aacagtaa                                     1518

```

&lt;210&gt; 356

&lt;211&gt; 505

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 356

Met Ala Met Ala Ser Phe Gly Gln Leu Asn Leu Glu Glu Pro Pro Pro  
 1 5 10 15

Ile Trp Gly Ser Arg Ser Val Asp Cys Phe Glu Lys Leu Glu Gln Ile  
 20 25 30

Gly Glu Gly Thr Tyr Gly Gln Val Tyr Met Ala Lys Glu Ile Lys Thr  
 35 40 45

Gly Glu Ile Val Ala Leu Lys Lys Ile Arg Met Asp Asn Glu Arg Glu  
 50 55 60

Gly Phe Pro Ile Thr Ala Ile Arg Glu Ile Lys Ile Leu Lys Lys Leu  
 65 70 75 80

His His Glu Asn Val Ile Gln Leu Lys Glu Ile Val Thr Ser Pro Gly  
 85 90 95

Arg Asp Arg Asp Asp Gln Gly Lys Pro Asp Asn Asn Lys Tyr Lys Gly  
 100 105 110

Gly Ile Tyr Met Val Phe Glu Tyr Met Asp His Asp Leu Thr Gly Leu  
 115 120 125

Ala Asp Arg Pro Gly Leu Arg Phe Thr Val Pro Gln Ile Lys Cys Tyr  
 130 135 140

Met Lys Gln Leu Leu Thr Gly Leu His Tyr Cys His Val Asn Gln Val  
 145 150 155 160

Leu His Arg Asp Ile Lys Gly Ser Asn Leu Leu Ile Asp Asn Glu Gly  
 165 170 175

Asn Leu Lys Leu Ala Asp Phe Gly Leu Ala Arg Ser Tyr Ser His Asp  
 180 185 190

His Thr Gly Asn Leu Thr Asn Arg Val Ile Thr Leu Trp Tyr Arg Pro  
 195 200 205

047-E2F-PCT.ST25.txt

Pro Glu Leu Leu Leu Gly Ala Thr Lys Tyr Gly Pro Ala Ile Asp Met  
210 215 220

Trp Ser Val Gly Cys Ile Phe Ala Glu Leu Leu His Ala Lys Pro Ile  
225 230 235 240

Leu Pro Gly Lys Asn Glu Gln Glu Gln Leu Asn Lys Ile Phe Glu Leu  
245 250 255

Cys Gly Ser Pro Asp Glu Lys Leu Trp Pro Gly Val Ser Lys Met Pro  
260 265 270

Trp Phe Asn Asn Phe Lys Pro Ala Arg Pro Leu Lys Arg Arg Val Arg  
275 280 285

Glu Phe Phe Arg His Phe Asp Arg His Ala Leu Glu Leu Leu Glu Lys  
290 295 300

Met Leu Val Leu Asp Pro Ala Gln Arg Ile Ser Ala Lys Asp Ala Leu  
305 310 315 320

Asp Ala Glu Tyr Phe Trp Thr Asp Pro Leu Pro Cys Asp Pro Lys Ser  
325 330 335

Leu Pro Thr Tyr Glu Ser Ser His Glu Phe Gln Thr Lys Lys Lys Arg  
340 345 350

Gln Gln Gln Arg Gln Asn Glu Glu Ala Ala Lys Arg Gln Lys Leu Gln  
355 360 365

His Pro Pro Leu Gln His Ser Arg Leu Pro Pro Leu Gln His Gly Gly  
370 375 380

Gln Ser His Ala Ala Pro His Trp Pro Ala Gly Pro Asn His Pro Thr  
385 390 395 400

Asn Asn Ala Pro Pro Gln Val Pro Ala Gly Pro Ser His Asn Phe Tyr  
405 410 415

Gly Lys Pro Arg Gly Pro Pro Gly Pro Asn Arg Tyr Pro Pro Ser Gly  
420 425 430

Asn Gln Ser Gly Gly Tyr Asn Gln Ser Arg Gly Gly Tyr Ser Ser Gly  
435 440 445

Ser Tyr Pro Pro Gln Gly Arg Gly Ala Pro Tyr Val Ala Gly Pro Arg

450

455

Gly Pro Ser Gly Gly Pro Tyr Gly Val Gly Pro Pro Asn Tyr Thr Gln  
465 470 475 480

Gly Gly Gln Tyr Gly Gly Ser Gly Ser Ser Gly Arg Gly Gln Asn Gln  
485 490 495

Arg Asn Gln Gln Tyr Gly Trp Gln Gln  
500 505

<210> 357

<211> 1617

<212> DNA

<213> Arabidopsis thaliana

<400> 357

atgggtaatt gttgcggaac agcaggatca ttggctcaaa acgataacaa acccaaaaaa	60
ggaaggaaga agcaaaaccc tttctcgatt gattacggtc ttcaccacgg tggaggagat	120
ggaggtggaa gacctcttaa gcttatcggt ttgaatgatc caacagggtcg tgagatcgag	180
tctaaataca cgttggggag agagctaggt cgtggagaat tcggtgttac gtatctatgt	240
actgataagg agacagacga cgtttttgct tgtaaatacga ttttgaagaa gaagctgagg	300
acagctgttg atattgaaga tgtaggaga gaggttgaga ttatgaggca tatgcctgag	360
catcctaatt ttgttacttt gaaggagact tatgaggatg agcatgctgt tcatttggtt	420
atggagcttt gtgaagggtg tgaattgttt gataggattg ttgctagagg gcattatact	480
gagagagctg ctgctgctgt cactaagacc atcatggaag ttgttcaggt gtgtcataag	540
catggggtaa tgcacaggga cctgaaacct gagaacttct tgtttggaag caagaaggag	600
actgcacctc ttaaggcgat tgattttggt ctctctgttt tctttaaac aggcgagagg	660
tttaacgaaa tcgttggtag tccgtactac atggctcccg aggtgctaaa acggaattat	720
ggtccagaag ttgatatttg gagtgcaggt gtaattcttt acatactgct atgtggtgtc	780
ccgcctttct gggcagaaac tgaacaagga gttgcacaag caattattcg atctgtacta	840
gacttcagaa gggacccatg gccaagggt tctgaaaacg caaaagacct tatcaggaaa	900
atgcttgatc ctgacaaaaa gcgtcgtctt acagctcaac aagtcctaga tcaccctggtg	960
ttacagaatg caaagacagc cccaatgta tcattgggtg aaacagttag ggcaagggtg	1020
aagcagttca ccgtcatgaa caagctcaag aaacgagcac tcagggttat tgctgagcat	1080
ttatcagatg aagaagcttc aggtataaga gaagggttcc aaataatgga cacaagccaa	1140

047-E2F-PCT.ST25.txt

agaggggaaga ttaacatcga cgagcttaaa atcgggttgc agaaacttgg tcatgccatt 1200  
 ccgcaagatg atttaciaat tttgatggat gctggagaca tcgatagaga tggatatttg 1260  
 gactgtgacg agttttattgc catatcggtta cacctaagga aaatgggcaa tgacgagcat 1320  
 ctcaagaaag cgtttgcgtt ctttgatcaa aacaataacg gatatatcga aatagaggag 1380  
 ttaaggggaag ccttgtctga cgaacttggg acaagtgaag aagttgttga tgccattatc 1440  
 cgtgatgttg acaccgacaa ggatggaaga ataagttacg aagagtttgt aacgatgatg 1500  
 aaaacaggaa cagattggag aaaagcttcg agacagtact cgagagaacg gtttaacagt 1560  
 atcagtctca aactgatgca agatgcgtcg ttgcaggtca atggtgatac aagatga 1617

<210> 358

<211> 538

<212> PRT

<213> Arabidopsis thaliana

<400> 358

Met Gly Asn Cys Cys Gly Thr Ala Gly Ser Leu Ala Gln Asn Asp Asn  
 1 5 10 15

Lys Pro Lys Lys Gly Arg Lys Lys Gln Asn Pro Phe Ser Ile Asp Tyr  
 20 25 30

Gly Leu His His Gly Gly Gly Asp Gly Gly Gly Arg Pro Leu Lys Leu  
 35 40 45

Ile Val Leu Asn Asp Pro Thr Gly Arg Glu Ile Glu Ser Lys Tyr Thr  
 50 55 60

Leu Gly Arg Glu Leu Gly Arg Gly Glu Phe Gly Val Thr Tyr Leu Cys  
 65 70 75 80

Thr Asp Lys Glu Thr Asp Asp Val Phe Ala Cys Lys Ser Ile Leu Lys  
 85 90 95

Lys Lys Leu Arg Thr Ala Val Asp Ile Glu Asp Val Arg Arg Glu Val  
 100 105 110

Glu Ile Met Arg His Met Pro Glu His Pro Asn Val Val Thr Leu Lys  
 115 120 125

Glu Thr Tyr Glu Asp Glu His Ala Val His Leu Val Met Glu Leu Cys

130

135

Glu Gly Gly Glu Leu Phe Asp Arg Ile Val Ala Arg Gly His Tyr Thr  
145 150 155 160

Glu Arg Ala Ala Ala Ala Val Thr Lys Thr Ile Met Glu Val Val Gln  
165 170 175

Val Cys His Lys His Gly Val Met His Arg Asp Leu Lys Pro Glu Asn  
180 185 190

Phe Leu Phe Gly Asn Lys Lys Glu Thr Ala Pro Leu Lys Ala Ile Asp  
195 200 205

Phe Gly Leu Ser Val Phe Phe Lys Pro Gly Glu Arg Phe Asn Glu Ile  
210 215 220

Val Gly Ser Pro Tyr Tyr Met Ala Pro Glu Val Leu Lys Arg Asn Tyr  
225 230 235 240

Gly Pro Glu Val Asp Ile Trp Ser Ala Gly Val Ile Leu Tyr Ile Leu  
245 250 255

Leu Cys Gly Val Pro Pro Phe Trp Ala Glu Thr Glu Gln Gly Val Ala  
260 265 270

Gln Ala Ile Ile Arg Ser Val Leu Asp Phe Arg Arg Asp Pro Trp Pro  
275 280 285

Lys Val Ser Glu Asn Ala Lys Asp Leu Ile Arg Lys Met Leu Asp Pro  
290 295 300

Asp Gln Lys Arg Arg Leu Thr Ala Gln Gln Val Leu Asp His Pro Trp  
305 310 315 320

Leu Gln Asn Ala Lys Thr Ala Pro Asn Val Ser Leu Gly Glu Thr Val  
325 330 335

Arg Ala Arg Leu Lys Gln Phe Thr Val Met Asn Lys Leu Lys Lys Arg  
340 345 350

Ala Leu Arg Val Ile Ala Glu His Leu Ser Asp Glu Glu Ala Ser Gly  
355 360 365

Ile Arg Glu Gly Phe Gln Ile Met Asp Thr Ser Gln Arg Gly Lys Ile  
370 375 380

047-E2F-PCT.ST25.txt

Asn Ile Asp Glu Leu Lys Ile Gly Leu Gln Lys Leu Gly His Ala Ile  
 385 390 395 400

Pro Gln Asp Asp Leu Gln Ile Leu Met Asp Ala Gly Asp Ile Asp Arg  
 405 410 415

Asp Gly Tyr Leu Asp Cys Asp Glu Phe Ile Ala Ile Ser Val His Leu  
 420 425 430

Arg Lys Met Gly Asn Asp Glu His Leu Lys Lys Ala Phe Ala Phe Phe  
 435 440 445

Asp Gln Asn Asn Asn Gly Tyr Ile Glu Ile Glu Glu Leu Arg Glu Ala  
 450 455 460

Leu Ser Asp Glu Leu Gly Thr Ser Glu Glu Val Val Asp Ala Ile Ile  
 465 470 475 480

Arg Asp Val Asp Thr Asp Lys Asp Gly Arg Ile Ser Tyr Glu Glu Phe  
 485 490 495

Val Thr Met Met Lys Thr Gly Thr Asp Trp Arg Lys Ala Ser Arg Gln  
 500 505 510

Tyr Ser Arg Glu Arg Phe Asn Ser Ile Ser Leu Lys Leu Met Gln Asp  
 515 520 525

Ala Ser Leu Gln Val Asn Gly Asp Thr Arg  
 530 535

<210> 359

<211> 957

<212> DNA

<213> Arabidopsis thaliana

<400> 359

atggcggaga agccggcgca agagcaagag cagaagcgag cgatggaacc tgcagttctc	60
gacgatatta ttcgtcgttt ggttgagttt cggaacacga gacctggatc ggggaagcaa	120
gttcatctca gtgaaggtga aattcgtcag ctttgtgctg tctccaaaga aatatttctt	180
caacagccca atctgcttga attggaagct cccatcaaga tctgcggtga tattcatggg	240
cagtattcag atctattgag gctttttgag tatggagggt tccctcccga agctaattat	300
ttgttcttgg gtgattatgt tgaccgtggc aagcaaagct tggaacaat atgtcttctt	360

047-E2F-PCT.ST25.txt

ctagcttaca aaatcaagta ccctgagaac ttcttcttgt tgagagggaa tcatgaatct 420  
gcttccatta atcgtattta cggtttctat gatgagtgc aacgcagggt caatgtcaga 480  
ctctggaaaa tattcaccga ttgctttaac tgtcttcctg tggccgcctt aattgatgac 540  
agaatactat gtatgcatgg tgggatttcc ccagagctga aaagtttgga ccagattaga 600  
aatattgcac ggccgatgga tattccggag tctggtttg tatgtgattt actatggtcg 660  
gatcctagtg gagacgtagg ctggggcatg aatgatcgtg gtgtttcata cacttttgga 720  
gctgacaaag tcgcagagtt cttggagaaa catgacatgg accttatctg tcgtgcccac 780  
caggttgttg aagatgggta tgagttcttt gcagaaagac aacttgttac agtattttca 840  
gctcccaact attgcgggga atttgacaac gctggcgcaa tgatgagcat tgatgagagc 900  
ttaatgtgct cattccagat tctaaagccg tcagaaaaga agtcgccttt tctgtga 957

<210> 360

<211> 318

<212> PRT

<213> Arabidopsis thaliana

<400> 360

Met Ala Glu Lys Pro Ala Gln Glu Gln Glu Gln Lys Arg Ala Met Glu  
1 5 10 15

Pro Ala Val Leu Asp Asp Ile Ile Arg Arg Leu Val Glu Phe Arg Asn  
20 25 30

Thr Arg Pro Gly Ser Gly Lys Gln Val His Leu Ser Glu Gly Glu Ile  
35 40 45

Arg Gln Leu Cys Ala Val Ser Lys Glu Ile Phe Leu Gln Gln Pro Asn  
50 55 60

Leu Leu Glu Leu Glu Ala Pro Ile Lys Ile Cys Gly Asp Ile His Gly  
65 70 75 80

Gln Tyr Ser Asp Leu Leu Arg Leu Phe Glu Tyr Gly Gly Phe Pro Pro  
85 90 95

Glu Ala Asn Tyr Leu Phe Leu Gly Asp Tyr Val Asp Arg Gly Lys Gln  
100 105 110

Ser Leu Glu Thr Ile Cys Leu Leu Leu Ala Tyr Lys Ile Lys Tyr Pro  
115 120 125



047-E2F-PCT.ST25.txt

Glu Asn Phe Phe Leu Leu Arg Gly Asn His Glu Ser Ala Ser Ile Asn  
130 135 140

Arg Ile Tyr Gly Phe Tyr Asp Glu Cys Lys Arg Arg Phe Asn Val Arg  
145 150 155 160

Leu Trp Lys Ile Phe Thr Asp Cys Phe Asn Cys Leu Pro Val Ala Ala  
165 170 175

Leu Ile Asp Asp Arg Ile Leu Cys Met His Gly Gly Ile Ser Pro Glu  
180 185 190

Leu Lys Ser Leu Asp Gln Ile Arg Asn Ile Ala Arg Pro Met Asp Ile  
195 200 205

Pro Glu Ser Gly Leu Val Cys Asp Leu Leu Trp Ser Asp Pro Ser Gly  
210 215 220

Asp Val Gly Trp Gly Met Asn Asp Arg Gly Val Ser Tyr Thr Phe Gly  
225 230 235 240

Ala Asp Lys Val Ala Glu Phe Leu Glu Lys His Asp Met Asp Leu Ile  
245 250 255

Cys Arg Ala His Gln Val Val Glu Asp Gly Tyr Glu Phe Phe Ala Glu  
260 265 270

Arg Gln Leu Val Thr Val Phe Ser Ala Pro Asn Tyr Cys Gly Glu Phe  
275 280 285

Asp Asn Ala Gly Ala Met Met Ser Ile Asp Glu Ser Leu Met Cys Ser  
290 295 300

Phe Gln Ile Leu Lys Pro Ser Glu Lys Lys Ser Pro Phe Leu  
305 310 315

<210> 361

<211> 2265

<212> DNA

<213> Arabidopsis thaliana

<400> 361

atggcgaggt ttccgacttc tccggcgctt aacctcctct tgagactctt ctcgtcgaac

60

aaacgggCGT catctcctac tgccgcgctt ttaaccggag attttcatct gattcgtcat	120
ttctccgccg gaaccgctgc tcgtgcggtc aaggatgaga aggagccatg gtggaaagaa	180
tccatggaca agcttcgcaa catcgggata tcagctcata tagactctgg aaagactacg	240
ttgactgagc gtgttctgtt ctataccggt cggatccatg agatccatga agtcagaggt	300
agagatggcg tcggcgctaa aatggactct atggacttgg agcgagagaa aggtatcact	360
atccagtcag ccgctactta ctgtacttgg aaggattaca aggttaatat aattgatact	420
cctggtcacg ttgacttcac cattgaagtg gagagggctt tacgtgtact agacggtgcg	480
attctagtcc tatgcagtgt ggggtggtgta cagagtcagt ctattacggt agataggcaa	540
atgaggagat atgaagtccc gagagttgcg ttatttaaca agcttgatag aatgggagca	600
gatccatgga aagtcttgaa ccaagcaaga gctaagcttc gacatcatag tgcagctgtg	660
caagtgccca ttggtctaga agaaaatttc cagggtctta tagaccttat tcatgtgaaa	720
gcttatttct ttcattggatc aagcgggtgag aatgttgtgg ctggtgatat tcctgctgat	780
atggaggggtt tgggtgggga taagaggaga gaattgatag agacagtctc tgaagttgat	840
gatgtactcg ccgagaaatt tctgaatgat gaacctgtat ctgctgctga gcttgaggaa	900
gctattcgtg gagctaccat agcacaaaag ttgttctctg tatttatggg tagtgcattc	960
aaaaacaagg gagtacaacc tctactagat ggtgttgtca gttttctccc ttctccaaat	1020
gaagtcaata actatgctct tgaccagaat aataatgaag agagggtaac cttgactgga	1080
tctccagatg gacctcttgt ggcgctggct ttcaaattag aggagggctc ttttgggtcaa	1140
ttgacatatt tgagagttta cgaagggtgtg attaagaaag gtgattttat cataaatgtc	1200
aacactggga agagaattaa ggttccacgc ttggtccgta tgcattcgaa tgatatggag	1260
gatattcaag aggcacacgc tggacaaatt gtagctgtgt ttggtattga gtgtgcatca	1320
ggtgatacat ttacggatgg atcagtcaag tacacaatga catcgatgaa cgttcttgaa	1380
cctgttatgt ccttagctgt tcaaccagtt tcaaaagatt ctggaggaca gttctcgaaa	1440
gcattgaatc gattccagaa agaggatcct actttccgtg tgggtttgga tcccagagat	1500
ggccagacga ttatttctgg tatgggggaa ttgcatttgg acatctatgt tgaacgcatg	1560
cgaagagaat ataaggttga tgcgactgtg ggcaaacccc gtgtcaattt tagggagact	1620
attactcagc gggcagagtt tgattattta cataagaagc aaagtggagg agcaggtcaa	1680
tacggtagag ttacagggtg cgtggaaccg ctaccaccag gctctaaaga gaagtttgaa	1740
tttgaaaaca tgattgttgg acaagcaatt ccgtctggtt ttattccagc aattgagaaa	1800
ggtttcaaag aagctgcaaa ctcgggctca ctaattggtc accctgtaga gaatcttaga	1860
atagtattga cagatggagc ttcacacgcg gtagattcca gtgaacttgc gtttaaaatg	1920
gctgcaatat acgcattcag actgtgttat acagcagcta gaccggtgat tctagaacct	1980

047-E2F-PCT.ST25.txt

gttatgctgg tcgagttgaa agtaccaaca gagtttcagg gcactggtgc tgggtgacatc 2040  
aacaagagga aaggtataat cgttggaaac gatcaagagg gtgatgattc agtaatcact 2100  
gctaattgtgc ctttgaacaa catgtttggc tactccactt ctctccggtc catgacacaa 2160  
ggaaaaggag aattcacgat ggaatacaaa gaacattctg ctgtgtccaa tgaagtccag 2220  
gctcagctcg tcaatgctta tagcgccagc aaagctactg aataa 2265

<210> 362

<211> 754

<212> PRT

<213> Arabidopsis thaliana

<400> 362

Met	Ala	Arg	Phe	Pro	Thr	Ser	Pro	Ala	Pro	Asn	Leu	Leu	Leu	Arg	Leu
1				5					10					15	
Phe	Ser	Ser	Asn	Lys	Arg	Ala	Ser	Ser	Pro	Thr	Ala	Ala	Leu	Leu	Thr
			20					25					30		
Gly	Asp	Phe	His	Leu	Ile	Arg	His	Phe	Ser	Ala	Gly	Thr	Ala	Ala	Arg
		35					40					45			
Ala	Val	Lys	Asp	Glu	Lys	Glu	Pro	Trp	Trp	Lys	Glu	Ser	Met	Asp	Lys
	50					55					60				
Leu	Arg	Asn	Ile	Gly	Ile	Ser	Ala	His	Ile	Asp	Ser	Gly	Lys	Thr	Thr
65					70					75					80
Leu	Thr	Glu	Arg	Val	Leu	Phe	Tyr	Thr	Gly	Arg	Ile	His	Glu	Ile	His
				85					90					95	
Glu	Val	Arg	Gly	Arg	Asp	Gly	Val	Gly	Ala	Lys	Met	Asp	Ser	Met	Asp
			100					105					110		
Leu	Glu	Arg	Glu	Lys	Gly	Ile	Thr	Ile	Gln	Ser	Ala	Ala	Thr	Tyr	Cys
		115					120					125			
Thr	Trp	Lys	Asp	Tyr	Lys	Val	Asn	Ile	Ile	Asp	Thr	Pro	Gly	His	Val
	130					135					140				
Asp	Phe	Thr	Ile	Glu	Val	Glu	Arg	Ala	Leu	Arg	Val	Leu	Asp	Gly	Ala
145					150					155					160

047-E2F-PCT.ST25.txt

Ile Leu Val Leu Cys Ser Val Gly Gly Val Gln Ser Gln Ser Ile Thr  
165 170 175

Val Asp Arg Gln Met Arg Arg Tyr Glu Val Pro Arg Val Ala Phe Ile  
180 185 190

Asn Lys Leu Asp Arg Met Gly Ala Asp Pro Trp Lys Val Leu Asn Gln  
195 200 205

Ala Arg Ala Lys Leu Arg His His Ser Ala Ala Val Gln Val Pro Ile  
210 215 220

Gly Leu Glu Glu Asn Phe Gln Gly Leu Ile Asp Leu Ile His Val Lys  
225 230 235 240

Ala Tyr Phe Phe His Gly Ser Ser Gly Glu Asn Val Val Ala Gly Asp  
245 250 255

Ile Pro Ala Asp Met Glu Gly Leu Val Gly Asp Lys Arg Arg Glu Leu  
260 265 270

Ile Glu Thr Val Ser Glu Val Asp Asp Val Leu Ala Glu Lys Phe Leu  
275 280 285

Asn Asp Glu Pro Val Ser Ala Ala Glu Leu Glu Glu Ala Ile Arg Arg  
290 295 300

Ala Thr Ile Ala Gln Lys Phe Val Pro Val Phe Met Gly Ser Ala Phe  
305 310 315 320

Lys Asn Lys Gly Val Gln Pro Leu Leu Asp Gly Val Val Ser Phe Leu  
325 330 335

Pro Ser Pro Asn Glu Val Asn Asn Tyr Ala Leu Asp Gln Asn Asn Asn  
340 345 350

Glu Glu Arg Val Thr Leu Thr Gly Ser Pro Asp Gly Pro Leu Val Ala  
355 360 365

Leu Ala Phe Lys Leu Glu Glu Gly Arg Phe Gly Gln Leu Thr Tyr Leu  
370 375 380

Arg Val Tyr Glu Gly Val Ile Lys Lys Gly Asp Phe Ile Ile Asn Val  
385 390 395 400

Asn Thr Gly Lys Arg Ile Lys Val Pro Arg Leu Val Arg Met His Ser  
405 410 415

047-E2F-PCT.ST25.txt

Asn Asp Met Glu Asp Ile Gln Glu Ala His Ala Gly Gln Ile Val Ala  
 420 425 430  
 Val Phe Gly Ile Glu Cys Ala Ser Gly Asp Thr Phe Thr Asp Gly Ser  
 435 440 445  
 Val Lys Tyr Thr Met Thr Ser Met Asn Val Pro Glu Pro Val Met Ser  
 450 455 460  
 Leu Ala Val Gln Pro Val Ser Lys Asp Ser Gly Gly Gln Phe Ser Lys  
 465 470 475 480  
 Ala Leu Asn Arg Phe Gln Lys Glu Asp Pro Thr Phe Arg Val Gly Leu  
 485 490 495  
 Asp Pro Glu Ser Gly Gln Thr Ile Ile Ser Gly Met Gly Glu Leu His  
 500 505 510  
 Leu Asp Ile Tyr Val Glu Arg Met Arg Arg Glu Tyr Lys Val Asp Ala  
 515 520 525  
 Thr Val Gly Lys Pro Arg Val Asn Phe Arg Glu Thr Ile Thr Gln Arg  
 530 535 540  
 Ala Glu Phe Asp Tyr Leu His Lys Lys Gln Ser Gly Gly Ala Gly Gln  
 545 550 555 560  
 Tyr Gly Arg Val Thr Gly Tyr Val Glu Pro Leu Pro Pro Gly Ser Lys  
 565 570 575  
 Glu Lys Phe Glu Phe Glu Asn Met Ile Val Gly Gln Ala Ile Pro Ser  
 580 585 590  
 Gly Phe Ile Pro Ala Ile Glu Lys Gly Phe Lys Glu Ala Ala Asn Ser  
 595 600 605  
 Gly Ser Leu Ile Gly His Pro Val Glu Asn Leu Arg Ile Val Leu Thr  
 610 615 620  
 Asp Gly Ala Ser His Ala Val Asp Ser Ser Glu Leu Ala Phe Lys Met  
 625 630 635 640  
 Ala Ala Ile Tyr Ala Phe Arg Leu Cys Tyr Thr Ala Ala Arg Pro Val  
 645 650 655  
 Ile Leu Glu Pro Val Met Leu Val Glu Leu Lys Val Pro Thr Glu Phe  
 Page 575

660

665

670

Gln Gly Thr Val Ala Gly Asp Ile Asn Lys Arg Lys Gly Ile Ile Val  
 675 680 685

Gly Asn Asp Gln Glu Gly Asp Asp Ser Val Ile Thr Ala Asn Val Pro  
 690 695 700

Leu Asn Asn Met Phe Gly Tyr Ser Thr Ser Leu Arg Ser Met Thr Gln  
 705 710 715 720

Gly Lys Gly Glu Phe Thr Met Glu Tyr Lys Glu His Ser Ala Val Ser  
 725 730 735

Asn Glu Val Gln Ala Gln Leu Val Asn Ala Tyr Ser Ala Ser Lys Ala  
 740 745 750

Thr Glu

<210> 363

<211> 2103

<212> DNA

<213> Arabidopsis thaliana

<400> 363

```

atggaatttg cttcgccgga acaacgtcgt ctcgaaacca ttcgatctca catcgatact      60
tctccgacca acgatcaatc atcatctcta ttcttcaacg ccaccgcttc ttctgcttca      120
cctttcttta aagaggatag ctacagtgtt gtgcttccag aaaagcttga tactggaaaa      180
tggaatgtct acagatctaa aagatcgcct acgaaactcg ttagtagggt cccggatcat      240
cctgaaatcg ggactttaca tgacaatttt gtacatgctg ttgaaacata tgctgaaaac      300
aagtatcttg gtacacgagt tcggtccgat ggaaccattg gagagtattc atggatgaca      360
tatggagaag cagcgtctga gcgacaagcc attggttcag gactcttggt tcatggagtt      420
aaccaaggag attgcgttgg actctatattt attaacagac cagagtgggt gggtgtggat      480
catgcttggt cagcatattc atttgtctct gttcctttat atgatacact tgggtccagac      540
gctgttaagt ttgtggtgaa tcatgctaata ctgcaagcta ttttttgtgt accacaaacc      600
ttgaatatatt tgctaagctt cctagcggaa atcccatcca ttcgtctcat tgtggtggtg      660
ggaggggctg atgagcattt gccatcactt cctcgaggaa ctggagtcac aattgtatca      720
taccaaaagc tattgagtca gggtcgaagt agcttacatc cattttcgcc tccaaagcca      780

```

047-E2F-PCT.ST25.txt

```

gaagacattg caaccatatg ctacacaagt ggaaccacag gaacaccaaa ggggtgttgtg      840
ttgactcatg gaaacttgat cgcgaatgtc gctggttcca gtgtggaagc agaattcttt      900
ccttcagatg ttacatatc atatcttcct ttggcgcaca tatatgaacg tgcaaatcag      960
attatggggg tgtatggtgg tgttgctgtc ggtttctatc agggggatgt cttcaagctg     1020
atggatgatt ttgctgtggt aagaccaaca atattctgta gtgtccctcg cttatataat     1080
cgaatatatg atggcattac aagtgccgta aaatcatctg gggttgtgaa aaaaaggcctt     1140
ttcgaaattg cctataactc aaagaagcaa gcgatcatta atgggcggac tccttctgca     1200
ttttgggaca agctggtggt caacaaaata aaagaaaagc ttggtggacg ggttcggttt     1260
atgggggtctg gtgcttctcc tttgtcacct gatgtcatgg atttcttgag aatatgcctt     1320
ggatgttcgg tgcgtgaagg gtatggtatg accgagactt cttgtgtcat aagtgcctatg     1380
gatgatggtg acaatttatc tggccatgtc ggttccccta atccagcttg cgaggtaaaa     1440
cttgtggatg ttcccgaaat gaattacaca tcagacgatc aaccataccc acgtggtgaa     1500
atctgtgtaa gaggaccaat catcttcaaa ggctactaca aagatgaaga acaaacgaga     1560
gaaattcttg atggagatgg ctggctacac acaggagata tcggggttgtg gttacctggt     1620
ggtcggctca agatcataga caggaagaag aacatattta agttggcgca aggagaatat     1680
atagcaccag agaagatcga aaatgtttat accaaatgta gattcgtttc gcagtgtttc     1740
attcacggtg atagcttcaa ttctctctta gtagctatag tttcagtcga ccccgagtt     1800
atgaaagatt gggctgcacg agaaggcatc aagtatgagc atctaggaca gctctgtaac     1860
gatccaagag tgcgaaagac tgttcttgct gagatggatg accttggaag agaagctcag     1920
ttgagagggg ttgagtttgc aaaggctgtg actttggtgc cagaaccatt caccttgag     1980
aatggacttc tcacaccaac attcaagata aagagacctc aagcaaaagc ctactttgca     2040
gaagcaatta gcaaaatgta tgcggaaatc gcagcctcga accccattcc ttctaaactg     2100
tga                                                                    2103

```

<210> 364

<211> 700

<212> PRT

<213> Arabidopsis thaliana

<400> 364

Met Glu Phe Ala Ser Pro Glu Gln Arg Arg Leu Glu Thr Ile Arg Ser  
1 5 10 15

047-E2F-PCT.ST25.txt

His Ile Asp Thr Ser Pro Thr Asn Asp Gln Ser Ser Ser Leu Phe Leu  
 20 25 30  
 Asn Ala Thr Ala Ser Ser Ala Ser Pro Phe Phe Lys Glu Asp Ser Tyr  
 35 40 45  
 Ser Val Val Leu Pro Glu Lys Leu Asp Thr Gly Lys Trp Asn Val Tyr  
 50 55 60  
 Arg Ser Lys Arg Ser Pro Thr Lys Leu Val Ser Arg Phe Pro Asp His  
 65 70 75 80  
 Pro Glu Ile Gly Thr Leu His Asp Asn Phe Val His Ala Val Glu Thr  
 85 90 95  
 Tyr Ala Glu Asn Lys Tyr Leu Gly Thr Arg Val Arg Ser Asp Gly Thr  
 100 105 110  
 Ile Gly Glu Tyr Ser Trp Met Thr Tyr Gly Glu Ala Ala Ser Glu Arg  
 115 120 125  
 Gln Ala Ile Gly Ser Gly Leu Leu Phe His Gly Val Asn Gln Gly Asp  
 130 135 140  
 Cys Val Gly Leu Tyr Phe Ile Asn Arg Pro Glu Trp Leu Val Val Asp  
 145 150 155 160  
 His Ala Cys Ala Ala Tyr Ser Phe Val Ser Val Pro Leu Tyr Asp Thr  
 165 170 175  
 Leu Gly Pro Asp Ala Val Lys Phe Val Val Asn His Ala Asn Leu Gln  
 180 185 190  
 Ala Ile Phe Cys Val Pro Gln Thr Leu Asn Ile Leu Leu Ser Phe Leu  
 195 200 205  
 Ala Glu Ile Pro Ser Ile Arg Leu Ile Val Val Val Gly Gly Ala Asp  
 210 215 220  
 Glu His Leu Pro Ser Leu Pro Arg Gly Thr Gly Val Thr Ile Val Ser  
 225 230 235 240  
 Tyr Gln Lys Leu Leu Ser Gln Gly Arg Ser Ser Leu His Pro Phe Ser  
 245 250 255  
 Pro Pro Lys Pro Glu Asp Ile Ala Thr Ile Cys Tyr Thr Ser Gly Thr  
 260 265 270



047-E2F-PCT.ST25.txt

Thr Gly Thr Pro Lys Gly Val Val Leu Thr His Gly Asn Leu Ile Ala  
275 280 285

Asn Val Ala Gly Ser Ser Val Glu Ala Glu Phe Phe Pro Ser Asp Val  
290 295 300

Tyr Ile Ser Tyr Leu Pro Leu Ala His Ile Tyr Glu Arg Ala Asn Gln  
305 310 315 320

Ile Met Gly Val Tyr Gly Gly Val Ala Val Gly Phe Tyr Gln Gly Asp  
325 330 335

Val Phe Lys Leu Met Asp Asp Phe Ala Val Leu Arg Pro Thr Ile Phe  
340 345 350

Cys Ser Val Pro Arg Leu Tyr Asn Arg Ile Tyr Asp Gly Ile Thr Ser  
355 360 365

Ala Val Lys Ser Ser Gly Val Val Lys Lys Arg Leu Phe Glu Ile Ala  
370 375 380

Tyr Asn Ser Lys Lys Gln Ala Ile Ile Asn Gly Arg Thr Pro Ser Ala  
385 390 395 400

Phe Trp Asp Lys Leu Val Phe Asn Lys Ile Lys Glu Lys Leu Gly Gly  
405 410 415

Arg Val Arg Phe Met Gly Ser Gly Ala Ser Pro Leu Ser Pro Asp Val  
420 425 430

Met Asp Phe Leu Arg Ile Cys Phe Gly Cys Ser Val Arg Glu Gly Tyr  
435 440 445

Gly Met Thr Glu Thr Ser Cys Val Ile Ser Ala Met Asp Asp Gly Asp  
450 455 460

Asn Leu Ser Gly His Val Gly Ser Pro Asn Pro Ala Cys Glu Val Lys  
465 470 475 480

Leu Val Asp Val Pro Glu Met Asn Tyr Thr Ser Asp Asp Gln Pro Tyr  
485 490 495

Pro Arg Gly Glu Ile Cys Val Arg Gly Pro Ile Ile Phe Lys Gly Tyr  
500 505 510

Tyr Lys Asp Glu Glu Gln Thr Arg Glu Ile Leu Asp Gly Asp Gly Trp

515

520

525

Leu His Thr Gly Asp Ile Gly Leu Trp Leu Pro Gly Gly Arg Leu Lys  
 530 535 540

Ile Ile Asp Arg Lys Lys Asn Ile Phe Lys Leu Ala Gln Gly Glu Tyr  
 545 550 555 560

Ile Ala Pro Glu Lys Ile Glu Asn Val Tyr Thr Lys Cys Arg Phe Val  
 565 570 575

Ser Gln Cys Phe Ile His Gly Asp Ser Phe Asn Ser Ser Leu Val Ala  
 580 585 590

Ile Val Ser Val Asp Pro Glu Val Met Lys Asp Trp Ala Ala Ser Glu  
 595 600 605

Gly Ile Lys Tyr Glu His Leu Gly Gln Leu Cys Asn Asp Pro Arg Val  
 610 615 620

Arg Lys Thr Val Leu Ala Glu Met Asp Asp Leu Gly Arg Glu Ala Gln  
 625 630 635 640

Leu Arg Gly Phe Glu Phe Ala Lys Ala Val Thr Leu Val Pro Glu Pro  
 645 650 655

Phe Thr Leu Glu Asn Gly Leu Leu Thr Pro Thr Phe Lys Ile Lys Arg  
 660 665 670

Pro Gln Ala Lys Ala Tyr Phe Ala Glu Ala Ile Ser Lys Met Tyr Ala  
 675 680 685

Glu Ile Ala Ala Ser Asn Pro Ile Pro Ser Lys Leu  
 690 695 700

&lt;210&gt; 365

&lt;211&gt; 924

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 365

atggttggag gaggagttat ccagcaaatt cttaggagga agcttcactc ccaatcactt 60

gcaactccgg ttttgtcttg gttttcttcg aagaaagctc atgaggatgc tggttcttct 120

ggtgtaagag cacttgcctt gttgggtgct ggtgttacag gactgttgag tttttctaca 180

047-E2F-PCT.ST25.txt

gtagcatctg ctgatgaggc tgaacatgga ttggagagtc cagagtaccc ttggcctcat 240  
gatggcattc ttagctcata tgaccatgct tcgatccgtc gtgggcatca agtttatcag 300  
caagtctgtg catcatgccca ttcaatgtct ctgatctcat accgagactt ggtgggtgtc 360  
gcctacacag aggaagaggc aaaggcaatg gcagctgaaa tcgaggtagt agatggacct 420  
aatgatgagg gtgagatggt caccgcctt ggtaaactca gtgaccggtt tcctcagcca 480  
tatgcaaagt aatcagctgc aagggttgct aatgggtggag cgtatcctcc tgatctaagt 540  
cttataacta aggcacgtca caatggtcca aactatgtct ttgcgcttct gactggttac 600  
cgtgatcccc ctgctggcat atcgattaga gagggggttac actacaatcc ttatttcctt 660  
gggggagcaa ttgctatgcc gaaaatgctc aatgatgaag ctgttgagta tgaagatggt 720  
gtccccgcca cagaggcaca gatgggtaaa gatattgtat cattcttggc ctgggcagct 780  
gaaccagaaa tggaagagag gaaactgatg ggtttcaaat ggatattcct actctctctc 840  
gctcttctcc aagctgctta ctacaggcga ctaaaatggt cggttctcaa gtcccgcaag 900  
ctggttcttg acgtggttaa ctaa 924

<210> 366

<211> 307

<212> PRT

<213> Arabidopsis thaliana

<400> 366

Met Val Gly Gly Gly Val Ile Gln Gln Ile Leu Arg Arg Lys Leu His  
1 5 10 15

Ser Gln Ser Leu Ala Thr Pro Val Leu Ser Trp Phe Ser Ser Lys Lys  
20 25 30

Ala His Glu Asp Ala Gly Ser Ser Gly Val Arg Ala Leu Ala Leu Leu  
35 40 45

Gly Ala Gly Val Thr Gly Leu Leu Ser Phe Ser Thr Val Ala Ser Ala  
50 55 60

Asp Glu Ala Glu His Gly Leu Glu Ser Pro Glu Tyr Pro Trp Pro His  
65 70 75 80

Asp Gly Ile Leu Ser Ser Tyr Asp His Ala Ser Ile Arg Arg Gly His  
85 90 95

047-E2F-PCT.ST25.txt

Gln Val Tyr Gln Gln Val Cys Ala Ser Cys His Ser Met Ser Leu Ile  
100 105 110

Ser Tyr Arg Asp Leu Val Gly Val Ala Tyr Thr Glu Glu Glu Ala Lys  
115 120 125

Ala Met Ala Ala Glu Ile Glu Val Val Asp Gly Pro Asn Asp Glu Gly  
130 135 140

Glu Met Phe Thr Arg Pro Gly Lys Leu Ser Asp Arg Phe Pro Gln Pro  
145 150 155 160

Tyr Ala Asn Glu Ser Ala Ala Arg Phe Ala Asn Gly Gly Ala Tyr Pro  
165 170 175

Pro Asp Leu Ser Leu Ile Thr Lys Ala Arg His Asn Gly Pro Asn Tyr  
180 185 190

Val Phe Ala Leu Leu Thr Gly Tyr Arg Asp Pro Pro Ala Gly Ile Ser  
195 200 205

Ile Arg Glu Gly Leu His Tyr Asn Pro Tyr Phe Pro Gly Gly Ala Ile  
210 215 220

Ala Met Pro Lys Met Leu Asn Asp Glu Ala Val Glu Tyr Glu Asp Gly  
225 230 235 240

Val Pro Ala Thr Glu Ala Gln Met Gly Lys Asp Ile Val Ser Phe Leu  
245 250 255

Ala Trp Ala Ala Glu Pro Glu Met Glu Glu Arg Lys Leu Met Gly Phe  
260 265 270

Lys Trp Ile Phe Leu Leu Ser Leu Ala Leu Leu Gln Ala Ala Tyr Tyr  
275 280 285

Arg Arg Leu Lys Trp Ser Val Leu Lys Ser Arg Lys Leu Val Leu Asp  
290 295 300

Val Val Asn  
305

<210> 367

<211> 1743

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 367

```

atggctgaga aagatgaaga gctttctttg tttcttgaga tgagacgccg tgagaaagag    60
caggataatc ttcttcttaa caataaccct gatgagtttg aaactccatt aggttcaaag    120
catggaactt cgccggtggt taacatctca agtggtgctc caccatctcg gaaggctgct    180
cctgatgatt ttctcaattc tgaaggcgat aaaaatgact atgaatggct tctgaccctt    240
ccaggtagcg ctctatttcc atcgctggag atggaatcac ataggactat gatgagtcag    300
actggtgatt caaagagtcg cccggctaca ttgacttcca gactggcaaa ttcctcaaca    360
gagtctgctg caaggaacca tctaacatct agacaacaaa cttcttctcc tggattgagc    420
tcttccagtg gagcaagtcg aagaccttca tcatctggag gacctggatc aagacctgcc    480
acacccactg gaagatcatc aacactgacg gcaaattcaa aatcctcaag gccttcaaca    540
cccacttcgc gagccactgt ctctcagct actcgacctt ctttgactaa ctcgaggtcc    600
acagtatctg caacgactaa gccacgcct atgagtaggt caacaagttt atcatcatct    660
aggctcacac ctactgcac taagccgact acctcaactg ctagatctgc tggttcagta    720
actagatcta cccctagcac caccacaaaa tctgcaggtc cttcaagggtc caccacacct    780
ctgtcaagat ctactgccag atcttcaaca ccaacttcaa gaccacact tcctccatct    840
aaaaccatat caaggtcatc tacaccaact cgccgtccaa ttgcttctgc aagtgtgca    900
actactacag caaatccac aatatccaa atcaagcctt cttctccagc gccagcaaag    960
cctatgccaa caccatctaa gaaccctgct ttatctctgt cagcatctcc tacagtgagg   1020
tcaagaccat ggaagccgtc agacatgcct ggtttctcat tagaaactcc tccaaatcta   1080
aggacaacat tacccgaaag gccactttca gcgacaagag gcagacctgg agctccaagc   1140
tctcgttctg gttcagttga gccagggggc cctccaggag gaagaccaag aaggcaatca   1200
tgttcaccat caagaggaag agcaccaatg tactctagtg gtagctctgt tcctgcggtt   1260
aatcgtagat attccaaagc cagtgacaat gttagtccgg tgatgatggg aacaaaaatg   1320
gtggagagag taataaacat gcggaaactt gctccacca gatcagatga caagggttct   1380
cctcatggta acttgtctgc aaagtcttca tcaccgcaga gtgcaggatt tggaagaacg   1440
ctctccaaga agtcccttga tatggcaata aggcataatg atatacgtag aactattcca   1500
gggaacctga gaccactaat gacgaatatt ccagcatcat caatgtacag tgtgaggtct   1560
ggacatacac gtggttagacc gatgaatgtt tcagactctt ctccactagc aacaagcagc   1620
aacgcaagct cagagatcag tgtctgcaac aacaatggca tttgcttaga ggcaagtga   1680
aaggaagacg acgcaggcag cgagagaggt tgcagggtccc ctgcaagctt acaagggaga   1740

```

tga

1743

&lt;210&gt; 368

&lt;211&gt; 580

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 368

Met Ala Glu Lys Asp Glu Glu Leu Ser Leu Phe Leu Glu Met Arg Arg  
 1 5 10 15

Arg Glu Lys Glu Gln Asp Asn Leu Leu Leu Asn Asn Asn Pro Asp Glu  
 20 25 30

Phe Glu Thr Pro Leu Gly Ser Lys His Gly Thr Ser Pro Val Phe Asn  
 35 40 45

Ile Ser Ser Gly Ala Pro Pro Ser Arg Lys Ala Ala Pro Asp Asp Phe  
 50 55 60

Leu Asn Ser Glu Gly Asp Lys Asn Asp Tyr Glu Trp Leu Leu Thr Pro  
 65 70 75 80

Pro Gly Thr Pro Leu Phe Pro Ser Leu Glu Met Glu Ser His Arg Thr  
 85 90 95

Met Met Ser Gln Thr Gly Asp Ser Lys Ser Arg Pro Ala Thr Leu Thr  
 100 105 110

Ser Arg Leu Ala Asn Ser Ser Thr Glu Ser Ala Ala Arg Asn His Leu  
 115 120 125

Thr Ser Arg Gln Gln Thr Ser Ser Pro Gly Leu Ser Ser Ser Gly  
 130 135 140

Ala Ser Arg Arg Pro Ser Ser Ser Gly Gly Pro Gly Ser Arg Pro Ala  
 145 150 155 160

Thr Pro Thr Gly Arg Ser Ser Thr Leu Thr Ala Asn Ser Lys Ser Ser  
 165 170 175

Arg Pro Ser Thr Pro Thr Ser Arg Ala Thr Val Ser Ser Ala Thr Arg  
 180 185 190

Pro Ser Leu Thr Asn Ser Arg Ser Thr Val Ser Ala Thr Thr Lys Pro  
 195 200 205  
 Thr Pro Met Ser Arg Ser Thr Ser Leu Ser Ser Ser Arg Leu Thr Pro  
 210 215 220  
 Thr Ala Ser Lys Pro Thr Thr Ser Thr Ala Arg Ser Ala Gly Ser Val  
 225 230 235 240  
 Thr Arg Ser Thr Pro Ser Thr Thr Thr Lys Ser Ala Gly Pro Ser Arg  
 245 250 255  
 Ser Thr Thr Pro Leu Ser Arg Ser Thr Ala Arg Ser Ser Thr Pro Thr  
 260 265 270  
 Ser Arg Pro Thr Leu Pro Pro Ser Lys Thr Ile Ser Arg Ser Ser Thr  
 275 280 285  
 Pro Thr Arg Arg Pro Ile Ala Ser Ala Ser Ala Ala Thr Thr Thr Ala  
 290 295 300  
 Asn Pro Thr Ile Ser Gln Ile Lys Pro Ser Ser Pro Ala Pro Ala Lys  
 305 310 315 320  
 Pro Met Pro Thr Pro Ser Lys Asn Pro Ala Leu Ser Arg Ala Ala Ser  
 325 330 335  
 Pro Thr Val Arg Ser Arg Pro Trp Lys Pro Ser Asp Met Pro Gly Phe  
 340 345 350  
 Ser Leu Glu Thr Pro Pro Asn Leu Arg Thr Thr Leu Pro Glu Arg Pro  
 355 360 365  
 Leu Ser Ala Thr Arg Gly Arg Pro Gly Ala Pro Ser Ser Arg Ser Gly  
 370 375 380  
 Ser Val Glu Pro Gly Gly Pro Pro Gly Gly Arg Pro Arg Arg Gln Ser  
 385 390 395 400  
 Cys Ser Pro Ser Arg Gly Arg Ala Pro Met Tyr Ser Ser Gly Ser Ser  
 405 410 415  
 Val Pro Ala Val Asn Arg Gly Tyr Ser Lys Ala Ser Asp Asn Val Ser  
 420 425 430  
 Pro Val Met Met Gly Thr Lys Met Val Glu Arg Val Ile Asn Met Arg  
 435 440 445

047-E2F-PCT.ST25.txt

Lys Leu Ala Pro Pro Arg Ser Asp Asp Lys Gly Ser Pro His Gly Asn  
450 455 460

Leu Ser Ala Lys Ser Ser Ser Pro Asp Ser Ala Gly Phe Gly Arg Thr  
465 470 475 480

Leu Ser Lys Lys Ser Leu Asp Met Ala Ile Arg His Met Asp Ile Arg  
485 490 495

Arg Thr Ile Pro Gly Asn Leu Arg Pro Leu Met Thr Asn Ile Pro Ala  
500 505 510

Ser Ser Met Tyr Ser Val Arg Ser Gly His Thr Arg Gly Arg Pro Met  
515 520 525

Asn Val Ser Asp Ser Ser Pro Leu Ala Thr Ser Ser Asn Ala Ser Ser  
530 535 540

Glu Ile Ser Val Cys Asn Asn Gly Ile Cys Leu Glu Ala Ser Glu  
545 550 555 560

Lys Glu Asp Asp Ala Gly Ser Glu Arg Gly Cys Arg Ser Pro Ala Ser  
565 570 575

Leu Gln Gly Arg  
580

<210> 369

<211> 2646

<212> DNA

<213> Arabidopsis thaliana

<400> 369

atgggctcga agccttggct acatccagct cctcagtata aaaccctaga aaccttttgg	60
gatgatgaag acgatgctcc tggtcctaga tgcgctcata cacttacggc tgttgcagct	120
actaagactc acggtcctcg tcttattctc ttcggcggcg ccaccgctat tgagggaggg	180
agttcttccg ttcctgggat caggttagct ggtgttacca atacggtgca ttcttatgat	240
attctcacta ggaagtggac aaggcttaaa ccggctggtg agcctccgtc tcctagggct	300
gctcacgccg cagctgcagt tggcaccatg gtcgtttttc aggggtggcat tggaccggcg	360
gggcattcta ctgatgatct ttacgttctt gacatgacta atgataagtt caagtggcac	420
aggggtggtgg ttcaagggga tgggtccaggc cctcgctatg gccatgttat ggatttagtt	480



## 047-E2F-PCT.ST25.txt

tctcagaggt	atcttgttac	agtcaccgga	aatgatggga	aacgagctct	ttctgacgct	540
tgggcactgg	atacagctca	gaaaccatat	gtatggcaga	gattgaaccc	agatggtgac	600
cgaccaagtg	ctagaatgta	tgcttctggc	agtgtctggt	ctgatggcat	gtttttgctc	660
tgcgggggaa	gagacacctt	gggggcgccg	ttgggagatg	cttatgggct	actgatgcat	720
agaaatggtc	agtgggagtg	gactctggct	ccagggtgtag	ctccttctcc	aagatatcaa	780
catgcagcgg	tttttgtagg	tgcaagatta	catgtcagtg	gtggtgtgct	gagaggaggc	840
cgtgtaatag	acgctgaagc	atctgttgca	gtgcttgata	ctgctgccgg	tgtatggttg	900
gatagaaatg	ggcaagttac	ttctgcacgt	ggaagtaagg	gacaaatcga	tcaagatccg	960
tcttttgaac	ttatgcgacg	ctgtcgccat	ggcgcggcat	cagttggtat	ccggatctat	1020
gtgcatggtg	gtctaagagg	agatgtgtta	cttgacgatt	ttctagttgc	tgaaaattca	1080
acattccagt	cagacatcag	ttctcctttg	ctagcatcag	atagaaccca	acaaagttct	1140
actcccaggt	tttcttatgc	cgcacgacct	ccttcaggct	ctgaaccaag	cttctccatg	1200
tctgagggac	tgagcttggg	tgaaaattcg	ttggagaaat	tgacggaggc	ttctgcagct	1260
gaagcagagg	tagctagtgc	tgtttggcga	gctgcacaac	taggagctgg	tactctggat	1320
gaagaaccct	ctacctctga	tgccagctcg	ccaattgtag	aatctactac	tgatggtacc	1380
gcaaatgaag	gagatgtcag	gcttcacccg	agagctgttg	tggtagcaaa	agagacggtt	1440
ggtagtctgg	gcggcattgg	aagacagcta	agcttggatc	agtttcagaa	tgagagccga	1500
cggatggttc	ccatgaacaa	tagcgatgtg	ccacaaccta	ccaagaagtt	cacgagacag	1560
aagtctccgc	aaggcctgca	taaaaaggct	attgctgctt	tgtaaagacc	tcgaaactgg	1620
aaacctcctg	gcaataggaa	atctttcttg	gattcttacg	aagttgggga	actctgttat	1680
gctgccgaac	aaatatttat	gcatgaacaa	acggttcttc	agctaaaggc	tcctatcaaa	1740
gtatttggcg	atctccatgg	gcaatttggc	gatttaaatg	gtttatttga	tgaatatgga	1800
tttccctcaa	cagctggaga	catcacgtat	attgactatt	tattcttggg	agattacggt	1860
gaccggggac	aacacagcct	ggagactata	acgttgctgc	ttgcattgaa	gattgaatat	1920
ccggagaatg	ttcacttgat	tcgtggaaac	cacgaggctg	ctgacattaa	tgactatttt	1980
ggtttccgct	ttgaatgcat	agaaagaatg	ggagagaatg	atggcatctg	ggcgtggaca	2040
agattttaatc	aactttttta	ttatcttcct	cttgctgcac	taatcgagaa	caaaattata	2100
tgtatgcatg	gtggaattgg	gaggtcaatc	agtacagtgg	aacagattga	aaagattgaa	2160
agaccataa	caatggatgc	tggatccctt	gttctaattg	atttattatg	gtctgacatc	2220
acagagaacg	atagtatcga	gggtttaaga	ccaaacgcca	gaggacctgg	ccttgtcacg	2280
tttgggcctg	atagagtcac	agaattctgt	aagaggaata	aactacagct	aattatcagg	2340

gcccatgaat gtgtgatgga tggattcgaa agatttgcac agggacagtt gattacgctt 2400  
 ttctccgcca caaattactg cggaactgcg aacaatgcag gagctatatt ggtgggttggc 2460  
 agaggattgg tgattgttcc caagttaatt catcctcttc cacctcccat cttatctcca 2520  
 gagaactctc cagaacattc tggagacgac gcttggatgc aggagctgaa tatccagaga 2580  
 ccgccgactc caacacgagg caggccacaa ccagattttg acagaagctc gcttgcatac 2640  
 atctga 2646

<210> 370

<211> 881

<212> PRT

<213> Arabidopsis thaliana

<400> 370

Met Gly Ser Lys Pro Trp Leu His Pro Ala Pro Gln Tyr Lys Thr Leu  
1 5 10 15

Glu Thr Phe Trp Asp Asp Glu Asp Asp Ala Pro Gly Pro Arg Cys Ala  
20 25 30

His Thr Leu Thr Ala Val Ala Ala Thr Lys Thr His Gly Pro Arg Leu  
35 40 45

Ile Leu Phe Gly Gly Ala Thr Ala Ile Glu Gly Gly Ser Ser Ser Val  
50 55 60

Pro Gly Ile Arg Leu Ala Gly Val Thr Asn Thr Val His Ser Tyr Asp  
65 70 75 80

Ile Leu Thr Arg Lys Trp Thr Arg Leu Lys Pro Ala Gly Glu Pro Pro  
85 90 95

Ser Pro Arg Ala Ala His Ala Ala Ala Ala Val Gly Thr Met Val Val  
100 105 110

Phe Gln Gly Gly Ile Gly Pro Ala Gly His Ser Thr Asp Asp Leu Tyr  
115 120 125

Val Leu Asp Met Thr Asn Asp Lys Phe Lys Trp His Arg Val Val Val  
130 135 140

Gln Gly Asp Gly Pro Gly Pro Arg Tyr Gly His Val Met Asp Leu Val  
145 150 155 160

047-E2F-PCT.ST25.txt

Ser Gln Arg Tyr Leu Val Thr Val Thr Gly Asn Asp Gly Lys Arg Ala  
165 170 175

Leu Ser Asp Ala Trp Ala Leu Asp Thr Ala Gln Lys Pro Tyr Val Trp  
180 185 190

Gln Arg Leu Asn Pro Asp Gly Asp Arg Pro Ser Ala Arg Met Tyr Ala  
195 200 205

Ser Gly Ser Ala Arg Ser Asp Gly Met Phe Leu Leu Cys Gly Gly Arg  
210 215 220

Asp Thr Leu Gly Ala Pro Leu Gly Asp Ala Tyr Gly Leu Leu Met His  
225 230 235 240

Arg Asn Gly Gln Trp Glu Trp Thr Leu Ala Pro Gly Val Ala Pro Ser  
245 250 255

Pro Arg Tyr Gln His Ala Ala Val Phe Val Gly Ala Arg Leu His Val  
260 265 270

Ser Gly Gly Val Leu Arg Gly Gly Arg Val Ile Asp Ala Glu Ala Ser  
275 280 285

Val Ala Val Leu Asp Thr Ala Ala Gly Val Trp Leu Asp Arg Asn Gly  
290 295 300

Gln Val Thr Ser Ala Arg Gly Ser Lys Gly Gln Ile Asp Gln Asp Pro  
305 310 315 320

Ser Phe Glu Leu Met Arg Arg Cys Arg His Gly Ala Ala Ser Val Gly  
325 330 335

Ile Arg Ile Tyr Val His Gly Gly Leu Arg Gly Asp Val Leu Leu Asp  
340 345 350

Asp Phe Leu Val Ala Glu Asn Ser Thr Phe Gln Ser Asp Ile Ser Ser  
355 360 365

Pro Leu Leu Ala Ser Asp Arg Thr Gln Gln Ser Ser Thr Pro Arg Phe  
370 375 380

Ser Tyr Ala Ala Arg Pro Pro Ser Gly Ser Glu Pro Ser Phe Ser Met  
385 390 395 400

Ser Glu Gly Leu Ser Leu Asp Glu Asn Ser Leu Glu Lys Leu Thr Glu

Ala Ser Ala Ala Glu Ala Glu Val Ala Ser Ser Val Trp Arg Ala Ala  
420 425 430

Gln Leu Gly Ala Gly Thr Leu Asp Glu Glu Pro Ser Thr Ser Asp Ala  
435 440 445

Ser Ser Pro Ile Val Glu Ser Thr Thr Asp Gly Thr Ala Asn Glu Gly  
450 455 460

Asp Val Arg Leu His Pro Arg Ala Val Val Val Ala Lys Glu Thr Val  
465 470 475 480

Gly Ser Leu Gly Gly Met Val Arg Gln Leu Ser Leu Asp Gln Phe Gln  
485 490 495

Asn Glu Ser Arg Arg Met Val Pro Met Asn Asn Ser Asp Val Pro Gln  
500 505 510

Pro Thr Lys Lys Phe Thr Arg Gln Lys Ser Pro Gln Gly Leu His Lys  
515 520 525

Lys Val Ile Ala Ala Leu Leu Arg Pro Arg Asn Trp Lys Pro Pro Gly  
530 535 540

Asn Arg Lys Phe Phe Leu Asp Ser Tyr Glu Val Gly Glu Leu Cys Tyr  
545 550 555 560

Ala Ala Glu Gln Ile Phe Met His Glu Gln Thr Val Leu Gln Leu Lys  
565 570 575

Ala Pro Ile Lys Val Phe Gly Asp Leu His Gly Gln Phe Gly Asp Leu  
580 585 590

Met Arg Leu Phe Asp Glu Tyr Gly Phe Pro Ser Thr Ala Gly Asp Ile  
595 600 605

Thr Tyr Ile Asp Tyr Leu Phe Leu Gly Asp Tyr Val Asp Arg Gly Gln  
610 615 620

His Ser Leu Glu Thr Ile Thr Leu Leu Leu Ala Leu Lys Ile Glu Tyr  
625 630 635 640

Pro Glu Asn Val His Leu Ile Arg Gly Asn His Glu Ala Ala Asp Ile  
645 650 655

Asn Ala Leu Phe Gly Phe Arg Leu Glu Cys Ile Glu Arg Met Gly Glu  
660 665 670

Asn Asp Gly Ile Trp Ala Trp Thr Arg Phe Asn Gln Leu Phe Asn Tyr  
675 680 685

Leu Pro Leu Ala Ala Leu Ile Glu Asn Lys Ile Ile Cys Met His Gly  
690 695 700

Gly Ile Gly Arg Ser Ile Ser Thr Val Glu Gln Ile Glu Lys Ile Glu  
705 710 715 720

Arg Pro Ile Thr Met Asp Ala Gly Ser Leu Val Leu Met Asp Leu Leu  
725 730 735

Trp Ser Asp Pro Thr Glu Asn Asp Ser Ile Glu Gly Leu Arg Pro Asn  
740 745 750

Ala Arg Gly Pro Gly Leu Val Thr Phe Gly Pro Asp Arg Val Thr Glu  
755 760 765

Phe Cys Lys Arg Asn Lys Leu Gln Leu Ile Ile Arg Ala His Glu Cys  
770 775 780

Val Met Asp Gly Phe Glu Arg Phe Ala Gln Gly Gln Leu Ile Thr Leu  
785 790 795 800

Phe Ser Ala Thr Asn Tyr Cys Gly Thr Ala Asn Asn Ala Gly Ala Ile  
805 810 815

Leu Val Val Gly Arg Gly Leu Val Ile Val Pro Lys Leu Ile His Pro  
820 825 830

Leu Pro Pro Pro Ile Leu Ser Pro Glu Asn Ser Pro Glu His Ser Gly  
835 840 845

Asp Asp Ala Trp Met Gln Glu Leu Asn Ile Gln Arg Pro Pro Thr Pro  
850 855 860

Thr Arg Gly Arg Pro Gln Pro Asp Phe Asp Arg Ser Ser Leu Ala Tyr  
865 870 875 880

Ile

<210> 371

<211> 810

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 371

```

atggcgggtt ggcagaagaa ttacagatt gttattcgtc aagttggtaa aagagttaag    60
gacagtcaca tttccacggc aaattactct tccacacgga atttggaatc ccctttctca    120
caaggttatt tgcagagtct cttgagatca acctattcct caagaccact gtattatcat    180
ctacaacaac tgggaatttc tacctcaaga caattgcagg cgggtgagga gcctgtatca    240
tcacctttgt catctccagc tctgctgggt agtggaagaa aagaagagca gaagattatc    300
ccaaagcgtc agaaagttca ggctgtcctc aagtccataa agcagagtcc taagaaggtc    360
aacttggttg cagcactagt ccgtggcatg cgtgttgaag atgctttgat gcaattgcag    420
gtcacggtca aacgagcttc acaaactgtg taccgggtta tacatgctgc gcgggcaaata    480
gctactcata accatggact agatcctgac cgtctccttg ttgcggaagc gtttggtggg    540
aagggactct ttggaagaa ggtagcttac catgcaaaag gaagaagcgg gataatatca    600
ataccaggt gtcgtctaac agtcatagtc agagagacga ctgcagagga agaagctgag    660
attgcaaggc tgaaagttca caattttaag aagctaaaca agcggcagag acagctggta    720
ccacacaagt tgatcgagac aagtccaatc tggaaccgca gaggtaccaa aggcaatcac    780
aggtcatctg agttggtacc gtctcactaa                                810

```

&lt;210&gt; 372

&lt;211&gt; 269

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 372

```

Met Ala Gly Trp Gln Lys Asn Leu Gln Ile Val Ile Arg Gln Val Gly
1          5          10          15

Lys Arg Val Lys Asp Ser His Ile Ser Thr Ala Asn Tyr Ser Ser Thr
20          25          30

Arg Asn Leu Glu Ser Pro Phe Ser Gln Gly Tyr Leu Gln Ser Leu Leu
35          40          45

Arg Ser Thr Tyr Ser Ser Arg Pro Leu Tyr Tyr His Leu Gln Gln Leu
50          55          60

```

047-E2F-PCT.ST25.txt

Gly Ile Ser Thr Ser Arg Gln Leu Gln Ala Gly Glu Glu Pro Val Ser  
 65 70 75 80  
 Ser Pro Leu Ser Ser Pro Ala Leu Leu Gly Ser Gly Lys Glu Glu Glu  
 85 90 95  
 Gln Lys Ile Ile Pro Lys Arg Gln Lys Val Gln Ala Val Leu Lys Ser  
 100 105 110  
 Ile Lys Gln Ser Pro Lys Lys Val Asn Leu Val Ala Ala Leu Val Arg  
 115 120 125  
 Gly Met Arg Val Glu Asp Ala Leu Met Gln Leu Gln Val Thr Val Lys  
 130 135 140  
 Arg Ala Ser Gln Thr Val Tyr Arg Val Ile His Ala Ala Arg Ala Asn  
 145 150 155 160  
 Ala Thr His Asn His Gly Leu Asp Pro Asp Arg Leu Leu Val Ala Glu  
 165 170 175  
 Ala Phe Val Gly Lys Gly Leu Phe Gly Lys Lys Val Ala Tyr His Ala  
 180 185 190  
 Lys Gly Arg Ser Gly Ile Ile Ser Ile Pro Arg Cys Arg Leu Thr Val  
 195 200 205  
 Ile Val Arg Glu Thr Thr Ala Glu Glu Glu Ala Glu Ile Ala Arg Leu  
 210 215 220  
 Lys Val His Asn Phe Lys Lys Leu Asn Lys Arg Gln Arg Gln Leu Val  
 225 230 235 240  
 Pro His Lys Leu Ile Glu Thr Ser Pro Ile Trp Asn Arg Arg Gly Thr  
 245 250 255  
 Lys Gly Asn His Arg Ser Ser Glu Leu Val Pro Ser His  
 260 265

<210> 373

<211> 612

<212> DNA

<213> Arabidopsis thaliana

047-E2F-PCT.ST25.txt

<400> 373  
atgataaaat cagtgactct tcgttcgttt catctcccaa ttgagtttaa cgacacccaaa 60  
ttcgtctcac ggccttgttt cctggcgaga tccttcccgg tggttcgttg ttcaagcacc 120  
agagacgtac ctaagcttga actcttcagc cgcggaat tgcaccgat tcttcaagat 180  
ccgccactta ttgaaaaagc cgaatccgaa ctctcagatt actgttcgac gcttgaaggt 240  
gatgactctt acagttgctg gagagcttac tttgaactca aagatctcga aagagagaag 300  
ccaaaggttg aagttgagaa tttgattttg caaacagggt gtttgaaatc gttaatcggg 360  
tgtttacatg gagttgcttc aatggagaaa gataacaaaa ccaagaatgg ttacatgta 420  
ggagaagaat cagatagaga gaaaggaatg aatttgcaca ttcattattcc tgatggttta 480  
ccaaaatctg aacaagagtt ggaggaagaa gagaaatcga aaatgccgga ttcagctttc 540  
actagattgc ttagaagtaa aggaactatc cctgcttggt tctctcacgc tcctgaccac 600  
gaaaccgact ga 612

<210> 374

<211> 203

<212> PRT

<213> Arabidopsis thaliana

<400> 374

Met Ile Lys Ser Val Thr Leu Arg Ser Phe His Leu Pro Ile Glu Phe  
1 5 10 15  
Asn Asp Thr Lys Phe Val Ser Arg Pro Cys Phe Leu Ala Arg Ser Phe  
20 25 30  
Pro Val Val Arg Cys Ser Ser Thr Arg Asp Val Pro Lys Leu Glu Leu  
35 40 45  
Phe Ser Arg Gly Lys Phe Asp Arg Ile Leu Gln Asp Pro Pro Leu Ile  
50 55 60  
Glu Lys Ala Glu Ser Glu Leu Ser Asp Tyr Cys Ser Thr Leu Glu Gly  
65 70 75 80  
Asp Asp Ser Tyr Ser Cys Trp Arg Ala Tyr Phe Glu Leu Lys Asp Leu  
85 90 95  
Glu Arg Glu Lys Pro Lys Val Glu Val Glu Asn Leu Ile Leu Gln Thr  
100 105 110



047-E2F-PCT.ST25.txt

Gly Gly Leu Lys Ser Leu Ile Gly Cys Leu His Gly Val Ala Ser Met  
115 120 125

Glu Lys Asp Asn Lys Thr Lys Asn Gly Leu His Val Gly Glu Glu Ser  
130 135 140

Asp Arg Glu Lys Gly Met Asn Leu His Ile His Ile Pro Asp Gly Leu  
145 150 155 160

Pro Lys Ser Glu Gln Glu Leu Glu Glu Glu Lys Ser Lys Met Pro  
165 170 175

Asp Ser Ala Phe Thr Arg Leu Leu Arg Ser Lys Gly Thr Ile Pro Ala  
180 185 190

Trp Phe Ser His Ala Pro Asp His Glu Thr Asp  
195 200

<210> 375

<211> 1266

<212> DNA

<213> Arabidopsis thaliana

<400> 375

atgtcgaacc caaacgaacc agccagggct cttctgcctt acctgcaacg tgccgatgag	60
ctgcagaagc atgaaccact tgttgcttat tactgtcggc tatatgcaat ggaacgagga	120
ttgaagattc cgcagagcga gagaactaag accaccaatt cgattctcat gtctctcatt	180
aatcaactcg aaaaggataa aaaatcattg actctgtccc cagatgacaa tatgcatgtg	240
gagggggttg cacttagtgt ctttgctaag gcagacaagc aggatcgtgc aggaagagca	300
gacttgggca ctgccaaaac tttttatgct gcgagcatct tctttgaaat tctgagccag	360
tttggtcccg tacctcctga tatagagcag aaacacaagt atgctgcttg gaaggctgct	420
gacataagga aagccattaa agaaggaagg aagcccactc caggtgatcc tgtggatgat	480
gatactgatt tatccatccc atcaagcggc cctagtggct cctatgatca cagtgcaagt	540
gataccaaca caacaagtca tcatagaaca gagcttgatc caccatga ctcgaatgat	600
gactccagcc accatcaatt ccctgaagtg ccacaacacc ctctacctcc caggttttat	660
gacaatccga ccaacgatta tcccgcagat gtccacctc caccaccgtc ttcttacct	720
tccaacgatc atcttcccc tcccacagga ccatcagact ccccttacc gcaccttac	780

047-E2F-PCT.ST25.txt

agtcacaaac cataccacca agacccgcca aaacacatgc cgccaccgca aaactactca 840  
tctcatgagc cttctccaaa ttctctccct aatttccaat cttatcctag ctttagtgag 900  
agcagcctcc catccacttc tccccactac ctttctcact accaaaaccc agaaccctac 960  
tattctttctc cgcactctgc acctgctcct tcttccacaa gcttctcctc tgctcctcct 1020  
cctccacctt actcatcaaa cgggcgatc aatattgctc ccgtgctaga tcctgcaccg 1080  
agttcagctc agaagtacca ttacgatagc agctaccagc cagggcctga gaagggttga 1140  
gaggcactca aggctgctag attcgctgtg ggagctttgg cttttgatga agtctcgact 1200  
gctgtagaac atctcaagaa gtcacttgag ttgctaacaa atccatcggc cggtgccggt 1260  
cactga 1266

<210> 376

<211> 421

<212> PRT

<213> Arabidopsis thaliana

<400> 376

Met Ser Asn Pro Asn Glu Pro Ala Arg Ala Leu Leu Pro Tyr Leu Gln  
1 5 10 15

Arg Ala Asp Glu Leu Gln Lys His Glu Pro Leu Val Ala Tyr Tyr Cys  
20 25 30

Arg Leu Tyr Ala Met Glu Arg Gly Leu Lys Ile Pro Gln Ser Glu Arg  
35 40 45

Thr Lys Thr Thr Asn Ser Ile Leu Met Ser Leu Ile Asn Gln Leu Glu  
50 55 60

Lys Asp Lys Lys Ser Leu Thr Leu Ser Pro Asp Asp Asn Met His Val  
65 70 75 80

Glu Gly Phe Ala Leu Ser Val Phe Ala Lys Ala Asp Lys Gln Asp Arg  
85 90 95

Ala Gly Arg Ala Asp Leu Gly Thr Ala Lys Thr Phe Tyr Ala Ala Ser  
100 105 110

Ile Phe Phe Glu Ile Leu Ser Gln Phe Gly Pro Val Pro Pro Asp Ile  
115 120 125

Glu Gln Lys His Lys Tyr Ala Ala Trp Lys Ala Ala Asp Ile Arg Lys  
 130 135 140  
 Ala Ile Lys Glu Gly Arg Lys Pro Thr Pro Gly Asp Pro Val Asp Asp  
 145 150 155 160  
 Asp Thr Asp Leu Ser Ile Pro Ser Ser Gly Pro Ser Gly Ser Tyr Asp  
 165 170 175  
 His Ser Ala Ser Asp Thr Asn Thr Thr Ser His His Arg Thr Glu Leu  
 180 185 190  
 Asp Pro Pro His Asp Ser Asn Asp Asp Ser Ser His His Gln Phe Pro  
 195 200 205  
 Glu Val Pro Gln His Pro Leu Pro Pro Arg Phe Tyr Asp Asn Pro Thr  
 210 215 220  
 Asn Asp Tyr Pro Ala Asp Val Pro Pro Pro Pro Pro Ser Ser Tyr Pro  
 225 230 235 240  
 Ser Asn Asp His Leu Pro Pro Pro Thr Gly Pro Ser Asp Ser Pro Tyr  
 245 250 255  
 Pro His Pro Tyr Ser His Gln Pro Tyr His Gln Asp Pro Pro Lys His  
 260 265 270  
 Met Pro Pro Pro Gln Asn Tyr Ser Ser His Glu Pro Ser Pro Asn Ser  
 275 280 285  
 Leu Pro Asn Phe Gln Ser Tyr Pro Ser Phe Ser Glu Ser Ser Leu Pro  
 290 295 300  
 Ser Thr Ser Pro His Tyr Pro Ser His Tyr Gln Asn Pro Glu Pro Tyr  
 305 310 315 320  
 Tyr Ser Ser Pro His Ser Ala Pro Ala Pro Ser Ser Thr Ser Phe Ser  
 325 330 335  
 Ser Ala Pro Pro Pro Pro Pro Tyr Ser Ser Asn Gly Arg Ile Asn Ile  
 340 345 350  
 Ala Pro Val Leu Asp Pro Ala Pro Ser Ser Ala Gln Lys Tyr His Tyr  
 355 360 365  
 Asp Ser Ser Tyr Gln Pro Gly Pro Glu Lys Val Ala Glu Ala Leu Lys  
 370 375 380

047-E2F-PCT.ST25.txt

Ala Ala Arg Phe Ala Val Gly Ala Leu Ala Phe Asp Glu Val Ser Thr  
385 390 395 400

Ala Val Glu His Leu Lys Lys Ser Leu Glu Leu Leu Thr Asn Pro Ser  
405 410 415

Ala Gly Ala Gly His  
420

<210> 377

<211> 2568

<212> DNA

<213> Arabidopsis thaliana

<400> 377

atggtgttca caaaatcatt acttggttctt ctttggttcc tctcttggtta cactactact	60
acttcatcag ctttggtttaa tccgccagac aattacttga tctcttggtgg ctcatcacia	120
aacataactt tccaaaacag aatctttgtt ccagattcac tccactcttc tcttggtactc	180
aaaatcggaa actcttctgt tgcaacatca actacttcca acaattcaac caattccatc	240
taccaaaccg ctctgtgtttt ctccagttta gcttcttaca gattcaaaat cacttcttta	300
ggtcgacatt ggatccgtct tcatcttctca cctatcaaca actctacttg gaacttaacc	360
tctgcttcaa tcaactgtcgt aacagaagac ttcgtgctct tgaacaactt ctcttcaac	420
aacttcaacg gttctttacat cttcaaagag tacacagtca atgtcacttc agagttcttg	480
actttaagtt tcattccttc aaacaattcg gtgggtctttg tcaacgctat tgaagttgtc	540
tctgttccgg ataatcttat ccctgatcaa gctttggcgt taaacccttc aacaccattt	600
agtgggtctct ctctgtttgc atttgaaaca gtctacagat taaatatggg aggaccattg	660
ttgacttctc aaaacgatac attggggaga caatgggata atgatgcaga gtatcttcat	720
gtgaacagct ctgttcttgt tgtaacggcg aatccttctt cgattaagta ctctccttct	780
gtgactcaag aaacagctcc taacatgggt tatgcaactg ctgatacaat ggggtgatgct	840
aatgttgcca gtccaagttt taatgttact tgggttcttc ctgttgatcc agacttcagg	900
tactttgttc gtgttcattt ctgtgatatt gtgagtcaag ctttgaacac gcttggtttc	960
aatctttatg tgaatgatga tcttgctctt ggaagtcttg atctctctac gttgactaat	1020
ggctcttaag ttccttactt taaggatttt atctccaatg gttctgttga atcttccggt	1080
gttttaaccg ttagcgttgg acctgattca caagctgata tctaataatgc gactatgaat	1140
gggttagagg ttttgaagat tagtaacgaa gctaagagct taagtgggtgt ttcttcgggt	1200

047-E2F-PCT.ST25.txt

aagtcgttac ttccgggagg atcaggttct aagagcaaga agaaggcagt gatcattggt 1260  
tcttttggttg gtgcgggttac attgattctg ctgattgctg tttgttgcta ttgctgtttg 1320  
gttgcttcaa ggaagcagag gtcgacgagt cctcaagaag gcggtaatgg acatccgtgg 1380  
ttgccattac ctttatatgg actctctcag actcttacta aatcaaccgc ttctcacaag 1440  
agtgccacag ctagttgcat ttcattagct tctactcatc ttggacgttg ctttatgttt 1500  
caagaaatca tggacgctac taataagttc gatgagagtt cgttgcttgg gggttggtgga 1560  
tttggccgcg ttataaaagg aacttttagaa gacgggacta aagtcgcggt taaaagaggt 1620  
aaccgcagat cagaacaagg tatggctgag ttcagaacag agattgaaat gctgtcaaaa 1680  
ctcagacatc gacatctcgt ctctcttatac gggttactgcg acgagaggtc tgaaatgata 1740  
ctggtctatg agtacatggc gaatggaccg ttgaggagtc atctatatgg agctgatctt 1800  
cctccattgt cttggaaaca aagactcgag atttgcatcg gtgcagcgag aggattacat 1860  
tatctacaca ccggtgcac gcagagcatt atacaccgtg atgttaaaac cacgaatatc 1920  
ttactcgacg agaatctagt cgccaaagtt gcagactttg gactatccaa aaccggccct 1980  
tcgctcgatc aaacacacgt gagcacggcg gttaaaggaa gctttgggta tctagacccg 2040  
gaatacttca ggagacagca gttaacagag aaatcagacg tttattcggt tggtgttgta 2100  
ctaattggaag tactctgttg tagaccggct ttaaaccggt tattacctag agaacaagtg 2160  
aacatagcgg aatgggcaat ggcgtggcag aaaaaggggtc tgctagatca aatcatggac 2220  
agtaacttaa ccgggaaggt gaaccctgcc tcggtgaaga aatttgagga aaccgcagag 2280  
aaatgtttag cggaatacgg tgtggaccgg ccttctatgg gagatgtatt gtggaatttg 2340  
gagtacgcgt tacagctaga agaaacatct tcggctttga tggagcctga tgacaatagt 2400  
acaaaccaca ttccagggat tccaatggcg ccaatggaac cgtttgataa cagtatgagt 2460  
ataatcgata gaggaggagt aaattcgggg accgggactg atgatgatgc ggaagacgcg 2520  
actactagtg cggtgttttc gcagcttggt catcctcgtg gaaggtag 2568

<210> 378

<211> 855

<212> PRT

<213> Arabidopsis thaliana

<400> 378

Met Val Phe Thr Lys Ser Leu Leu Val Leu Leu Trp Phe Leu Ser Cys  
1 5 10 15

047-E2F-PCT.ST25.txt

Tyr Thr Thr Thr Thr Ser Ser Ala Leu Phe Asn Pro Pro Asp Asn Tyr  
                   20                  25                  30  
 Leu Ile Ser Cys Gly Ser Ser Gln Asn Ile Thr Phe Gln Asn Arg Ile  
                   35                  40                  45  
 Phe Val Pro Asp Ser Leu His Ser Ser Leu Val Leu Lys Ile Gly Asn  
           50                  55                  60  
 Ser Ser Val Ala Thr Ser Thr Thr Ser Asn Asn Ser Thr Asn Ser Ile  
   65                  70                  75                  80  
 Tyr Gln Thr Ala Arg Val Phe Ser Ser Leu Ala Ser Tyr Arg Phe Lys  
                   85                  90                  95  
 Ile Thr Ser Leu Gly Arg His Trp Ile Arg Leu His Phe Ser Pro Ile  
                   100                  105                  110  
 Asn Asn Ser Thr Trp Asn Leu Thr Ser Ala Ser Ile Thr Val Val Thr  
                   115                  120                  125  
 Glu Asp Phe Val Leu Leu Asn Asn Phe Ser Phe Asn Asn Phe Asn Gly  
           130                  135                  140  
 Ser Tyr Ile Phe Lys Glu Tyr Thr Val Asn Val Thr Ser Glu Phe Leu  
   145                  150                  155                  160  
 Thr Leu Ser Phe Ile Pro Ser Asn Asn Ser Val Val Phe Val Asn Ala  
                   165                  170                  175  
 Ile Glu Val Val Ser Val Pro Asp Asn Leu Ile Pro Asp Gln Ala Leu  
                   180                  185                  190  
 Ala Leu Asn Pro Ser Thr Pro Phe Ser Gly Leu Ser Leu Leu Ala Phe  
                   195                  200                  205  
 Glu Thr Val Tyr Arg Leu Asn Met Gly Gly Pro Leu Leu Thr Ser Gln  
           210                  215                  220  
 Asn Asp Thr Leu Gly Arg Gln Trp Asp Asn Asp Ala Glu Tyr Leu His  
   225                  230                  235                  240  
 Val Asn Ser Ser Val Leu Val Val Thr Ala Asn Pro Ser Ser Ile Lys  
                   245                  250                  255  
 Tyr Ser Pro Ser Val Thr Gln Glu Thr Ala Pro Asn Met Val Tyr Ala  
                   260                  265                  270

047-E2F-PCT.ST25.txt

Thr Ala Asp Thr Met Gly Asp Ala Asn Val Ala Ser Pro Ser Phe Asn  
 275 280 285  
 Val Thr Trp Val Leu Pro Val Asp Pro Asp Phe Arg Tyr Phe Val Arg  
 290 295 300  
 Val His Phe Cys Asp Ile Val Ser Gln Ala Leu Asn Thr Leu Val Phe  
 305 310 315 320  
 Asn Leu Tyr Val Asn Asp Asp Leu Ala Leu Gly Ser Leu Asp Leu Ser  
 325 330 335  
 Thr Leu Thr Asn Gly Leu Lys Val Pro Tyr Phe Lys Asp Phe Ile Ser  
 340 345 350  
 Asn Gly Ser Val Glu Ser Ser Gly Val Leu Thr Val Ser Val Gly Pro  
 355 360 365  
 Asp Ser Gln Ala Asp Ile Thr Asn Ala Thr Met Asn Gly Leu Glu Val  
 370 375 380  
 Leu Lys Ile Ser Asn Glu Ala Lys Ser Leu Ser Gly Val Ser Ser Val  
 385 390 395 400  
 Lys Ser Leu Leu Pro Gly Gly Ser Gly Ser Lys Ser Lys Lys Lys Ala  
 405 410 415  
 Val Ile Ile Gly Ser Leu Val Gly Ala Val Thr Leu Ile Leu Leu Ile  
 420 425 430  
 Ala Val Cys Cys Tyr Cys Cys Leu Val Ala Ser Arg Lys Gln Arg Ser  
 435 440 445  
 Thr Ser Pro Gln Glu Gly Gly Asn Gly His Pro Trp Leu Pro Leu Pro  
 450 455 460  
 Leu Tyr Gly Leu Ser Gln Thr Leu Thr Lys Ser Thr Ala Ser His Lys  
 465 470 475 480  
 Ser Ala Thr Ala Ser Cys Ile Ser Leu Ala Ser Thr His Leu Gly Arg  
 485 490 495  
 Cys Phe Met Phe Gln Glu Ile Met Asp Ala Thr Asn Lys Phe Asp Glu  
 500 505 510  
 Ser Ser Leu Leu Gly Val Gly Gly Phe Gly Arg Val Tyr Lys Gly Thr  
 Page 601

515

520

525

Leu Glu Asp Gly Thr Lys Val Ala Val Lys Arg Gly Asn Pro Arg Ser  
 530 535 540

Glu Gln Gly Met Ala Glu Phe Arg Thr Glu Ile Glu Met Leu Ser Lys  
 545 550 555 560

Leu Arg His Arg His Leu Val Ser Leu Ile Gly Tyr Cys Asp Glu Arg  
 565 570 575

Ser Glu Met Ile Leu Val Tyr Glu Tyr Met Ala Asn Gly Pro Leu Arg  
 580 585 590

Ser His Leu Tyr Gly Ala Asp Leu Pro Pro Leu Ser Trp Lys Gln Arg  
 595 600 605

Leu Glu Ile Cys Ile Gly Ala Ala Arg Gly Leu His Tyr Leu His Thr  
 610 615 620

Gly Ala Ser Gln Ser Ile Ile His Arg Asp Val Lys Thr Thr Asn Ile  
 625 630 635 640

Leu Leu Asp Glu Asn Leu Val Ala Lys Val Ala Asp Phe Gly Leu Ser  
 645 650 655

Lys Thr Gly Pro Ser Leu Asp Gln Thr His Val Ser Thr Ala Val Lys  
 660 665 670

Gly Ser Phe Gly Tyr Leu Asp Pro Glu Tyr Phe Arg Arg Gln Gln Leu  
 675 680 685

Thr Glu Lys Ser Asp Val Tyr Ser Phe Gly Val Val Leu Met Glu Val  
 690 695 700

Leu Cys Cys Arg Pro Ala Leu Asn Pro Val Leu Pro Arg Glu Gln Val  
 705 710 715 720

Asn Ile Ala Glu Trp Ala Met Ala Trp Gln Lys Lys Gly Leu Leu Asp  
 725 730 735

Gln Ile Met Asp Ser Asn Leu Thr Gly Lys Val Asn Pro Ala Ser Leu  
 740 745 750

Lys Lys Phe Gly Glu Thr Ala Glu Lys Cys Leu Ala Glu Tyr Gly Val  
 755 760 765



Asp Arg Pro Ser Met Gly Asp Val Leu Trp Asn Leu Glu Tyr Ala Leu  
 770 775 780

Gln Leu Glu Glu Thr Ser Ser Ala Leu Met Glu Pro Asp Asp Asn Ser  
 785 790 795 800

Thr Asn His Ile Pro Gly Ile Pro Met Ala Pro Met Glu Pro Phe Asp  
 805 810 815

Asn Ser Met Ser Ile Ile Asp Arg Gly Gly Val Asn Ser Gly Thr Gly  
 820 825 830

Thr Asp Asp Asp Ala Glu Asp Ala Thr Thr Ser Ala Val Phe Ser Gln  
 835 840 845

Leu Val His Pro Arg Gly Arg  
 850 855

<210> 379

<211> 1446

<212> DNA

<213> Arabidopsis thaliana

<400> 379

atggcttccg ctgccgcaag ttccgccttt tcactcctta agtccaccgg cgctgttgct	60
tcctccgccg gaactcgcgc acgtgcctcc cttctgccaa ttccctctac ctctgtttcc	120
gcgcgtcctc taggcttctc cgccactcta gattcccgtc gtttctctct ccacgttgct	180
tccaaagttag aatcggtagc tgggaaggga agcagaggag tggtttctat ggcgaagaag	240
agcgtcggag atctgacctc agctgatttg aagggaaga aggttttcgt gagagctgat	300
ctcaatgtac ctctcgatga taatcagact atcactgacg ataccagaat ccgtgccgcc	360
attccaacga tcaagtatth gattgaaaat ggtgctaaag ttatcctctc cactcatctg	420
ggaaggccaa agggagtcac cccaaagttt agtttggtc ctcttggtccc taggctctcc	480
gagcttcttg gtattgaggt cacgaaagct gatgattgta ttggcccaga agtggaagc	540
ttggtggctt ctctacctga aggtggagtt ttgcttcttg agaacgtcag gttttacaag	600
gaggaagaga agaacgatcc tgagtttgct aagaagcttg cttctctagc tgacctttat	660
gtcaatgatg ctttcggaac tgctcacaga gctcatgctt ctaccgaagg agtcactaag	720
ttcttgaagc cttcagttgc tggtttcctt ttgcaaaagg aactggacta cctagttggt	780
gctgtttcaa acccaaagag accatttgca gccatagtgg gtggttccaa agtctcatcc	840

047-E2F-PCT.ST25.txt

aagattggag ttattgaatc gcttctggag aagtgtgata ttcttcttct tggtggtgga 900  
atgatcttca cattctacaa ggcacagggg ctttcagttg gttcgtccct tgttgaagaa 960  
gacaagcttg aattggctac agaactcctt gccaaagcta aggccaaagg agtctctctt 1020  
ttgttgccaa cagatgttgt agttgctgac aagtttgctc ctgatgccaa cagcaagatt 1080  
gtgcctgcat caggcattga ggacggatgg atgggactgg acattggtcc agactctatc 1140  
aaaactttca acgaagctct ggacacaaca caaacagtca tttggaatgg acctatggga 1200  
gttttcgaga tggaaaagtt tgcggctgga acagaggcga tagcgaataa actagcagag 1260  
ctaagtgaaa aaggagtgac aacgataata ggaggaggag actcagtggc tgcagtggag 1320  
aaagtaggag tagcaggagt catgagtcac atctccactg gtggtggagc cagcttggag 1380  
ctgttggag gaaaagtact tcccggtgtg atcgcccttg atgaagcaat cccagtcact 1440  
gtttag 1446

<210> 380

<211> 481

<212> PRT

<213> Arabidopsis thaliana

<400> 380

Met Ala Ser Ala Ala Ala Ser Ser Ala Phe Ser Leu Leu Lys Ser Thr  
1 5 10 15

Gly Ala Val Ala Ser Ser Ala Gly Thr Arg Ala Arg Ala Ser Leu Leu  
20 25 30

Pro Ile Pro Ser Thr Ser Val Ser Ala Arg Pro Leu Gly Phe Ser Ala  
35 40 45

Thr Leu Asp Ser Arg Arg Phe Ser Leu His Val Ala Ser Lys Val Glu  
50 55 60

Ser Val Arg Gly Lys Gly Ser Arg Gly Val Val Ser Met Ala Lys Lys  
65 70 75 80

Ser Val Gly Asp Leu Thr Ser Ala Asp Leu Lys Gly Lys Lys Val Phe  
85 90 95

Val Arg Ala Asp Leu Asn Val Pro Leu Asp Asp Asn Gln Thr Ile Thr  
100 105 110

Asp Asp Thr Arg Ile Arg Ala Ala Ile Pro Thr Ile Lys Tyr Leu Ile  
 115 120 125  
 Glu Asn Gly Ala Lys Val Ile Leu Ser Thr His Leu Gly Arg Pro Lys  
 130 135 140  
 Gly Val Thr Pro Lys Phe Ser Leu Ala Pro Leu Val Pro Arg Leu Ser  
 145 150 155 160  
 Glu Leu Leu Gly Ile Glu Val Thr Lys Ala Asp Asp Cys Ile Gly Pro  
 165 170 175  
 Glu Val Glu Ser Leu Val Ala Ser Leu Pro Glu Gly Gly Val Leu Leu  
 180 185 190  
 Leu Glu Asn Val Arg Phe Tyr Lys Glu Glu Glu Lys Asn Asp Pro Glu  
 195 200 205  
 Phe Ala Lys Lys Leu Ala Ser Leu Ala Asp Leu Tyr Val Asn Asp Ala  
 210 215 220  
 Phe Gly Thr Ala His Arg Ala His Ala Ser Thr Glu Gly Val Thr Lys  
 225 230 235 240  
 Phe Leu Lys Pro Ser Val Ala Gly Phe Leu Leu Gln Lys Glu Leu Asp  
 245 250 255  
 Tyr Leu Val Gly Ala Val Ser Asn Pro Lys Arg Pro Phe Ala Ala Ile  
 260 265 270  
 Val Gly Gly Ser Lys Val Ser Ser Lys Ile Gly Val Ile Glu Ser Leu  
 275 280 285  
 Leu Glu Lys Cys Asp Ile Leu Leu Leu Gly Gly Gly Met Ile Phe Thr  
 290 295 300  
 Phe Tyr Lys Ala Gln Gly Leu Ser Val Gly Ser Ser Leu Val Glu Glu  
 305 310 315 320  
 Asp Lys Leu Glu Leu Ala Thr Glu Leu Leu Ala Lys Ala Lys Ala Lys  
 325 330 335  
 Gly Val Ser Leu Leu Leu Pro Thr Asp Val Val Val Ala Asp Lys Phe  
 340 345 350  
 Ala Pro Asp Ala Asn Ser Lys Ile Val Pro Ala Ser Gly Ile Glu Asp  
 355 360 365

047-E2F-PCT.ST25.txt

Gly Trp Met Gly Leu Asp Ile Gly Pro Asp Ser Ile Lys Thr Phe Asn  
 370 375 380  
 Glu Ala Leu Asp Thr Thr Gln Thr Val Ile Trp Asn Gly Pro Met Gly  
 385 390 395 400  
 Val Phe Glu Met Glu Lys Phe Ala Ala Gly Thr Glu Ala Ile Ala Asn  
 405 410 415  
 Lys Leu Ala Glu Leu Ser Glu Lys Gly Val Thr Thr Ile Ile Gly Gly  
 420 425 430  
 Gly Asp Ser Val Ala Ala Val Glu Lys Val Gly Val Ala Gly Val Met  
 435 440 445  
 Ser His Ile Ser Thr Gly Gly Gly Ala Ser Leu Glu Leu Leu Glu Gly  
 450 455 460  
 Lys Val Leu Pro Gly Val Ile Ala Leu Asp Glu Ala Ile Pro Val Thr  
 465 470 475 480

Val

<210> 381

<211> 417

<212> DNA

<213> Arabidopsis thaliana

<400> 381

atgaaaggcg gcgaatccaa agctgaagca acgagcactg atcagagact caaaaccaga	60
ggtagaaagg ctgggaagaa gacgaagaag gatccaaatc aacctaagag acctccaagt	120
gctttcttcg tcttccttga ggatttccga aaagagttta acctagcgaa tcctaataac	180
aaatccgtcg ctactgttgg taaggctgct ggagctagat ggaaggcaat gactgatgaa	240
gataaagctc cttacgtcgc taaggctgag agcagaaaga ctgaatatat taagaatgtg	300
caacagtaca acttgaaact ggctagtgga accaatagag aagaggatga ctctgacaaa	360
tccaagtctg aagttgatga agcagtaagc gaagaggagg cagaagacga cgattga	417

<210> 382

<211> 138

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 382

Met Lys Gly Gly Glu Ser Lys Ala Glu Ala Thr Ser Thr Asp Gln Arg  
 1 5 10 15

Leu Lys Thr Arg Gly Arg Lys Ala Gly Lys Lys Thr Lys Lys Asp Pro  
 20 25 30

Asn Gln Pro Lys Arg Pro Pro Ser Ala Phe Phe Val Phe Leu Glu Asp  
 35 40 45

Phe Arg Lys Glu Phe Asn Leu Ala Asn Pro Asn Asn Lys Ser Val Ala  
 50 55 60

Thr Val Gly Lys Ala Ala Gly Ala Arg Trp Lys Ala Met Thr Asp Glu  
 65 70 75 80

Asp Lys Ala Pro Tyr Val Ala Lys Ala Glu Ser Arg Lys Thr Glu Tyr  
 85 90 95

Ile Lys Asn Val Gln Gln Tyr Asn Leu Lys Leu Ala Ser Gly Thr Asn  
 100 105 110

Arg Glu Glu Asp Asp Ser Asp Lys Ser Lys Ser Glu Val Asp Glu Ala  
 115 120 125

Val Ser Glu Glu Glu Ala Glu Asp Asp Asp  
 130 135

&lt;210&gt; 383

&lt;211&gt; 516

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 383

atggccgcaa ttacatcagc taccgtcacc atcccttctt tcaccggcct aaagctcgcc 60  
 gtcagctcaa aacctaagac attatccacc atcagtagat ccacttccgc caccagggcg 120  
 ccacctaagc tcgctttgaa gtcctctttg aaggatttcg gtgtcatcgc agtggcaaca 180  
 gcagcttcga tcgttttagc tggaaatgcg atggccatgg aggttctttt aggatccgac 240

047-E2F-PCT.ST25.txt

gacggttccc ttgctttcgt accatctgaa ttcacggtgg ctaaaggaga gaagatcgtg 300  
 ttcaagaaca acgcaggggtt cccacataac gtggtgttcg acgaagacga gatccctagt 360  
 ggtgtggacg caagcaagat ctcgatggat gagacagcgc ttctaaatgg tgcagggggag 420  
 acttacgagg ttactttgac agagccaggc tcttacggtt tctattgtgc gccgcaccag 480  
 ggtgctggta tggttgggaa actcaccgtc aagtaa 516

<210> 384

<211> 171

<212> PRT

<213> Arabidopsis thaliana

<400> 384

Met Ala Ala Ile Thr Ser Ala Thr Val Thr Ile Pro Ser Phe Thr Gly  
 1 5 10 15  
 Leu Lys Leu Ala Val Ser Ser Lys Pro Lys Thr Leu Ser Thr Ile Ser  
 20 25 30  
 Arg Ser Thr Ser Ala Thr Arg Ala Pro Pro Lys Leu Ala Leu Lys Ser  
 35 40 45  
 Ser Leu Lys Asp Phe Gly Val Ile Ala Val Ala Thr Ala Ala Ser Ile  
 50 55 60  
 Val Leu Ala Gly Asn Ala Met Ala Met Glu Val Leu Leu Gly Ser Asp  
 65 70 75 80  
 Asp Gly Ser Leu Ala Phe Val Pro Ser Glu Phe Thr Val Ala Lys Gly  
 85 90 95  
 Glu Lys Ile Val Phe Lys Asn Asn Ala Gly Phe Pro His Asn Val Val  
 100 105 110  
 Phe Asp Glu Asp Glu Ile Pro Ser Gly Val Asp Ala Ser Lys Ile Ser  
 115 120 125  
 Met Asp Glu Thr Ala Leu Leu Asn Gly Ala Gly Glu Thr Tyr Glu Val  
 130 135 140  
 Thr Leu Thr Glu Pro Gly Ser Tyr Gly Phe Tyr Cys Ala Pro His Gln  
 145 150 155 160

047-E2F-PCT.ST25.txt  
 Gly Ala Gly Met Val Gly Lys Leu Thr Val Lys  
                   165                  170

<210> 385

<211> 930

<212> DNA

<213> Arabidopsis thaliana

<400> 385

```
atggagaagt acgagaagct agagaaggct ggagaaggaa catacgggaa agtctacaaa      60
gcgatggaga aaggaactgg taagcttggt gctctgaaga aaactcgtct cgagatggac      120
gaagaaggta ttccaccaac tgctcttcgt gagatctcgc ttctccagat gttatcaaca      180
tcgatctatg ttgttcgatt actctgcgtc gaacatgttc atcaaccatc aaccaaattct      240
caatctacca aatccaattct ctatctcgtt ttcgagtatc tcgatactga tcttaagaaa      300
ttcatcgatt cgtataggaa aggacctaatt cctaagcctc ttgagccttt tttgattcag      360
aagttgatgt ttcagctttg taaagggtgtt gcgcattgtc atagtcattg tgtgcttcac      420
cgtgatctta aaccgcagaa tcttcttctg gtgaaagata aagagcttct taagattgct      480
gatttgggtc ttggtcgtgc ttttactggt cctcttaagt cttatacgca tgagattggt      540
actctttggt atagagctcc tgaagttctt cttggatcta ctcattattc aactgggtgtt      600
gacatgtggt ctgttggttg tatctttgct gagatgggtc ggaggcaagc tcttttcctt      660
ggtgattctg agtttcagca attgcttcat atcttcaggt tgctaggaac accaactgag      720
cagcaatggc cgggtgtttc cactctgcgt gactggcatg tttaccctaa gtgggagccg      780
caagacttaa ctcttgctgt tccttctctt tcacctcaag gagttgatct tctcacgaaa      840
atgctcaagt acaatccagc cgaaagaatt tcagcaaaaa cagcacttga tcacccatat      900
tttgacagcc ttgacaagtc tcagttctga      930
```

<210> 386

<211> 309

<212> PRT

<213> Arabidopsis thaliana

<400> 386

Met Glu Lys Tyr Glu Lys Leu Glu Lys Val Gly Glu Gly Thr Tyr Gly  
 1                  5                  10                  15

047-E2F-PCT.ST25.txt

Lys Val Tyr Lys<sub>20</sub> Ala Met Glu Lys Gly<sub>25</sub> Thr Gly Lys Leu Val<sub>30</sub> Ala Leu  
 Lys Lys Thr<sub>35</sub> Arg Leu Glu Met Asp<sub>40</sub> Glu Glu Gly Ile Pro<sub>45</sub> Pro Thr Ala  
 Leu Arg<sub>50</sub> Glu Ile Ser Leu Leu<sub>55</sub> Gln Met Leu Ser Thr<sub>60</sub> Ser Ile Tyr Val  
 Val<sub>65</sub> Arg Leu Leu Cys Val<sub>70</sub> Glu His Val His<sub>75</sub> Gln Pro Ser Thr Lys Ser<sub>80</sub>  
 Gln Ser Thr Lys<sub>85</sub> Ser Asn Leu Tyr Leu Val<sub>90</sub> Phe Glu Tyr Leu Asp<sub>95</sub> Thr  
 Asp Leu Lys Lys<sub>100</sub> Phe Ile Asp Ser Tyr<sub>105</sub> Arg Lys Gly Pro Asn<sub>110</sub> Pro Lys  
 Pro Leu Glu<sub>115</sub> Pro Phe Leu Ile Gln<sub>120</sub> Lys Leu Met Phe Gln<sub>125</sub> Leu Cys Lys  
 Gly Val<sub>130</sub> Ala His Cys His Ser<sub>135</sub> His Gly Val Leu His<sub>140</sub> Arg Asp Leu Lys  
 Pro Gln Asn Leu Leu Leu<sub>150</sub> Val Lys Asp Lys Glu<sub>155</sub> Leu Leu Lys Ile Ala<sub>160</sub>  
 Asp Leu Gly Leu Gly<sub>165</sub> Arg Ala Phe Thr Val<sub>170</sub> Pro Leu Lys Ser Tyr<sub>175</sub> Thr  
 His Glu Ile Val<sub>180</sub> Thr Leu Trp Tyr Arg<sub>185</sub> Ala Pro Glu Val Leu<sub>190</sub> Leu Gly  
 Ser Thr His<sub>195</sub> Tyr Ser Thr Gly Val<sub>200</sub> Asp Met Trp Ser Val<sub>205</sub> Gly Cys Ile  
 Phe Ala Glu Met Val Arg Arg<sub>215</sub> Gln Ala Leu Phe Pro<sub>220</sub> Gly Asp Ser Glu  
 Phe Gln Gln Leu Leu His<sub>230</sub> Ile Phe Arg Leu Leu<sub>235</sub> Gly Thr Pro Thr Glu<sub>240</sub>  
 Gln Gln Trp Pro Gly<sub>245</sub> Val Ser Thr Leu Arg<sub>250</sub> Asp Trp His Val Tyr<sub>255</sub> Pro  
 Lys Trp Glu Pro<sub>260</sub> Gln Asp Leu Thr Leu<sub>265</sub> Ala Val Pro Ser Leu<sub>270</sub> Ser Pro



047-E2F-PCT.ST25.txt

Gln Gly Val Asp Leu Leu Thr Lys Met Leu Lys Tyr Asn Pro Ala Glu  
275 280 285

Arg Ile Ser Ala Lys Thr Ala Leu Asp His Pro Tyr Phe Asp Ser Leu  
290 295 300

Asp Lys Ser Gln Phe  
305

<210> 387

<211> 1584

<212> DNA

<213> Arabidopsis thaliana

<400> 387

atgccgatcg	ataagatctt	caaagatgat	gctagtgaag	agaagggaga	acgtgcgagg	60
atggcatcat	ttgttggtgc	aatggctatc	agtgatctgg	ttaagtctac	tttagggcca	120
aagggcatgg	ataaaatctt	gcaatctact	ggtagaggtc	atgcggtcac	tgttactaac	180
gatggtgcta	ctattctcaa	gtcacttcac	atagacaacc	ctgcagctaa	agttcttggt	240
gacatctcga	aagttcaaga	tgatgagggt	ggtgatggaa	ctacctctgt	tgttgtcttg	300
gccggcgagc	ttctgagggg	agcagaaaag	cttggtggctt	ctaagattca	ccctatgacc	360
atcatagcag	gttacagaat	ggcttcggaa	tgtgctcgta	atgctttact	gaaaagagtc	420
attgataaca	aggacaatgc	agagaagttt	aggtcagact	tgttgaagat	tgcgatgact	480
actttatggt	ccaaaattct	ctcacaggac	aaggaacatt	ttgcagaaat	ggccgtggat	540
gctgttttca	ggctaaaggg	aagcacaaac	ttggaagcta	ttcagatcat	caaaaaacct	600
ggaggggtctc	tgaaggattc	gtttttggat	gaaggggttta	ttcttgacaa	gaaaatagga	660
attgggcagc	ctaagcgcat	agagaatgca	aatatcttag	tagctaatac	tgctatggat	720
accgataaag	tgaagattta	cggtgcacgt	gtccgtgtgg	attccatgac	caaggttgct	780
gagattgaag	gggctgagaa	ggaaaaaatg	aaagacaagg	tgaagaagat	cataggccac	840
ggaatcaact	gctttgttaa	caggcagttg	atctacaatt	tccttgagga	actctttgct	900
gatgctggta	tacttgctat	tgagcatgct	gactttgagg	gaatagagcg	tcttggtttg	960
gttactgggtg	gtgaaattgc	ttcgaccttt	gacaaccag	agtctgttaa	gcttgggcat	1020
tgcaagctta	tagaagaaat	catgattggt	gaagacaagt	tgattcattt	ctctggttgt	1080
gaaatgggcc	aggcttggtc	aattgtccta	agagggggcca	gtcaccatgt	cctagatgag	1140

047-E2F-PCT.ST25.txt

gctgaaagat cactccatga tgccttatgt gtactctctc aaacagtga tgataactaga 1200  
 gttttgcttg gaggtggatg gccagagatg gtgatggcaa aggaagtaga tgagcttgca 1260  
 aggaaaactg ctggcaaaaa atctcatgcc attgaagctt tctcacgtgc tctagttgct 1320  
 ataccgacaa caatcgctga caacgctggg ttagacagtg ccgaattggg tgctcagctt 1380  
 cgtgcagagc accacactga aggggtgtaac gctgggatcg acgtcatcac tggagctgta 1440  
 ggagatatgg aagagagagg aatctatgaa gcattcaaag tgaagcaagc gggttctgctt 1500  
 tcagccacag aagcatctga gatgatattg cgagtggatg aaatcattac atgtgctcct 1560  
 aggaggagag aagacaggat gtga 1584

<210> 388

<211> 527

<212> PRT

<213> Arabidopsis thaliana

<400> 388

Met Pro Ile Asp Lys Ile Phe Lys Asp Asp Ala Ser Glu Glu Lys Gly  
 1 5 10 15  
 Glu Arg Ala Arg Met Ala Ser Phe Val Gly Ala Met Ala Ile Ser Asp  
 20 25 30  
 Leu Val Lys Ser Thr Leu Gly Pro Lys Gly Met Asp Lys Ile Leu Gln  
 35 40 45  
 Ser Thr Gly Arg Gly His Ala Val Thr Val Thr Asn Asp Gly Ala Thr  
 50 55 60  
 Ile Leu Lys Ser Leu His Ile Asp Asn Pro Ala Ala Lys Val Leu Val  
 65 70 75 80  
 Asp Ile Ser Lys Val Gln Asp Asp Glu Val Gly Asp Gly Thr Thr Ser  
 85 90 95  
 Val Val Val Leu Ala Gly Glu Leu Leu Arg Glu Ala Glu Lys Leu Val  
 100 105 110  
 Ala Ser Lys Ile His Pro Met Thr Ile Ile Ala Gly Tyr Arg Met Ala  
 115 120 125  
 Ser Glu Cys Ala Arg Asn Ala Leu Leu Lys Arg Val Ile Asp Asn Lys  
 130 135 140

047-E2F-PCT.ST25.txt

Asp Asn Ala Glu Lys Phe Arg Ser Asp Leu Leu Lys Ile Ala Met Thr  
 145 150 155 160  
 Thr Leu Cys Ser Lys Ile Leu Ser Gln Asp Lys Glu His Phe Ala Glu  
 165 170 175  
 Met Ala Val Asp Ala Val Phe Arg Leu Lys Gly Ser Thr Asn Leu Glu  
 180 185 190  
 Ala Ile Gln Ile Ile Lys Lys Pro Gly Gly Ser Leu Lys Asp Ser Phe  
 195 200 205  
 Leu Asp Glu Gly Phe Ile Leu Asp Lys Lys Ile Gly Ile Gly Gln Pro  
 210 215 220  
 Lys Arg Ile Glu Asn Ala Asn Ile Leu Val Ala Asn Thr Ala Met Asp  
 225 230 235 240  
 Thr Asp Lys Val Lys Ile Tyr Gly Ala Arg Val Arg Val Asp Ser Met  
 245 250 255  
 Thr Lys Val Ala Glu Ile Glu Gly Ala Glu Lys Glu Lys Met Lys Asp  
 260 265 270  
 Lys Val Lys Lys Ile Ile Gly His Gly Ile Asn Cys Phe Val Asn Arg  
 275 280 285  
 Gln Leu Ile Tyr Asn Phe Pro Glu Glu Leu Phe Ala Asp Ala Gly Ile  
 290 295 300  
 Leu Ala Ile Glu His Ala Asp Phe Glu Gly Ile Glu Arg Leu Gly Leu  
 305 310 315 320  
 Val Thr Gly Gly Glu Ile Ala Ser Thr Phe Asp Asn Pro Glu Ser Val  
 325 330 335  
 Lys Leu Gly His Cys Lys Leu Ile Glu Glu Ile Met Ile Gly Glu Asp  
 340 345 350  
 Lys Leu Ile His Phe Ser Gly Cys Glu Met Gly Gln Ala Cys Ser Ile  
 355 360 365  
 Val Leu Arg Gly Ala Ser His His Val Leu Asp Glu Ala Glu Arg Ser  
 370 375 380  
 Leu His Asp Ala Leu Cys Val Leu Ser Gln Thr Val Asn Asp Thr Arg

385 390 395 400

Val Leu Leu Gly Gly Gly Trp Pro Glu Met Val Met Ala Lys Glu Val  
405 410 415

Asp Glu Leu Ala Arg Lys Thr Ala Gly Lys Lys Ser His Ala Ile Glu  
420 425 430

Ala Phe Ser Arg Ala Leu Val Ala Ile Pro Thr Thr Ile Ala Asp Asn  
435 440 445

Ala Gly Leu Asp Ser Ala Glu Leu Val Ala Gln Leu Arg Ala Glu His  
450 455 460

His Thr Glu Gly Cys Asn Ala Gly Ile Asp Val Ile Thr Gly Ala Val  
465 470 475 480

Gly Asp Met Glu Glu Arg Gly Ile Tyr Glu Ala Phe Lys Val Lys Gln  
485 490 495

Ala Val Leu Leu Ser Ala Thr Glu Ala Ser Glu Met Ile Leu Arg Val  
500 505 510

Asp Glu Ile Ile Thr Cys Ala Pro Arg Arg Arg Glu Asp Arg Met  
515 520 525

<210> 389

<211> 1218

<212> DNA

<213> Arabidopsis thaliana

<400> 389

atgggtcgacc tagggacgtg ggtcatgagc tctaaactta tggacgcttc ggtgacgcgt 60

ggcatggttt tagggcttgt gaaaagtacg ttttatgacc atttttgcgc cggtgaagat 120

gccgacgcag ccgctgagcg cgtgagaagc gtttatgaag ctactggtct taaagggatg 180

cttgtctatg gcgtcgaaca cgccgatgac gctgtatctt gtgatgataa catgcaacaa 240

ttcatttcgaa ccattgaagc tgccaaatct ttaccaacat ctcacttttag ctcaqtgqgtt 300

gtgaagataa ctgccatttg tccaattagt cttctgaaac gagtgaqcga tctgctgcgg 360

tgggaataca aaagtccgaa cttcaaactc tcatggaagc tcaaatacgtt tccgggttttc 420

tccgaatcga gtcctctcta ccacacaaac tcagaaccgg aaccgttaac cgcggaagaa 480

gaaagggagc tcgaagcagc tcatggaagg attcaagaaa tctgtaggaa atgccaagag 540

047-E2F-PCT.ST25.txt

tccaatgtac cattgttgat tgatgcggaa gacacaatcc tccaacccgc gatcgattac 600  
 atggcttatt catcggcgat catgttcaat gctgacaaag accgaccaat cgtttacaac 660  
 acgattcagg cgtacttgag agacgccggt gagagactgc atttggcagt acaaaatgct 720  
 gagaaagaga atgttcctat ggggttcaag ttggtgagag gggcttacat gtctagcgaa 780  
 gctagcttgg cggattccct gggttgcaag tcgccagtcc acgacacaat tcaggatact 840  
 cactcttggt acaatgattg tatgacattc ctgatggaga aagcatcaaa cggttctggt 900  
 ttcggtgtcg ttctcgcaac acataacgct gattcgggga gacttgcgtc gaggaaagcg 960  
 agtgacctcg ggatcgataa acagaacggg aagatagagt ttgcacagct atatggtatg 1020  
 tcagatgcat tgtccttcgg gttaaagaga gcaggggttca atgttagcaa gtacatgccg 1080  
 tttggacccg tcgcaaccgc tataccgtat cttctccgac gcgcttatga gaaccgggga 1140  
 atgatggcca cggagctca tgaccgtcaa ctcatgagga tggaacttaa gaggagatta 1200  
 atcgccggga ttgcgtaa 1218

<210> 390

<211> 405

<212> PRT

<213> Arabidopsis thaliana

<400> 390

Met Val Asp Leu Gly Thr Trp Val Met Ser Ser Lys Leu Met Asp Ala  
 1 5 10 15

Ser Val Thr Arg Gly Met Val Leu Gly Leu Val Lys Ser Thr Phe Tyr  
 20 25 30

Asp His Phe Cys Ala Gly Glu Asp Ala Asp Ala Ala Ala Glu Arg Val  
 35 40 45

Arg Ser Val Tyr Glu Ala Thr Gly Leu Lys Gly Met Leu Val Tyr Gly  
 50 55 60

Val Glu His Ala Asp Asp Ala Val Ser Cys Asp Asp Asn Met Gln Gln  
 65 70 75 80

Phe Ile Arg Thr Ile Glu Ala Ala Lys Ser Leu Pro Thr Ser His Phe  
 85 90 95

Ser Ser Val Val Val Lys Ile Thr Ala Ile Cys Pro Ile Ser Leu Leu  
 Page 615

100  
 105  
 110  
 Lys Arg Val Ser Asp Leu Leu Arg Trp Glu Tyr Lys Ser Pro Asn Phe  
 115 120 125  
 Lys Leu Ser Trp Lys Leu Lys Ser Phe Pro Val Phe Ser Glu Ser Ser  
 130 135 140  
 Pro Leu Tyr His Thr Asn Ser Glu Pro Glu Pro Leu Thr Ala Glu Glu  
 145 150 155 160  
 Glu Arg Glu Leu Glu Ala Ala His Gly Arg Ile Gln Glu Ile Cys Arg  
 165 170 175  
 Lys Cys Gln Glu Ser Asn Val Pro Leu Leu Ile Asp Ala Glu Asp Thr  
 180 185 190  
 Ile Leu Gln Pro Ala Ile Asp Tyr Met Ala Tyr Ser Ser Ala Ile Met  
 195 200 205  
 Phe Asn Ala Asp Lys Asp Arg Pro Ile Val Tyr Asn Thr Ile Gln Ala  
 210 215 220  
 Tyr Leu Arg Asp Ala Gly Glu Arg Leu His Leu Ala Val Gln Asn Ala  
 225 230 235 240  
 Glu Lys Glu Asn Val Pro Met Gly Phe Lys Leu Val Arg Gly Ala Tyr  
 245 250 255  
 Met Ser Ser Glu Ala Ser Leu Ala Asp Ser Leu Gly Cys Lys Ser Pro  
 260 265 270  
 Val His Asp Thr Ile Gln Asp Thr His Ser Cys Tyr Asn Asp Cys Met  
 275 280 285  
 Thr Phe Leu Met Glu Lys Ala Ser Asn Gly Ser Gly Phe Gly Val Val  
 290 295 300  
 Leu Ala Thr His Asn Ala Asp Ser Gly Arg Leu Ala Ser Arg Lys Ala  
 305 310 315 320  
 Ser Asp Leu Gly Ile Asp Lys Gln Asn Gly Lys Ile Glu Phe Ala Gln  
 325 330 335  
 Leu Tyr Gly Met Ser Asp Ala Leu Ser Phe Gly Leu Lys Arg Ala Gly  
 340 345 350

Phe Asn Val Ser Lys Tyr Met Pro Phe Gly Pro Val Ala Thr Ala Ile  
 355 360 365

Pro Tyr Leu Leu Arg Arg Ala Tyr Glu Asn Arg Gly Met Met Ala Thr  
 370 375 380

Gly Ala His Asp Arg Gln Leu Met Arg Met Glu Leu Lys Arg Arg Leu  
 385 390 395 400

Ile Ala Gly Ile Ala  
 405

<210> 391

<211> 615

<212> DNA

<213> Arabidopsis thaliana

<400> 391

atggccttcg atctccacca tggctcagct tcagatacgc attcatcaga acttccgctcg	60
ttttctctcc caccttatcc tcagatgata atggaagcga ttgagtcctt gaacgataag	120
aacggctgca acaaaacgac gattgctaag cacatcgagt cgactcaaca aactctaccg	180
ccgtcacaca tgacgtgct cagctaccat ctcaaccaga tgaagaaaac cggtcagcta	240
atcatgggtga agaacaatta tatgaaacca gatccagatg ctcttcctaa gcgtgggtcgt	300
ggccgtcctc cgaagcagaa gactcaggcc gaatctgacg ccgctgctgc tgctgttggt	360
gctgccaccg tcgtctctac agatccgcct agatctcgtg gccgtccacc gaagccgaaa	420
gatccatcgg agcctcccca ggagaagggtc attaccggat ctggaaggcc acgaggacga	480
ccaccgaaga gaccgagaac agattcggag acggttgctg cgccggaacc ggcagctcag	540
gcgacaggtg agcgtagggg acgtgggaga cctccgaagg tgaagccgac ggtggttgct	600
ccggttgggt gctga	615

<210> 392

<211> 204

<212> PRT

<213> Arabidopsis thaliana

<400> 392

Met Ala Phe Asp Leu His His Gly Ser Ala Ser Asp Thr His Ser Ser  
 Page 617

1                      5                      10                      15  
 Glu Leu Pro Ser Phe Ser Leu Pro Pro Tyr Pro Gln Met Ile Met Glu  
                     20                      25                      30  
 Ala Ile Glu Ser Leu Asn Asp Lys Asn Gly Cys Asn Lys Thr Thr Ile  
                     35                      40                      45  
 Ala Lys His Ile Glu Ser Thr Gln Gln Thr Leu Pro Pro Ser His Met  
                     50                      55                      60  
 Thr Leu Leu Ser Tyr His Leu Asn Gln Met Lys Lys Thr Gly Gln Leu  
                     65                      70                      75                      80  
 Ile Met Val Lys Asn Asn Tyr Met Lys Pro Asp Pro Asp Ala Pro Pro  
                     85                      90                      95  
 Lys Arg Gly Arg Gly Arg Pro Pro Lys Gln Lys Thr Gln Ala Glu Ser  
                     100                      105                      110  
 Asp Ala Ala Ala Ala Ala Val Val Ala Ala Thr Val Val Ser Thr Asp  
                     115                      120                      125  
 Pro Pro Arg Ser Arg Gly Arg Pro Pro Lys Pro Lys Asp Pro Ser Glu  
                     130                      135                      140  
 Pro Pro Gln Glu Lys Val Ile Thr Gly Ser Gly Arg Pro Arg Gly Arg  
                     145                      150                      155                      160  
 Pro Pro Lys Arg Pro Arg Thr Asp Ser Glu Thr Val Ala Ala Pro Glu  
                     165                      170                      175  
 Pro Ala Ala Gln Ala Thr Gly Glu Arg Arg Gly Arg Gly Arg Pro Pro  
                     180                      185                      190  
 Lys Val Lys Pro Thr Val Val Ala Pro Val Gly Cys  
                     195                      200

<210> 393

<211> 1953

<212> DNA

<213> Arabidopsis thaliana

<400> 393

atggaaggag ggtctgttaa tgaatcgcat tctaattcgg accaaatggt tgacacaact

60



## 047-E2F-PCT.ST25.txt

atagaagagt	tatgtaagaa	tctctgcgaa	ttgcagagtt	ctaataatc	tccttcaagg	120
cagagttttg	gatcatatgg	tgatgagtca	aagattgatt	ctgatctaca	acatcttgct	180
ttgggagaga	tgcgagatat	tgatatcttg	gaagatgaag	gagatgagga	cgaagtggca	240
aagccagaag	agtttgatgt	caagtcaa	tcttcaaact	tggatttgga	agtcatgccc	300
agggatatgg	agaaacaaac	tggtagaag	aatgtgacta	aatcgaacgt	tggagtcggt	360
ggaatgagga	agaagaaagt	cggaggtacc	aagttacaaa	atggaaatga	agaaccatca	420
tctgaaaatg	tagagctggc	acgtttttta	ctgaaccaag	cgagaaactt	ggttagttct	480
ggtgacagta	cacacaaagc	tctcgagtta	actcatcgag	cagctaagtt	gtttgaggct	540
tctgcagaga	atgggaaacc	atgtttggaa	tggatcatgt	gtttgcatgt	tacagcagca	600
gtccattgta	agttaaaaga	gtacaatgag	gcaattccgg	ttctacagcg	ctctgttgag	660
attcctgttg	ttgaagaagg	tgaagagcat	gctctagcta	aatttgctgg	tctgatgcag	720
ttaggtgaca	cttacgctat	ggtggggcag	ctagagagct	cgatatcgtg	ttataccgag	780
ggattgaata	tccagaagaa	ggttttggga	gaaaatgacc	caagagttgg	tgaaacatgc	840
agatacctag	cagaagctct	tgtacaagca	ttacggtttg	atgaggctca	acaggctctgc	900
gaaacggctc	tttctataca	tagagaaagc	ggtttaccag	gttcaatcgc	agaggccgcg	960
gatagaagac	tcatggggct	tatatgtgag	actaagggag	atcatgagaa	tgcccttgag	1020
catttggtat	tagccagtat	ggccatggca	gcaaattggac	aagagtctga	ggttgctttt	1080
gttgatacta	gcattggtga	ctcgtacttg	tctttgtctc	ggttcgatga	agcgatttgt	1140
gcataccaga	aatctctcac	agcactgaag	acagcaaagg	gagagaacca	tccagctggt	1200
ggttcagttt	atatccgttt	agctgatctc	tataatcgga	caggaaaagt	gcgtgaagca	1260
aagtcttatt	gtgaaaatgc	tcttcggata	tacgagtctc	ataacctaga	gatttctcct	1320
gaagagattg	caagtggctc	tacagatatc	tccgtgatat	gcgagtctat	gaacgaggtg	1380
gaacaagcta	ttaccttgct	acaaaaggcg	ctgaagatat	acgcggattc	tcctggccag	1440
aaaatcatga	ttgcagggat	tgaagctcaa	atgggagtg	tgtactatat	gatggggaaa	1500
tacatggagt	cgtacaacac	atttaagagc	gctatctcaa	aactacgggc	gactggaaag	1560
aaacaatcaa	cgttttttcg	gattgcactt	aaccaaattg	gttttagcatg	cattcagctc	1620
gatgcaatag	aagaggctgt	tgagttgttt	gaagaagcca	agtgtatttt	agaacaagag	1680
tgtggtcctt	atcaccgga	aacacttgga	ttgtacagta	accttgacag	agcttatgat	1740
gcaattggca	ggttggatga	tgcgattaag	ctgctaggac	atgtgggttg	ggttcgggag	1800
gaaaagctcg	ggacagcgaa	tcctgtaacg	gaagacgaga	agaggaggct	ggcccaactc	1860
ttgaaagaag	ctggtaacgt	tacaggaagg	aaagctaaat	ccctcaagac	tctaattgat	1920

tccgattctca cttctttcttc agctcttcgt taa

1953

<210> 394

<211> 650

<212> PRT

<213> Arabidopsis thaliana

<400> 394

Met Glu Gly Gly Ser Val Asn Glu Ser His Ser Asn Ala Asp Gln Met  
1 5 10 15

Phe Asp Thr Thr Ile Glu Glu Leu Cys Lys Asn Leu Cys Glu Leu Gln  
20 25 30

Ser Ser Asn Gln Ser Pro Ser Arg Gln Ser Phe Gly Ser Tyr Gly Asp  
35 40 45

Glu Ser Lys Ile Asp Ser Asp Leu Gln His Leu Ala Leu Gly Glu Met  
50 55 60

Arg Asp Ile Asp Ile Leu Glu Asp Glu Gly Asp Glu Asp Glu Val Ala  
65 70 75 80

Lys Pro Glu Glu Phe Asp Val Lys Ser Asn Ser Ser Asn Leu Asp Leu  
85 90 95

Glu Val Met Pro Arg Asp Met Glu Lys Gln Thr Gly Lys Lys Asn Val  
100 105 110

Thr Lys Ser Asn Val Gly Val Gly Gly Met Arg Lys Lys Lys Val Gly  
115 120 125

Gly Thr Lys Leu Gln Asn Gly Asn Glu Glu Pro Ser Ser Glu Asn Val  
130 135 140

Glu Leu Ala Arg Phe Leu Leu Asn Gln Ala Arg Asn Leu Val Ser Ser  
145 150 155 160

Gly Asp Ser Thr His Lys Ala Leu Glu Leu Thr His Arg Ala Ala Lys  
165 170 175

Leu Phe Glu Ala Ser Ala Glu Asn Gly Lys Pro Cys Leu Glu Trp Ile  
180 185 190

Met Cys Leu His Val Thr Ala Ala Val His Cys Lys Leu Lys Glu Tyr  
 195 200 205  
 Asn Glu Ala Ile Pro Val Leu Gln Arg Ser Val Glu Ile Pro Val Val  
 210 215 220  
 Glu Glu Gly Glu Glu His Ala Leu Ala Lys Phe Ala Gly Leu Met Gln  
 225 230 235 240  
 Leu Gly Asp Thr Tyr Ala Met Val Gly Gln Leu Glu Ser Ser Ile Ser  
 245 250 255  
 Cys Tyr Thr Glu Gly Leu Asn Ile Gln Lys Lys Val Leu Gly Glu Asn  
 260 265 270  
 Asp Pro Arg Val Gly Glu Thr Cys Arg Tyr Leu Ala Glu Ala Leu Val  
 275 280 285  
 Gln Ala Leu Arg Phe Asp Glu Ala Gln Gln Val Cys Glu Thr Ala Leu  
 290 295 300  
 Ser Ile His Arg Glu Ser Gly Leu Pro Gly Ser Ile Ala Glu Ala Ala  
 305 310 315 320  
 Asp Arg Arg Leu Met Gly Leu Ile Cys Glu Thr Lys Gly Asp His Glu  
 325 330 335  
 Asn Ala Leu Glu His Leu Val Leu Ala Ser Met Ala Met Ala Ala Asn  
 340 345 350  
 Gly Gln Glu Ser Glu Val Ala Phe Val Asp Thr Ser Ile Gly Asp Ser  
 355 360 365  
 Tyr Leu Ser Leu Ser Arg Phe Asp Glu Ala Ile Cys Ala Tyr Gln Lys  
 370 375 380  
 Ser Leu Thr Ala Leu Lys Thr Ala Lys Gly Glu Asn His Pro Ala Val  
 385 390 395 400  
 Gly Ser Val Tyr Ile Arg Leu Ala Asp Leu Tyr Asn Arg Thr Gly Lys  
 405 410 415  
 Val Arg Glu Ala Lys Ser Tyr Cys Glu Asn Ala Leu Arg Ile Tyr Glu  
 420 425 430  
 Ser His Asn Leu Glu Ile Ser Pro Glu Glu Ile Ala Ser Gly Leu Thr  
 435 440 445

047-E2F-PCT.ST25.txt

Asp Ile Ser Val Ile Cys Glu Ser Met Asn Glu Val Glu Gln Ala Ile  
450 455 460

Thr Leu Leu Gln Lys Ala Leu Lys Ile Tyr Ala Asp Ser Pro Gly Gln  
465 470 475 480

Lys Ile Met Ile Ala Gly Ile Glu Ala Gln Met Gly Val Leu Tyr Tyr  
485 490 495

Met Met Gly Lys Tyr Met Glu Ser Tyr Asn Thr Phe Lys Ser Ala Ile  
500 505 510

Ser Lys Leu Arg Ala Thr Gly Lys Lys Gln Ser Thr Phe Phe Gly Ile  
515 520 525

Ala Leu Asn Gln Met Gly Leu Ala Cys Ile Gln Leu Asp Ala Ile Glu  
530 535 540

Glu Ala Val Glu Leu Phe Glu Glu Ala Lys Cys Ile Leu Glu Gln Glu  
545 550 555 560

Cys Gly Pro Tyr His Pro Glu Thr Leu Gly Leu Tyr Ser Asn Leu Ala  
565 570 575

Gly Ala Tyr Asp Ala Ile Gly Arg Leu Asp Asp Ala Ile Lys Leu Leu  
580 585 590

Gly His Val Val Gly Val Arg Glu Glu Lys Leu Gly Thr Ala Asn Pro  
595 600 605

Val Thr Glu Asp Glu Lys Arg Arg Leu Ala Gln Leu Leu Lys Glu Ala  
610 615 620

Gly Asn Val Thr Gly Arg Lys Ala Lys Ser Leu Lys Thr Leu Ile Asp  
625 630 635 640

Ser Asp Leu Thr Ser Ser Ser Ala Leu Arg  
645 650

<210> 395

<211> 1365

<212> DNA

<213> Arabidopsis thaliana

047-E2F-PCT.ST25.txt

<400> 395  
atgcctaggc ctaagaggcc cagatcaaat atagcacctt catctcctga ctcttcgatg 60  
cttaccagag aaggtacaac taaggcaaac atggaccctt taccagcaag cggactttca 120  
agggctcttg aaggtcaaga atactcgacc ttgaggacga aacatactga gagtgtagag 180  
tgtgatgctc ctgagaattc tgttgtctgg caatcttcag cggatgatga taaggttgac 240  
gtggtttcgg gttctagaag atatggatct gagaactgga tgcctcagc caggcatgaa 300  
cctacttaca cagatttgct ctccggcttt gggactaaca tagatccatc ccatggtcag 360  
cggatacctt tttatgacca ttcatcatca ctttctatgc ctgcaaagag aatcttgagt 420  
gattcagaag gcaagttcga ttatcttgct aaccagtggc agatgataca ctctggtctc 480  
tccctgaagt tacatgaatc tcctaaggta cctgcagcaa ctgatgcgtc tctccaaggg 540  
cgatgcaatg ttaaatacag cgaatatcct gttcttaatg gtctatcgac tgagaatgct 600  
ggtggttaact ggccaatacg tccacgtgct ttgaattatt atgaggaagt ggtcaatgct 660  
caagcgcaag ctgaggctag ggagcaagta acaaaacaac ctttcacgat acaagaggag 720  
acagcaaagt caagagaagg gaactgcagg ctctttggca ttcctctgac caacaacatg 780  
aatgggacag actcaaccat gtctcagaga aacaacttga atgatgctgc ggggcttaca 840  
cagatagcat caccaaaggt tcaggacctt tcagatcagt caaaagggtc aaaatcaaca 900  
aacgatcatc gtgaacaggg aagaccattc cagactaata atcctcatcc gaaggatgct 960  
caaacgaaaa ccaactcaag taggagttgc acaaagggtt acaagcaggg aattgcactt 1020  
ggccgttcag tggatctttc aaagttccaa aactatgagg agttagtcgc tgagctggac 1080  
aggctgtttg agttcaatgg agagttgatg gctcctaaga aagattgggt gatagtttac 1140  
acagatgaag agaatgatat gatgcttggt ggtgacgatc cttggcagga gttttgttgc 1200  
atggttcgca aaatcttcat atacacgaaa gaggaagtga ggaagatgaa cccggggact 1260  
ttaagctgta ggagcgagga agaagcagtt gttggggaag gatcagatgc aaaggacgcc 1320  
aagtctgcat caaatccttc attgtccagc gctgggaact cttaa 1365

<210> 396

<211> 454

<212> PRT

<213> Arabidopsis thaliana

<400> 396

Met Pro Arg Pro Lys Arg Pro Arg Ser Asn Ile Ala Pro Ser Ser Pro  
1 5 10 15

047-E2F-PCT.ST25.txt

Asp Ser Ser Met Leu Thr Arg Glu Gly Thr Thr Lys Ala Asn Met Asp  
 20 25 30  
 Pro Leu Pro Ala Ser Gly Leu Ser Arg Val Leu Gln Gly Gln Glu Tyr  
 35 40 45  
 Ser Thr Leu Arg Thr Lys His Thr Glu Ser Val Glu Cys Asp Ala Pro  
 50 55 60  
 Glu Asn Ser Val Val Trp Gln Ser Ser Ala Asp Asp Asp Lys Val Asp  
 65 70 75 80  
 Val Val Ser Gly Ser Arg Arg Tyr Gly Ser Glu Asn Trp Met Ser Ser  
 85 90 95  
 Ala Arg His Glu Pro Thr Tyr Thr Asp Leu Leu Ser Gly Phe Gly Thr  
 100 105 110  
 Asn Ile Asp Pro Ser His Gly Gln Arg Ile Pro Phe Tyr Asp His Ser  
 115 120 125  
 Ser Ser Pro Ser Met Pro Ala Lys Arg Ile Leu Ser Asp Ser Glu Gly  
 130 135 140  
 Lys Phe Asp Tyr Leu Ala Asn Gln Trp Gln Met Ile His Ser Gly Leu  
 145 150 155 160  
 Ser Leu Lys Leu His Glu Ser Pro Lys Val Pro Ala Ala Thr Asp Ala  
 165 170 175  
 Ser Leu Gln Gly Arg Cys Asn Val Lys Tyr Ser Glu Tyr Pro Val Leu  
 180 185 190  
 Asn Gly Leu Ser Thr Glu Asn Ala Gly Gly Asn Trp Pro Ile Arg Pro  
 195 200 205  
 Arg Ala Leu Asn Tyr Tyr Glu Glu Val Val Asn Ala Gln Ala Gln Ala  
 210 215 220  
 Gln Ala Arg Glu Gln Val Thr Lys Gln Pro Phe Thr Ile Gln Glu Glu  
 225 230 235 240  
 Thr Ala Lys Ser Arg Glu Gly Asn Cys Arg Leu Phe Gly Ile Pro Leu  
 245 250 255  
 Thr Asn Asn Met Asn Gly Thr Asp Ser Thr Met Ser Gln Arg Asn Asn  
 260 265 270

047-E2F-PCT.ST25.txt

Leu Asn Asp Ala Ala Gly Leu Thr Gln Ile Ala Ser Pro Lys Val Gln  
275 280 285

Asp Leu Ser Asp Gln Ser Lys Gly Ser Lys Ser Thr Asn Asp His Arg  
290 295 300

Glu Gln Gly Arg Pro Phe Gln Thr Asn Asn Pro His Pro Lys Asp Ala  
305 310 315 320

Gln Thr Lys Thr Asn Ser Ser Arg Ser Cys Thr Lys Val His Lys Gln  
325 330 335

Gly Ile Ala Leu Gly Arg Ser Val Asp Leu Ser Lys Phe Gln Asn Tyr  
340 345 350

Glu Glu Leu Val Ala Glu Leu Asp Arg Leu Phe Glu Phe Asn Gly Glu  
355 360 365

Leu Met Ala Pro Lys Lys Asp Trp Leu Ile Val Tyr Thr Asp Glu Glu  
370 375 380

Asn Asp Met Met Leu Val Gly Asp Asp Pro Trp Gln Glu Phe Cys Cys  
385 390 395 400

Met Val Arg Lys Ile Phe Ile Tyr Thr Lys Glu Glu Val Arg Lys Met  
405 410 415

Asn Pro Gly Thr Leu Ser Cys Arg Ser Glu Glu Glu Ala Val Val Gly  
420 425 430

Glu Gly Ser Asp Ala Lys Asp Ala Lys Ser Ala Ser Asn Pro Ser Leu  
435 440 445

Ser Ser Ala Gly Asn Ser  
450

<210> 397

<211> 3096

<212> DNA

<213> Arabidopsis thaliana

<400> 397

atgtttttatt cgcagtttat attagctaag aaagggccac ttgggacaat atggattgct

60

gcccatttgg	agaggaagct	tcgaaagaat	caggtcgcgtg	atactgatata	tgagagtctcc	120
gttgattcta	ttctctttcc	ggaagctccg	attgcattgc	gattgtctag	tcattcttctg	180
cttggtgttg	tgcgatatata	ttcgagaaag	gtgaattacc	tctttgatga	ttgcagtgag	240
gcattgctta	aggtaaagca	agcttttcgc	tctgctgctg	ttgacctacc	ccctgaagaa	300
tctacagcgc	cgtatcactc	tattacgttg	ccagagacat	ttgatcttga	tgactttgag	360
cttccagaca	atgagatctt	tcagggtaat	tacgttgatc	atcatgttag	tacaaaagag	420
cagatcaccc	ttcaggatac	catggatggc	gttgtatact	caacgtcaca	at ttggatta	480
gatgagcgat	ttggtgatgg	cgacacttct	caagctgctt	tgatcttga	tgaggcagta	540
ttccaggaca	aggatgttat	tgatccgac	gatgaggag	ttccaggat	tgatcacaa	600
gcgtatctgg	atgcggcagc	acccgggata	aaggattcga	tggaaggagt	ctctgaagcc	660
atgcccattg	at tttaatga	agagcagggt	gaagatcttg	ctatgaataa	tgagttcatc	720
gaagatgctc	aagctcctca	aactcctgga	ttagttgagg	tgccaaactc	gtctagtgtg	780
agagagcaga	tgcatgcga	tgatcacatg	gacgtagagg	atctgaatgc	agaagaagg	840
ataaagtcct	ctggggagct	gaatgcta	gagatgccta	aacgtgggga	agacctgtct	900
tctgaatata	atgccccaga	atcagcagtt	actcctgtgg	aggtagataa	gtcacagata	960
gatgaaaatg	tcaacacaca	aatgagccg	gaggaggaga	gggcagagca	tgtacatgtt	1020
acatctccat	gttgttctca	catcaccacc	gagatggagg	atcctgggtca	agtaatgaat	1080
gaggcaggag	ctaattgttg	acctgataaa	cccgatgctg	ttcctccact	tgaaaccctt	1140
ggagaagaga	accgagatca	ttttgccatt	gccactgagg	tcaatcagga	aacagattct	1200
agttttacaag	gagatgagca	agcgtacagt	agaccagatg	ggcagctgaa	taatgcacac	1260
gaaactgatg	aacagttggg	aaatttgact	ggattttaccg	attctgattt	ccctccacct	1320
gagaaggat	tagctgtacc	taacagacag	ggggatggaa	atgatttcat	ggttgaatct	1380
acaccagata	aagaagaccc	tggcacatgt	aatgatgatg	cggggaataa	taacattact	1440
gggaaaaaac	gcactttttac	tgagagcaca	ctaactgcag	aaagtttgaa	ctctgtggag	1500
tcagttggac	tgattcagtc	aaagagaact	gcagattctg	tccctgatga	cgatgatttg	1560
ttgtcttcta	tcttagtttg	aaagtcattc	tttctgaaga	tgaggcctac	ccctgtgctt	1620
gaaccagcaa	ctacaaaacg	gttacgatct	gctccccgct	ctactgccac	aaagaggaag	1680
gttctaattg	atgaccctat	ggtcttgc	ggcgacatta	tacgtcaaca	actgacaaac	1740
actgaagata	tacggcgcgt	gcgaaagaag	gcaccttgca	ccgttcctga	aatcgtaatg	1800
cttcaaaggc	aggcttttga	ggatggactc	tttaaggagc	caatattttac	tggtatgtca	1860
gtggaattag	tatctctgca	cactgagccg	tatgatctaa	gaggaatcat	gataattgag	1920
aatgatgacc	gtcatgcttc	tgttggagcg	gtggaagata	atgaatgttc	tgttacggcc	1980



047-E2F-PCT.ST25.txt

gtggaagaaa ataaaacgga agaaagctct gatccgcaag ctcacccaaa tgattgtgag 2040  
gagcaacctg gtacgggtca tactcacccg caggaggaac aaaccataaa ccaacaggaa 2100  
gagctgaaag atgataatga gcttgctgaa aaatctgact tggagggttt gaaggaaggc 2160  
aatggagctg ctgatgaagt aaatcttgta gtgattgacg atgtcagtca aataccgtct 2220  
gaggaaaaac tcgaccgtgt agaggattta caggttgaag aatcccatga aaaccatgat 2280  
ggagaaggcg ggcaggatgt ttgtgcggat cctaataaaa aaagttgcac tgacgttatt 2340  
gaaattgctg aaggcgatac agatatcaac cccattttca atgagatgga cttgaaagtt 2400  
gaagatgaac ttccacatga agatgagaaa acggatgcat cagctgaagt tagcgagctt 2460  
gggagagacg atcagactcc atgcgataac acagttgggt ctactgaaac tggatgccta 2520  
gaagctggtg atttgagtaa catggctttg gaaaattgca atgaacctct ggtggaagcg 2580  
aatagtgatg ggttgaatcc agagacagag tcttataaca aatacgaacc gcataatgag 2640  
atgtctaata aggaggcgtc tatgcaaaat gcattagatg gagagcatac ttctcgtgat 2700  
ggtcttatgg gagacaatga tgaaatggat accatggaaa atgcacatga cacaggattt 2760  
ttgaacgtcg atgatgatga agtagatgaa gatcatgagg aggatgacat acaatatgat 2820  
gatgaaactc gtcttctaga aaacagtgga tggctcttct gtactagggc tgtggcaaag 2880  
tatctccaga cgttatttga taaagaaacc gagaatggga agaattgtct tgtggcagac 2940  
aaacttttag ctgggaaaac ccgtaaagaa gcatcgagaa tgtttttcga aaccctgggt 3000  
cttaaaacaa gagattacat ccaagtcgaa caagggaagc cctatgaaag catcatcata 3060  
aaaccgcgac caaagctcac caaatccatc ttctag 3096

<210> 398

<211> 1031

<212> PRT

<213> Arabidopsis thaliana

<400> 398

Met Phe Tyr Ser Gln Phe Ile Leu Ala Lys Lys Gly Pro Leu Gly Thr  
1 5 10 15

Ile Trp Ile Ala Ala His Leu Glu Arg Lys Leu Arg Lys Asn Gln Val  
20 25 30

Ala Asp Thr Asp Ile Gly Val Ser Val Asp Ser Ile Leu Phe Pro Glu  
35 40 45

047-E2F-PCT.ST25.txt

Ala Pro Ile Ala Leu Arg Leu Ser Ser His Leu Leu Leu Gly Val Val  
50 55 60

Arg Ile Tyr Ser Arg Lys Val Asn Tyr Leu Phe Asp Asp Cys Ser Glu  
65 70 75 80

Ala Leu Leu Lys Val Lys Gln Ala Phe Arg Ser Ala Ala Val Asp Leu  
85 90 95

Pro Pro Glu Glu Ser Thr Ala Pro Tyr His Ser Ile Thr Leu Pro Glu  
100 105 110

Thr Phe Asp Leu Asp Asp Phe Glu Leu Pro Asp Asn Glu Ile Phe Gln  
115 120 125

Gly Asn Tyr Val Asp His His Val Ser Thr Lys Glu Gln Ile Thr Leu  
130 135 140

Gln Asp Thr Met Asp Gly Val Val Tyr Ser Thr Ser Gln Phe Gly Leu  
145 150 155 160

Asp Glu Arg Phe Gly Asp Gly Asp Thr Ser Gln Ala Ala Leu Asp Leu  
165 170 175

Asp Glu Ala Val Phe Gln Asp Lys Asp Val Ile Gly Ser Asp Asp Glu  
180 185 190

Gly Val Pro Gly Ile Asp His Asn Ala Tyr Leu Asp Ala Ala Ala Pro  
195 200 205

Gly Ile Lys Asp Ser Met Glu Gly Val Ser Glu Ala Met Pro Met Asp  
210 215 220

Phe Asn Glu Glu Gln Val Glu Asp Leu Ala Met Asn Asn Glu Phe Ile  
225 230 235 240

Glu Asp Ala Gln Ala Pro Gln Thr Pro Gly Leu Val Glu Val Pro Asn  
245 250 255

Ser Ser Ser Val Arg Glu Gln Met Ala Cys Asp Asp His Met Asp Val  
260 265 270

Glu Asp Leu Asn Ala Glu Glu Gly Ile Lys Ser Ser Gly Glu Leu Asn  
275 280 285

Ala Asn Glu Met Pro Lys Arg Gly Glu Asp Leu Ser Ser Glu Tyr Asn  
290 295 300

047-E2F-PCT.ST25.txt

Ala Pro Glu Ser Ala Val Thr Pro Val Glu Val Asp Lys Ser Gln Ile  
305 310 315 320

Asp Glu Asn Val Asn Thr Gln Asn Glu Pro Glu Glu Glu Arg Ala Glu  
325 330 335

His Val His Val Thr Ser Pro Cys Cys Ser His Ile Thr Thr Glu Met  
340 345 350

Glu Asp Pro Gly Gln Val Met Asn Glu Ala Gly Ala Asn Val Val Pro  
355 360 365

Asp Lys Pro Asp Ala Val Pro Pro Leu Glu Thr Pro Gly Glu Glu Asn  
370 375 380

Arg Asp His Phe Ala Ile Ala Thr Glu Val Asn Gln Glu Thr Asp Ser  
385 390 395 400

Ser Leu Gln Gly Asp Glu Gln Ala Tyr Ser Arg Pro Asp Gly Gln Leu  
405 410 415

Asn Asn Ala His Glu Thr Asp Glu Gln Leu Gly Asn Leu Thr Gly Phe  
420 425 430

Thr Asp Ser Asp Phe Pro Pro Pro Glu Lys Val Leu Ala Val Pro Asn  
435 440 445

Arg Gln Gly Asp Gly Asn Asp Phe Met Val Glu Ser Thr Pro Asp Lys  
450 455 460

Glu Asp Pro Gly Thr Cys Asn Asp Asp Ala Gly Asn Asn Asn Ile Thr  
465 470 475 480

Gly Lys Lys Arg Thr Phe Thr Glu Ser Thr Leu Thr Ala Glu Ser Leu  
485 490 495

Asn Ser Val Glu Ser Val Gly Leu Ile Gln Ser Lys Arg Thr Ala Asp  
500 505 510

Ser Val Pro Asp Asp Asp Asp Leu Leu Ser Ser Ile Leu Val Gly Lys  
515 520 525

Ser Ser Phe Leu Lys Met Arg Pro Thr Pro Val Leu Glu Pro Ala Thr  
530 535 540

Thr Lys Arg Leu Arg Ser Ala Pro Arg Ser Thr Ala Thr Lys Arg Lys  
Page 629

545 550 560

Val Leu Met Asp Asp Pro Met Val Leu His Gly Asp Ile Ile Arg Gln  
565 570 575

Gln Leu Thr Asn Thr Glu Asp Ile Arg Arg Val Arg Lys Lys Ala Pro  
580 585 590

Cys Thr Val Pro Glu Ile Val Met Leu Gln Arg Gln Ala Leu Glu Asp  
595 600 605

Gly Leu Phe Lys Glu Pro Ile Phe Thr Gly Met Ser Val Glu Leu Val  
610 615 620

Ser Leu His Thr Glu Pro Tyr Asp Leu Arg Gly Ile Met Ile Ile Glu  
625 630 635 640

Asn Asp Asp Arg His Ala Ser Val Gly Ala Val Glu Asp Asn Glu Cys  
645 650 655

Ser Val Thr Ala Val Glu Glu Asn Lys Thr Glu Glu Ser Ser Asp Pro  
660 665 670

Gln Ala His Pro Asn Asp Cys Glu Glu Gln Pro Gly Thr Ala His Thr  
675 680 685

His Pro Gln Glu Glu Gln Thr Ile Asn Gln Gln Glu Glu Leu Lys Asp  
690 695 700

Asp Asn Glu Leu Ala Glu Lys Ser Asp Leu Glu Val Leu Lys Glu Gly  
705 710 715 720

Asn Gly Ala Ala Asp Glu Val Asn Leu Val Val Ile Asp Asp Val Ser  
725 730 735

Gln Ile Pro Ser Glu Glu Lys Leu Asp Arg Val Glu Asp Leu Gln Val  
740 745 750

Glu Glu Ser His Glu Asn His Asp Gly Glu Gly Gly Gln Asp Val Cys  
755 760 765

Ala Asp Pro Asn Glu Lys Ser Cys Thr Asp Val Ile Glu Ile Ala Glu  
770 775 780

Gly Asp Thr Asp Ile Asn Pro Ile Phe Asn Glu Met Asp Leu Lys Val  
785 790 795 800

Glu Asp Glu Leu Pro His Glu Asp Glu Lys Thr Asp Ala Ser Ala Glu  
805 810 815

Val Ser Glu Leu Gly Arg Asp Asp Gln Thr Pro Cys Asp Asn Thr Val  
820 825 830

Gly Ser Thr Glu Thr Gly Cys Leu Glu Ala Gly Asp Leu Ser Asn Met  
835 840 845

Ala Leu Glu Asn Cys Asn Glu Pro Leu Val Glu Ala Asn Ser Asp Gly  
850 855 860

Leu Asn Pro Glu Thr Glu Ser Tyr Asn Lys Tyr Glu Pro His Asn Glu  
865 870 875 880

Met Ser Asn Glu Glu Ala Ser Met Gln Asn Ala Leu Asp Gly Glu His  
885 890 895

Thr Ser Arg Asp Gly Leu Met Gly Asp Asn Asp Glu Met Asp Thr Met  
900 905 910

Glu Asn Ala His Asp Thr Gly Phe Leu Asn Val Asp Asp Asp Glu Val  
915 920 925

Asp Glu Asp His Glu Glu Asp Asp Ile Gln Tyr Asp Asp Glu Thr Arg  
930 935 940

Leu Leu Glu Asn Ser Gly Trp Ser Ser Arg Thr Arg Ala Val Ala Lys  
945 950 955 960

Tyr Leu Gln Thr Leu Phe Asp Lys Glu Thr Glu Asn Gly Lys Asn Val  
965 970 975

Leu Val Ala Asp Lys Leu Leu Ala Gly Lys Thr Arg Lys Glu Ala Ser  
980 985 990

Arg Met Phe Phe Glu Thr Leu Val Leu Lys Thr Arg Asp Tyr Ile Gln  
995 1000 1005

Val Glu Gln Gly Lys Pro Tyr Glu Ser Ile Ile Ile Lys Pro Arg  
1010 1015 1020

Pro Lys Leu Thr Lys Ser Ile Phe  
1025 1030

<210> 399

<211> 480

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 399

```

atgactgccg aacagaaagt ggagctcgcc gccaaattgg aagagcagaa gatcgatctt    60
gataaacctg aggttgaaga tgatgatgac aatgatgagg atgattccga ggacgatgac    120
gaggcggagg gacatgatgg ggaggccggt ggccggtcaa agcaaagcag aagtgagaaa    180
aagagtcgta aagctatggt gaagcttggg atgaaaccaa tcttggtgt tagccgtgtc    240
accgtcaaaa agagcaagaa tatcttgttt gtgatatcaa aacctgatgt gttcaagagt    300
ccagcttcag atacatatgt gatctttggt gaggccaaga tagaggattt gagctcgcag    360
ctgcagagtc aagccgcaga gcagttcaag gctcccaacc tcagcaacgt gatttcacag    420
gagaaacatc gagtgtctgca actgcagctg ctgttcaaga tgatgatgat gaagaggtag    480

```

&lt;210&gt; 400

&lt;211&gt; 159

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 400

```

Met Thr Ala Glu Gln Lys Val Glu Leu Ala Ala Lys Leu Glu Glu Gln
1          5          10          15

Lys Ile Asp Leu Asp Lys Pro Glu Val Glu Asp Asp Asp Asp Asn Asp
          20          25          30

Glu Asp Asp Ser Glu Asp Asp Asp Glu Ala Glu Gly His Asp Gly Glu
          35          40          45

Ala Gly Gly Arg Ser Lys Gln Ser Arg Ser Glu Lys Lys Ser Arg Lys
          50          55          60

Ala Met Leu Lys Leu Gly Met Lys Pro Ile Thr Gly Val Ser Arg Val
65          70          75          80

Thr Val Lys Lys Ser Lys Asn Ile Leu Phe Val Ile Ser Lys Pro Asp
          85          90          95

Val Phe Lys Ser Pro Ala Ser Asp Thr Tyr Val Ile Phe Gly Glu Ala
          100          105          110

```

047-E2F-PCT.ST25.txt

Lys Ile Glu Asp Leu Ser Ser Gln Leu Gln Ser Gln Ala Ala Glu Gln  
115 120 125

Phe Lys Ala Pro Asn Leu Ser Asn Val Ile Ser Gln Glu Lys His Arg  
130 135 140

Val Leu Gln Leu Gln Leu Leu Phe Lys Met Met Met Met Lys Arg  
145 150 155

<210> 401

<211> 975

<212> DNA

<213> Arabidopsis thaliana

<400> 401

atggagtgtg gatcattgga tctgacgatt atatctgcgg aggatctcaa agacgttcaa	60
ttgatcggta aacaagactt gtacgccgtc gtttccatca acggcgacgc taggacgaag	120
cagaagacaa aggttgataa agattgcggc accaaacctt aatggaagca tcaaatgaag	180
ctcaccgtcg atgacgcagc ggcgcgtgac aatcgtctta ctcttgTTTT cgagatcgtg	240
gcggatcgtc ccatcgctgg tgataaacct gtcggtgagg ttagcgttcc ggtgaaggag	300
cttttggtatc agaataaagg tgacgaggag aaaacggtta cttacgccgt gaggttgcct	360
aacgggaagg cgaaaggatc tctcaaattc tcgttcaaatt ttggggaaaa gtatacttat	420
ggatcttcga gtggtcctca cgcgccggtc ctttcggcta tggatcataa gactatggat	480
cagcccgtca ccgcttacct gcccgacac ggtgcaccgt ctgcataccc tgctcctccc	540
gcgggtcctt cttccggata tccaccacaa ggacatgacg ataagcacga tgggtgtttat	600
ggatacccg cagcaggctg atatccagct ggaaccggtg gttatccgcc acctggtgca	660
taccacaaac agggagggtta ccctggatat ccgcctcagc aacagggttg ataccgggt	720
tatccgccac aggttcata tggttacctg caacaagggt atccaccaca ggttcatac	780
ggttaccgc aacagcaagc tcatggtaaa ccgcagaaac cgaagaagca tggtaaggct	840
ggagctggaa tgggactagg acttgggctt ggagctggtt tattgggtgg gttgttggtt	900
ggtgaagcgg tttctgacat cgctgatatg ggtgacatgg gtgacatggg tgacatgggt	960
ggtttcgatt tctga	975

<210> 402

<211> 324

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 402

Met Glu Cys Arg Ser Leu Asp Leu Thr Ile Ile Ser Ala Glu Asp Leu  
 1 5 10 15

Lys Asp Val Gln Leu Ile Gly Lys Gln Asp Leu Tyr Ala Val Val Ser  
 20 25 30

Ile Asn Gly Asp Ala Arg Thr Lys Gln Lys Thr Lys Val Asp Lys Asp  
 35 40 45

Cys Gly Thr Lys Pro Lys Trp Lys His Gln Met Lys Leu Thr Val Asp  
 50 55 60

Asp Ala Ala Ala Arg Asp Asn Arg Leu Thr Leu Val Phe Glu Ile Val  
 65 70 75 80

Ala Asp Arg Pro Ile Ala Gly Asp Lys Pro Val Gly Glu Val Ser Val  
 85 90 95

Pro Val Lys Glu Leu Leu Asp Gln Asn Lys Gly Asp Glu Glu Lys Thr  
 100 105 110

Val Thr Tyr Ala Val Arg Leu Pro Asn Gly Lys Ala Lys Gly Ser Leu  
 115 120 125

Lys Phe Ser Phe Lys Phe Gly Glu Lys Tyr Thr Tyr Gly Ser Ser Ser  
 130 135 140

Gly Pro His Ala Pro Val Pro Ser Ala Met Asp His Lys Thr Met Asp  
 145 150 155 160

Gln Pro Val Thr Ala Tyr Pro Pro Gly His Gly Ala Pro Ser Ala Tyr  
 165 170 175

Pro Ala Pro Pro Ala Gly Pro Ser Ser Gly Tyr Pro Pro Gln Gly His  
 180 185 190

Asp Asp Lys His Asp Gly Val Tyr Gly Tyr Pro Gln Gln Ala Gly Tyr  
 195 200 205

Pro Ala Gly Thr Gly Gly Tyr Pro Pro Pro Gly Ala Tyr Pro Gln Gln  
 210 215 220



047-E2F-PCT.ST25.txt

Gly Gly Tyr Pro Gly Tyr Pro Pro Gln Gln Gln Gly Gly Tyr Pro Gly  
 225 230 235 240  
 Tyr Pro Pro Gln Gly Pro Tyr Gly Tyr Pro Gln Gln Gly Tyr Pro Pro  
 245 250 255  
 Gln Gly Pro Tyr Gly Tyr Pro Gln Gln Gln Ala His Gly Lys Pro Gln  
 260 265 270  
 Lys Pro Lys Lys His Gly Lys Ala Gly Ala Gly Met Gly Leu Gly Leu  
 275 280 285  
 Gly Leu Gly Ala Gly Leu Leu Gly Gly Leu Leu Val Gly Glu Ala Val  
 290 295 300  
 Ser Asp Ile Ala Asp Met Gly Asp Met Gly Asp Met Gly Asp Met Gly  
 305 310 315 320

Gly Phe Asp Phe

<210> 403

<211> 666

<212> DNA

<213> Arabidopsis thaliana

<400> 403

atggctctac ctaaccaaca aaccgtagat tatcctagct tcaagctcgt catcgttggt	60
gatggaggca cagggaaaac gacctttgtg aagagacatc ttactgggga gtttgagaag	120
aagtatgaac ctactattgg tgtggagggt catcctttgg atttcttcac aaactgcgga	180
aagatccggt tttactgctg ggatactgct ggacaagaga aatttggtgg ccttagggat	240
ggatactaca tccatggtca atgtgcgata ataatgtttg acgtcacagc aaggctcaca	300
tacaagaatg ttccgacatg gcatcgtgat ctttgcaggg tgtgtgaaaa catcccgatt	360
gttctgtgtg gaaacaaagt cgatgtgaag aacaggcaag tgaaggcaaa gcaagtcaca	420
ttccacagga agaagaatct gcagtactat gagatatcag caaagagcaa ctacaacttc	480
gagaagcctt tcttgtacct tgctaggaaa ctggctggag accagaacct tcactttgtg	540
gagtcaccag ctcttgctcc accagagggt caccttgaca ttgctgctca gcagcagaat	600
gaggccgatc ttgcagctgc tgcagctcag cctctccccg atgatgatga tgacgcattt	660

gagtaa

&lt;210&gt; 404

&lt;211&gt; 221

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 404

Met Ala Leu Pro Asn Gln Gln Thr Val Asp Tyr Pro Ser Phe Lys Leu  
1 5 10 15

Val Ile Val Gly Asp Gly Gly Thr Gly Lys Thr Thr Phe Val Lys Arg  
20 25 30

His Leu Thr Gly Glu Phe Glu Lys Lys Tyr Glu Pro Thr Ile Gly Val  
35 40 45

Glu Val His Pro Leu Asp Phe Phe Thr Asn Cys Gly Lys Ile Arg Phe  
50 55 60

Tyr Cys Trp Asp Thr Ala Gly Gln Glu Lys Phe Gly Gly Leu Arg Asp  
65 70 75 80

Gly Tyr Tyr Ile His Gly Gln Cys Ala Ile Ile Met Phe Asp Val Thr  
85 90 95

Ala Arg Leu Thr Tyr Lys Asn Val Pro Thr Trp His Arg Asp Leu Cys  
100 105 110

Arg Val Cys Glu Asn Ile Pro Ile Val Leu Cys Gly Asn Lys Val Asp  
115 120 125

Val Lys Asn Arg Gln Val Lys Ala Lys Gln Val Thr Phe His Arg Lys  
130 135 140

Lys Asn Leu Gln Tyr Tyr Glu Ile Ser Ala Lys Ser Asn Tyr Asn Phe  
145 150 155 160

Glu Lys Pro Phe Leu Tyr Leu Ala Arg Lys Leu Ala Gly Asp Gln Asn  
165 170 175

Leu His Phe Val Glu Ser Pro Ala Leu Ala Pro Pro Glu Val His Leu  
180 185 190

Asp Ile Ala Ala Gln Gln Gln Asn Glu Ala Asp Leu Ala Ala Ala Ala  
 195 200 205

Ala Gln Pro Leu Pro Asp Asp Asp Asp Asp Ala Phe Glu  
 210 215 220

<210> 405

<211> 918

<212> DNA

<213> Arabidopsis thaliana

<400> 405

atgtcagacc tagatcggca aatagggcag cttaagcgat gcgaaccatt gagcgaatcg	60
gaggtgaagg ctctttgcct caaagccatg gaaattcttg ttgaagagag taatgttcag	120
agagttgatg cccctgtcac tttatgtggt gacatccatg ggcagttcta tgatatgatg	180
gagcttttca aagttggggg tgattgtcct aagaccaact atttgtttat gggagatttt	240
gttgatcgtg gatattattc ggttgagaca tttctacttc tactcgcaact caaggttaga	300
tatccagacc gcataactct catcagagga aaccatgaaa gcaggcaaat cacacagggtt	360
tatggatttt atgatgagtg ttgcgtaaa tatggctctt caaatgtctg gagatactgc	420
accgacatth ttgactacat gagtctttca gctgtttgtg agaacaagat attctgtggt	480
catgggtggtc tttctccagc tattatgact cttgatcaga ttaggacaat tgaccggaag	540
caagaagtac cacatgatgg tgccatgtgt gatctcctat ggtctgatcc tgaagatatt	600
gttgatggct ggggattgag ccctcgtggt gccggattcc tttttggtgg cagtgttgtc	660
acgtctttta accactcaaa caacatagac tacatagccc gtgcccataca actagttatg	720
gagggttaca aatggatggt tgatagccag attgtgacag tgtggtcagc cccaaattac	780
tgttacagat gcggtaatgt ggcttcaatt ctagagcttg acgagaatct aaataaagaa	840
ttccgtgtgt ttgatgcagc ccagcaggac tcgagagggc ctcccgcaa aaagccggcc	900
cctgattact tcctataa	918

<210> 406

<211> 305

<212> PRT

<213> Arabidopsis thaliana

<400> 406

047-E2F-PCT.ST25.txt

Met Ser Asp Leu Asp Arg Gln Ile Gly Gln Leu Lys Arg Cys Glu Pro  
1 5 10 15  
Leu Ser Glu Ser Glu Val Lys Ala Leu Cys Leu Lys Ala Met Glu Ile  
20 25 30  
Leu Val Glu Glu Ser Asn Val Gln Arg Val Asp Ala Pro Val Thr Leu  
35 40 45  
Cys Gly Asp Ile His Gly Gln Phe Tyr Asp Met Met Glu Leu Phe Lys  
50 55 60  
Val Gly Gly Asp Cys Pro Lys Thr Asn Tyr Leu Phe Met Gly Asp Phe  
65 70 75 80  
Val Asp Arg Gly Tyr Tyr Ser Val Glu Thr Phe Leu Leu Leu Leu Ala  
85 90 95  
Leu Lys Val Arg Tyr Pro Asp Arg Ile Thr Leu Ile Arg Gly Asn His  
100 105 110  
Glu Ser Arg Gln Ile Thr Gln Val Tyr Gly Phe Tyr Asp Glu Cys Leu  
115 120 125  
Arg Lys Tyr Gly Ser Ser Asn Val Trp Arg Tyr Cys Thr Asp Ile Phe  
130 135 140  
Asp Tyr Met Ser Leu Ser Ala Val Val Glu Asn Lys Ile Phe Cys Val  
145 150 155 160  
His Gly Gly Leu Ser Pro Ala Ile Met Thr Leu Asp Gln Ile Arg Thr  
165 170 175  
Ile Asp Arg Lys Gln Glu Val Pro His Asp Gly Ala Met Cys Asp Leu  
180 185 190  
Leu Trp Ser Asp Pro Glu Asp Ile Val Asp Gly Trp Gly Leu Ser Pro  
195 200 205  
Arg Gly Ala Gly Phe Leu Phe Gly Gly Ser Val Val Thr Ser Phe Asn  
210 215 220  
His Ser Asn Asn Ile Asp Tyr Ile Ala Arg Ala His Gln Leu Val Met  
225 230 235 240  
Glu Gly Tyr Lys Trp Met Phe Asp Ser Gln Ile Val Thr Val Trp Ser  
245 250 255

047-E2F-PCT.ST25.txt

Ala Pro Asn Tyr Cys Tyr Arg Cys Gly Asn Val Ala Ser Ile Leu Glu  
260 265 270

Leu Asp Glu Asn Leu Asn Lys Glu Phe Arg Val Phe Asp Ala Ala Gln  
275 280 285

Gln Asp Ser Arg Gly Pro Pro Ala Lys Lys Pro Ala Pro Asp Tyr Phe  
290 295 300

Leu  
305

<210> 407

<211> 3810

<212> DNA

<213> Arabidopsis thaliana

<400> 407

atggcggatc tagatccaga gatcgctaaa actcaggagg aaagacggaa gatggaagca	60
gaccttgctt ctctcacttc tctgactttc gatcgcgatc tatacggagg taacgaccgt	120
gcttcctact cgacttctat tgcacctaac gaggaggatg atgcgaatct ggacaccact	180
ggttctcttg tggctcagcg cctcgcgtct tatactgctc ctaggtcaat tcttaacgac	240
gtggctcgtc ctcaaacga agatgacgat gtgggattta aacctaggca gagtattgcc	300
gaacgtgagg gtgaatatag gaataggaga ctcaatcggg ttctttctcc ggatagagtt	360
gatgcctttg ctatgggcca caaacgccg gatgcgagtg ttcgtactta cacggaccat	420
atgagggaga cggctttgca gagggagaaa gaggaaacta tgagactcat tgccaagaag	480
aagaaagagg aagaagaagc tgctgcgaag catcagaaag attctgctcc tcctcctcct	540
gcttcctctt cttcttcctc ttccaagagg agacacaggt gggatctccc tgaagaagac	600
ggtgctgctg caaagaaggc taaagcagca agttcagatt gggatttacc tgatgcagct	660
ccagggattg gacgatggga tgctcctact ccagggagag tttctgatgc cacaccatct	720
gctggacgaa ggaacagggt ggacgaaact cctacacctg gtcgtgtgac tgattctgat	780
gcaacacctg gtggtggtgt tactcccggg gctactcctt cagggtgttac ttgggacggg	840
cttgccacgc ctaccccaaa gcgtcaacgt tcaaggtggg acgaaacacc agccactatg	900
gggagtgcta cacctatggg tggagtcact cctggtgcag cttacactcc tgggtgttacc	960
ccaattggtg ggattgatat ggctactccg actccgggtc agcttatttt ccgtggtcct	1020

atgacccccg	agcagctcaa	tatgcaaagg	tgggagaagg	ataticgagga	aagaaacaga	1080
ccattgagtg	atgaagagct	tgatgccatg	tttcctaaag	atggatacaa	ggttttggat	1140
ccgcctgcta	cgtatgttcc	catcagaacc	cctgcgagga	aacttcaaca	aacccccgaca	1200
cccatggcaa	ctcctggcta	tgttattcct	gaggaaaacc	gtgggcaaca	gtatgatgtg	1260
cccccagaag	ttcctgggtg	tttgccgttt	atgaaaccag	aggattatca	gtattttggt	1320
tctctgttaa	atgaagagaa	cgaagaagag	ctgtctcctg	aagagcagaa	agaacgcaag	1380
ataatgaaac	tgttgttaaa	ggttaaaaat	ggaactcctc	cccagaggaa	aacagcgctg	1440
aggcagctta	ctgataaggc	tcgtgaactt	ggtgctggtc	ctttgttcaa	taaaattttg	1500
ccattgctca	tgcaaccac	tttggaagat	caagagaggc	atcttttggt	caaagtgatt	1560
gatagaattc	tgtacaaact	tgatgagatg	gtaaggcctt	acgtccacaa	aatccttggt	1620
gttattgagc	ctttgctgat	tgatgaagat	tattatgctc	gtgtagaagg	gagagagatt	1680
atttctaacc	ttagcaaagc	agctggtttg	gcctctatga	ttgcagctat	gcgtcctgat	1740
attgacaaca	tcgatgaata	tgtgaggaac	acaacagcga	gagctttcag	tgtggtggct	1800
tcagctcttg	gaatccctgc	actcttgctt	ttcctgaaag	ctgtgtgcca	gagtaaaagg	1860
tcattggcagg	cacggcatac	tggaatcaag	attgttcagc	agattgcgat	actaattggt	1920
tgtgctgtcc	tgcctcactt	aaggctcttg	gtagagatta	tcgaacatgg	tcttagtgat	1980
gaaaaccaga	aggttaggac	tattaccgca	ttgtcactgg	ctgctcttgc	tgaagctgct	2040
gctccatatg	gtattgagag	ctttgattct	gttctgaagc	ctttgtggaa	aggtattagg	2100
tcgcaccgtg	gtaaagtttt	agctgctttc	ttgaaggcga	tcggttttat	cattcccttg	2160
atggatgcta	tatatgagag	ctactataca	aaagaagtca	tggttatctt	gattcgtgag	2220
ttccagtcgc	ctgatgaaga	gatgaagaag	atcgctctca	aggtggtgaa	acagtgtgta	2280
agtacagagg	gtgttgaacc	ggaatacatt	cgtagtata	ttctgcccga	gtttttcagg	2340
aatttctgga	caaggaaaat	ggctctggag	aggagaaact	ataagcagct	tgttgaaact	2400
actgtggagg	ttgcgaacaa	ggttggtggt	gcagatatgt	tgggaagagt	tgttgaagat	2460
ctcaaggacg	agagtgaaca	gtatcgacgt	atggttatgg	aaaccattga	taaggttgtc	2520
acaaacttag	gagcatctga	tattgatgag	aggttggagg	aactgctcat	agatggcatt	2580
ctttatgctt	ttcaagaaca	gactagtac	gatgctaatt	tgatgcttaa	tggattcggt	2640
gctgtagtaa	atgctcttgg	tcagcgagta	aagccttatc	ttccccagat	ctgtggtacc	2700
atcaagtggc	gattgaacaa	caagagtgc	aaggtaagac	agcaagctgc	tgatctgatt	2760
tctcgaattg	cagttgttat	gaagcaatgc	ggagaggaac	agttgatggg	acatctaggt	2820
gttggtttgt	atgaatatct	tggagaagag	taccagaag	tcttgggatc	gattcctggg	2880
gctttaaaag	ctatagtcaa	tgtgattggt	atgacgaaga	tgactcctcc	tattaaggat	2940

047-E2F-PCT.ST25.txt

```

cttctaccaa ggctgacccc gattttgaag aatagggcatg agaaagtgca agagaattgt 3000
atcgatcttg ttggtaggat tgctgacgt ggtgccgagt ttgttccagc aagagaatgg 3060
atgagaatct gtttcgagct tcttgaaatg cttaaagctc ataagaaagg tattcgtcgt 3120
gctactgtca acacttttgg gtacattgcc aaagccattg ggccacaaga cgttctagcc 3180
acgttgctta acaatctcaa agtccaagaa cgtcagaacc gtgtttgcac cacagttgca 3240
atcgccatag tcgctgaaac atgctctccc ttcaccgtct tacctgcttt gatgaatgag 3300
taccgtgttc cagagctaaa cgtccaaaat ggtgttctga aatctctctc cttcctcttc 3360
gagtacattg gagagatggg caaagattac atatacgagc ttacaccgtt gcttgaagac 3420
gctctcatgg acagggattt ggttcataga caaacggctg cttcagctgt gaaacatatg 3480
gctctaggtg tagctgggtt gggatgcaaa gacgccttgg ttcacttgct taacttcatt 3540
tggcccaaca tttttgagac atctcctcac gtcattaacg cagtgatgga agccattgaa 3600
ggaatgagag tcgcattagg agcagctgta attctgaact attgcttgca gggtttgttt 3660
catccggcgc gcaaggtccg cgaagtgtac tggaagatat acaattcttt atacattggt 3720
gctcaggaca cccttgttgc tgcttaccgc gttcttgaag acgagcagaa caatgtgtat 3780
agccgaccgg agttgacgat gtttgtgtga 3810

```

<210> 408

<211> 1269

<212> PRT

<213> Arabidopsis thaliana

<400> 408

```

Met Ala Asp Leu Asp Pro Glu Ile Ala Lys Thr Gln Glu Glu Arg Arg
1      5      10      15
Lys Met Glu Ala Asp Leu Ala Ser Leu Thr Ser Leu Thr Phe Asp Arg
20     25     30
Asp Leu Tyr Gly Gly Asn Asp Arg Ala Ser Tyr Ser Thr Ser Ile Ala
35     40     45
Pro Asn Glu Glu Asp Asp Ala Asn Leu Asp Thr Thr Gly Ser Leu Val
50     55     60
Ala Gln Arg Leu Ala Ser Tyr Thr Ala Pro Arg Ser Ile Leu Asn Asp
65     70     75     80

```

047-E2F-PCT.ST25.txt

Val Ala Arg Pro His Asn Glu Asp Asp Asp Val Gly Phe Lys Pro Arg  
85 90 95

Gln Ser Ile Ala Glu Arg Glu Gly Glu Tyr Arg Asn Arg Arg Leu Asn  
100 105 110

Arg Val Leu Ser Pro Asp Arg Val Asp Ala Phe Ala Met Gly Asp Lys  
115 120 125

Thr Pro Asp Ala Ser Val Arg Thr Tyr Thr Asp His Met Arg Glu Thr  
130 135 140

Ala Leu Gln Arg Glu Lys Glu Glu Thr Met Arg Leu Ile Ala Lys Lys  
145 150 155 160

Lys Lys Glu Glu Glu Glu Ala Ala Ala Lys His Gln Lys Asp Ser Ala  
165 170 175

Pro Pro Pro Pro Ala Ser Ser Ser Ser Ser Ser Lys Arg Arg His  
180 185 190

Arg Trp Asp Leu Pro Glu Glu Asp Gly Ala Ala Ala Lys Lys Ala Lys  
195 200 205

Ala Ala Ser Ser Asp Trp Asp Leu Pro Asp Ala Ala Pro Gly Ile Gly  
210 215 220

Arg Trp Asp Ala Pro Thr Pro Gly Arg Val Ser Asp Ala Thr Pro Ser  
225 230 235 240

Ala Gly Arg Arg Asn Arg Trp Asp Glu Thr Pro Thr Pro Gly Arg Val  
245 250 255

Thr Asp Ser Asp Ala Thr Pro Gly Gly Gly Val Thr Pro Gly Ala Thr  
260 265 270

Pro Ser Gly Val Thr Trp Asp Gly Leu Ala Thr Pro Thr Pro Lys Arg  
275 280 285

Gln Arg Ser Arg Trp Asp Glu Thr Pro Ala Thr Met Gly Ser Ala Thr  
290 295 300

Pro Met Gly Gly Val Thr Pro Gly Ala Ala Tyr Thr Pro Gly Val Thr  
305 310 315 320

Pro Ile Gly Gly Ile Asp Met Ala Thr Pro Thr Pro Gly Gln Leu Ile  
325 330 335



047-E2F-PCT.ST25.txt

Phe Arg Gly Pro Met Thr Pro Glu Gln Leu Asn Met Gln Arg Trp Glu  
 340 345 350  
 Lys Asp Ile Glu Glu Arg Asn Arg Pro Leu Ser Asp Glu Glu Leu Asp  
 355 360 365  
 Ala Met Phe Pro Lys Asp Gly Tyr Lys Val Leu Asp Pro Pro Ala Thr  
 370 375 380  
 Tyr Val Pro Ile Arg Thr Pro Ala Arg Lys Leu Gln Gln Thr Pro Thr  
 385 390 395 400  
 Pro Met Ala Thr Pro Gly Tyr Val Ile Pro Glu Glu Asn Arg Gly Gln  
 405 410 415  
 Gln Tyr Asp Val Pro Pro Glu Val Pro Gly Gly Leu Pro Phe Met Lys  
 420 425 430  
 Pro Glu Asp Tyr Gln Tyr Phe Gly Ser Leu Leu Asn Glu Glu Asn Glu  
 435 440 445  
 Glu Glu Leu Ser Pro Glu Glu Gln Lys Glu Arg Lys Ile Met Lys Leu  
 450 455 460  
 Leu Leu Lys Val Lys Asn Gly Thr Pro Pro Gln Arg Lys Thr Ala Leu  
 465 470 475 480  
 Arg Gln Leu Thr Asp Lys Ala Arg Glu Leu Gly Ala Gly Pro Leu Phe  
 485 490 495  
 Asn Lys Ile Leu Pro Leu Leu Met Gln Pro Thr Leu Glu Asp Gln Glu  
 500 505 510  
 Arg His Leu Leu Val Lys Val Ile Asp Arg Ile Leu Tyr Lys Leu Asp  
 515 520 525  
 Glu Met Val Arg Pro Tyr Val His Lys Ile Leu Val Val Ile Glu Pro  
 530 535 540  
 Leu Leu Ile Asp Glu Asp Tyr Tyr Ala Arg Val Glu Gly Arg Glu Ile  
 545 550 555 560  
 Ile Ser Asn Leu Ser Lys Ala Ala Gly Leu Ala Ser Met Ile Ala Ala  
 565 570 575  
 Met Arg Pro Asp Ile Asp Asn Ile Asp Glu Tyr Val Arg Asn Thr Thr  
 Page 643

580

585

590

Ala Arg Ala Phe Ser Val Val Ala Ser Ala Leu Gly Ile Pro Ala Leu  
 595 600 605  
 Leu Pro Phe Leu Lys Ala Val Cys Gln Ser Lys Arg Ser Trp Gln Ala  
 610 615 620  
 Arg His Thr Gly Ile Lys Ile Val Gln Gln Ile Ala Ile Leu Ile Gly  
 625 630 635 640  
 Cys Ala Val Leu Pro His Leu Arg Ser Leu Val Glu Ile Ile Glu His  
 645 650 655  
 Gly Leu Ser Asp Glu Asn Gln Lys Val Arg Thr Ile Thr Ala Leu Ser  
 660 665 670  
 Leu Ala Ala Leu Ala Glu Ala Ala Ala Pro Tyr Gly Ile Glu Ser Phe  
 675 680 685  
 Asp Ser Val Leu Lys Pro Leu Trp Lys Gly Ile Arg Ser His Arg Gly  
 690 695 700  
 Lys Val Leu Ala Ala Phe Leu Lys Ala Ile Gly Phe Ile Ile Pro Leu  
 705 710 715 720  
 Met Asp Ala Ile Tyr Ala Ser Tyr Tyr Thr Lys Glu Val Met Val Ile  
 725 730 735  
 Leu Ile Arg Glu Phe Gln Ser Pro Asp Glu Glu Met Lys Lys Ile Val  
 740 745 750  
 Leu Lys Val Val Lys Gln Cys Val Ser Thr Glu Gly Val Glu Pro Glu  
 755 760 765  
 Tyr Ile Arg Ser Asp Ile Leu Pro Glu Phe Phe Arg Asn Phe Trp Thr  
 770 775 780  
 Arg Lys Met Ala Leu Glu Arg Arg Asn Tyr Lys Gln Leu Val Glu Thr  
 785 790 795 800  
 Thr Val Glu Val Ala Asn Lys Val Gly Val Ala Asp Ile Val Gly Arg  
 805 810 815  
 Val Val Glu Asp Leu Lys Asp Glu Ser Glu Gln Tyr Arg Arg Met Val  
 820 825 830

Met Glu Thr Ile Asp Lys Val Val Thr Asn Leu Gly Ala Ser Asp Ile  
 835 840 845

Asp Ala Arg Leu Glu Glu Leu Leu Ile Asp Gly Ile Leu Tyr Ala Phe  
 850 855 860

Gln Glu Gln Thr Ser Asp Asp Ala Asn Val Met Leu Asn Gly Phe Gly  
 865 870 875 880

Ala Val Val Asn Ala Leu Gly Gln Arg Val Lys Pro Tyr Leu Pro Gln  
 885 890 895

Ile Cys Gly Thr Ile Lys Trp Arg Leu Asn Asn Lys Ser Ala Lys Val  
 900 905 910

Arg Gln Gln Ala Ala Asp Leu Ile Ser Arg Ile Ala Val Val Met Lys  
 915 920 925

Gln Cys Gly Glu Glu Gln Leu Met Gly His Leu Gly Val Val Leu Tyr  
 930 935 940

Glu Tyr Leu Gly Glu Glu Tyr Pro Glu Val Leu Gly Ser Ile Leu Gly  
 945 950 955 960

Ala Leu Lys Ala Ile Val Asn Val Ile Gly Met Thr Lys Met Thr Pro  
 965 970 975

Pro Ile Lys Asp Leu Leu Pro Arg Leu Thr Pro Ile Leu Lys Asn Arg  
 980 985 990

His Glu Lys Val Gln Glu Asn Cys Ile Asp Leu Val Gly Arg Ile Ala  
 995 1000 1005

Asp Arg Gly Ala Glu Phe Val Pro Ala Arg Glu Trp Met Arg Ile  
 1010 1015 1020

Cys Phe Glu Leu Leu Glu Met Leu Lys Ala His Lys Lys Gly Ile  
 1025 1030 1035

Arg Arg Ala Thr Val Asn Thr Phe Gly Tyr Ile Ala Lys Ala Ile  
 1040 1045 1050

Gly Pro Gln Asp Val Leu Ala Thr Leu Leu Asn Asn Leu Lys Val  
 1055 1060 1065

Gln Glu Arg Gln Asn Arg Val Cys Thr Thr Val Ala Ile Ala Ile  
 1070 1075 1080

047-E2F-PCT.ST25.txt

Val	Ala	Glu	Thr	Cys	Ser	Pro	Phe	Thr	Val	Leu	Pro	Ala	Leu	Met
	1085					1090					1095			
Asn	Glu	Tyr	Arg	Val	Pro	Glu	Leu	Asn	Val	Gln	Asn	Gly	Val	Leu
	1100					1105					1110			
Lys	Ser	Leu	Ser	Phe	Leu	Phe	Glu	Tyr	Ile	Gly	Glu	Met	Gly	Lys
	1115					1120					1125			
Asp	Tyr	Ile	Tyr	Ala	Val	Thr	Pro	Leu	Leu	Glu	Asp	Ala	Leu	Met
	1130					1135					1140			
Asp	Arg	Asp	Leu	Val	His	Arg	Gln	Thr	Ala	Ala	Ser	Ala	Val	Lys
	1145					1150					1155			
His	Met	Ala	Leu	Gly	Val	Ala	Gly	Leu	Gly	Cys	Glu	Asp	Ala	Leu
	1160					1165					1170			
Val	His	Leu	Leu	Asn	Phe	Ile	Trp	Pro	Asn	Ile	Phe	Glu	Thr	Ser
	1175					1180					1185			
Pro	His	Val	Ile	Asn	Ala	Val	Met	Glu	Ala	Ile	Glu	Gly	Met	Arg
	1190					1195					1200			
Val	Ala	Leu	Gly	Ala	Ala	Val	Ile	Leu	Asn	Tyr	Cys	Leu	Gln	Gly
	1205					1210					1215			
Leu	Phe	His	Pro	Ala	Arg	Lys	Val	Arg	Glu	Val	Tyr	Trp	Lys	Ile
	1220					1225					1230			
Tyr	Asn	Ser	Leu	Tyr	Ile	Gly	Ala	Gln	Asp	Thr	Leu	Val	Ala	Ala
	1235					1240					1245			
Tyr	Pro	Val	Leu	Glu	Asp	Glu	Gln	Asn	Asn	Val	Tyr	Ser	Arg	Pro
	1250					1255					1260			
Glu	Leu	Thr	Met	Phe	Val									
	1265													

<210> 409

<211> 1128

<212> DNA

<213> Arabidopsis thaliana

047-E2F-PCT.ST25.txt

<400> 409  
atggcggctg caatggcttc tcatgtttcg acggctcgat caccggctct ttccttctct 60  
tcttcgtctt cctccttctt ccccggtact actcttcgga gattctccgc cgtttcactc 120  
ccttctcctg ctctccctcg ccttcgtggt tcatgtcaag cctcctccgt cacttcgcct 180  
tcttctcctt ccgatgtcaa aggaaaatct gacctgaaag actttctggc aatagatgat 240  
tttgacacag ccaccattaa aacgatttta gacaaggctt cagagggttaa ggccttgctg 300  
aaatcagggg agagaaatta tctacctttt aaagggaagt ctatgtctat gatctttgca 360  
aaaccttcca tgaggactcg ggtttcgttt gagactgggt ttttcttgct cgggtggccat 420  
gcgttatatc taggtcccaa tgacattcag atgggtaagc gggaggaaac tcgtgatggt 480  
gctcgtgttc tttcacgcta taatgacatc attatggctc gtgtatttgc tcatcaggac 540  
attcttgatt tggctaacta ctcgagtgtt ccagttgtca atgggtctgac tgatcataac 600  
catccttgcc aaatcatggc cgatgccctc acaatgatag agcacattgg tcaagttgaa 660  
gggacaaagg ttgtgtatgt tggagatggg aacaacatgg ttcactcttg gttagaattg 720  
gcatccgtta ttccattcca ctttgtctgc gcttgcccaa aagggtatga accagacaaa 780  
gaaagagttt caaaggcaaa gcaagctgga ttaagtaaga tagagatcac caatgatcct 840  
aaagaagctg ttattggagc agatgttgtg tactcagacg tatgggccag tatgggtcaa 900  
aaggatgaag ccgaagctcg ccggaagca ttccaaggat tccagggtga tgaagctctg 960  
atgaagttgg cgggtcaaaa agcctatttc atgcattggt tgcctgcaga gagaggagtt 1020  
gaggtgacca atggagtcgt agaggctcct tattccattg tctttccaca ggcggagaat 1080  
cgcattgatg ctcaaaatgc tataatgctt cacttgctcg gcttttaa 1128

<210> 410

<211> 375

<212> PRT

<213> Arabidopsis thaliana

<400> 410

Met Ala Ala Ala Met Ala Ser His Val Ser Thr Ala Arg Ser Pro Ala  
1 5 10 15

Leu Ser Phe Ser Ser Ser Ser Ser Ser Phe Phe Pro Gly Thr Thr Leu  
20 25 30

Arg Arg Phe Ser Ala Val Ser Leu Pro Ser Pro Ala Leu Pro Arg Leu  
35 40 45

047-E2F-PCT.ST25.txt

Arg Val Ser Cys Gln Ala Ser Ser Val Thr Ser Pro Ser Ser Pro Ser  
 50 55 60  
 Asp Val Lys Gly Lys Ser Asp Leu Lys Asp Phe Leu Ala Ile Asp Asp  
 65 70 75 80  
 Phe Asp Thr Ala Thr Ile Lys Thr Ile Leu Asp Lys Ala Ser Glu Val  
 85 90 95  
 Lys Ala Leu Leu Lys Ser Gly Glu Arg Asn Tyr Leu Pro Phe Lys Gly  
 100 105 110  
 Lys Ser Met Ser Met Ile Phe Ala Lys Pro Ser Met Arg Thr Arg Val  
 115 120 125  
 Ser Phe Glu Thr Gly Phe Phe Leu Leu Gly Gly His Ala Leu Tyr Leu  
 130 135 140  
 Gly Pro Asn Asp Ile Gln Met Gly Lys Arg Glu Glu Thr Arg Asp Val  
 145 150 155 160  
 Ala Arg Val Leu Ser Arg Tyr Asn Asp Ile Ile Met Ala Arg Val Phe  
 165 170 175  
 Ala His Gln Asp Ile Leu Asp Leu Ala Asn Tyr Ser Ser Val Pro Val  
 180 185 190  
 Val Asn Gly Leu Thr Asp His Asn His Pro Cys Gln Ile Met Ala Asp  
 195 200 205  
 Ala Leu Thr Met Ile Glu His Ile Gly Gln Val Glu Gly Thr Lys Val  
 210 215 220  
 Val Tyr Val Gly Asp Gly Asn Asn Met Val His Ser Trp Leu Glu Leu  
 225 230 235 240  
 Ala Ser Val Ile Pro Phe His Phe Val Cys Ala Cys Pro Lys Gly Tyr  
 245 250 255  
 Glu Pro Asp Lys Glu Arg Val Ser Lys Ala Lys Gln Ala Gly Leu Ser  
 260 265 270  
 Lys Ile Glu Ile Thr Asn Asp Pro Lys Glu Ala Val Ile Gly Ala Asp  
 275 280 285  
 Val Val Tyr Ser Asp Val Trp Ala Ser Met Gly Gln Lys Asp Glu Ala  
 290 295 300

047-E2F-PCT.ST25.txt

Glu Ala Arg Arg Lys Ala Phe Gln Gly Phe Gln Val Asp Glu Ala Leu  
305 310 315 320

Met Lys Leu Ala Gly Gln Lys Ala Tyr Phe Met His Cys Leu Pro Ala  
325 330 335

Glu Arg Gly Val Glu Val Thr Asn Gly Val Val Glu Ala Pro Tyr Ser  
340 345 350

Ile Val Phe Pro Gln Ala Glu Asn Arg Met His Ala Gln Asn Ala Ile  
355 360 365

Met Leu His Leu Leu Gly Phe  
370 375

<210> 411

<211> 201

<212> DNA

<213> Arabidopsis thaliana

<400> 411  
atggcggcag cgagcttgaa tgcattctgga aaaggatcga agaaaccaa tgggttgaag 60  
gagtttcttg aaagtctaga agctctgaag gcagatctta aaaccttgag taaggaggag 120  
ctgcttgaac tggaaaagcg gctgaaaaat gtggctcgta aggcgaggga agagctggag 180  
aggcgtatgg agcagcccta a 201

<210> 412

<211> 66

<212> PRT

<213> Arabidopsis thaliana

<400> 412

Met Ala Ala Ala Ser Leu Asn Ala Ser Gly Lys Gly Ser Lys Lys Pro  
1 5 10 15

Asn Gly Leu Lys Glu Phe Leu Glu Ser Leu Glu Ala Leu Lys Ala Asp  
20 25 30

Leu Lys Thr Leu Ser Lys Glu Glu Leu Leu Glu Leu Glu Lys Arg Leu  
Page 649

35

40

45

Lys Asn Val Ala Arg Lys Ala Arg Glu Glu Leu Glu Arg Arg Met Glu  
 50 55 60

Gln Pro  
 65

&lt;210&gt; 413

&lt;211&gt; 1299

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 413

```

atggatcctc aagctttcat tcgtctttcg gttggctctc ttgctttgag aattcccaag      60
gtccttataa actctacttc aaaatctaata gagaagaaga acttttcttc tcaatgctct      120
tgcgaaataa aactacgagg ctttcctggt caaacaacat ctatcccttt gatgccgtcc      180
cttgatgcag ctctcgacca tcacagtatt tccactagct tttatcttga agaattctgat      240
ttaagagctc ttttgacacc tggatgcttc tatagtcctc atgctcactt ggaaatctcg      300
gttttcacgg gtaaaaagag tttgaattgc ggtgttggtg gcaaaagaca gcagattggg      360
atgtttaagt tggaggtagg tcctgaatgg ggagaaggaa aaccaatgat tcttttcaat      420
ggttggatca gtattggaaa gaccaagcgg gatggtgctg cagagcttca tttgaaagtg      480
aaacttgatc ctgatcctcg atatgttttt cagtttgagg atgttactac cttgagccct      540
cagatagttc agctccgtgg ctcggtcaag caacctatct tcagttgcaa gtttagcaga      600
gacagggtgt cacagggtga tccggtgaat ggggtactgg caagttcagg cgatggaact      660
gagcttgaga gtgagagacg tgaaagaaaa ggatggaagg tgaagataca tgatctctct      720
ggctctgcag ttgctgctgc tttcataaca actccttttg ttccatccac tggatgtgat      780
tggtctgcaa agtccaaccc ggggtgcttg cttgtggtcc ggcctgacct atctcgacca      840
aacagctggc agccatgggg aaagctcgaa gcttggcggg aacgcgggat cagagactcc      900
gtgtgttgca gattccatct tctatcaaac ggtctagaag ttggagatgt tttaatgtct      960
gaaatcctca tcagcgctga gaaagggtgg gaatttttaa tcgacacgga taaacagatg     1020
ctaacagttg cagctacacc aattccaagc ccgcagagta gtggagactt ctcagggttg     1080
ggacagtgtg tctctggagg tgggtttgta atgagctcga gagtgcagg ggaagggaaa     1140
agcagcaagc ccgttgtaca attagctatg agacatgtaa cttgtgtgga agatgcagcc     1200
attttcatgg cacttgctgc agctgttgat cttagcattc ttgcttgtaa accttttagg     1260

```



agaacgagtc ggagaagggtt ccggcattac tcctggtga

1299

&lt;210&gt; 414

&lt;211&gt; 432

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 414

Met Asp Pro Gln Ala Phe Ile Arg Leu Ser Val Gly Ser Leu Ala Leu  
 1 5 10 15

Arg Ile Pro Lys Val Leu Ile Asn Ser Thr Ser Lys Ser Asn Glu Lys  
 20 25 30

Lys Asn Phe Ser Ser Gln Cys Ser Cys Glu Ile Lys Leu Arg Gly Phe  
 35 40 45

Pro Val Gln Thr Thr Ser Ile Pro Leu Met Pro Ser Leu Asp Ala Ala  
 50 55 60

Pro Asp His His Ser Ile Ser Thr Ser Phe Tyr Leu Glu Glu Ser Asp  
 65 70 75 80

Leu Arg Ala Leu Leu Thr Pro Gly Cys Phe Tyr Ser Pro His Ala His  
 85 90 95

Leu Glu Ile Ser Val Phe Thr Gly Lys Lys Ser Leu Asn Cys Gly Val  
 100 105 110

Gly Gly Lys Arg Gln Gln Ile Gly Met Phe Lys Leu Glu Val Gly Pro  
 115 120 125

Glu Trp Gly Glu Gly Lys Pro Met Ile Leu Phe Asn Gly Trp Ile Ser  
 130 135 140

Ile Gly Lys Thr Lys Arg Asp Gly Ala Ala Glu Leu His Leu Lys Val  
 145 150 155 160

Lys Leu Asp Pro Asp Pro Arg Tyr Val Phe Gln Phe Glu Asp Val Thr  
 165 170 175

Thr Leu Ser Pro Gln Ile Val Gln Leu Arg Gly Ser Val Lys Gln Pro  
 180 185 190

047-E2F-PCT.ST25.txt

Ile Phe Ser Cys Lys Phe Ser Arg Asp Arg Val Ser Gln Val Asp Pro  
195 200 205

Leu Asn Gly Tyr Trp Ser Ser Ser Gly Asp Gly Thr Glu Leu Glu Ser  
210 215 220

Glu Arg Arg Glu Arg Lys Gly Trp Lys Val Lys Ile His Asp Leu Ser  
225 230 235 240

Gly Ser Ala Val Ala Ala Ala Phe Ile Thr Thr Pro Phe Val Pro Ser  
245 250 255

Thr Gly Cys Asp Trp Val Ala Lys Ser Asn Pro Gly Ala Trp Leu Val  
260 265 270

Val Arg Pro Asp Pro Ser Arg Pro Asn Ser Trp Gln Pro Trp Gly Lys  
275 280 285

Leu Glu Ala Trp Arg Glu Arg Gly Ile Arg Asp Ser Val Cys Cys Arg  
290 295 300

Phe His Leu Leu Ser Asn Gly Leu Glu Val Gly Asp Val Leu Met Ser  
305 310 315 320

Glu Ile Leu Ile Ser Ala Glu Lys Gly Gly Glu Phe Leu Ile Asp Thr  
325 330 335

Asp Lys Gln Met Leu Thr Val Ala Ala Thr Pro Ile Pro Ser Pro Gln  
340 345 350

Ser Ser Gly Asp Phe Ser Gly Leu Gly Gln Cys Val Ser Gly Gly Gly  
355 360 365

Phe Val Met Ser Ser Arg Val Gln Gly Glu Gly Lys Ser Ser Lys Pro  
370 375 380

Val Val Gln Leu Ala Met Arg His Val Thr Cys Val Glu Asp Ala Ala  
385 390 395 400

Ile Phe Met Ala Leu Ala Ala Ala Val Asp Leu Ser Ile Leu Ala Cys  
405 410 415

Lys Pro Phe Arg Arg Thr Ser Arg Arg Arg Phe Arg His Tyr Ser Trp  
420 425 430

<210> 415

&lt;211&gt; 1173

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 415

```

atggagatga ccgaagcttc caaacagaca acagcagaag gatcagcaaa tccagaacca      60
gaccaaattct tgagtccgag aagatcgttg gagctaaaac aaaagaaatg gtggatctct      120
gtttcttttat gtattttctt agtcttgctc ggagattctc tagtcatgct tctcttgaac      180
ttctttctatg ttcaagacaa tcgagaagat agtgaccaag atctacaata ccgaggaaca      240
tggttgcaag ctctggtcca aaacgctgcg tttccactac tcattcctct gtttttcatt      300
ttcccttcac caaaacaaaa ccaagaaacc accaatactc gtttcctctc ttttcgtctc      360
atcttactttt acatctctct tggtgttctt gttgctgctc acagcaaatt gtttgcactt      420
gggaaatttat acgcaaactt tggcgtcttc acgctgattt ccgcgactca gttgatattt      480
accgctatttt tcgcagccat tattaaccgt ttttaagttca ccagatggat tatcttatcg      540
ataatcggca gcattttgat ttatgttttc ggtagtcctg aatttgagg agagcctgat      600
gaaaacgaag aattctacag catccaagct tggttaactt tcgctgcttc agttgctttc      660
gcattatctc tctgtttatt ccaactttgt ttcgagaaag tgttggtaaa gacaaagaga      720
tatggtaaca agaaagtgtt tagaatggct atagagatgc aaatttggtg ctcttttgtc      780
gcaacggttg tttgtctcgt gggtttggtt gcgagtggcg agaataagga actgcaaggc      840
gatagccaca ggtttaagaa aggagaaacg tattacgttt tgagtttgat cgggttgga      900
ttgtcgtggc aggtttgggc ggtcgggctg atgggtttgg tgctttatgt ttcgggtgtg      960
tttggcgatg ttgttcatat gtgtacttca ccacttggtg ctttgtttgt tgtgttgga      1020
tttgatttca tggatgatga gtttagttgg cctagaattg gtactttgat agcaacagtt      1080
gtggcttttag gatcttactt ctacactctg cataagagaa acaagaagaa gatggtggag      1140
ctttaccaaa cagagaacaa tattgacgtt tag                                     1173

```

&lt;210&gt; 416

&lt;211&gt; 390

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 416

Met Glu Met Thr Glu Ala Ser Lys Gln Thr Thr Ala Glu Gly Ser Ala

1		5												15	
Asn	Pro	Glu	Pro	Asp	Gln	Ile	Leu	Ser	Pro	Arg	Arg	Ser	Leu	Glu	Leu
			20					25					30		
Lys	Gln	Lys	Lys	Trp	Trp	Ile	Ser	Val	Ser	Leu	Cys	Ile	Phe	Leu	Val
		35					40					45			
Leu	Leu	Gly	Asp	Ser	Leu	Val	Met	Leu	Leu	Leu	Asn	Phe	Phe	Tyr	Val
	50					55					60				
Gln	Asp	Asn	Arg	Glu	Asp	Ser	Asp	Gln	Asp	Leu	Gln	Tyr	Arg	Gly	Thr
65					70					75					80
Trp	Leu	Gln	Ala	Leu	Val	Gln	Asn	Ala	Ala	Phe	Pro	Leu	Leu	Ile	Pro
				85					90					95	
Leu	Phe	Phe	Ile	Phe	Pro	Ser	Pro	Lys	Gln	Asn	Gln	Glu	Thr	Thr	Asn
			100					105					110		
Thr	Arg	Phe	Leu	Ser	Phe	Arg	Leu	Ile	Leu	Leu	Tyr	Ile	Ser	Leu	Gly
		115					120					125			
Val	Leu	Val	Ala	Ala	His	Ser	Lys	Leu	Phe	Ala	Leu	Gly	Lys	Leu	Tyr
	130					135					140				
Ala	Asn	Phe	Gly	Val	Phe	Thr	Leu	Ile	Ser	Ala	Thr	Gln	Leu	Ile	Phe
145					150					155					160
Thr	Ala	Ile	Phe	Ala	Ala	Ile	Ile	Asn	Arg	Phe	Lys	Phe	Thr	Arg	Trp
				165					170					175	
Ile	Ile	Leu	Ser	Ile	Ile	Gly	Ser	Ile	Leu	Ile	Tyr	Val	Phe	Gly	Ser
			180					185					190		
Pro	Glu	Phe	Gly	Gly	Glu	Pro	Asp	Glu	Asn	Glu	Glu	Phe	Tyr	Ser	Ile
		195					200					205			
Gln	Ala	Trp	Leu	Thr	Phe	Ala	Ala	Ser	Val	Ala	Phe	Ala	Leu	Ser	Leu
	210					215					220				
Cys	Leu	Phe	Gln	Leu	Cys	Phe	Glu	Lys	Val	Leu	Val	Lys	Thr	Lys	Arg
225					230					235					240
Tyr	Gly	Asn	Lys	Lys	Val	Phe	Arg	Met	Val	Ile	Glu	Met	Gln	Ile	Cys
				245					250					255	

047-E2F-PCT.ST25.txt

Val Ser Phe Val Ala Thr Val Val Cys Leu Val Gly Leu Phe Ala Ser  
260 265 270

Gly Glu Asn Lys Glu Leu Gln Gly Asp Ser His Arg Phe Lys Lys Gly  
275 280 285

Glu Thr Tyr Tyr Val Leu Ser Leu Ile Gly Leu Ala Leu Ser Trp Gln  
290 295 300

Val Trp Ala Val Gly Leu Met Gly Leu Val Leu Tyr Val Ser Gly Val  
305 310 315 320

Phe Gly Asp Val Val His Met Cys Thr Ser Pro Leu Val Ala Leu Phe  
325 330 335

Val Val Leu Ala Phe Asp Phe Met Asp Asp Glu Phe Ser Trp Pro Arg  
340 345 350

Ile Gly Thr Leu Ile Ala Thr Val Val Ala Leu Gly Ser Tyr Phe Tyr  
355 360 365

Thr Leu His Lys Arg Asn Lys Lys Lys Met Val Glu Leu Tyr Gln Thr  
370 375 380

Glu Asn Asn Ile Asp Val  
385 390

<210> 417

<211> 1047

<212> DNA

<213> Arabidopsis thaliana

<400> 417

atgggttgag agcccttgat acagcttggc gttggtgatc gccttcgtct caattcttct	60
cttattcaca aggcacggac catgttgatt gagaatggaa aaaaacgaga attcgtttca	120
aatatagtag acgaagctcg ttgtattaaa aggaacgatc ttgttgaggc cttatccgat	180
gcccttccga aaggaaccat ccggttcggt tctcatattg tttctattga gcaggacaaa	240
actacgttgt ttccggttgt tcacttagcc aatggaaata gcatcaaagc caaggctctg	300
attggatgcg atggtgccaa ttctatcgtc agtgattatt tgcagttaaa cccgaaaaag	360
gcgtttgctt gtcgtgcggt gagagggttt actaagtacc caaacggcca tggatttcca	420
caagaggttc taaggataaa gcaaggaaat gtcttaatag gaaggcttcc tttgacggat	480

```

aatcaagtct tttggtttct agtacatatg caagacaata atcacaatgg taaagatcaa 540
gaatcgattg cgaatctgtg tcgaaaatgg gccgatgact tgtctgaaga ttggaaagaa 600
atggtaaaaa tatgcaatgt ggagtcatta acactcacac acttaaggta ccgagcgcca 660
tcggaaatca tgttagggaa atttcgtcgt gggacagtga ctgtagccgg cgatgcatg 720
cacgtgatgg gtccgttctt ggcacagggc ggctcagcgg cgctagagga tgcggttggt 780
ttagctaggt gtctagctag gaaagttggt ccggaccacg gagacttggt aaaggattgt 840
tcgatgaaaa acattgaaga agctattgat gagtatgtgg atgaacgtag gatgagatta 900
ctcgggcttt cgggtgcagac ttatttgacc ggacgttcgc taaaacgtc atcaaagggt 960
ctgaggctaa tgtttatagc tttgttgta cttttgttg gtcgtgatca aattcgatcat 1020
actaggtacg actgtggccg tctctag 1047

```

&lt;210&gt; 418

&lt;211&gt; 348

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 418

```

Met Val Gly Glu Pro Leu Ile Gln Leu Gly Val Gly Asp Arg Leu Arg
1          5          10          15

```

```

Leu Asn Ser Ser Leu Ile His Lys Ala Arg Thr Met Leu Ile Glu Asn
          20          25          30

```

```

Gly Lys Lys Arg Glu Phe Val Ser Asn Ile Val Asp Glu Ala Arg Cys
          35          40          45

```

```

Ile Lys Arg Asn Asp Leu Val Glu Ala Leu Ser Asp Ala Leu Pro Lys
          50          55          60

```

```

Gly Thr Ile Arg Phe Gly Ser His Ile Val Ser Ile Glu Gln Asp Lys
65          70          75          80

```

```

Thr Thr Leu Phe Pro Val Val His Leu Ala Asn Gly Asn Ser Ile Lys
          85          90          95

```

```

Ala Lys Val Leu Ile Gly Cys Asp Gly Ala Asn Ser Ile Val Ser Asp
          100          105          110

```

```

Tyr Leu Gln Leu Asn Pro Lys Lys Ala Phe Ala Cys Arg Ala Val Arg
          115          120          125

```

047-E2F-PCT.ST25.txt

Gly Phe Thr Lys Tyr Pro Asn Gly His Gly Phe Pro Gln Glu Val Leu  
130 135 140

Arg Ile Lys Gln Gly Asn Val Leu Ile Gly Arg Leu Pro Leu Thr Asp  
145 150 155 160

Asn Gln Val Phe Trp Phe Leu Val His Met Gln Asp Asn Asn His Asn  
165 170 175

Gly Lys Asp Gln Glu Ser Ile Ala Asn Leu Cys Arg Lys Trp Ala Asp  
180 185 190

Asp Leu Ser Glu Asp Trp Lys Glu Met Val Lys Ile Cys Asn Val Glu  
195 200 205

Ser Leu Thr Leu Thr His Leu Arg Tyr Arg Ala Pro Ser Glu Ile Met  
210 215 220

Leu Gly Lys Phe Arg Arg Gly Thr Val Thr Val Ala Gly Asp Ala Met  
225 230 235 240

His Val Met Gly Pro Phe Leu Ala Gln Gly Gly Ser Ala Ala Leu Glu  
245 250 255

Asp Ala Val Val Leu Ala Arg Cys Leu Ala Arg Lys Val Gly Pro Asp  
260 265 270

His Gly Asp Leu Leu Lys Asp Cys Ser Met Lys Asn Ile Glu Glu Ala  
275 280 285

Ile Asp Glu Tyr Val Asp Glu Arg Arg Met Arg Leu Leu Gly Leu Ser  
290 295 300

Val Gln Thr Tyr Leu Thr Gly Arg Ser Leu Gln Thr Ser Ser Lys Val  
305 310 315 320

Leu Arg Leu Met Phe Ile Ala Leu Leu Leu Leu Phe Gly Arg Asp  
325 330 335

Gln Ile Arg His Thr Arg Tyr Asp Cys Gly Arg Leu  
340 345

<210> 419

<211> 612

<212> DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 419

```

atgagcggag acaacggcgg tggtagagagg cgcaaaggct ccgtcaagtg gtttgatacc    60
cagaaggggtt tcggcttcat cactcctgac gacgggtggcg acgatctctt cgttcaccag    120
tcctccatca gatctgaggg tttccgtagc ctcgctgccg aagaagccgt agagttcgag    180
gttgagatcg acaacaacaa ccgtcccaag gccatcgatg tttctggacc cgacggcgct    240
cccgtccaag gaaacagcgg tggtaggttca tctggcggac gcggcggttt cggtggagga    300
agaggaggtg gacgcggatc tggaggtgga tacggcggtg gcggtggtgg atacggagga    360
agaggaggtg gtggtcgagg aggcagcgac tgctacaagt gtggtgagcc cggtcacatg    420
gcgagagact gttctgaagg cggtggaggt tacggaggag gcggcggtgg ctacggaggt    480
ggagggcgat acggcgagg aggtggtggt tacggagggt gtggccgtgg aggtggtggc    540
ggcgggggaa gctgctacag ctgtggcgag tcgggacatt tcgccaggga ttgcaccagc    600
ggtggacgtt aa                                                                612

```

&lt;210&gt; 420

&lt;211&gt; 203

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 420

```

Met Ser Gly Asp Asn Gly Gly Gly Glu Arg Arg Lys Gly Ser Val Lys
1      5      10      15
Trp Phe Asp Thr Gln Lys Gly Phe Gly Phe Ile Thr Pro Asp Asp Gly
20      25      30
Gly Asp Asp Leu Phe Val His Gln Ser Ser Ile Arg Ser Glu Gly Phe
35      40      45
Arg Ser Leu Ala Ala Glu Glu Ala Val Glu Phe Glu Val Glu Ile Asp
50      55      60
Asn Asn Asn Arg Pro Lys Ala Ile Asp Val Ser Gly Pro Asp Gly Ala
65      70      75      80
Pro Val Gln Gly Asn Ser Gly Gly Gly Ser Ser Gly Gly Arg Gly Gly
85      90      95

```



Phe Gly Gly Gly Arg Gly Gly Gly Arg Gly Ser Gly Gly Gly Tyr Gly  
100 105 110  
Gly Gly Gly Gly Gly Tyr Gly Gly Arg Gly Gly Gly Gly Arg Gly Gly  
115 120 125  
Ser Asp Cys Tyr Lys Cys Gly Glu Pro Gly His Met Ala Arg Asp Cys  
130 135 140  
Ser Glu Gly Gly Gly Gly Tyr Gly Gly Gly Gly Gly Gly Tyr Gly Gly  
145 150 155 160  
Gly Gly Gly Tyr Gly Gly Gly Gly Gly Gly Tyr Gly Gly Gly Gly Arg  
165 170 175  
Gly Gly Gly Gly Gly Gly Gly Ser Cys Tyr Ser Cys Gly Glu Ser Gly  
180 185 190  
His Phe Ala Arg Asp Cys Thr Ser Gly Gly Arg  
195 200

<210> 421  
<211> 384  
<212> DNA  
<213> Arabidopsis thaliana

<400> 421  
atggacgaca agacggcggg tggttaagatt gtcataaata aggagcaact gcttttgttt 60  
atggaaaaca ggcggaagca ggaggatcac cgtctcgctc tcgccaagga agccaccaga 120  
tctgagatgg ttgaccggaa ggccagcggg aagataatca tgaatcatga tcagcagctt 180  
atgtttaacg aggatcaccg tctcgccgctc aagaaagcca gcagatctga gatggttgac 240  
ctggagggga tgggttcgga ggcgagtgtg ataatgagta atgttccaca gccaaacttct 300  
tttagcgagg atcacaagct cgccatcaag aacatcatat ctaagattgt caaggagatc 360  
cgcgatagag atcaccccg c ttag 384

<210> 422  
<211> 127  
<212> PRT  
<213> Arabidopsis thaliana

<400> 422

Met Asp Asp Lys Thr Ala Gly Gly Lys Ile Val Met Asn Lys Glu Gln  
 1 5 10 15  
 Leu Leu Leu Phe Met Glu Asn Arg Arg Lys Gln Glu Asp His Arg Leu  
 20 25 30  
 Ala Leu Ala Lys Glu Ala Thr Arg Ser Glu Met Val Asp Arg Lys Ala  
 35 40 45  
 Ser Gly Lys Ile Ile Met Asn His Asp Gln Gln Leu Met Phe Asn Glu  
 50 55 60  
 Asp His Arg Leu Ala Val Lys Lys Ala Ser Arg Ser Glu Met Val Asp  
 65 70 75 80  
 Leu Glu Gly Met Gly Ser Glu Ala Ser Val Ile Met Ser Asn Val Pro  
 85 90 95  
 Gln Pro Thr Ser Phe Ser Glu Asp His Lys Leu Ala Ile Lys Asn Ile  
 100 105 110  
 Ile Ser Lys Ile Val Lys Glu Ile Arg Asp Arg Asp His Pro Ala  
 115 120 125

<210> 423

<211> 2886

<212> DNA

<213> Arabidopsis thaliana

<400> 423

atgacgacta cgcagagcgc tatgagaatg gttgaggggtg atcatataaa aaattggcag 60  
 gcttctagtg atagtgggat ctttggttca cttgatatgg ctgttgaaga tttaggattc 120  
 cttatgaaaa gaaatagggtt ggatagtgggt gatcaaaccg gtaaattccc tagtagaagc 180  
 gaaagcgcgc cgcctagcat ggaagggttcc tttgcagctc ttaggaatct cttgaaacaa 240  
 caagaaggta gtagctctga agttttaagt agggctattg agaattatga ctcggaagaa 300  
 gagatacgta gtgatcctgc ttatgtagct tactatttgt cgaacatcaa cttgaatccg 360  
 agactccctc ctccgttaat ctcacgggag aatcagcact tgttgcgtca ttttggtgat 420  
 aataatcaga gtccaacaac ttcttgggat aatatgggga taagatcatc tttgcattct 480

## 047-E2F-PCT.ST25.txt

tctagaactg	ctctttcaac	tcatagagag	gagcccgagg	atgaggcatc	atcgggtgaa	540
caacaatctt	atgcttcttt	ggctggtcgt	cgtaagagca	tagctgatat	gattcaggaa	600
gatttccctc	ttacactttc	ttctgtgttc	aagcggcctc	attcggcagg	aaatcgtcca	660
atagcacaag	acatccatgc	catttctctt	gatacatctt	cagaacacgc	aagaagatta	720
ccggagtccg	atataaattc	ggttaatctg	ctgagggaga	cagattctct	ctccagcgat	780
gctattgcta	gtgaagatcc	ctttaccact	gatttggcct	cacaaagttt	tactaatgca	840
cagacagaga	gattgaacgc	gaggcaagcg	agccatgagg	acaacaatct	atctgttttt	900
ggtgcttctc	ctccatcctc	tgttgcttca	agaatgagga	ggaaccaaga	agaccaacaa	960
tctcagggaa	ggagaatgcc	tccacaatac	acaccttcat	cgtatcaggt	tcaagctagt	1020
tcgccacagc	aaatgagcta	tccgaggata	ggtggtacac	aggacatgat	gcagagctta	1080
ccaaagattg	caactggcga	ggtacattcg	actttccaat	ctcctcacgg	tttggcaccg	1140
cctcctatgt	atacatcaac	agcagcatat	atgacatctc	tgagtccatt	ttaccatcaa	1200
aactttcagt	cctcgggtat	gttcgtcccg	caatataatt	atggtggtta	ccctcctgct	1260
tctggtattg	tccctcaata	tatgagtggg	taccatctc	atgaagcgac	tgttcctatg	1320
ccatatgata	tctcatctac	ttcttcgggc	tacaacaacc	ctcggctcct	gcctggagta	1380
tcatcgagtg	gacaaaacat	tccttctctt	gtggatcctt	ttcagttgca	atattttcaa	1440
caggctcaag	tggacgcgta	tgctcctccg	tttcagagca	gactgattc	ttttgggcag	1500
aaagaccaac	aagctgttgg	ctatatggca	aatcatgaac	ctctcaacag	tccattgagt	1560
ccgggttacg	ggttgcaaag	tccgcggcac	atgggaaact	attttgagct	gccgcctggt	1620
gtaagagtaa	tgccgcagta	tccaggatca	cctcttgcta	gtccggtgat	gccatcctca	1680
ccggttggtg	gaatgatgag	ccactttgga	agacgaagtg	aaacaaggta	tcatcaacaa	1740
gggccaagta	gaaacactgg	gatctaccct	ggtggatggc	aagggaacag	agggggagcc	1800
agcagcatcg	ttgatgatct	aaaaagacat	tcttttcttg	atgaacttaa	gtctccaaat	1860
gctcggaaac	tcgagctttc	tgatattgca	gggcgtgttg	ttgaattcag	cgtcgatcag	1920
catggcagcc	ggtttattca	acagaagttg	gagcactgct	ccgatgagga	gaaggcatct	1980
gttttcagtg	aggttcttcc	acaagcttca	aaattgatga	ctgacgtttt	tggaaattat	2040
gtcatccaaa	aattcataga	acatggaact	ccggcacaga	gagaagaact	tgtgaagcaa	2100
cttgctggtc	agatggtttc	actaagctta	caaatgtatg	gatgccgtgt	gatacaaaag	2160
gcccttgaag	tgatagatgt	tgacaaaaag	acagaactaa	ttcgtgagct	cgatgggaat	2220
gtgctgaagt	gtgttagaga	tcaaaacgga	aatcatgtta	tccaaaaatg	tatcgagagt	2280
atgcctgctg	gtaggattgg	attcgtaatt	gctgctttcc	gtgggtcaagt	cgccactctt	2340

047-E2F-PCT.ST25.txt

tctactcatc cttatggatg ccgagttatc cagagaatct tggagcattg ctcagatgat 2400  
gaggagactc attgtataat agatgaaata ttggaatctg cgtttgctct tgctcatgat 2460  
cagtatggga attatgtcac tcagcatgtc ctggagagag ggaagcccga tgaaaggaga 2520  
cagatcattg agaagttgac agggaaatggt gttcagatga gtcagcacia atacgcatct 2580  
aacgtttgtag agaagtgttt ggaacacgct gatagtaccg aaagagagtt cctgattgaa 2640  
gagataatgg gcaaattccga ggaagacaat cacttgctag cgatgatgaa ggatcagttt 2700  
gcaaattacg tgggtccagaa agtcttggag atcagtaaag atcagcaaag ggagattctg 2760  
gtgcagagga tgaaaattca tctccaaagt ttgcggaaat acacatacgg gaaacacata 2820  
gtagcccgat tcgaacaact gtttgggtgaa gagagtgaag tctcagaaga gggaacagaa 2880  
ggtttag 2886

<210> 424

<211> 961

<212> PRT

<213> Arabidopsis thaliana

<400> 424

Met Thr Thr Thr Gln Ser Ala Met Arg Met Val Glu Gly Asp His Ile  
1 5 10 15

Lys Asn Trp Gln Ala Ser Ser Asp Ser Gly Ile Phe Gly Ser Leu Asp  
20 25 30

Met Ala Val Glu Asp Leu Gly Phe Leu Met Lys Arg Asn Arg Leu Asp  
35 40 45

Ser Gly Asp Gln Thr Gly Lys Phe Pro Ser Arg Ser Glu Ser Ala Pro  
50 55 60

Pro Ser Met Glu Gly Ser Phe Ala Ala Leu Arg Asn Leu Leu Lys Gln  
65 70 75 80

Gln Glu Gly Ser Ser Ser Glu Val Leu Ser Arg Ala Ile Glu Asn Tyr  
85 90 95

Asp Ser Glu Glu Glu Ile Arg Ser Asp Pro Ala Tyr Val Ala Tyr Tyr  
100 105 110

Leu Ser Asn Ile Asn Leu Asn Pro Arg Leu Pro Pro Pro Leu Ile Ser  
115 120 125

047-E2F-PCT.ST25.txt

Arg Glu Asn Gln His Leu Leu Arg His Phe Gly Asp Asn Asn Gln Ser  
130 135 140

Pro Thr Thr Ser Trp Asp Asn Met Gly Ile Arg Ser Ser Leu His Ser  
145 150 155 160

Ser Arg Thr Ala Leu Ser Thr His Arg Glu Glu Pro Glu Asp Glu Ala  
165 170 175

Ser Ser Gly Glu Gln Gln Ser Tyr Ala Ser Leu Ala Gly Arg Arg Lys  
180 185 190

Ser Ile Ala Asp Met Ile Gln Glu Asp Phe Pro Leu Thr Leu Ser Ser  
195 200 205

Val Phe Lys Arg Pro His Ser Ala Gly Asn Arg Pro Ile Ala Gln Asp  
210 215 220

Ile His Ala Ile Ser Ser Asp Thr Ser Ser Glu His Ala Arg Arg Leu  
225 230 235 240

Pro Glu Ser Asp Ile Asn Ser Val Asn Leu Leu Arg Glu Thr Asp Ser  
245 250 255

Leu Ser Ser Asp Ala Ile Ala Ser Glu Asp Pro Phe Thr Thr Asp Leu  
260 265 270

Ala Ser Gln Ser Phe Thr Asn Ala Gln Thr Glu Arg Leu Asn Ala Arg  
275 280 285

Gln Ala Ser His Glu Asp Asn Asn Leu Ser Val Phe Gly Ala Ser Pro  
290 295 300

Pro Ser Ser Val Ala Ser Arg Met Arg Arg Asn Gln Glu Asp Gln Gln  
305 310 315 320

Ser Gln Gly Arg Arg Met Pro Pro Gln Tyr Thr Pro Ser Ser Tyr Gln  
325 330 335

Val Gln Ala Ser Ser Pro Gln Gln Met Ser Tyr Pro Arg Ile Gly Gly  
340 345 350

Thr Gln Asp Met Met Gln Ser Leu Pro Lys Ile Ala Thr Gly Glu Val  
355 360 365

His Ser Thr Phe Gln Ser Pro His Gly Leu Ala Pro Pro Pro Met Tyr

370

375

Thr 385	Ser	Thr	Ala	Ala	Tyr 390	Met	Thr	Ser	Leu	Ser 395	Pro	Phe	Tyr	His	Gln 400
Asn	Phe	Gln	Ser	Ser 405	Gly	Met	Phe	Val	Pro 410	Gln	Tyr	Asn	Tyr	Gly 415	Gly
Tyr	Pro	Pro	Ala 420	Ser	Gly	Ile	Val	Pro 425	Gln	Tyr	Met	Ser	Gly 430	Tyr	Pro
Ser	His	Glu 435	Ala	Thr	Val	Pro	Met 440	Pro	Tyr	Asp	Ile	Ser 445	Ser	Thr	Ser
Ser	Gly 450	Tyr	Asn	Asn	Pro	Arg 455	Leu	Leu	Pro	Gly	Val 460	Ser	Ser	Ser	Gly
Gln 465	Asn	Ile	Pro	Ser	Leu 470	Val	Asp	Pro	Phe	Gln 475	Leu	Gln	Tyr	Phe	Gln 480
Gln	Ala	Gln	Val	Asp 485	Ala	Tyr	Ala	Pro	Pro 490	Phe	Gln	Ser	Ser	Thr 495	Asp
Ser	Phe	Gly	Gln 500	Lys	Asp	Gln	Gln	Ala 505	Val	Gly	Tyr	Met	Ala 510	Asn	His
Glu	Pro	Leu 515	Asn	Ser	Pro	Leu	Ser 520	Pro	Gly	Tyr	Gly	Leu 525	Gln	Ser	Pro
Arg	His 530	Met	Gly	Asn	Tyr	Phe 535	Ala	Val	Pro	Pro	Gly 540	Val	Arg	Val	Met
Pro 545	Gln	Tyr	Pro	Gly	Ser 550	Pro	Leu	Ala	Ser	Pro 555	Val	Met	Pro	Ser	Ser 560
Pro	Val	Gly	Gly	Met 565	Met	Ser	His	Phe	Gly 570	Arg	Arg	Ser	Glu	Thr 575	Arg
Tyr	His	Gln	Gln 580	Gly	Pro	Ser	Arg	Asn 585	Thr	Gly	Ile	Tyr	Pro 590	Gly	Gly
Trp	Gln	Gly 595	Asn	Arg	Gly	Gly	Ala 600	Ser	Ser	Ile	Val	Asp 605	Asp	Leu	Lys
Arg	His 610	Ser	Phe	Leu	Asp	Glu 615	Leu	Lys	Ser	Pro	Asn 620	Ala	Arg	Lys	Leu

Glu Leu Ser Asp Ile Ala Gly Arg Val Val Glu Phe Ser Val Asp Gln  
 625 630 635 640  
 His Gly Ser Arg Phe Ile Gln Gln Lys Leu Glu His Cys Ser Asp Glu  
 645 650 655  
 Glu Lys Ala Ser Val Phe Ser Glu Val Leu Pro Gln Ala Ser Lys Leu  
 660 665 670  
 Met Thr Asp Val Phe Gly Asn Tyr Val Ile Gln Lys Phe Ile Glu His  
 675 680 685  
 Gly Thr Pro Ala Gln Arg Glu Glu Leu Val Lys Gln Leu Ala Gly Gln  
 690 695 700  
 Met Val Ser Leu Ser Leu Gln Met Tyr Gly Cys Arg Val Ile Gln Lys  
 705 710 715 720  
 Ala Leu Glu Val Ile Asp Val Asp Gln Lys Thr Glu Leu Ile Arg Glu  
 725 730 735  
 Leu Asp Gly Asn Val Leu Lys Cys Val Arg Asp Gln Asn Gly Asn His  
 740 745 750  
 Val Ile Gln Lys Cys Ile Glu Ser Met Pro Ala Gly Arg Ile Gly Phe  
 755 760 765  
 Val Ile Ala Ala Phe Arg Gly Gln Val Ala Thr Leu Ser Thr His Pro  
 770 775 780  
 Tyr Gly Cys Arg Val Ile Gln Arg Ile Leu Glu His Cys Ser Asp Asp  
 785 790 795 800  
 Glu Glu Thr His Cys Ile Ile Asp Glu Ile Leu Glu Ser Ala Phe Ala  
 805 810 815  
 Leu Ala His Asp Gln Tyr Gly Asn Tyr Val Thr Gln His Val Leu Glu  
 820 825 830  
 Arg Gly Lys Pro Asp Glu Arg Arg Gln Ile Ile Glu Lys Leu Thr Gly  
 835 840 845  
 Asn Val Val Gln Met Ser Gln His Lys Tyr Ala Ser Asn Val Val Glu  
 850 855 860  
 Lys Cys Leu Glu His Ala Asp Ser Thr Glu Arg Glu Phe Leu Ile Glu  
 865 870 875 880

047-E2F-PCT.ST25.txt

Glu Ile Met Gly Lys Ser Glu Glu Asp Asn His Leu Leu Ala Met Met  
885 890 895

Lys Asp Gln Phe Ala Asn Tyr Val Val Gln Lys Val Leu Glu Ile Ser  
900 905 910

Lys Asp Gln Gln Arg Glu Ile Leu Val Gln Arg Met Lys Ile His Leu  
915 920 925

Gln Ser Leu Arg Lys Tyr Thr Tyr Gly Lys His Ile Val Ala Arg Phe  
930 935 940

Glu Gln Leu Phe Gly Glu Glu Ser Glu Val Ser Glu Glu Gly Thr Glu  
945 950 955 960

Gly

<210> 425

<211> 891

<212> DNA

<213> Arabidopsis thaliana

<400> 425

atggacagct tctggcaatt aggtgatgag ctacgaggtc agacgagagc atcagaggat	60
cacaaatggt ctactgttgc aacgaagcta gctgagcaaa ctagaatgaa aggggagagg	120
atgaacaatc ttgatctctc caaaggttac actgagttta gaccaagtga gaaattcagt	180
ttccaggaga acaatcttaa cttcaacatg ttgaatttgg atggtaaatt tggtgaaagc	240
atcatgggga agacttcgat gcagagcaat gtttataata tgaatactgt tttccagaag	300
aatgacttta agagtggagg caacatgaaa gttaacaagt ataatggtaa tgttgttgct	360
aacaaggaga tgagcaacaa caaacataac aacaactgca atgataatgg gaatatgaat	420
ttggctgttg acaagagggt taaaaccttg cctgcttcgg agactcttcc gaggaatgaa	480
gttcttgggtg gttacatctt tgtttgcaac aatgatacta tgcaggagga tatgaaacgt	540
cacctctttg gtttacctcc aagatacaga gactctgttc gagctataac acctggattg	600
cctctgtttc tttaacaacta caccactcac cagcttcatg gtatctttga ggcaacaact	660
tttgagggta ctaatatgta tgctactgct tgggaagaca aaaagtgcaa aggagagtca	720
aggtttccgg ctcaggtaag gatcagagtg aggaaaatct gcaaagcctt ggaagaggac	780
tccttcaggc cagtacttca ccactatgat ggtccaaaat tccgccttga gctctctggt	840



cctgagacat tggatctgct agatctttgc gaacaagctg gttctgcata a

891

&lt;210&gt; 426

&lt;211&gt; 296

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 426

Met	Asp	Ser	Phe	Trp	Gln	Leu	Gly	Asp	Glu	Leu	Arg	Gly	Gln	Thr	Arg
1				5					10					15	

Ala	Ser	Glu	Asp	His	Lys	Trp	Ser	Thr	Val	Ala	Thr	Lys	Leu	Ala	Glu
			20					25					30		

Gln	Thr	Arg	Met	Lys	Gly	Glu	Arg	Met	Asn	Asn	Leu	Asp	Leu	Ser	Lys
		35					40					45			

Gly	Tyr	Thr	Glu	Phe	Arg	Pro	Ser	Glu	Lys	Phe	Ser	Phe	Gln	Glu	Asn
	50					55					60				

Asn	Leu	Asn	Phe	Asn	Met	Leu	Asn	Leu	Asp	Gly	Lys	Phe	Gly	Glu	Ser
65					70					75					80

Ile	Met	Gly	Lys	Thr	Ser	Met	Gln	Ser	Asn	Val	Tyr	Asn	Met	Asn	Thr
				85					90					95	

Val	Phe	Gln	Lys	Asn	Asp	Phe	Lys	Ser	Gly	Gly	Asn	Met	Lys	Val	Asn
			100					105					110		

Lys	Tyr	Asn	Gly	Asn	Val	Val	Ala	Asn	Lys	Glu	Met	Ser	Asn	Asn	Lys
		115					120					125			

His	Asn	Asn	Asn	Cys	Asn	Asp	Asn	Gly	Asn	Met	Asn	Leu	Ala	Val	Asp
	130					135					140				

Lys	Arg	Phe	Lys	Thr	Leu	Pro	Ala	Ser	Glu	Thr	Leu	Pro	Arg	Asn	Glu
145					150					155					160

Val	Leu	Gly	Gly	Tyr	Ile	Phe	Val	Cys	Asn	Asn	Asp	Thr	Met	Gln	Glu
				165					170					175	

Asp	Met	Lys	Arg	His	Leu	Phe	Gly	Leu	Pro	Pro	Arg	Tyr	Arg	Asp	Ser
			180					185					190		

047-E2F-PCT.ST25.txt

Val Arg Ala Ile Thr Pro Gly Leu Pro Leu Phe Leu Tyr Asn Tyr Thr  
195 200 205

Thr His Gln Leu His Gly Ile Phe Glu Ala Thr Thr Phe Gly Gly Thr  
210 215 220

Asn Ile Asp Ala Thr Ala Trp Glu Asp Lys Lys Cys Lys Gly Glu Ser  
225 230 235 240

Arg Phe Pro Ala Gln Val Arg Ile Arg Val Arg Lys Ile Cys Lys Ala  
245 250 255

Leu Glu Glu Asp Ser Phe Arg Pro Val Leu His His Tyr Asp Gly Pro  
260 265 270

Lys Phe Arg Leu Glu Leu Ser Val Pro Glu Thr Leu Asp Leu Leu Asp  
275 280 285

Leu Cys Glu Gln Ala Gly Ser Ala  
290 295

<210> 427

<211> 1755

<212> DNA

<213> Arabidopsis thaliana

<400> 427

atgaccaaag aagtttgctc caacattgga ctttggttat tgctcacgtt acttattggt	60
aactatgtcg tcaatcttga agcctcgcac catgtctaca agagacttac ccaaagcact	120
aacaccaaat ctccttccgt aaaccagccc taccggaccg gtttccattt ccaaccccc	180
aaaaattgga tgaacgatcc taatgggcct atgatataca aaggaatata tcattctttc	240
taccaatgga acccgaaagg agccgtgtgg ggtaacatcg tgtgggctca ttccacgtca	300
acagacttaa tcaattggga tccacatcct ccagctatct tcccatctgc acccttcgat	360
atcaacggat gctgggtccg ttcagctact attctcccta atggaaaacc gggtatcctc	420
tataccggaa tcgaccctaa gaaccaacag gtccaaaaca tagccgagcc taagaatctc	480
tccgatcctt atctccgaga atggaaaaag tcgccgttaa atcctctcat ggctcctgac	540
gccgttaacg gaatcaacgc cagctcgttc cgtgacccaa ccaccgcgtg gctaggccaa	600
gacaagaaat ggagagtgat catcggaagc aagattcacc gtcgtggact agccattact	660
tacacgagta aagactttct aaaatgggaa aaatctccag agccgttgca ttacgacgac	720

047-E2F-PCT.ST25.txt

```

ggaagtggaa tgtgggaatg tcctgatttt ttcccgggtca cgagggtttgg ttctaacggc 780
gtggaaacgt cttcgtttgg tgaacctaat gagattttga agcacgtggt gaaaataagt 840
ttggacgaca cgaaacatga ttattacacg atttggtacgt acgatcgggt taaagataaa 900
ttcgtaccgg acaatggttt caagatggac ggtacggctc cgagatacga ttacggaaag 960
tattacgcgt ctaaaacggt ttttgactcg gctaagaacc ggagaatctt gtgggggttg 1020
actaacgagt catcgctcgt tgaggatgat gttgagaaag gctgggtccgg tattcagacg 1080
attccaagga aaatatggct tgatagatca gggaaacaat taattcagt gccgggttagg 1140
gaagttgaaa gattacgtac aaaacaagtc aaaaacttac gcaacaaagt tctaaagtca 1200
ggatctaggc ttgaagtcta tgggtgtgaca gctgcacagg cggatgtaga agtattgttc 1260
aaagtgagag acttggagaa agcggatgtg atagaaccaa gttggactga tccgcagttg 1320
atttgtagca agatgaatgt atcgggttaag tctgggttag gtccattcgg tttaatgggt 1380
ttggcatcta agaatttgga agagtacaca tctgtttatt ttagaatctt caaagcccgt 1440
caaaacagca ataagtacgt tgtgctcatg tgcagtgacc aaagcagatc ttcgctgaag 1500
gaagataatg acaaaacgac atacggagct tttgtggata ttaatcctca ccaaccacta 1560
tccctcagag ccttgattga tcattcagta gtggagagtt tcggtggaaa gggaagagca 1620
tgcattacct caagagtgt tccaaaattg gcaataggaa aaagttcaca tctctttgct 1680
tttaattatg gatatcaaag tgttgatgtc ttaaacttaa atgcttggag catgaactct 1740
gcccaaatca gttga 1755

```

<210> 428

<211> 584

<212> PRT

<213> Arabidopsis thaliana

<400> 428

Met Thr Lys Glu Val Cys Ser Asn Ile Gly Leu Trp Leu Leu Leu Thr  
1 5 10 15

Leu Leu Ile Gly Asn Tyr Val Val Asn Leu Glu Ala Ser His His Val  
20 25 30

Tyr Lys Arg Leu Thr Gln Ser Thr Asn Thr Lys Ser Pro Ser Val Asn  
35 40 45

Gln Pro Tyr Arg Thr Gly Phe His Phe Gln Pro Pro Lys Asn Trp Met  
Page 669

50

55

Asn Asp Pro Asn Gly Pro Met Ile Tyr Lys Gly Ile Tyr His Leu Phe  
65 70 75 80

Tyr Gln Trp Asn Pro Lys Gly Ala Val Trp Gly Asn Ile Val Trp Ala  
85 90 95

His Ser Thr Ser Thr Asp Leu Ile Asn Trp Asp Pro His Pro Pro Ala  
100 105 110

Ile Phe Pro Ser Ala Pro Phe Asp Ile Asn Gly Cys Trp Ser Gly Ser  
115 120 125

Ala Thr Ile Leu Pro Asn Gly Lys Pro Val Ile Leu Tyr Thr Gly Ile  
130 135 140

Asp Pro Lys Asn Gln Gln Val Gln Asn Ile Ala Glu Pro Lys Asn Leu  
145 150 155 160

Ser Asp Pro Tyr Leu Arg Glu Trp Lys Lys Ser Pro Leu Asn Pro Leu  
165 170 175

Met Ala Pro Asp Ala Val Asn Gly Ile Asn Ala Ser Ser Phe Arg Asp  
180 185 190

Pro Thr Thr Ala Trp Leu Gly Gln Asp Lys Lys Trp Arg Val Ile Ile  
195 200 205

Gly Ser Lys Ile His Arg Arg Gly Leu Ala Ile Thr Tyr Thr Ser Lys  
210 215 220

Asp Phe Leu Lys Trp Glu Lys Ser Pro Glu Pro Leu His Tyr Asp Asp  
225 230 235 240

Gly Ser Gly Met Trp Glu Cys Pro Asp Phe Phe Pro Val Thr Arg Phe  
245 250 255

Gly Ser Asn Gly Val Glu Thr Ser Ser Phe Gly Glu Pro Asn Glu Ile  
260 265 270

Leu Lys His Val Leu Lys Ile Ser Leu Asp Asp Thr Lys His Asp Tyr  
275 280 285

Tyr Thr Ile Gly Thr Tyr Asp Arg Val Lys Asp Lys Phe Val Pro Asp  
290 295 300

Asn Gly Phe Lys Met Asp Gly Thr Ala Pro Arg Tyr Asp Tyr Gly Lys  
 305 310 315 320  
 Tyr Tyr Ala Ser Lys Thr Phe Phe Asp Ser Ala Lys Asn Arg Arg Ile  
 325 330 335  
 Leu Trp Gly Trp Thr Asn Glu Ser Ser Val Glu Asp Asp Val Glu  
 340 345 350  
 Lys Gly Trp Ser Gly Ile Gln Thr Ile Pro Arg Lys Ile Trp Leu Asp  
 355 360 365  
 Arg Ser Gly Lys Gln Leu Ile Gln Trp Pro Val Arg Glu Val Glu Arg  
 370 375 380  
 Leu Arg Thr Lys Gln Val Lys Asn Leu Arg Asn Lys Val Leu Lys Ser  
 385 390 395 400  
 Gly Ser Arg Leu Glu Val Tyr Gly Val Thr Ala Ala Gln Ala Asp Val  
 405 410 415  
 Glu Val Leu Phe Lys Val Arg Asp Leu Glu Lys Ala Asp Val Ile Glu  
 420 425 430  
 Pro Ser Trp Thr Asp Pro Gln Leu Ile Cys Ser Lys Met Asn Val Ser  
 435 440 445  
 Val Lys Ser Gly Leu Gly Pro Phe Gly Leu Met Val Leu Ala Ser Lys  
 450 455 460  
 Asn Leu Glu Glu Tyr Thr Ser Val Tyr Phe Arg Ile Phe Lys Ala Arg  
 465 470 475 480  
 Gln Asn Ser Asn Lys Tyr Val Val Leu Met Cys Ser Asp Gln Ser Arg  
 485 490 495  
 Ser Ser Leu Lys Glu Asp Asn Asp Lys Thr Thr Tyr Gly Ala Phe Val  
 500 505 510  
 Asp Ile Asn Pro His Gln Pro Leu Ser Leu Arg Ala Leu Ile Asp His  
 515 520 525  
 Ser Val Val Glu Ser Phe Gly Gly Lys Gly Arg Ala Cys Ile Thr Ser  
 530 535 540  
 Arg Val Tyr Pro Lys Leu Ala Ile Gly Lys Ser Ser His Leu Phe Ala  
 545 550 555 560

047-E2F-PCT.ST25.txt

Phe Asn Tyr Gly Tyr Gln Ser Val Asp Val Leu Asn Leu Asn Ala Trp  
565 570 575

Ser Met Asn Ser Ala Gln Ile Ser  
580

<210> 429

<211> 1332

<212> DNA

<213> Arabidopsis thaliana

<400> 429

atgggacaag gaccatcggg aggattgaat cggcaaggag atcggaacc tgatggtgga	60
gataagaaag agaagaagtt tgagccggcg gcaccaccgg ctctgttagg gaggaagcaa	120
aggaagcaga aagggccaga ggcggcgggc agacttccga cggtgactcc gtctactaag	180
tgtaagctcc ggttactgaa attggaacgg atcaaggatt atttgttgat ggaggaagag	240
tttgtggcga atcaagagag gttgaaacct caggaagaga aagctgagga agatagatct	300
aaggttgatg atcttcgtgg tacacctatg agtggttgga atttggaaga gttgattgat	360
gagaatcacg ctattgtttc ttcttctggt ggacctgagt actacgttg gattttgtcc	420
ttcgttgata aagatcagct tgaacctgga tgttcgattt tgatgcataa taaggttctc	480
tctgttggtg ggattctaca agatgaagtg gatccaatgg tgtctgtgat gaaagttgag	540
aaagctcctt tggagtcata tgctgatatt ggaggtttag aagctcagat tcaggagatt	600
aaggaagctg ttgagcttcc ttgactcat cctgagttgt atgaagatat tggattataa	660
ccaccaaagg gtgtaatttt gtatggtgag cctggaactg ggaagacatt gcttgctaag	720
gcggttgcca attcaacatc agctactttc ttgagagttg ttggtagtga gctgattcag	780
aagtattttg gagatggtcc taagcttggt agagaacttt tcagagttgc tgatgacctt	840
tcaccatcaa tcgtcttcat agatgagatt gatgctgttg gtaccaagcg gtatgacgct	900
cactcaggag gtgaacgtga gatccaaaga actatgttg aacttctgaa ccagcttgat	960
ggatttgatt caagaggaga tgttaagggt atccttgcaa caaacagaat cgagagtctt	1020
gaccagcac tgcttcgacc tggacggatt gataggaaaa tcgagttccc tctcccagat	1080
atcaaaacaa gaagacgtat cttccagata cacacatcga agatgactct ctcggaagat	1140
gtaaacctcg aagagtttgt gatgacgaaa gacgagttct caggagctga tataaaggct	1200
atatgcactg aggctggtct actagctctc agggagcgtc gtatgaagg gacacatcct	1260
gatttcaaga aagcaaagga gaaggttatg ttcaagaaga aagaaggcgt ccctgaaggc	1320

ctctacatgt aa

1332

&lt;210&gt; 430

&lt;211&gt; 443

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 430

Met Gly Gln Gly Pro Ser Gly Gly Leu Asn Arg Gln Gly Asp Arg Lys  
 1 5 10 15

Pro Asp Gly Gly Asp Lys Lys Glu Lys Lys Phe Glu Pro Ala Ala Pro  
 20 25 30

Pro Ala Arg Val Gly Arg Lys Gln Arg Lys Gln Lys Gly Pro Glu Ala  
 35 40 45

Ala Ala Arg Leu Pro Thr Val Thr Pro Ser Thr Lys Cys Lys Leu Arg  
 50 55 60

Leu Leu Lys Leu Glu Arg Ile Lys Asp Tyr Leu Leu Met Glu Glu Glu  
 65 70 75 80

Phe Val Ala Asn Gln Glu Arg Leu Lys Pro Gln Glu Glu Lys Ala Glu  
 85 90 95

Glu Asp Arg Ser Lys Val Asp Asp Leu Arg Gly Thr Pro Met Ser Val  
 100 105 110

Gly Asn Leu Glu Glu Leu Ile Asp Glu Asn His Ala Ile Val Ser Ser  
 115 120 125

Ser Val Gly Pro Glu Tyr Tyr Val Gly Ile Leu Ser Phe Val Asp Lys  
 130 135 140

Asp Gln Leu Glu Pro Gly Cys Ser Ile Leu Met His Asn Lys Val Leu  
 145 150 155 160

Ser Val Val Gly Ile Leu Gln Asp Glu Val Asp Pro Met Val Ser Val  
 165 170 175

Met Lys Val Glu Lys Ala Pro Leu Glu Ser Tyr Ala Asp Ile Gly Gly  
 180 185 190

047-E2F-PCT.ST25.txt

Leu Glu Ala Gln Ile Gln Glu Ile Lys Glu Ala Val Glu Leu Pro Leu  
 195 200 205  
 Thr His Pro Glu Leu Tyr Glu Asp Ile Gly Ile Lys Pro Pro Lys Gly  
 210 215 220  
 Val Ile Leu Tyr Gly Glu Pro Gly Thr Gly Lys Thr Leu Leu Ala Lys  
 225 230 235 240  
 Ala Val Ala Asn Ser Thr Ser Ala Thr Phe Leu Arg Val Val Gly Ser  
 245 250 255  
 Glu Leu Ile Gln Lys Tyr Leu Gly Asp Gly Pro Lys Leu Val Arg Glu  
 260 265 270  
 Leu Phe Arg Val Ala Asp Asp Leu Ser Pro Ser Ile Val Phe Ile Asp  
 275 280 285  
 Glu Ile Asp Ala Val Gly Thr Lys Arg Tyr Asp Ala His Ser Gly Gly  
 290 295 300  
 Glu Arg Glu Ile Gln Arg Thr Met Leu Glu Leu Leu Asn Gln Leu Asp  
 305 310 315 320  
 Gly Phe Asp Ser Arg Gly Asp Val Lys Val Ile Leu Ala Thr Asn Arg  
 325 330 335  
 Ile Glu Ser Leu Asp Pro Ala Leu Leu Arg Pro Gly Arg Ile Asp Arg  
 340 345 350  
 Lys Ile Glu Phe Pro Leu Pro Asp Ile Lys Thr Arg Arg Arg Ile Phe  
 355 360 365  
 Gln Ile His Thr Ser Lys Met Thr Leu Ser Glu Asp Val Asn Leu Glu  
 370 375 380  
 Glu Phe Val Met Thr Lys Asp Glu Phe Ser Gly Ala Asp Ile Lys Ala  
 385 390 395 400  
 Ile Cys Thr Glu Ala Gly Leu Leu Ala Leu Arg Glu Arg Arg Met Lys  
 405 410 415  
 Val Thr His Pro Asp Phe Lys Lys Ala Lys Glu Lys Val Met Phe Lys  
 420 425 430  
 Lys Lys Glu Gly Val Pro Glu Gly Leu Tyr Met  
 435 440



&lt;210&gt; 431

&lt;211&gt; 1449

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 431

atgaaggaac ctttgcagaa gaagaaggtg gttgttcgtc acttgccgcc ttctctttca	60
cagtccgatac tcttatctca aattgatacct cgtttcgtcg atcgttacaa ttgggtttcg	120
tttcgtcctg ggaagtccag ctataaaaat cagaagtatt cacgggccta tgtaagtttc	180
aaggcaccag aagatgttta tgagttcgtc gcatttttca acgggcatgt gtttgттаат	240
gaaaaggggtg ctcagtttaa ggctatagtt gaatatgcac cttctcagcg tgttccgaaa	300
ccgagtgata agaaagatcc tcgtgaaggg tctattagta aagatcctga ttatcttgag	360
tttcttaagg tgattgcaca acctgttgag aatcttccta gtgctgaaat ccagttggaa	420
agaagagaag ctgagcagtc tgggtgcttca aaagcggctc ccattgttac acctcttatg	480
gaattcatac gtcaaaaacg tgccactgtg atgggacccc aggggtttatc tgatattcga	540
agaggaggta gaagaaccag agtagtctct gcaaacaagc cgagtccaag gccctcgaaa	600
cgtaactctg aaaagaaaaa gtatgtggaa aaagaaagtt caaagaatgt gccccggaag	660
actacagcag acgtcagcag ctctaagcca gattatcgtc agtcaaattc aagtggaaaag	720
gaactaccag gaaatgaaac tgccgctatc attgatagct ctccccctgg gatagcattg	780
actatggatt ctgggaagaa aaagattttg ctctgagat caaaagaccg agacaatcct	840
gataaccctc caccacaacc ggaacagcat atagacacta atctttctag aaactccacg	900
gattcaagac aaaaccagaa gagtgatgtt ggtgggaggt tgatcaaggg aatacttctg	960
agaaatgact ctcgaccgag ccagtccttc acttttgtgc agtctgagca aagagtggaa	1020
ccctcagaag cagaaaacta caaacgacct tctcgaccag ccaacactcg agcagggaaa	1080
gattatcata cttctggtac catcagtgag aagcaagaga ggcgtacaag aaacaaggat	1140
agacctgata gtgttatgtg ggctcctcgt cgtgatggta gtgaggatca accactatct	1200
tcagcaggaa acaatggaga agtgaaagac aggatgttct ctcaaagatc gggagaagtg	1260
gtgaactcct ctggtggtca cactcttgag aatggttctg ccagacattc tagtcgccgt	1320
gttgagggtc gcaatagaaa agaagaggtg gtgattggcg agggtaaaac ctcccggaga	1380
ggaagtgggtg gtggtcccag ttcacatgag aagcaaagtg ggatccaaaa accatcatcc	1440
ggtacttga	1449

&lt;210&gt; 432

&lt;211&gt; 482

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 432

Met Lys Glu Pro Leu Gln Lys Lys Lys Val Val Val Arg His Leu Pro  
 1 5 10 15

Pro Ser Leu Ser Gln Ser Asp Leu Leu Ser Gln Ile Asp Pro Arg Phe  
 20 25 30

Ala Asp Arg Tyr Asn Trp Val Ser Phe Arg Pro Gly Lys Ser Ser Tyr  
 35 40 45

Lys Asn Gln Lys Tyr Ser Arg Ala Tyr Val Ser Phe Lys Ala Pro Glu  
 50 55 60

Asp Val Tyr Glu Phe Ala Ala Phe Phe Asn Gly His Val Phe Val Asn  
 65 70 75 80

Glu Lys Gly Ala Gln Phe Lys Ala Ile Val Glu Tyr Ala Pro Ser Gln  
 85 90 95

Arg Val Pro Lys Pro Ser Asp Lys Lys Asp Pro Arg Glu Gly Ser Ile  
 100 105 110

Ser Lys Asp Pro Asp Tyr Leu Glu Phe Leu Lys Val Ile Ala Gln Pro  
 115 120 125

Val Glu Asn Leu Pro Ser Ala Glu Ile Gln Leu Glu Arg Arg Glu Ala  
 130 135 140

Glu Gln Ser Gly Ala Ser Lys Ala Ala Pro Ile Val Thr Pro Leu Met  
 145 150 155 160

Glu Phe Ile Arg Gln Lys Arg Ala Thr Val Met Gly Pro Gln Gly Leu  
 165 170 175

Ser Asp Ile Arg Arg Gly Gly Arg Arg Thr Arg Val Val Ser Ala Asn  
 180 185 190

Lys Pro Ser Pro Arg Pro Ser Lys Arg Asn Ser Glu Lys Lys Lys Tyr  
 195 200 205

047-E2F-PCT.ST25.txt

Val Glu Lys Glu Ser Ser Lys Asn Val Pro Arg Lys Thr Thr Ala Asp  
 210 215 220  
 Val Ser Ser Ser Lys Pro Asp Tyr Arg Gln Ser Asn Ser Ser Gly Lys  
 225 230 235 240  
 Glu Leu Pro Gly Asn Glu Thr Ala Ala Ile Ile Asp Ser Ser Pro Pro  
 245 250 255  
 Gly Ile Ala Leu Thr Met Asp Ser Gly Lys Lys Lys Ile Leu Leu Leu  
 260 265 270  
 Arg Ser Lys Asp Arg Asp Asn Pro Asp Asn Pro Pro Pro Gln Pro Glu  
 275 280 285  
 Gln His Ile Asp Thr Asn Leu Ser Arg Asn Ser Thr Asp Ser Arg Gln  
 290 295 300  
 Asn Gln Lys Ser Asp Val Gly Gly Arg Leu Ile Lys Gly Ile Leu Leu  
 305 310 315 320  
 Arg Asn Asp Ser Arg Pro Ser Gln Ser Ser Thr Phe Val Gln Ser Glu  
 325 330 335  
 Gln Arg Val Glu Pro Ser Glu Ala Glu Asn Tyr Lys Arg Pro Ser Arg  
 340 345 350  
 Pro Ala Asn Thr Arg Ala Gly Lys Asp Tyr His Thr Ser Gly Thr Ile  
 355 360 365  
 Ser Glu Lys Gln Glu Arg Arg Thr Arg Asn Lys Asp Arg Pro Asp Arg  
 370 375 380  
 Val Met Trp Ala Pro Arg Arg Asp Gly Ser Glu Asp Gln Pro Leu Ser  
 385 390 395 400  
 Ser Ala Gly Asn Asn Gly Glu Val Lys Asp Arg Met Phe Ser Gln Arg  
 405 410 415  
 Ser Gly Glu Val Val Asn Ser Ser Gly Gly His Thr Leu Glu Asn Gly  
 420 425 430  
 Ser Ala Arg His Ser Ser Arg Arg Val Gly Gly Arg Asn Arg Lys Glu  
 435 440 445  
 Glu Val Val Ile Gly Glu Gly Lys Thr Ser Arg Arg Gly Ser Gly Gly

450

455

Gly Pro Ser Ser His Glu Lys Gln Met Trp Ile Gln Lys Pro Ser Ser  
465 470 475 480

Gly Thr

<210> 433

<211> 1089

<212> DNA

<213> Arabidopsis thaliana

<400> 433

```
atgccctga caaaattagt tcccgatgca ttcggcgttg tgacgatatg tctagtcgct 60
ctgctagttc ttttggttct ctttgcacg gcttactcgt tctatttcca gtctcacggt 120
cgtaagcaag gctatattca acttggttac ttcagtggtc cctggattat ccgaatcact 180
ttcattctct ttgctatctg gtgggctggt ggtgagattt ttcgattgag tttgttgagg 240
cgtcacagaa ggttggtgag tggggttgat ctgagatggc aagaaaacgt ttgcaagtgg 300
tacatcgttt ccaatctagg atttgcggag ctttgtctct ttctgactct catgtttctt 360
ctgcgtgctc cttgaagat ggaatcaggg gctttgagcg gaaaatggaa cagggacaca 420
gcaggttata ttattcttta ttgtctcccg atgcttgctc ttcaacttgc ggttggtgtg 480
tccgagtcac gcctaaatgg tggtagtggc tcttatgtaa agctgccaca cgacttcaca 540
agaacgtatt cccgagttat tattgatcac gacgaggtgg ctttatgcac atatcctcta 600
ctgagtacca tccttcttgg tgtgtttgca gccgtcctaa cagcttactt gttctggctt 660
ggaaggcaga tactgaaact tgtcattaac aagcgtttac agaagagagt atacactttg 720
atattctcgg tctcgagttt cttccatta aggattgtta tgctctgttt gtcggttctc 780
acagcagcag acaagattat attcgaagcc ctttctttct tggccttcct ctccctcttc 840
tgcttttgcg tggtatccat ctgcttgctt gtctacttcc cggtttcaga ttccatggcc 900
ctgagaggtc taagagacac agatgatgag gatacggtc tgaccgaaga acgcagtggg 960
gctctgttac ttgcacaaa ctcttcacaa actgatgagg gattgagctt aagaggtcgg 1020
agagactcgg gatcgtctac acaggagagg tatgtggaac tcagcctatt tctggaagct 1080
gagaactaa 1089
```

<210> 434

&lt;211&gt; 362

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 434

Met Pro Leu Thr Lys Leu Val Pro Asp Ala Phe Gly Val Val Thr Ile  
 1 5 10 15

Cys Leu Val Ala Leu Leu Val Leu Leu Gly Leu Leu Cys Ile Ala Tyr  
 20 25 30

Ser Phe Tyr Phe Gln Ser His Val Arg Lys Gln Gly Tyr Ile Gln Leu  
 35 40 45

Gly Tyr Phe Ser Gly Pro Trp Ile Ile Arg Ile Thr Phe Ile Leu Phe  
 50 55 60

Ala Ile Trp Trp Ala Val Gly Glu Ile Phe Arg Leu Ser Leu Leu Arg  
 65 70 75 80

Arg His Arg Arg Leu Leu Ser Gly Leu Asp Leu Arg Trp Gln Glu Asn  
 85 90 95

Val Cys Lys Trp Tyr Ile Val Ser Asn Leu Gly Phe Ala Glu Pro Cys  
 100 105 110

Leu Phe Leu Thr Leu Met Phe Leu Leu Arg Ala Pro Leu Lys Met Glu  
 115 120 125

Ser Gly Ala Leu Ser Gly Lys Trp Asn Arg Asp Thr Ala Gly Tyr Ile  
 130 135 140

Ile Leu Tyr Cys Leu Pro Met Leu Ala Leu Gln Leu Ala Val Val Leu  
 145 150 155 160

Ser Glu Ser Arg Leu Asn Gly Gly Ser Gly Ser Tyr Val Lys Leu Pro  
 165 170 175

His Asp Phe Thr Arg Thr Tyr Ser Arg Val Ile Ile Asp His Asp Glu  
 180 185 190

Val Ala Leu Cys Thr Tyr Pro Leu Leu Ser Thr Ile Leu Leu Gly Val  
 195 200 205

Phe Ala Ala Val Leu Thr Ala Tyr Leu Phe Trp Leu Gly Arg Gln Ile  
 Page 679

210

215

Leu Lys Leu Val Ile Asn Lys Arg Leu Gln Lys Arg Val Tyr Thr Leu  
225 230 235 240  
Ile Phe Ser Val Ser Ser Phe Leu Pro Leu Arg Ile Val Met Leu Cys  
245 250 255  
Leu Ser Val Leu Thr Ala Ala Asp Lys Ile Ile Phe Glu Ala Leu Ser  
260 265 270  
Phe Leu Ala Phe Leu Ser Leu Phe Cys Phe Cys Val Val Ser Ile Cys  
275 280 285  
Leu Leu Val Tyr Phe Pro Val Ser Asp Ser Met Ala Leu Arg Gly Leu  
290 295 300  
Arg Asp Thr Asp Asp Glu Asp Thr Ala Val Thr Glu Glu Arg Ser Gly  
305 310 315 320  
Ala Leu Leu Leu Ala Pro Asn Ser Ser Gln Thr Asp Glu Gly Leu Ser  
325 330 335  
Leu Arg Gly Arg Arg Asp Ser Gly Ser Ser Thr Gln Glu Arg Tyr Val  
340 345 350  
Glu Leu Ser Leu Phe Leu Glu Ala Glu Asn  
355 360

<210> 435

<211> 1224

<212> DNA

<213> Arabidopsis thaliana

<400> 435

atggttccga gcaacaatag atgcaaattg agttccattt tcttgtttct gtcagtgtc 60  
tccgttgccg tcttagtcgc cgtcgctgac gacaagtctc cggcggttga ggatggttta 120  
gtgatcaacg gcgacttcga aacatcaccg tcaagtggct ttcctgacga cggagtaact 180  
gacggaccat ccgatatccc aagctggaaa tccaacggta cggtgagct aataaattcc 240  
ggtaaaaaac aaggcggaat gatcctcatt gtcccacaag gccgtcacgc cgtccgatta 300  
gggaacgacg cagagatcag ccaagatcta acggttgaga aaggttttgt ctattcagtc 360  
acgttcagcg ctgctgcac gtgcgtcaa ctcgaatcga taaacgtgct ggtagcgtct 420

047-E2F-PCT.ST25.txt

gtgaacgcag acgcggacga tatgctggcg tcgcggaacg ttgatttgca aacgctttat 480  
 agcgttcaag ggtgggaccc ttatgcgtgg gcgtttgaag cggaagatga tcatgtacgg 540  
 ttggttttta agaatccggg tatggaagat gatccgactt gtggaccaat catcgatgac 600  
 attgctatta agaagctctt tactcctgat aaacccaaag ataatgcggt gattaatgga 660  
 gatttcgaag atggtccatg gatgtttagg aacacgtctc ttggtgtttt acttccgaca 720  
 aacctcgacg aagaaatctc gtctcttcct ggttggactg ttgaatcgaa cagagcggtt 780  
 cggtttgttg actcggatca cttctctgtt ccaaagggca aacgagccgt cgagctactc 840  
 tcaggcaaag aaggaattat ttcacaaatg gttgagacca aagcagataa gccgtacata 900  
 ttgtctttct cactaggcca cgcagggtgat aaatgcaagg aaccattggc tattatggca 960  
 ttcgcagggtg atcaggcgca gaactttcat tacatggcgc aagcgaactc cagtttcgaa 1020  
 aaggccgggtt tgaatttcac ggctaaggct gatcgaacca gagttgcgtt ctacagtgtt 1080  
 tattacaata cgaggactga tgatatgagc tccttgtgtg gacctgtgat cgatgacgtt 1140  
 agagtgtggt tctccgggtc gaagagaatc ggagctgggt ttgggttttg ggtttttgtt 1200  
 cttctcgttg tcggttttgg ttaa 1224

<210> 436

<211> 407

<212> PRT

<213> Arabidopsis thaliana

<400> 436

Met Val Pro Ser Asn Asn Arg Cys Lys Trp Ser Ser Ile Phe Leu Phe  
 1 5 10 15

Leu Leu Ser Val Ser Val Ala Val Leu Val Ala Val Ala Asp Asp Lys  
 20 25 30

Ser Pro Ala Val Glu Asp Gly Leu Val Ile Asn Gly Asp Phe Glu Thr  
 35 40 45

Ser Pro Ser Ser Gly Phe Pro Asp Asp Gly Val Thr Asp Gly Pro Ser  
 50 55 60

Asp Ile Pro Ser Trp Lys Ser Asn Gly Thr Val Glu Leu Ile Asn Ser  
 65 70 75 80

Gly Gln Lys Gln Gly Gly Met Ile Leu Ile Val Pro Gln Gly Arg His  
 Page 681

Ala Val Arg Leu Gly Asn Asp Ala Glu Ile Ser Gln Asp Leu Thr Val  
100 105 110

Glu Lys Gly Phe Val Tyr Ser Val Thr Phe Ser Ala Ala Arg Thr Cys  
115 120 125

Ala Gln Leu Glu Ser Ile Asn Val Ser Val Ala Ser Val Asn Ala Asp  
130 135 140

Ala Asp Asp Met Leu Ala Ser Arg Asn Val Asp Leu Gln Thr Leu Tyr  
145 150 155 160

Ser Val Gln Gly Trp Asp Pro Tyr Ala Trp Ala Phe Glu Ala Glu Asp  
165 170 175

Asp His Val Arg Leu Val Phe Lys Asn Pro Gly Met Glu Asp Asp Pro  
180 185 190

Thr Cys Gly Pro Ile Ile Asp Asp Ile Ala Ile Lys Lys Leu Phe Thr  
195 200 205

Pro Asp Lys Pro Lys Asp Asn Ala Val Ile Asn Gly Asp Phe Glu Asp  
210 215 220

Gly Pro Trp Met Phe Arg Asn Thr Ser Leu Gly Val Leu Leu Pro Thr  
225 230 235 240

Asn Leu Asp Glu Glu Ile Ser Ser Leu Pro Gly Trp Thr Val Glu Ser  
245 250 255

Asn Arg Ala Val Arg Phe Val Asp Ser Asp His Phe Ser Val Pro Lys  
260 265 270

Gly Lys Arg Ala Val Glu Leu Leu Ser Gly Lys Glu Gly Ile Ile Ser  
275 280 285

Gln Met Val Glu Thr Lys Ala Asp Lys Pro Tyr Ile Leu Ser Phe Ser  
290 295 300

Leu Gly His Ala Gly Asp Lys Cys Lys Glu Pro Leu Ala Ile Met Ala  
305 310 315 320

Phe Ala Gly Asp Gln Ala Gln Asn Phe His Tyr Met Ala Gln Ala Asn  
325 330 335



Ser Ser Phe Glu Lys Ala Gly Leu Asn Phe Thr Ala Lys Ala Asp Arg  
 340 345 350

Thr Arg Val Ala Phe Tyr Ser Val Tyr Tyr Asn Thr Arg Thr Asp Asp  
 355 360 365

Met Ser Ser Leu Cys Gly Pro Val Ile Asp Asp Val Arg Val Trp Phe  
 370 375 380

Ser Gly Ser Lys Arg Ile Gly Ala Gly Phe Gly Phe Trp Val Phe Val  
 385 390 395 400

Leu Leu Val Val Gly Leu Val  
 405

<210> 437

<211> 1224

<212> DNA

<213> Arabidopsis thaliana

<400> 437

atggttgcc	cagccgccgc	acgacctctt	gtcaccgtcc	aaggacttga	cggtgacatg	60
agcaccgatc	aatccaccac	cgtcacttta	ccagacgtca	tgactgctcc	agttcgacct	120
gacattgtca	acttcgtcca	cgcccaaadc	tccaacaaca	gccgtcagcc	ttacgcagtc	180
tccaaaaagg	ccggtcacca	aacctccgcc	gagtcctggg	gaaccggaag	agccgtgtca	240
cgtatccctc	gtgttcctgg	tggtggaact	caccgtgccg	gtcaagcagc	gttcggaaac	300
atgtgtcgtg	gtggtcgtat	gtttgctccg	actaagatct	ggagacgctg	gcaccgtcgt	360
gtcaatgtca	acatgaagag	gcacgcgatt	gtttctgcaa	tcgctgctac	tgctgttcca	420
gctcttgtga	tggtcgtgg	tcacaagatc	gagaatgttc	ctgagatgcc	tcttggtgtt	480
agcgactcag	ctgaagctgt	ggagaagaca	tcagctgcga	tcaagggtatt	gaagcagatc	540
ggtgcttacg	acgatgcgga	gaaagctaag	aacagtattg	gaattcgtcc	tggtaaaggt	600
aaaatgagga	atcgtcggtt	catttctagg	aaaggtcctc	ttgttggtgtt	tggaactgaa	660
ggagccaaga	ttgtgaaagc	tttttaggaat	cttcctgggtg	ttgagctttg	tcacgttgag	720
aggcttaact	tggtgaaatt	agcccctggg	ggtcaccttg	gtaggtttgt	gatttggact	780
aagtctgctt	ttgagaagct	tgaatctatc	tatggctcgt	ttgagaaacc	atcagagaag	840
aagaagggtt	acgtcttgcc	tcgtgcgaag	atggtgaatg	ctgatcttgc	taggattatt	900
aactccgatg	aggtacagag	tgtggtgaac	ccgattaagg	atggttccaa	gagagcggtt	960

ctgaagaaga atccattgaa gaaccttaat gtgatgttca agttgaatcc ttatgctaag 1020  
 accgcaaaga gaatgtctct gttggctgaa gcttcaaggg ttaaggctaa gaaggagaag 1080  
 ctcgagaaga agaggaaagt cgtcactaag gaggaggccc aagcgatcaa agcagcaggc 1140  
 aaggcttggt atcagactat gatttcagac agtgactaca ccgagttcga taacttcacc 1200  
 aagtggcttg gcgctagtca gtaa 1224

<210> 438

<211> 407

<212> PRT

<213> Arabidopsis thaliana

<400> 438

Met Val Ala Ser Ala Ala Ala Arg Pro Leu Val Thr Val Gln Gly Leu  
 1 5 10 15

Asp Gly Asp Met Ser Thr Asp Gln Ser Thr Thr Val Thr Leu Pro Asp  
 20 25 30

Val Met Thr Ala Pro Val Arg Pro Asp Ile Val Asn Phe Val His Ala  
 35 40 45

Gln Ile Ser Asn Asn Ser Arg Gln Pro Tyr Ala Val Ser Lys Lys Ala  
 50 55 60

Gly His Gln Thr Ser Ala Glu Ser Trp Gly Thr Gly Arg Ala Val Ser  
 65 70 75 80

Arg Ile Pro Arg Val Pro Gly Gly Gly Thr His Arg Ala Gly Gln Ala  
 85 90 95

Ala Phe Gly Asn Met Cys Arg Gly Gly Arg Met Phe Ala Pro Thr Lys  
 100 105 110

Ile Trp Arg Arg Trp His Arg Arg Val Asn Val Asn Met Lys Arg His  
 115 120 125

Ala Ile Val Ser Ala Ile Ala Ala Thr Ala Val Pro Ala Leu Val Met  
 130 135 140

Ala Arg Gly His Lys Ile Glu Asn Val Pro Glu Met Pro Leu Val Val  
 145 150 155 160

Ser Asp Ser Ala Glu Ala Val Glu Lys Thr Ser Ala Ala Ile Lys Val  
 165 170 175  
 Leu Lys Gln Ile Gly Ala Tyr Asp Asp Ala Glu Lys Ala Lys Asn Ser  
 180 185 190  
 Ile Gly Ile Arg Pro Gly Lys Gly Lys Met Arg Asn Arg Arg Tyr Ile  
 195 200 205  
 Ser Arg Lys Gly Pro Leu Val Val Phe Gly Thr Glu Gly Ala Lys Ile  
 210 215 220  
 Val Lys Ala Phe Arg Asn Leu Pro Gly Val Glu Leu Cys His Val Glu  
 225 230 235 240  
 Arg Leu Asn Leu Leu Lys Leu Ala Pro Gly Gly His Leu Gly Arg Phe  
 245 250 255  
 Val Ile Trp Thr Lys Ser Ala Phe Glu Lys Leu Glu Ser Ile Tyr Gly  
 260 265 270  
 Ser Phe Glu Lys Pro Ser Glu Lys Lys Lys Gly Tyr Val Leu Pro Arg  
 275 280 285  
 Ala Lys Met Val Asn Ala Asp Leu Ala Arg Ile Ile Asn Ser Asp Glu  
 290 295 300  
 Val Gln Ser Val Val Asn Pro Ile Lys Asp Gly Ser Lys Arg Ala Val  
 305 310 315 320  
 Leu Lys Lys Asn Pro Leu Lys Asn Leu Asn Val Met Phe Lys Leu Asn  
 325 330 335  
 Pro Tyr Ala Lys Thr Ala Lys Arg Met Ser Leu Leu Ala Glu Ala Ser  
 340 345 350  
 Arg Val Lys Ala Lys Lys Glu Lys Leu Glu Lys Lys Arg Lys Val Val  
 355 360 365  
 Thr Lys Glu Glu Ala Gln Ala Ile Lys Ala Ala Gly Lys Ala Trp Tyr  
 370 375 380  
 Gln Thr Met Ile Ser Asp Ser Asp Tyr Thr Glu Phe Asp Asn Phe Thr  
 385 390 395 400  
 Lys Trp Leu Gly Ala Ser Gln  
 405

&lt;210&gt; 439

&lt;211&gt; 2529

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 439

atggagatgg	cgggtggctaa	ccaccgtgag	agaagcagtg	acagtatgaa	tagacattta	60
gatagtagcg	gtaagtacgt	taggtacaca	gctgagcaag	tcgaggctct	tgagcgtgtc	120
tacgctgagt	gtcctaagcc	tagctctctc	cgtcgacaac	aattgatccg	tgaatgttcc	180
atTTTggcca	atattgagcc	taagcagatc	aaagtctggt	ttcagaaccg	caggtgtcga	240
gataagcaga	ggaaagaggc	gtcgaggctc	cagagcgtaa	accggaagct	ctctgcatg	300
aataaactgt	tgatggagga	gaatgatagg	ttgcagaagc	aggTTTctca	gcttgtctgc	360
gaaaatggat	atatgaaaca	gcagctaact	actgttgTTa	acgatccaag	ctgtgaatct	420
gtggtcacia	ctcctcagca	ttcgcttaga	gatgcgaata	gtcctgctgg	attgctctca	480
atcgagagg	agactttggc	agagttccta	tccaaggcta	caggaactgc	tgTTgattgg	540
gttcagatgc	ctgggatgaa	gcctgggtccg	gattcggttg	gcatctttgc	catttcgcaa	600
agatgcaatg	gagtggcagc	tcgagcctgt	ggTcttgTTa	gcttagaacc	tatgaagatt	660
gcagagatcc	tcaaagatcg	gccatcttgg	ttccgtgact	gtaggagcct	tgaagTTTTc	720
actatgttcc	cggctggtaa	tggtggcaca	atcgagcttg	TTtatatgca	gacgtatgca	780
ccaacgactc	tggctcctgc	ccgcgatttc	tggaccctga	gatacacaa	gagcctcgac	840
aatgggagtt	ttgtggTTTTg	tgagaggtcg	ctatctggct	ctggagctgg	gcctaattgct	900
gcttcagctt	ctcagtttgt	gagagcagaa	atgctTTtcta	gtgggtatTT	aataaggcct	960
tgtgatggtg	gtggttctat	tattcacatt	gtcgatcacc	TTaatcttga	ggcttggagt	1020
gttccggatg	tgcttcgacc	cTTTTatgag	tcatccaaag	tcgttgca	aaaaatgacc	1080
atTTccgcgt	tgcggtatat	caggcaatta	gcccagagt	ctaattggtga	agtagtgtat	1140
ggattaggaa	ggcagcctgc	tgTtcttaga	acctttagcc	aaagattaag	caggggcttc	1200
aatgatgcgg	TTaatgggtt	tggtgacgac	gggtggtcta	cgatgcattg	tgatggagcg	1260
gaagatatta	tcgttgctat	taactctaca	aagcatttga	ataatatttc	taattctctt	1320
tcgttccttg	gaggcgtgct	ctgtgccaa	gcttcaatgc	TTctccaaaa	tgTtctcct	1380
gcggTTTTga	tccggttct	tagagagcat	cgatctgagt	gggctgattt	caatgttgat	1440
gcatattccg	ctgctacact	taaagctggt	agctttgctt	atccgggaat	gagaccaaca	1500
agattcactg	ggagtcagat	cataatgcca	ctaggacata	caattgaaca	cgaagaaatg	1560

047-E2F-PCT.ST25.txt

ctagaagttg ttagactgga aggtcattct cttgctcaag aagatgcatt tatgtcacgg 1620  
gatgtccatc tccttcagat ttgtaccggg attgacgaga atgccgttgg agcttggtct 1680  
gaactgatat ttgctccgat taatgagatg ttcccggatg atgctccact tgttccctct 1740  
ggattccgag tcatacccgt tgatgctaaa acgggagatg tacaagatct gttaaccgct 1800  
aatcaccgta cactagactt aacttctagc cttgaagtcg gtccatcacc tgagaatgct 1860  
tctggaaact ctttttctag ctcaagctcg agatgtattc tcaactatcg gtttcaattc 1920  
ccttttgaaa acaacttgca agaaaatggt gctgggtatgg cttgtcagta tgtgaggagc 1980  
gtgatctcat cagttcaacg tgttgcaatg gcgatctcac cgtctgggat aagcccagat 2040  
ctgggctcca aattgtcccc aggatctcct gaagctgtta ctcttgctca gtggatctct 2100  
caaagttaca gtcatcactt aggctcggag ttgctgacga ttgattcact tggaagcgac 2160  
gactcggtag taaaacttct atgggatcac caagatgcca tcctgtgttg ctcatataag 2220  
ccacagccag tgttcatggt tgcgaaccaa gctgggtctag acatgctaga gacaacactt 2280  
gtagccttac aagatataac actcgaaaag atattcgatg aatcgggtcg taaggctatc 2340  
tgttcggact tcgccaagct aatgcaacag ggatttgctt gcttgccctc aggaatctgt 2400  
gtgtcaacga tgggaagaca tgtgagttat gaacaagctg ttgcttgga agtgtttgct 2460  
gcatctgaag aaaacaacaa caatctgcat tgtcttgctt tctcctttgt aaactggctt 2520  
tttgtgtga 2529

<210> 440

<211> 842

<212> PRT

<213> Arabidopsis thaliana

<400> 440

Met Glu Met Ala Val Ala Asn His Arg Glu Arg Ser Ser Asp Ser Met  
1 5 10 15

Asn Arg His Leu Asp Ser Ser Gly Lys Tyr Val Arg Tyr Thr Ala Glu  
20 25 30

Gln Val Glu Ala Leu Glu Arg Val Tyr Ala Glu Cys Pro Lys Pro Ser  
35 40 45

Ser Leu Arg Arg Gln Gln Leu Ile Arg Glu Cys Ser Ile Leu Ala Asn  
50 55 60

047-E2F-PCT.ST25.txt

Ile Glu Pro Lys Gln Ile Lys Val Trp Phe Gln Asn Arg Arg Cys Arg  
65 70 75 80

Asp Lys Gln Arg Lys Glu Ala Ser Arg Leu Gln Ser Val Asn Arg Lys  
85 90 95

Leu Ser Ala Met Asn Lys Leu Leu Met Glu Glu Asn Asp Arg Leu Gln  
100 105 110

Lys Gln Val Ser Gln Leu Val Cys Glu Asn Gly Tyr Met Lys Gln Gln  
115 120 125

Leu Thr Thr Val Val Asn Asp Pro Ser Cys Glu Ser Val Val Thr Thr  
130 135 140

Pro Gln His Ser Leu Arg Asp Ala Asn Ser Pro Ala Gly Leu Leu Ser  
145 150 155 160

Ile Ala Glu Glu Thr Leu Ala Glu Phe Leu Ser Lys Ala Thr Gly Thr  
165 170 175

Ala Val Asp Trp Val Gln Met Pro Gly Met Lys Pro Gly Pro Asp Ser  
180 185 190

Val Gly Ile Phe Ala Ile Ser Gln Arg Cys Asn Gly Val Ala Ala Arg  
195 200 205

Ala Cys Gly Leu Val Ser Leu Glu Pro Met Lys Ile Ala Glu Ile Leu  
210 215 220

Lys Asp Arg Pro Ser Trp Phe Arg Asp Cys Arg Ser Leu Glu Val Phe  
225 230 235 240

Thr Met Phe Pro Ala Gly Asn Gly Gly Thr Ile Glu Leu Val Tyr Met  
245 250 255

Gln Thr Tyr Ala Pro Thr Thr Leu Ala Pro Ala Arg Asp Phe Trp Thr  
260 265 270

Leu Arg Tyr Thr Thr Ser Leu Asp Asn Gly Ser Phe Val Val Cys Glu  
275 280 285

Arg Ser Leu Ser Gly Ser Gly Ala Gly Pro Asn Ala Ala Ser Ala Ser  
290 295 300

Gln Phe Val Arg Ala Glu Met Leu Ser Ser Gly Tyr Leu Ile Arg Pro  
305 310 315 320

047-E2F-PCT.ST25.txt

Cys Asp Gly Gly Gly Ser Ile Ile His Ile Val Asp His Leu Asn Leu  
 325 330 335  
 Glu Ala Trp Ser Val Pro Asp Val Leu Arg Pro Leu Tyr Glu Ser Ser  
 340 345 350  
 Lys Val Val Ala Gln Lys Met Thr Ile Ser Ala Leu Arg Tyr Ile Arg  
 355 360 365  
 Gln Leu Ala Gln Glu Ser Asn Gly Glu Val Val Tyr Gly Leu Gly Arg  
 370 375 380  
 Gln Pro Ala Val Leu Arg Thr Phe Ser Gln Arg Leu Ser Arg Gly Phe  
 385 390 395 400  
 Asn Asp Ala Val Asn Gly Phe Gly Asp Asp Gly Trp Ser Thr Met His  
 405 410 415  
 Cys Asp Gly Ala Glu Asp Ile Ile Val Ala Ile Asn Ser Thr Lys His  
 420 425 430  
 Leu Asn Asn Ile Ser Asn Ser Leu Ser Phe Leu Gly Gly Val Leu Cys  
 435 440 445  
 Ala Lys Ala Ser Met Leu Leu Gln Asn Val Pro Pro Ala Val Leu Ile  
 450 455 460  
 Arg Phe Leu Arg Glu His Arg Ser Glu Trp Ala Asp Phe Asn Val Asp  
 465 470 475 480  
 Ala Tyr Ser Ala Ala Thr Leu Lys Ala Gly Ser Phe Ala Tyr Pro Gly  
 485 490 495  
 Met Arg Pro Thr Arg Phe Thr Gly Ser Gln Ile Ile Met Pro Leu Gly  
 500 505 510  
 His Thr Ile Glu His Glu Glu Met Leu Glu Val Val Arg Leu Glu Gly  
 515 520 525  
 His Ser Leu Ala Gln Glu Asp Ala Phe Met Ser Arg Asp Val His Leu  
 530 535 540  
 Leu Gln Ile Cys Thr Gly Ile Asp Glu Asn Ala Val Gly Ala Cys Ser  
 545 550 555 560  
 Glu Leu Ile Phe Ala Pro Ile Asn Glu Met Phe Pro Asp Asp Ala Pro  
 Page 689

565

575

Leu Val Pro Ser Gly Phe Arg Val Ile Pro Val Asp Ala Lys Thr Gly  
580 585 590

Asp Val Gln Asp Leu Leu Thr Ala Asn His Arg Thr Leu Asp Leu Thr  
595 600 605

Ser Ser Leu Glu Val Gly Pro Ser Pro Glu Asn Ala Ser Gly Asn Ser  
610 615 620

Phe Ser Ser Ser Ser Ser Arg Cys Ile Leu Thr Ile Ala Phe Gln Phe  
625 630 635 640

Pro Phe Glu Asn Asn Leu Gln Glu Asn Val Ala Gly Met Ala Cys Gln  
645 650 655

Tyr Val Arg Ser Val Ile Ser Ser Val Gln Arg Val Ala Met Ala Ile  
660 665 670

Ser Pro Ser Gly Ile Ser Pro Ser Leu Gly Ser Lys Leu Ser Pro Gly  
675 680 685

Ser Pro Glu Ala Val Thr Leu Ala Gln Trp Ile Ser Gln Ser Tyr Ser  
690 695 700

His His Leu Gly Ser Glu Leu Leu Thr Ile Asp Ser Leu Gly Ser Asp  
705 710 715 720

Asp Ser Val Leu Lys Leu Leu Trp Asp His Gln Asp Ala Ile Leu Cys  
725 730 735

Cys Ser Leu Lys Pro Gln Pro Val Phe Met Phe Ala Asn Gln Ala Gly  
740 745 750

Leu Asp Met Leu Glu Thr Thr Leu Val Ala Leu Gln Asp Ile Thr Leu  
755 760 765

Glu Lys Ile Phe Asp Glu Ser Gly Arg Lys Ala Ile Cys Ser Asp Phe  
770 775 780

Ala Lys Leu Met Gln Gln Gly Phe Ala Cys Leu Pro Ser Gly Ile Cys  
785 790 795 800

Val Ser Thr Met Gly Arg His Val Ser Tyr Glu Gln Ala Val Ala Trp  
805 810 815



047-E2F-PCT.ST25.txt  
 Lys Val Phe Ala Ala Ser Glu Glu Asn Asn Asn Asn Leu His Cys Leu  
                   820                                  825                                  830

Ala Phe Ser Phe Val Asn Trp Ser Phe Val  
                   835                                  840

<210> 441

<211> 588

<212> DNA

<213> Arabidopsis thaliana

<400> 441  
 atggcgctcaa ggtttataaa gtgtgtgacc gtcggagatg gtgccgtcgg aaaaacttgc 60  
 atgctcattt cttacactag caatactttt cctactgatt atgtgccaac tgttttcgac 120  
 aacttcagtg ctaatgtggt tgttgatggc aacactgtca atcttgatt gtgggatact 180  
 gctggtcaag aggactacaa caggttacga cctttgagtt accgtggtgc tgatgttttc 240  
 attcttgctt tctctcttat tagcaaggct agctatgaga atatagccaa gaagtggatt 300  
 cctgagctca ggcattatgc tcctggtggt cccattatcc ttgttgggac aaaactcgat 360  
 cttcgagatg acaagcaatt ctttatagat catcctggtg ctgtgccaat tactacaaac 420  
 cagggagagg aactgaagaa actgattgga tctgctgtct acattgaatg tagttcaaag 480  
 acacagcaga acgtgaaggc agtgtttgat gcagctataa aagtgggtgct tcagccacca 540  
 aagcagaaga agaagaaaaa gaataagaac cgttgcgcgt tcttgtga 588

<210> 442

<211> 195

<212> PRT

<213> Arabidopsis thaliana

<400> 442

Met Ala Ser Arg Phe Ile Lys Cys Val Thr Val Gly Asp Gly Ala Val  
 1                  5                                  10                                  15

Gly Lys Thr Cys Met Leu Ile Ser Tyr Thr Ser Asn Thr Phe Pro Thr  
                   20                                  25                                  30

Asp Tyr Val Pro Thr Val Phe Asp Asn Phe Ser Ala Asn Val Val Val  
                   35                                  40                                  45

047-E2F-PCT.ST25.txt

Asp Gly Asn Thr Val Asn Leu Gly Leu Trp Asp Thr Ala Gly Gln Glu  
50 55 60

Asp Tyr Asn Arg Leu Arg Pro Leu Ser Tyr Arg Gly Ala Asp Val Phe  
65 70 75 80

Ile Leu Ala Phe Ser Leu Ile Ser Lys Ala Ser Tyr Glu Asn Ile Ala  
85 90 95

Lys Lys Trp Ile Pro Glu Leu Arg His Tyr Ala Pro Gly Val Pro Ile  
100 105 110

Ile Leu Val Gly Thr Lys Leu Asp Leu Arg Asp Asp Lys Gln Phe Phe  
115 120 125

Ile Asp His Pro Gly Ala Val Pro Ile Thr Thr Asn Gln Gly Glu Glu  
130 135 140

Leu Lys Lys Leu Ile Gly Ser Ala Val Tyr Ile Glu Cys Ser Ser Lys  
145 150 155 160

Thr Gln Gln Asn Val Lys Ala Val Phe Asp Ala Ala Ile Lys Val Val  
165 170 175

Leu Gln Pro Pro Lys Gln Lys Lys Lys Lys Lys Asn Lys Asn Arg Cys  
180 185 190

Ala Phe Leu  
195

<210> 443  
<211> 822  
<212> DNA  
<213> Arabidopsis thaliana

<400> 443  
atgtccctgt gtcttaaaat acctcttatac aaacaccaaa ccacaccaga acagaactca 60  
gccatggctt cttcttcttc ttctcttcta atcctagccg ttgcttggtt cgtctcgcta 120  
atctcaccgg cgatttcaca acaggcttgc aaatcacaga acttgaactc cgccgggtccg 180  
ttcgatagtt gcgaagacct tccggtactc aattcctacc tccattacac ctacaattcc 240  
tcaaattcat ctctctccgt cgctttcgtc gccactccat ctcaagccaa cgggtggctgg 300  
gtcgcttggg ctattaaccc tacggggact aagatggctg gttctcaagc cttcctcgct 360

047-E2F-PCT.ST25.txt

tacagatccg gcggtggtgc ggctccggtc gtgaagacgt acaacattag cagctacagc 420  
 agtctcgtcg aaggtaaact tgcttttgat ttttggaatc tacgcgccga gtcgttaagc 480  
 ggcggttagga tcgccatttt caccgacgggtt aagggtccgg cgggagctga tagtgtgaat 540  
 caggtatggc agatcggcgg caatgttacc aacggtcgtc ccggtgtaca tcctttcggc 600  
 cctgataatt tgggctccca ccgtgtgttg agtttcacag aagatgcagc accgggctct 660  
 gtcctttcgc cgggatctgc tccggcgccg ggcaccagtg gtcgactac cccaggaaca 720  
 gcggcgggag gtccagggaa cgcgggggtca ttgacgagga acgtaaattt tgggggtcaat 780  
 ttgggaattt tgggtttgtt gggttctatt tttattttct ga 822

<210> 444

<211> 273

<212> PRT

<213> Arabidopsis thaliana

<400> 444

Met Ser Leu Cys Leu Lys Ile Pro Leu Ile Lys His Gln Thr Thr Pro  
 1 5 10 15

Glu Gln Asn Ser Ala Met Ala Ser Ser Ser Ser Ser Leu Leu Ile Leu  
 20 25 30

Ala Val Ala Cys Phe Val Ser Leu Ile Ser Pro Ala Ile Ser Gln Gln  
 35 40 45

Ala Cys Lys Ser Gln Asn Leu Asn Ser Ala Gly Pro Phe Asp Ser Cys  
 50 55 60

Glu Asp Leu Pro Val Leu Asn Ser Tyr Leu His Tyr Thr Tyr Asn Ser  
 65 70 75 80

Ser Asn Ser Ser Leu Ser Val Ala Phe Val Ala Thr Pro Ser Gln Ala  
 85 90 95

Asn Gly Gly Trp Val Ala Trp Ala Ile Asn Pro Thr Gly Thr Lys Met  
 100 105 110

Ala Gly Ser Gln Ala Phe Leu Ala Tyr Arg Ser Gly Gly Gly Ala Ala  
 115 120 125

Pro Val Val Lys Thr Tyr Asn Ile Ser Ser Tyr Ser Ser Leu Val Glu  
 Page 693

130

135

Gly Lys Leu Ala Phe Asp Phe Trp Asn Leu Arg Ala Glu Ser Leu Ser  
145 150 155 160

Gly Gly Arg Ile Ala Ile Phe Thr Thr Val Lys Val Pro Ala Gly Ala  
165 170 175

Asp Ser Val Asn Gln Val Trp Gln Ile Gly Gly Asn Val Thr Asn Gly  
180 185 190

Arg Pro Gly Val His Pro Phe Gly Pro Asp Asn Leu Gly Ser His Arg  
195 200 205

Val Leu Ser Phe Thr Glu Asp Ala Ala Pro Gly Ser Ala Pro Ser Pro  
210 215 220

Gly Ser Ala Pro Ala Pro Gly Thr Ser Gly Ser Thr Thr Pro Gly Thr  
225 230 235 240

Ala Ala Gly Gly Pro Gly Asn Ala Gly Ser Leu Thr Arg Asn Val Asn  
245 250 255

Phe Gly Val Asn Leu Gly Ile Leu Val Leu Leu Gly Ser Ile Phe Ile  
260 265 270

Phe

<210> 445

<211> 411

<212> DNA

<213> Arabidopsis thaliana

<400> 445

atggagaaca ctcaagattt ctcgccacca cacatggatg cttctcggcc gtcactagga	60
ttccctcttg gcacagctct gcttcttata atcattttca gcctctccgg aatattctct	120
tgttgttacc attgggacaa acatcgttct ctccgccgct ctttggccaa tggtcgtccc	180
tccgccgaca tcgagtctaa tccttacaaa cccaaacccc cttttccgga aatgaagaaa	240
ccgcagaatc tgagcgtacc ggtgttaatg ccaggagata atacacccaa attcatagca	300
ttgccgtgtc cgtgtgcacc acctcgacct gaaaaactca ccgtagatgt ccaaactccg	360
ccgcaatcac cgcctgttaa gccggcgcgt tttcctgttc ctttgtatta g	411

&lt;210&gt; 446

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 446

Met Glu Asn Thr Gln Asp Phe Ser Pro Pro His Met Asp Ala Ser Arg  
 1 5 10 15

Pro Ser Leu Gly Phe Pro Leu Gly Thr Ala Leu Leu Leu Ile Ile Ile  
 20 25 30

Phe Ser Leu Ser Gly Ile Phe Ser Cys Cys Tyr His Trp Asp Lys His  
 35 40 45

Arg Ser Leu Arg Arg Ser Leu Ala Asn Gly Arg Pro Ser Ala Asp Ile  
 50 55 60

Glu Ser Asn Pro Tyr Lys Pro Lys Pro Pro Phe Pro Glu Met Lys Lys  
 65 70 75 80

Pro Gln Asn Leu Ser Val Pro Val Leu Met Pro Gly Asp Asn Thr Pro  
 85 90 95

Lys Phe Ile Ala Leu Pro Cys Pro Cys Ala Pro Pro Arg Pro Glu Lys  
 100 105 110

Leu Thr Val Asp Val Gln Thr Pro Pro Gln Ser Pro Pro Val Lys Pro  
 115 120 125

Ala Arg Phe Pro Val Pro Leu Tyr  
 130 135

&lt;210&gt; 447

&lt;211&gt; 1569

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 447

atggacagcc agcaattagc acttgactgt attgtggcaa cgctttttga tggatcaa 60

## 047-E2F-PCT.ST25.txt

gagtttgctg gtggaagttc tgaagttcat tatgcattac gtggaatatt tgagggattg 120  
 cttcagcagc ttctctcttt gaaatggaat gaaccagaac ttatgaaagt gcatgtccac 180  
 tatctggatg caatgggtcc ctttctcaag ttttttccag atgcagttgg aagtctcatc 240  
 aataaattat ttgagcttct cacctctctt ccacacgttg tgaaggatcc agctactagt 300  
 acatctagag ctgcaagatt gcagatttgc acatctttca taagaatagc caaagctgca 360  
 gaaaaaagtg ttctgcctca catgaagggg attgctgata caatggggta cttggcaaaa 420  
 gaaggaactt tactccgtgg ggagcataac attctgggtg aagcatttct tgttatggct 480  
 tcctcagcag gagctcaaca gcagcaagaa gttctggctt ggttattgga accattgagt 540  
 caacagtgga tccaaccaga gtggcagaac aattatctat cagacccgat gggctcttcta 600  
 ctccgtgttc ttcattccct ttgggtctccc tctgtatttc aaacattacc cccagaaatg 660  
 agggcgga caa tgacaatgac tgatgctgag cgatacagtc tccttggtga agcaaatcct 720  
 aaattgtcaa aaggcgtatc ggtttatgct gatgggtcat tcgaaggaac taaggaagga 780  
 caagccgagg caagtgaatc tgatatacga aattgggtga aaggatatccg agattgtgga 840  
 tacaacgtgt tgggcctatc aacaaccatc ggagagacat tctttaaatg cttagatgct 900  
 aactatgttg caatggcact catggaaaat ttgcagtcga tggaattcag gcacattcgg 960  
 ctgtttattc atacctttat aacttatata gtcaaattct gtccggcgga tatgtgggag 1020  
 tcatggctgg gagtgcttct gcacccattg ttatacact gtcagcaagc tctcagctcc 1080  
 gcctggccag gtcttctaca agagggcaga gcaaagggtc cggacttggt tggcatacaa 1140  
 agtggatcag acatgaaact tgaagtgatg gagggaaaaac tgттаagaga tctaactcgg 1200  
 gagattgcga ctctcttttc aacaatggct tctcctggac taaacacagg agttccagtt 1260  
 ttggaacatt caggacatgt tggctgctgtg gacatgtcca ctctcacgga tttgcatgcg 1320  
 ttcagatcca actctatggt tttgctttcg ctcccgtgtc tctactccaa cgacttgcag 1380  
 gcttttgaag aagctacagc caaaactagc agcccaaag aacaaaagca gcttatgagg 1440  
 agcttggtgt tgctaggtac tgggaacaac ttaaaagcac ttgctgctca aaaaagtcag 1500  
 aatgttatca ccaatgtcac aggtaacaaa gtttcacttc acgctcacga tatctctgtt 1560  
 ttttttttaa 1569

&lt;210&gt; 448

&lt;211&gt; 522

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 448

Met Asp Ser Gln Gln Leu Ala Leu Asp Cys Ile Val Ala Thr Leu Phe  
1 5 10 15

Asp Gly Ser Asn Glu Phe Ala Gly Gly Ser Ser Glu Val His Tyr Ala  
20 25 30

Leu Arg Gly Ile Phe Glu Gly Leu Leu Gln Gln Leu Leu Ser Leu Lys  
35 40 45

Trp Asn Glu Pro Glu Leu Met Lys Val His Val His Tyr Leu Asp Ala  
50 55 60

Met Gly Pro Phe Leu Lys Tyr Phe Pro Asp Ala Val Gly Ser Leu Ile  
65 70 75 80

Asn Lys Leu Phe Glu Leu Leu Thr Ser Leu Pro His Val Val Lys Asp  
85 90 95

Pro Ala Thr Ser Thr Ser Arg Ala Ala Arg Leu Gln Ile Cys Thr Ser  
100 105 110

Phe Ile Arg Ile Ala Lys Ala Ala Glu Lys Ser Val Leu Pro His Met  
115 120 125

Lys Gly Ile Ala Asp Thr Met Gly Tyr Leu Ala Lys Glu Gly Thr Leu  
130 135 140

Leu Arg Gly Glu His Asn Ile Leu Gly Glu Ala Phe Leu Val Met Ala  
145 150 155 160

Ser Ser Ala Gly Ala Gln Gln Gln Gln Glu Val Leu Ala Trp Leu Leu  
165 170 175

Glu Pro Leu Ser Gln Gln Trp Ile Gln Pro Glu Trp Gln Asn Asn Tyr  
180 185 190

Leu Ser Asp Pro Met Gly Leu Leu Leu Arg Val Leu His Ser Leu Trp  
195 200 205

Ser Pro Ser Val Phe Gln Thr Leu Pro Pro Glu Met Arg Ala Ala Met  
210 215 220

Thr Met Thr Asp Ala Glu Arg Tyr Ser Leu Leu Gly Glu Ala Asn Pro  
225 230 235 240

Lys Leu Ser Lys Gly Val Ser Val Tyr Ala Asp Gly Ser Phe Glu Gly  
Page 697

Thr Lys Glu Gly Gln Ala Glu Ala Ser Glu Ser Asp Ile Arg Asn Trp  
260 265 270

Leu Lys Gly Ile Arg Asp Cys Gly Tyr Asn Val Leu Gly Leu Ser Thr  
275 280 285

Thr Ile Gly Glu Thr Phe Phe Lys Cys Leu Asp Ala Asn Tyr Val Ala  
290 295 300

Met Ala Leu Met Glu Asn Leu Gln Ser Met Glu Phe Arg His Ile Arg  
305 310 315 320

Leu Phe Ile His Thr Phe Ile Thr Tyr Ile Val Lys Ser Cys Pro Ala  
325 330 335

Asp Met Trp Glu Ser Trp Leu Gly Val Leu Leu His Pro Leu Phe Ile  
340 345 350

His Cys Gln Gln Ala Leu Ser Ser Ala Trp Pro Gly Leu Leu Gln Glu  
355 360 365

Gly Arg Ala Lys Val Pro Asp Leu Phe Gly Ile Gln Ser Gly Ser Asp  
370 375 380

Met Lys Leu Glu Val Met Glu Glu Lys Leu Leu Arg Asp Leu Thr Arg  
385 390 395 400

Glu Ile Ala Thr Leu Phe Ser Thr Met Ala Ser Pro Gly Leu Asn Thr  
405 410 415

Gly Val Pro Val Leu Glu His Ser Gly His Val Gly Arg Val Asp Met  
420 425 430

Ser Thr Leu Thr Asp Leu His Ala Phe Arg Ser Asn Ser Met Val Leu  
435 440 445

Leu Ser Leu Pro Cys Leu Thr Pro Asn Asp Leu His Ala Phe Glu Glu  
450 455 460

Ala Thr Ala Lys Thr Ser Ser Pro Lys Glu Gln Lys Gln Leu Met Arg  
465 470 475 480

Ser Leu Leu Leu Leu Gly Thr Gly Asn Asn Leu Lys Ala Leu Ala Ala  
485 490 495



047-E2F-PCT.ST25.txt  
 Gln Lys Ser Gln Asn Val Ile Thr Asn Val Thr Gly Asn Lys Val Ser  
 500 505 510

Leu His Ala His Asp Ile Ser Val Phe Phe  
 515 520

<210> 449

<211> 2853

<212> DNA

<213> Arabidopsis thaliana

<400> 449

atgactccag	tattatgcca	ttccactgct	tcaatcccta	accctaactc	tctcatgtct	60
ctctcctcca	ctctccgtct	ctcttcctcc	cttcttcgcc	gctccttctt	ccgattcccc	120
ctcaccgacc	cattatgccg	tctccgccgc	actgaaccct	ccgccacgcg	tttcttctcc	180
tcccgtactc	ctcgggtccg	caaattcggt	gtcgggtgctg	gtaagcgcg	agatgagcag	240
gtcaaggaag	agtccggagc	taacaatggc	ggtttggttg	tttctgggga	cgaatctcgt	300
attgtgcctt	ttgagctaca	taaggaagct	actgagtcgt	atatgtcgta	tgcgctctct	360
gttttgcttg	gacgtgcttt	gcctgatggt	agagacggac	taaaaccagt	acatcggaga	420
attctctttg	caatgcatga	gttggggatg	tcattctaaa	aaccatacaa	gaaatgtgca	480
agagttgttg	gagaggttct	tggtaaattc	catccgcgat	gagatactgc	tgtttatgat	540
tctcttgtta	ggatggctca	gagtttctcc	ttgagatgtc	cacttatcca	aggccatgga	600
aattttggct	caatagatgc	agatcctcct	gctgctatgc	gttactactga	atgcagactc	660
gatccactgg	cagaggcagt	actattgtct	gatctggatc	aagatacggg	ggattttgtg	720
gccaattttg	ataactcaca	aaaagaacca	gcagtgttgc	ctgctcgtct	tcctgctttg	780
ttgttgaaatg	gagcttcttg	gattgcgggt	ggcatggcaa	caaataattcc	ccctcataat	840
cttggggagt	tggtagacgt	gctttgctgc	ttaatccata	atccagaagc	aacgctgcaa	900
gaactgctgg	aatacatgcc	tgcaccggat	tttccaactg	gaggaataat	aatgggaaac	960
cttggggttt	tggtatgctta	ccgaactggc	cgagggcgag	ttgtagttag	aggaaaagct	1020
gaagttgaat	tggttgatcc	aaagacaaag	cggaatgcag	ttattatcac	agagattcct	1080
taccagacaa	acaaagctac	acttgtccag	aagattgccg	aacttggtga	aaataagacg	1140
ctagagggca	taagtgacat	acgtgacgag	agtgatcgta	atgggatgcg	tgtggttatt	1200
gagctcaaaa	gaggagggga	tcctgcactt	gtgcttaata	atctttaccg	gcatactgcc	1260
cttcaatcaa	gcttcagctg	caacatggtg	ggatatctgc	atggagaacc	caagctaattg	1320

047-E2F-PCT.ST25.txt

ggattaaaag aactacttca ggcattttata gatttcaggt gttctgtcgt cgaaaggcgt	1380
gcaagattca agctttcaca tgcacaacaa cgaaagcata ttattgaggg tattgtgggt	1440
gggcttgaca atgtggacga agtaatcgaa ctcatcacga aggcctcaag tcattcctct	1500
gctactgctg cttttacaaag tgaatatgggt ctttctgaga aacaagctga ggctatactg	1560
gagataactc ttcgaaggct aactgctctt gagcggaaaa agtttactga tgaaagtagt	1620
tcactaacag agcaaattac aaagttggag cagctattat caacccgaac aaacatccta	1680
aagttaatcg aacaagaagc aatagagctg aaggacagat tctcaagtcc caggcggttca	1740
atgttgaggg attctgacag tggatgatcta gaagatatag atgttattcc aaatgaagag	1800
atgctgatgg cagtcagcga aaagggctat gtgaagagaa tgaaggccga tacattcaat	1860
cttcagcatc gtggaacaat tggcaaatct gttgggaaac taagagttga tgatgcaatg	1920
tctgactttc ttgtttgtca tgcacatgac catgtcctct ttttcagtga ccgggggtata	1980
gtttactcaa cccgtgcata taaaattcca gaatgctctc gcaatgcagc tggtagacct	2040
ttggttcaga tattatccat gtcggaagggt gaaagagtaa cctccattgt tcctgttagc	2100
gagtttgctg aagatcgcta cctcctgatg cttacagtga atggctgcat caagaaagta	2160
tctttgaaat tattttcagg aatacgtca actggaatca tagcaattca gttgaattct	2220
ggatgatgaac tgaaatgggt tcgttggtgc tcaagcgacg atcttgtagc catggcatcc	2280
caaaatggaa tggctgcctt gagtacatgt gatgggtgtt gcacactgag cagaaataca	2340
aaggagtgat ctgccatgag actcaagaat gaggataaga tagcgagcat ggacatcata	2400
cctgcatctc tgcggaaaga tatggaagag aagtcggaag atgcttact tgtgaaacaa	2460
tccacgggtc catggctatt attcgtgtgt gagaatggct atggaaagcg tgttcctctg	2520
agtagcttcc ggcgttcgag tctgaacaga gttggtttat ctggatacaa gtttgctgag	2580
gatgatcgtt tggctgctgt tttcgttgtt gggttactcct tggctgagga tggggagagt	2640
gatgagcaag tagttctggt gagccaaagc ggaactgtga accggatcaa agtcagggat	2700
atctcaatcc aatctcgag agcacgggga gtgattctta tgcggctaga tcatgccggc	2760
aaaatccaat ctgcatctct gatctctgca gcagatgaag aagaaacaga aggaactcta	2820
agtaatgaag ccgtagaagc cgttagcctg taa	2853

<210> 450

<211> 950

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 450

Met Thr Pro Val Leu Cys His Ser Thr Ala Ser Ile Pro Asn Pro Asn  
 1 5 10 15

Ser Leu Met Ser Leu Ser Ser Thr Leu Arg Leu Ser Ser Ser Leu Leu  
 20 25 30

Arg Arg Ser Phe Phe Arg Phe Pro Leu Thr Asp Pro Leu Cys Arg Leu  
 35 40 45

Arg Arg Thr Glu Pro Ser Ala Thr Arg Phe Phe Ser Ser Arg Thr Pro  
 50 55 60

Arg Ser Gly Lys Phe Val Val Gly Ala Gly Lys Arg Gly Asp Glu Gln  
 65 70 75 80

Val Lys Glu Glu Ser Gly Ala Asn Asn Gly Gly Leu Val Val Ser Gly  
 85 90 95

Asp Glu Ser Arg Ile Val Pro Phe Glu Leu His Lys Glu Ala Thr Glu  
 100 105 110

Ser Tyr Met Ser Tyr Ala Leu Ser Val Leu Leu Gly Arg Ala Leu Pro  
 115 120 125

Asp Val Arg Asp Gly Leu Lys Pro Val His Arg Arg Ile Leu Phe Ala  
 130 135 140

Met His Glu Leu Gly Met Ser Ser Lys Lys Pro Tyr Lys Lys Cys Ala  
 145 150 155 160

Arg Val Val Gly Glu Val Leu Gly Lys Phe His Pro His Gly Asp Thr  
 165 170 175

Ala Val Tyr Asp Ser Leu Val Arg Met Ala Gln Ser Phe Ser Leu Arg  
 180 185 190

Cys Pro Leu Ile Gln Gly His Gly Asn Phe Gly Ser Ile Asp Ala Asp  
 195 200 205

Pro Pro Ala Ala Met Arg Tyr Thr Glu Cys Arg Leu Asp Pro Leu Ala  
 210 215 220

Glu Ala Val Leu Leu Ser Asp Leu Asp Gln Asp Thr Val Asp Phe Val  
 225 230 235 240

Ala Asn Phe Asp Asn Ser Gln Lys Glu Pro Ala Val Leu Pro Ala Arg  
 Page 701

Leu Pro Ala Leu Leu Leu Asn Gly Ala Ser Gly Ile Ala Val Gly Met  
260 265 270

Ala Thr Asn Ile Pro Pro His Asn Leu Gly Glu Leu Val Asp Val Leu  
275 280 285

Cys Ala Leu Ile His Asn Pro Glu Ala Thr Leu Gln Glu Leu Leu Glu  
290 295 300

Tyr Met Pro Ala Pro Asp Phe Pro Thr Gly Gly Ile Ile Met Gly Asn  
305 310 315 320

Leu Gly Val Leu Asp Ala Tyr Arg Thr Gly Arg Gly Arg Val Val Val  
325 330 335

Arg Gly Lys Ala Glu Val Glu Leu Leu Asp Pro Lys Thr Lys Arg Asn  
340 345 350

Ala Val Ile Ile Thr Glu Ile Pro Tyr Gln Thr Asn Lys Ala Thr Leu  
355 360 365

Val Gln Lys Ile Ala Glu Leu Val Glu Asn Lys Thr Leu Glu Gly Ile  
370 375 380

Ser Asp Ile Arg Asp Glu Ser Asp Arg Asn Gly Met Arg Val Val Ile  
385 390 395 400

Glu Leu Lys Arg Gly Gly Asp Pro Ala Leu Val Leu Asn Asn Leu Tyr  
405 410 415

Arg His Thr Ala Leu Gln Ser Ser Phe Ser Cys Asn Met Val Gly Ile  
420 425 430

Cys Asp Gly Glu Pro Lys Leu Met Gly Leu Lys Glu Leu Leu Gln Ala  
435 440 445

Phe Ile Asp Phe Arg Cys Ser Val Val Glu Arg Arg Ala Arg Phe Lys  
450 455 460

Leu Ser His Ala Gln Gln Arg Lys His Ile Ile Glu Gly Ile Val Val  
465 470 475 480

Gly Leu Asp Asn Val Asp Glu Val Ile Glu Leu Ile Thr Lys Ala Ser  
485 490 495

Ser His Ser Ser Ala Thr Ala Ala Leu Gln Ser Glu Tyr Gly Leu Ser  
 500 505 510  
 Glu Lys Gln Ala Glu Ala Ile Leu Glu Ile Thr Leu Arg Arg Leu Thr  
 515 520 525  
 Ala Leu Glu Arg Lys Lys Phe Thr Asp Glu Ser Ser Ser Leu Thr Glu  
 530 535 540  
 Gln Ile Thr Lys Leu Glu Gln Leu Leu Ser Thr Arg Thr Asn Ile Leu  
 545 550 555 560  
 Lys Leu Ile Glu Gln Glu Ala Ile Glu Leu Lys Asp Arg Phe Ser Ser  
 565 570 575  
 Pro Arg Arg Ser Met Leu Glu Asp Ser Asp Ser Gly Asp Leu Glu Asp  
 580 585 590  
 Ile Asp Val Ile Pro Asn Glu Glu Met Leu Met Ala Val Ser Glu Lys  
 595 600 605  
 Gly Tyr Val Lys Arg Met Lys Ala Asp Thr Phe Asn Leu Gln His Arg  
 610 615 620  
 Gly Thr Ile Gly Lys Ser Val Gly Lys Leu Arg Val Asp Asp Ala Met  
 625 630 635 640  
 Ser Asp Phe Leu Val Cys His Ala His Asp His Val Leu Phe Phe Ser  
 645 650 655  
 Asp Arg Gly Ile Val Tyr Ser Thr Arg Ala Tyr Lys Ile Pro Glu Cys  
 660 665 670  
 Ser Arg Asn Ala Ala Gly Thr Pro Leu Val Gln Ile Leu Ser Met Ser  
 675 680 685  
 Glu Gly Glu Arg Val Thr Ser Ile Val Pro Val Ser Glu Phe Ala Glu  
 690 695 700  
 Asp Arg Tyr Leu Leu Met Leu Thr Val Asn Gly Cys Ile Lys Lys Val  
 705 710 715 720  
 Ser Leu Lys Leu Phe Ser Gly Ile Arg Ser Thr Gly Ile Ile Ala Ile  
 725 730 735  
 Gln Leu Asn Ser Gly Asp Glu Leu Lys Trp Val Arg Cys Cys Ser Ser  
 740 745 750

047-E2F-PCT.ST25.txt

Asp Asp Leu Val Ala Met Ala Ser Gln Asn Gly Met Val Ala Leu Ser  
755 760 765

Thr Cys Asp Gly Val Arg Thr Leu Ser Arg Asn Thr Lys Gly Val Thr  
770 775 780

Ala Met Arg Leu Lys Asn Glu Asp Lys Ile Ala Ser Met Asp Ile Ile  
785 790 795 800

Pro Ala Ser Leu Arg Lys Asp Met Glu Glu Lys Ser Glu Asp Ala Ser  
805 810 815

Leu Val Lys Gln Ser Thr Gly Pro Trp Leu Leu Phe Val Cys Glu Asn  
820 825 830

Gly Tyr Gly Lys Arg Val Pro Leu Ser Ser Phe Arg Arg Ser Arg Leu  
835 840 845

Asn Arg Val Gly Leu Ser Gly Tyr Lys Phe Ala Glu Asp Asp Arg Leu  
850 855 860

Ala Ala Val Phe Val Val Gly Tyr Ser Leu Ala Glu Asp Gly Glu Ser  
865 870 875 880

Asp Glu Gln Val Val Leu Val Ser Gln Ser Gly Thr Val Asn Arg Ile  
885 890 895

Lys Val Arg Asp Ile Ser Ile Gln Ser Arg Arg Ala Arg Gly Val Ile  
900 905 910

Leu Met Arg Leu Asp His Ala Gly Lys Ile Gln Ser Ala Ser Leu Ile  
915 920 925

Ser Ala Ala Asp Glu Glu Glu Thr Glu Gly Thr Leu Ser Asn Glu Ala  
930 935 940

Val Glu Ala Val Ser Leu  
945 950

<210> 451

<211> 2553

<212> DNA

<213> Arabidopsis thaliana

&lt;400&gt; 451

atggcgatga	taagcttttc	gtttccatct	cccgccaaac	ttccgattaa	atctcaaccg	60
tccgtttcaa	atcggatcaa	cgtcgccgac	cgtttgattc	tccgtcatct	caatgccgga	120
gatcttcgtg	gagcggtttc	agctcttgat	ctcatggctc	gtgatgggat	tcgtcctatg	180
gactcagtca	ctttctcttc	acttctcaaa	tcttgatatcc	gagcacgcga	ttttcgtctc	240
gggaaactcg	tacacgctcg	attaatcgag	tttgatatcg	agcctgattc	ggttctctac	300
aattcgttga	ttagcttgta	ttcgaaatct	ggagattcgg	cgaaagctga	agatgtgttt	360
gagactatga	gaagatttgg	taagcgagat	gttgtttcgt	ggagtgcgat	gatggcttgt	420
tacggtaaca	acggaagaga	attagatgca	attaagggtt	ttgttgagtt	tctggagtta	480
ggtttggtgc	ctaatgatta	ttgttacacg	gcggtgatac	gagcttgttc	gaattcggat	540
tttgttggag	ttgggagagt	gactttaggg	tttttgatga	agactgggca	ttttgaatct	600
gatgtgtgtg	tgggttggtc	tttgattgac	atgtttgtga	aaggagagaa	tagctttgag	660
aatgcgtata	aggtgtttga	taaaatgtct	gaactaaatg	ttgttacttg	gactttgatg	720
attactcgg	gtatgcagat	ggggtttcct	agggaaagcga	ttaggttttt	cttggatatg	780
gttttaagt	gatttgaatc	agataagttc	acactaagct	ctgtgttttc	ggcttggtgct	840
gagttggaga	acttgtcttt	gggaaagcag	ttgcattctt	gggctattag	atcagggtct	900
gtggatgatg	ttgaatgtag	tttagttgat	atgtatgcga	aatgttctgc	ggatggttcg	960
gtagatgatt	gcaggaaggt	gtttgataga	atggaggatc	atagtgttat	gtcgtggacg	1020
gcattgatca	ctggttatat	gaaaaactgt	aatctcgcta	cagaggctat	taatctcttt	1080
agtgaaatga	taacgcaagg	tcatgttgag	ccaaatcatt	tcactttctc	gagtgcattc	1140
aaggcgtgtg	gaaatctttc	ggatccacgg	gtaggtaaac	aggttcttgg	tcaagctttc	1200
aaaagagggc	ttgcttcgaa	tagcagtgtt	gcaaactcgg	ttatcagcat	gtttgttaaa	1260
tctgacagga	tggaagatgc	tcagagagct	tttgagtcac	tttctgagaa	gaacttggtt	1320
tcgtataata	catttcttga	cggaacatgc	aggaacttga	attttgagca	agcatttaag	1380
cttttaagt	agatcactga	gagagaatta	ggtgttagcg	ctttcacatt	tgctagcttg	1440
ttgagtggag	ttgcaaagt	tggttcaata	agaaaaggcg	agcaaattcca	ttctcaggtg	1500
gttaaactcg	ggctctcgtg	caatcaaccc	gtctgcaatg	ctttgatctc	tatgtattcc	1560
aaatgtggaa	gcattgacac	agcttcccga	gtcttcaatt	ttatggaaaa	tcgtaatgtc	1620
atctcgtgga	cttcaatgat	cacaggtttc	gctaaacacg	gattcgctat	aagggtactc	1680
gaaacattca	accaaagtat	agaagaaggg	gtgaagccaa	atgaggtcac	ttatgttgca	1740
atcttatcgg	catgcagcca	tgttggtttg	gtctccgaag	gatggagaca	tttcaattca	1800
atgtatgaag	accacaagat	caaacctaag	atggaacact	atgcttgat	ggttgatctt	1860

047-E2F-PCT.ST25.txt

ctatgtcgag ccgggcttct cacagacgca tttagattca ttaacacaat gcccttccaa 1920  
gccgatgttt tagtatggcg tacgtttctt ggagcttgca gagttcacag taacacagaa 1980  
ctcggaaagt tggctgagag gaagatctta gaacttgatc cgaatgagcc tgcagcttat 2040  
atacagctct caaacatata cgcttggtgca gggaaatggg aagaatctac ggagatgagg 2100  
aggaagatga aagagagaaa cttgggttaa gaaggagggt gcagttggat agaagtggga 2160  
gataaaattc ataagttcta cgtaggtgat acagctcacc cgaatgctca ccaaataatat 2220  
gatgaattgg atcggttaat tacagaaata aaacgctgag gatattgttc tgatacggat 2280  
cttgttcttc acaagctaga ggaggagaat gatgaggcgg agaaggagag gttactatat 2340  
cagcacagcg agaaaattgc ggttgcgttt gggcttataa gcacgtcgaa atctagaccg 2400  
gttaggggtgt tcaagaactt acgggtctgc ggagattgcc ataacgcgat gaaatatata 2460  
tcgacagtct ctggtagaga gattgtgttg agggatttga atcgttttca tcattttaaa 2520  
gatgggaaat gttcttgtaa tgattattgg tga 2553

<210> 452

<211> 850

<212> PRT

<213> Arabidopsis thaliana

<400> 452

Met Ala Met Ile Ser Phe Ser Phe Pro Ser Pro Ala Lys Leu Pro Ile  
1 5 10 15

Lys Ser Gln Pro Ser Val Ser Asn Arg Ile Asn Val Ala Asp Arg Leu  
20 25 30

Ile Leu Arg His Leu Asn Ala Gly Asp Leu Arg Gly Ala Val Ser Ala  
35 40 45

Leu Asp Leu Met Ala Arg Asp Gly Ile Arg Pro Met Asp Ser Val Thr  
50 55 60

Phe Ser Ser Leu Leu Lys Ser Cys Ile Arg Ala Arg Asp Phe Arg Leu  
65 70 75 80

Gly Lys Leu Val His Ala Arg Leu Ile Glu Phe Asp Ile Glu Pro Asp  
85 90 95

Ser Val Leu Tyr Asn Ser Leu Ile Ser Leu Tyr Ser Lys Ser Gly Asp  
100 105 110



047-E2F-PCT.ST25.txt

Ser Ala Lys Ala Glu Asp Val Phe Glu Thr Met Arg Arg Phe Gly Lys  
115 120 125

Arg Asp Val Val Ser Trp Ser Ala Met Met Ala Cys Tyr Gly Asn Asn  
130 135 140

Gly Arg Glu Leu Asp Ala Ile Lys Val Phe Val Glu Phe Leu Glu Leu  
145 150 155 160

Gly Leu Val Pro Asn Asp Tyr Cys Tyr Thr Ala Val Ile Arg Ala Cys  
165 170 175

Ser Asn Ser Asp Phe Val Gly Val Gly Arg Val Thr Leu Gly Phe Leu  
180 185 190

Met Lys Thr Gly His Phe Glu Ser Asp Val Cys Val Gly Cys Ser Leu  
195 200 205

Ile Asp Met Phe Val Lys Gly Glu Asn Ser Phe Glu Asn Ala Tyr Lys  
210 215 220

Val Phe Asp Lys Met Ser Glu Leu Asn Val Val Thr Trp Thr Leu Met  
225 230 235 240

Ile Thr Arg Cys Met Gln Met Gly Phe Pro Arg Glu Ala Ile Arg Phe  
245 250 255

Phe Leu Asp Met Val Leu Ser Gly Phe Glu Ser Asp Lys Phe Thr Leu  
260 265 270

Ser Ser Val Phe Ser Ala Cys Ala Glu Leu Glu Asn Leu Ser Leu Gly  
275 280 285

Lys Gln Leu His Ser Trp Ala Ile Arg Ser Gly Leu Val Asp Asp Val  
290 295 300

Glu Cys Ser Leu Val Asp Met Tyr Ala Lys Cys Ser Ala Asp Gly Ser  
305 310 315 320

Val Asp Asp Cys Arg Lys Val Phe Asp Arg Met Glu Asp His Ser Val  
325 330 335

Met Ser Trp Thr Ala Leu Ile Thr Gly Tyr Met Lys Asn Cys Asn Leu  
340 345 350

Ala Thr Glu Ala Ile Asn Leu Phe Ser Glu Met Ile Thr Gln Gly His  
Page 707

355

360

365

Val Glu Pro Asn His Phe Thr Phe Ser Ser Ala Phe Lys Ala Cys Gly  
 370 375 380  
 Asn Leu Ser Asp Pro Arg Val Gly Lys Gln Val Leu Gly Gln Ala Phe  
 385 390 395 400  
 Lys Arg Gly Leu Ala Ser Asn Ser Ser Val Ala Asn Ser Val Ile Ser  
 405 410 415  
 Met Phe Val Lys Ser Asp Arg Met Glu Asp Ala Gln Arg Ala Phe Glu  
 420 425 430  
 Ser Leu Ser Glu Lys Asn Leu Val Ser Tyr Asn Thr Phe Leu Asp Gly  
 435 440 445  
 Thr Cys Arg Asn Leu Asn Phe Glu Gln Ala Phe Lys Leu Leu Ser Glu  
 450 455 460  
 Ile Thr Glu Arg Glu Leu Gly Val Ser Ala Phe Thr Phe Ala Ser Leu  
 465 470 475 480  
 Leu Ser Gly Val Ala Asn Val Gly Ser Ile Arg Lys Gly Glu Gln Ile  
 485 490 495  
 His Ser Gln Val Val Lys Leu Gly Leu Ser Cys Asn Gln Pro Val Cys  
 500 505 510  
 Asn Ala Leu Ile Ser Met Tyr Ser Lys Cys Gly Ser Ile Asp Thr Ala  
 515 520 525  
 Ser Arg Val Phe Asn Phe Met Glu Asn Arg Asn Val Ile Ser Trp Thr  
 530 535 540  
 Ser Met Ile Thr Gly Phe Ala Lys His Gly Phe Ala Ile Arg Val Leu  
 545 550 555 560  
 Glu Thr Phe Asn Gln Met Ile Glu Glu Gly Val Lys Pro Asn Glu Val  
 565 570 575  
 Thr Tyr Val Ala Ile Leu Ser Ala Cys Ser His Val Gly Leu Val Ser  
 580 585 590  
 Glu Gly Trp Arg His Phe Asn Ser Met Tyr Glu Asp His Lys Ile Lys  
 595 600 605

Pro Lys Met Glu His Tyr Ala Cys Met Val Asp Leu Leu Cys Arg Ala  
 610 615 620  
 Gly Leu Leu Thr Asp Ala Phe Glu Phe Ile Asn Thr Met Pro Phe Gln  
 625 630 635 640  
 Ala Asp Val Leu Val Trp Arg Thr Phe Leu Gly Ala Cys Arg Val His  
 645 650 655  
 Ser Asn Thr Glu Leu Gly Lys Leu Ala Ala Arg Lys Ile Leu Glu Leu  
 660 665 670  
 Asp Pro Asn Glu Pro Ala Ala Tyr Ile Gln Leu Ser Asn Ile Tyr Ala  
 675 680 685  
 Cys Ala Gly Lys Trp Glu Glu Ser Thr Glu Met Arg Arg Lys Met Lys  
 690 695 700  
 Glu Arg Asn Leu Val Lys Glu Gly Gly Cys Ser Trp Ile Glu Val Gly  
 705 710 715 720  
 Asp Lys Ile His Lys Phe Tyr Val Gly Asp Thr Ala His Pro Asn Ala  
 725 730 735  
 His Gln Ile Tyr Asp Glu Leu Asp Arg Leu Ile Thr Glu Ile Lys Arg  
 740 745 750  
 Cys Gly Tyr Val Pro Asp Thr Asp Leu Val Leu His Lys Leu Glu Glu  
 755 760 765  
 Glu Asn Asp Glu Ala Glu Lys Glu Arg Leu Leu Tyr Gln His Ser Glu  
 770 775 780  
 Lys Ile Ala Val Ala Phe Gly Leu Ile Ser Thr Ser Lys Ser Arg Pro  
 785 790 795 800  
 Val Arg Val Phe Lys Asn Leu Arg Val Cys Gly Asp Cys His Asn Ala  
 805 810 815  
 Met Lys Tyr Ile Ser Thr Val Ser Gly Arg Glu Ile Val Leu Arg Asp  
 820 825 830  
 Leu Asn Arg Phe His His Phe Lys Asp Gly Lys Cys Ser Cys Asn Asp  
 835 840 845  
 Tyr Trp  
 850

&lt;210&gt; 453

&lt;211&gt; 666

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 453

```

atggaggttt tggataggag agacgatgag atcagggact cgggaaacat ggacagcatc      60
aagtcacact atgttaccga ctctgtttcc gaggaacgcc gctctcgtga gctcaaggat    120
ggagaccatc ctttacggtg caagttttcg atatggtaca ctcgtcgcac accagggggtt    180
cggaaccagt cttatgaaga taacatcaag aagatggtag aattcagcac ggttgaagga    240
ttttgggcct gctactgtca ccttgctcgt tcttctctct tgcctagtcc aacagatctt    300
catttcttta aggatgggat tcgtccattg tgggaggatg gtgccaaactg caatggagga    360
aagtggatca tacgtttctc aaaagttgta tctgctcgct tctgggagga tctgcttctt    420
gcgttggtag gcgaccagct tgatgatgct gataacatat gtggggcagt actgagtgtc    480
cgtttcaacg aggacatcat tagtgatgag aatcgcaatg cttctgacca tcaggcagtg    540
atgggtttga gagactcaat caagcggcat ttgaagttgc ctcatgcata tgtcatggaa    600
tacaagccac acgatgcttc tctccgcgac aactcttcct acagaaacac atggctgaga    660
ggatag                                                                    666

```

&lt;210&gt; 454

&lt;211&gt; 221

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 454

```

Met Glu Val Leu Asp Arg Arg Asp Asp Glu Ile Arg Asp Ser Gly Asn
1          5          10          15

```

```

Met Asp Ser Ile Lys Ser His Tyr Val Thr Asp Ser Val Ser Glu Glu
20        25        30

```

```

Arg Arg Ser Arg Glu Leu Lys Asp Gly Asp His Pro Leu Arg Tyr Lys
35        40        45

```

```

Phe Ser Ile Trp Tyr Thr Arg Arg Thr Pro Gly Val Arg Asn Gln Ser
50        55        60

```

047-E2F-PCT.ST25.txt

Tyr Glu Asp Asn Ile Lys Lys Met Val Glu Phe Ser Thr Val Glu Gly  
 65 70 75 80  
 Phe Trp Ala Cys Tyr Cys His Leu Ala Arg Ser Ser Leu Leu Pro Ser  
 85 90 95  
 Pro Thr Asp Leu His Phe Phe Lys Asp Gly Ile Arg Pro Leu Trp Glu  
 100 105 110  
 Asp Gly Ala Asn Cys Asn Gly Gly Lys Trp Ile Ile Arg Phe Ser Lys  
 115 120 125  
 Val Val Ser Ala Arg Phe Trp Glu Asp Leu Leu Leu Ala Leu Val Gly  
 130 135 140  
 Asp Gln Leu Asp Asp Ala Asp Asn Ile Cys Gly Ala Val Leu Ser Val  
 145 150 155 160  
 Arg Phe Asn Glu Asp Ile Ile Ser Val Trp Asn Arg Asn Ala Ser Asp  
 165 170 175  
 His Gln Ala Val Met Gly Leu Arg Asp Ser Ile Lys Arg His Leu Lys  
 180 185 190  
 Leu Pro His Ala Tyr Val Met Glu Tyr Lys Pro His Asp Ala Ser Leu  
 195 200 205  
 Arg Asp Asn Ser Ser Tyr Arg Asn Thr Trp Leu Arg Gly  
 210 215 220

<210> 455

<211> 1668

<212> DNA

<213> Arabidopsis thaliana

<400> 455

atggtcggcg aagaagatag cgagagagct cagtccagta agatggagat cgagcgagaa	60
tcgaatttgg gatctgagag tgtgctgatg cagtcgaagg tcatctccgt ctcgaatttc	120
ttctctattc atagatttca ttaccctcgt gaaaaaatcg tctctttttt gtttcctagt	180
gtgtttctcaa ggataatggc ttcgtatggc gaggagcgtg aaatccaaaa gaattactgg	240
aaagagcatt cagtgggatt gagtgttgaa gctatgatgc ttgattccaa agcttctgac	300

047-E2F-PCT.ST25.txt

ctcgacaaag aagaacgtcc tgagatactt gcgtttcttc cacctattga agggacaaca 360  
 gtgctagagt ttggtgctgg aattggctgt ttactactg aattagctca gaaggccggc 420  
 caggctcattg cggttgactt cattgaaagt gttatcaaaa agaattgagaa cattaacggt 480  
 cactacaaga acgtcaaatt tctgtgctgt gatgtcacat caccaaatat gaactttcca 540  
 aatgagtcta tggatctgat attctccaac tggctgctaa tgtatctctc tgatcaagag 600  
 gttgaagatt tggcgaaaaa gatgttacaa tggacaaagg ttggcgggta ttttttcttt 660  
 cgggagtcctt gtttccatca gtctggtgat aacaagcggg agtacaaccc aacacactac 720  
 cgtgaaccta aattttacac aaagcttttc aaagaatgcc atatgaatga cgaagatggg 780  
 aattcgtatg aactctcttt ggtagctgt aaatgcattg gagcttatgt gagaaacaaa 840  
 aagaaccaga accagatatg ctggctttgg cagaaagtca gttcggataa tgataggggc 900  
 ttccaacgct tcttgacaa tgtccagtat aagtctagt gtatcttacg ctatgagcgt 960  
 gtctttggag aagggtttgt tagcacaggg ggactcgaga caacaaagga attcgtggat 1020  
 atgctggatc tgaaacctgg caaaaagtt ctagacgttg ggtgcggaat aggaggaggg 1080  
 gacttctaca tggctgagaa ctttgacgtg gatgttggtg gcattgatct atctgtaaac 1140  
 atgatctctt ttgcgcttga acacgcaata ggactcaaat gctctgtaga attcgaagta 1200  
 gctgattgca ccaagaagga gtatcctgat aacacctttg atgttattta tagcagagac 1260  
 accattctac atatccaaga caagccagca ttgttcagaa gattctacaa atgggtgaag 1320  
 ccgggagggg aagttctcat cactgattac tgcagaagcc caaaacccc atctccagac 1380  
 ttgcaatct acatcaagaa acgaggttat gatcttcatg atgtacaagc atacggtcag 1440  
 atgctgagag atgctggttt cgaggaggta atcgcgagg atagaaccga tcagttcatg 1500  
 aaagtcctga aacgggaact ggatgcagtg gagaaggaga aggaagaatt catcagtac 1560  
 ttctcgaaag aggattacga ggatattata ggcgggtgga agtcaaagct acttaggagc 1620  
 tcaagtgggtg agcagaagtg gggtttgttc atcgccaaga gaaactga 1668

<210> 456

<211> 555

<212> PRT

<213> Arabidopsis thaliana

<400> 456

Met Val Gly Glu Glu Asp Ser Glu Arg Ala Gln Ser Ser Lys Met Glu  
 1 5 10 15

Ile Glu Arg Glu Ser Asn Leu Gly Ser Ala Ser Val Leu Met Gln Ser  
 20 25 30  
 Lys Val Ile Ser Val Ser Asn Phe Phe Ser Ile His Arg Phe His Tyr  
 35 40 45  
 Pro Arg Glu Lys Ile Val Ser Phe Leu Phe Pro Ser Val Phe Ser Arg  
 50 55 60  
 Ile Met Ala Ser Tyr Gly Glu Glu Arg Glu Ile Gln Lys Asn Tyr Trp  
 65 70 75 80  
 Lys Glu His Ser Val Gly Leu Ser Val Glu Ala Met Met Leu Asp Ser  
 85 90 95  
 Lys Ala Ser Asp Leu Asp Lys Glu Glu Arg Pro Glu Ile Leu Ala Phe  
 100 105 110  
 Leu Pro Pro Ile Glu Gly Thr Thr Val Leu Glu Phe Gly Ala Gly Ile  
 115 120 125  
 Gly Arg Phe Thr Thr Glu Leu Ala Gln Lys Ala Gly Gln Val Ile Ala  
 130 135 140  
 Val Asp Phe Ile Glu Ser Val Ile Lys Lys Asn Glu Asn Ile Asn Gly  
 145 150 155 160  
 His Tyr Lys Asn Val Lys Phe Leu Cys Ala Asp Val Thr Ser Pro Asn  
 165 170 175  
 Met Asn Phe Pro Asn Glu Ser Met Asp Leu Ile Phe Ser Asn Trp Leu  
 180 185 190  
 Leu Met Tyr Leu Ser Asp Gln Glu Val Glu Asp Leu Ala Lys Lys Met  
 195 200 205  
 Leu Gln Trp Thr Lys Val Gly Gly Tyr Ile Phe Phe Arg Glu Ser Cys  
 210 215 220  
 Phe His Gln Ser Gly Asp Asn Lys Arg Lys Tyr Asn Pro Thr His Tyr  
 225 230 235 240  
 Arg Glu Pro Lys Phe Tyr Thr Lys Leu Phe Lys Glu Cys His Met Asn  
 245 250 255  
 Asp Glu Asp Gly Asn Ser Tyr Glu Leu Ser Leu Val Ser Cys Lys Cys  
 260 265 270

047-E2F-PCT.ST25.txt

Ile Gly Ala Tyr Val Arg Asn Lys Lys Asn Gln Asn Gln Ile Cys Trp  
275 280 285

Leu Trp Gln Lys Val Ser Ser Asp Asn Asp Arg Gly Phe Gln Arg Phe  
290 295 300

Leu Asp Asn Val Gln Tyr Lys Ser Ser Gly Ile Leu Arg Tyr Glu Arg  
305 310 315 320

Val Phe Gly Glu Gly Phe Val Ser Thr Gly Gly Leu Glu Thr Thr Lys  
325 330 335

Glu Phe Val Asp Met Leu Asp Leu Lys Pro Gly Gln Lys Val Leu Asp  
340 345 350

Val Gly Cys Gly Ile Gly Gly Gly Asp Phe Tyr Met Ala Glu Asn Phe  
355 360 365

Asp Val Asp Val Val Gly Ile Asp Leu Ser Val Asn Met Ile Ser Phe  
370 375 380

Ala Leu Glu His Ala Ile Gly Leu Lys Cys Ser Val Glu Phe Glu Val  
385 390 395 400

Ala Asp Cys Thr Lys Lys Glu Tyr Pro Asp Asn Thr Phe Asp Val Ile  
405 410 415

Tyr Ser Arg Asp Thr Ile Leu His Ile Gln Asp Lys Pro Ala Leu Phe  
420 425 430

Arg Arg Phe Tyr Lys Trp Leu Lys Pro Gly Gly Lys Val Leu Ile Thr  
435 440 445

Asp Tyr Cys Arg Ser Pro Lys Thr Pro Ser Pro Asp Phe Ala Ile Tyr  
450 455 460

Ile Lys Lys Arg Gly Tyr Asp Leu His Asp Val Gln Ala Tyr Gly Gln  
465 470 475 480

Met Leu Arg Asp Ala Gly Phe Glu Glu Val Ile Ala Glu Asp Arg Thr  
485 490 495

Asp Gln Phe Met Lys Val Leu Lys Arg Glu Leu Asp Ala Val Glu Lys  
500 505 510

Glu Lys Glu Glu Phe Ile Ser Asp Phe Ser Lys Glu Asp Tyr Glu Asp  
515 520 525



Ile Ile Gly Gly Trp Lys Ser Lys Leu Leu Arg Ser Ser Ser Gly Glu  
 530 535 540

Gln Lys Trp Gly Leu Phe Ile Ala Lys Arg Asn  
 545 550 555

<210> 457

<211> 1143

<212> DNA

<213> Arabidopsis thaliana

<400> 457

```

atggaggaga tagaaggaac aaacagagca gctgttgaga gttgtcatag agttcttaat      60
cttttacata gatcacagca acaagatcat gttgggttttg aaaagaatTT agtatctgaa      120
actagagaag ctgtgattag gttcaagaga gttggggagtt tgTTaagcag tagtgTTggt      180
catgctaggT ttagaagagc taagaaactt cagagtcatg tctctcaaag tctcttactt      240
gatccatgtc aacaaaggac aacagaagtt ccatcatcat cttctcagaa aacaccggtA      300
ctccggtctg gtttccagga attgagcttg agacaacctt cagattcact cactttaggg      360
actcgctctt ttagttttaa ctcaaagtct aaagctcctc tccttcagct taatcagcag      420
acaatgcctc cttcgaatta tcctactttg tttccagtac aacaacaaca acaacaacaa      480
caacaacaac aacagcagga gcagcagcag cagcagcagc agcaacagca acagtttcat      540
gaacggttac aagctcacca tcttcatcag caacagcagc tacagaaaca tcaagctgag      600
cttatgctta ggaaatgcaa tggTgggata agtttgagtt tcgataactc tagttgtact      660
ccaactatgt catccactag gtcctttggt tcttacttta gcatagatgg tagtgTTgct      720
aatatagagg gaaagaactc cttccatttt ggggttcccta gttcaactga tcagaattca      780
ctacattcta agaggaaatg ccccttgaaa ggagatgaac atggaagctt aaaatgcggg      840
agctctagcc gatgccactg cgctaagaag aggaaacatc gggTTaggag atcgattaga      900
gtaccggcta taagtaacaa ggtTgcagat atccctcctg atgattattc atggcgaaaa      960
tatggTcaga agcccatcaa gggctctcct tatcccagag gatattacaa atgtagtagc     1020
atgagagggt gtccagcgag gaagcatggt gagagatggt tggaagatcc ggcaatgctt     1080
attgttactt atgaagcaga gcataaccac ccgaaattgc catctcaagc tataacaact     1140
taa                                                                    1143

```

<210> 458

&lt;211&gt; 380

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 458

Met Glu Glu Ile Glu Gly Thr Asn Arg Ala Ala Val Glu Ser Cys His  
 1 5 10 15

Arg Val Leu Asn Leu Leu His Arg Ser Gln Gln Gln Asp His Val Gly  
 20 25 30

Phe Glu Lys Asn Leu Val Ser Glu Thr Arg Glu Ala Val Ile Arg Phe  
 35 40 45

Lys Arg Val Gly Ser Leu Leu Ser Ser Ser Val Gly His Ala Arg Phe  
 50 55 60

Arg Arg Ala Lys Lys Leu Gln Ser His Val Ser Gln Ser Leu Leu Leu  
 65 70 75 80

Asp Pro Cys Gln Gln Arg Thr Thr Glu Val Pro Ser Ser Ser Ser Gln  
 85 90 95

Lys Thr Pro Val Leu Arg Ser Gly Phe Gln Glu Leu Ser Leu Arg Gln  
 100 105 110

Pro Ser Asp Ser Leu Thr Leu Gly Thr Arg Ser Phe Ser Leu Asn Ser  
 115 120 125

Asn Ala Lys Ala Pro Leu Leu Gln Leu Asn Gln Gln Thr Met Pro Pro  
 130 135 140

Ser Asn Tyr Pro Thr Leu Phe Pro Val Gln Gln Gln Gln Gln Gln  
 145 150 155 160

Gln Gln Gln Gln Gln Gln Glu Gln Gln Gln Gln Gln Gln Gln  
 165 170 175

Gln Gln Phe His Glu Arg Leu Gln Ala His His Leu His Gln Gln Gln  
 180 185 190

Gln Leu Gln Lys His Gln Ala Glu Leu Met Leu Arg Lys Cys Asn Gly  
 195 200 205

Gly Ile Ser Leu Ser Phe Asp Asn Ser Ser Cys Thr Pro Thr Met Ser  
 210 215 220

Ser Thr Arg Ser Phe Val Ser Ser Leu Ser Ile Asp Gly Ser Val Ala  
 225 230 235 240

Asn Ile Glu Gly Lys Asn Ser Phe His Phe Gly Val Pro Ser Ser Thr  
 245 250 255

Asp Gln Asn Ser Leu His Ser Lys Arg Lys Cys Pro Leu Lys Gly Asp  
 260 265 270

Glu His Gly Ser Leu Lys Cys Gly Ser Ser Ser Arg Cys His Cys Ala  
 275 280 285

Lys Lys Arg Lys His Arg Val Arg Arg Ser Ile Arg Val Pro Ala Ile  
 290 295 300

Ser Asn Lys Val Ala Asp Ile Pro Pro Asp Asp Tyr Ser Trp Arg Lys  
 305 310 315 320

Tyr Gly Gln Lys Pro Ile Lys Gly Ser Pro Tyr Pro Arg Gly Tyr Tyr  
 325 330 335

Lys Cys Ser Ser Met Arg Gly Cys Pro Ala Arg Lys His Val Glu Arg  
 340 345 350

Cys Leu Glu Asp Pro Ala Met Leu Ile Val Thr Tyr Glu Ala Glu His  
 355 360 365

Asn His Pro Lys Leu Pro Ser Gln Ala Ile Thr Thr  
 370 375 380

<210> 459

<211> 666

<212> DNA

<213> Arabidopsis thaliana

<400> 459

atggctctac ctaaccagca aaccgtagat tatcccagct tcaagcttgt cattgttggt	60
gatggaggca caggaagac tacttttggt aagagacatc ttactgggga gtttgagaag	120
aagtatgaac ctactattgg tgtggaggtt catccattag atttcttcac aaactgtggc	180
aagatccgtt ttactgctg ggacactgct ggacaagaga aatttggtgg ccttagggat	240

047-E2F-PCT.ST25.txt

ggatactaca tccatggtca atgtgctata ataatgtttg acgtcacagc acggctcaca 300  
tacaagaatg ttccgacatg gcaccgtgat ctctgcaggg tgtgtgaaaa catcccgatt 360  
gttctgtgtg ggaacaaagt tgatgtgaag aacaggcaag tgaaggcaaa gcagggttaca 420  
ttccacagga agaagaatct gcagtactat gagatatcag caaagagcaa ctacaacttt 480  
gagaagcctt tcttgtacct tgctagaaaa ctggctggag accaaaacct tcactttgtg 540  
gagacaccag cgcttgctcc accagaggtt cacattgaca ttgctgatca gcagaagaac 600  
gaggccgagc tcttacaggc tgcagctcaa cccctccccg atgacgatga tgatatcttt 660  
gagtaa 666

<210> 460

<211> 221

<212> PRT

<213> Arabidopsis thaliana

<400> 460

Met Ala Leu Pro Asn Gln Gln Thr Val Asp Tyr Pro Ser Phe Lys Leu  
1 5 10 15

Val Ile Val Gly Asp Gly Gly Thr Gly Lys Thr Thr Phe Val Lys Arg  
20 25 30

His Leu Thr Gly Glu Phe Glu Lys Lys Tyr Glu Pro Thr Ile Gly Val  
35 40 45

Glu Val His Pro Leu Asp Phe Phe Thr Asn Cys Gly Lys Ile Arg Phe  
50 55 60

Tyr Cys Trp Asp Thr Ala Gly Gln Glu Lys Phe Gly Gly Leu Arg Asp  
65 70 75 80

Gly Tyr Tyr Ile His Gly Gln Cys Ala Ile Ile Met Phe Asp Val Thr  
85 90 95

Ala Arg Leu Thr Tyr Lys Asn Val Pro Thr Trp His Arg Asp Leu Cys  
100 105 110

Arg Val Cys Glu Asn Ile Pro Ile Val Leu Cys Gly Asn Lys Val Asp  
115 120 125

Val Lys Asn Arg Gln Val Lys Ala Lys Gln Val Thr Phe His Arg Lys  
130 135 140

Lys Asn Leu Gln Tyr Tyr Glu Ile Ser Ala Lys Ser Asn Tyr Asn Phe  
145 150 155 160

Glu Lys Pro Phe Leu Tyr Leu Ala Arg Lys Leu Ala Gly Asp Gln Asn  
165 170 175

Leu His Phe Val Glu Thr Pro Ala Leu Ala Pro Pro Glu Val His Ile  
180 185 190

Asp Ile Ala Asp Gln Gln Lys Asn Glu Ala Glu Leu Leu Gln Ala Ala  
195 200 205

Ala Gln Pro Leu Pro Asp Asp Asp Asp Ile Phe Glu  
210 215 220

<210> 461

<211> 1053

<212> DNA

<213> Arabidopsis thaliana

<400> 461

atggctcttc ggctaccagc ttctaaagca gctgaagttg cgattggatc tattggctgt	60
ggttatgatc tagctattga tttacggttg aagtattgca aaggagggttc caaagattct	120
agattacttg acattaaaga aggtgatgat aattgtgaga ttgttttacc tgggtggaatc	180
tccattccta atgtttccaa gtctatcaaa tgcgataaag gggagcgtat gcggtttagg	240
tccgatattc ttcctttcca acagatggca gagcagttca accaggaact atctttggct	300
gggaaaatcc cgtcagggtct cttcaatgcc atgtttgaat tctcgagctg ttggcagaaa	360
gacgcagcct acaccaaaaa ctttgctttt gatgggggttt tcatctcatt atactcggtg	420
gcttttgaca aatctcaagt gttactccgt gagcatgtta agcaggctgt tccatcaaca	480
tgggaccctg ctgcattggc aagggtttata gatatttatg ggacgcatat aattgttagt	540
gttaagatgg gagggaaaaga tgtgatttat gcaaaacaac aacactcctc aaaacttcag	600
cctgaggatc tgcagaaaag gttaaaagag gtggcagata agaggttcgt ggaagctagc	660
gtagtgcata atacgggttc agaaagagta caagcaagta gtaagggtgga aacaaaggag	720
caacgcctga gatttgcaga taccagttct ttgggctctt atgcaaataa ggaggactat	780
gtcttcatgt gcaagaggcg aggtggaaac gataacagaa atctaataca taatgaatgg	840
ctgcaaacag ttcagatgga gcctgatgtt atctccatgt cttttattcc aattacgtct	900

ttgcttaatg gagttccagg aagtggattc ttaagccatg ccataaatct gtatctaaga 960  
 tgtaagccta taaatcattt gcgctttgtg ctttctttc tggagttatt cttcatacta 1020  
 gtggtttctt ttaccttttag attagaagtt tga 1053

<210> 462

<211> 350

<212> PRT

<213> Arabidopsis thaliana

<400> 462

Met Ala Leu Arg Leu Pro Ala Ser Lys Ala Ala Glu Val Ala Ile Gly  
 1 5 10 15  
 Ser Ile Gly Cys Gly Tyr Asp Leu Ala Ile Asp Leu Arg Leu Lys Tyr  
 20 25 30  
 Cys Lys Gly Gly Ser Lys Asp Ser Arg Leu Leu Asp Ile Lys Glu Gly  
 35 40 45  
 Asp Asp Asn Cys Glu Ile Val Leu Pro Gly Gly Ile Ser Ile Pro Asn  
 50 55 60  
 Val Ser Lys Ser Ile Lys Cys Asp Lys Gly Glu Arg Met Arg Phe Arg  
 65 70 75 80  
 Ser Asp Ile Leu Pro Phe Gln Gln Met Ala Glu Gln Phe Asn Gln Glu  
 85 90 95  
 Leu Ser Leu Ala Gly Lys Ile Pro Ser Gly Leu Phe Asn Ala Met Phe  
 100 105 110  
 Glu Phe Ser Ser Cys Trp Gln Lys Asp Ala Ala Tyr Thr Lys Asn Leu  
 115 120 125  
 Ala Phe Asp Gly Val Phe Ile Ser Leu Tyr Ser Val Ala Leu Asp Lys  
 130 135 140  
 Ser Gln Val Leu Leu Arg Glu His Val Lys Gln Ala Val Pro Ser Thr  
 145 150 155 160  
 Trp Asp Pro Ala Ala Leu Ala Arg Phe Ile Asp Ile Tyr Gly Thr His  
 165 170 175

Ile Ile Val Ser Val Lys Met Gly Gly Lys Asp Val Ile Tyr Ala Lys  
 180 185 190

Gln Gln His Ser Ser Lys Leu Gln Pro Glu Asp Leu Gln Lys Arg Leu  
 195 200 205

Lys Glu Val Ala Asp Lys Arg Phe Val Glu Ala Ser Val Val His Asn  
 210 215 220

Thr Gly Ser Glu Arg Val Gln Ala Ser Ser Lys Val Glu Thr Lys Glu  
 225 230 235 240

Gln Arg Leu Arg Phe Ala Asp Thr Ser Ser Leu Gly Ser Tyr Ala Asn  
 245 250 255

Lys Glu Asp Tyr Val Phe Met Cys Lys Arg Arg Gly Gly Asn Asp Asn  
 260 265 270

Arg Asn Leu Met His Asn Glu Trp Leu Gln Thr Val Gln Met Glu Pro  
 275 280 285

Asp Val Ile Ser Met Ser Phe Ile Pro Ile Thr Ser Leu Leu Asn Gly  
 290 295 300

Val Pro Gly Ser Gly Phe Leu Ser His Ala Ile Asn Leu Tyr Leu Arg  
 305 310 315 320

Cys Lys Pro Ile Asn His Leu Arg Phe Val His Phe Phe Leu Glu Leu  
 325 330 335

Phe Phe Ile Leu Val Val Ser Phe Thr Phe Arg Leu Glu Val  
 340 345 350

<210> 463

<211> 489

<212> DNA

<213> Arabidopsis thaliana

<400> 463

atgaggaaga tcatagggtt tagaatcggg agacgagtct caagatggat ctttcgcaaa 60

accggtatcc aacgttcagg atacaaccgg atacactcga cccagcaagc ttgcatgctg 120

atgagaccat tagccaaact caaaagttgg ggccaacgtc tcaagcaaag tttcagacgc 180

aggtctacga gaagatccgc atacataccc gttgatcata agaaagccga cccggttcca 240

047-E2F-PCT.ST25.txt

aggggacact tagctatcta cgtgggtcaa aaagacggcg actgtcatag agtttttgta 300  
 cccatcgttt actttaacca tcctttgttc ggtgagctgc ttcgagaagc cgaaaaagag 360  
 tacggatttt gccacgaagg aggtatcact attccttgtc tgtattcaga tttcgaacgg 420  
 gtcaagaccc ggatcgcacg ggggtcaagt tctcgggtat ttccatgggg ccgtcattgc 480  
 cgcaattga 489

<210> 464

<211> 162

<212> PRT

<213> Arabidopsis thaliana

<400> 464

Met Arg Lys Ile Ile Gly Phe Arg Ile Gly Arg Arg Val Ser Arg Trp  
 1 5 10 15

Ile Phe Arg Lys Thr Arg Ile Gln Arg Ser Gly Tyr Asn Arg Ile His  
 20 25 30

Ser Thr Gln Gln Ala Cys Met Leu Met Arg Pro Leu Ala Lys Leu Lys  
 35 40 45

Ser Trp Gly Gln Arg Leu Lys Gln Ser Phe Arg Arg Arg Ser Thr Arg  
 50 55 60

Arg Ser Ala Tyr Ile Pro Val Asp His Lys Lys Ala Asp Pro Val Pro  
 65 70 75 80

Arg Gly His Leu Ala Ile Tyr Val Gly Gln Lys Asp Gly Asp Cys His  
 85 90 95

Arg Val Leu Val Pro Ile Val Tyr Phe Asn His Pro Leu Phe Gly Glu  
 100 105 110

Leu Leu Arg Glu Ala Glu Lys Glu Tyr Gly Phe Cys His Glu Gly Gly  
 115 120 125

Ile Thr Ile Pro Cys Leu Tyr Ser Asp Phe Glu Arg Val Lys Thr Arg  
 130 135 140

Ile Ala Ser Gly Ser Ser Ser Arg Val Phe Pro Trp Gly Arg His Cys  
 145 150 155 160



Arg Asn

&lt;210&gt; 465

&lt;211&gt; 1473

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 465

```

atgtctctct cttccctcac tctcgactcc aatccaagat tcgctgttgg tggaccttat    60
caccgccggt atcctcctct tcaccaccct cgaagcttcg tctcttgctc tgctaaacgt    120
ccagctgtct ccgcttcact gagcgtcgcc gctgattcag ccgccactga gtctcttgga    180
cggattggat cactgagtca agtatctggt gtactcgggt gccaatgggg agatgaagggt    240
aaaggcaaac tcgttgacat cttagcccaa cactttgaca tcgttgctcg ttgtcagggt    300
ggagctaata ctggacacac tatatacaat tcagagggaa agaaatttgc acttcacctt    360
gtgccttcag gtatcctgaa tgaggatact acttggtgtc ttggaaacgg agttgtggtg    420
catttgccag gtctcttcaa agagattgat ggtttggagt ccaatggtgt ctctgtaaa    480
ggaaggattt tggctctctga tcgcgctcac ttgttattcg atttccatca agaggttgat    540
gggctcaggg aatctgagct tgccaagtcg ttcattggca ccaccaagag ggggaattggt    600
cctgcctact ctagtaaaagt gataaggaat ggtattagag taggtgatct caggcacatg    660
gatactttac ctcaaaagct tgacctttta ctatcagatg cagcggcaag gtttcaaggg    720
ttcaagtata ctctgaaat gcttcgggaa gaagttgaag catacaagag atacgctgac    780
agattggagc cctacattac tgacactgtc catttcatca atgactcgat ttcgcagaag    840
aaaaaggttt tggctgaagg tggtaagct acaatgttgg acattgactt tgggacttat    900
ccttttgtaa cttcctccag cccctcagcc ggtgggatct gcacaggctt tgggtattgca    960
ccaagtgttg ttggtgatct aattggagtg gtaaaagcat acactacaag agttggttca   1020
ggtccattcc cgacagaaaa tttgggcaca ggtggtgacc ttcttaggtt agctggacag   1080
gagtttggca ctacaactgg tcgtcctcgt cgggtgtggct ggcttgacat tgttgccctg   1140
aaattttctt gccaaatcaa tggatttgca tcacttaatc tactaagct tgatgtactt   1200
tcggatctga acgaaatcca gctgggtgtg gcttacaaga ggagtgcgg caccctgtt   1260
aaatcattcc ctggtgatct tcgtcttctc gaagaactgc atgtggagta tgaagtctta   1320
cctgggtgga agtctgacat atcctcggtc agaaactact ctgatcttcc aaaggctgct   1380
cagcaatatg ttgagaggat tgaagaactc gtgggtgtgc ccattcatta cattggtatt   1440

```

gggcccggtc gtgatgccct tatatataaa tga

1473

&lt;210&gt; 466

&lt;211&gt; 490

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 466

Met Ser Leu Ser Ser Leu Thr Leu Asp Ser Asn Pro Arg Phe Ala Val  
 1 5 10 15

Gly Gly Pro Tyr His Arg Arg Tyr Pro Pro Leu His His Pro Arg Ser  
 20 25 30

Phe Val Ser Cys Ser Ala Lys Arg Pro Ala Val Ser Ala Ser Leu Ser  
 35 40 45

Val Ala Ala Asp Ser Ala Ala Thr Glu Ser Leu Gly Arg Ile Gly Ser  
 50 55 60

Leu Ser Gln Val Ser Gly Val Leu Gly Cys Gln Trp Gly Asp Glu Gly  
 65 70 75 80

Lys Gly Lys Leu Val Asp Ile Leu Ala Gln His Phe Asp Ile Val Ala  
 85 90 95

Arg Cys Gln Gly Gly Ala Asn Ala Gly His Thr Ile Tyr Asn Ser Glu  
 100 105 110

Gly Lys Lys Phe Ala Leu His Leu Val Pro Ser Gly Ile Leu Asn Glu  
 115 120 125

Asp Thr Thr Cys Val Ile Gly Asn Gly Val Val Val His Leu Pro Gly  
 130 135 140

Leu Phe Lys Glu Ile Asp Gly Leu Glu Ser Asn Gly Val Ser Cys Lys  
 145 150 155 160

Gly Arg Ile Leu Val Ser Asp Arg Ala His Leu Leu Phe Asp Phe His  
 165 170 175

Gln Glu Val Asp Gly Leu Arg Glu Ser Glu Leu Ala Lys Ser Phe Ile  
 180 185 190

Gly Thr Thr Lys Arg Gly Ile Gly Pro Ala Tyr Ser Ser Lys Val Ile  
 195 200 205  
 Arg Asn Gly Ile Arg Val Gly Asp Leu Arg His Met Asp Thr Leu Pro  
 210 215 220  
 Gln Lys Leu Asp Leu Leu Leu Ser Asp Ala Ala Ala Arg Phe Gln Gly  
 225 230 235 240  
 Phe Lys Tyr Thr Pro Glu Met Leu Arg Glu Glu Val Glu Ala Tyr Lys  
 245 250 255  
 Arg Tyr Ala Asp Arg Leu Glu Pro Tyr Ile Thr Asp Thr Val His Phe  
 260 265 270  
 Ile Asn Asp Ser Ile Ser Gln Lys Lys Lys Val Leu Val Glu Gly Gly  
 275 280 285  
 Gln Ala Thr Met Leu Asp Ile Asp Phe Gly Thr Tyr Pro Phe Val Thr  
 290 295 300  
 Ser Ser Ser Pro Ser Ala Gly Gly Ile Cys Thr Gly Leu Gly Ile Ala  
 305 310 315 320  
 Pro Ser Val Val Gly Asp Leu Ile Gly Val Val Lys Ala Tyr Thr Thr  
 325 330 335  
 Arg Val Gly Ser Gly Pro Phe Pro Thr Glu Asn Leu Gly Thr Gly Gly  
 340 345 350  
 Asp Leu Leu Arg Leu Ala Gly Gln Glu Phe Gly Thr Thr Thr Gly Arg  
 355 360 365  
 Pro Arg Arg Cys Gly Trp Leu Asp Ile Val Ala Leu Lys Phe Ser Cys  
 370 375 380  
 Gln Ile Asn Gly Phe Ala Ser Leu Asn Leu Thr Lys Leu Asp Val Leu  
 385 390 395 400  
 Ser Asp Leu Asn Glu Ile Gln Leu Gly Val Ala Tyr Lys Arg Ser Asp  
 405 410 415  
 Gly Thr Pro Val Lys Ser Phe Pro Gly Asp Leu Arg Leu Leu Glu Glu  
 420 425 430  
 Leu His Val Glu Tyr Glu Val Leu Pro Gly Trp Lys Ser Asp Ile Ser  
 435 440 445

047-E2F-PCT.ST25.txt

Ser Val Arg Asn Tyr Ser Asp Leu Pro Lys Ala Ala Gln Gln Tyr Val  
450 455 460

Glu Arg Ile Glu Glu Leu Val Gly Val Pro Ile His Tyr Ile Gly Ile  
465 470 475 480

Gly Pro Gly Arg Asp Ala Leu Ile Tyr Lys  
485 490

<210> 467

<211> 993

<212> DNA

<213> Arabidopsis thaliana

<400> 467

atgtcgttga cggagctaga cgacggactg gttcgcagga tggccatggg cgcagtcttc	60
tctgattttg gagggaagat acattcgggtg ggtttccata ggactgatga tctattggtc	120
acatccagcg aagatgattc acttcgcctc ttcgatatcg ccaacgctaa acagctgaag	180
attacatacc ataagaaaca tggcaccgat cgtgtatgct ttacccatca tcctagctct	240
ctaatttgct cttctcgata caatttggag tccactgggtg aatccttgag atatctctca	300
atgtatgata atcggatcct acgctacttt aaagggcata aagacagggt tgtatcactt	360
tgtatgtctc ctataaatga tagcttcatg tctggttctc tcgaccgaag tgttagactc	420
tgggatcttc gtgtaaatgc ctgccaggga attctacatc tacgtggtag acctgcagtt	480
gcgtatgacc aacaaggcct tgtgtttgca attgcaatgg aaggagggtgc tgttaaatta	540
tttgattcca ggtgttatga caaggggtccc tttgacacat ttctggtggg tggggatact	600
gctgaggtta acgatataaa attcagcaac gatgggaaat ccatgctcct aacgactaca	660
aataacaata tctacgttct tgatgcatat cgtggagaga agaaatgtgg ttttagtttg	720
gagccttcac agggtaacac catagaggcc accttcacac cagatggcaa gtatgttctg	780
tcaggttcag gtgatggaac cttacatgcg tggaacatcg agaaccatc tgagggtggcg	840
aggtgggaga acaacatagg agtagtgtcg tgtctgaaat gggcaccacg tagagccatg	900
ttcgttgctg cttctacggt tctcacattc tggatcccaa acgacggtga atcaccagcc	960
cccgccgatc ctctaccga tcaacaacag tga	993

<210> 468

<211> 330

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 468

```

Met Ser Leu Thr Glu Leu Asp Asp Gly Leu Val Arg Arg Met Ala Met
1      5      10      15
Gly Ala Val Phe Ser Asp Phe Gly Gly Lys Ile His Ser Val Gly Phe
20      25      30
His Arg Thr Asp Asp Leu Leu Val Thr Ser Ser Glu Asp Asp Ser Leu
35      40      45
Arg Leu Phe Asp Ile Ala Asn Ala Lys Gln Leu Lys Ile Thr Tyr His
50      55      60
Lys Lys His Gly Thr Asp Arg Val Cys Phe Thr His His Pro Ser Ser
65      70      75      80
Leu Ile Cys Ser Ser Arg Tyr Asn Leu Glu Ser Thr Gly Glu Ser Leu
85      90      95
Arg Tyr Leu Ser Met Tyr Asp Asn Arg Ile Leu Arg Tyr Phe Lys Gly
100     105     110
His Lys Asp Arg Val Val Ser Leu Cys Met Ser Pro Ile Asn Asp Ser
115     120     125
Phe Met Ser Gly Ser Leu Asp Arg Ser Val Arg Leu Trp Asp Leu Arg
130     135     140
Val Asn Ala Cys Gln Gly Ile Leu His Leu Arg Gly Arg Pro Ala Val
145     150     155     160
Ala Tyr Asp Gln Gln Gly Leu Val Phe Ala Ile Ala Met Glu Gly Gly
165     170     175
Ala Val Lys Leu Phe Asp Ser Arg Cys Tyr Asp Lys Gly Pro Phe Asp
180     185     190
Thr Phe Leu Val Gly Gly Asp Thr Ala Glu Val Asn Asp Ile Lys Phe
195     200     205
Ser Asn Asp Gly Lys Ser Met Leu Leu Thr Thr Thr Asn Asn Asn Ile
210     215     220

```

047-E2F-PCT.ST25.txt

Tyr Val Leu Asp Ala Tyr Arg Gly Glu Lys Lys Cys Gly Phe Ser Leu  
 225 230 235 240

Glu Pro Ser Gln Gly Thr Pro Ile Glu Ala Thr Phe Thr Pro Asp Gly  
 245 250 255

Lys Tyr Val Leu Ser Gly Ser Gly Asp Gly Thr Leu His Ala Trp Asn  
 260 265 270

Ile Glu Asn Pro Ser Glu Val Ala Arg Trp Glu Asn Asn Ile Gly Val  
 275 280 285

Val Ser Cys Leu Lys Trp Ala Pro Arg Arg Ala Met Phe Val Ala Ala  
 290 295 300

Ser Thr Val Leu Thr Phe Trp Ile Pro Asn Asp Gly Glu Ser Pro Ala  
 305 310 315 320

Pro Ala Asp Pro Pro Thr Asp Gln Gln Gln  
 325 330

<210> 469

<211> 1365

<212> DNA

<213> Arabidopsis thaliana

<400> 469

atggctgatac tcgatgttcc tcctcaagtt cctcaaagta aaactagaga ccttgacaag	60
cttctttctcc gtcattgggaa tctcgttgac cccggcttcg taccgggacc cggcctgagg	120
gatgacataa gggattatgt gagaatcttg gtgattggtg cgggtgggtt gggttgtgag	180
cttctcaagg atttagctct ttctggtttt cgtaatctcg aagtgattga tatggaccgt	240
attgaggtta ctaatctcaa tcgccagttc ctgttcagga ttgaagatgt aggaaagcct	300
aaggcagagg tagcagcaaa gcgtgtaatg gagagagtga gtggagtaga gattgtgccg	360
catttttcac gtatagaaga caaagagatt gagttttata acgattttta tatcattgct	420
cttggtcttg attctatcga agctcgcaaa tacatcaatg gggtagcttg tgggtttctt	480
gagtataatg aagatgatac tccgaaaaga gaaacgatca agccaatggt agatggggga	540
actgaagggt tcaagggtca tgctagagtt atcttgccctg gagttacacc ctgttttgag	600
tgcactatct atcttttccc acctcaagtg aagtttccgt tgtgcactct tgcagaaacc	660
cctaggaatg cagctcattg cattgaatat gctcatctta ttcagtggga aacggttcac	720

047-E2F-PCT.ST25.txt

cgtgggaaaa cctttgatcc tgatgaacca gaacatatga agtgggttta tgatgaggct 780  
 atcaggagag ctgagctttt tggaattcca ggtgtcacat actctctcac acaagggtgtg 840  
 gttaaaaaaca taataccggc gattgcttcc accaatgcga taatatctgc agcttgtgca 900  
 cttgaaacct tgaagattgt gtctgcatgc agcaaaacac ttgtaaatta tttgacgtat 960  
 aacggtggag aggggtcttta cactgaagtg acaaagttcg agaggggacac cgaatgtctt 1020  
 gtatgtggtc cgggcattct gattgagctg gacacctcag tcactttatc aaagttcatt 1080  
 gagatgcttg aagatcaccg gaagcttcta ttgtcaaaag caagtgttaa acagggggaa 1140  
 aacactctct acatgcaggc acctccgggt ctagaagagt ttcacagacc aaagctaagc 1200  
 aagccgcttt atgacctcat gggaagagtc cagaaggaca ctatccacgt gtttggacaa 1260  
 agagccctca agaacaatga gaaagagtcg tgcacaacga aggtaagagt tgtattcaaa 1320  
 ggagccgatg gtgttgcaga catggataca gccattggag catga 1365

<210> 470

<211> 454

<212> PRT

<213> Arabidopsis thaliana

<400> 470

Met Ala Asp Leu Asp Val Pro Pro Gln Val Pro Gln Ser Lys Thr Arg  
1 5 10 15

Asp Leu Asp Lys Leu Leu Leu Arg His Gly Asn Leu Val Asp Pro Gly  
20 25 30

Phe Val Pro Gly Pro Gly Leu Arg Asp Asp Ile Arg Asp Tyr Val Arg  
35 40 45

Ile Leu Val Ile Gly Ala Gly Gly Leu Gly Cys Glu Leu Leu Lys Asp  
50 55 60

Leu Ala Leu Ser Gly Phe Arg Asn Leu Glu Val Ile Asp Met Asp Arg  
65 70 75 80

Ile Glu Val Thr Asn Leu Asn Arg Gln Phe Leu Phe Arg Ile Glu Asp  
85 90 95

Val Gly Lys Pro Lys Ala Glu Val Ala Ala Lys Arg Val Met Glu Arg  
100 105 110

047-E2F-PCT.ST25.txt

Val Ser Gly Val Glu Ile Val Pro His Phe Ser Arg Ile Glu Asp Lys  
115 120 125

Glu Ile Glu Phe Tyr Asn Asp Phe Asn Ile Ile Ala Leu Gly Leu Asp  
130 135 140

Ser Ile Glu Ala Arg Lys Tyr Ile Asn Gly Val Ala Cys Gly Phe Leu  
145 150 155 160

Glu Tyr Asn Glu Asp Asp Thr Pro Lys Arg Glu Thr Ile Lys Pro Met  
165 170 175

Val Asp Gly Gly Thr Glu Gly Phe Lys Gly His Ala Arg Val Ile Leu  
180 185 190

Pro Gly Val Thr Pro Cys Phe Glu Cys Thr Ile Tyr Leu Phe Pro Pro  
195 200 205

Gln Val Lys Phe Pro Leu Cys Thr Leu Ala Glu Thr Pro Arg Asn Ala  
210 215 220

Ala His Cys Ile Glu Tyr Ala His Leu Ile Gln Trp Glu Thr Val His  
225 230 235 240

Arg Gly Lys Thr Phe Asp Pro Asp Glu Pro Glu His Met Lys Trp Val  
245 250 255

Tyr Asp Glu Ala Ile Arg Arg Ala Glu Leu Phe Gly Ile Pro Gly Val  
260 265 270

Thr Tyr Ser Leu Thr Gln Gly Val Val Lys Asn Ile Ile Pro Ala Ile  
275 280 285

Ala Ser Thr Asn Ala Ile Ile Ser Ala Ala Cys Ala Leu Glu Thr Leu  
290 295 300

Lys Ile Val Ser Ala Cys Ser Lys Thr Leu Val Asn Tyr Leu Thr Tyr  
305 310 315 320

Asn Gly Gly Glu Gly Leu Tyr Thr Glu Val Thr Lys Phe Glu Arg Asp  
325 330 335

Thr Glu Cys Leu Val Cys Gly Pro Gly Ile Leu Ile Glu Leu Asp Thr  
340 345 350

Ser Val Thr Leu Ser Lys Phe Ile Glu Met Leu Glu Asp His Pro Lys  
355 360 365



Leu Leu Leu Ser Lys Ala Ser Val Lys Gln Gly Glu Asn Thr Leu Tyr  
 370 375 380

Met Gln Ala Pro Pro Val Leu Glu Glu Phe His Arg Pro Lys Leu Ser  
 385 390 395 400

Lys Pro Leu Tyr Asp Leu Met Gly Arg Val Gln Lys Asp Thr Ile His  
 405 410 415

Val Phe Gly Gln Arg Ala Leu Lys Asn Asn Glu Lys Glu Ser Cys Thr  
 420 425 430

Thr Lys Val Arg Val Val Phe Lys Gly Ala Asp Gly Val Ala Asp Met  
 435 440 445

Asp Thr Ala Ile Gly Ala  
 450

<210> 471

<211> 1596

<212> DNA

<213> Arabidopsis thaliana

<400> 471

atggcgatga agaatctact gtccctagct cgccgatctc agaggcgttt attcctcact	60
caagccacac gatcttcttc ttcgttttca gctatcgatt cggtgccggc ttccgcatct	120
ccgacggctc tatctccacc gccgccgat cttatgccat acgaccacgc ggctgagatt	180
ataaaaaata agatcaagaa gctcgagaat cctgataaga ggttccttaa atacgcatct	240
ccacatccga tcctcgcttc ccacaatcac atcttgtcag ctccggagac tcgtgtcact	300
accttgccca atggtctacg agtcgctact gagtcaaadc tctcggctaa gaccgccacc	360
gttggagtct ggatcgacgc tggatctcgg tttgagtcg atgagaccaa cggaacggct	420
catttttttg agcatatgat attcaaaggc acggataggc gtacagtgag agcgttggag	480
gaagagatcg aagatattgg tggtcacctg aacgcgtata catcgaggga acagaccact	540
tattatgcta aggttttggg ttccaatgtg aaccaggctt tggatgtctt ggctgatatc	600
ctacagaatt ctaagttcga ggaacagaga attaaccgcg aacgagatgt catcctcagg	660
gaaatgcaag aggtggaggg acaaaccgat gaagtgggtc ttgaccattt acatgccact	720
gcattccaat acacaccct tggaagaact attttgggac ctgctcagaa cgtcaaactc	780

```

atcaccagag aggatctaca gaactacatt aagactcact acactgcttc caggatggtg      840
attgctgctg caggagctgt taagcatgag gaagttgttg agcaagtgaa gaagctatatt      900
accaagttgt cgtctgatcc aacaactact tctcaactgg ttgccaatga acctgctagt      960
tttactgggt ctgaggtccg aatgattgat gacgacctac cccttgacaca atttgctggt    1020
gcctttgagg gagcatcttg gactgatcca gattccgttg ctcttatggt tatgcaaact    1080
atgttggggt cgtggaacaa aaatgttggt ggtggaaaac acgtggggttc tgacctgacc    1140
cagagggttg ccattaatga aatagcagaa agcataatgg cattcaacac taactacaag    1200
gatactggac tgttcggcgt ttatgcagtt gccaaaggccg attgcttgga tgatttatca    1260
tatgccatta tgtatgaggt aaccaagctg gcctaccgag tttcagacgc tgatgtgaca    1320
cgtgcacgaa atcagctgaa atcatcattg ttacttcaca tggatggaac cagcccaatt    1380
gctgaagata ttggtcgtca gctgctgacc tatgggcgta gaatcccaac cgctgaactc    1440
tttgctagga tcgatgctgt tgatgccagc acggtaaaac gtgttgccaa caaatatatc    1500
tatgacaaag acattgcaat ctcagctatt ggtccaatcc aagatttgcc agactacaac    1560
aaattcagac gcagaaccta ctggaaccgg tactaa                                1596

```

&lt;210&gt; 472

&lt;211&gt; 531

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 472

```

Met Ala Met Lys Asn Leu Leu Ser Leu Ala Arg Arg Ser Gln Arg Arg
1      5      10      15

```

```

Leu Phe Leu Thr Gln Ala Thr Arg Ser Ser Ser Ser Phe Ser Ala Ile
      20      25      30

```

```

Asp Ser Val Pro Ala Ser Ala Ser Pro Thr Ala Leu Ser Pro Pro Pro
      35      40      45

```

```

Pro His Leu Met Pro Tyr Asp His Ala Ala Glu Ile Ile Lys Asn Lys
      50      55      60

```

```

Ile Lys Lys Leu Glu Asn Pro Asp Lys Arg Phe Leu Lys Tyr Ala Ser
      65      70      75      80

```

```

Pro His Pro Ile Leu Ala Ser His Asn His Ile Leu Ser Ala Pro Glu
      85      90      95

```

047-E2F-PCT.ST25.txt

Thr Arg Val Thr Thr Leu Pro Asn Gly Leu Arg Val Ala Thr Glu Ser  
 100 105 110  
 Asn Leu Ser Ala Lys Thr Ala Thr Val Gly Val Trp Ile Asp Ala Gly  
 115 120 125  
 Ser Arg Phe Glu Ser Asp Glu Thr Asn Gly Thr Ala His Phe Leu Glu  
 130 135 140  
 His Met Ile Phe Lys Gly Thr Asp Arg Arg Thr Val Arg Ala Leu Glu  
 145 150 155 160  
 Glu Glu Ile Glu Asp Ile Gly Gly His Leu Asn Ala Tyr Thr Ser Arg  
 165 170 175  
 Glu Gln Thr Thr Tyr Tyr Ala Lys Val Leu Asp Ser Asn Val Asn Gln  
 180 185 190  
 Ala Leu Asp Val Leu Ala Asp Ile Leu Gln Asn Ser Lys Phe Glu Glu  
 195 200 205  
 Gln Arg Ile Asn Arg Glu Arg Asp Val Ile Leu Arg Glu Met Gln Glu  
 210 215 220  
 Val Glu Gly Gln Thr Asp Glu Val Val Leu Asp His Leu His Ala Thr  
 225 230 235 240  
 Ala Phe Gln Tyr Thr Pro Leu Gly Arg Thr Ile Leu Gly Pro Ala Gln  
 245 250 255  
 Asn Val Lys Ser Ile Thr Arg Glu Asp Leu Gln Asn Tyr Ile Lys Thr  
 260 265 270  
 His Tyr Thr Ala Ser Arg Met Val Ile Ala Ala Ala Gly Ala Val Lys  
 275 280 285  
 His Glu Glu Val Val Glu Gln Val Lys Lys Leu Phe Thr Lys Leu Ser  
 290 295 300  
 Ser Asp Pro Thr Thr Thr Ser Gln Leu Val Ala Asn Glu Pro Ala Ser  
 305 310 315 320  
 Phe Thr Gly Ser Glu Val Arg Met Ile Asp Asp Asp Leu Pro Leu Ala  
 325 330 335  
 Gln Phe Ala Val Ala Phe Glu Gly Ala Ser Trp Thr Asp Pro Asp Ser

340

345

350

Val Ala Leu Met Val Met Gln Thr Met Leu Gly Ser Trp Asn Lys Asn  
 355 360 365

Val Gly Gly Gly Lys His Val Gly Ser Asp Leu Thr Gln Arg Val Ala  
 370 375 380

Ile Asn Glu Ile Ala Glu Ser Ile Met Ala Phe Asn Thr Asn Tyr Lys  
 385 390 395 400

Asp Thr Gly Leu Phe Gly Val Tyr Ala Val Ala Lys Ala Asp Cys Leu  
 405 410 415

Asp Asp Leu Ser Tyr Ala Ile Met Tyr Glu Val Thr Lys Leu Ala Tyr  
 420 425 430

Arg Val Ser Asp Ala Asp Val Thr Arg Ala Arg Asn Gln Leu Lys Ser  
 435 440 445

Ser Leu Leu Leu His Met Asp Gly Thr Ser Pro Ile Ala Glu Asp Ile  
 450 455 460

Gly Arg Gln Leu Leu Thr Tyr Gly Arg Arg Ile Pro Thr Ala Glu Leu  
 465 470 475 480

Phe Ala Arg Ile Asp Ala Val Asp Ala Ser Thr Val Lys Arg Val Ala  
 485 490 495

Asn Lys Tyr Ile Tyr Asp Lys Asp Ile Ala Ile Ser Ala Ile Gly Pro  
 500 505 510

Ile Gln Asp Leu Pro Asp Tyr Asn Lys Phe Arg Arg Arg Thr Tyr Trp  
 515 520 525

Asn Arg Tyr  
 530

<210> 473

<211> 1275

<212> DNA

<213> Arabidopsis thaliana

<400> 473

atggcgactg ttccggagat aaagataatg agaagcgaga gcttaggtca tcggagtgac

60

047-E2F-PCT.ST25.txt

```

gtgtcgagcc cggaagctaa gctagggatg cgtgtggaag atctctggga tgagcagaaa 120
ccacagctca gtcctaacga gaagctcaac gcttgctttg agagcatccc tgtctctgct 180
ttccctctct cttctgattc acaagatatt gagataagat cagacacaag tttggctgaa 240
gctgttcaga cactatcgaa attcaagggtc ttgagcgcgc ctggtttaga tggtgatgcg 300
cctgaagatg ccagttggat tgatcgctac atcgggtattg tggaatttcc aggcattggt 360
gtctggcttt tgcatacagtt ggagccacca tctccaagga gccctgctgt tgcagcttca 420
aatggatttt ctcatgattt caccaccgat gttctggata acggagattc agcagtaact 480
tctggaaact tctttgaggt ccttacttct tcagagctat acaagaacac caagggtcga 540
gatattctct gaacattccg ctgggcaccg ttcctggctc tgcagaaaga gaactccttt 600
ttgaccatgc tgttacttct ttctaaatac aaaatgaaga gcatcccggg ggttgattta 660
ggtgtagcaa agatcgagaa cattatcaca caatcaggag ttatacatat gctggcagaa 720
tgcgcggggc ttctctgggt tgaggattgg ggaatcaaaa ctctctctga agtcggtctt 780
cccattatgt caaaggacca tatcataaag atctatgagg atgaaccagt tcttcaggca 840
ttcaagctga tgaggagaaa gagaatcggg ggcatacctg tcattgaaag gaatagcgag 900
aagccagtag gcaacataag ccttagagat gttcaatttc tcctcactgc acctgagatc 960
taccatgact acaggtcaat cacaacgaag aacttcttag tatctgtag agagcatctt 1020
gagaagtgcg gggatacatc agctcctatc atgagtgggtg tgattgcttg cacgaagaac 1080
catacactaa aggaactgat cttgatgtta gacgcggaga agatccatag gatatatgtt 1140
gtggatgatt ttggtaacct tgaaggactc atcactctta gagacatcat tgcaagactt 1200
gtccatgagc catccggcta ttttggagat ttctttgatg gtgttatgcc tcttcccgaa 1260
aactaccgag tctga 1275

```

<210> 474

<211> 424

<212> PRT

<213> Arabidopsis thaliana

<400> 474

Met Ala Thr Val Pro Glu Ile Lys Ile Met Arg Ser Glu Ser Leu Gly  
1 5 10 15

His Arg Ser Asp Val Ser Ser Pro Glu Ala Lys Leu Gly Met Arg Val  
20 25 30

047-E2F-PCT.ST25.txt

Glu Asp Leu Trp Asp Glu Gln Lys Pro Gln Leu Ser Pro Asn Glu Lys  
 35 40 45  
 Leu Asn Ala Cys Phe Glu Ser Ile Pro Val Ser Ala Phe Pro Leu Ser  
 50 55 60  
 Ser Asp Ser Gln Asp Ile Glu Ile Arg Ser Asp Thr Ser Leu Ala Glu  
 65 70 75 80  
 Ala Val Gln Thr Leu Ser Lys Phe Lys Val Leu Ser Ala Pro Val Val  
 85 90 95  
 Asp Val Asp Ala Pro Glu Asp Ala Ser Trp Ile Asp Arg Tyr Ile Gly  
 100 105 110  
 Ile Val Glu Phe Pro Gly Ile Val Val Trp Leu Leu His Gln Leu Glu  
 115 120 125  
 Pro Pro Ser Pro Arg Ser Pro Ala Val Ala Ala Ser Asn Gly Phe Ser  
 130 135 140  
 His Asp Phe Thr Thr Asp Val Leu Asp Asn Gly Asp Ser Ala Val Thr  
 145 150 155 160  
 Ser Gly Asn Phe Phe Glu Val Leu Thr Ser Ser Glu Leu Tyr Lys Asn  
 165 170 175  
 Thr Lys Val Arg Asp Ile Ser Gly Thr Phe Arg Trp Ala Pro Phe Leu  
 180 185 190  
 Ala Leu Gln Lys Glu Asn Ser Phe Leu Thr Met Leu Leu Leu Ser  
 195 200 205  
 Lys Tyr Lys Met Lys Ser Ile Pro Val Val Asp Leu Gly Val Ala Lys  
 210 215 220  
 Ile Glu Asn Ile Ile Thr Gln Ser Gly Val Ile His Met Leu Ala Glu  
 225 230 235 240  
 Cys Ala Gly Leu Leu Trp Phe Glu Asp Trp Gly Ile Lys Thr Leu Ser  
 245 250 255  
 Glu Val Gly Leu Pro Ile Met Ser Lys Asp His Ile Ile Lys Ile Tyr  
 260 265 270  
 Glu Asp Glu Pro Val Leu Gln Ala Phe Lys Leu Met Arg Arg Lys Arg  
 275 280 285

047-E2F-PCT.ST25.txt

Ile Gly Gly Ile Pro Val Ile Glu Arg Asn Ser Glu Lys Pro Val Gly  
 290 295 300  
 Asn Ile Ser Leu Arg Asp Val Gln Phe Leu Leu Thr Ala Pro Glu Ile  
 305 310 315 320  
 Tyr His Asp Tyr Arg Ser Ile Thr Thr Lys Asn Phe Leu Val Ser Val  
 325 330 335  
 Arg Glu His Leu Glu Lys Cys Gly Asp Thr Ser Ala Pro Ile Met Ser  
 340 345 350  
 Gly Val Ile Ala Cys Thr Lys Asn His Thr Leu Lys Glu Leu Ile Leu  
 355 360 365  
 Met Leu Asp Ala Glu Lys Ile His Arg Ile Tyr Val Val Asp Asp Phe  
 370 375 380  
 Gly Asn Leu Glu Gly Leu Ile Thr Leu Arg Asp Ile Ile Ala Arg Leu  
 385 390 395 400  
 Val His Glu Pro Ser Gly Tyr Phe Gly Asp Phe Phe Asp Gly Val Met  
 405 410 415  
 Pro Leu Pro Glu Asn Tyr Arg Val  
 420

<210> 475

<211> 1086

<212> DNA

<213> Arabidopsis thaliana

<400> 475

atggactctt taacactctt cttcaccggt gcactcgtcg ccgtcgggtat ctactgggttc	60
ctctgcgttc tcggtccagc agagcgtaaa ggcaaacgag ccgtagatct ctctggtggc	120
tcaatctccg ccgagaaagt ccaagacaac tacaaacagt actggtcttt cttccgccgt	180
ccaaaagaaa tcgaaaccgc cgagaaagtt ccagacttcg tcgacacatt ctacaatctc	240
gtcaccgaca tatacgagtg gggatgggga caatccttcc acttctcacc atcaatcccc	300
ggaaaatctc acaaagacgc cacgcgcctc cacgaagaga tggccgtaga tctgatccaa	360
gtcaaacctg gtcaaaagat cctagacgtc ggatgcggtg tcggcggtcc gatgagagcg	420

047-E2F-PCT.ST25.txt

attgcatctc actcgcgagc taacgtagtc gggattacaa taaacgagta tcaggtgaac 480  
agagctcgtc tccacaataa gaaagctggc ctcgacgcgc tttgcgaggt cgtgtgtggt 540  
aacttcctcc agatgccgtt cgatgacaac agtttcgacg gtgcttattc catcgaagcc 600  
acgtgtcacg cgccgaagct ggaagaagtg tacgcagaga tctacagggt gttgaaaccc 660  
ggatctatgt atgtgtcgta cgagtggggt acgacggaga aatttaaggc ggaggatgac 720  
gaacacgtgg aggtaatcca agggattgag agaggcgatg cgttaccagg gcttagggct 780  
tacgtggata tagctgagac ggctaaaaag gttgggtttg agatagttaa ggagaaggat 840  
ctggcgagtc caccggctga gccgtggtgg actaggctta agatgggtag gcttgcttat 900  
tgagggaatc acattgtggt tcagattttg tcagcgggtg gagttgctcc taaaggaact 960  
gttgatgttc atgagatgtt gtttaagact gctgattatt tgaccagagg aggtgaaacc 1020  
ggaatattct ctccgatgca tatgattctc tgcagaaaac cggagtcacc ggaggagagt 1080  
tcttga 1086

<210> 476

<211> 361

<212> PRT

<213> Arabidopsis thaliana

<400> 476

Met Asp Ser Leu Thr Leu Phe Phe Thr Gly Ala Leu Val Ala Val Gly  
1 5 10 15

Ile Tyr Trp Phe Leu Cys Val Leu Gly Pro Ala Glu Arg Lys Gly Lys  
20 25 30

Arg Ala Val Asp Leu Ser Gly Gly Ser Ile Ser Ala Glu Lys Val Gln  
35 40 45

Asp Asn Tyr Lys Gln Tyr Trp Ser Phe Phe Arg Arg Pro Lys Glu Ile  
50 55 60

Glu Thr Ala Glu Lys Val Pro Asp Phe Val Asp Thr Phe Tyr Asn Leu  
65 70 75 80

Val Thr Asp Ile Tyr Glu Trp Gly Trp Gly Gln Ser Phe His Phe Ser  
85 90 95

Pro Ser Ile Pro Gly Lys Ser His Lys Asp Ala Thr Arg Leu His Glu  
100 105 110



047-E2F-PCT.ST25.txt

Glu Met Ala Val Asp Leu Ile Gln Val Lys Pro Gly Gln Lys Ile Leu  
 115 120 125  
 Asp Val Gly Cys Gly Val Gly Gly Pro Met Arg Ala Ile Ala Ser His  
 130 135 140  
 Ser Arg Ala Asn Val Val Gly Ile Thr Ile Asn Glu Tyr Gln Val Asn  
 145 150 155 160  
 Arg Ala Arg Leu His Asn Lys Lys Ala Gly Leu Asp Ala Leu Cys Glu  
 165 170 175  
 Val Val Cys Gly Asn Phe Leu Gln Met Pro Phe Asp Asp Asn Ser Phe  
 180 185 190  
 Asp Gly Ala Tyr Ser Ile Glu Ala Thr Cys His Ala Pro Lys Leu Glu  
 195 200 205  
 Glu Val Tyr Ala Glu Ile Tyr Arg Val Leu Lys Pro Gly Ser Met Tyr  
 210 215 220  
 Val Ser Tyr Glu Trp Val Thr Thr Glu Lys Phe Lys Ala Glu Asp Asp  
 225 230 235 240  
 Glu His Val Glu Val Ile Gln Gly Ile Glu Arg Gly Asp Ala Leu Pro  
 245 250 255  
 Gly Leu Arg Ala Tyr Val Asp Ile Ala Glu Thr Ala Lys Lys Val Gly  
 260 265 270  
 Phe Glu Ile Val Lys Glu Lys Asp Leu Ala Ser Pro Pro Ala Glu Pro  
 275 280 285  
 Trp Trp Thr Arg Leu Lys Met Gly Arg Leu Ala Tyr Trp Arg Asn His  
 290 295 300  
 Ile Val Val Gln Ile Leu Ser Ala Val Gly Val Ala Pro Lys Gly Thr  
 305 310 315 320  
 Val Asp Val His Glu Met Leu Phe Lys Thr Ala Asp Tyr Leu Thr Arg  
 325 330 335  
 Gly Gly Glu Thr Gly Ile Phe Ser Pro Met His Met Ile Leu Cys Arg  
 340 345 350  
 Lys Pro Glu Ser Pro Glu Glu Ser Ser

355

360

&lt;210&gt; 477

&lt;211&gt; 933

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 477

```

atggctagta acaaccctca cgacaacctt tctgaccaa ctccttctga tgatttcttc      60
gagcaaattc tcggccttcc taacttctca gcctcttctg ccgccggttt atctggagtt      120
gacggaggat taggtggtgg agcaccgcct atgatgctgc agttgggttc cggagaagaa      180
ggaagtcaca tgggtggctt aggaggaagt ggaccaactg ggtttcacaa tcagatgttt      240
cctttggggg taagtcttga tcaagggaaa ggacctgggt ttcttagacc tgaaggagga      300
catggaagtg ggaaaagatt ctcagatgat gttgttgata atcgatgttc ttctatgaaa      360
cctgttttcc acgggcagcc tatgcaacag ccacctccat cggccccaca tcagcctact      420
tcaatccgtc ccagggttcg agctaggcgt ggtcaggcta ctgatccaca tagcatcgct      480
gagcggctac gtagagaaag aatagcagaa cggatcaggg cgctgcagga acttgtacct      540
actgtgaaca agaccgatag agctgctatg atcgatgaga ttgtcgatta tgtaaagttt      600
ctcaggctcc aagtcaaggt tttgagcatg agccgacttg gtggagccgg tgcggttgct      660
ccacttgtta ctgatatgcc tctttcatca tcagttgagg atgaaacggg tgagggtgga      720
aggactccgc aaccagcgtg ggagaaatgg tctaacgatg ggactgaacg tcaagtggct      780
aaactgatgg aagagaacgt tggagccgcg atgcagcttc ttcaatcaaa ggctctttgt      840
atgatgcaa tctcattggc aatggcaatt taccattctc aacctccgga tacatcttca      900
gtgggtcaagc ctgagaacaa tcctccacag tag                                933

```

&lt;210&gt; 478

&lt;211&gt; 310

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 478

```

Met Ala Ser Asn Asn Pro His Asp Asn Leu Ser Asp Gln Thr Pro Ser
1          5          10          15

```

Asp Asp Phe Phe Glu Gln Ile Leu Gly Leu Pro Asn Phe Ser Ala Ser  
 20 25 30  
 Ser Ala Ala Gly Leu Ser Gly Val Asp Gly Gly Leu Gly Gly Gly Ala  
 35 40 45  
 Pro Pro Met Met Leu Gln Leu Gly Ser Gly Glu Glu Gly Ser His Met  
 50 55 60  
 Gly Gly Leu Gly Gly Ser Gly Pro Thr Gly Phe His Asn Gln Met Phe  
 65 70 75 80  
 Pro Leu Gly Leu Ser Leu Asp Gln Gly Lys Gly Pro Gly Phe Leu Arg  
 85 90 95  
 Pro Glu Gly Gly His Gly Ser Gly Lys Arg Phe Ser Asp Asp Val Val  
 100 105 110  
 Asp Asn Arg Cys Ser Ser Met Lys Pro Val Phe His Gly Gln Pro Met  
 115 120 125  
 Gln Gln Pro Pro Pro Ser Ala Pro His Gln Pro Thr Ser Ile Arg Pro  
 130 135 140  
 Arg Val Arg Ala Arg Arg Gly Gln Ala Thr Asp Pro His Ser Ile Ala  
 145 150 155 160  
 Glu Arg Leu Arg Arg Glu Arg Ile Ala Glu Arg Ile Arg Ala Leu Gln  
 165 170 175  
 Glu Leu Val Pro Thr Val Asn Lys Thr Asp Arg Ala Ala Met Ile Asp  
 180 185 190  
 Glu Ile Val Asp Tyr Val Lys Phe Leu Arg Leu Gln Val Lys Val Leu  
 195 200 205  
 Ser Met Ser Arg Leu Gly Gly Ala Gly Ala Val Ala Pro Leu Val Thr  
 210 215 220  
 Asp Met Pro Leu Ser Ser Ser Val Glu Asp Glu Thr Gly Glu Gly Gly  
 225 230 235 240  
 Arg Thr Pro Gln Pro Ala Trp Glu Lys Trp Ser Asn Asp Gly Thr Glu  
 245 250 255  
 Arg Gln Val Ala Lys Leu Met Glu Glu Asn Val Gly Ala Ala Met Gln  
 260 265 270

047-E2F-PCT.ST25.txt

Leu Leu Gln Ser Lys Ala Leu Cys Met Met Pro Ile Ser Leu Ala Met  
275 280 285

Ala Ile Tyr His Ser Gln Pro Pro Asp Thr Ser Ser Val Val Lys Pro  
290 295 300

Glu Asn Asn Pro Pro Gln  
305 310

<210> 479

<211> 1701

<212> DNA

<213> Arabidopsis thaliana

<400> 479

atggcccctg ctctcgccgt tacacgagat ctcaccgccg tcggatctcc ggagaatgct	60
cctgcgaaag gacgtgcttc ggtttacagt gaagttcaat caagccgtat taacaacact	120
cttccttttg cttctgttct caaaggagct ttcaaaatcg tcgaagggtcc cgctagttcc	180
gccgccggga atccagatga gatagcgaag ttgtttccgg gtctatatgg ccagccatca	240
gtagcagtgg ttccagatca ggatgcacct tcgtcggcac cgaaattgaa gattggtggt	300
gttttgtctg gaggtcaggc acctggtggg cacaatgtta tttctggact gtttgattac	360
ctgcaagagc gtgcgaaagg tagcacatct tacgggttca aggggtggtcc agctggtatc	420
atgaaatgca aatatgttga gttgaatgct gaatatattc agccttacag aaaccagggt	480
ggttttgaca tgatctgcag tggaagagac aagattgaaa cacctgacca gtttaaacia	540
gctgaagaaa cagcaaagaa gcttgatttg gatgggttgg tggttatcgg tggagatgat	600
tccaacacca atgcttgccct tcttgctgaa aacttcagga gtaagaactt gaaaaccgga	660
gtcattgggt gccccaagac cattgatggt gatttgaaat gcaaagaggt tcctactagt	720
tttgggtttg atacagcttg caagatttac tctgaaatga tcggaaacgt catgattgat	780
gcaaggctga ctggaaagta ctatcatttt gtaagactta tgggtcgtgc tgcttcccac	840
attacgcttg agtgtgcttt acaaaactcac ccaaacataa ccattatttg agaagagggt	900
tctgcccaga agcagacttt gaagaatgtc acagactaca tgggtggatgt tatctgcaaa	960
cgtgctgaac ttggttacaa ctacggtgtc atactgattc cagaagggtc gatcgacttt	1020
attcctgagg tccaagagct cattgctgaa ctgaatgaaa ttctggcaaa tgagggtgtc	1080
gatgaaaatg gtttgtggaa gaagaagctc accgagcaat ccctgaagct gtttgatctt	1140
ctgcctgaag caattcagga acagctgatg cttgagagag acccacacgg aaatgtccag	1200

047-E2F-PCT.ST25.txt

gttgctaaga ttgagactga gaagatgctt attcaaattg ttgaaactga attggagaaa 1260  
 agaaagcaag ctggtgcata caagggacaa ttcatgggac agtcacattt cttcgggtat 1320  
 gaaggaagat gcggcttgcc cacaaatttt gatgccacat actgttatgc acttggttat 1380  
 ggcgctggag tactcctcaa cagtgggaag accggactaa tttcttcggt tgggaacttg 1440  
 gctgctcctg tggaagaatg gactgtaggt gggactgctc tcacagcctt gatggatgctc 1500  
 gagaggagac acggttaagtt caagcctgtg atcaagaaag caatggtgga acttgaaggt 1560  
 gcaccattta agaaattcgc atcactgcgt gaagaatggg cattgaagaa ccgatacatc 1620  
 agcccagggtc cgatccaatt cactggacct ggttcagact ctctcagcca cactctactt 1680  
 cttgaactcg gggctcaata g 1701

<210> 480

<211> 566

<212> PRT

<213> Arabidopsis thaliana

<400> 480

Met Ala Pro Ala Leu Ala Val Thr Arg Asp Leu Thr Ala Val Gly Ser  
 1 5 10 15

Pro Glu Asn Ala Pro Ala Lys Gly Arg Ala Ser Val Tyr Ser Glu Val  
 20 25 30

Gln Ser Ser Arg Ile Asn Asn Thr Leu Pro Leu Pro Ser Val Leu Lys  
 35 40 45

Gly Ala Phe Lys Ile Val Glu Gly Pro Ala Ser Ser Ala Ala Gly Asn  
 50 55 60

Pro Asp Glu Ile Ala Lys Leu Phe Pro Gly Leu Tyr Gly Gln Pro Ser  
 65 70 75 80

Val Ala Val Val Pro Asp Gln Asp Ala Pro Ser Ser Ala Pro Lys Leu  
 85 90 95

Lys Ile Gly Val Val Leu Ser Gly Gly Gln Ala Pro Gly Gly His Asn  
 100 105 110

Val Ile Ser Gly Leu Phe Asp Tyr Leu Gln Glu Arg Ala Lys Gly Ser  
 115 120 125

047-E2F-PCT.ST25.txt

Thr Phe Tyr Gly Phe Lys Gly Gly Pro Ala Gly Ile Met Lys Cys Lys  
 130 135 140  
 Tyr Val Glu Leu Asn Ala Glu Tyr Ile Gln Pro Tyr Arg Asn Gln Gly  
 145 150 155 160  
 Gly Phe Asp Met Ile Cys Ser Gly Arg Asp Lys Ile Glu Thr Pro Asp  
 165 170 175  
 Gln Phe Lys Gln Ala Glu Glu Thr Ala Lys Lys Leu Asp Leu Asp Gly  
 180 185 190  
 Leu Val Val Ile Gly Gly Asp Asp Ser Asn Thr Asn Ala Cys Leu Leu  
 195 200 205  
 Ala Glu Asn Phe Arg Ser Lys Asn Leu Lys Thr Arg Val Ile Gly Cys  
 210 215 220  
 Pro Lys Thr Ile Asp Gly Asp Leu Lys Cys Lys Glu Val Pro Thr Ser  
 225 230 235 240  
 Phe Gly Phe Asp Thr Ala Cys Lys Ile Tyr Ser Glu Met Ile Gly Asn  
 245 250 255  
 Val Met Ile Asp Ala Arg Ser Thr Gly Lys Tyr Tyr His Phe Val Arg  
 260 265 270  
 Leu Met Gly Arg Ala Ala Ser His Ile Thr Leu Glu Cys Ala Leu Gln  
 275 280 285  
 Thr His Pro Asn Ile Thr Ile Ile Gly Glu Glu Val Ser Ala Gln Lys  
 290 295 300  
 Gln Thr Leu Lys Asn Val Thr Asp Tyr Met Val Asp Val Ile Cys Lys  
 305 310 315 320  
 Arg Ala Glu Leu Gly Tyr Asn Tyr Gly Val Ile Leu Ile Pro Glu Gly  
 325 330 335  
 Leu Ile Asp Phe Ile Pro Glu Val Gln Glu Leu Ile Ala Glu Leu Asn  
 340 345 350  
 Glu Ile Leu Ala Asn Glu Val Val Asp Glu Asn Gly Leu Trp Lys Lys  
 355 360 365  
 Lys Leu Thr Glu Gln Ser Leu Lys Leu Phe Asp Leu Leu Pro Glu Ala  
 370 375 380

047-E2F-PCT.ST25.txt

Ile Gln Glu Gln Leu Met Leu Glu Arg Asp Pro His Gly Asn Val Gln  
385 390 395 400

Val Ala Lys Ile Glu Thr Glu Lys Met Leu Ile Gln Met Val Glu Thr  
405 410 415

Glu Leu Glu Lys Arg Lys Gln Ala Gly Ala Tyr Lys Gly Gln Phe Met  
420 425 430

Gly Gln Ser His Phe Phe Gly Tyr Glu Gly Arg Cys Gly Leu Pro Thr  
435 440 445

Asn Phe Asp Ala Thr Tyr Cys Tyr Ala Leu Gly Tyr Gly Ala Gly Val  
450 455 460

Leu Leu Asn Ser Gly Lys Thr Gly Leu Ile Ser Ser Val Gly Asn Leu  
465 470 475 480

Ala Ala Pro Val Glu Glu Trp Thr Val Gly Gly Thr Ala Leu Thr Ala  
485 490 495

Leu Met Asp Val Glu Arg Arg His Gly Lys Phe Lys Pro Val Ile Lys  
500 505 510

Lys Ala Met Val Glu Leu Glu Gly Ala Pro Phe Lys Lys Phe Ala Ser  
515 520 525

Leu Arg Glu Glu Trp Ala Leu Lys Asn Arg Tyr Ile Ser Pro Gly Pro  
530 535 540

Ile Gln Phe Thr Gly Pro Gly Ser Asp Ser Leu Ser His Thr Leu Leu  
545 550 555 560

Leu Glu Leu Gly Ala Gln  
565

<210> 481

<211> 3027

<212> DNA

<213> Arabidopsis thaliana

<400> 481

atgcgtgttc atcgtttttg tgtgatcgtc atcttcctca cagagttact atgtttcttc

60

tattcctcgg aatctcagac cacctccagg tgccatccac atgacctcga agccttacgt	120
gacttcatag cacatctcga accaaaacca gatggttgga tcaattcttc ttcttctaca	180
gactgctgca actggaccgg aatcacctgc aattcaaaca acaccggaag agttattaga	240
ttggagcttg ggaacaaaaa gctgtcgggg aagttgtctg aatctctcgg gaagctagat	300
gagattaggg ttcttaatat ctctcgaaac ttcatcaaag attcgatccc tctttcgatt	360
ttcaacttga agaattctaca aactcttgat ttgagctcta atgatctctc cggcggaaac	420
ccaacaagta taaatctccc agctctgcaa agttttgatc tttcttcaaa taaattcaat	480
gggtcgcctt cgtctcatat ctgccataac tctactcaaa ttagggttgt gaaacttgcg	540
gtgaactact tcgccggaac cttcacttcc gggtttgga aatgtgtctt gcttgagcat	600
ctctgtcttg gtatgaacga tcttactggt aacatccctg aggatttggt tcatctcaaa	660
agattgaatc ttttagggat tcaagagaat cgtctctctg gttcgttgag tcgtgagatt	720
aggaatctct caagtcttgt tcgtcttgat gtttcttgga atttgttttc cggtgaaatc	780
cctgatgtgt tcgacgaatt gcctcagtta aagtttttct taggtcagac caatggattc	840
attggaggaa tacctaaatc gttggcgaat tcaccgagtt tgaatctgct taacttgagg	900
aacaattctt tatcgggtcg tttgatgttg aattgtacgg cgatgattgc tttgaactct	960
cttgatttag gtaccaatag attcaatggg aggttacctg agaatctacc ggattgcaag	1020
cggttaaaga acgttaacct cgcgaggaaac accttccatg gacaagtacc agagagtttc	1080
aagaacttcg agagcttatc ttacttctcg ttatcgaatt cgagtttggc taatatctct	1140
tcagcgcttg ggatacttca gcattgcaag aacttgacga ctttggttct tacattgaat	1200
ttccatggag aggctttacc cgatgattca agtcttcatt tcgagaagct taagggtgctt	1260
gtagtggcga attgtaggct tactggttcg atgccgaggt ggttaagctc gagtaatgaa	1320
cttcagttgt tggatctttc ttggaaccgt ttaaccggcg ctatcccagag ctggattggt	1380
gacttcaagg ctctgttcta cttggattta tctaacaact cgtttacagg agagatccct	1440
aagagcttaa ctaagttaga gagtctcact agccgtaata tctcagtcaa tgagccatct	1500
cctgatttcc cgttctttat gaaaagaaac gagagcgcgga gagcgttgca atacaatcag	1560
attttcgggt tcccgcgaac gattgagctt ggtcataaca atctctctgg acctatttgg	1620
gaggagtttg gtaatctgaa gaagcttcat gtgtttgatt tgaaatggaa tgcattatct	1680
ggatcaatac ctagctcgct ttctggtatg acgagcttgg aagctcttga tctctcta	1740
aaccgtcttt cgggttcgat cccggtttct ctgcaacagc tctcgtttct gtcgaagt	1800
agtgttgctt ataacaatct ctctgggagta ataccttccg gtggtcagtt tcagacgttt	1860
ccaaactcga gctttgagag taaccatctc tgcggggaac acagattccc ctgttctgaa	1920
ggtactgaga gtgcattgat caaacggtca agaagaagca gaggaggtga cattggaatg	1980



047-E2F-PCT.ST25.txt

gcgattggga tagcgtttgg ttcggttttt cttttgactc ttctctcggt gattgtgttg 2040  
 cgtgctcgta gacggtcagg agaagttgat ccggagatag aagaatccga gagcatgaat 2100  
 cgtaaagaac tcggagagat tggatctaag cttgtggttt tgtttcagag caatgataaa 2160  
 gagctctctt atgatgacct tttggactca acaaatagtt ttgatcaagc taacatcatt 2220  
 ggctgtggcg ggttttgtat ggtttacaaa gcaacgttac cagacggtaa gaaagttgcg 2280  
 atcaagaagt tatccggtga ttgcggtcaa atcgaaagag aattcgaagc agaagttgaa 2340  
 acactctcaa gagcacagca tccaaatctt gttcttctcc gaggattctg tttctacaaa 2400  
 aacgaccggc ttttaattcta ctcgtatatg gaaaacggaa gcttagacta ttggctacac 2460  
 gagcgtaacg acggtccagc gttgttgaag tggaacacac gtcttagaat cgctcaaggt 2520  
 gctgcaaaag ggttacttta cttgcatgaa ggggtgtgat ctcatatctt acaccgcgat 2580  
 attaaatcga gtaatatctt tctcgacgag aatttcaact ctcatttagc ggatttcgga 2640  
 ctcgcaaggc tgatgagtc ttacgagacg catgtaagta ctgatttggt tggaacttta 2700  
 ggttacattc ctccggaata cgggcaagct tcggttgcta cttacaaagg cgatgtgtat 2760  
 agtttcggag ttgtgcttct cgagctttta accgataaaa gaccggtgga tatgtgtaaa 2820  
 ccgaaagggg taggggatct gatctcgtgg gtcgtcaaga tgaagcatga gagtcgagca 2880  
 agcgaggttt tcgatccgtt aatatacagt aaagagaatg ataaagagat gtttcgggtt 2940  
 ctcgagattg cttgtttatg ttttaagcgaa aaccgaaac agaggccaac gactcaacag 3000  
 ttagtctctt ggcttgatga tgtctag 3027

<210> 482

<211> 1008

<212> PRT

<213> Arabidopsis thaliana

<400> 482

Met Arg Val His Arg Phe Cys Val Ile Val Ile Phe Leu Thr Glu Leu  
 1 5 10 15

Leu Cys Phe Phe Tyr Ser Ser Glu Ser Gln Thr Thr Ser Arg Cys His  
 20 25 30

Pro His Asp Leu Glu Ala Leu Arg Asp Phe Ile Ala His Leu Glu Pro  
 35 40 45

Lys Pro Asp Gly Trp Ile Asn Ser Ser Ser Ser Thr Asp Cys Cys Asn  
 Page 747

50

55

Trp Thr Gly Ile Thr Cys Asn Ser Asn Asn Thr Gly Arg Val Ile Arg  
65 70 75 80

Leu Glu Leu Gly Asn Lys Lys Leu Ser Gly Lys Leu Ser Glu Ser Leu  
85 90 95

Gly Lys Leu Asp Glu Ile Arg Val Leu Asn Leu Ser Arg Asn Phe Ile  
100 105 110

Lys Asp Ser Ile Pro Leu Ser Ile Phe Asn Leu Lys Asn Leu Gln Thr  
115 120 125

Leu Asp Leu Ser Ser Asn Asp Leu Ser Gly Gly Ile Pro Thr Ser Ile  
130 135 140

Asn Leu Pro Ala Leu Gln Ser Phe Asp Leu Ser Ser Asn Lys Phe Asn  
145 150 155 160

Gly Ser Leu Pro Ser His Ile Cys His Asn Ser Thr Gln Ile Arg Val  
165 170 175

Val Lys Leu Ala Val Asn Tyr Phe Ala Gly Asn Phe Thr Ser Gly Phe  
180 185 190

Gly Lys Cys Val Leu Leu Glu His Leu Cys Leu Gly Met Asn Asp Leu  
195 200 205

Thr Gly Asn Ile Pro Glu Asp Leu Phe His Leu Lys Arg Leu Asn Leu  
210 215 220

Leu Gly Ile Gln Glu Asn Arg Leu Ser Gly Ser Leu Ser Arg Glu Ile  
225 230 235 240

Arg Asn Leu Ser Ser Leu Val Arg Leu Asp Val Ser Trp Asn Leu Phe  
245 250 255

Ser Gly Glu Ile Pro Asp Val Phe Asp Glu Leu Pro Gln Leu Lys Phe  
260 265 270

Phe Leu Gly Gln Thr Asn Gly Phe Ile Gly Gly Ile Pro Lys Ser Leu  
275 280 285

Ala Asn Ser Pro Ser Leu Asn Leu Leu Asn Leu Arg Asn Asn Ser Leu  
290 295 300

## 047-E2F-PCT.ST25.txt

Ser Gly Arg Leu Met Leu Asn Cys Thr Ala Met Ile Ala Leu Asn Ser  
 305 310 315 320  
 Leu Asp Leu Gly Thr Asn Arg Phe Asn Gly Arg Leu Pro Glu Asn Leu  
 325 330 335  
 Pro Asp Cys Lys Arg Leu Lys Asn Val Asn Leu Ala Arg Asn Thr Phe  
 340 345 350  
 His Gly Gln Val Pro Glu Ser Phe Lys Asn Phe Glu Ser Leu Ser Tyr  
 355 360 365  
 Phe Ser Leu Ser Asn Ser Ser Leu Ala Asn Ile Ser Ser Ala Leu Gly  
 370 375 380  
 Ile Leu Gln His Cys Lys Asn Leu Thr Thr Leu Val Leu Thr Leu Asn  
 385 390 395 400  
 Phe His Gly Glu Ala Leu Pro Asp Asp Ser Ser Leu His Phe Glu Lys  
 405 410 415  
 Leu Lys Val Leu Val Val Ala Asn Cys Arg Leu Thr Gly Ser Met Pro  
 420 425 430  
 Arg Trp Leu Ser Ser Ser Asn Glu Leu Gln Leu Leu Asp Leu Ser Trp  
 435 440 445  
 Asn Arg Leu Thr Gly Ala Ile Pro Ser Trp Ile Gly Asp Phe Lys Ala  
 450 455 460  
 Leu Phe Tyr Leu Asp Leu Ser Asn Asn Ser Phe Thr Gly Glu Ile Pro  
 465 470 475 480  
 Lys Ser Leu Thr Lys Leu Glu Ser Leu Thr Ser Arg Asn Ile Ser Val  
 485 490 495  
 Asn Glu Pro Ser Pro Asp Phe Pro Phe Phe Met Lys Arg Asn Glu Ser  
 500 505 510  
 Ala Arg Ala Leu Gln Tyr Asn Gln Ile Phe Gly Phe Pro Pro Thr Ile  
 515 520 525  
 Glu Leu Gly His Asn Asn Leu Ser Gly Pro Ile Trp Glu Glu Phe Gly  
 530 535 540  
 Asn Leu Lys Lys Leu His Val Phe Asp Leu Lys Trp Asn Ala Leu Ser  
 545 550 555 560

047-E2F-PCT.ST25.txt

Gly Ser Ile Pro Ser<sub>565</sub> Ser Leu Ser Gly Met<sub>570</sub> Thr Ser Leu Glu Ala<sub>575</sub> Leu  
 Asp Leu Ser Asn<sub>580</sub> Asn Arg Leu Ser Gly<sub>585</sub> Ser Ile Pro Val Ser<sub>590</sub> Leu Gln  
 Gln Leu Ser<sub>595</sub> Phe Leu Ser Lys Phe<sub>600</sub> Ser Val Ala Tyr Asn<sub>605</sub> Asn Leu Ser  
 Gly Val<sub>610</sub> Ile Pro Ser Gly Gly<sub>615</sub> Gln Phe Gln Thr Phe<sub>620</sub> Pro Asn Ser Ser  
 Phe<sub>625</sub> Glu Ser Asn His Leu<sub>630</sub> Cys Gly Glu His Arg<sub>635</sub> Phe Pro Cys Ser Glu<sub>640</sub>  
 Gly Thr Glu Ser Ala<sub>645</sub> Leu Ile Lys Arg Ser<sub>650</sub> Arg Arg Ser Arg Gly<sub>655</sub> Gly  
 Asp Ile Gly Met<sub>660</sub> Ala Ile Gly Ile Ala<sub>665</sub> Phe Gly Ser Val Phe<sub>670</sub> Leu Leu  
 Thr Leu Leu<sub>675</sub> Ser Leu Ile Val Leu<sub>680</sub> Arg Ala Arg Arg Arg<sub>685</sub> Ser Gly Glu  
 Val Asp<sub>690</sub> Pro Glu Ile Glu Glu<sub>695</sub> Ser Glu Ser Met Asn<sub>700</sub> Arg Lys Glu Leu  
 Gly Glu Ile Gly Ser Lys<sub>710</sub> Leu Val Val Leu Phe<sub>715</sub> Gln Ser Asn Asp Lys<sub>720</sub>  
 Glu Leu Ser Tyr Asp<sub>725</sub> Asp Leu Leu Asp Ser<sub>730</sub> Thr Asn Ser Phe Asp<sub>735</sub> Gln  
 Ala Asn Ile Ile<sub>740</sub> Gly Cys Gly Gly Phe<sub>745</sub> Gly Met Val Tyr Lys<sub>750</sub> Ala Thr  
 Leu Pro Asp<sub>755</sub> Gly Lys Lys Val Ala<sub>760</sub> Ile Lys Lys Leu Ser<sub>765</sub> Gly Asp Cys  
 Gly Gln Ile Glu Arg Glu Phe<sub>775</sub> Glu Ala Glu Val Glu<sub>780</sub> Thr Leu Ser Arg  
 Ala Gln His Pro Asn Leu<sub>790</sub> Val Leu Leu Arg Gly<sub>795</sub> Phe Cys Phe Tyr Lys<sub>800</sub>  
 Asn Asp Arg Leu Leu<sub>805</sub> Ile Tyr Ser Tyr Met<sub>810</sub> Glu Asn Gly Ser Leu<sub>815</sub> Asp

047-E2F-PCT.ST25.txt

Tyr Trp Leu His Glu Arg Asn Asp Gly Pro Ala Leu Leu Lys Trp Lys  
 820 825 830  
 Thr Arg Leu Arg Ile Ala Gln Gly Ala Ala Lys Gly Leu Leu Tyr Leu  
 835 840 845  
 His Glu Gly Cys Asp Pro His Ile Leu His Arg Asp Ile Lys Ser Ser  
 850 855 860  
 Asn Ile Leu Leu Asp Glu Asn Phe Asn Ser His Leu Ala Asp Phe Gly  
 865 870 875 880  
 Leu Ala Arg Leu Met Ser Pro Tyr Glu Thr His Val Ser Thr Asp Leu  
 885 890 895  
 Val Gly Thr Leu Gly Tyr Ile Pro Pro Glu Tyr Gly Gln Ala Ser Val  
 900 905 910  
 Ala Thr Tyr Lys Gly Asp Val Tyr Ser Phe Gly Val Val Leu Leu Glu  
 915 920 925  
 Leu Leu Thr Asp Lys Arg Pro Val Asp Met Cys Lys Pro Lys Gly Cys  
 930 935 940  
 Arg Asp Leu Ile Ser Trp Val Val Lys Met Lys His Glu Ser Arg Ala  
 945 950 955 960  
 Ser Glu Val Phe Asp Pro Leu Ile Tyr Ser Lys Glu Asn Asp Lys Glu  
 965 970 975  
 Met Phe Arg Val Leu Glu Ile Ala Cys Leu Cys Leu Ser Glu Asn Pro  
 980 985 990  
 Lys Gln Arg Pro Thr Thr Gln Gln Leu Val Ser Trp Leu Asp Asp Val  
 995 1000 1005

<210> 483

<211> 1011

<212> DNA

<213> Arabidopsis thaliana

<400> 483

atggcggaat ctgtcttctc ttgtatacca gaagacgtag tcttcaacat cttcttcaag

60

047-E2F-PCT.ST25.txt

```

ctccaagatg atccaagaaa ctgggctcgt ctcgcttgcg tctgcaccaa attctcctca 120
attgttcgaa acgtttgttg taaaactcag tgctactccg ctatccccac cgtcatctcc 180
gatctcctcc ctcttcctcc ctccgccgcc gcatccgctt cttcatccac cgcggcggat 240
tcgtctctta ctctcccgg tggttgggct tctttataca aactcgctgt ttgttgcct 300
ggctctctcc acgctggaat tctctcgaa aactccgatt tcggtttaga acgtgagcta 360
gggtcccgatc aaaacctcga tccgaaacct actacgacgg atctagctct taacgacgaa 420
gaagtttcga aaccagttgg atctggttta gaaacgactt cgttttgggtc tctatatgat 480
gatctctaca cagatactat tcccgctcct cctcccgaag attcaatcga cgatcaagaa 540
gaagaaatcg aaacgagtga gatcagacct ggacgagatc ttccggtaag gaaacgaagg 600
aagatttgct gatctctagg atctcattta gcttccgggtg gctggaacct tagccgtgaa 660
caaggcaaca agcttctcgc gagtagattc cgaggtgatt gtctctacat ttgcaattgg 720
cctgggtgta ttcacgtaga agagaaacga aattacatgt tgtttagagg agtcttcaag 780
gatttcaaaa ggtctagagt ttggagaacg ataaacgacg gtaatcggag taagacctcg 840
ggtttgaaat gcgcgttttg tttgtgcgat gagacttggg atttgcattc atcgttttgt 900
ttgagaagag tgtttgggtt tcatgatgat ggtgaaccag ttgtgagagc ttatgtttgt 960
gagaatggct atgtctctgg tgcttggact gctttacctc tctacacttg a 1011

```

<210> 484

<211> 336

<212> PRT

<213> Arabidopsis thaliana

<400> 484

```

Met Ala Glu Ser Val Phe Ser Cys Ile Pro Glu Asp Val Val Phe Asn
1          5          10          15

Ile Phe Phe Lys Leu Gln Asp Asp Pro Arg Asn Trp Ala Arg Leu Ala
          20          25          30

Cys Val Cys Thr Lys Phe Ser Ser Ile Val Arg Asn Val Cys Cys Lys
          35          40          45

Thr Gln Cys Tyr Ser Ala Ile Pro Thr Val Ile Ser Asp Leu Leu Pro
          50          55          60

Leu Pro Pro Ser Ala Ala Ala Ser Ala Ser Ser Ser Thr Ala Ala Asp
65          70          75          80

```

047-E2F-PCT.ST25.txt

Ser Ser Leu Thr Pro Pro Gly Gly Trp Ala Ser Leu Tyr Lys Leu Ala  
85 90 95

Val Cys Cys Pro Gly Leu Phe His Ala Gly Ile Leu Leu Glu Asn Ser  
100 105 110

Asp Phe Gly Leu Glu Arg Glu Leu Gly Pro Asp Gln Asn Leu Asp Pro  
115 120 125

Lys Pro Thr Thr Thr Asp Leu Ala Leu Asn Asp Glu Glu Val Ser Lys  
130 135 140

Pro Val Gly Ser Gly Leu Glu Thr Thr Ser Phe Trp Ser Leu Tyr Asp  
145 150 155 160

Asp Leu Tyr Thr Asp Thr Ile Pro Ala Pro Pro Pro Glu Asp Ser Ile  
165 170 175

Asp Asp Gln Glu Glu Glu Ile Glu Thr Ser Glu Ile Arg Pro Gly Arg  
180 185 190

Asp Leu Pro Val Arg Lys Arg Arg Lys Ile Cys Arg Ser Leu Gly Ser  
195 200 205

His Leu Ala Ser Gly Gly Trp Asn Leu Ser Arg Glu Gln Gly Asn Lys  
210 215 220

Leu Leu Ala Ser Arg Phe Arg Gly Asp Cys Leu Tyr Ile Cys Asn Trp  
225 230 235 240

Pro Gly Cys Ile His Val Glu Glu Lys Arg Asn Tyr Met Leu Phe Arg  
245 250 255

Gly Val Phe Lys Asp Phe Lys Arg Ser Arg Val Trp Arg Thr Ile Asn  
260 265 270

Asp Gly Asn Arg Ser Lys Thr Ser Gly Leu Lys Cys Ala Phe Cys Leu  
275 280 285

Cys Asp Glu Thr Trp Asp Leu His Ser Ser Phe Cys Leu Arg Arg Val  
290 295 300

Phe Gly Phe His Asp Asp Gly Glu Pro Val Val Arg Ala Tyr Val Cys  
305 310 315 320

Glu Asn Gly His Val Ser Gly Ala Trp Thr Ala Leu Pro Leu Tyr Thr  
Page 753

<210> 485  
 <211> 1998  
 <212> DNA  
 <213> Arabidopsis thaliana

<400> 485  
 atggccttgca tgaagctggg atccaaatct gatgctttcc agagacaagg ccaggccttg 60  
 ttttgacaaa ctggacttcc tagtgatatt gtcgttgaag ttggggagat gtcttttcat 120  
 ctccacaagt ttcccttgct ctctagaagt ggagtcattg aaagaaggat tgcagaagca 180  
 tcaaaagaag gcgatgataa atgtctcatt gaaatctctg atcttccttg tggagacaaa 240  
 acgtttgaac tagtcgctaa gttctgctat ggtgtgaagc ttgaactcac tgcttctaac 300  
 gttgtatatc tcagatgctg tgctgagcat ctcgaaatga ctgaagaaca tggggaagga 360  
 aatcttattt ctcaactga aacatttttc aatcaagtag tcctcaaaag ctggaaagat 420  
 tcaataaaaag cgcttcatag ctgcgatgag gtcctcgagt atgctgatga attgaacatt 480  
 accaagaaat gcattgagtc actagccatg agagcatcga cagacccaaa cttgtttgga 540  
 tggccagttg tggagcatgg tgggcccatt cagagtcagg gtggcagtggt tttatggaat 600  
 gggataagca ccggggctag acctaaacat actagttcag actgggtggta cgaggatgca 660  
 tcgatgctaa gttttcccct ttttaagaga cttatcacgg tgatggagtc ccgcggcatt 720  
 agagaagaca tcatcgctgg ctccctaacc tattacacac gaaaacactt gcctggctta 780  
 aaaagacgac gtggtggacc tgaatctagt ggtcgtttca gcacaccttt gggctcaggg 840  
 aatgtactgt ccgaggaaga gcagaagaac ttgcttgaag agatccagga gcttcttcgt 900  
 atgcaaaaag gtttagttcc aaccaagttt ttcgttgaca tgcttcgaat cgccaagatt 960  
 ttaaaagcaa gtccggattg catagccaat ttggagaaga ggatagggat gcagcttgac 1020  
 caggctgcgt tggaagatct tgtaatgcct agcttttctc atactatgga gaccctatac 1080  
 gatgttgact ctgtgcaaag gatcttggac ctttttcttg ggacagatca gattatgcct 1140  
 ggtgggggtt gctctccttg ttcttcagta gatgacggga atttaatcgg atccccacag 1200  
 tcaataacac caatgacagc ggttgcaaag ctgattgatg ggtatcttgc tgaagttgct 1260  
 cctgatgtca atcttaagct tccaaagtcc caagcttttag ctgcttctat tcctgaatac 1320  
 gccagactct tagatgacgg actctatcgt gcaatagaca tttatctaaa gcatcatcca 1380  
 tggttggcgg aaacagaaaag agagaatctg tgccggttgt tagattgtca gaaactctct 1440  
 ttagaagctt gtacacatgc ggcgcagaac gagagattac cgctaagaat aatcgtccaa 1500



047-E2F-PCT.ST25.txt

```

gtgctcttct ttgagcagct acagctcaga acctctgtag ctggatgctt cctggtctca 1560
gacaacctcg atggcggatc aagacagtta agaagcggag gatatgtagg aggaccaaac 1620
gaaggaggcg gaggaggagg aggatgggca accgcggtaa gagagaatca agtcctgaaa 1680
gttggaatgg acagtatgag aatgcgagtt tgtgagttag agaaagaatg ttccaacatg 1740
agacaagaga ttgagaaact cggtaagacg acaaaagggtg gtggttctgc aagcaatgga 1800
gtcggtagca agacttgga aaacgtttct aagaaactcg ggttcggttt taagctgaag 1860
tcgcatcaaa tgtgcagtgc tcaggaaggt tctgtgtcta agtctaaca cgagaatgtg 1920
aagatagaga agctaaagga tgttaaagag cgtcgtggga agcataagaa agcttcgagc 1980
attagttctg agaggtga 1998

```

<210> 486

<211> 665

<212> PRT

<213> Arabidopsis thaliana

<400> 486

```

Met Ala Cys Met Lys Leu Gly Ser Lys Ser Asp Ala Phe Gln Arg Gln
1          5          10          15

```

```

Gly Gln Ala Trp Phe Cys Thr Thr Gly Leu Pro Ser Asp Ile Val Val
          20          25          30

```

```

Glu Val Gly Glu Met Ser Phe His Leu His Lys Phe Pro Leu Leu Ser
          35          40          45

```

```

Arg Ser Gly Val Met Glu Arg Arg Ile Ala Glu Ala Ser Lys Glu Gly
          50          55          60

```

```

Asp Asp Lys Cys Leu Ile Glu Ile Ser Asp Leu Pro Gly Gly Asp Lys
          65          70          75          80

```

```

Thr Phe Glu Leu Val Ala Lys Phe Cys Tyr Gly Val Lys Leu Glu Leu
          85          90          95

```

```

Thr Ala Ser Asn Val Val Tyr Leu Arg Cys Ala Ala Glu His Leu Glu
          100          105          110

```

```

Met Thr Glu Glu His Gly Glu Gly Asn Leu Ile Ser Gln Thr Glu Thr
          115          120          125

```

047-E2F-PCT.ST25.txt

Phe Phe Asn Gln Val Val Leu Lys Ser Trp Lys Asp Ser Ile Lys Ala  
 130 135 140  
 Leu His Ser Cys Asp Glu Val Leu Glu Tyr Ala Asp Glu Leu Asn Ile  
 145 150 155 160  
 Thr Lys Lys Cys Ile Glu Ser Leu Ala Met Arg Ala Ser Thr Asp Pro  
 165 170 175  
 Asn Leu Phe Gly Trp Pro Val Val Glu His Gly Gly Pro Met Gln Ser  
 180 185 190  
 Pro Gly Gly Ser Val Leu Trp Asn Gly Ile Ser Thr Gly Ala Arg Pro  
 195 200 205  
 Lys His Thr Ser Ser Asp Trp Trp Tyr Glu Asp Ala Ser Met Leu Ser  
 210 215 220  
 Phe Pro Leu Phe Lys Arg Leu Ile Thr Val Met Glu Ser Arg Gly Ile  
 225 230 235 240  
 Arg Glu Asp Ile Ile Ala Gly Ser Leu Thr Tyr Tyr Thr Arg Lys His  
 245 250 255  
 Leu Pro Gly Leu Lys Arg Arg Arg Gly Gly Pro Glu Ser Ser Gly Arg  
 260 265 270  
 Phe Ser Thr Pro Leu Gly Ser Gly Asn Val Leu Ser Glu Glu Glu Gln  
 275 280 285  
 Lys Asn Leu Leu Glu Glu Ile Gln Glu Leu Leu Arg Met Gln Lys Gly  
 290 295 300  
 Leu Val Pro Thr Lys Phe Phe Val Asp Met Leu Arg Ile Ala Lys Ile  
 305 310 315 320  
 Leu Lys Ala Ser Pro Asp Cys Ile Ala Asn Leu Glu Lys Arg Ile Gly  
 325 330 335  
 Met Gln Leu Asp Gln Ala Ala Leu Glu Asp Leu Val Met Pro Ser Phe  
 340 345 350  
 Ser His Thr Met Glu Thr Leu Tyr Asp Val Asp Ser Val Gln Arg Ile  
 355 360 365  
 Leu Asp His Phe Leu Gly Thr Asp Gln Ile Met Pro Gly Gly Val Gly  
 370 375 380

047-E2F-PCT.ST25.txt

Ser Pro Cys Ser Ser Val Asp Asp Gly Asn Leu Ile Gly Ser Pro Gln  
 385 390 395 400  
 Ser Ile Thr Pro Met Thr Ala Val Ala Lys Leu Ile Asp Gly Tyr Leu  
 405 410 415  
 Ala Glu Val Ala Pro Asp Val Asn Leu Lys Leu Pro Lys Phe Gln Ala  
 420 425 430  
 Leu Ala Ala Ser Ile Pro Glu Tyr Ala Arg Leu Leu Asp Asp Gly Leu  
 435 440 445  
 Tyr Arg Ala Ile Asp Ile Tyr Leu Lys His His Pro Trp Leu Ala Glu  
 450 455 460  
 Thr Glu Arg Glu Asn Leu Cys Arg Leu Leu Asp Cys Gln Lys Leu Ser  
 465 470 475 480  
 Leu Glu Ala Cys Thr His Ala Ala Gln Asn Glu Arg Leu Pro Leu Arg  
 485 490 495  
 Ile Ile Val Gln Val Leu Phe Phe Glu Gln Leu Gln Leu Arg Thr Ser  
 500 505 510  
 Val Ala Gly Cys Phe Leu Val Ser Asp Asn Leu Asp Gly Gly Ser Arg  
 515 520 525  
 Gln Leu Arg Ser Gly Gly Tyr Val Gly Gly Pro Asn Glu Gly Gly Gly  
 530 535 540  
 Gly Gly Gly Gly Trp Ala Thr Ala Val Arg Glu Asn Gln Val Leu Lys  
 545 550 555 560  
 Val Gly Met Asp Ser Met Arg Met Arg Val Cys Glu Leu Glu Lys Glu  
 565 570 575  
 Cys Ser Asn Met Arg Gln Glu Ile Glu Lys Leu Gly Lys Thr Thr Lys  
 580 585 590  
 Gly Gly Gly Ser Ala Ser Asn Gly Val Gly Ser Lys Thr Trp Glu Asn  
 595 600 605  
 Val Ser Lys Lys Leu Gly Phe Gly Phe Lys Leu Lys Ser His Gln Met  
 610 615 620  
 Cys Ser Ala Gln Glu Gly Ser Val Ser Lys Ser Asn Asn Glu Asn Val

625

630

640

Lys Ile Glu Lys Leu Lys Asp Val Lys Glu Arg Arg Gly Lys His Lys  
645 650 655

Lys Ala Ser Ser Ile Ser Ser Glu Arg  
660 665

<210> 487

<211> 1416

<212> DNA

<213> Arabidopsis thaliana

<400> 487

atggaggcag acgaaagcgg catctctctg ccgtcgggac ccgacggacg taagcggcga	60
gtcagttact tctacgagcc gacgatcggg gactactact acgggtcaagg ccacccgatg	120
aagcctcacc ggatccgtat ggctcatagc ctaatcattc actatcacct ccaccgtcgc	180
ttagaaatca gtcgccctag cctcgctgac gcctccgata tcggccgatt ccattcgccg	240
gagtatgttg acttcctcgc ttccgtttcg ccggaatcta tgggcgatcc ttccgctgca	300
cgaaacctaa ggcgattcaa tgctcgggtgag gattgtcctg tcttcgacgg actttttgat	360
ttttgccgtg cttccgccgg aggttctatt ggtgctgccg tcaaattaaa cagacaggac	420
gctgatatcg ctatcaattg gggcgggtggg cttcaccatg ctaagaaaag cgaggcttct	480
gggttttgct atgtaaacga catcgtgcta gggattctgg agttgctcaa gatgtttaag	540
cgggttctct acatagatat tgatgtccac catggagatg gagtggaaga agcgttttac	600
accactgata gagttatgac tgtttctttc cacaaatttg gggacttttt cccaggaact	660
ggtcacataa gagatgttgg cgctgaaaaa gggaaatact atgctctaaa tgttccacta	720
aacgatggta tggacgatga aagtttccgc agcttgttta gacctcttat ccagaagggt	780
atggaagtgt atcagccaga ggcagttggt cttcagtgtg gtgctgactc ctttaagtgg	840
gatcggttgg gttgcttcaa cttatcagtc aagggtcacg ctgattgcct tcggttctta	900
agatcttaca acgttcctct catggtgttg ggtggtggag ggtatactat tcgaaatggt	960
gcccgttgct ggtgttatga gactgcagtt gctgttggag tagagccgga caacaaactc	1020
ccttacaatg agtattttga gtatttcggc ccagattata cgcttcatgt cgaccaagt	1080
cctatggaga atttaaacac gcccaaagat atggagagga taaggaacac gttgctggaa	1140
caactttcgg gactaataca cgcacctagc gtccagtttc agcacacacc accagtcaat	1200
cgagttttgg acgagccgga agatgacatg gagacaagac caaaacctcg catctggagt	1260

047-E2F-PCT.ST25.txt

ggaactgcga cttatgaatc agacagtgac gatgatgata aacctcttca tggttactca 1320  
 tgtcgtggtg gcgcaactac ggacagggac tctaccggtg aagatgaaat ggatgacgat 1380  
 aacccagagc cagacgtgaa tcctccatcg tcttaa 1416

<210> 488

<211> 471

<212> PRT

<213> Arabidopsis thaliana

<400> 488

Met Glu Ala Asp Glu Ser Gly Ile Ser Leu Pro Ser Gly Pro Asp Gly  
 1 5 10 15  
 Arg Lys Arg Arg Val Ser Tyr Phe Tyr Glu Pro Thr Ile Gly Asp Tyr  
 20 25 30  
 Tyr Tyr Gly Gln Gly His Pro Met Lys Pro His Arg Ile Arg Met Ala  
 35 40 45  
 His Ser Leu Ile Ile His Tyr His Leu His Arg Arg Leu Glu Ile Ser  
 50 55 60  
 Arg Pro Ser Leu Ala Asp Ala Ser Asp Ile Gly Arg Phe His Ser Pro  
 65 70 75 80  
 Glu Tyr Val Asp Phe Leu Ala Ser Val Ser Pro Glu Ser Met Gly Asp  
 85 90 95  
 Pro Ser Ala Ala Arg Asn Leu Arg Arg Phe Asn Val Gly Glu Asp Cys  
 100 105 110  
 Pro Val Phe Asp Gly Leu Phe Asp Phe Cys Arg Ala Ser Ala Gly Gly  
 115 120 125  
 Ser Ile Gly Ala Ala Val Lys Leu Asn Arg Gln Asp Ala Asp Ile Ala  
 130 135 140  
 Ile Asn Trp Gly Gly Gly Leu His His Ala Lys Lys Ser Glu Ala Ser  
 145 150 155 160  
 Gly Phe Cys Tyr Val Asn Asp Ile Val Leu Gly Ile Leu Glu Leu Leu  
 165 170 175

047-E2F-PCT.ST25.txt

Lys Met Phe Lys Arg Val Leu Tyr Ile Asp Ile Asp Val His His Gly  
 180 185 190  
 Asp Gly Val Glu Glu Ala Phe Tyr Thr Thr Asp Arg Val Met Thr Val  
 195 200 205  
 Ser Phe His Lys Phe Gly Asp Phe Phe Pro Gly Thr Gly His Ile Arg  
 210 215 220  
 Asp Val Gly Ala Glu Lys Gly Lys Tyr Tyr Ala Leu Asn Val Pro Leu  
 225 230 235 240  
 Asn Asp Gly Met Asp Asp Glu Ser Phe Arg Ser Leu Phe Arg Pro Leu  
 245 250 255  
 Ile Gln Lys Val Met Glu Val Tyr Gln Pro Glu Ala Val Val Leu Gln  
 260 265 270  
 Cys Gly Ala Asp Ser Leu Ser Gly Asp Arg Leu Gly Cys Phe Asn Leu  
 275 280 285  
 Ser Val Lys Gly His Ala Asp Cys Leu Arg Phe Leu Arg Ser Tyr Asn  
 290 295 300  
 Val Pro Leu Met Val Leu Gly Gly Gly Gly Tyr Thr Ile Arg Asn Val  
 305 310 315 320  
 Ala Arg Cys Trp Cys Tyr Glu Thr Ala Val Ala Val Gly Val Glu Pro  
 325 330 335  
 Asp Asn Lys Leu Pro Tyr Asn Glu Tyr Phe Glu Tyr Phe Gly Pro Asp  
 340 345 350  
 Tyr Thr Leu His Val Asp Pro Ser Pro Met Glu Asn Leu Asn Thr Pro  
 355 360 365  
 Lys Asp Met Glu Arg Ile Arg Asn Thr Leu Leu Glu Gln Leu Ser Gly  
 370 375 380  
 Leu Ile His Ala Pro Ser Val Gln Phe Gln His Thr Pro Pro Val Asn  
 385 390 395 400  
 Arg Val Leu Asp Glu Pro Glu Asp Asp Met Glu Thr Arg Pro Lys Pro  
 405 410 415  
 Arg Ile Trp Ser Gly Thr Ala Thr Tyr Glu Ser Asp Ser Asp Asp Asp  
 420 425 430

Asp Lys Pro Leu His Gly Tyr Ser Cys Arg Gly Gly Ala Thr Thr Asp  
435 440 445

Arg Asp Ser Thr Gly Glu Asp Glu Met Asp Asp Asp Asn Pro Glu Pro  
450 455 460

Asp Val Asn Pro Pro Ser Ser  
465 470

<210> 489

<211> 471

<212> DNA

<213> Arabidopsis thaliana

<400> 489  
atgggagcgt gcgcttcacg tgaatctttg aggagtgatt cagcgaagct gatattactc 60  
gacggtactt tacaggagtt ctcatctccg gtcaaagttt ggcagatttt gcaaaagaac 120  
cctacgagtt tcgtctgtaa ctacagacgaa atggacttcg acgacgcagt ttcagctgtc 180  
gccggcaacg aagagctccg atcagggcag ctctatcttg tcttacctct gacgtggctc 240  
aaccatccgt taagggcgga ggaaatggcg gccttggccg tgaaagctag ttcggcgttg 300  
accaagagcg gtggcgctcg ttgggtttcc ggcgacgacg atgtaacgac atcggaaaaa 360  
acttaccaaa agaaaaacat tgccggagtt aagacaaacg gtggtggcgg aagaggttgc 420  
ggtaaaggga agaggcgatt caccggctaatt ttgagcacga tcgccgagta g 471

<210> 490

<211> 156

<212> PRT

<213> Arabidopsis thaliana

<400> 490

Met Gly Ala Cys Ala Ser Arg Glu Ser Leu Arg Ser Asp Ser Ala Lys  
1 5 10 15

Leu Ile Leu Leu Asp Gly Thr Leu Gln Glu Phe Ser Ser Pro Val Lys  
20 25 30

Val Trp Gln Ile Leu Gln Lys Asn Pro Thr Ser Phe Val Cys Asn Ser  
Page 761

35

40

45

Asp Glu Met Asp Phe Asp Asp Ala Val Ser Ala Val Ala Gly Asn Glu  
50 55 60

Glu Leu Arg Ser Gly Gln Leu Tyr Phe Val Leu Pro Leu Thr Trp Leu  
65 70 75 80

Asn His Pro Leu Arg Ala Glu Glu Met Ala Ala Leu Ala Val Lys Ala  
85 90 95

Ser Ser Ala Leu Thr Lys Ser Gly Gly Val Gly Trp Val Ser Gly Asp  
100 105 110

Asp Asp Val Thr Thr Ser Glu Lys Thr Tyr Gln Lys Lys Asn Ile Ala  
115 120 125

Gly Val Lys Thr Asn Gly Gly Gly Gly Arg Gly Cys Gly Lys Gly Lys  
130 135 140

Arg Arg Phe Thr Ala Asn Leu Ser Thr Ile Ala Glu  
145 150 155

&lt;210&gt; 491

&lt;211&gt; 702

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 491

```

atggatctca atctcgatgc acctcactcc atgggaacga ccatcatcgg cgtcacttac      60
aatggaggtg tcgtcctcgg agccgactca cgtaccagca ccggtatgta cgtagcgaat      120
cgagcttctg ataagattac acaactgaca gataatgtct acgtctgccg ctctggatcg      180
gctgctgatt ctcaagttgt atctgactat gtccgctact tccttcacca gcatacaatt      240
cagcatggac aacccgcaac tgттаagggtt tctgccaacc ttatcaggat gctcgcatat      300
aataacaaga acatgctcca aactggtctc atcgttggag gatgggataa atatgagggt      360
gggaagatct acgggatccc actcggtgga actgtagtcg agcaaccggt tgccattgga      420
ggctctgggt cgagctatct ctacgggttc ttcgaccagg cttggaaaga taacatgacc      480
aaagaagaag cagagcaact tgttgtgaag gcggtttcac tagccatcgc ccgtgatgga      540
gccagtgggt gtgtcgtacg gactgtcata atcaactcag agggagtgc gagaaacttt      600
taccctggag ataagttgca gctttggcac gaagaattgg agccccaaaa ctcactctta      660

```



gacattctga acgctgctgg tcctgaacca atggccatgt ga

702

&lt;210&gt; 492

&lt;211&gt; 233

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 492

Met Asp Leu Asn Leu Asp Ala Pro His Ser Met Gly Thr Thr Ile Ile  
 1 5 10 15

Gly Val Thr Tyr Asn Gly Gly Val Val Leu Gly Ala Asp Ser Arg Thr  
 20 25 30

Ser Thr Gly Met Tyr Val Ala Asn Arg Ala Ser Asp Lys Ile Thr Gln  
 35 40 45

Leu Thr Asp Asn Val Tyr Val Cys Arg Ser Gly Ser Ala Ala Asp Ser  
 50 55 60

Gln Val Val Ser Asp Tyr Val Arg Tyr Phe Leu His Gln His Thr Ile  
 65 70 75 80

Gln His Gly Gln Pro Ala Thr Val Lys Val Ser Ala Asn Leu Ile Arg  
 85 90 95

Met Leu Ala Tyr Asn Asn Lys Asn Met Leu Gln Thr Gly Leu Ile Val  
 100 105 110

Gly Gly Trp Asp Lys Tyr Glu Gly Gly Lys Ile Tyr Gly Ile Pro Leu  
 115 120 125

Gly Gly Thr Val Val Glu Gln Pro Phe Ala Ile Gly Gly Ser Gly Ser  
 130 135 140

Ser Tyr Leu Tyr Gly Phe Phe Asp Gln Ala Trp Lys Asp Asn Met Thr  
 145 150 155 160

Lys Glu Glu Ala Glu Gln Leu Val Val Lys Ala Val Ser Leu Ala Ile  
 165 170 175

Ala Arg Asp Gly Ala Ser Gly Gly Val Val Arg Thr Val Ile Ile Asn  
 180 185 190

047-E2F-PCT.ST25.txt

Ser Glu Gly Val Thr Arg Asn Phe Tyr Pro Gly Asp Lys Leu Gln Leu  
195 200 205

Trp His Glu Glu Leu Glu Pro Gln Asn Ser Leu Leu Asp Ile Leu Asn  
210 215 220

Ala Ala Gly Pro Glu Pro Met Ala Met  
225 230

<210> 493

<211> 963

<212> DNA

<213> Arabidopsis thaliana

<400> 493

atgagacctc ctctaactgg aagtgggtggt gggttcagtg gtggaagagg gcgtgggtgga	60
tacagtgggtg gtagaggtga cggtggattc agtgggtggtc gaggtggcgg tggttagagga	120
ggaggaagag gtttcagcga ccgtgggtggt cgcggcagag gaagaggacc accacgtggt	180
gggtgctcgcg gcggcagagg accagctggc cgtggaggca tgaaaggagg aagcaaagt	240
attgtggaac ctcacagaca cgcaggagtgt ttcatgtcaa agggtaaaga agatgccctt	300
gttaccaaga atttggttcc tgggtgaagct gtctacaacg agaagagaat ctctgttcag	360
aacgaagatg gaaccaagac tgaatacaga gtttggaatc ctttccgttc gaagttggct	420
gctgctattc ttggtgggtgt tgataacatc tggattaaac ctggtgctaa agttctatac	480
cttggtgctg cttctggaac cacagtctct catgtgtctg atcttggttg ccctgagggg	540
tgtgtgtacg cggttgagtt ttctcataga agtggtagag atttggtgaa catggcaaag	600
aagagaacca atgttattcc aatcatcgag gatgctagac acccagctaa atacagaatg	660
cttgtaggca tggttgatgt tatcttctct gatgttgctc agccagatca ggctaggatc	720
ttggctttga atgcatcata cttcctcaag tcaggaggac actttgtgat ctcaataaag	780
gcaaactgta tcgactccac cgttccagca gaagctgtgt tccagactga agtgaagaag	840
cttcaacagg agcaattcaa accagctgag caagtgacgc ttgagccatt tgagcgtgac	900
catgcatgtg tcgttggtgg ctaccgtatg cctaagaagc caaaggctgc tactgctgct	960
tag	963

<210> 494

<211> 320

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 494

```

Met Arg Pro Pro Leu Thr Gly Ser Gly Gly Gly Phe Ser Gly Gly Arg
1      5      10      15
Gly Arg Gly Gly Tyr Ser Gly Gly Arg Gly Asp Gly Gly Phe Ser Gly
20      25      30
Gly Arg Gly Gly Gly Gly Arg Gly Gly Gly Arg Gly Phe Ser Asp Arg
35      40      45
Gly Gly Arg Gly Arg Gly Arg Gly Pro Pro Arg Gly Gly Ala Arg Gly
50      55      60
Gly Arg Gly Pro Ala Gly Arg Gly Gly Met Lys Gly Gly Ser Lys Val
65      70      75      80
Ile Val Glu Pro His Arg His Ala Gly Val Phe Ile Ala Lys Gly Lys
85      90      95
Glu Asp Ala Leu Val Thr Lys Asn Leu Val Pro Gly Glu Ala Val Tyr
100     105     110
Asn Glu Lys Arg Ile Ser Val Gln Asn Glu Asp Gly Thr Lys Thr Glu
115     120     125
Tyr Arg Val Trp Asn Pro Phe Arg Ser Lys Leu Ala Ala Ala Ile Leu
130     135     140
Gly Gly Val Asp Asn Ile Trp Ile Lys Pro Gly Ala Lys Val Leu Tyr
145     150     155     160
Leu Gly Ala Ala Ser Gly Thr Thr Val Ser His Val Ser Asp Leu Val
165     170     175
Gly Pro Glu Gly Cys Val Tyr Ala Val Glu Phe Ser His Arg Ser Gly
180     185     190
Arg Asp Leu Val Asn Met Ala Lys Lys Arg Thr Asn Val Ile Pro Ile
195     200     205
Ile Glu Asp Ala Arg His Pro Ala Lys Tyr Arg Met Leu Val Gly Met
210     215     220

```

047-E2F-PCT.ST25.txt

Val Asp Val Ile Phe Ser Asp Val Ala Gln Pro Asp Gln Ala Arg Ile  
225 230 235 240

Leu Ala Leu Asn Ala Ser Tyr Phe Leu Lys Ser Gly Gly His Phe Val  
245 250 255

Ile Ser Ile Lys Ala Asn Cys Ile Asp Ser Thr Val Pro Ala Glu Ala  
260 265 270

Val Phe Gln Thr Glu Val Lys Lys Leu Gln Gln Glu Gln Phe Lys Pro  
275 280 285

Ala Glu Gln Val Thr Leu Glu Pro Phe Glu Arg Asp His Ala Cys Val  
290 295 300

Val Gly Gly Tyr Arg Met Pro Lys Lys Pro Lys Ala Ala Thr Ala Ala  
305 310 315 320

<210> 495

<211> 1152

<212> DNA

<213> Arabidopsis thaliana

<400> 495

atggaggacg acgacgagat tcagtcaatt ccatctccgg gagattcttc cttttcacca	60
caagctcctc cttctccgcc gattttgcca acaaacgacg tgacggtggc cgtcgtgaag	120
aaaccacaac cggggctttc ttctcaatct ccgtccatga acgcttttagc gttagtgggt	180
catactcctt ctgtaaccgg tgggtggtggt agcggaaaca gaaacggacg aggaggagga	240
ggaggaagcg gtggtggtgg aggaggaaga gatgattggt ggagcgaaga agctacaaag	300
gttctaatacg aagcttgggg agatcgattc tctgaaccag gtaaaggaac tttgaagcaa	360
caacattgga aagaagtagc tgagattgtg aacaagagtc gtcaatgcaa ataccctaaa	420
actgatattc agtgtaagaa cagaattgat acggtgaaga agaagtataa gcaagagaaa	480
gctaagattg cttctggtga tggacctagt aaatggggtt tcttcaagaa gcttgagagt	540
ttgattggtg gtactacaac attcattgct tcttcaaaaag cttcagagaa ggctcctatg	600
ggaggagctc ttgggaatag ccgttcgagt atgtttaaac ggcaaactaa aggtaatcag	660
attgtgcagc aacaacaaga gaagagaggc tctgattcga tgcggtggca ttttaggaaa	720
cgtagtgctt ctgagactga gtctgagtct gatcctgaac ctgaggcttc tcctgaggaa	780
tctgctgaga gtctcccacc tttgcaaccg attcaaccgc tttcgtttca tatgccaaag	840

047-E2F-PCT.ST25.txt

cggttgaagg tggataagag tggaggtgga gggagtggag ttggagatgt ggcgagggcg 900  
 atacttggat ttacggaagc ttatgagaag gcggaaactg ctaagcttaa gttaatggcg 960  
 gaactggaaa aggagaggat gaaatttgct aaagagatgg agttgcagag aatgcagttc 1020  
 ttgaaaactc aattggagat aacacagaac aatcaagaag aggaagagag gagcaggcag 1080  
 cgaggagaaa ggaggatcgt tgatgatgat gatgatcgca atggcaagaa taacggcaat 1140  
 gtaagtagct ga 1152

<210> 496

<211> 383

<212> PRT

<213> Arabidopsis thaliana

<400> 496

Met Glu Asp Asp Asp Glu Ile Gln Ser Ile Pro Ser Pro Gly Asp Ser  
 1 5 10 15

Ser Leu Ser Pro Gln Ala Pro Pro Ser Pro Pro Ile Leu Pro Thr Asn  
 20 25 30

Asp Val Thr Val Ala Val Val Lys Lys Pro Gln Pro Gly Leu Ser Ser  
 35 40 45

Gln Ser Pro Ser Met Asn Ala Leu Ala Leu Val Val His Thr Pro Ser  
 50 55 60

Val Thr Gly Gly Gly Gly Ser Gly Asn Arg Asn Gly Arg Gly Gly Gly  
 65 70 75 80

Gly Gly Ser Gly Gly Gly Gly Gly Gly Arg Asp Asp Cys Trp Ser Glu  
 85 90 95

Glu Ala Thr Lys Val Leu Ile Glu Ala Trp Gly Asp Arg Phe Ser Glu  
 100 105 110

Pro Gly Lys Gly Thr Leu Lys Gln Gln His Trp Lys Glu Val Ala Glu  
 115 120 125

Ile Val Asn Lys Ser Arg Gln Cys Lys Tyr Pro Lys Thr Asp Ile Gln  
 130 135 140

Cys Lys Asn Arg Ile Asp Thr Val Lys Lys Lys Tyr Lys Gln Glu Lys  
 Page 767

145                      150                      155                      160  
 Ala Lys Ile Ala Ser Gly Asp Gly Pro Ser Lys Trp Val Phe Phe Lys  
                                  165                                   170                                   175  
 Lys Leu Glu Ser Leu Ile Gly Gly Thr Thr Thr Phe Ile Ala Ser Ser  
                                  180                                   185                                   190  
 Lys Ala Ser Glu Lys Ala Pro Met Gly Gly Ala Leu Gly Asn Ser Arg  
                                  195                                   200                                   205  
 Ser Ser Met Phe Lys Arg Gln Thr Lys Gly Asn Gln Ile Val Gln Gln  
                                  210                                   215                                   220  
 Gln Gln Glu Lys Arg Gly Ser Asp Ser Met Arg Trp His Phe Arg Lys  
                                  225                                   230                                   235                                   240  
 Arg Ser Ala Ser Glu Thr Glu Ser Glu Ser Asp Pro Glu Pro Glu Ala  
                                  245                                   250                                   255  
 Ser Pro Glu Glu Ser Ala Glu Ser Leu Pro Pro Leu Gln Pro Ile Gln  
                                  260                                   265                                   270  
 Pro Leu Ser Phe His Met Pro Lys Arg Leu Lys Val Asp Lys Ser Gly  
                                  275                                   280                                   285  
 Gly Gly Gly Ser Gly Val Gly Asp Val Ala Arg Ala Ile Leu Gly Phe  
                                  290                                   295                                   300  
 Thr Glu Ala Tyr Glu Lys Ala Glu Thr Ala Lys Leu Lys Leu Met Ala  
                                  305                                   310                                   315                                   320  
 Glu Leu Glu Lys Glu Arg Met Lys Phe Ala Lys Glu Met Glu Leu Gln  
                                  325                                   330                                   335  
 Arg Met Gln Phe Leu Lys Thr Gln Leu Glu Ile Thr Gln Asn Asn Gln  
                                  340                                   345                                   350  
 Glu Glu Glu Glu Arg Ser Arg Gln Arg Gly Glu Arg Arg Ile Val Asp  
                                  355                                   360                                   365  
 Asp Asp Asp Asp Arg Asn Gly Lys Asn Asn Gly Asn Val Ser Ser  
                                  370                                   375                                   380

&lt;210&gt; 497

&lt;211&gt; 822

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 497

```

atgtctatag aggaagaaaa cgttccaacg actgttgact caggagctgc cgatacaacg      60
gtgaaatctc cggagaagaa accggcggcg aaaggtggta aatctaagaa gacgacgacg    120
gctaaagcaa cgaagaagcc tgtgaaagct gctgctccaa cgaagaagaa aacaacttcc    180
tctcacccta cctatgaaga gatgattaaa gatgcgattg taacgttgaa ggagagaact    240
ggatctagtc aatacgcgat tcagaaattc atagaggaga aacataaatc actgcctcct    300
acttttagga agcttttgct tgtgaatctc aagagacttg ttgcttctga gaaattgggt    360
aaagtcaaag cttcttttaa gattccttct gctagatccg cagcaacacc taaaccggct    420
gctccggtta agaagaaggc aactgtagta gctaaaccta agggtaaggt tgctgctgct    480
gttgctcctg ctaaagctaa agcggcggct aaaggaacta agaagcctgc ggctaaagtt    540
gttgctaagg ctaaggttac tgctaaacct aaggctaagg ttactgctgc taaacctaaag    600
tctaagtctg ttgctgctgt ttccaagact aaagctgttg ctgctaagcc taaggctaag    660
gagagaccag ctaaagcttc taggacttcg actagaacat ctccaggga aaaagttgct    720
gctcctgcta agaaagtggc tgtgactaag aaggctccgg ctaagagtgt gaaggtgaag    780
tctccggcga agagagcttc gactaggaag gctaagaagt ga                        822

```

&lt;210&gt; 498

&lt;211&gt; 273

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 498

```

Met Ser Ile Glu Glu Glu Asn Val Pro Thr Thr Val Asp Ser Gly Ala
1          5          10          15

Ala Asp Thr Thr Val Lys Ser Pro Glu Lys Lys Pro Ala Ala Lys Gly
20          25          30

Gly Lys Ser Lys Lys Thr Thr Thr Ala Lys Ala Thr Lys Lys Pro Val
35          40          45

Lys Ala Ala Ala Pro Thr Lys Lys Lys Thr Thr Ser Ser His Pro Thr
50          55          60

```

047-E2F-PCT.ST25.txt

Tyr Glu Glu Met Ile Lys Asp Ala Ile Val Thr Leu Lys Glu Arg Thr  
 65 70 75 80  
 Gly Ser Ser Gln Tyr Ala Ile Gln Lys Phe Ile Glu Glu Lys His Lys  
 85 90 95  
 Ser Leu Pro Pro Thr Phe Arg Lys Leu Leu Leu Val Asn Leu Lys Arg  
 100 105 110  
 Leu Val Ala Ser Glu Lys Leu Val Lys Val Lys Ala Ser Phe Lys Ile  
 115 120 125  
 Pro Ser Ala Arg Ser Ala Ala Thr Pro Lys Pro Ala Ala Pro Val Lys  
 130 135 140  
 Lys Lys Ala Thr Val Val Ala Lys Pro Lys Gly Lys Val Ala Ala Ala  
 145 150 155 160  
 Val Ala Pro Ala Lys Ala Lys Ala Ala Lys Gly Thr Lys Lys Pro  
 165 170 175  
 Ala Ala Lys Val Val Ala Lys Ala Lys Val Thr Ala Lys Pro Lys Ala  
 180 185 190  
 Lys Val Thr Ala Ala Lys Pro Lys Ser Lys Ser Val Ala Ala Val Ser  
 195 200 205  
 Lys Thr Lys Ala Val Ala Ala Lys Pro Lys Ala Lys Glu Arg Pro Ala  
 210 215 220  
 Lys Ala Ser Arg Thr Ser Thr Arg Thr Ser Pro Gly Lys Lys Val Ala  
 225 230 235 240  
 Ala Pro Ala Lys Lys Val Ala Val Thr Lys Lys Ala Pro Ala Lys Ser  
 245 250 255  
 Val Lys Val Lys Ser Pro Ala Lys Arg Ala Ser Thr Arg Lys Ala Lys  
 260 265 270

Lys

<210> 499

<211> 1383

<212> DNA



<213> *Arabidopsis thaliana*

&lt;400&gt; 499

```

atggtggttt cccgatggcgg caaacgagtg aagctcaacg tcggcggcga gatcttcgaa    60
accaacgcgt cgaccattca atcatcttgc ccagactctc tcctcgcagc tctatcgact    120
tcaacctccc atggatcgaa tccggttttc atcgatcgtg acccgagatg tttcgccgtc    180
attctcaatc tcctccgtac tggtcgactc ccagctaatt cctccggcgt tttttccaag    240
caagagctac tagatgaggc tatgtattac ggcgtcgaat cactcctcag attggcgatg    300
ttaccgccgc cgctgctagg tttcgatgcg tctcttgtct ccacaatcgt accggctgct    360
gatggagtcc cgtctgcttt aaccgctact gctggagacg cctctctgtg gatcgctcac    420
ggtggtcaga tctccgtcta cgattggagt ctttcccatg ctggaaccgt ccgtacacat    480
ctcaacgata tcacatcgat ctgccgtgtc tggggcgaag ctgctgcaat tggatctgga    540
tccgcgtcgg gacttcattt ctacgatctc tctggaggtc gatacatcgg atctacgcac    600
tggaacggtc cggaagatcc gaggatccat aaggcacgcg tcgccgccgt tgctgattcg    660
gaaggtggag tattcgcatc ctttgattgc ctgcacagag agaacagtgt tctccagatc    720
gacaaatcca ctcttcaagt cgccgccgtg atcggtcagc aatctggaaa ctcggtctaaa    780
accacagtac cggagaaact ccggtggctg ccagcgaaag gtcttttggt gggatcagcc    840
gttcaacgtg gagtgtttgg ttgctctggc tacatccgga tttgggaccc aagggtccagg    900
aacatcgatg gggaaacgaa cgagccagga tcgggacgaa gcactagggt tggagacgcc    960
ttagctgata tggacgtgga cgttgaagac tcgatccttt tcaaggtatg ttccaagtca   1020
ggagacctcg gaatggcaga cattcgtaaa ttaggtgaag atccatgggt atatatgtca   1080
gacgagaatc ccggtgcctg gaaagccggc gacggagggt gttacagcgt ggtacattgt   1140
tacagaaagc aagtgttggc cgccagaggt ggtgcattag aggtatgggt aagtgttaag   1200
gagaagacaa gtggtgatcc aattcgcagg agaaactttg tagacaagga agatgattcc   1260
aagagagggg tgatttcgaa aattgaagca ggagggtgacc ggctctttgt ttctcgggaa   1320
tgtatggaag gtgtggaggt ctgggaaact tctagtttct ccggtgtggt atccgtcgag   1380
taa                                                                    1383

```

&lt;210&gt; 500

&lt;211&gt; 460

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 500

```

Met Val Val Ser Asp Gly Gly Lys Arg Val Lys Leu Asn Val Gly Gly
 1      5      10      15

Glu Ile Phe Glu Thr Asn Ala Ser Thr Ile Gln Ser Ser Cys Pro Asp
 20      25      30

Ser Leu Leu Ala Ala Leu Ser Thr Ser Thr Ser His Gly Ser Asn Pro
 35      40      45

Val Phe Ile Asp Arg Asp Pro Glu Ile Phe Ala Val Ile Leu Asn Leu
 50      55      60

Leu Arg Thr Gly Arg Leu Pro Ala Asn Ser Ser Gly Val Phe Ser Lys
 65      70      75      80

Gln Glu Leu Leu Asp Glu Ala Met Tyr Tyr Gly Val Glu Ser Leu Leu
 85      90      95

Arg Leu Ala Met Leu Pro Pro Pro Leu Leu Gly Phe Asp Ala Ser Leu
100      105      110

Val Ser Thr Ile Val Pro Ala Ala Asp Gly Val Pro Ser Ala Leu Thr
115      120      125

Ala Thr Ala Gly Asp Ala Ser Leu Trp Ile Ala His Gly Gly Gln Ile
130      135      140

Ser Val Tyr Asp Trp Ser Leu Ser His Ala Gly Thr Val Arg Thr His
145      150      155      160

Leu Asn Asp Ile Thr Ser Ile Cys Arg Val Trp Gly Glu Ala Ala Ala
165      170      175

Ile Gly Ser Gly Ser Ala Ser Gly Leu His Phe Tyr Asp Leu Ser Gly
180      185      190

Gly Arg Tyr Ile Gly Ser Thr His Trp Thr Asp Pro Glu Asp Pro Arg
195      200      205

Ile His Lys Ala Arg Val Ala Ala Val Ala Asp Ser Glu Gly Gly Val
210      215      220

Phe Ala Ser Phe Asp Cys Leu His Arg Glu Asn Ser Val Leu Gln Ile
225      230      235      240

```

Asp Lys Ser Thr Leu Gln Val Ala Ala Val Ile Gly Gln Gln Ser Gly  
 245 250 255  
 Asn Ser Ala Lys Thr Thr Val Pro Glu Lys Leu Arg Trp Leu Pro Ala  
 260 265 270  
 Lys Gly Leu Leu Val Gly Ser Ala Val Gln Arg Gly Val Phe Gly Cys  
 275 280 285  
 Ser Gly Tyr Ile Arg Ile Trp Asp Pro Arg Ser Arg Asn Ile Val Trp  
 290 295 300  
 Glu Thr Asn Glu Pro Gly Ser Gly Arg Ser Thr Arg Phe Gly Asp Ala  
 305 310 315 320  
 Leu Ala Asp Met Asp Val Asp Val Glu Asp Ser Ile Leu Phe Lys Val  
 325 330 335  
 Cys Ser Lys Ser Gly Asp Leu Gly Met Ala Asp Ile Arg Lys Leu Gly  
 340 345 350  
 Glu Asp Pro Trp Val Tyr Met Ser Asp Glu Asn Pro Gly Ala Trp Lys  
 355 360 365  
 Ala Gly Asp Gly Gly Gly Tyr Ser Val Val His Cys Tyr Arg Lys Gln  
 370 375 380  
 Val Leu Ala Ala Arg Gly Gly Ala Leu Glu Val Trp Ser Ser Val Lys  
 385 390 395 400  
 Glu Lys Thr Ser Gly Asp Pro Ile Arg Arg Arg Asn Phe Val Asp Lys  
 405 410 415  
 Glu Asp Asp Ser Lys Arg Gly Met Ile Ser Lys Ile Glu Ala Gly Gly  
 420 425 430  
 Asp Arg Leu Phe Val Ser Arg Glu Cys Met Glu Gly Val Glu Val Trp  
 435 440 445  
 Glu Thr Ser Ser Phe Ser Gly Val Val Ser Val Glu  
 450 455 460

&lt;210&gt; 501

&lt;211&gt; 1230

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

```

<400> 501
atgcaaacag tgaaagcttt gaggagagtg agtgaaccct tacaatgggt tcggtctgtt 60
tcttatggaa gacgcttttc tgctctccca aactattccg catcagatgc agatttcgaa 120
gaccaggttc tgggtggaagg aaaagctaaa tcaagagctg ccattctcaa taacccatct 180
tctctcaatg ctctttctgc gcctatgggt ggtcgggttaa agaggctata cgaatcatgg 240
gaagagaacc cagctatttc ctttgttttg atgaagggta gcggtaaaac tttctgctct 300
ggtgcagatg tcttgtctct ttatcactcg atcaatgaag gaaatactga agaactctaa 360
ctctttttcg agaacttgta caagtttgta tacctccaag gaacgtatctt aaaaccaaact 420
atagcaataa tggatgggtg gaccatgggt tgtgggtggtg gaatttcact tccagggatg 480
tttcgtgtgg ctacagataa aactgtgttg gcccatccag aggtccaaat tggttttcat 540
cctgatgcag gagcttccta ttatctttca cggcttcctg gttatttagg ggaatacttg 600
gctctaacgg ggcagaaact taatgggtgc gaaatgatag catgtggcct tgccaccac 660
tattgcttaa acgcgagact tccgttgatt gaagagagga ttggtaaact gttgaccgat 720
gatcctgctg tcattgagga ttctcttgct caatatggtg atcttgttta ccctgacagt 780
agcagcgtac tgcacaagat agagttgatt gataaatatt ttgggcttga taccgttgaa 840
gaaatcattg aagctatgga aaatgaagct gctaattcgt gcaatgaatg gtgcaagaaa 900
actctcaaac agatcaaaga agcttcacct ttgagcttaa agattacttt gcaatctata 960
cgagaaggta gattccaaac ctttgatcaa tgtctcacac atgaataccg tatatccatt 1020
tgtggagtct caaaagtagt ctctggcgac ttttgcgagg gtattcgagc ccgtttggtg 1080
gataaagact ttgctccaaa gtggggtcct ccacgcctag aagatgtgag caaagacatg 1140
gtggattgct acttcacgcc agcctcagag ctcgatgatt cagattctga gttgaagctg 1200
ccaacagctc aacgagagcc ttatTTTTTga 1230

```

<210> 502

<211> 409

<212> PRT

<213> Arabidopsis thaliana

<400> 502

```

Met Gln Thr Val Lys Ala Leu Arg Arg Val Ser Glu Pro Leu Gln Trp
1          5          10          15

```

Val Arg Ser Val Ser Tyr Gly Arg Arg Phe Ser Ala Leu Pro Asn Tyr  
 20 25 30  
 Ser Ala Ser Asp Ala Asp Phe Glu Asp Gln Val Leu Val Glu Gly Lys  
 35 40 45  
 Ala Lys Ser Arg Ala Ala Ile Leu Asn Asn Pro Ser Ser Leu Asn Ala  
 50 55 60  
 Leu Ser Ala Pro Met Val Gly Arg Leu Lys Arg Leu Tyr Glu Ser Trp  
 65 70 75 80  
 Glu Glu Asn Pro Ala Ile Ser Phe Val Leu Met Lys Gly Ser Gly Lys  
 85 90 95  
 Thr Phe Cys Ser Gly Ala Asp Val Leu Ser Leu Tyr His Ser Ile Asn  
 100 105 110  
 Glu Gly Asn Thr Glu Glu Ser Lys Leu Phe Phe Glu Asn Leu Tyr Lys  
 115 120 125  
 Phe Val Tyr Leu Gln Gly Thr Tyr Leu Lys Pro Asn Ile Ala Ile Met  
 130 135 140  
 Asp Gly Val Thr Met Gly Cys Gly Gly Gly Ile Ser Leu Pro Gly Met  
 145 150 155 160  
 Phe Arg Val Ala Thr Asp Lys Thr Val Leu Ala His Pro Glu Val Gln  
 165 170 175  
 Ile Gly Phe His Pro Asp Ala Gly Ala Ser Tyr Tyr Leu Ser Arg Leu  
 180 185 190  
 Pro Gly Tyr Leu Gly Glu Tyr Leu Ala Leu Thr Gly Gln Lys Leu Asn  
 195 200 205  
 Gly Val Glu Met Ile Ala Cys Gly Leu Ala Thr His Tyr Cys Leu Asn  
 210 215 220  
 Ala Arg Leu Pro Leu Ile Glu Glu Arg Ile Gly Lys Leu Leu Thr Asp  
 225 230 235 240  
 Asp Pro Ala Val Ile Glu Asp Ser Leu Ala Gln Tyr Gly Asp Leu Val  
 245 250 255  
 Tyr Pro Asp Ser Ser Ser Val Leu His Lys Ile Glu Leu Ile Asp Lys  
 260 265 270

047-E2F-PCT.ST25.txt

Tyr Phe Gly Leu Asp Thr Val Glu Glu Ile Ile Glu Ala Met Glu Asn  
275 280 285

Glu Ala Ala Asn Ser Cys Asn Glu Trp Cys Lys Lys Thr Leu Lys Gln  
290 295 300

Ile Lys Glu Ala Ser Pro Leu Ser Leu Lys Ile Thr Leu Gln Ser Ile  
305 310 315 320

Arg Glu Gly Arg Phe Gln Thr Leu Asp Gln Cys Leu Thr His Glu Tyr  
325 330 335

Arg Ile Ser Ile Cys Gly Val Ser Lys Val Val Ser Gly Asp Phe Cys  
340 345 350

Glu Gly Ile Arg Ala Arg Leu Val Asp Lys Asp Phe Ala Pro Lys Trp  
355 360 365

Asp Pro Pro Arg Leu Glu Asp Val Ser Lys Asp Met Val Asp Cys Tyr  
370 375 380

Phe Thr Pro Ala Ser Glu Leu Asp Asp Ser Asp Ser Glu Leu Lys Leu  
385 390 395 400

Pro Thr Ala Gln Arg Glu Pro Tyr Phe  
405

<210> 503

<211> 783

<212> DNA

<213> Arabidopsis thaliana

<400> 503

atggctgaac	gagtctatcc	cgccgattca	ccaccacaaa	gcggacaatt	ctccggcaac	60
ttcagctccg	gcgaattccc	caaaaaacca	gcaccaccac	catcaacata	cgtaatccaa	120
gtcccaaaag	atcaaattcta	ccgtatacca	ccgccggaaa	acgcacaccg	ctttgaacaa	180
ctctctcgta	aaaaaaccaa	ccgcagtaac	tgtagatgct	gcttctgctc	attcctcgcc	240
gcggttttca	tcttaatcgt	cctcgccgga	atatacttcg	cggttctcta	cctaattctac	300
cgtcccgaag	ctcctaaata	ctccatcgaa	ggattctctg	tttccggtat	caatctgaat	360
tcaacatctc	cgatttcgcc	gagttttaac	gttaccgtta	gatacagtaa	cggtaacggt	420
aaaatcgggg	tttactacga	gaaagaaagc	tctgttgatg	tgtattacaa	cgacgttgat	480

047-E2F-PCT.ST25.txt

ataagtaacg gtgttatgcc ggtgttttat cagccggcga agaatgtaac ggtcgttaag 540  
 ttggtttttaa gtggttctaa aatacagttg actagtggta tgaggaagga gatgcgtaat 600  
 gaggtgagta agaaaacggt gccgtttaag ttgaagatta aagctccggt gaagattaag 660  
 tttggttctg ttaagacgtg gactatgatt gttaatgttg actgtgatgt aacggtggat 720  
 aaattgacgg cgccgtcgag gattgtgtcg agaaaatgca gtcacgacgt ggatctttgg 780  
 tga 783

<210> 504

<211> 260

<212> PRT

<213> Arabidopsis thaliana

<400> 504

Met Ala Glu Arg Val Tyr Pro Ala Asp Ser Pro Pro Gln Ser Gly Gln  
 1 5 10 15

Phe Ser Gly Asn Phe Ser Ser Gly Glu Phe Pro Lys Lys Pro Ala Pro  
 20 25 30

Pro Pro Ser Thr Tyr Val Ile Gln Val Pro Lys Asp Gln Ile Tyr Arg  
 35 40 45

Ile Pro Pro Pro Glu Asn Ala His Arg Phe Glu Gln Leu Ser Arg Lys  
 50 55 60

Lys Thr Asn Arg Ser Asn Cys Arg Cys Cys Phe Cys Ser Phe Leu Ala  
 65 70 75 80

Ala Val Phe Ile Leu Ile Val Leu Ala Gly Ile Ser Phe Ala Val Leu  
 85 90 95

Tyr Leu Ile Tyr Arg Pro Glu Ala Pro Lys Tyr Ser Ile Glu Gly Phe  
 100 105 110

Ser Val Ser Gly Ile Asn Leu Asn Ser Thr Ser Pro Ile Ser Pro Ser  
 115 120 125

Phe Asn Val Thr Val Arg Ser Arg Asn Gly Asn Gly Lys Ile Gly Val  
 130 135 140

Tyr Tyr Glu Lys Glu Ser Ser Val Asp Val Tyr Tyr Asn Asp Val Asp  
 Page 777

145                      150                      155                      160  
 Ile Ser Asn Gly Val Met Pro Val Phe Tyr Gln Pro Ala Lys Asn Val  
                                  165                                   170                                   175  
 Thr Val Val Lys Leu Val Leu Ser Gly Ser Lys Ile Gln Leu Thr Ser  
                                  180                                   185                                   190  
 Gly Met Arg Lys Glu Met Arg Asn Glu Val Ser Lys Lys Thr Val Pro  
                                  195                                   200                                   205  
 Phe Lys Leu Lys Ile Lys Ala Pro Val Lys Ile Lys Phe Gly Ser Val  
                                  210                                   215                                   220  
 Lys Thr Trp Thr Met Ile Val Asn Val Asp Cys Asp Val Thr Val Asp  
                                  225                                   230                                   235                                   240  
 Lys Leu Thr Ala Pro Ser Arg Ile Val Ser Arg Lys Cys Ser His Asp  
                                  245                                   250                                   255  
 Val Asp Leu Trp  
                                  260

<210> 505

<211> 858

<212> DNA

<213> Arabidopsis thaliana

<400> 505

atgggaagag ctccatgctg tgagaagatg ggggtgaaga gaggaccatg gacacctgaa 60  
 gaagatcaaa tcttggtctc ttttatcctc aaccatggac atagtaactg gcgagccctc 120  
 cctaagcaag ctggtctttt gagatgtgga aaaagctgta gacttaggtg gatgaactat 180  
 ttaaagcctg atattaaacg tggcaatttc accaaagaag aggaagatgc tatcatcagc 240  
 ttacaccaaa tacttgga tagatggtca gcgattgcag caaaactgcc tggaagaacc 300  
 gataacgaga tcaagaacgt atggcacact cacttgaaga agagactcga agattatcaa 360  
 ccagctaaac ctaagaccag caacaaaaag aagggtacta aacaaaaatc tgaatccgta 420  
 ataacgagct cgaacagtac tagaagcgaa tcggagctag cagattcatc aaacccttct 480  
 ggagaaagct tattttcgac atcgcttcg acaagtggagg tttcttcgat gacactcata 540  
 agccacgacg gctatagcaa cgagattaat atggataaca aaccgggaga tatcagtact 600  
 atcgatcaag aatgtgtttc tttcgaaact tttggtgcgg atatcgatga aagcttctgg 660



047-E2F-PCT.ST25.txt

aaagagacac tgtatagcca agatgaacac aactacgtat cgaatgacct agaagtggct 720  
 ggttttagttg agatacaaca agagtttcaa aacttgggct ccgctaataa tgagatgatt 780  
 tttgacagtg agatggactt ctggttcgat gtattggcta gaaccggcgg ggaacaagat 840  
 ctcttagccg ggctctag 858

<210> 506

<211> 285

<212> PRT

<213> Arabidopsis thaliana

<400> 506

Met Gly Arg Ala Pro Cys Cys Glu Lys Met Gly Leu Lys Arg Gly Pro  
 1 5 10 15

Trp Thr Pro Glu Glu Asp Gln Ile Leu Val Ser Phe Ile Leu Asn His  
 20 25 30

Gly His Ser Asn Trp Arg Ala Leu Pro Lys Gln Ala Gly Leu Leu Arg  
 35 40 45

Cys Gly Lys Ser Cys Arg Leu Arg Trp Met Asn Tyr Leu Lys Pro Asp  
 50 55 60

Ile Lys Arg Gly Asn Phe Thr Lys Glu Glu Glu Asp Ala Ile Ile Ser  
 65 70 75 80

Leu His Gln Ile Leu Gly Asn Arg Trp Ser Ala Ile Ala Ala Lys Leu  
 85 90 95

Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Val Trp His Thr His Leu  
 100 105 110

Lys Lys Arg Leu Glu Asp Tyr Gln Pro Ala Lys Pro Lys Thr Ser Asn  
 115 120 125

Lys Lys Lys Gly Thr Lys Pro Lys Ser Glu Ser Val Ile Thr Ser Ser  
 130 135 140

Asn Ser Thr Arg Ser Glu Ser Glu Leu Ala Asp Ser Ser Asn Pro Ser  
 145 150 155 160

Gly Glu Ser Leu Phe Ser Thr Ser Pro Ser Thr Ser Glu Val Ser Ser  
 Page 779

165

175

Met Thr Leu Ile Ser His Asp Gly Tyr Ser Asn Glu Ile Asn Met Asp  
180 185 190

Asn Lys Pro Gly Asp Ile Ser Thr Ile Asp Gln Glu Cys Val Ser Phe  
195 200 205

Glu Thr Phe Gly Ala Asp Ile Asp Glu Ser Phe Trp Lys Glu Thr Leu  
210 215 220

Tyr Ser Gln Asp Glu His Asn Tyr Val Ser Asn Asp Leu Glu Val Ala  
225 230 235 240

Gly Leu Val Glu Ile Gln Gln Glu Phe Gln Asn Leu Gly Ser Ala Asn  
245 250 255

Asn Glu Met Ile Phe Asp Ser Glu Met Asp Phe Trp Phe Asp Val Leu  
260 265 270

Ala Arg Thr Gly Gly Glu Gln Asp Leu Leu Ala Gly Leu  
275 280 285

<210> 507

<211> 1140

<212> DNA

<213> Arabidopsis thaliana

<400> 507

atgtctacca cggacagat tattcgatgc aaagctgctg tggcatggga agccggaaag	60
ccactgggtga tcgaggaagt ggaggttgct ccaccgcaga aacacgaagt tcgtatcaag	120
attctcttca cttctctctg tcacaccgat gtttacttct gggaagctaa gggacaaaca	180
ccgttgtttc cacgtatctt cggccatgaa gctggagggga ttgttgagag tgttggagaa	240
ggagtgactg atcttcagcc aggagatcat gtgttgccga tctttaccgg agaatgtggg	300
gagtgtcgtc attgccactc ggaggaatca aacatgtgtg atcttctcag gatcaacacc	360
gagcgaggag ggatgattca cgatggtgaa tcaagattct ccattaatgg caaaccaatt	420
taccatttcc ttgggacttc cacgttcagt gagtacacag tggttcactc tggtcaggtt	480
gctaagatca atccggatgc tcctcttgac aagggtctgta ttgtcagttg tggtttgtct	540
actgggtag gagcaacttt gaatgtggct aaaccaaga aagggtcaaag tgttgccatt	600
tttgggtcttg gtgctgttgg tttaggcgct gcagaagggtg ctagaatcgc tgggtgcttct	660

047-E2F-PCT.ST25.txt

aggatcatcg gtgttgattt taactctaaa agattcgacc aagctaagga attcgggtgtg 720  
accgagtgtg tgaacccgaa agaccatgac aagccaattc aacagggtgat cgctgagatg 780  
acggatggtg ggggtggacag gagtgtggaa tgcaccggaa gcgttcaggc catgattcaa 840  
gcatttgaat gtgtccacga tggctgggggt gttgcagtgc tgggtgggtgt gccaagcaaa 900  
gacgatgcct tcaagactca tccgatgaat ttcttgaatg agaggactct taagggtact 960  
ttcttcggga actacaaacc caaaactgac attcccgggg ttgtggaaaa gtacatgaac 1020  
aaggagctgg agcttgagaa attcatcact cacacagtgc cattctcgga aatcaacaag 1080  
gcctttgatt acatgctgaa gggagagagt attcgttgca tcatcaccat gggtgcttga 1140

<210> 508

<211> 379

<212> PRT

<213> Arabidopsis thaliana

<400> 508

Met Ser Thr Thr Gly Gln Ile Ile Arg Cys Lys Ala Ala Val Ala Trp  
1 5 10 15

Glu Ala Gly Lys Pro Leu Val Ile Glu Glu Val Glu Val Ala Pro Pro  
20 25 30

Gln Lys His Glu Val Arg Ile Lys Ile Leu Phe Thr Ser Leu Cys His  
35 40 45

Thr Asp Val Tyr Phe Trp Glu Ala Lys Gly Gln Thr Pro Leu Phe Pro  
50 55 60

Arg Ile Phe Gly His Glu Ala Gly Gly Ile Val Glu Ser Val Gly Glu  
65 70 75 80

Gly Val Thr Asp Leu Gln Pro Gly Asp His Val Leu Pro Ile Phe Thr  
85 90 95

Gly Glu Cys Gly Glu Cys Arg His Cys His Ser Glu Glu Ser Asn Met  
100 105 110

Cys Asp Leu Leu Arg Ile Asn Thr Glu Arg Gly Gly Met Ile His Asp  
115 120 125

Gly Glu Ser Arg Phe Ser Ile Asn Gly Lys Pro Ile Tyr His Phe Leu  
Page 781

130

135

Gly Thr Ser Thr Phe Ser Glu Tyr Thr Val Val His Ser Gly Gln Val  
145 150 155 160

Ala Lys Ile Asn Pro Asp Ala Pro Leu Asp Lys Val Cys Ile Val Ser  
165 170 175

Cys Gly Leu Ser Thr Gly Leu Gly Ala Thr Leu Asn Val Ala Lys Pro  
180 185 190

Lys Lys Gly Gln Ser Val Ala Ile Phe Gly Leu Gly Ala Val Gly Leu  
195 200 205

Gly Ala Ala Glu Gly Ala Arg Ile Ala Gly Ala Ser Arg Ile Ile Gly  
210 215 220

Val Asp Phe Asn Ser Lys Arg Phe Asp Gln Ala Lys Glu Phe Gly Val  
225 230 235 240

Thr Glu Cys Val Asn Pro Lys Asp His Asp Lys Pro Ile Gln Gln Val  
245 250 255

Ile Ala Glu Met Thr Asp Gly Gly Val Asp Arg Ser Val Glu Cys Thr  
260 265 270

Gly Ser Val Gln Ala Met Ile Gln Ala Phe Glu Cys Val His Asp Gly  
275 280 285

Trp Gly Val Ala Val Leu Val Gly Val Pro Ser Lys Asp Asp Ala Phe  
290 295 300

Lys Thr His Pro Met Asn Phe Leu Asn Glu Arg Thr Leu Lys Gly Thr  
305 310 315 320

Phe Phe Gly Asn Tyr Lys Pro Lys Thr Asp Ile Pro Gly Val Val Glu  
325 330 335

Lys Tyr Met Asn Lys Glu Leu Glu Leu Glu Lys Phe Ile Thr His Thr  
340 345 350

Val Pro Phe Ser Glu Ile Asn Lys Ala Phe Asp Tyr Met Leu Lys Gly  
355 360 365

Glu Ser Ile Arg Cys Ile Ile Thr Met Gly Ala  
370 375

&lt;210&gt; 509

&lt;211&gt; 795

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 509

```

atggcggtctc cggctgccgc gacagcgagg gcacaggcgc tctctctcct cgccgctgct      60
aataaccacg gcgatttggc agtgaagctc tcgtctctta gacagggtgaa ggagattttg      120
ctgtcactgg agccgtcttt gtctgctgag attttcccct atctcgcaga actccacttg      180
tcccgtgaaa ttctagtctg caaatccctt atcgagatca ttgaagaggt tggtttgctg      240
atgctggatc attcttatgt tctagtgagt gtcttactag tcttatcaag ggacgaggat      300
ccaactgttg caaagaaatc tatttctggt ggcacaactt tcttttgcac catcttggag      360
gagatggcaa tgcagttcca tcaccgtggg aaagttagatc gttggtgtgg ggaactgtgg      420
acatggatgg ttaagttcaa agatactgtc tttgccactg cattggagcc tggttgtgta      480
ggggtgaaag ttcttgctct aaagtttatg gagactttta ttttactctt tactcctgat      540
gcatctgatc ctgagaaagc ttccagcgaa ggaagtagac atatgttcaa tatttcctgg      600
cttgctggcg gtcaccccat tctgaatcca gcaacgctca tgtctgaagc aaataggaca      660
tttggcatct tagtagatct catacagtca gctaatcggt taccgggtgc attgacgata      720
tctgttatta gttggtatgt ttctgaatcc atcccactat gcttgtgtag gtacttttct      780
ttatattcat catga                                          795

```

&lt;210&gt; 510

&lt;211&gt; 264

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 510

```

Met Ala Ala Pro Ala Ala Ala Thr Ala Arg Ala Gln Ala Leu Ser Leu
1          5          10          15

Leu Ala Ala Ala Asn Asn His Gly Asp Leu Ala Val Lys Leu Ser Ser
          20          25          30

Leu Arg Gln Val Lys Glu Ile Leu Leu Ser Leu Glu Pro Ser Leu Ser
          35          40          45

```

047-E2F-PCT.ST25.txt

Ala Glu Ile Phe Pro Tyr Leu Ala Glu Leu His Leu Ser Arg Glu Ile  
50 55 60

Leu Val Arg Lys Ser Leu Ile Glu Ile Ile Glu Glu Val Gly Leu Arg  
65 70 75 80

Met Leu Asp His Ser Tyr Val Leu Val Ser Val Leu Leu Val Leu Ser  
85 90 95

Arg Asp Glu Asp Pro Thr Val Ala Lys Lys Ser Ile Ser Val Gly Thr  
100 105 110

Thr Phe Phe Cys Thr Ile Leu Glu Glu Met Ala Met Gln Phe His His  
115 120 125

Arg Gly Lys Val Asp Arg Trp Cys Gly Glu Leu Trp Thr Trp Met Val  
130 135 140

Lys Phe Lys Asp Thr Val Phe Ala Thr Ala Leu Glu Pro Gly Cys Val  
145 150 155 160

Gly Val Lys Val Leu Ala Leu Lys Phe Met Glu Thr Phe Ile Leu Leu  
165 170 175

Phe Thr Pro Asp Ala Ser Asp Pro Glu Lys Ala Ser Ser Glu Gly Ser  
180 185 190

Arg His Met Phe Asn Ile Ser Trp Leu Ala Gly Gly His Pro Ile Leu  
195 200 205

Asn Pro Ala Thr Leu Met Ser Glu Ala Asn Arg Thr Phe Gly Ile Leu  
210 215 220

Val Asp Phe Ile Gln Ser Ala Asn Arg Leu Pro Gly Ala Leu Thr Ile  
225 230 235 240

Ser Val Ile Ser Trp Tyr Val Ser Glu Ser Ile Pro Leu Cys Leu Cys  
245 250 255

Arg Tyr Phe Ser Leu Tyr Ser Ser  
260

<210> 511

<211> 1806

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 511

```

atggcaatgc caccacctgg aaatgttact actccgtctg agaaattgca gtttcctcct    60
ccggcaaatt ggatcccaga cgagcgagat gggtttatct cctggcttcg tgcggagttc    120
gctgcggtta acgcatcat cgattcgctt tgtcagcatc tacaagcggg tggggatcac    180
aacgagtacg aatccgtgat cggaagcatt catcatcgtc gcttagcctg gtctcaagtg    240
cttactatgc agcagttttt cccagttgca gatgtttctt acaatcttca gcagattgct    300
tggaaggc aacagcaa at gccacctcaa aggcattaca attctgatca agttgggaaa    360
tttgagcaa ggagatcagg gcctgggttt aacaagcatc atgggtggtg tgggggttac    420
agaggagctg attcgatggc gagaaatggg cataatttca atggcgtaa cagtgatcgt    480
gttgagcatc gggaggaagc taagttggca agtgatgtta aggcattgtc tgttcagaa    540
gagaagagag atggtagcga gaaaccgagg agtgatagta aagttgagaa aaaattggaa    600
gaatctgaaa ctcaagagga gatagtgaag aaccataagt gtaactcggg ttctaaagat    660
aacagtctca tttctgagca aaagcaggag gagaacgata aagagtgtcc tgcaagcatg    720
gcaaagactt ttgtggttca agagatgtat gatgcaaaaa tggttaatgt tgtcgaagga    780
ttgaagctat acgacaaaat gcttgacgca aacgaagttt ctcaactcgt ttctcttgta    840
accaatctga gacttgctgg aagaagaggt caacttcaaa gtgaggcata tgtgggttat    900
aaacggccaa atagaggaca tggacgtgag atgatccaac tcggtcttcc tatagctgat    960
acgccgcctg atgatgatag tatcaaagat cgaagaatag agccaatccc atcagctctt   1020
tcagacatca ttgaacgttt ggtctcaaag caaatcatac ctgtgaaacc agacgcatgc   1080
atcattgatt tcttcagcga gggagatcac tcgcagcctc atatgtttgt tccctggttt   1140
ggacgacca tcagtgtctt gtccttgtct gaatgtgatt atacatttg aagagtcatt   1200
gtctctgaaa atcccggcga ctacaaaggc tctctcaagc tgtctctcac tcccggatcg   1260
gttcttttgg tggaaggcaa atccgcaa at cttgctaagt atgcaattca cgcaaccgca   1320
aagcaacgga tactcattag cttcatcaaa tctaaaccga gaaactctaa ctggggacca   1380
ccgccgagca gatcgccaaa tcagcacatc cgtcacccaa ccggcccacc taaacactac   1440
cctgttggtta tcccgtccac tgggtgtctt cccactccgt ctcaccgccc accaaacgga   1500
gctgttcaac cgattttcat ccctccttct cctccacttg cctctccaat gccgttccca   1560
gggtgtgtac caaccggg ccctgtctgg cactgtctgc cacctcatcc acgacaccag   1620
acagcaccac aacctcgaat gccatccca ggcactggtg tgttcctccc acccggttca   1680
aatcaagaac tggctgacaa cagcaacgga acagaaggaa aattagattt gaaggcgaaa   1740

```

gaagaagctc gtaacggatt tggatgaaggg gaatgcgatg gcagtaacgg taaacagagc 1800  
aattag 1806

<210> 512

<211> 601

<212> PRT

<213> Arabidopsis thaliana

<400> 512

Met Ala Met Pro Pro Pro Gly Asn Val Thr Thr Pro Ser Glu Lys Leu  
1 5 10 15

Gln Phe Pro Pro Pro Ala Asn Trp Ile Pro Asp Glu Arg Asp Gly Phe  
20 25 30

Ile Ser Trp Leu Arg Ala Glu Phe Ala Ala Ala Asn Ala Ile Ile Asp  
35 40 45

Ser Leu Cys Gln His Leu Gln Ala Val Gly Asp His Asn Glu Tyr Glu  
50 55 60

Ser Val Ile Gly Ser Ile His His Arg Arg Leu Ala Trp Ser Gln Val  
65 70 75 80

Leu Thr Met Gln Gln Phe Phe Pro Val Ala Asp Val Ser Tyr Asn Leu  
85 90 95

Gln Gln Ile Ala Trp Lys Arg Gln Gln Gln Met Pro Pro Gln Arg His  
100 105 110

Tyr Asn Ser Asp Gln Val Gly Lys Phe Gly Ala Arg Arg Ser Gly Pro  
115 120 125

Gly Phe Asn Lys His His Gly Gly Gly Gly Gly Tyr Arg Gly Ala Asp  
130 135 140

Ser Met Ala Arg Asn Gly His Asn Phe Asn Gly Val Asn Ser Asp Arg  
145 150 155 160

Val Glu His Arg Glu Glu Ala Lys Leu Ala Ser Asp Val Lys Ala Leu  
165 170 175

Ser Val Ala Glu Glu Lys Arg Asp Gly Ser Glu Lys Pro Arg Ser Asp  
180 185 190



047-E2F-PCT.ST25.txt

Ser Lys Val Glu Lys Lys Leu Glu Glu Ser Glu Thr Gln Glu Glu Ile  
195 200 205

Val Lys Asn His Lys Cys Asn Ser Gly Ser Lys Asp Asn Ser Leu Ile  
210 215 220

Ser Glu Gln Lys Gln Glu Glu Asn Asp Lys Glu Cys Pro Ala Ser Met  
225 230 235 240

Ala Lys Thr Phe Val Val Gln Glu Met Tyr Asp Ala Lys Met Val Asn  
245 250 255

Val Val Glu Gly Leu Lys Leu Tyr Asp Lys Met Leu Asp Ala Asn Glu  
260 265 270

Val Ser Gln Leu Val Ser Leu Val Thr Asn Leu Arg Leu Ala Gly Arg  
275 280 285

Arg Gly Gln Leu Gln Ser Glu Ala Tyr Val Gly Tyr Lys Arg Pro Asn  
290 295 300

Arg Gly His Gly Arg Glu Met Ile Gln Leu Gly Leu Pro Ile Ala Asp  
305 310 315 320

Thr Pro Pro Asp Asp Asp Ser Ile Lys Asp Arg Arg Ile Glu Pro Ile  
325 330 335

Pro Ser Ala Leu Ser Asp Ile Ile Glu Arg Leu Val Ser Lys Gln Ile  
340 345 350

Ile Pro Val Lys Pro Asp Ala Cys Ile Ile Asp Phe Phe Ser Glu Gly  
355 360 365

Asp His Ser Gln Pro His Met Phe Val Pro Trp Phe Gly Arg Pro Ile  
370 375 380

Ser Val Leu Ser Leu Ser Glu Cys Asp Tyr Thr Phe Gly Arg Val Ile  
385 390 395 400

Val Ser Glu Asn Pro Gly Asp Tyr Lys Gly Ser Leu Lys Leu Ser Leu  
405 410 415

Thr Pro Gly Ser Val Leu Leu Val Glu Gly Lys Ser Ala Asn Leu Ala  
420 425 430

Lys Tyr Ala Ile His Ala Thr Arg Lys Gln Arg Ile Leu Ile Ser Phe

435

440

445

Ile Lys Ser Lys Pro Arg Asn Ser Asn Trp Gly Pro Pro Pro Ser Arg  
 450 455 460

Ser Pro Asn Gln His Ile Arg His Pro Thr Gly Pro Pro Lys His Tyr  
 465 470 475 480

Pro Val Val Ile Pro Ser Thr Gly Val Leu Pro Thr Pro Ser His Arg  
 485 490 495

Pro Pro Asn Gly Ala Val Gln Pro Ile Phe Ile Pro Pro Ser Pro Pro  
 500 505 510

Leu Ala Ser Pro Met Pro Phe Pro Gly Gly Val Pro Thr Gly Pro Pro  
 515 520 525

Val Trp Pro Leu Leu Pro Pro His Pro Arg His Gln Thr Ala Pro Gln  
 530 535 540

Pro Arg Met Pro Ile Pro Gly Thr Gly Val Phe Leu Pro Pro Gly Ser  
 545 550 555 560

Asn Gln Glu Leu Ala Asp Asn Ser Asn Gly Thr Glu Gly Lys Leu Asp  
 565 570 575

Leu Lys Ala Lys Glu Glu Ala Arg Asn Gly Phe Gly Glu Gly Glu Cys  
 580 585 590

Asp Gly Ser Asn Gly Lys Gln Ser Asn  
 595 600

&lt;210&gt; 513

&lt;211&gt; 1863

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 513

atgacaagtt caaaaatgga acaaagatca ctcctttgct tcctttatct gctcctacta	60
ttcaatttca ctctcagagt cgctggaaac gctgaagggtg atgctttgac tcagctgaaa	120
aacagtttgt catcaggtga ccctgcaaac aatgtactcc aaagctggga tgctactctt	180
gttactccat gtacttggtt tcatgttact tgcaatcctg agaataaagt tactcgtgtt	240
gaccttggga atgcaaaact atctggaaag ttgggtccag aacttgggtca gcttttaaac	300

047-E2F-PCT.ST25.txt

ttgcagtact	tggagcttta	tagcaataac	attacagggg	agatacctga	ggagcttggc	360
gacttggtgg	aactagtaag	cttggatctt	tacgcaaaca	gcataagcgg	tcccatccct	420
tcgtctcttg	gcaaactagg	aaaactccgg	ttcttgcgtc	ttaacaacaa	tagcttatca	480
ggggaaattc	caatgacttt	gacttctgtg	cagctgcaag	ttctggatat	ctcaaacaat	540
cggctcagtg	gagatattcc	tgtaaatggt	tctttttcgc	tcttcactcc	tatcagtttt	600
gcgaataata	gcttaacgga	tcttcccga	cctccgccta	cttctacctc	tcctacgcca	660
ccaccacctt	caggggggca	aatgactgca	gcaatagcag	ggggagttgc	tgcaggtgca	720
gcacttctat	ttgctgttcc	agccattgcg	tttgcttggg	ggctcagaag	aaaaccacag	780
gaccactttt	ttgatgtacc	tgctgaagaa	gaccagagg	ttcatttagg	acaactcaaa	840
aggtttacct	tgctgaact	gttagttgct	actgataact	ttagcaataa	aaatgtattg	900
ggtagagggt	gttttggtaa	agtgtataaa	ggacgttttag	ccgatggcaa	tctagtggct	960
gtcaaaaggc	taaaagaaga	acgtaccaag	ggtggggaac	tgcagtttca	aaccgaagtt	1020
gagatgatca	gtatggccgt	tcataggaac	ttgcttcggc	ttcgtggctt	ttgcatgact	1080
ccaactgaaa	gattacttgt	ttatccctac	atggctaata	gaagtgttgc	ttcttgttta	1140
agagagcgtc	ctgaaggcaa	tccagcactt	gattggccaa	aaagaaagca	tattgctctg	1200
ggatcagcaa	gggggcttgc	gtattttacat	gatcattgcg	acaaaaaat	cattcaccgg	1260
gatgttaaag	ctgctaatat	attgttagat	gaagagtttg	aagctgttgt	tggagatttt	1320
gggctcgcaa	aattaatgaa	ttataatgac	tcccatgtga	caactgctgt	acgcggtaca	1380
attggccata	tagcgcccga	gtacctctcg	acaggaaaat	cttctgagaa	gactgatgtt	1440
tttgggtacg	gggtcatgct	tctcgagctc	atcactggac	aaaaggcttt	cgatcttgct	1500
cggcttgcaa	atgatgatga	tatcatgtta	ctcgactggg	tgaaagaggt	tttgaaagag	1560
aagaagttgg	aaagccttgt	ggatgcagaa	ctcgaaggaa	agtacgtgga	aacagaagtg	1620
gagcagctga	tacaaatggc	tctgctctgc	actcaaagtt	ctgcaatgga	acgtccaaag	1680
atgtcagaag	tagtgagaat	gctggaagga	gatggtttag	ctgagagatg	ggaagaatgg	1740
caaaaggagg	agatgccaat	acatgatttt	aactatcaag	cctatcctca	tgctggcact	1800
gactggctca	tcccctattc	caattccctt	atcgaaaacg	attacccttc	gggtccaaga	1860
taa						1863

<210> 514

<211> 620

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 514

```

Met Thr Ser Ser Lys Met Glu Gln Arg Ser Leu Leu Cys Phe Leu Tyr
1      5      10      15
Leu Leu Leu Leu Phe Asn Phe Thr Leu Arg Val Ala Gly Asn Ala Glu
20      25      30
Gly Asp Ala Leu Thr Gln Leu Lys Asn Ser Leu Ser Ser Gly Asp Pro
35      40      45
Ala Asn Asn Val Leu Gln Ser Trp Asp Ala Thr Leu Val Thr Pro Cys
50      55      60
Thr Trp Phe His Val Thr Cys Asn Pro Glu Asn Lys Val Thr Arg Val
65      70      75      80
Asp Leu Gly Asn Ala Lys Leu Ser Gly Lys Leu Val Pro Glu Leu Gly
85      90      95
Gln Leu Leu Asn Leu Gln Tyr Leu Glu Leu Tyr Ser Asn Asn Ile Thr
100     105     110
Gly Glu Ile Pro Glu Glu Leu Gly Asp Leu Val Glu Leu Val Ser Leu
115     120     125
Asp Leu Tyr Ala Asn Ser Ile Ser Gly Pro Ile Pro Ser Ser Leu Gly
130     135     140
Lys Leu Gly Lys Leu Arg Phe Leu Arg Leu Asn Asn Asn Ser Leu Ser
145     150     155     160
Gly Glu Ile Pro Met Thr Leu Thr Ser Val Gln Leu Gln Val Leu Asp
165     170     175
Ile Ser Asn Asn Arg Leu Ser Gly Asp Ile Pro Val Asn Gly Ser Phe
180     185     190
Ser Leu Phe Thr Pro Ile Ser Phe Ala Asn Asn Ser Leu Thr Asp Leu
195     200     205
Pro Glu Pro Pro Pro Thr Ser Thr Ser Pro Thr Pro Pro Pro Pro Ser
210     215     220
Gly Gly Gln Met Thr Ala Ala Ile Ala Gly Gly Val Ala Ala Gly Ala
225     230     235     240

```

047-E2F-PCT.ST25.txt

Ala Leu Leu Phe Ala Val Pro Ala Ile Ala Phe Ala Trp Trp Leu Arg  
245 250 255

Arg Lys Pro Gln Asp His Phe Phe Asp Val Pro Ala Glu Glu Asp Pro  
260 265 270

Glu Val His Leu Gly Gln Leu Lys Arg Phe Thr Leu Arg Glu Leu Leu  
275 280 285

Val Ala Thr Asp Asn Phe Ser Asn Lys Asn Val Leu Gly Arg Gly Gly  
290 295 300

Phe Gly Lys Val Tyr Lys Gly Arg Leu Ala Asp Gly Asn Leu Val Ala  
305 310 315 320

Val Lys Arg Leu Lys Glu Glu Arg Thr Lys Gly Gly Glu Leu Gln Phe  
325 330 335

Gln Thr Glu Val Glu Met Ile Ser Met Ala Val His Arg Asn Leu Leu  
340 345 350

Arg Leu Arg Gly Phe Cys Met Thr Pro Thr Glu Arg Leu Leu Val Tyr  
355 360 365

Pro Tyr Met Ala Asn Gly Ser Val Ala Ser Cys Leu Arg Glu Arg Pro  
370 375 380

Glu Gly Asn Pro Ala Leu Asp Trp Pro Lys Arg Lys His Ile Ala Leu  
385 390 395 400

Gly Ser Ala Arg Gly Leu Ala Tyr Leu His Asp His Cys Asp Gln Lys  
405 410 415

Ile Ile His Arg Asp Val Lys Ala Ala Asn Ile Leu Leu Asp Glu Glu  
420 425 430

Phe Glu Ala Val Val Gly Asp Phe Gly Leu Ala Lys Leu Met Asn Tyr  
435 440 445

Asn Asp Ser His Val Thr Thr Ala Val Arg Gly Thr Ile Gly His Ile  
450 455 460

Ala Pro Glu Tyr Leu Ser Thr Gly Lys Ser Ser Glu Lys Thr Asp Val  
465 470 475 480

485

490

495

Phe Asp Leu Ala Arg Leu Ala Asn Asp Asp Asp Ile Met Leu Leu Asp  
 500 505 510

Trp Val Lys Glu Val Leu Lys Glu Lys Lys Leu Glu Ser Leu Val Asp  
 515 520 525

Ala Glu Leu Glu Gly Lys Tyr Val Glu Thr Glu Val Glu Gln Leu Ile  
 530 535 540

Gln Met Ala Leu Leu Cys Thr Gln Ser Ser Ala Met Glu Arg Pro Lys  
 545 550 555 560

Met Ser Glu Val Val Arg Met Leu Glu Gly Asp Gly Leu Ala Glu Arg  
 565 570 575

Trp Glu Glu Trp Gln Lys Glu Glu Met Pro Ile His Asp Phe Asn Tyr  
 580 585 590

Gln Ala Tyr Pro His Ala Gly Thr Asp Trp Leu Ile Pro Tyr Ser Asn  
 595 600 605

Ser Leu Ile Glu Asn Asp Tyr Pro Ser Gly Pro Arg  
 610 615 620

&lt;210&gt; 515

&lt;211&gt; 1095

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 515

atgaagaaga aggtgtctca gcagaagtta ctgtacagat ggaagaggaa ggtatacgcc 60  
 acgttgatgt tcgctttctg ctttgggact ttcgtattta tacaagctcg tttcgcattct 120  
 atacaagctc gtttcaatcg aatctctgcg tctctcgatt cgcttaaaaa gcctcgtcta 180  
 gatcagagac cacagattgc cttcctcttc attgcccgga atcgactccc tctcgagttt 240  
 gtctgggatg ctttctttta ggggtgaggat ggaaagttct caatatatgt tcattctaga 300  
 cctggatttg ttctcaacga ggctacaacg cgatccaagt actttttgga tcggcaactt 360  
 aatgacagta tacaggtaga ttggggtgaa tcaaccatga ttgaagcaga acgtgtattg 420  
 cttagacatg cacttagaga ttcatttaat caccgctttg ttttctttc tgatagctgc 480  
 atacctctgt acagtttcag ctacacgtat aactacatca tgtcaacacc aactagtttc 540

047-E2F-PCT.ST25.txt

gttgatagct ttgcagatac aaaagatagc cgttataatc ctagaatgaa tcccattatt 600  
cctgttcgta actggagaaa aggatcacag tgggtcgttc tgaatagaaa acacgcagaa 660  
attgtggtga atgatacctc tgtctttcct atgttttcagc agcattgcag gccagctgaa 720  
ggttggaagg aacacaactg tatacctgat gagcactatg ttcagacatt gctatctcaa 780  
aagggtgtag atagcgaact cacacgaaga tcaactgacac actcagcttg ggacctttca 840  
tcctcgaaaa gtaatgaacg tcgtggatgg catcctatga cttacaagtt ttctgatgct 900  
actcctgatac ttatacagtc cattaagggg atcgacaata tcaactacga gactgaatac 960  
cggcgagaat ggtgtagcag taaagggaaa ccatcaccgt gcttcctctt cgccaggaag 1020  
ttcactcgtc ccgccgctct ccgcctactc cgtgaaacta tcttgttaga gggcaaagag 1080  
catgacaata agtag 1095

<210> 516

<211> 364

<212> PRT

<213> Arabidopsis thaliana

<400> 516

Met Lys Lys Lys Val Ser Gln Gln Lys Leu Leu Tyr Arg Trp Lys Arg  
1 5 10 15

Lys Val Tyr Ala Thr Leu Met Phe Ala Phe Cys Phe Gly Thr Phe Val  
20 25 30

Phe Ile Gln Ala Arg Phe Ala Ser Ile Gln Ala Arg Phe Asn Arg Ile  
35 40 45

Ser Ala Ser Leu Asp Ser Leu Lys Lys Pro Arg Leu Asp Gln Arg Pro  
50 55 60

Gln Ile Ala Phe Leu Phe Ile Ala Arg Asn Arg Leu Pro Leu Glu Phe  
65 70 75 80

Val Trp Asp Ala Phe Phe Lys Gly Glu Asp Gly Lys Phe Ser Ile Tyr  
85 90 95

Val His Ser Arg Pro Gly Phe Val Leu Asn Glu Ala Thr Thr Arg Ser  
100 105 110

Lys Tyr Phe Leu Asp Arg Gln Leu Asn Asp Ser Ile Gln Val Asp Trp  
Page 793

115

120

125

Gly Glu Ser Thr Met Ile Glu Ala Glu Arg Val Leu Leu Arg His Ala  
 130 135 140  
 Leu Arg Asp Ser Phe Asn His Arg Phe Val Phe Leu Ser Asp Ser Cys  
 145 150 155 160  
 Ile Pro Leu Tyr Ser Phe Ser Tyr Thr Tyr Asn Tyr Ile Met Ser Thr  
 165 170 175  
 Pro Thr Ser Phe Val Asp Ser Phe Ala Asp Thr Lys Asp Ser Arg Tyr  
 180 185 190  
 Asn Pro Arg Met Asn Pro Ile Ile Pro Val Arg Asn Trp Arg Lys Gly  
 195 200 205  
 Ser Gln Trp Val Val Leu Asn Arg Lys His Ala Glu Ile Val Val Asn  
 210 215 220  
 Asp Thr Ser Val Phe Pro Met Phe Gln Gln His Cys Arg Pro Ala Glu  
 225 230 235 240  
 Gly Trp Lys Glu His Asn Cys Ile Pro Asp Glu His Tyr Val Gln Thr  
 245 250 255  
 Leu Leu Ser Gln Lys Gly Val Asp Ser Glu Leu Thr Arg Arg Ser Leu  
 260 265 270  
 Thr His Ser Ala Trp Asp Leu Ser Ser Ser Lys Ser Asn Glu Arg Arg  
 275 280 285  
 Gly Trp His Pro Met Thr Tyr Lys Phe Ser Asp Ala Thr Pro Asp Leu  
 290 295 300  
 Ile Gln Ser Ile Lys Gly Ile Asp Asn Ile Asn Tyr Glu Thr Glu Tyr  
 305 310 315 320  
 Arg Arg Glu Trp Cys Ser Ser Lys Gly Lys Pro Ser Pro Cys Phe Leu  
 325 330 335  
 Phe Ala Arg Lys Phe Thr Arg Pro Ala Ala Leu Arg Leu Leu Arg Glu  
 340 345 350  
 Thr Ile Leu Leu Glu Gly Lys Glu His Asp Asn Lys  
 355 360



&lt;210&gt; 517

&lt;211&gt; 1182

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 517

```

atggcggtttc ataacaatca ctttaatcat ttcaccgacc aacaacaaca tcagcctcct      60
cctccgccgc aacagcagca gcaacaacat tttcaagaat cagcaccccc taattggctc      120
ctccgctccg acaacaactt cctcaatctc cacacagctg cctctgccgc cgctacaagc      180
tccgattctc cttcttccgc cgccgctaac cagtggctct cagcatcctc atccttcctc      240
caacgaggca acaccgcaaa caacaacaac aacgaaacat ccggtgacgt catcgaagac      300
gttcccggcg gagaggagtc aatgatcgga gagaagaagg aggcggagag gtggcagaat      360
gcgagacaca aggcggagat actgtctcat ccactatacg agcaactttt gtcggcacac      420
gtggcggtgc tgaggatcgc aacgccggtg gatcagcttc cgaggataga cgcacagctt      480
gctcagtctc aaaacgtcgt ggctaagtac tcaacttttag aagccgctca aggactcctc      540
gccggcgatg acaaggagct tgaccacttc atgacgcatt atgtactatt gctttgctct      600
ttcaaagaac aactgcaaca gcatgttcgt gttcatgcaa tggaagctgt tatggcctgt      660
tgggagattg aacagtcgct tcaaagtttt acaggggtat ctcttggtga aggcacagga      720
gcaacaatgt ctgaggatga agatgagcaa gtagagagtg atgctcattt gtttgatgga      780
agcttagatg ggtaggggtt tggctctcta gttcccactg agagcgagag atctttgatg      840
gaacgagtca gacaagaact caaacatgaa ctcaagcagg gttacaagga gaaaattgtg      900
gacataagag aggagatact gaggaagaga agagctggaa aattaccagg agacaccacc      960
tctgtttctc aatcatggtg gcaatctcat tctaagtggc cttaccctac tgaggaagat     1020
aaggcgaggt tgggtgcagga gacgggtttg cagctcaaac agataaacia ttgggttcac     1080
aatcaaagaa agaggaattg gcatagcaat ccattctctt ctaccgtctc aaagaataaa     1140
cgccgaagca atgcaggtga aaacagcgga agagaccgtt ga                          1182

```

&lt;210&gt; 518

&lt;211&gt; 393

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 518

047-E2F-PCT.ST25.txt

Met	Ala	Phe	His	Asn	Asn	His	Phe	Asn	His	Phe	Thr	Asp	Gln	Gln	Gln
1				5					10					15	
His	Gln	Pro	Pro	Pro	Pro	Pro	Gln	Gln	Gln	Gln	Gln	Gln	His	Phe	Gln
			20					25					30		
Glu	Ser	Ala	Pro	Pro	Asn	Trp	Leu	Leu	Arg	Ser	Asp	Asn	Asn	Phe	Leu
		35					40					45			
Asn	Leu	His	Thr	Ala	Ala	Ser	Ala	Ala	Ala	Thr	Ser	Ser	Asp	Ser	Pro
	50					55					60				
Ser	Ser	Ala	Ala	Ala	Asn	Gln	Trp	Leu	Ser	Arg	Ser	Ser	Ser	Phe	Leu
65					70					75					80
Gln	Arg	Gly	Asn	Thr	Ala	Asn	Asn	Asn	Asn	Asn	Glu	Thr	Ser	Gly	Asp
				85						90				95	
Val	Ile	Glu	Asp	Val	Pro	Gly	Gly	Glu	Glu	Ser	Met	Ile	Gly	Glu	Lys
			100					105					110		
Lys	Glu	Ala	Glu	Arg	Trp	Gln	Asn	Ala	Arg	His	Lys	Ala	Glu	Ile	Leu
		115					120					125			
Ser	His	Pro	Leu	Tyr	Glu	Gln	Leu	Leu	Ser	Ala	His	Val	Ala	Cys	Leu
	130					135					140				
Arg	Ile	Ala	Thr	Pro	Val	Asp	Gln	Leu	Pro	Arg	Ile	Asp	Ala	Gln	Leu
145					150					155					160
Ala	Gln	Ser	Gln	Asn	Val	Val	Ala	Lys	Tyr	Ser	Thr	Leu	Glu	Ala	Ala
				165					170					175	
Gln	Gly	Leu	Leu	Ala	Gly	Asp	Asp	Lys	Glu	Leu	Asp	His	Phe	Met	Thr
			180					185					190		
His	Tyr	Val	Leu	Leu	Leu	Cys	Ser	Phe	Lys	Glu	Gln	Leu	Gln	Gln	His
		195					200					205			
Val	Arg	Val	His	Ala	Met	Glu	Ala	Val	Met	Ala	Cys	Trp	Glu	Ile	Glu
	210					215					220				
Gln	Ser	Leu	Gln	Ser	Phe	Thr	Gly	Val	Ser	Pro	Gly	Glu	Gly	Thr	Gly
225					230					235					240
Ala	Thr	Met	Ser	Glu	Asp	Glu	Asp	Glu	Gln	Val	Glu	Ser	Asp	Ala	His
				245					250					255	

047-E2F-PCT.ST25.txt

Leu Phe Asp Gly Ser Leu Asp Gly Leu Gly Phe Gly Pro Leu Val Pro  
260 265 270

Thr Glu Ser Glu Arg Ser Leu Met Glu Arg Val Arg Gln Glu Leu Lys  
275 280 285

His Glu Leu Lys Gln Gly Tyr Lys Glu Lys Ile Val Asp Ile Arg Glu  
290 295 300

Glu Ile Leu Arg Lys Arg Arg Ala Gly Lys Leu Pro Gly Asp Thr Thr  
305 310 315 320

Ser Val Leu Lys Ser Trp Trp Gln Ser His Ser Lys Trp Pro Tyr Pro  
325 330 335

Thr Glu Glu Asp Lys Ala Arg Leu Val Gln Glu Thr Gly Leu Gln Leu  
340 345 350

Lys Gln Ile Asn Asn Trp Phe Ile Asn Gln Arg Lys Arg Asn Trp His  
355 360 365

Ser Asn Pro Ser Ser Ser Thr Val Ser Lys Asn Lys Arg Arg Ser Asn  
370 375 380

Ala Gly Glu Asn Ser Gly Arg Asp Arg  
385 390

<210> 519

<211> 5268

<212> DNA

<213> Arabidopsis thaliana

<400> 519

atgagcaatc caagcagttc cggcttgggt tcaagttcag gtttgactca tttcgggatc	60
ggtttggcta atactgttca gtcggaagtt actccttact tgccgctacc gtcgttacct	120
atattctgcg gtgcggccga acctggagag ttcaagttgt tcgatgaggt tggccaaggt	180
agtggctaca ggtcgttggg tgcagtgag attctcgcgc aatctagtag aatcgcaa	240
atgcttcatg agactgacgt ttcttacctg gatcttagaa acgaggctag ggcgcccgat	300
tgtaattctg gggagcattt tcagttatat gacctagttc tacgatgcaa tcctggagca	360
tttgagtatg ttacccccgg tccgacctgc gatccactct ttaccaatga agggcctcaa	420

aagataat	ctgaaccaag	tgttcctgtc	aagatgcagc	gacagacgga	tactcattta	480
gctaggagta	tcgaacctga	acctgtgaaa	aggggtattac	gaccaaataca	tgttgaagat	540
catagttggc	agcacgaaac	tctgacaaac	cagtcaccga	aagatgttac	tgcatatgac	600
tctcggcctg	aaacgatcac	catgaatgaa	ctttctgctt	ccaaaaagcc	aaagggaaaag	660
aagaaacgta	aagatgactt	gtcatcagtt	caaccagatc	catctgtgct	gcaagagtcc	720
atcgtacaaa	actttttgtga	gatgtttggag	gacttctgtg	gcagagctga	agtccctggg	780
gatgataggg	atgaagcaga	gtgggtcatca	gtgcccgttg	atgaagttcg	tgttcttata	840
aatgaattga	tgactatacg	gtcaaaaatg	cttctgcata	tggtacctgt	tgatattcta	900
tcaaggttac	tgcgcaactct	ggatcatcag	atacacaggg	cagaaggctt	gtccatttat	960
agtgaacatt	cagattcaga	ttcagtgttg	ttggttcttg	gtgcccttga	gtcaatccat	1020
gcatcgctag	cagtgatggc	caacagtgat	atgccaaagc	agctctacaa	ggaggagata	1080
attgagagaa	ttctggagtt	ttctaggcac	caaatgatgg	ctgttatgtc	tgcttatgat	1140
ccatcatacc	gcactggaag	taaaccggca	gaaaatttgg	catttgaagg	tgatgatgat	1200
gatgataatc	cagatcatga	catgggggtca	gccagcaaaa	ggcggcgcat	agtaaaaaac	1260
agcaaagtaa	agaaggcgctc	agtaaacagt	aaatactgca	ctacagaaac	tttgcaactat	1320
tcttggctta	ctcaaggacc	tgttgttggg	agaaagttac	cttcctcgaa	acgagcattg	1380
agagcgtatc	ttctccctga	tgaagaacag	aggcagattc	aaatgggtcac	tgctttgctc	1440
attcagttgg	ttcacaacag	cacaagcctt	cctgaaacct	cgagacaggc	tgccagtgga	1500
aactctatac	tagagacctc	agttgatgtt	ggctacctta	ctaagtgtca	tgaagcggct	1560
acagaaacat	gttgccctctt	ctggactcgt	gtccttgaac	gatttaccag	ttttaagggt	1620
caggacgctt	ctgagataaa	attgattatt	gagaatcttg	ttatggactt	actgacagca	1680
ttaaatcttc	ctgaatatcc	gtctgtgtct	cctattcttg	aggttctctg	tgtcatactg	1740
ctacataatg	cagggttgaa	atcaaaagat	gtctctgctc	gaataatggc	cattgagttg	1800
ctaggtacaa	tagctgcaag	gttgaaacgt	gatgctgtcc	tctgcagtaa	agacagattc	1860
tggaacgttac	tagagtcaga	tagtgaaatt	agcgttgatc	aagaactaga	catttcaagt	1920
cgaattggc	actgtccgct	ttgtgtatgc	aagaggcaac	ttcttggtact	acagtcttat	1980
tgcaagactg	acaccaaggg	tactggtaag	ttggaatcag	aagaaagcat	cgaaaatcca	2040
agtatgatta	caaagaccga	agttgtgcaa	cagatgctct	tgaattacct	tcaggatgta	2100
ggatcagctg	atgatgtgca	tactttcatt	tgctggtttt	atctgtgcct	ttggtataaa	2160
gatgtcccaa	aatctcagaa	taaattcaaa	tattacattg	ccagactgaa	agcaaagtca	2220
ataatccgta	actctggagc	aactacttcg	ttcttgacaa	gagatgctat	caagcagatt	2280
acttttagccc	ttggaatgaa	tagttccttt	tccagaggat	ttgataagat	tctgaacatg	2340

## 047-E2F-PCT.ST25.txt

ctcctggcta	gtttaagaga	gaacgctccc	aacattaggg	ctaaagcttt	gcgagcagtt	2400
agtataattg	ttgaagctga	tccagaggta	ctgtgtgata	agcgtgttca	gttggtgttt	2460
gaggggaaggt	tttgtgattc	tgcaatatct	gttagagaag	cagcactgga	acttgttggt	2520
aggcatattg	catcacatcc	tgatgttggt	ataaagtact	ttgagaaggt	cgctgagagg	2580
attaaggata	ctggagtgag	tgttcgaaaa	cgagccatca	agataatacg	tgacatgtgt	2640
acttcaaadc	ccaacttctc	tgaattttaca	agtgcgtgag	ctgagatatt	atctcgtatc	2700
agtgatgatg	agtctagtgt	tcaggatctt	gtgtgcaaaa	ctttctatga	attttggttt	2760
gaggaacctc	cagggcatca	tactcagttt	gctagtgatg	ctagctccat	tccactggaa	2820
ctggagaaga	aaaccaagca	aatggttaggg	ttgttaagca	ggaccccaaa	tcaacagctg	2880
cttghtaaca	ttattaagcg	tgccctggcc	ctggattttt	ttcctcaagc	agctaaagct	2940
gctggtatta	accagttgac	tcttgcatca	gtacgcaggc	gctgagagct	gatgtgcaag	3000
tgcttactgg	aaaaaatatt	acaggtagaa	gaaatgagcc	gtgaagaagg	agaggtgcaa	3060
gtacttcctt	atgtacttgt	tttgcatgct	ttctgtctgg	tggatcctgg	gctgtgtaca	3120
ccggcttcag	accctactaa	gtttgtcatc	accctacagc	catatctgaa	gagtcaggct	3180
gatagtagaa	caggagcaca	gttactggag	agtattatct	tcattatcga	ttctgtccta	3240
cccttgatcc	gcaagctgcc	tctaagtgtc	acagaagatc	tggaacagga	tctaaagcat	3300
atgattgttc	ggcattcgtt	tctaactgtt	gtgcatgctt	gcgttagtaa	attggcgggg	3360
aaaggtgtta	gcatagttga	gcatcttctt	cagttctttt	ttaagcggct	ggaggcccaa	3420
ggttccgata	acacacagat	tgctgggagg	tccctttttt	gtcttggttt	gcttattcgc	3480
catggaaact	ctcttattag	tacctcaggt	ggcaagaatt	tcaatctctc	tggtgtcttt	3540
aatttgttta	aacgacatct	ccgaacggaa	gatattgctt	tgaaagtcag	gtcgctgcag	3600
gcttttaggat	tcattccta	tgacacacct	gagtacatgt	tggaagaaga	cattggaaag	3660
ataatcgaga	ctacattagc	agatgaagca	aatgggagta	tgaagatgca	agcattacaa	3720
aacatgtatg	aataccttct	tgatgcggaa	aaacaattgg	gatcagagaa	agccagtgat	3780
aacacggtta	actcagttga	acaaggtggc	cataatgtac	ctgtggccgc	tggtgcaggt	3840
gacaccaaca	tttgaggagg	cattgtgcag	ttgttttggg	ataaaaatatt	aggtagatgc	3900
ttggactttg	atgatcaa	tcgccagacc	tctctcaaga	tagtggaagt	tgtactacgt	3960
caaggcctag	tgatcctat	tacgtgtgtt	ccttatttga	ttgccctcga	gacagatcct	4020
caagaggcca	acaaaaagct	ggcccatcat	ttactaatga	atatgcatga	gaagtatccg	4080
gctttttttg	agagccgtct	tggtgacgga	cttcaa	atgt	catgcaatcc	4140
atcagccagg	tcacttcaga	accaa	atca	agc	aacaacatg	4200

```

ttggggcaaaa atgatcatgc tagtagtact ctcacccaag ctagacttgg agtctctagg 4260
atctacaagc ttatccgtgg aaaccggggt tctcgaaaca aatttatgac ttcgattggt 4320
cgcaagtttg ataatccaac ctggaatggc tcagtaatat cgtttctgaa gtattgcact 4380
gaaacccttg ctttacttcc attcacatca cctgatgaac cactctatct tgtatattcc 4440
ataaaccgag ttatgcagat tcgggctgga gcagttgagt caaatttgaa ggctttgtta 4500
cataaagatt ccgcaaagac tcagcatgga aatggagcat accaacaaga tccgattccc 4560
ggacatatga acatgatgga tctaaacaca agaatccaag aagaaccaag acattggaat 4620
tcctatggcc atgcaactct aattgacctc aatggatcag tataccaaga ttcaagggat 4680
cagttcactt catatcaagt ccataatggg aaagcagatg tgcacaagat gacctcatct 4740
gatcctcctg aattatccac tgatgatctg cagaaaattc aggtagtctt catggctttt 4800
tcccctgtga tgcttagggt tgattgctta gcagctatag ctatacaact tcttttgaag 4860
ctcaagagat acctaaaagt cacgtacagc ttaaagatg accggtgcca agcctattct 4920
ccaacggaac cattgaagcc aggagatcct ctctccagac aaagcgttgc ctttgacctc 4980
agcgaaactc gcactgactt accttcaaca tatcaagact tagttcagag atatcaggag 5040
tttaagaacg caatgagaga agatacgggt gacttcacca tctattcaac aaacgtcaag 5100
agaaaacgcc caacgccaag gaaaacttca agatctgcta aaaaaacagt ggcctacaac 5160
gaagatgatg atgatgacga caatgatgac agaggatggc atggaggagg aggaagagga 5220
gctgctcgga gactaaatta cagcaccaga agtagcaaca gaaggtaa 5268

```

&lt;210&gt; 520

&lt;211&gt; 1755

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 520

```

Met Ser Asn Pro Ser Ser Ser Gly Leu Gly Ser Ser Ser Gly Leu Thr
1           5           10           15

```

```

His Phe Gly Ile Gly Leu Ala Asn Thr Val Gln Ser Glu Val Thr Pro
          20           25           30

```

```

Tyr Leu Pro Leu Pro Ser Leu Pro Ile Phe Cys Gly Ala Ala Glu Pro
          35           40           45

```

```

Gly Glu Phe Lys Leu Phe Asp Glu Val Gly Gln Gly Ser Gly Tyr Arg
50           55           60

```

047-E2F-PCT.ST25.txt

Ser Leu Asp Arg Ser Glu Ile Leu Ala Gln Ser Ser Arg Ile Ala Asn  
 65 70 75 80  
 Met Leu His Glu Thr Asp Val Ser Tyr Leu Asp Leu Arg Asn Glu Ala  
 85 90 95  
 Arg Ala Pro Asp Cys Asn Ser Gly Glu His Phe Gln Leu Tyr Asp Leu  
 100 105 110  
 Val Leu Arg Cys Asn Pro Gly Ala Phe Glu Tyr Val Thr Pro Gly Pro  
 115 120 125  
 Thr Cys Asp Pro Leu Phe Thr Asn Glu Gly Pro Gln Lys Ile Ile Ser  
 130 135 140  
 Glu Pro Ser Val Pro Val Lys Met Gln Arg Gln Thr Asp Thr His Leu  
 145 150 155 160  
 Ala Arg Ser Ile Glu Pro Glu Pro Val Lys Arg Val Leu Arg Pro Asn  
 165 170 175  
 His Val Glu Asp His Ser Trp Gln His Glu Thr Leu Thr Asn Gln Ser  
 180 185 190  
 Pro Lys Asp Val Thr Ala Tyr Asp Ser Arg Pro Glu Thr Ile Thr Met  
 195 200 205  
 Asn Glu Leu Ser Ala Ser Lys Lys Pro Lys Gly Lys Lys Lys Arg Lys  
 210 215 220  
 Asp Asp Leu Ser Ser Val Gln Pro Asp Pro Ser Val Leu Gln Glu Ser  
 225 230 235 240  
 Ile Val Gln Asn Phe Cys Glu Met Leu Glu Asp Phe Cys Gly Arg Ala  
 245 250 255  
 Glu Val Pro Gly Asp Asp Arg Asp Glu Ala Glu Trp Ser Ser Val Pro  
 260 265 270  
 Val Asp Glu Val Arg Val Leu Ile Asn Glu Leu Met Thr Ile Arg Ser  
 275 280 285  
 Lys Met Leu Leu His Met Val Pro Val Asp Ile Leu Ser Arg Leu Leu  
 290 295 300

Arg Thr Leu Asp His Gln Ile His Arg Ala Glu Gly Leu Ser Ile Tyr  
 Page 801

305 310 320  
Ser Glu His Ser Asp Ser Asp Ser Val Leu Leu Val Leu Gly Ala Leu  
325 330 335  
Glu Ser Ile His Ala Ser Leu Ala Val Met Ala Asn Ser Asp Met Pro  
340 345 350  
Lys Gln Leu Tyr Lys Glu Glu Ile Ile Glu Arg Ile Leu Glu Phe Ser  
355 360 365  
Arg His Gln Met Met Ala Val Met Ser Ala Tyr Asp Pro Ser Tyr Arg  
370 375 380  
Thr Gly Ser Lys Pro Ala Glu Asn Leu Ala Phe Glu Gly Asp Asp Asp  
385 390 395 400  
Asp Asp Asn Pro Asp His Asp Met Gly Ser Ala Ser Lys Arg Arg Arg  
405 410 415  
Ile Val Lys Asn Ser Lys Val Lys Lys Ala Ser Val Asn Ser Lys Tyr  
420 425 430  
Cys Thr Thr Glu Thr Leu His Tyr Ser Trp Leu Thr Gln Gly Pro Val  
435 440 445  
Val Gly Arg Lys Leu Pro Ser Ser Lys Arg Ala Leu Arg Ala Tyr Leu  
450 455 460  
Leu Pro Asp Glu Glu Gln Arg Gln Ile Gln Met Val Thr Ala Leu Leu  
465 470 475 480  
Ile Gln Leu Val His Asn Ser Thr Ser Leu Pro Glu Thr Ser Arg Gln  
485 490 495  
Ala Ala Ser Gly Asn Ser Ile Leu Glu Thr Ser Val Asp Val Gly Tyr  
500 505 510  
Leu Thr Lys Cys His Glu Ala Ala Thr Glu Thr Cys Cys Leu Phe Trp  
515 520 525  
Thr Arg Val Leu Glu Arg Phe Thr Ser Phe Lys Gly Gln Asp Ala Ser  
530 535 540  
Glu Ile Lys Leu Ile Ile Glu Asn Leu Val Met Asp Leu Leu Thr Ala  
545 550 555 560



Leu Asn Leu Pro Glu Tyr Pro Ser Val Ser Pro Ile Leu Glu Val Leu  
 565 570 575  
 Cys Val Ile Leu Leu His Asn Ala Gly Leu Lys Ser Lys Asp Val Ser  
 580 585 590  
 Ala Arg Ile Met Ala Ile Glu Leu Leu Gly Thr Ile Ala Ala Arg Leu  
 595 600 605  
 Lys Arg Asp Ala Val Leu Cys Ser Lys Asp Arg Phe Trp Thr Leu Leu  
 610 615 620  
 Glu Ser Asp Ser Glu Ile Ser Val Asp Gln Glu Leu Asp Ile Ser Ser  
 625 630 635 640  
 Arg Asn Trp His Cys Pro Leu Cys Val Cys Lys Arg Gln Leu Leu Val  
 645 650 655  
 Leu Gln Ser Tyr Cys Lys Thr Asp Thr Lys Gly Thr Gly Lys Leu Glu  
 660 665 670  
 Ser Glu Glu Ser Ile Glu Asn Pro Ser Met Ile Thr Lys Thr Glu Val  
 675 680 685  
 Val Gln Gln Met Leu Leu Asn Tyr Leu Gln Asp Val Gly Ser Ala Asp  
 690 695 700  
 Asp Val His Thr Phe Ile Cys Trp Phe Tyr Leu Cys Leu Trp Tyr Lys  
 705 710 715 720  
 Asp Val Pro Lys Ser Gln Asn Lys Phe Lys Tyr Tyr Ile Ala Arg Leu  
 725 730 735  
 Lys Ala Lys Ser Ile Ile Arg Asn Ser Gly Ala Thr Thr Ser Phe Leu  
 740 745 750  
 Thr Arg Asp Ala Ile Lys Gln Ile Thr Leu Ala Leu Gly Met Asn Ser  
 755 760 765  
 Ser Phe Ser Arg Gly Phe Asp Lys Ile Leu Asn Met Leu Leu Ala Ser  
 770 775 780  
 Leu Arg Glu Asn Ala Pro Asn Ile Arg Ala Lys Ala Leu Arg Ala Val  
 785 790 795 800  
 Ser Ile Ile Val Glu Ala Asp Pro Glu Val Leu Cys Asp Lys Arg Val  
 805 810 815

047-E2F-PCT.ST25.txt

Gln Leu Ala Val Glu Gly Arg Phe Cys Asp Ser Ala Ile Ser Val Arg  
820 825 830

Glu Ala Ala Leu Glu Leu Val Gly Arg His Ile Ala Ser His Pro Asp  
835 840 845

Val Gly Ile Lys Tyr Phe Glu Lys Val Ala Glu Arg Ile Lys Asp Thr  
850 855 860

Gly Val Ser Val Arg Lys Arg Ala Ile Lys Ile Ile Arg Asp Met Cys  
865 870 875 880

Thr Ser Asn Pro Asn Phe Ser Glu Phe Thr Ser Ala Cys Ala Glu Ile  
885 890 895

Leu Ser Arg Ile Ser Asp Asp Glu Ser Ser Val Gln Asp Leu Val Cys  
900 905 910

Lys Thr Phe Tyr Glu Phe Trp Phe Glu Glu Pro Pro Gly His His Thr  
915 920 925

Gln Phe Ala Ser Asp Ala Ser Ser Ile Pro Leu Glu Leu Glu Lys Lys  
930 935 940

Thr Lys Gln Met Val Gly Leu Leu Ser Arg Thr Pro Asn Gln Gln Leu  
945 950 955 960

Leu Val Thr Ile Ile Lys Arg Ala Leu Ala Leu Asp Phe Phe Pro Gln  
965 970 975

Ala Ala Lys Ala Ala Gly Ile Asn Pro Val Ala Leu Ala Ser Val Arg  
980 985 990

Arg Arg Cys Glu Leu Met Cys Lys Cys Leu Leu Glu Lys Ile Leu Gln  
995 1000 1005

Val Glu Glu Met Ser Arg Glu Glu Gly Glu Val Gln Val Leu Pro  
1010 1015 1020

Tyr Val Leu Val Leu His Ala Phe Cys Leu Val Asp Pro Gly Leu  
1025 1030 1035

Cys Thr Pro Ala Ser Asp Pro Thr Lys Phe Val Ile Thr Leu Gln  
1040 1045 1050

Pro Tyr Leu Lys Ser Gln Ala Asp Ser Arg Thr Gly Ala Gln Leu  
1055 1060 1065

## 047-E2F-PCT.ST25.txt

Leu Glu Ser Ile Ile Phe Ile Ile Asp Ser Val Leu Pro Leu Ile  
 1070 1075 1080  
 Arg Lys Leu Pro Leu Ser Val Thr Glu Asp Leu Glu Gln Asp Leu  
 1085 1090 1095  
 Lys His Met Ile Val Arg His Ser Phe Leu Thr Val Val His Ala  
 1100 1105 1110  
 Cys Val Ser Lys Leu Ala Gly Lys Gly Val Ser Ile Val Glu His  
 1115 1120 1125  
 Leu Leu Gln Phe Phe Phe Lys Arg Leu Glu Ala Gln Gly Ser Asp  
 1130 1135 1140  
 Asn Thr Gln Ile Ala Gly Arg Ser Leu Phe Cys Leu Gly Leu Leu  
 1145 1150 1155  
 Ile Arg His Gly Asn Ser Leu Ile Ser Thr Ser Gly Gly Lys Asn  
 1160 1165 1170  
 Phe Asn Leu Ser Gly Cys Leu Asn Leu Phe Lys Arg His Leu Arg  
 1175 1180 1185  
 Thr Glu Asp Ile Ala Leu Lys Val Arg Ser Leu Gln Ala Leu Gly  
 1190 1195 1200  
 Phe Ile Leu Ile Ala Arg Pro Glu Tyr Met Leu Glu Glu Asp Ile  
 1205 1210 1215  
 Gly Lys Ile Ile Glu Thr Thr Leu Ala Asp Glu Ala Asn Gly Arg  
 1220 1225 1230  
 Met Lys Met Gln Ala Leu Gln Asn Met Tyr Glu Tyr Leu Leu Asp  
 1235 1240 1245  
 Ala Glu Lys Gln Leu Gly Ser Glu Lys Ala Ser Asp Asn Thr Val  
 1250 1255 1260  
 Asn Ser Val Glu Gln Gly Gly His Asn Val Pro Val Ala Ala Gly  
 1265 1270 1275  
 Ala Gly Asp Thr Asn Ile Cys Gly Gly Ile Val Gln Leu Phe Trp  
 1280 1285 1290  
 Asp Lys Ile Leu Gly Arg Cys Leu Asp Phe Asp Asp Gln Ile Arg

1295						1300						1305
Gln	Thr	Ser	Leu	Lys	Ile	Val	Glu	Val	Val	Leu	Arg	Gln Gly Leu
	1310					1315					1320	
Val	His	Pro	Ile	Thr	Cys	Val	Pro	Tyr	Leu	Ile	Ala	Leu Glu Thr
	1325					1330					1335	
Asp	Pro	Gln	Glu	Ala	Asn	Gln	Lys	Leu	Ala	His	His	Leu Leu Met
	1340					1345					1350	
Asn	Met	His	Glu	Lys	Tyr	Pro	Ala	Phe	Phe	Glu	Ser	Arg Leu Gly
	1355					1360					1365	
Asp	Gly	Leu	Gln	Met	Ser	Phe	Ile	Phe	Met	Gln	Ser	Ile Ser Gln
	1370					1375					1380	
Val	Thr	Ser	Glu	Pro	Asn	Gln	Ser	Leu	Gln	Gln	Lys	Gly Ser Thr
	1385					1390					1395	
Asn	Met	Leu	Gly	Lys	Asn	Asp	His	Ala	Ser	Ser	Thr	Leu Thr Gln
	1400					1405					1410	
Ala	Arg	Leu	Gly	Val	Ser	Arg	Ile	Tyr	Lys	Leu	Ile	Arg Gly Asn
	1415					1420					1425	
Arg	Val	Ser	Arg	Asn	Lys	Phe	Met	Thr	Ser	Ile	Val	Arg Lys Phe
	1430					1435					1440	
Asp	Asn	Pro	Thr	Trp	Asn	Gly	Ser	Val	Ile	Ser	Phe	Leu Lys Tyr
	1445					1450					1455	
Cys	Thr	Glu	Thr	Leu	Ala	Leu	Leu	Pro	Phe	Thr	Ser	Pro Asp Glu
	1460					1465					1470	
Pro	Leu	Tyr	Leu	Val	Tyr	Ser	Ile	Asn	Arg	Val	Met	Gln Ile Arg
	1475					1480					1485	
Ala	Gly	Ala	Val	Glu	Ser	Asn	Leu	Lys	Ala	Leu	Leu	His Lys Asp
	1490					1495					1500	
Ser	Ala	Lys	Thr	Gln	His	Gly	Asn	Gly	Ala	Tyr	Gln	Gln Asp Pro
	1505					1510					1515	
Ile	Pro	Gly	His	Met	Asn	Met	Met	Asp	Leu	Asn	Thr	Arg Ile Gln
	1520					1525					1530	

Glu Glu Pro Arg His Trp Asn Ser Tyr Gly His Ala Thr Leu Ile  
 1535 1540 1545  
 Asp Leu Asn Gly Ser Val Tyr Gln Asp Ser Arg Asp Gln Phe Thr  
 1550 1555 1560  
 Ser Tyr Gln Val His Asn Gly Lys Ala Asp Val His Lys Met Thr  
 1565 1570 1575  
 Ser Ser Asp Pro Pro Glu Leu Ser Thr Asp Asp Leu Gln Lys Ile  
 1580 1585 1590  
 Gln Val Val Phe Met Ala Phe Ser Pro Val Met Leu Arg Val Asp  
 1595 1600 1605  
 Cys Leu Ala Ala Ile Ala Ile Gln Leu Leu Leu Lys Leu Lys Arg  
 1610 1615 1620  
 Tyr Leu Lys Val Thr Tyr Ser Leu Asn Asp Asp Arg Cys Gln Ala  
 1625 1630 1635  
 Tyr Ser Pro Thr Glu Pro Leu Lys Pro Gly Asp Pro Leu Ser Arg  
 1640 1645 1650  
 Gln Ser Val Ala Phe Asp Leu Ser Glu Thr Arg Thr Asp Leu Pro  
 1655 1660 1665  
 Ser Thr Tyr Gln Asp Leu Val Gln Arg Tyr Gln Glu Phe Lys Asn  
 1670 1675 1680  
 Ala Met Arg Glu Asp Thr Val Asp Phe Thr Ile Tyr Ser Thr Asn  
 1685 1690 1695  
 Val Lys Arg Lys Arg Pro Thr Pro Arg Lys Thr Ser Arg Ser Ala  
 1700 1705 1710  
 Lys Lys Thr Val Ala Tyr Asn Glu Asp Asp Asp Asp Asp Asp Asn  
 1715 1720 1725  
 Asp Asp Arg Gly Trp His Gly Gly Gly Gly Arg Gly Ala Ala Arg  
 1730 1735 1740  
 Arg Leu Asn Tyr Ser Thr Arg Ser Ser Asn Arg Arg  
 1745 1750 1755

&lt;210&gt; 521

&lt;211&gt; 945

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 521

```

atggtaggaa gcaaagaaaa atcgaaagag aaacgagata agagactcca agagatctcc      60
ctccttcgta ctattcccta ttctgatcac cagaggtggt ggacctctga aaccgtggcg      120
gtggtaacag gtgcgaatag aggaatagga tttgagatgg tgagacaatt ggctggacat      180
ggactaacag ttattctaac atcaagagac gagaatgtag gcgtcgaagc cgccaagatc      240
cttcaagaag gtggattcaa tgttgatttc caccgcctcg atatcttgga ctcttcctca      300
atccaagagt tttgcgaatg gattaaagaa aaatatggat ttattgatgt ttttaattaat      360
aatgcaggag taaactacaa tgttgatca gataactctg ttgaattctc gcatatggtt      420
atatctacca actactatgg caccaagaac ataatcaacg ccatgattcc actaatgaga      480
catgcttgtc aaggagctcg tattgtcaat gtcacttcaa ggctcggtag attaaaaggc      540
cgacacagta aacttgagaa tgaagacgtg agagccaagc ttatggatgt ggactctcta      600
actgaagaaa tcgttgacaa aacagtatca gagtttttga aacaagtgga agaaggaaca      660
tggaatctg gaggttggcc acattccttc acagactact ctgtctccaa aatggcggtg      720
aacgcataca caagagtact agctaaagaa ctatccgaga gaccagaggg agagaagata      780
tatgcaaact gtttttgtcc cggttgggtg aaaaccgcaa tgacaggcta tgcagggaac      840
gtttcagcag aagatggagc tgacactgga gtctggcttg cattgcttcc tgatcaagct      900
atcaccggaa agttcttcgc cgagagacgt gagatcagtt tctaa                      945

```

&lt;210&gt; 522

&lt;211&gt; 314

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 522

```

Met Val Gly Ser Lys Glu Lys Ser Lys Glu Lys Arg Asp Lys Arg Leu
1          5          10          15

Gln Glu Ile Ser Leu Leu Arg Thr Ile Pro Tyr Ser Asp His Gln Arg
          20          25          30

Trp Trp Thr Ser Glu Thr Val Ala Val Val Thr Gly Ala Asn Arg Gly
          35          40          45

```

047-E2F-PCT.ST25.txt

Ile Gly Phe Glu Met Val Arg Gln Leu Ala Gly His Gly Leu Thr Val  
50 55 60

Ile Leu Thr Ser Arg Asp Glu Asn Val Gly Val Glu Ala Ala Lys Ile  
65 70 75 80

Leu Gln Glu Gly Gly Phe Asn Val Asp Phe His Arg Leu Asp Ile Leu  
85 90 95

Asp Ser Ser Ser Ile Gln Glu Phe Cys Glu Trp Ile Lys Glu Lys Tyr  
100 105 110

Gly Phe Ile Asp Val Leu Ile Asn Asn Ala Gly Val Asn Tyr Asn Val  
115 120 125

Gly Ser Asp Asn Ser Val Glu Phe Ser His Met Val Ile Ser Thr Asn  
130 135 140

Tyr Tyr Gly Thr Lys Asn Ile Ile Asn Ala Met Ile Pro Leu Met Arg  
145 150 155 160

His Ala Cys Gln Gly Ala Arg Ile Val Asn Val Thr Ser Arg Leu Gly  
165 170 175

Arg Leu Lys Gly Arg His Ser Lys Leu Glu Asn Glu Asp Val Arg Ala  
180 185 190

Lys Leu Met Asp Val Asp Ser Leu Thr Glu Glu Ile Val Asp Lys Thr  
195 200 205

Val Ser Glu Phe Leu Lys Gln Val Glu Glu Gly Thr Trp Glu Ser Gly  
210 215 220

Gly Trp Pro His Ser Phe Thr Asp Tyr Ser Val Ser Lys Met Ala Val  
225 230 235 240

Asn Ala Tyr Thr Arg Val Leu Ala Lys Glu Leu Ser Glu Arg Pro Glu  
245 250 255

Gly Glu Lys Ile Tyr Ala Asn Cys Phe Cys Pro Gly Trp Val Lys Thr  
260 265 270

Ala Met Thr Gly Tyr Ala Gly Asn Val Ser Ala Glu Asp Gly Ala Asp  
275 280 285

Thr Gly Val Trp Leu Ala Leu Leu Pro Asp Gln Ala Ile Thr Gly Lys  
Page 809

290

295

Phe Phe Ala Glu Arg Arg Glu Ile Ser Phe  
305 310

<210> 523

<211> 1914

<212> DNA

<213> Arabidopsis thaliana

<400> 523

```
atggtgaaga ttcacccctga caaggcgctt cctgtggatt ttagcgtggg agaaggcaag    60
acttcgccgt acttaacgac ggagaaagag agtttcacga tttggatgag atctcttgtg    120
tttcatagta aaggctgcac agtttttgat tccaaaggaa acttaatcta tcgagtggat    180
aattataact ccaagagttg tagtgaagtt taccttatgg acttatacgg caaaatcttg    240
tttacattac gtcaaaagaa attgggatta ttcaaatctt ggaaaggata taactcaacc    300
gggacaagat ttcaactaag aaaaaacttc aagatattgc caaagggttc atcttcatca    360
tacaaagttg taatgggatc gcgtatagtt gatggtgatc atcaatcttg ttataagatt    420
gtaaaacgca aatcggtttt cacaatcgag gatggatcag gaagattatt ggcagaagtt    480
aaaaagaaac aatcaaatat caaaagttta gatcttggga aagatgtatt aacaatgatg    540
gtggagccac aacttgaaac tgagattttc gaagaattca tcaaaatgtg gagagaatcg    600
gcttcgttta tcctcgataa gcatcagaac aacaaacca tttctctaac tcattcaatt    660
gattctcctc caccaccatc tgcttcaatg gcggatgaaa accctaacc taatcctatt    720
tcggcttatt accaaaccag agcggcgcac catggaattg tgactagcga gtggttggag    780
caggctcaag ccgcggttcg acgttacctt gatcgtgatt ccttagtttc gggaagaccc    840
tttagcgtga ttgaggactt taatagttgg agacagcaac ctgatttggc ggaggctggt    900
gcggcgattc gtgctcttgc ggctgttatt agggctagtg aagctactac tatgatggaa    960
cttgaaattg aactcaagaa agcttctgat actctgaaat attttggttc atgccctgac   1020
gataacttag gattagcttg cggcgtaaat ggtagatgtg atcatcatcg tggcattgca   1080
ttgacttgct gagttgtgaa ttttgcttgg cattatatgt ccgaactctc tgggtggctct   1140
aaagggaag ataggttgaa agttttatct ttcctggatg atgtgtttat gtcatgggac   1200
acaacgtcga tatccttaac agcgggatgt gatctattca tgcgctatgt gactcgaaca   1260
tctgctttag aatttgagga cttcaactct gcgaaatccc gtgtgcttga acgtgctgag   1320
aaatttgggg aaatatcttg caaggcccga acgataattg caatgcttag tcaagatttc   1380
```



047-E2F-PCT.ST25.txt

atatttgatg ggtgtactat tctggtccat ggtttctcca gagttgtgtt tgaaatacta 1440  
aagacatcag cgcaaaacaa gaaactcttt cgagtgttgt gcacaggtgt actgctagct 1500  
aacgagcttg caaaacttga tttcctgtg aagcttctga tcgattcagc cgtggcctat 1560  
agcatggatg aagtagacat ggtgtttgtt ggagctgatg gagtagttga aagtggcggg 1620  
ataattaaca tgatgggaac ttaccaaadc gccctagtcg cacagagtat gaataaacca 1680  
gtctatgtag ctgcagagag ttacaagttt gcacggctct acccgttgga tcaaaaggac 1740  
ttagaaccag ccttgcgacc tattgatttc agtgttcctg ttcctcctaa ggttgaggta 1800  
gaaagatctg caagggacta cactcctcct cagtacttga ctctactctt cactgatctt 1860  
ggtgtttctca ctccatctgt agtaagtgcg gagcttattc agctttactt gtaa 1914

<210> 524

<211> 637

<212> PRT

<213> Arabidopsis thaliana

<400> 524

Met Val Lys Ile His Pro Asp Lys Ala Phe Pro Val Asp Phe Ser Val  
1 5 10 15

Gly Glu Gly Lys Thr Ser Pro Tyr Leu Thr Thr Glu Lys Glu Ser Phe  
20 25 30

Thr Ile Trp Met Arg Ser Leu Val Phe His Ser Lys Gly Cys Thr Val  
35 40 45

Phe Asp Ser Lys Gly Asn Leu Ile Tyr Arg Val Asp Asn Tyr Asn Ser  
50 55 60

Lys Ser Cys Ser Glu Val Tyr Leu Met Asp Leu Tyr Gly Lys Ile Leu  
65 70 75 80

Phe Thr Leu Arg Gln Lys Lys Leu Gly Leu Phe Lys Ser Trp Lys Gly  
85 90 95

Tyr Asn Ser Thr Gly Thr Arg Phe Gln Leu Arg Lys Asn Phe Lys Ile  
100 105 110

Leu Pro Lys Gly Ser Ser Ser Ser Tyr Lys Val Val Met Gly Ser Arg  
115 120 125

047-E2F-PCT.ST25.txt

Ile Val Asp Gly Asp His Gln Ser Cys Tyr Lys Ile Val Lys Arg Lys  
130 135 140

Ser Val Phe Thr Ile Glu Asp Gly Ser Gly Arg Leu Leu Ala Glu Val  
145 150 155 160

Lys Lys Lys Gln Ser Asn Ile Lys Ser Leu Asp Leu Gly Lys Asp Val  
165 170 175

Leu Thr Met Met Val Glu Pro Gln Leu Glu Thr Glu Ile Phe Glu Glu  
180 185 190

Phe Ile Lys Met Trp Arg Glu Ser Ala Ser Phe Ile Leu Asp Lys His  
195 200 205

Gln Asn Asn Lys Pro Ile Ser Leu Thr His Ser Ile Asp Ser Pro Pro  
210 215 220

Pro Pro Ser Ala Ser Met Ala Asp Glu Asn Pro Asn Pro Asn Pro Ile  
225 230 235 240

Ser Ala Tyr Tyr Gln Thr Arg Ala Ala His His Gly Ile Val Thr Ser  
245 250 255

Glu Trp Leu Glu Gln Ala Gln Ala Ala Val Arg Arg Tyr Pro Asp Arg  
260 265 270

Asp Ser Leu Val Ser Gly Arg Pro Phe Ser Val Ile Glu Asp Phe Asn  
275 280 285

Ser Trp Arg Gln Gln Pro Asp Leu Ala Glu Ala Val Ala Ala Ile Arg  
290 295 300

Ala Leu Ala Ala Val Ile Arg Ala Ser Glu Ala Thr Thr Met Met Glu  
305 310 315 320

Leu Glu Ile Glu Leu Lys Lys Ala Ser Asp Thr Leu Lys Tyr Phe Gly  
325 330 335

Ser Cys Pro Asp Asp Asn Leu Gly Leu Ala Cys Gly Val Asn Gly Arg  
340 345 350

Cys Asp His His Arg Gly Ile Ala Leu Thr Cys Arg Val Val Asn Phe  
355 360 365

Ala Trp His Tyr Met Ser Glu Leu Ser Gly Gly Ser Lys Gly Lys Asp  
370 375 380

047-E2F-PCT.ST25.txt

Arg Leu Lys Val Leu Ser Phe Leu Asp Asp Val Phe Met Ser Trp Asp  
385 390 395 400

Thr Thr Ser Ile Ser Leu Thr Ala Gly Cys Asp Leu Phe Met Arg Tyr  
405 410 415

Val Thr Arg Thr Ser Ala Leu Glu Phe Glu Asp Phe Asn Ser Ala Lys  
420 425 430

Ser Arg Val Leu Glu Arg Ala Glu Lys Phe Gly Glu Ile Ser Cys Lys  
435 440 445

Ala Arg Thr Ile Ile Ala Met Leu Ser Gln Asp Phe Ile Phe Asp Gly  
450 455 460

Cys Thr Ile Leu Val His Gly Phe Ser Arg Val Val Phe Glu Ile Leu  
465 470 475 480

Lys Thr Ser Ala Gln Asn Lys Lys Leu Phe Arg Val Leu Cys Thr Gly  
485 490 495

Val Leu Leu Ala Asn Glu Leu Ala Lys Leu Asp Ile Pro Val Lys Leu  
500 505 510

Leu Ile Asp Ser Ala Val Ala Tyr Ser Met Asp Glu Val Asp Met Val  
515 520 525

Phe Val Gly Ala Asp Gly Val Val Glu Ser Gly Gly Ile Ile Asn Met  
530 535 540

Met Gly Thr Tyr Gln Ile Ala Leu Val Ala Gln Ser Met Asn Lys Pro  
545 550 555 560

Val Tyr Val Ala Ala Glu Ser Tyr Lys Phe Ala Arg Leu Tyr Pro Leu  
565 570 575

Asp Gln Lys Asp Leu Glu Pro Ala Leu Arg Pro Ile Asp Phe Ser Val  
580 585 590

Pro Val Pro Pro Lys Val Glu Val Glu Arg Ser Ala Arg Asp Tyr Thr  
595 600 605

Pro Pro Gln Tyr Leu Thr Leu Leu Phe Thr Asp Leu Gly Val Leu Thr  
610 615 620

Pro Ser Val Val Ser Asp Glu Leu Ile Gln Leu Tyr Leu

625

630

<210> 525

<211> 1677

<212> DNA

<213> Arabidopsis thaliana

<400> 525

atgtcgtcgg aatctgaaat cccgccgttg tcgtcatcaa ccgccgcagc ggaggaatct	60
ggagagaaga ccagcaagaa agcggctaag aaggaagctg ccaagctaga gaagttaaga	120
cgtcgtcaag aacaagagga agcaacgcgt cgaacagctt cgatctctct ggaagagaat	180
gacgagtttt ccaataacta cggcgacgtg actcttaccg agttgcaatc gtcggcggat	240
ccgaaagccg ggaagtggat agaggctggt gagggaaagg agtggaccga tgtgagcgat	300
ttggtggaag agatgttggg atcagagggt ctgatcagag gccgagtgc cacgaatcgt	360
ccaacgtcta acaaattggg gtttgtggtc ttgagggaga gcggatcaac tgttcagtgc	420
gtggtttagcc aatcagagaa gaccaaagta ggtgccaaaca tggttaaata cctcaagcag	480
ctgagtcgcy aatcctttgt cgatgtttatc ggtgtcgtca ctctcccaa ggagccgctg	540
acgggaacta cgcagcaggt tgaaattcaa gtgagaaaag tgtactgcat caacaaatcc	600
ttggccaaat taccacttag tgtggaggat gctgctcgga gtgaagcaga tatcgaagca	660
tctcttcaga ctccatctcc agctgctcgt gtcaatcagg atacacgttt gaactatagg	720
gtgctcgacc tcagaacacc ggctaataca gccatcttcc agcttcagta cgaagtcgaa	780
tatgccttca gagaaaaatt acgatttaag aattttgttg gaatccacac accaaaactg	840
atggctggta gtagtgaagg aggttctgct gtatttaggt tggaatacaa agggcaacct	900
gcttgtctag ctcagctctc tcagctccac aagcaaattg caatatgtgg tgacttgcca	960
cgtgtctttg aggtaggtcc tgttttcagg gccgaagact ctttactca tagacacctg	1020
tgtgaattcg ttggtcttga tgtggagatg gagattcgga aacactattc tgagataatg	1080
gatcttgtgg acgagttatt tgtgtttata ttactagtt tgaatgagag gtgcaaaaaa	1140
gaactgcaag ctgttggaag gcaataccca tttgaacctt tgaagtttct accaaaaaca	1200
ttgaggttaa cgtttgaaga aggggttcaa atgcttaagg aagctggtgt ggaggttgat	1260
cctcttggcg atctaaacac tgaatctgag agaaaactag gccagcttgt atttgaaaag	1320
tacaacactg agttctatat tctgcatcgg tatcctaagg cagttaggcc tttctacaca	1380
atgacttgtg ccgataatcc tctttacagc aactcttttg atgtcttcat cagaggtgag	1440
gagatcatat caggagctca acgtgtccat atcccagaag tcttgagca acgtgcagga	1500

047-E2F-PCT.ST25.txt

gaatgtggca ttgatgtcaa gacaatatcc acatacattg attcattcag gtacggtgcg 1560  
cctctacacg gtggatttgg agtggggctg gagcgagtgg tcatgctttt ctgtgcactg 1620  
aacaacattc ggaaaacatc cctcttcctt cgtgaccctc aaaggctttc accctaa 1677

<210> 526

<211> 558

<212> PRT

<213> Arabidopsis thaliana

<400> 526

Met Ser Ser Glu Ser Glu Ile Pro Pro Leu Ser Ser Ser Thr Ala Ala  
1 5 10 15  
Ala Glu Glu Ser Gly Glu Lys Thr Ser Lys Lys Ala Ala Lys Lys Glu  
20 25 30  
Ala Ala Lys Leu Glu Lys Leu Arg Arg Arg Gln Glu Gln Glu Glu Ala  
35 40 45  
Thr Arg Arg Thr Ala Ser Ile Ser Leu Glu Glu Asn Asp Glu Phe Ser  
50 55 60  
Asn Asn Tyr Gly Asp Val Thr Leu Thr Glu Leu Gln Ser Ser Ala Asp  
65 70 75 80  
Pro Lys Ala Gly Lys Trp Ile Glu Ala Val Glu Gly Lys Glu Trp Thr  
85 90 95  
Asp Val Ser Asp Leu Val Glu Glu Met Leu Glu Ser Glu Val Leu Ile  
100 105 110  
Arg Gly Arg Val His Thr Asn Arg Pro Thr Ser Asn Lys Leu Gly Phe  
115 120 125  
Val Val Leu Arg Glu Ser Gly Ser Thr Val Gln Cys Val Val Ser Gln  
130 135 140  
Ser Glu Lys Thr Lys Val Gly Ala Asn Met Val Lys Tyr Leu Lys Gln  
145 150 155 160  
Leu Ser Arg Glu Ser Phe Val Asp Val Ile Gly Val Val Thr Leu Pro  
165 170 175

047-E2F-PCT.ST25.txt

Lys Glu Pro Leu Thr Gly Thr Thr Gln Gln Val Glu Ile Gln Val Arg  
 180 185 190  
 Lys Val Tyr Cys Ile Asn Lys Ser Leu Ala Lys Leu Pro Leu Ser Val  
 195 200 205  
 Glu Asp Ala Ala Arg Ser Glu Ala Asp Ile Glu Ala Ser Leu Gln Thr  
 210 215 220  
 Pro Ser Pro Ala Ala Arg Val Asn Gln Asp Thr Arg Leu Asn Tyr Arg  
 225 230 235 240  
 Val Leu Asp Leu Arg Thr Pro Ala Asn Gln Ala Ile Phe Gln Leu Gln  
 245 250 255  
 Tyr Glu Val Glu Tyr Ala Phe Arg Glu Lys Leu Arg Phe Lys Asn Phe  
 260 265 270  
 Val Gly Ile His Thr Pro Lys Leu Met Ala Gly Ser Ser Glu Gly Gly  
 275 280 285  
 Ser Ala Val Phe Arg Leu Glu Tyr Lys Gly Gln Pro Ala Cys Leu Ala  
 290 295 300  
 Gln Ser Pro Gln Leu His Lys Gln Met Ala Ile Cys Gly Asp Leu Arg  
 305 310 315 320  
 Arg Val Phe Glu Val Gly Pro Val Phe Arg Ala Glu Asp Ser Phe Thr  
 325 330 335  
 His Arg His Leu Cys Glu Phe Val Gly Leu Asp Val Glu Met Glu Ile  
 340 345 350  
 Arg Lys His Tyr Ser Glu Ile Met Asp Leu Val Asp Glu Leu Phe Val  
 355 360 365  
 Phe Ile Phe Thr Ser Leu Asn Glu Arg Cys Lys Lys Glu Leu Gln Ala  
 370 375 380  
 Val Gly Lys Gln Tyr Pro Phe Glu Pro Leu Lys Phe Leu Pro Lys Thr  
 385 390 395 400  
 Leu Arg Leu Thr Phe Glu Glu Gly Val Gln Met Leu Lys Glu Ala Gly  
 405 410 415  
 Val Glu Val Asp Pro Leu Gly Asp Leu Asn Thr Glu Ser Glu Arg Lys  
 420 425 430

047-E2F-PCT.ST25.txt

Leu Gly Gln Leu Val Leu Glu Lys Tyr Asn Thr Glu Phe Tyr Ile Leu  
435 440 445

His Arg Tyr Pro Lys Ala Val Arg Pro Phe Tyr Thr Met Thr Cys Ala  
450 455 460

Asp Asn Pro Leu Tyr Ser Asn Ser Phe Asp Val Phe Ile Arg Gly Glu  
465 470 475 480

Glu Ile Ile Ser Gly Ala Gln Arg Val His Ile Pro Glu Val Leu Glu  
485 490 495

Gln Arg Ala Gly Glu Cys Gly Ile Asp Val Lys Thr Ile Ser Thr Tyr  
500 505 510

Ile Asp Ser Phe Arg Tyr Gly Ala Pro Leu His Gly Gly Phe Gly Val  
515 520 525

Gly Leu Glu Arg Val Val Met Leu Phe Cys Ala Leu Asn Asn Ile Arg  
530 535 540

Lys Thr Ser Leu Phe Pro Arg Asp Pro Gln Arg Leu Ser Pro  
545 550 555

<210> 527

<211> 1785

<212> DNA

<213> Arabidopsis thaliana

<400> 527

atgccggaga aaggaatgat tttcccgccg gtaccgagcc aattggtgat tttacggcca	60
agccctcttc ttcaatggcg gcttggtgct cttacagcac tcgtctgctt cttatgtta	120
gtcgtttgga gtattgacgg ttgttcgatt caaagcttcg ttcagccatg gagattcaat	180
gcttactctg ttcgaatcag tccttctccg tcgccgttta tgtcaacgaa acccaatcta	240
gtatcagaga aacctcaccg ccaaaatctc accttgatga tggctccacg aaatctggtt	300
ccgaagaaga cgaatctcac ttcaaactcg acccgggtcc agttcgagtg gataaccgct	360
ggatctcaga agaatttcac ggcgaatttg atgagagggt gggtggctcc gggaggagcg	420
ccgtgtagag aagcgaagac cgtcgagatt tcagttcccg gtgtcgacgg gattgattct	480
gtggagttaa ccgccggaga gattcatgaa ttcaaatttc aagccataga cgaatctgga	540

047-E2F-PCT.ST25.txt

```

aaaaacgttt gcattggtgg ggactatttc gagactgata tatccggcga gaactggaaa 600
tcgagaccac cggtgaaaga tttcggcaac ggaacttact ctttctcttt acaggttcat 660
cctgagttcg ccggagatth caatctcacc gtcattttac tcttccgtca ttaccaaggt 720
cttaagttta gtacctcacg tttaggcttt gaccgaaagc ttcgcaatgt tagattacgc 780
tttgtttaaga cgcctgacgt tactctgccg gagctccggt catgtaaaaa atctgatttt 840
aacagagatg cttggtctgg acgatggact aggcctggga agaagatga gtgtcagatt 900
agcaatgacg ggcgttaccg ctgcctcgct gcggatttcc cttgccggaa accgtggtgc 960
gacggtgcgg ttggagctat agagagtaat ggttggtttt actctagcca ttgctctttc 1020
aagctcttct ctgccgaaaa ggcttgggat tgcttgaaag gcaaatggat tttcttctgg 1080
ggagattcga atcatgttga ttcgatcaga aacttgctga atttcgtctt gggtcaccc 1140
gaaatccccg ctgtcccgag gaggttcgat atgaagtttt cgaatccgaa gaacccttcg 1200
gagactgtta ggatcacgag tatctttaac ggtcattgga acgagaccaa gaactatcag 1260
ggccttgatt cgcttaaaaga cagggacttt agagaattgc tcaagaagta cttcaacgaa 1320
gaaacaaacc gtgttcccga cgtgatgatc gtgaactcgg gtctacacga cgggattcac 1380
tggaactagtc ttagagcctt tgcgaaaggt gctgaaaccg cagctgcgtt ttggagagaa 1440
gtttttgacg ggggtcaaaag cagaggattg caaccgccag aagtgatttt caggaacaca 1500
atcgcgacag gcgggtacgc gagaatgcta gcgtttaacc cgagcaaat ggaggcgttt 1560
aacggagtgt ttctcgagaa aatgagggat gcgggattgg tcacgagcgt agttgataac 1620
ttcgatatga cgtatccgtg gcactacgat aaccgttgca acgatggagt tcattacgga 1680
agagctccag cgaaaatgcg gtggagggac ggtgagattg gacatcagta ctttgtggac 1740
ttgatgctcg ttcacgtatt gctgaatgca ttgtgtgtaa gatag 1785

```

<210> 528

<211> 594

<212> PRT

<213> Arabidopsis thaliana

<400> 528

Met Pro Glu Lys Gly Met Ile Phe Pro Pro Val Pro Ser Gln Leu Val  
1 5 10 15

Ile Leu Arg Pro Ser Pro Leu Leu Gln Trp Arg Leu Gly Ala Leu Thr  
20 25 30



Ala Leu Val Cys Phe Leu Met Leu Val Val Trp Ser Ile Asp Gly Cys  
 35 40 45  
 Ser Ile Gln Ser Phe Val Gln Pro Trp Arg Phe Asn Ala Tyr Ser Val  
 50 55 60  
 Arg Ile Ser Pro Ser Pro Ser Pro Phe Met Ser Thr Lys Pro Asn Leu  
 65 70 75 80  
 Val Ser Glu Lys Pro His Arg Gln Asn Leu Thr Leu Met Met Ala Pro  
 85 90 95  
 Arg Asn Leu Val Pro Lys Lys Thr Asn Leu Thr Ser Asn Ser Thr Arg  
 100 105 110  
 Val Gln Phe Glu Trp Ile Thr Ala Gly Ser Gln Lys Asn Phe Thr Ala  
 115 120 125  
 Asn Leu Met Arg Gly Trp Leu Ala Pro Gly Gly Ala Pro Cys Arg Glu  
 130 135 140  
 Ala Lys Thr Val Glu Ile Ser Val Pro Gly Val Asp Gly Ile Asp Ser  
 145 150 155 160  
 Val Glu Leu Thr Ala Gly Glu Ile His Glu Phe Lys Phe Gln Ala Ile  
 165 170 175  
 Asp Glu Ser Gly Lys Asn Val Cys Ile Gly Gly Asp Tyr Phe Glu Thr  
 180 185 190  
 Asp Ile Ser Gly Glu Asn Trp Lys Ser Arg Pro Pro Val Lys Asp Phe  
 195 200 205  
 Gly Asn Gly Thr Tyr Ser Phe Ser Leu Gln Val His Pro Glu Phe Ala  
 210 215 220  
 Gly Asp Phe Asn Leu Thr Val Ile Leu Leu Phe Arg His Tyr Gln Gly  
 225 230 235 240  
 Leu Lys Phe Ser Thr Ser Arg Leu Gly Phe Asp Arg Lys Leu Arg Asn  
 245 250 255  
 Val Arg Leu Arg Phe Val Lys Thr Pro Asp Val Thr Leu Pro Glu Leu  
 260 265 270  
 Arg Ser Cys Lys Lys Ser Asp Phe Asn Arg Asp Ala Trp Ser Gly Arg  
 275 280 285

047-E2F-PCT.ST25.txt

Trp Thr Arg Leu Gly Lys Asn Asp Glu Cys Gln Ile Ser Asn Asp Gly  
290 295 300

Arg Tyr Arg Cys Leu Ala Ala Asp Phe Pro Cys Arg Lys Pro Trp Cys  
305 310 315 320

Asp Gly Ala Val Gly Ala Ile Glu Ser Asn Gly Trp Val Tyr Ser Ser  
325 330 335

His Cys Ser Phe Lys Leu Phe Ser Ala Glu Lys Ala Trp Asp Cys Leu  
340 345 350

Lys Gly Lys Trp Ile Phe Phe Trp Gly Asp Ser Asn His Val Asp Ser  
355 360 365

Ile Arg Asn Leu Leu Asn Phe Val Leu Gly His Pro Glu Ile Pro Ala  
370 375 380

Val Pro Arg Arg Phe Asp Met Lys Phe Ser Asn Pro Lys Asn Pro Ser  
385 390 395 400

Glu Thr Val Arg Ile Thr Ser Ile Phe Asn Gly His Trp Asn Glu Thr  
405 410 415

Lys Asn Tyr Gln Gly Leu Asp Ser Leu Lys Asp Arg Asp Phe Arg Glu  
420 425 430

Leu Leu Lys Lys Tyr Phe Asn Glu Glu Thr Asn Arg Val Pro Asp Val  
435 440 445

Met Ile Val Asn Ser Gly Leu His Asp Gly Ile His Trp Thr Ser Leu  
450 455 460

Arg Ala Phe Ala Lys Gly Ala Glu Thr Ala Ala Ala Phe Trp Arg Glu  
465 470 475 480

Val Phe Asp Gly Val Lys Ser Arg Gly Leu Gln Pro Pro Glu Val Ile  
485 490 495

Phe Arg Asn Thr Ile Ala Thr Gly Gly Tyr Ala Arg Met Leu Ala Phe  
500 505 510

Asn Pro Ser Lys Met Glu Ala Phe Asn Gly Val Phe Leu Glu Lys Met  
515 520 525

Arg Asp Ala Gly Leu Val Thr Ser Val Val Asp Asn Phe Asp Met Thr  
530 535 540

047-E2F-PCT.ST25.txt

Tyr Pro Trp His Tyr Asp Asn Arg Cys Asn Asp Gly Val His Tyr Gly  
545 550 555 560

Arg Ala Pro Ala Lys Met Arg Trp Arg Asp Gly Glu Ile Gly His Gln  
565 570 575

Tyr Phe Val Asp Leu Met Leu Val His Val Leu Leu Asn Ala Leu Cys  
580 585 590

Val Arg

<210> 529

<211> 1284

<212> DNA

<213> Arabidopsis thaliana

<400> 529

atgaggtacg atcaggaagc gggatcgtcc tcccattcgc tgccttcggg atcatcctcc	60
cattcgtcgc cgccgacgga agacactcct cttttggggc ctcgaacatt gtcgtcgcag	120
ccaaaaacct ttgcaaagt cttcatcgcc atcgtcggcg ccggcgtgct cggacttccg	180
tacaccttca agaagactgg atggctcttg ggcctcctca cactcctctt cgtatcctcc	240
ctcaccttct tctgtatgat gctcctcgtc cacaccgcc ggaaactcga gtccctctcc	300
ggcttcaaca gcatcacttc tttcggagat ctcggcgaat ccgtctgcgg ccctgccggt	360
cgtctcgtcg tcgatgttat gcttgtcctt tcccaatctg gcttctgcgt cagttacctt	420
atcttcgtcg ccaccacaat ggctaattct ctcagccgcg gcaccgaaca tattctaggc	480
ctcgatgctg cttccattta cctctgggga tgtttccctt ttcagctggg tctcaactcc	540
atcccatcgc tcacccatct cgcccctttg agtatattcg ccgatatcgt ggacgtagcc	600
gccaccttag tggttatggt gcaggatgtt ttcattctcc tgaaacgaag acctcctttg	660
agagtctttg gaggtgtctc tgttttcttc tacggattgg gagttgcggt gtacgcattt	720
gaagggatcg gaatggttct gccactggaa ctagaggcta aatacaaaga caagttcggt	780
agagcgctgg ggctagccat gggcttaatc tcgatcatgt acggtgcgtt cgggctgcta	840
gggtacatgg cttacggaga ggagacgaaa gacatcatca ccaccaacct ggggacagga	900
gtggtgagca ctctggtgca gctgggctta gcaatcaacc tcttcttcac attccccctt	960
atgatgcaac ctgtctacga ggtcgtggaa cgccgccttt gcagctcccg ttactctgta	1020

tgggtgctgct gggccactgt gctggtggtc acgctcgtgg ccctgctcgt cccaaatttt 1080  
 gcagacttct tatctctggt ggggagcagc gtctgctggtg tgctgggctt tgtcttgcca 1140  
 tcactatttc acttgcaggc tttcaaaaac gagttgagca tcacaagaat agtggttagac 1200  
 gttctcgttt tcctcattgg tgttatgata gccattaccg ggacctggac tgcagtacat 1260  
 gagatcctga catccaaggc ctga 1284

<210> 530

<211> 427

<212> PRT

<213> Arabidopsis thaliana

<400> 530

Met Arg Tyr Asp Gln Glu Ala Gly Ser Ser Ser His Ser Leu Pro Ser  
1 5 10 15

Gly Ser Ser Ser His Ser Leu Pro Pro Thr Glu Asp Thr Pro Leu Leu  
20 25 30

Gly Pro Arg Thr Leu Ser Ser Gln Pro Lys Thr Phe Ala Asn Val Phe  
35 40 45

Ile Ala Ile Val Gly Ala Gly Val Leu Gly Leu Pro Tyr Thr Phe Lys  
50 55 60

Lys Thr Gly Trp Leu Leu Gly Leu Leu Thr Leu Leu Phe Val Ser Ser  
65 70 75 80

Leu Thr Phe Phe Cys Met Met Leu Leu Val His Thr Arg Arg Lys Leu  
85 90 95

Glu Ser Leu Ser Gly Phe Asn Ser Ile Thr Ser Phe Gly Asp Leu Gly  
100 105 110

Glu Ser Val Cys Gly Pro Ala Gly Arg Leu Val Val Asp Val Met Leu  
115 120 125

Val Leu Ser Gln Ser Gly Phe Cys Val Ser Tyr Leu Ile Phe Val Ala  
130 135 140

Thr Thr Met Ala Asn Leu Leu Ser Arg Gly Thr Glu His Ile Leu Gly  
145 150 155 160

Leu Asp Ala Ala Ser Ile Tyr Leu Trp Gly Cys Phe Pro Phe Gln Leu  
 165 170 175

Gly Leu Asn Ser Ile Pro Ser Leu Thr His Leu Ala Pro Leu Ser Ile  
 180 185 190

Phe Ala Asp Ile Val Asp Val Ala Ala Thr Leu Val Val Met Val Gln  
 195 200 205

Asp Val Phe Ile Phe Leu Lys Arg Arg Pro Pro Leu Arg Val Phe Gly  
 210 215 220

Gly Val Ser Val Phe Phe Tyr Gly Leu Gly Val Ala Val Tyr Ala Phe  
 225 230 235 240

Glu Gly Ile Gly Met Val Leu Pro Leu Glu Leu Glu Ala Lys Tyr Lys  
 245 250 255

Asp Lys Phe Gly Arg Ala Leu Gly Leu Ala Met Gly Leu Ile Ser Ile  
 260 265 270

Met Tyr Gly Ala Phe Gly Leu Leu Gly Tyr Met Ala Tyr Gly Glu Glu  
 275 280 285

Thr Lys Asp Ile Ile Thr Thr Asn Leu Gly Thr Gly Val Val Ser Thr  
 290 295 300

Leu Val Gln Leu Gly Leu Ala Ile Asn Leu Phe Phe Thr Phe Pro Leu  
 305 310 315 320

Met Met Gln Pro Val Tyr Glu Val Val Glu Arg Arg Leu Cys Ser Ser  
 325 330 335

Arg Tyr Ser Val Trp Val Arg Trp Ala Thr Val Leu Val Val Thr Leu  
 340 345 350

Val Ala Leu Leu Val Pro Asn Phe Ala Asp Phe Leu Ser Leu Val Gly  
 355 360 365

Ser Ser Val Cys Val Val Leu Gly Phe Val Leu Pro Ser Leu Phe His  
 370 375 380

Leu Gln Ala Phe Lys Asn Glu Leu Ser Ile Thr Arg Ile Val Val Asp  
 385 390 395 400

Val Leu Val Phe Leu Ile Gly Val Met Ile Ala Ile Thr Gly Thr Trp  
 405 410 415

Thr Ala Val His Glu Ile Leu Thr Ser Lys Ala  
 420 425

<210> 531

<211> 1119

<212> DNA

<213> *Arabidopsis thaliana*

<400> 531

```

atggaaaacg gagaagcaaa acagagtgtg cctctttctca ctccctataa gatgggaaga      60
ttcaatcttt cccatagggg tgttctagca ccattgacga gacagagatc gtacggaaac      120
gttcctcagc ctcacgctgc catatattac tctcagagaa cgactccagg aggttttctc      180
atcactgaag ccaactggagt ttcagataca gctcaaggat atcaagatac tcctgggata      240
tggaactaaag agcatgtgga ggcattggaag ccaatcgttg atgctgtaca tgccaaagggt      300
ggatatcttct tctgtcagat ctggcatggt ggccgcgttt ctaatagcgg gtttcagcca      360
aatggaaaag ctcctatctc ttgttcggat aagccattga tgcctcaaatt tcgctctaatt      420
ggcatcgatg aagctctctt taccctcca agacggcttg gtatcgaaga aatccccggc      480
attgtcaatg attttaggct tgctgcaaga aatgctatgg aagctggttt tgatggagtt      540
gagattcatg gagctaattg ctatctgatt gaccagttca tgaaggatac ggtgaatgat      600
agaactgatg aatacgggtg atcattgcaa aaccgttgca aatttcctct agaaatagtc      660
gatgcagttg ctaaggagat cggaccagac cgtgttgga tcaaggctctc tccatttgct      720
gactacatgg aatctggaga cactaatcca ggagcattag ggctttatat ggcggaatct      780
ttgaacaaat acggaatcct ctactgtcat gtgattgaag cgagaatgaa aacaatggga      840
gaagtacatg cttgtcctca cacactaatg ccgatgagga aagcgtttaa ggggactttt      900
atctccgcag gaggtttcac gagggaagat gggaatgagg ctgtgtcaaa gggaagaact      960
gatttggtgg cttatggctg atggtttcta gccaaaccgg acctgccaaa gaggttccaa     1020
gtggatgcac cgctgaataa gtacgataga ccaacgtttt acacttctga tccagtcgtc     1080
ggttacaccg attacccttt cctcgaatca acagcttaa                               1119

```

<210> 532

<211> 372

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 532

```

Met Glu Asn Gly Glu Ala Lys Gln Ser Val Pro Leu Leu Thr Pro Tyr
1      5      10      15
Lys Met Gly Arg Phe Asn Leu Ser His Arg Val Val Leu Ala Pro Leu
20     25     30
Thr Arg Gln Arg Ser Tyr Gly Asn Val Pro Gln Pro His Ala Ala Ile
35     40     45
Tyr Tyr Ser Gln Arg Thr Thr Pro Gly Gly Phe Leu Ile Thr Glu Ala
50     55     60
Thr Gly Val Ser Asp Thr Ala Gln Gly Tyr Gln Asp Thr Pro Gly Ile
65     70     75     80
Trp Thr Lys Glu His Val Glu Ala Trp Lys Pro Ile Val Asp Ala Val
85     90     95
His Ala Lys Gly Gly Ile Phe Phe Cys Gln Ile Trp His Val Gly Arg
100    105    110
Val Ser Asn Ser Gly Phe Gln Pro Asn Gly Lys Ala Pro Ile Ser Cys
115    120    125
Ser Asp Lys Pro Leu Met Pro Gln Ile Arg Ser Asn Gly Ile Asp Glu
130    135    140
Ala Leu Phe Thr Pro Pro Arg Arg Leu Gly Ile Glu Glu Ile Pro Gly
145    150    155    160
Ile Val Asn Asp Phe Arg Leu Ala Ala Arg Asn Ala Met Glu Ala Gly
165    170    175
Phe Asp Gly Val Glu Ile His Gly Ala Asn Gly Tyr Leu Ile Asp Gln
180    185    190
Phe Met Lys Asp Thr Val Asn Asp Arg Thr Asp Glu Tyr Gly Gly Ser
195    200    205
Leu Gln Asn Arg Cys Lys Phe Pro Leu Glu Ile Val Asp Ala Val Ala
210    215    220
Lys Glu Ile Gly Pro Asp Arg Val Gly Ile Arg Leu Ser Pro Phe Ala
225    230    235    240

```

047-E2F-PCT.ST25.txt

Asp Tyr Met Glu Ser Gly Asp Thr Asn Pro Gly Ala Leu Gly Leu Tyr  
245 250 255

Met Ala Glu Ser Leu Asn Lys Tyr Gly Ile Leu Tyr Cys His Val Ile  
260 265 270

Glu Ala Arg Met Lys Thr Met Gly Glu Val His Ala Cys Pro His Thr  
275 280 285

Leu Met Pro Met Arg Lys Ala Phe Lys Gly Thr Phe Ile Ser Ala Gly  
290 295 300

Gly Phe Thr Arg Glu Asp Gly Asn Glu Ala Val Ser Lys Gly Arg Thr  
305 310 315 320

Asp Leu Val Ala Tyr Gly Arg Trp Phe Leu Ala Asn Pro Asp Leu Pro  
325 330 335

Lys Arg Phe Gln Val Asp Ala Pro Leu Asn Lys Tyr Asp Arg Pro Thr  
340 345 350

Phe Tyr Thr Ser Asp Pro Val Val Gly Tyr Thr Asp Tyr Pro Phe Leu  
355 360 365

Glu Ser Thr Ala  
370

<210> 533

<211> 1599

<212> DNA

<213> Arabidopsis thaliana

<400> 533

atgagagaac ggattattac attcgtttcg ctgcttcttg tagctttgct ttcgtttccc	60
agtgttagct actgtgacga ccaaacgata ctgtatgaat cgtttgacga gccttttgat	120
ggtcgctggg tcgtttcaga gaaagctgaa taccaaggtg tgtggaagca cgagaagagt	180
gaagggcatg atgattatgg acttctagtg agtgagaaag ctaagaagta cggaatagtt	240
aaagagcttg atgttgatga gcctctaaac cttaacgaag gaactgttgt tcttcaatac	300
gaggctcggt tccaagaagg gcttgagtgt ggtgggtgctt acttaaagta tcttcgtcct	360
caagaagctg gatgggttcc tcaaggggtt gataatgatt ctccttactc tatcatgttt	420
ggacctgata agtgtggtgc taccaacaag gttcatttca tcttgaagca taagaatccc	480



047-E2F-PCT.ST25.txt

aagagtggcg agtttgttga gcaccatctc aagttccctc cttctgttcc gtttgacatg 540  
 ctttctcatg tctacactgc ggtcttgaaa tctgataatg aggtgaggat tttggtcgat 600  
 ggtgaggaga agaagaaggg taatttactg tctgctgaag actttgagcc tccgttgatt 660  
 ccttccaaga ccatccctga tccagaggac aagaagccag aagactggga tgagagagcc 720  
 aagattcctg atcctaatagc tgtgaagcct gatgactggg atgaggatgc acccatggag 780  
 attgaagatg aggaagctga gaaacccgaa ggatgggttg atgatgagcc tgtagagggtt 840  
 gaagaccccg aggcaagcaa gccagaagat tgggatgacg aggaagatgg tgagtgggag 900  
 gctcctaagg tttccaacac caagtgtgag gcagcacccg gatgtggcga atggaagaga 960  
 ccgatgaaga ggaaccctgc ttacaagggc aaatggagct cacctctcat agataaccca 1020  
 gcttacaagg gaatctggaa accaagagac attccaaatc ctgattatit tgagcttgag 1080  
 aggccgaatt tggagcccat tgctgccatt ggtattgaga tatggacaat gcaagacggt 1140  
 atcttatttg acaacatctt gatatctaaa gacgagaagg ttgctgaaac ttacagacaa 1200  
 agcacttgga agcccaagtt tgatgtggag aaagagaaac aaaaggcaga ggatgaagct 1260  
 gctggtgagg cagatggtct caagagttac cagaagaagg tgttcgacct cttgtacaag 1320  
 gttgcagaca tttctttcct tagtgcgtac aagtcaaaga ttatggaact tattgagaaa 1380  
 gctgaaacac agccaaactt aaccatcggg gtgctcattt ccacgtgat cgtcttcctc 1440  
 tctctcttct tcaagctcat atttggtggt gcaaaggcta aggtagaaaa gaagaaaccg 1500  
 gaaacagctg cagagacctc gacaagcgag gcaaagacag aggagaaagc agaagcggtg 1560  
 gctgcaccac gaaagaggca gacgagcggt gagagttag 1599

<210> 534

<211> 532

<212> PRT

<213> Arabidopsis thaliana

<400> 534

Met Arg Glu Arg Ile Ile Thr Phe Val Ser Leu Leu Leu Val Ala Leu  
 1 5 10 15

Leu Ser Phe Pro Ser Val Ser Tyr Cys Asp Asp Gln Thr Ile Leu Tyr  
 20 25 30

Glu Ser Phe Asp Glu Pro Phe Asp Gly Arg Trp Val Val Ser Glu Lys  
 35 40 45

047-E2F-PCT.ST25.txt

Ala Glu Tyr Gln Gly Val Trp Lys His Glu Lys Ser Glu Gly His Asp  
50 55 60

Asp Tyr Gly Leu Leu Val Ser Glu Lys Ala Lys Lys Tyr Gly Ile Val  
65 70 75 80

Lys Glu Leu Asp Val Asp Glu Pro Leu Asn Leu Asn Glu Gly Thr Val  
85 90 95

Val Leu Gln Tyr Glu Ala Arg Phe Gln Glu Gly Leu Glu Cys Gly Gly  
100 105 110

Ala Tyr Leu Lys Tyr Leu Arg Pro Gln Glu Ala Gly Trp Val Pro Gln  
115 120 125

Gly Phe Asp Asn Asp Ser Pro Tyr Ser Ile Met Phe Gly Pro Asp Lys  
130 135 140

Cys Gly Ala Thr Asn Lys Val His Phe Ile Leu Lys His Lys Asn Pro  
145 150 155 160

Lys Ser Gly Glu Phe Val Glu His His Leu Lys Phe Pro Pro Ser Val  
165 170 175

Pro Phe Asp Met Leu Ser His Val Tyr Thr Ala Val Leu Lys Ser Asp  
180 185 190

Asn Glu Val Arg Ile Leu Val Asp Gly Glu Glu Lys Lys Lys Gly Asn  
195 200 205

Leu Leu Ser Ala Glu Asp Phe Glu Pro Pro Leu Ile Pro Ser Lys Thr  
210 215 220

Ile Pro Asp Pro Glu Asp Lys Lys Pro Glu Asp Trp Asp Glu Arg Ala  
225 230 235 240

Lys Ile Pro Asp Pro Asn Ala Val Lys Pro Asp Asp Trp Asp Glu Asp  
245 250 255

Ala Pro Met Glu Ile Glu Asp Glu Glu Ala Glu Lys Pro Glu Gly Trp  
260 265 270

Leu Asp Asp Glu Pro Val Glu Val Glu Asp Pro Glu Ala Ser Lys Pro  
275 280 285

Glu Asp Trp Asp Asp Glu Glu Asp Gly Glu Trp Glu Ala Pro Lys Val  
290 295 300

047-E2F-PCT.ST25.txt

Ser Asn Thr Lys Cys Glu Ala Ala Pro Gly Cys Gly Glu Trp Lys Arg  
305 310 315 320

Pro Met Lys Arg Asn Pro Ala Tyr Lys Gly Lys Trp Ser Ser Pro Leu  
325 330 335

Ile Asp Asn Pro Ala Tyr Lys Gly Ile Trp Lys Pro Arg Asp Ile Pro  
340 345 350

Asn Pro Asp Tyr Phe Glu Leu Glu Arg Pro Asn Leu Glu Pro Ile Ala  
355 360 365

Ala Ile Gly Ile Glu Ile Trp Thr Met Gln Asp Gly Ile Leu Phe Asp  
370 375 380

Asn Ile Leu Ile Ser Lys Asp Glu Lys Val Ala Glu Thr Tyr Arg Gln  
385 390 395 400

Ser Thr Trp Lys Pro Lys Phe Asp Val Glu Lys Glu Lys Gln Lys Ala  
405 410 415

Glu Asp Glu Ala Ala Gly Glu Ala Asp Gly Leu Lys Ser Tyr Gln Lys  
420 425 430

Lys Val Phe Asp Leu Leu Tyr Lys Val Ala Asp Ile Ser Phe Leu Ser  
435 440 445

Ala Tyr Lys Ser Lys Ile Met Glu Leu Ile Glu Lys Ala Glu Thr Gln  
450 455 460

Pro Asn Leu Thr Ile Gly Val Leu Ile Ser Ile Val Ile Val Phe Leu  
465 470 475 480

Ser Leu Phe Phe Lys Leu Ile Phe Gly Gly Ala Lys Ala Lys Val Glu  
485 490 495

Lys Lys Lys Pro Glu Thr Ala Ala Glu Thr Ser Thr Ser Glu Ala Lys  
500 505 510

Thr Glu Glu Lys Ala Glu Ala Val Ala Ala Pro Arg Lys Arg Gln Thr  
515 520 525

Arg Arg Glu Ser  
530

<210> 535

&lt;211&gt; 2427

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 535

atggattcta gagctattct cgattccgct ttgtttcaac tcactcctac tcgcactaga	60
ttcgatctgg ttctattctg tgggagtaag aaggagaagc tagcttcagg gatttttgaa	120
ccattcgtct ctcattctta gttcgctaga gatcagatct ctaaaggcgg ttactccatt	180
tctctgactc ctctttcttc tcactcttct tggttcacca aatccacttt tgatcggttt	240
gtgagatttg taaacacgcc tgcgattatc gaaagatttg cgactctgga gaaagagatt	300
ttgcagattg agaattctat tcaagctaata gaaattgcc aatgctgctga tgctctgcaa	360
ttacaagacg ggagtaattc tggagatagc agtaattctaa agaagtcgaa tgagtcctct	420
aagaaggaat ctgagaatgg caatgaggtg gtaggagagg aaacctctaa gattcaactt	480
caacgtcttc ttgaaactag aagaacattg cttcgaagag agcaagcaat ggcttatgca	540
cgaggggttg ttgctgggta tgaaattgat agtattgatg atctcatttt atttgctgat	600
gctttcgggg cttcaagggt aagagaagca tgcataatgt ataaagaact atggaagaag	660
aagcacggtg atgggctttg gatggcggaa ttagcagctg tgaaagcgtg tgctccagt	720
gacatgtcat tgttgggttc ctccagcatc atctcacta atgaagggtgc tgctctatca	780
ctaaatggga cagactcaat gccatctaat acagatgaca agtcagttaa tttagagcaa	840
catccgtccg gtgttccaaa ctttcaagca ccaatgggat ggccaaacca tatgcctcaa	900
tacttttacc cgtctccata ccaaggctat ccgtaccctc ctatgcaaca catgccaaat	960
caaaaccaag gaaacatgcc atggccttca aggggcaaaa catccaagaa aaaaggggaag	1020
ggggattctg atggagatga gtctagtga tcaagtgaat ctagtgaatc tgaatcggcc	1080
agcgatgatt ctgcttcattc tttggaagat caaggtaaaa gacactctcg tacaagtaaa	1140
aactcacgcc gatcaaagaa aaaccggaag aagtcattct aaactgttat catccgtaat	1200
attaactata taaccccgga gggaagaaat ggagacatgg agggaaatga gtttacggac	1260
aacggttcca tcaaagagac tgtagatgct gctgttgga tgctcaacga aaaaagagct	1320
catgagggag aagtttctgg tgaagaaaaa cgaagcaacg agaattggga ttcatttcag	1380
aatattttga tgaggcacga tgatggctca gatgtgcatt caatggatgt catcggtcag	1440
gagcatttca cacatagagg cgctagtgtg ggtgcaaat ctaatggctt gcaaacaag	1500
aacactgcct cgggtgattc catcatcaca acgcataagt acatagaaga tggaggagat	1560
agctttgatc attttgaaag tgaggatagt gctcgcaggc ttccaagaac gagggactcg	1620

047-E2F-PCT.ST25.txt

actgaagaat gtatgttact gcttaagaga tcagaaatgt taggagatga aagcaaagac 1680  
atgtataatg ctacaagggg tgaatcgttg gtgaagaagt cagggagtgg agaggattgg 1740  
tttactgctt cgggtaatcg tgctgggaaa ccggaaatca actacgggag aatgtcattt 1800  
gatgacagca ttttgacatc tcaaggttct gataagagca agaaacaaga attcgttgat 1860  
gattctttca tgggtccattc atcatcgctt gctgctgatg atctttatga ctctcggtgg 1920  
agaccagaca tggctgctga tattgtttta gcctctgacg ttgacaacgg gcatgctaata 1980  
gaaaaacacg attcatggga accaaatgat ctttgtatga ttcctgaacg caattcagga 2040  
gactctttgg ctaatgatta ttcgattgat ttctctgctg aagcaaatgc aaggctatcc 2100  
agtaacggaa cagctcagga gaaagaagat aagagcggcg agaagaaaaa caatgtgaag 2160  
aacccggaac ctcgtaagtc taaaactcca agtagaacca gagcggaaac aatgtccaag 2220  
actgcaaaga aaccaacagt agctagcaga acaatggcac agaagaacaa gtttgaaaag 2280  
gaagaagaga tgcggaagag aatagaaaac cttgtaatgg aaaggcaaaa aagaatcgca 2340  
gagagatcag ccatgactgc atctcgtaaa gtttctctag acaaagggtt gagcagagct 2400  
cctttgggtt gcgaaagggc tacataa 2427

<210> 536

<211> 808

<212> PRT

<213> Arabidopsis thaliana

<400> 536

Met Asp Ser Arg Ala Ile Leu Asp Ser Ala Leu Phe Gln Leu Thr Pro  
1 5 10 15

Thr Arg Thr Arg Phe Asp Leu Val Leu Phe Cys Gly Ser Lys Lys Glu  
20 25 30

Lys Leu Ala Ser Gly Ile Phe Glu Pro Phe Val Ser His Leu Lys Phe  
35 40 45

Ala Arg Asp Gln Ile Ser Lys Gly Gly Tyr Ser Ile Ser Leu Thr Pro  
50 55 60

Pro Ser Ser His Ser Ser Trp Phe Thr Lys Ser Thr Phe Asp Arg Phe  
65 70 75 80

Val Arg Phe Val Asn Thr Pro Ala Ile Ile Glu Arg Phe Ala Thr Leu  
Page 831

Glu Lys Glu Ile Leu Gln Ile Glu Asn Ser Ile Gln Ala Asn Glu Ile  
100 105 110

Ala Asn Ala Ala Asp Ala Leu Gln Leu Gln Asp Gly Ser Asn Ser Gly  
115 120 125

Asp Ser Ser Asn Leu Lys Lys Ser Asn Glu Ser Ser Lys Lys Glu Ser  
130 135 140

Glu Asn Gly Asn Glu Val Val Gly Glu Glu Thr Ser Lys Ile Gln Leu  
145 150 155 160

Gln Arg Leu Leu Glu Thr Arg Arg Thr Leu Leu Arg Arg Glu Gln Ala  
165 170 175

Met Ala Tyr Ala Arg Gly Val Val Ala Gly Tyr Glu Ile Asp Ser Ile  
180 185 190

Asp Asp Leu Ile Leu Phe Ala Asp Ala Phe Gly Ala Ser Arg Leu Arg  
195 200 205

Glu Ala Cys Ile Met Tyr Lys Glu Leu Trp Lys Lys Lys His Gly Asp  
210 215 220

Gly Leu Trp Met Ala Glu Leu Ala Ala Val Lys Ala Cys Ala Pro Val  
225 230 235 240

Asp Met Ser Leu Leu Gly Ser Ser Gly Ile Ile Leu Thr Asn Glu Gly  
245 250 255

Ala Ala Leu Ser Leu Asn Gly Thr Asp Ser Met Pro Ser Asn Thr Asp  
260 265 270

Asp Lys Ser Val Asn Leu Glu Gln His Pro Ser Gly Val Pro Asn Phe  
275 280 285

Gln Ala Pro Met Gly Trp Pro Asn His Met Pro Gln Tyr Phe Tyr Pro  
290 295 300

Ser Pro Tyr Gln Gly Tyr Pro Tyr Pro Pro Met Gln His Met Pro Asn  
305 310 315 320

Gln Asn Gln Gly Asn Met Pro Trp Pro Ser Arg Gly Lys Thr Ser Lys  
325 330 335

Lys Lys Gly Lys Gly Asp Ser Asp Gly Asp Glu Ser Ser Glu Ser Ser  
 340 345 350  
 Glu Ser Ser Glu Ser Glu Ser Ala Ser Asp Asp Ser Ala Ser Ser Leu  
 355 360 365  
 Glu Asp Gln Gly Lys Arg His Ser Arg Thr Ser Lys Asn Ser Arg Arg  
 370 375 380  
 Ser Lys Lys Asn Arg Lys Lys Ser Ser Lys Thr Val Ile Ile Arg Asn  
 385 390 395 400  
 Ile Asn Tyr Ile Thr Pro Glu Gly Arg Asn Gly Asp Met Glu Gly Asn  
 405 410 415  
 Glu Phe Thr Asp Asn Gly Ser Ile Lys Glu Thr Val Asp Ala Ala Val  
 420 425 430  
 Gly Met Leu Asn Glu Lys Arg Ala His Glu Gly Glu Val Ser Gly Glu  
 435 440 445  
 Glu Lys Arg Ser Asn Glu Asn Trp Asp Ser Phe Gln Asn Ile Leu Met  
 450 455 460  
 Arg His Asp Asp Gly Ser Asp Val His Ser Met Asp Val Ile Gly Gln  
 465 470 475 480  
 Glu His Phe Thr His Arg Gly Ala Ser Val Gly Ala Asn Ser Asn Gly  
 485 490 495  
 Leu Gln Thr Lys Asn Thr Ala Ser Gly Asp Ser Ile Ile Thr Thr His  
 500 505 510  
 Lys Tyr Ile Glu Asp Gly Gly Asp Ser Phe Asp His Phe Glu Ser Glu  
 515 520 525  
 Asp Ser Ala Arg Arg Leu Pro Arg Thr Arg Asp Ser Thr Glu Glu Cys  
 530 535 540  
 Met Leu Leu Leu Lys Arg Ser Glu Met Leu Gly Asp Glu Ser Lys Asp  
 545 550 555 560  
 Met Tyr Asn Ala Thr Arg Gly Glu Ser Leu Val Lys Lys Ser Gly Ser  
 565 570 575  
 Gly Glu Asp Trp Phe Thr Ala Ser Gly Asn Arg Ala Gly Lys Pro Glu  
 580 585 590

047-E2F-PCT.ST25.txt

Ile Asn Tyr Gly Arg Met Ser Phe Asp Asp Ser Ile Leu Thr Ser Gln  
595 600 605

Gly Ser Asp Lys Ser Lys Lys Gln Glu Phe Val Asp Asp Ser Phe Met  
610 615 620

Val His Ser Ser Ser Leu Ala Ala Asp Asp Leu Tyr Asp Ser Arg Trp  
625 630 635 640

Arg Pro Asp Met Ala Ala Asp Ile Val Leu Ala Ser Asp Val Asp Asn  
645 650 655

Gly His Ala Asn Glu Lys His Asp Ser Trp Glu Pro Asn Asp Leu Cys  
660 665 670

Met Ile Pro Glu Arg Asn Ser Gly Asp Ser Leu Ala Asn Asp Tyr Ser  
675 680 685

Ile Asp Phe Ser Ala Glu Ala Asn Ala Arg Leu Ser Ser Asn Gly Thr  
690 695 700

Ala Gln Glu Lys Glu Asp Lys Ser Gly Glu Lys Lys Asn Asn Val Lys  
705 710 715 720

Asn Pro Glu Thr Arg Lys Ser Lys Thr Pro Ser Arg Thr Arg Ala Glu  
725 730 735

Thr Met Ser Lys Thr Ala Lys Lys Pro Thr Val Ala Ser Arg Thr Met  
740 745 750

Ala Gln Lys Asn Lys Phe Glu Lys Glu Glu Glu Met Arg Lys Arg Ile  
755 760 765

Glu Asn Leu Val Met Glu Arg Gln Lys Arg Ile Ala Glu Arg Ser Ala  
770 775 780

Met Thr Ala Ser Arg Lys Val Ser Leu Asp Lys Gly Ser Ser Arg Ala  
785 790 795 800

Pro Leu Val Arg Glu Arg Ala Thr  
805

<210> 537

<211> 1386

<212> DNA



<213> *Arabidopsis thaliana*

&lt;400&gt; 537

```

atggaagaga agaagaagga gcttgaagag ttgaagtatc aatcagggttt tggttaaccac      60
ttctcatcgg aagcaatcgc cggagcttta ccgttagatc agaacagtcc tcttctttgt      120
ccttacggtc tttagcgcga acagatctcc ggtacttctt tcacttctcc tcgcaagctc      180
aatcaaagaa gttggttgta ccgggttaaa ccatcggtta cacatgaacc gttcaagcct      240
cgtgtaccag ctcataagaa gcttgtgagt gagtttgatg catcaaatag tcgtacgaat      300
ccgactcagc ttcggtggag acctgaggat attcctgatt cggagattga tttcgttgat      360
gggttattta ccatttgtgg agctggaagc tcgtttcttc gccatggctt cgctattcac      420
atgtatgtgg ctaacacagg aatgaaagac tccgcatttt gcaacgctga tggtgacttc      480
ttgttagttc ctcaaacagg aaggctatgg attgaaactg agtgtggaag gcttttggtta      540
actcctggtg agattgctgt tataaccacaa ggtttccggt tctccataga tttaccggat      600
gggaagtctc gtggttatgt tgctgaaatc tatggggctc attttcagct tcctgatctt      660
ggaccaatag gtgctaattg tcttgctgca tcaagagatt ttcttgcacc aacagcatgg      720
tttgaggatg gattgcggcc tgaatacaca attgttcaga agtttggcgg tgaactcttt      780
actgctaaac aagatttctc tccattcaat gtggttgctt gccatggcaa ttacgtgcct      840
tataagtatg acctgaagaa gttctgtcca tacaacactg tgctttttaga tcatggagat      900
ccatctataa atacagtcct tacagcacca actgataaac ctggtgtggc cttgcttgat      960
tttgtcatat ttctcctcg atggttggtt gctgagcata cttttcgacc tccttactat     1020
catcgtaact gcatgagtga atttatgggc ttaatctacg gtgcatacga ggcgaaagct     1080
gatggatttc tccctggcgg tgcaagtctt catagctgta tgacacctca tgggtccagat     1140
actaccacgt acgaggcgac aattgctcga gtaaatacaa tggctccttc taaactcaca     1200
ggtacgatgg ctttcatgtt cgaatcagca ttgatcccta gagtctgtca ttgggctctg     1260
gagtctcctt tcctggatca cgactactac cagtgttgga ttggcctcaa gtctcatttc     1320
tcgcgcataa gcttggacaa gacaaatgtt gaatcaacag agaaagaacc aggagcttcg     1380
gagtaa                                           1386

```

&lt;210&gt; 538

&lt;211&gt; 461

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 538

```

Met Glu Glu Lys Lys Lys Glu Leu Glu Glu Leu Lys Tyr Gln Ser Gly
1      5      10
Phe Gly Asn His Phe Ser Ser Glu Ala Ile Ala Gly Ala Leu Pro Leu
20     25     30
Asp Gln Asn Ser Pro Leu Leu Cys Pro Tyr Gly Leu Tyr Ala Glu Gln
35     40     45
Ile Ser Gly Thr Ser Phe Thr Ser Pro Arg Lys Leu Asn Gln Arg Ser
50     55     60
Trp Leu Tyr Arg Val Lys Pro Ser Val Thr His Glu Pro Phe Lys Pro
65     70     75     80
Arg Val Pro Ala His Lys Lys Leu Val Ser Glu Phe Asp Ala Ser Asn
85     90     95
Ser Arg Thr Asn Pro Thr Gln Leu Arg Trp Arg Pro Glu Asp Ile Pro
100    105    110
Asp Ser Glu Ile Asp Phe Val Asp Gly Leu Phe Thr Ile Cys Gly Ala
115    120    125
Gly Ser Ser Phe Leu Arg His Gly Phe Ala Ile His Met Tyr Val Ala
130    135    140
Asn Thr Gly Met Lys Asp Ser Ala Phe Cys Asn Ala Asp Gly Asp Phe
145    150    155    160
Leu Leu Val Pro Gln Thr Gly Arg Leu Trp Ile Glu Thr Glu Cys Gly
165    170    175
Arg Leu Leu Val Thr Pro Gly Glu Ile Ala Val Ile Pro Gln Gly Phe
180    185    190
Arg Phe Ser Ile Asp Leu Pro Asp Gly Lys Ser Arg Gly Tyr Val Ala
195    200    205
Glu Ile Tyr Gly Ala His Phe Gln Leu Pro Asp Leu Gly Pro Ile Gly
210    215    220
Ala Asn Gly Leu Ala Ala Ser Arg Asp Phe Leu Ala Pro Thr Ala Trp
225    230    235    240

```

Phe Glu Asp Gly Leu Arg Pro Glu Tyr Thr Ile Val Gln Lys Phe Gly  
 245 250 255  
 Gly Glu Leu Phe Thr Ala Lys Gln Asp Phe Ser Pro Phe Asn Val Val  
 260 265 270  
 Ala Trp His Gly Asn Tyr Val Pro Tyr Lys Tyr Asp Leu Lys Lys Phe  
 275 280 285  
 Cys Pro Tyr Asn Thr Val Leu Leu Asp His Gly Asp Pro Ser Ile Asn  
 290 295 300  
 Thr Val Leu Thr Ala Pro Thr Asp Lys Pro Gly Val Ala Leu Leu Asp  
 305 310 315 320  
 Phe Val Ile Phe Pro Pro Arg Trp Leu Val Ala Glu His Thr Phe Arg  
 325 330 335  
 Pro Pro Tyr Tyr His Arg Asn Cys Met Ser Glu Phe Met Gly Leu Ile  
 340 345 350  
 Tyr Gly Ala Tyr Glu Ala Lys Ala Asp Gly Phe Leu Pro Gly Gly Ala  
 355 360 365  
 Ser Leu His Ser Cys Met Thr Pro His Gly Pro Asp Thr Thr Thr Tyr  
 370 375 380  
 Glu Ala Thr Ile Ala Arg Val Asn Ala Met Ala Pro Ser Lys Leu Thr  
 385 390 395 400  
 Gly Thr Met Ala Phe Met Phe Glu Ser Ala Leu Ile Pro Arg Val Cys  
 405 410 415  
 His Trp Ala Leu Glu Ser Pro Phe Leu Asp His Asp Tyr Tyr Gln Cys  
 420 425 430  
 Trp Ile Gly Leu Lys Ser His Phe Ser Arg Ile Ser Leu Asp Lys Thr  
 435 440 445  
 Asn Val Glu Ser Thr Glu Lys Glu Pro Gly Ala Ser Glu  
 450 455 460

&lt;210&gt; 539

&lt;211&gt; 1446

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

<400> 539  
 atgagtagtg atcctcatcg taagctccat gttgtgttct tccctttcat ggcttatggt 60  
 cacatgatac caactctaga catggctaag cttttctcta gcagaggagc caaatctaca 120  
 atcctcacca cacctctcaa ctccaagatc ttccaaaaac ccatcgaaag attcaagaac 180  
 ctgaatccga gtttcgaaat cgacatccag atcttcgatt tcccttgctg ggatctcggg 240  
 ttaccagaag gatgcgaaaa cgtcgatttc ttcacctcaa acaacaatga tgatagacag 300  
 tatctgacct tgaagttctt taagtcgaca aggtttttca aagatcagct tgagaagctc 360  
 ctcgagacaa cgagaccaga ctgtcttata gccgacatgt tcttcccctg ggctacggaa 420  
 gctgctgaga agttcaatgt gccaaagactt gtgttccacg gtactggcta cttttcttta 480  
 tgctctgaat attgcatcag agtgcataac ccacaaaaca tagtagcttc aaggtacgag 540  
 ccatttgtga ttcctgatct cccggggaac atagtataa ctcaagaaca gatagcagac 600  
 cgtgacgaag aaagcgagat ggggaagttt atgattgagg tcaaagaatc tgatgtgaag 660  
 agctcaggtg ttattgtaaa cagcttctac gagcttgaac ctgattacgc cgacttttac 720  
 aagagtgttg tactgaagag agcgtggcat atcgggtccgc tttcggttta caacagagga 780  
 tttgaggaga aggctgagag aggaaagaaa gcaagcatta atgaggttga atgcctcaaa 840  
 tggcttgact ccaagaaacc agattcagtc atttacattt cttttgggag cgtggcttgc 900  
 ttcaagaacg agcagctatt cgagatcgct gcaggattag aaacttctgg agcaaatttc 960  
 atctgggttg ttaggaaaaa cataggtatt gaaaaagaag aatggttacc agaagggttc 1020  
 gaagagaggg tgaaaggaaa agggatgatt ataagaggat gggcaccaca ggtgctcata 1080  
 cttgatcatc aagcaacttg tgggtttgtg acccattgct gctggaactc gcttctggaa 1140  
 ggagtggctg cagggctacc aatggtgaca tggcctgtag cagcggagca attctacaat 1200  
 gagaaattgg ttacgcaagt gctcagaaca ggagtgagcg tgggagcgaa aaagaatgta 1260  
 agaactacgg gagatttcat tagcagagag aaagtgggta aagcgggtgag ggaggtgttg 1320  
 gttggggaag aggcggatga gaggcgggag agggcaaaga agttggcaga gatggctaaa 1380  
 gctgccgtgg aaggagggtc ttctttcaac gatctaaaca gcttcataga agagtttacc 1440  
 tcgtaa 1446

<210> 540

<211> 481

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 540

```

Met Ser Ser Asp Pro His Arg Lys Leu His Val Val Phe Phe Pro Phe
 1      5      10      15
Met Ala Tyr Gly His Met Ile Pro Thr Leu Asp Met Ala Lys Leu Phe
      20      25      30
Ser Ser Arg Gly Ala Lys Ser Thr Ile Leu Thr Thr Pro Leu Asn Ser
      35      40      45
Lys Ile Phe Gln Lys Pro Ile Glu Arg Phe Lys Asn Leu Asn Pro Ser
      50      55      60
Phe Glu Ile Asp Ile Gln Ile Phe Asp Phe Pro Cys Val Asp Leu Gly
65      70      75      80
Leu Pro Glu Gly Cys Glu Asn Val Asp Phe Phe Thr Ser Asn Asn Asn
      85      90      95
Asp Asp Arg Gln Tyr Leu Thr Leu Lys Phe Phe Lys Ser Thr Arg Phe
      100      105      110
Phe Lys Asp Gln Leu Glu Lys Leu Leu Glu Thr Thr Arg Pro Asp Cys
      115      120      125
Leu Ile Ala Asp Met Phe Phe Pro Trp Ala Thr Glu Ala Ala Glu Lys
      130      135      140
Phe Asn Val Pro Arg Leu Val Phe His Gly Thr Gly Tyr Phe Ser Leu
145      150      155      160
Cys Ser Glu Tyr Cys Ile Arg Val His Asn Pro Gln Asn Ile Val Ala
      165      170      175
Ser Arg Tyr Glu Pro Phe Val Ile Pro Asp Leu Pro Gly Asn Ile Val
      180      185      190
Ile Thr Gln Glu Gln Ile Ala Asp Arg Asp Glu Glu Ser Glu Met Gly
      195      200      205
Lys Phe Met Ile Glu Val Lys Glu Ser Asp Val Lys Ser Ser Gly Val
      210      215      220
Ile Val Asn Ser Phe Tyr Glu Leu Glu Pro Asp Tyr Ala Asp Phe Tyr
225      230      235      240

```

047-E2F-PCT.ST25.txt

Lys Ser Val Val Leu Lys Arg Ala Trp His Ile Gly Pro Leu Ser Val  
 245 250 255  
 Tyr Asn Arg Gly Phe Glu Glu Lys Ala Glu Arg Gly Lys Lys Ala Ser  
 260 265 270  
 Ile Asn Glu Val Glu Cys Leu Lys Trp Leu Asp Ser Lys Lys Pro Asp  
 275 280 285  
 Ser Val Ile Tyr Ile Ser Phe Gly Ser Val Ala Cys Phe Lys Asn Glu  
 290 295 300  
 Gln Leu Phe Glu Ile Ala Ala Gly Leu Glu Thr Ser Gly Ala Asn Phe  
 305 310 315 320  
 Ile Trp Val Val Arg Lys Asn Ile Gly Ile Glu Lys Glu Glu Trp Leu  
 325 330 335  
 Pro Glu Gly Phe Glu Glu Arg Val Lys Gly Lys Gly Met Ile Ile Arg  
 340 345 350  
 Gly Trp Ala Pro Gln Val Leu Ile Leu Asp His Gln Ala Thr Cys Gly  
 355 360 365  
 Phe Val Thr His Cys Gly Trp Asn Ser Leu Leu Glu Gly Val Ala Ala  
 370 375 380  
 Gly Leu Pro Met Val Thr Trp Pro Val Ala Ala Glu Gln Phe Tyr Asn  
 385 390 395 400  
 Glu Lys Leu Val Thr Gln Val Leu Arg Thr Gly Val Ser Val Gly Ala  
 405 410 415  
 Lys Lys Asn Val Arg Thr Thr Gly Asp Phe Ile Ser Arg Glu Lys Val  
 420 425 430  
 Val Lys Ala Val Arg Glu Val Leu Val Gly Glu Glu Ala Asp Glu Arg  
 435 440 445  
 Arg Glu Arg Ala Lys Lys Leu Ala Glu Met Ala Lys Ala Ala Val Glu  
 450 455 460  
 Gly Gly Ser Ser Phe Asn Asp Leu Asn Ser Phe Ile Glu Glu Phe Thr  
 465 470 475 480

Ser

&lt;210&gt; 541

&lt;211&gt; 1077

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 541

```

atgctttcaa ttcgcagaag cttaactcta gcaaaagagc caaaagattt gtttttgttt    60
ttgtgtaatc tccgagctcg atgtgtatct acagatgact atgatccacc attttcgcct    120
ctctctaaac ccactaaacc tccaaaagag aagaagaagc agaagacgaa gaagcaagac    180
cagtcgtcgg agctggtaaa tgacctgaag attccagtga tttcagacct ccctttcgat    240
tttaggtatt cgtattcaga aactaaccgg gaaattgaac cgattggatt ccgtgaaccg    300
aaacggttct ctccatttgg accgggtcga ttggaccgga aatggactgg gactaccgca    360
ctggcgctcg cggagattga tcagagtcaa tgggtggagg agagagcaag agttctcggc    420
gagactttga cagaggatga agttacagag cttattgaac ggtatcggca tagtgactgt    480
acacgacaga ttaatctcgg gaaaggtggt gtgactcaca atatgataga tgatattcat    540
aaccattgga agaaagctga ggcagtgagg atcaaatgct tgggagtacc aactcttgac    600
atggacaaca tatgtttcca cctcgaggaa aaatccggtg gaaagattgt atacagaaac    660
ataaacattc tagttttgta ccggggaagg aattatgatc cgaagagtcg tcccatcatt    720
ccactcatgt tatggaagcc tcatccgcca atatacccaa gacttgtaaa gaatgtggct    780
gatgggttag aatttgaaga gaccaaggag atgagaaatc gtgggcttca ttctcctgcc    840
ttaatgaaac ttactaggaa tgggtgtttat gttaatgtcg ttggaagagt gagggaagag    900
tttgaaacag aagagattgt gagactagat tgcactcatg ttgggatgag tgactgcaaa    960
cgaattggtg tgaaactaaa ggagatgggt ccatgtgttc ccatattgtt caaagatgag   1020
cagatcatat tctggagagg gaagaggact ggtgaagaag agcttggttac tctatga    1077

```

&lt;210&gt; 542

&lt;211&gt; 358

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 542

Met Leu Ser Ile Arg Arg Ser Leu Thr Leu Ala Lys Glu Pro Lys Asp

1 5 15

Leu Phe Leu Phe<sub>20</sub> Leu Cys Asn Leu Arg<sub>25</sub> Ala Arg Cys Val<sub>30</sub> Ser Thr Asp

Asp Tyr Asp<sub>35</sub> Pro Pro Phe Ser<sub>40</sub> Leu Ser Lys Pro Thr<sub>45</sub> Lys Pro Pro

Lys Glu<sub>50</sub> Lys Lys Lys Gln Lys<sub>55</sub> Thr Lys Lys Gln Asp<sub>60</sub> Gln Ser Ser Glu

Leu Val<sub>65</sub> Asn Asp Leu Lys<sub>70</sub> Ile Pro Val Ile Ser<sub>75</sub> Asp Leu Pro Phe Asp<sub>80</sub>

Phe Arg Tyr Ser Tyr<sub>85</sub> Ser Glu Thr Asn Pro<sub>90</sub> Glu Ile Glu Pro Ile<sub>95</sub> Gly

Phe Arg Glu Pro<sub>100</sub> Lys Arg Phe Ser Pro<sub>105</sub> Phe Gly Pro Gly Arg<sub>110</sub> Leu Asp

Arg Lys Trp<sub>115</sub> Thr Gly Thr Thr Ala<sub>120</sub> Leu Ala Ser Pro Glu<sub>125</sub> Ile Asp Gln

Ser Gln<sub>130</sub> Trp Val Glu Glu Arg<sub>135</sub> Ala Arg Val Leu Gly<sub>140</sub> Glu Thr Leu Thr

Glu Asp Glu Val Thr Glu<sub>150</sub> Leu Ile Glu Arg Tyr<sub>155</sub> Arg His Ser Asp Cys<sub>160</sub>

Thr Arg Gln Ile Asn<sub>165</sub> Leu Gly Lys Gly Gly<sub>170</sub> Val Thr His Asn Met<sub>175</sub> Ile

Asp Asp Ile His<sub>180</sub> Asn His Trp Lys Lys<sub>185</sub> Ala Glu Ala Val Arg<sub>190</sub> Ile Lys

Cys Leu Gly<sub>195</sub> Val Pro Thr Leu Asp<sub>200</sub> Met Asp Asn Ile Cys<sub>205</sub> Phe His Leu

Glu Glu<sub>210</sub> Lys Ser Gly Gly Lys<sub>215</sub> Ile Val Tyr Arg Asn<sub>220</sub> Ile Asn Ile Leu

Val<sub>225</sub> Leu Tyr Arg Gly Arg<sub>230</sub> Asn Tyr Asp Pro Lys<sub>235</sub> Ser Arg Pro Ile Ile<sub>240</sub>

Pro Leu Met Leu Trp<sub>245</sub> Lys Pro His Pro Pro<sub>250</sub> Ile Tyr Pro Arg Leu Val<sub>255</sub>



Lys Asn Val Ala Asp Gly Leu Glu Phe Glu Glu Thr Lys Glu Met Arg  
260 265 270

Asn Arg Gly Leu His Ser Pro Ala Leu Met Lys Leu Thr Arg Asn Gly  
275 280 285

Val Tyr Val Asn Val Val Gly Arg Val Arg Glu Glu Phe Glu Thr Glu  
290 295 300

Glu Ile Val Arg Leu Asp Cys Thr His Val Gly Met Ser Asp Cys Lys  
305 310 315 320

Arg Ile Gly Val Lys Leu Lys Glu Met Val Pro Cys Val Pro Ile Leu  
325 330 335

Phe Lys Asp Glu Gln Ile Ile Leu Trp Arg Gly Lys Arg Thr Gly Glu  
340 345 350

Glu Glu Leu Val Thr Leu  
355

<210> 543

<211> 819

<212> DNA

<213> Arabidopsis thaliana

<400> 543

atggacatta agcatcatac ttcaacttca aaacctaaga acaagaacaa gcttttgaag	60
atgcttccta aagcgatgtc gtttggacat cgagttccac cgtttagtcc cggaagagat	120
ctccaccaca acaaccacca taattacacg gcggttaaca aaatgttttt ctctggtcct	180
atggttcctt tggtacctaa cgcggtcggg gttagaagaa acaaaagcga cgctgtttgg	240
gacgaaccta cttcacctaa agtctcttgt atcggtcaga tcaagcttgg taagtctaaa	300
tgcccaaccg gtaaaaagaa caaagcacct tcattcttga ttcttaaaat ctccaaaacg	360
tcaacgtcgt ctttaacaaa agaagatgaa aaaggtcgtc tttcgaagat caagagtatc	420
ttctcgttct cgccggcgag tggacgaaac acatcaagaa aatcccatcc taccgccgtc	480
tccgccgcgg atgaacatcc agttacggtg gtttccaccg cggcggtgcc ttcgttaggt	540
cagatgaaga aattcgctag cagtcgtgat gctttagggt attttgattg ggcggttgag	600
atgaaacatg aagaagaatc acccgctgat catcaccgtg gttactattc tgacgacgac	660
accagaggag cttacttgag atacgatgat gacgaggatg aagatgacat aataatccct	720

ttttcagctc ctttaggggtt aaaaccaaag aaagaagtta acttggtggaa gagaagaacc 780  
atggatccac caaaaccact tcattcttcaa accatttga 819

<210> 544

<211> 272

<212> PRT

<213> Arabidopsis thaliana

<400> 544

Met Asp Ile Lys His His Thr Ser Thr Ser Lys Pro Lys Asn Lys Asn  
1 5 10 15

Lys Leu Leu Lys Met Leu Pro Lys Ala Met Ser Phe Gly His Arg Val  
20 25 30

Pro Pro Phe Ser Pro Gly Arg Asp Leu His His Asn Asn His His Asn  
35 40 45

Tyr Thr Ala Ala Asn Lys Met Phe Phe Ser Gly Pro Met Val Pro Leu  
50 55 60

Val Pro Asn Ala Ala Arg Val Arg Arg Asn Lys Ser Asp Ala Val Trp  
65 70 75 80

Asp Glu Pro Thr Ser Pro Lys Val Ser Cys Ile Gly Gln Ile Lys Leu  
85 90 95

Gly Lys Ser Lys Cys Pro Thr Gly Lys Lys Asn Lys Ala Pro Ser Ser  
100 105 110

Leu Ile Pro Lys Ile Ser Lys Thr Ser Thr Ser Ser Leu Thr Lys Glu  
115 120 125

Asp Glu Lys Gly Arg Leu Ser Lys Ile Lys Ser Ile Phe Ser Phe Ser  
130 135 140

Pro Ala Ser Gly Arg Asn Thr Ser Arg Lys Ser His Pro Thr Ala Val  
145 150 155 160

Ser Ala Ala Asp Glu His Pro Val Thr Val Val Ser Thr Ala Ala Val  
165 170 175

Pro Ser Leu Gly Gln Met Lys Lys Phe Ala Ser Ser Arg Asp Ala Leu  
180 185 190

047-E2F-PCT.ST25.txt

Gly Asp Phe Asp Trp Ala Val Glu Met Lys His Glu Glu Glu Ser Pro  
195 200 205

Ala Asp His His Arg Gly Tyr Tyr Ser Asp Asp Asp Thr Arg Gly Ala  
210 215 220

Tyr Leu Arg Tyr Asp Asp Asp Glu Asp Glu Asp Asp Ile Ile Ile Pro  
225 230 235 240

Phe Ser Ala Pro Leu Gly Leu Lys Pro Lys Lys Glu Val Asn Leu Trp  
245 250 255

Lys Arg Arg Thr Met Asp Pro Pro Lys Pro Leu His Leu Gln Thr Ile  
260 265 270

<210> 545

<211> 420

<212> DNA

<213> Arabidopsis thaliana

<400> 545

atggctcatg ggagatatga tacttacaag aagaaaagtg gacagattcc tcggtttgga	60
gaatgggaag aagcaaatga gatgccaata acacaatact ttgagaatcc aagacaagct	120
gaagccttaa agcttgcttc tcaccatccc cgtccacgtc acctccacgc tcaaagacag	180
acggcgggga cgaaggagaa aagaggacca caaaggcgtg tgcgtgacgt cagtgcacag	240
tcggacaagt attacattga cgtcaacggt gttaagcagt tcaaaaacga cgttgctctg	300
acttgtaagc cacctaagcc cgttgatgaa gatctctaca agattcctcc tgagtttatc	360
cattcttcaa caaggaagag aaggcctagc tttttagctt gtttggttcc atgcgcatga	420

<210> 546

<211> 139

<212> PRT

<213> Arabidopsis thaliana

<400> 546

Met Ala His Gly Arg Tyr Asp Thr Tyr Lys Lys Lys Ser Gly Gln Ile  
1 5 10 15

047-E2F-PCT.ST25.txt

Pro Arg Phe Gly Glu Trp Glu Glu Ala Asn Glu Met Pro Ile Thr Gln  
20 25 30

Tyr Phe Glu Asn Pro Arg Gln Ala Glu Ala Leu Lys Leu Ala Ser His  
35 40 45

His Pro Arg Pro Arg His Leu His Ala Gln Arg Gln Thr Ala Gly Thr  
50 55 60

Lys Glu Lys Arg Gly Pro Gln Arg Arg Val Arg Asp Val Ser Ala Gln  
65 70 75 80

Ser Asp Lys Tyr Tyr Ile Asp Val Asn Gly Val Lys Gln Phe Lys Asn  
85 90 95

Asp Val Ala Leu Thr Cys Lys Pro Pro Lys Pro Val Asp Glu Asp Leu  
100 105 110

Tyr Lys Ile Pro Pro Glu Phe Ile His Ser Ser Thr Arg Lys Arg Arg  
115 120 125

Pro Ser Phe Leu Ala Cys Leu Val Pro Cys Ala  
130 135

<210> 547

<211> 1278

<212> DNA

<213> Arabidopsis thaliana

<400> 547

atggcgatga tgcatacctcc gcagccgccg caaggctcct atcaccatcc tcagacgctc	60
gaagaagtcc gaactctttg gattggtgat ttgcagtact gggtcgacga aaattacctc	120
acttcctgct tctcccaaac cggcgagctc gtttctgtca aggtaatacg taacaagatc	180
acgggacagc cagaggggta tggttttata gagtttatat ctcatgcagc agcagagaga	240
actctgcaga cgtacaatgg gacacagatg cctggaactg agttaacttt tcggttaaat	300
tgggcttctt ttggttcagg acagaaagtt gatgctggac ctgatcattc tatctttggt	360
ggagatttag cacctgatgt tacagattat cttcttcaag agacattccg tgttcattat	420
tcttctgtta gaggtgccaa ggttggttact gatccaagta ctggacgatc aaagggttat	480
ggatttgtaa aatttgcaga ggaaagtga aggaatcggg ctatggctga aatgaatggt	540
ttgtattgct caacaaggcc tatgcgtatt agcgcagcaa cacctaaaaa aaacgtcggg	600

047-E2F-PCT.ST25.txt

gtgcagcaac aatatgtcac caaagctggt taccagttta cagtcccatc tgcagttgct 660  
gcaccagtcc aagcatacgt tgctccacct gaaagtgatg tcacctgtac aacgatttca 720  
gttgccaatt tggaccaaaa tggtacagag gaagagctga agaaagcatt ctccaatta 780  
ggagagggtta tttatgtcaa aatacctgca acaaagggat atggttatgt tcaattcaaa 840  
accaggcctt ctgcagaaga agctgttcaa agaatgcagg gacaagtgat tgggtcaacaa 900  
gcagttcgca tctcttgag taaaaatcca ggacaggatg gttgggttac acaagcagat 960  
ccgaatcagt ggaatgggta ttatggttat gggcaaggct atgatgcata tgcttatggg 1020  
gcaactcaag atccatccgt gtacgcataat ggtggatatg gctatcccca gtatccgcaa 1080  
cagggagagg gtacacaaga catttcgaac tctgcggcgg gtggagtagc aggtgcagag 1140  
caagagttgt atgatcctct ggccactcct gatgtagaca agttaaatgc tgcttacctt 1200  
tcggttcatt caagtgccat attaggaagg ccaatgtggc agcggacctc atcgctcaca 1260  
tcacaattgg gcaaatga 1278

<210> 548

<211> 425

<212> PRT

<213> Arabidopsis thaliana

<400> 548

Met Ala Met Met His Pro Pro Gln Pro Pro Gln Gly Ser Tyr His His  
1 5 10 15

Pro Gln Thr Leu Glu Glu Val Arg Thr Leu Trp Ile Gly Asp Leu Gln  
20 25 30

Tyr Trp Val Asp Glu Asn Tyr Leu Thr Ser Cys Phe Ser Gln Thr Gly  
35 40 45

Glu Leu Val Ser Val Lys Val Ile Arg Asn Lys Ile Thr Gly Gln Pro  
50 55 60

Glu Gly Tyr Gly Phe Ile Glu Phe Ile Ser His Ala Ala Ala Glu Arg  
65 70 75 80

Thr Leu Gln Thr Tyr Asn Gly Thr Gln Met Pro Gly Thr Glu Leu Thr  
85 90 95

Phe Arg Leu Asn Trp Ala Ser Phe Gly Ser Gly Gln Lys Val Asp Ala

100

105

110

Gly Pro Asp His Ser Ile Phe Val Gly Asp Leu Ala Pro Asp Val Thr  
 115 120 125  
 Asp Tyr Leu Leu Gln Glu Thr Phe Arg Val His Tyr Ser Ser Val Arg  
 130 135 140  
 Gly Ala Lys Val Val Thr Asp Pro Ser Thr Gly Arg Ser Lys Gly Tyr  
 145 150 155 160  
 Gly Phe Val Lys Phe Ala Glu Glu Ser Glu Arg Asn Arg Ala Met Ala  
 165 170 175  
 Glu Met Asn Gly Leu Tyr Cys Ser Thr Arg Pro Met Arg Ile Ser Ala  
 180 185 190  
 Ala Thr Pro Lys Lys Asn Val Gly Val Gln Gln Gln Tyr Val Thr Lys  
 195 200 205  
 Ala Val Tyr Pro Val Thr Val Pro Ser Ala Val Ala Ala Pro Val Gln  
 210 215 220  
 Ala Tyr Val Ala Pro Pro Glu Ser Asp Val Thr Cys Thr Thr Ile Ser  
 225 230 235 240  
 Val Ala Asn Leu Asp Gln Asn Val Thr Glu Glu Glu Leu Lys Lys Ala  
 245 250 255  
 Phe Ser Gln Leu Gly Glu Val Ile Tyr Val Lys Ile Pro Ala Thr Lys  
 260 265 270  
 Gly Tyr Gly Tyr Val Gln Phe Lys Thr Arg Pro Ser Ala Glu Glu Ala  
 275 280 285  
 Val Gln Arg Met Gln Gly Gln Val Ile Gly Gln Gln Ala Val Arg Ile  
 290 295 300  
 Ser Trp Ser Lys Asn Pro Gly Gln Asp Gly Trp Val Thr Gln Ala Asp  
 305 310 315 320  
 Pro Asn Gln Trp Asn Gly Tyr Tyr Gly Tyr Gly Gln Gly Tyr Asp Ala  
 325 330 335  
 Tyr Ala Tyr Gly Ala Thr Gln Asp Pro Ser Val Tyr Ala Tyr Gly Gly  
 340 345 350

Tyr Gly Tyr Pro Gln Tyr Pro Gln Gln Gly Glu Gly Thr Gln Asp Ile  
 355 360 365

Ser Asn Ser Ala Ala Gly Gly Val Ala Gly Ala Glu Gln Glu Leu Tyr  
 370 375 380

Asp Pro Leu Ala Thr Pro Asp Val Asp Lys Leu Asn Ala Ala Tyr Leu  
 385 390 395 400

Ser Val His Ala Ser Ala Ile Leu Gly Arg Pro Met Trp Gln Arg Thr  
 405 410 415

Ser Ser Leu Thr Ser Gln Leu Gly Lys  
 420 425

<210> 549

<211> 2877

<212> DNA

<213> Arabidopsis thaliana

<400> 549

atgaaggaag aggatgtgag ctcgcagaac gtaaacccta gaagtaatcg gaacagtgtg	60
gcctcagctt ctgcttccgc ctctgctact cccgttgata ggttccgacg acgtgctaga	120
tcgccttctc ctcctcaaac tgctgctgct agctctgcag gggcatcatc tccagctggt	180
ctggtaaacg ctggcagtgt tgactggaca ggtcatggac tggcattatc agtgcgttcg	240
tgtagaacat gggatagagg agatttactt cgacgtcttg ccactttcaa gccttcaa	300
tggtctggga agcccaaac agctagttct ttggcttggtg ctcagaaagg ctgggttagt	360
gttgatctgg acaaacttca atgtgaatac tgtgggtcca ttctacaata ctcccctcca	420
caagattcgt tgaatcctcc cgaagctgat accaccggag aaaaattctc taagcagctt	480
gatgatgcac atgagagctc ttgtccttgg gtaggaaaaa gttgttcaga aagcttagtt	540
cagtttcctc caactcctcc atcagccttg attggagggtt acaaggatcg ttgtgatggg	600
ctcctacaat tctattctct accaattggt tcgccatctg caattgacca gatgcgtgct	660
tcaagacgac cacaaattga ccgccttttg gcacatgcca atgatgatct cagtttcaga	720
atggacaata tatcagctgc agaaacgtac aaagaagagg ctttcagtaa ttactctcgc	780
gctcaaaagc tgataagcct atgtggatgg gagcctagat ggcttccaaa tatccaagat	840
tgtgaagaac attctgcca atcagctaga aatgggtgcc cttctggacc ggctagaaat	900
caaagtcgtc tgcaagatcc tggtccaagc aggaacaat tctcggcttc atcccga	960

gcctctggaa attatgaagt tttgggtcca gaatataagt cagaatccag attaccttta 1020  
ctggattgta gtttatgtgg tgtaaccgtc agaatttgtg atttcatgac cacttctcgg 1080  
ccggttccgt ttgctgctat aaatgccaat cttcctgaaa cgagtaagaa aatgggagtg 1140  
acacgtggca ctagcgcaac aagtggaatc aatggatggt ttgctaataa aggcattgga 1200  
cagcagcaaa atgaagatgt tgacgaggct gaaacttcag ttaagagaag attagtatca 1260  
aatgtaggct taagctttta tcaaaatgca gctggtgcat catcctctgc gcagctgaac 1320  
atgtctgtga cccgtgataa ttaccaatth agtgatagag gaaaggaagt gttgtggagg 1380  
cagccttcag gaagtgaggt tggatgacgt gctgcttcat atgaatcacg agggcctagt 1440  
actcgtaaac ggagcctgga tgatggtgga agcactgttg ataggcctta tctacgaata 1500  
caacgtgcag atagtgttga aggcactgtt gtcgaccgtg acggtgacga ggttaatgat 1560  
gattcagcag ggccttcaaa gcgtacccga ggttctgatg cgcataaagc ttatcctttc 1620  
ttgtatgggc gagatttatc agtagggggg ccaagtcact cactggatgc tgaatacag 1680  
aggggaagtaa atagaagtga cccatttagt gaaggaaatg aacaagttat ggcttttcca 1740  
ggtgccagag actccacacg tgcttctctt gtcattgcaa tggatacaat ttgccacagt 1800  
gccaatgacg attctatgga aagtgtggaa aaccatccag gggattttga tgacataaat 1860  
tatccctctg tggcgacagc tcaaagtgtt gacttcaatg atccttcgga actgaatttc 1920  
agcaatcaag ctcagcagag tgcatgcttc caaccagctc ctgttcgggt taatgctgaa 1980  
caaggcatta gcagcataaa tgacgggtgag gaagtactca acacagagac tgtcactgcc 2040  
caggggaagag atggaccaag tttaggtgtc agtgggggta gtgtcggaat ggggtgcaagt 2100  
cacgaggcag aaatacacgg agctgacgtt tcagtccata ggggagatag cgttgtggga 2160  
gacatggaac cagttgcaga agtcatagag aatctaggac aaagcgggtga attcgcacca 2220  
gaccaaggcc ttactgatga ttttgttctt gcagaaatgg atcgagaagg taggcttggg 2280  
gatagtcaag atagggtgtc tcagtctgtt gtaaggggcg atagtgggtt taaaatagtt 2340  
gattcattga aggttgaatc tggtgaaagt ggtgaaaaga tgagtaacat aaatgtgttg 2400  
atcaacgatg acagtgttca tccatctttg tcttgcaatg cgatagtgtg ttctgggttat 2460  
gaagcatcta aagaagaagt gaccagact tgggagtctc ccctcaacgc tggctttgca 2520  
ctccccggat ctagttacac tgccaatgat caagggccac aaaacggaga cagcaatgat 2580  
gatattgtgg agtttgatcc aataaagtat cataactgtt actgtccttg ggttaatgaa 2640  
aatgtggctg ctgctggatg tagcagcaat agctcgggtt cttcaggttt tgctgaggca 2700  
gtttgtgggt ggcaactaac tcttgatgcc cttgattcgt tccagtcgct tgaaaaccct 2760  
caaaaccaga caatggaatc agaatcagct gcatctctgt gcaaggatga tcaccgaact 2820  
ccttcccaga agctcttgaa acgccactct tttatcagca gccatgggaa aaagtaa 2877



&lt;210&gt; 550

&lt;211&gt; 958

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 550

Met Lys Glu Glu Asp Val Ser Ser Gln Asn Val Asn Pro Arg Ser Asn  
1 5 10 15

Arg Asn Ser Val Ala Ser Ala Ser Ala Ser Ala Thr Pro Val  
20 25 30

Asp Arg Phe Arg Arg Arg Ala Arg Ser Pro Ser Pro Pro Gln Thr Ala  
35 40 45

Ala Ala Ser Ser Ala Gly Ala Ser Ser Pro Ala Val Leu Val Asn Ala  
50 55 60

Gly Ser Val Asp Trp Thr Gly His Gly Leu Ala Leu Ser Val Arg Ser  
65 70 75 80

Cys Arg Thr Trp Asp Arg Gly Asp Leu Leu Arg Arg Leu Ala Thr Phe  
85 90 95

Lys Pro Ser Asn Trp Leu Gly Lys Pro Lys Thr Ala Ser Ser Leu Ala  
100 105 110

Cys Ala Gln Lys Gly Trp Val Ser Val Asp Leu Asp Lys Leu Gln Cys  
115 120 125

Glu Tyr Cys Gly Ser Ile Leu Gln Tyr Ser Pro Pro Gln Asp Ser Leu  
130 135 140

Asn Pro Pro Glu Ala Asp Thr Thr Gly Glu Lys Phe Ser Lys Gln Leu  
145 150 155 160

Asp Asp Ala His Glu Ser Ser Cys Pro Trp Val Gly Lys Ser Cys Ser  
165 170 175

Glu Ser Leu Val Gln Phe Pro Pro Thr Pro Pro Ser Ala Leu Ile Gly  
180 185 190

Gly Tyr Lys Asp Arg Cys Asp Gly Leu Leu Gln Phe Tyr Ser Leu Pro  
Page 851

195

200

205

Ile Val Ser Pro Ser Ala Ile Asp Gln Met Arg Ala Ser Arg Arg Pro  
 210 215 220  
 Gln Ile Asp Arg Leu Leu Ala His Ala Asn Asp Asp Leu Ser Phe Arg  
 225 230 235 240  
 Met Asp Asn Ile Ser Ala Ala Glu Thr Tyr Lys Glu Glu Ala Phe Ser  
 245 250 255  
 Asn Tyr Ser Arg Ala Gln Lys Leu Ile Ser Leu Cys Gly Trp Glu Pro  
 260 265 270  
 Arg Trp Leu Pro Asn Ile Gln Asp Cys Glu Glu His Ser Ala Gln Ser  
 275 280 285  
 Ala Arg Asn Gly Cys Pro Ser Gly Pro Ala Arg Asn Gln Ser Arg Leu  
 290 295 300  
 Gln Asp Pro Gly Pro Ser Arg Lys Gln Phe Ser Ala Ser Ser Arg Lys  
 305 310 315 320  
 Ala Ser Gly Asn Tyr Glu Val Leu Gly Pro Glu Tyr Lys Ser Glu Ser  
 325 330 335  
 Arg Leu Pro Leu Leu Asp Cys Ser Leu Cys Gly Val Thr Val Arg Ile  
 340 345 350  
 Cys Asp Phe Met Thr Thr Ser Arg Pro Val Pro Phe Ala Ala Ile Asn  
 355 360 365  
 Ala Asn Leu Pro Glu Thr Ser Lys Lys Met Gly Val Thr Arg Gly Thr  
 370 375 380  
 Ser Ala Thr Ser Gly Ile Asn Gly Trp Phe Ala Asn Glu Gly Met Gly  
 385 390 395 400  
 Gln Gln Gln Asn Glu Asp Val Asp Glu Ala Glu Thr Ser Val Lys Arg  
 405 410 415  
 Arg Leu Val Ser Asn Val Gly Leu Ser Phe Tyr Gln Asn Ala Ala Gly  
 420 425 430  
 Ala Ser Ser Ser Ala Gln Leu Asn Met Ser Val Thr Arg Asp Asn Tyr  
 435 440 445

Gln Phe Ser Asp Arg Gly Lys Glu Val Leu Trp Arg Gln Pro Ser Gly  
 450 455 460  
 Ser Glu Val Gly Asp Arg Ala Ala Ser Tyr Glu Ser Arg Gly Pro Ser  
 465 470 475 480  
 Thr Arg Lys Arg Ser Leu Asp Asp Gly Gly Ser Thr Val Asp Arg Pro  
 485 490 495  
 Tyr Leu Arg Ile Gln Arg Ala Asp Ser Val Glu Gly Thr Val Val Asp  
 500 505 510  
 Arg Asp Gly Asp Glu Val Asn Asp Asp Ser Ala Gly Pro Ser Lys Arg  
 515 520 525  
 Thr Arg Gly Ser Asp Ala His Glu Ala Tyr Pro Phe Leu Tyr Gly Arg  
 530 535 540  
 Asp Leu Ser Val Gly Gly Pro Ser His Ser Leu Asp Ala Glu Asn Glu  
 545 550 555 560  
 Arg Glu Val Asn Arg Ser Asp Pro Phe Ser Glu Gly Asn Glu Gln Val  
 565 570 575  
 Met Ala Phe Pro Gly Ala Arg Asp Ser Thr Arg Ala Ser Ser Val Ile  
 580 585 590  
 Ala Met Asp Thr Ile Cys His Ser Ala Asn Asp Asp Ser Met Glu Ser  
 595 600 605  
 Val Glu Asn His Pro Gly Asp Phe Asp Asp Ile Asn Tyr Pro Ser Val  
 610 615 620  
 Ala Thr Ala Gln Ser Ala Asp Phe Asn Asp Pro Ser Glu Leu Asn Phe  
 625 630 635 640  
 Ser Asn Gln Ala Gln Gln Ser Ala Cys Phe Gln Pro Ala Pro Val Arg  
 645 650 655  
 Phe Asn Ala Glu Gln Gly Ile Ser Ser Ile Asn Asp Gly Glu Glu Val  
 660 665 670  
 Leu Asn Thr Glu Thr Val Thr Ala Gln Gly Arg Asp Gly Pro Ser Leu  
 675 680 685  
 Gly Val Ser Gly Gly Ser Val Gly Met Gly Ala Ser His Glu Ala Glu  
 690 695 700

047-E2F-PCT.ST25.txt

Ile His Gly Ala Asp Val Ser Val His Arg Gly Asp Ser Val Val Gly  
705 710 715 720

Asp Met Glu Pro Val Ala Glu Val Ile Glu Asn Leu Gly Gln Ser Gly  
725 730 735

Glu Phe Ala Pro Asp Gln Gly Leu Thr Asp Asp Phe Val Pro Ala Glu  
740 745 750

Met Asp Arg Glu Gly Arg Leu Gly Asp Ser Gln Asp Arg Val Ser Gln  
755 760 765

Ser Val Val Arg Ala Asp Ser Gly Ser Lys Ile Val Asp Ser Leu Lys  
770 775 780

Ala Glu Ser Val Glu Ser Gly Glu Lys Met Ser Asn Ile Asn Val Leu  
785 790 795 800

Ile Asn Asp Asp Ser Val His Pro Ser Leu Ser Cys Asn Ala Ile Val  
805 810 815

Cys Ser Gly Tyr Glu Ala Ser Lys Glu Glu Val Thr Gln Thr Trp Glu  
820 825 830

Ser Pro Leu Asn Ala Gly Phe Ala Leu Pro Gly Ser Ser Tyr Thr Ala  
835 840 845

Asn Asp Gln Gly Pro Gln Asn Gly Asp Ser Asn Asp Asp Ile Val Glu  
850 855 860

Phe Asp Pro Ile Lys Tyr His Asn Cys Tyr Cys Pro Trp Val Asn Glu  
865 870 875 880

Asn Val Ala Ala Ala Gly Cys Ser Ser Asn Ser Ser Gly Ser Ser Gly  
885 890 895

Phe Ala Glu Ala Val Cys Gly Trp Gln Leu Thr Leu Asp Ala Leu Asp  
900 905 910

Ser Phe Gln Ser Leu Glu Asn Pro Gln Asn Gln Thr Met Glu Ser Glu  
915 920 925

Ser Ala Ala Ser Leu Cys Lys Asp Asp His Arg Thr Pro Ser Gln Lys  
930 935 940

Leu Leu Lys Arg His Ser Phe Ile Ser Ser His Gly Lys Lys  
945 950 955

&lt;210&gt; 551

&lt;211&gt; 846

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 551

```

atgttgccca gattagctcg agtcgtcact caaacctcaa agcttcgatc tttgaccact    60
aatggatcga tgaaaaatct ctcccttttc tcccgatatg ggtacgcgac tgttgcgccg    120
gcggcagctg atcctccgtc gcagaaggat ttccccagta aatctccgat aaacttggat    180
aagatgtttt ggtcaaagcc atgttcattg gctctgccta aagactctcc tctcagaatt    240
gatgaaccag actatgtagg gattcgtcgt ttcatactaa agatgatgat gttctatagc    300
aaacagagca tgtctatccg tggggctaac gtgatctaca agcggatcat tgcacaagtt    360
gataaacctg caatatatga tgtattcaac ttggagaaaa cattcaaaat aacgtattcg    420
ctgcttgtcc ttcatatgtg gcttgtttta cgccgcttga aggaagatgg acaggaaggt    480
gttgaccttg gtcaatacgt ctatgagatc tacaatcatg atgttgaact cagggtatct    540
aaagccgggg ttaacttgct gctagccaag tggatgaagg agttggagag aatattttat    600
ggaaatgttg ttgcctatga tgctgcgcta cttccggaag ctaaaccaaa tgacctacaa    660
atcaaattat ggaggaacgt attttctgat gatggaacaa caacacctga taacacagat    720
ttaaaaacag cacaggcaat ggcaagatat gtccggagag aacttggttc tctttcttta    780
acagataaag agtccatatt ctccggcaat ttctccttca cccctttgga gaacaagccc    840
ctgtga                                           846

```

&lt;210&gt; 552

&lt;211&gt; 281

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 552

```

Met Leu Pro Arg Leu Ala Arg Val Val Thr Gln Thr Ser Lys Leu Arg
1           5           10           15

```

```

Ser Leu Thr Thr Asn Gly Ser Met Lys Asn Leu Ser Phe Phe Ser Arg
          20           25           30

```

047-E2F-PCT.ST25.txt

Tyr Gly Tyr Ala Thr Val Ala Pro Ala Ala Ala Asp Pro Pro Ser Gln  
 35 40 45  
 Lys Asp Phe Pro Ser Lys Ser Pro Ile Asn Leu Asp Lys Met Phe Trp  
 50 55 60  
 Ser Lys Pro Cys Ser Leu Ala Leu Pro Lys Asp Ser Pro Leu Arg Ile  
 65 70 75 80  
 Asp Glu Pro Asp Tyr Val Gly Ile Arg Arg Phe Ile Leu Lys Met Met  
 85 90 95  
 Met Phe Tyr Ser Lys Gln Ser Met Ser Ile Arg Gly Ala Asn Val Ile  
 100 105 110  
 Tyr Lys Arg Ile Ile Ala Gln Val Asp Lys Pro Ala Ile Tyr Asp Val  
 115 120 125  
 Phe Asn Leu Glu Lys Thr Phe Lys Ile Thr Tyr Ser Leu Leu Val Leu  
 130 135 140  
 His Met Trp Leu Val Leu Arg Arg Leu Lys Glu Asp Gly Gln Glu Gly  
 145 150 155 160  
 Val Asp Leu Gly Gln Tyr Val Tyr Glu Ile Tyr Asn His Asp Val Glu  
 165 170 175  
 Leu Arg Val Ser Lys Ala Gly Val Asn Leu Leu Leu Ala Lys Trp Met  
 180 185 190  
 Lys Glu Leu Glu Arg Ile Phe Tyr Gly Asn Val Val Ala Tyr Asp Ala  
 195 200 205  
 Ala Leu Leu Pro Glu Ala Lys Pro Asn Asp Leu Gln Ile Lys Leu Trp  
 210 215 220  
 Arg Asn Val Phe Ser Asp Asp Gly Thr Thr Thr Pro Asp Asn Thr Asp  
 225 230 235 240  
 Leu Lys Thr Ala Gln Ala Met Ala Arg Tyr Val Arg Arg Glu Leu Gly  
 245 250 255  
 Ser Leu Ser Leu Thr Asp Lys Glu Ser Ile Phe Ser Gly Asn Phe Ser  
 260 265 270  
 Phe Thr Pro Leu Glu Asn Lys Pro Leu  
 275 280

&lt;210&gt; 553

&lt;211&gt; 513

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 553

```

atgggcctttc ccgtaggtta cacagagggtt ttcttaccga agcttttcgt acaaacgctt    60
tcgattctcg gattcatcag aaccatcgctc ttctctatct tccgcttctt gggctctctca    120
gattttctcg aaatggatca aacctggccc gattacacat cgtacccgac ccgaataccc    180
gaaacccgct cacctttctc cgcactccta attagagaga tcctaccggt tatcaaattc    240
gaagagttaa cgaattccgg cgaagatcta ccggaaaact gcgccgtttg tctatacgaa    300
ttcgaaggag aacaagagat ccggtggctg agaaattgca gacatatatt tcaccggagc    360
tgtcttgacc gttggatgga tcatgatcag aagacgtgtc cactttgtag aacaccgttt    420
gttccagatg agatgcaaga agagtttaaat caacggctat gggctgcttc tgggtgttcac    480
gattttcact gtcccgtgac cgaattatta tag                                     513

```

&lt;210&gt; 554

&lt;211&gt; 170

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 554

```

Met Gly Phe Pro Val Gly Tyr Thr Glu Val Phe Leu Pro Lys Leu Phe
1          5          10          15

Val Gln Thr Leu Ser Ile Leu Gly Phe Ile Arg Thr Ile Val Phe Ser
          20          25          30

Ile Phe Arg Phe Leu Gly Leu Ser Asp Phe Leu Glu Met Asp Gln Thr
          35          40          45

Trp Pro Asp Tyr Thr Ser Tyr Pro Thr Arg Ile Pro Glu Thr Arg Ser
          50          55          60

Pro Phe Ser Ala Leu Leu Ile Arg Glu Ile Leu Pro Val Ile Lys Phe
65          70          75          80

```

047-E2F-PCT.ST25.txt

Glu Glu Leu Thr Asn Ser Gly Glu Asp Leu Pro Glu Asn Cys Ala Val  
85 90 95

Cys Leu Tyr Glu Phe Glu Gly Glu Gln Glu Ile Arg Trp Leu Arg Asn  
100 105 110

Cys Arg His Ile Phe His Arg Ser Cys Leu Asp Arg Trp Met Asp His  
115 120 125

Asp Gln Lys Thr Cys Pro Leu Cys Arg Thr Pro Phe Val Pro Asp Glu  
130 135 140

Met Gln Glu Glu Phe Asn Gln Arg Leu Trp Ala Ala Ser Gly Val His  
145 150 155 160

Asp Phe His Cys Pro Val Thr Glu Leu Leu  
165 170

<210> 555

<211> 1443

<212> DNA

<213> Arabidopsis thaliana

<400> 555

atgtatagcg gatctagcga tggtagagagt catgatacat cgacgcagag gaagatccca	60
ccggcgtctt cgatgctttg ggtagaaat ctacgacgat atattggttc cggtgccgga	120
ttaggatccg aagctctaataa ggagcttgag acgaagagaa tcttgctcga gatttttaaa	180
gagaagcaac agaaaagcca agaagcaggc acaataccga gtttctacaa gaagaaacca	240
gaagaaggat ctattagtca aaggggtccag aagcttgcaa agtaccgttt cttgaagaaa	300
caatcggatc ttttgttaaa cgctgatgat ttggctgcta tgtgggtttg tttgagagaa	360
aattgtgtga ttgatgatgc cactggtgct gaaaagatga actatgaaga cttctgtcac	420
attgcctctg tatgcactga acaaactcggc ccaaactgtc gccgggtttt tagcccatcc	480
aatttcatga aatttgagaa ggatgaggct gggaggattg ccattttacc gttttatctt	540
tatgtgatgc gcacggtgtc gcttacacaa gctaggattg atatgagtga gcttgacgaa	600
gactctgatg gtttccttca ttctgatgaa atggagtcct atattggtgg tctaatacct	660
aatctggcac aactgagaga catgcctccg gcctttaatc aaatgtattg ccgcatagct	720
tcacaaaagt ttttcttctt ctgtgatccc cataggcgag gaagagcctg cattaaaaag	780
atactgctca gtaactgtct gcaggaacta atggaattgc atcaggaaag cgaggaggaa	840



047-E2F-PCT.ST25.txt

gtcacagaca ctgaacaggc agaaaattgg ttctctttga cttcagccca acgcatatgt 900  
gatatgttcc tcgcacttga taaagatatg agtggatcgc tgtgcaaaca agaacttaaa 960  
gaatatgctg atgggaccct aactgagatt ttcatgaaa gagtgttcga tgagcatgtc 1020  
cgccgtggta aaatcgtggc aggcaattcc cgggaaatgg actttgacag tttcctcgat 1080  
tttgttcttg ctttggagaa caaagatact ccagagggtt tgacgtatatt attccgttgc 1140  
cttgatctcc aaggggagagg ctttctcact actgctgata ttactctct tttcagagat 1200  
gttcaccaga aatggataga aggtgggaac tatgaactgt gcatagaaga tgttcgagac 1260  
gagatctggg acatggtgaa accgtctgac ccattaaaga tcaactctggg tgatctcttg 1320  
ggatgtaaac aaggtggaac cgttgcgagc atgcttatag atgtgcgtgg cttctgggct 1380  
catgacaacc gtgagaacct tcttcaagaa gaagaagaac cacctgagga agagtctcag 1440  
tga 1443

<210> 556

<211> 480

<212> PRT

<213> Arabidopsis thaliana

<400> 556

Met	Tyr	Ser	Gly	Ser	Ser	Asp	Gly	Glu	Ser	His	Asp	Thr	Ser	Thr	Gln
1				5					10					15	
Arg	Lys	Ile	Pro	Pro	Ala	Ser	Ser	Met	Leu	Trp	Val	Arg	Asn	Leu	Arg
			20					25					30		
Arg	Tyr	Ile	Gly	Ser	Gly	Ala	Gly	Leu	Gly	Ser	Glu	Ala	Leu	Met	Glu
		35					40					45			
Leu	Glu	Thr	Lys	Arg	Ile	Leu	Leu	Glu	Ile	Phe	Lys	Glu	Lys	Gln	Gln
	50					55					60				
Lys	Ser	Gln	Glu	Ala	Gly	Thr	Ile	Pro	Ser	Phe	Tyr	Lys	Lys	Lys	Pro
65					70					75					80
Glu	Glu	Gly	Ser	Ile	Ser	Gln	Arg	Val	Gln	Lys	Leu	Ala	Lys	Tyr	Arg
				85					90					95	
Phe	Leu	Lys	Lys	Gln	Ser	Asp	Leu	Leu	Leu	Asn	Ala	Asp	Asp	Leu	Ala
			100					105					110		

047-E2F-PCT.ST25.txt

Ala Met Trp Val Cys Leu Arg Glu Asn Cys Val Ile Asp Asp Ala Thr  
115 120 125

Gly Ala Glu Lys Met Asn Tyr Glu Asp Phe Cys His Ile Ala Ser Val  
130 135 140

Cys Thr Glu Gln Ile Gly Pro Lys Cys Arg Arg Phe Phe Ser Pro Ser  
145 150 155 160

Asn Phe Met Lys Phe Glu Lys Asp Glu Ala Gly Arg Ile Ala Ile Leu  
165 170 175

Pro Phe Tyr Leu Tyr Val Met Arg Thr Val Ser Leu Thr Gln Ala Arg  
180 185 190

Ile Asp Met Ser Glu Leu Asp Glu Asp Ser Asp Gly Phe Leu His Ser  
195 200 205

Asp Glu Met Glu Ser Tyr Ile Gly Gly Leu Ile Pro Asn Leu Ala Gln  
210 215 220

Leu Arg Asp Met Pro Pro Ala Phe Asn Gln Met Tyr Cys Arg Ile Ala  
225 230 235 240

Ser Gln Lys Phe Phe Phe Phe Cys Asp Pro His Arg Arg Gly Arg Ala  
245 250 255

Cys Ile Lys Lys Ile Leu Leu Ser Asn Cys Leu Gln Glu Leu Met Glu  
260 265 270

Leu His Gln Glu Ser Glu Glu Glu Val Thr Asp Thr Glu Gln Ala Glu  
275 280 285

Asn Trp Phe Ser Leu Thr Ser Ala Gln Arg Ile Cys Asp Met Phe Leu  
290 295 300

Ala Leu Asp Lys Asp Met Ser Gly Ser Leu Cys Lys Gln Glu Leu Lys  
305 310 315 320

Glu Tyr Ala Asp Gly Thr Leu Thr Glu Ile Phe Ile Glu Arg Val Phe  
325 330 335

Asp Glu His Val Arg Arg Gly Lys Ile Val Ala Gly Asn Ser Arg Glu  
340 345 350

Met Asp Phe Asp Ser Phe Leu Asp Phe Val Leu Ala Leu Glu Asn Lys  
355 360 365

047-E2F-PCT.ST25.txt

Asp Thr Pro Glu Gly Leu Thr Tyr Leu Phe Arg Cys Leu Asp Leu Gln  
 370 375 380

Gly Arg Gly Phe Leu Thr Thr Ala Asp Ile His Ser Leu Phe Arg Asp  
 385 390 395 400

Val His Gln Lys Trp Ile Glu Gly Gly Asn Tyr Glu Leu Cys Ile Glu  
 405 410 415

Asp Val Arg Asp Glu Ile Trp Asp Met Val Lys Pro Ser Asp Pro Leu  
 420 425 430

Lys Ile Thr Leu Gly Asp Leu Leu Gly Cys Lys Gln Gly Gly Thr Val  
 435 440 445

Ala Ser Met Leu Ile Asp Val Arg Gly Phe Trp Ala His Asp Asn Arg  
 450 455 460

Glu Asn Leu Leu Gln Glu Glu Glu Glu Pro Pro Glu Glu Glu Ser Gln  
 465 470 475 480

<210> 557

<211> 939

<212> DNA

<213> Arabidopsis thaliana

<400> 557

atgtcattgc cctcatctcc ccatgcttac aggtgtcaaa catttgacg aagagggcct	60
tcagaatttg ccgtgaagga tacatggaat aaagtgggtg agtcttcac attgcagaat	120
cagcctttat taccctatca agaatgggac attgacttct cagagctgac tgttggaact	180
cgggtgggga ttggtttttt tgggtgaagtt tttcgtggag tatggaatgg gacagatggt	240
gcaatcaaat tgtttctgga gcaagatctt actgccgaaa acatggaaga tttctgcaat	300
gagatatcaa ttctcagccg tgttcgccac ccaaagtgtg tactatTTTT ggggtgcatgc	360
acaaaacctc cacgcttatc catgatcacg gagtacatgg agctgggatc gttgtattat	420
ttgatccaca tgagtgggtc gaagaagaaa cttagctggc acagaaggct caggatgctt	480
agagacatct gcaggggttt gatgtgcata caccggatga agatagtcca ccgcgacct	540
aagagtgcca actgtctagt ggacaaacat tggacagtca agatctgtga ttttgggctg	600
tcaagaataa tgactgatga aaacatgaag gacacttcat ctgctgggac accagagtgg	660

atggctccag agctcattcg caacaggcct ttacagaga aatgtgatat ctttagtctt 720  
 ggggtcataa tgtgggaact ttcaacttta cgtaaaccat gggaaggagt tccacctgag 780  
 aaggttgtct ttgctgttgc acatgaaggg tcacgtttgg agattcctga tggtcactc 840  
 agcaaactaa ttgcagattg ttgggcagag cctgaagaac gcccaaattg tgaagagata 900  
 cttagaggct tactcgattg tgagtacaca ctgtgctaa 939

<210> 558

<211> 312

<212> PRT

<213> Arabidopsis thaliana

<400> 558

Met Ser Leu Pro Ser Ser Pro His Ala Tyr Arg Cys Gln Thr Phe Gly  
 1 5 10 15

Arg Arg Gly Pro Ser Glu Phe Ala Val Lys Asp Thr Trp Asn Lys Val  
 20 25 30

Val Glu Ser Ser Thr Leu Gln Asn Gln Pro Leu Leu Pro Tyr Gln Glu  
 35 40 45

Trp Asp Ile Asp Phe Ser Glu Leu Thr Val Gly Thr Arg Val Gly Ile  
 50 55 60

Gly Phe Phe Gly Glu Val Phe Arg Gly Val Trp Asn Gly Thr Asp Val  
 65 70 75 80

Ala Ile Lys Leu Phe Leu Glu Gln Asp Leu Thr Ala Glu Asn Met Glu  
 85 90 95

Asp Phe Cys Asn Glu Ile Ser Ile Leu Ser Arg Val Arg His Pro Asn  
 100 105 110

Val Val Leu Phe Leu Gly Ala Cys Thr Lys Pro Pro Arg Leu Ser Met  
 115 120 125

Ile Thr Glu Tyr Met Glu Leu Gly Ser Leu Tyr Tyr Leu Ile His Met  
 130 135 140

Ser Gly Gln Lys Lys Lys Leu Ser Trp His Arg Arg Leu Arg Met Leu  
 145 150 155 160

Arg Asp Ile Cys Arg Gly Leu Met Cys Ile His Arg Met Lys Ile Val  
 165 170 175

His Arg Asp Leu Lys Ser Ala Asn Cys Leu Val Asp Lys His Trp Thr  
 180 185 190

Val Lys Ile Cys Asp Phe Gly Leu Ser Arg Ile Met Thr Asp Glu Asn  
 195 200 205

Met Lys Asp Thr Ser Ser Ala Gly Thr Pro Glu Trp Met Ala Pro Glu  
 210 215 220

Leu Ile Arg Asn Arg Pro Phe Thr Glu Lys Cys Asp Ile Phe Ser Leu  
 225 230 235 240

Gly Val Ile Met Trp Glu Leu Ser Thr Leu Arg Lys Pro Trp Glu Gly  
 245 250 255

Val Pro Pro Glu Lys Val Val Phe Ala Val Ala His Glu Gly Ser Arg  
 260 265 270

Leu Glu Ile Pro Asp Gly Pro Leu Ser Lys Leu Ile Ala Asp Cys Trp  
 275 280 285

Ala Glu Pro Glu Glu Arg Pro Asn Cys Glu Glu Ile Leu Arg Gly Leu  
 290 295 300

Leu Asp Cys Glu Tyr Thr Leu Cys  
 305 310

<210> 559

<211> 1458

<212> DNA

<213> Arabidopsis thaliana

<400> 559

atggtaggaa gaagaaaagc tttactcttt tctctctggt tcttcttcct ctctcttcct	60
tccttctctt cccttccatc cttccaaacc ctattcccca attctcattc ccttccttgt	120
gcttctcccg tctcattcca acccgactcc gactccgagt cactgctaga atccgaattt	180
gaatccggat ccgactccga gtcttcttct tccattactc taaacctcga ccacatcgat	240
gctctctcct ccaacaaaac acccgacgag ctattcagct cccgtctcca acgtgactcc	300
cggcgcgtga aatctatcgc cacactcgcc gctcaaattc ccggaagaaa cgtgactcac	360

047-E2F-PCT.ST25.txt

gcgccacgac ccggtggatt cagcagctca gtcgtctctg gtctctctca aggaagcggg 420  
gaatacttca cgcgccctcg tgctggcact ccggcgagat atgtttacat ggtgctcgac 480  
accggcagcg acatcgctct gctacaatgc gctccttgct ggagatgcta ctctcaatcc 540  
gacccgatat tcgacccgag aaaatccaag acctatgcca caatcccctg ttcttcacct 600  
cactgccgcc gattagactc cgccggatgc aacacccgct gtaagacttg tctctaccaa 660  
gtctctttac gagatggttc tttcacctgc ggcgatttct ccaccgaaac gctaactttc 720  
cggcgaaatc gcgttaaagg cgttgctctc ggatgtggcc acgacaacga aggtctcttc 780  
gtcggagccg ccggtttatt aggactcggg aaaggtaaatt tatcgttccc cgggtcaaacc 840  
ggtcaccggg ttaatcagaa attctcttac tgtttagtcg acagatccgc ttcttcgaaa 900  
ccttcctcgg tcgtcttcgg aaacgccgcc gtatcacgaa tcgcgagatt cacgccactt 960  
ttgtcaaacc caaaactcga cactttctac tacgtcgggc ttctgggaat tagcgctcga 1020  
gggacacgtg tccccggcgt aacggcttct ctttttaaac ttgaccagat cggtaacggg 1080  
ggagttatta tcgattcggg tacgtctgtg acccggttga tccgaccagc ttatattgct 1140  
atgagagacg cgttccgggt cggagctaag acattgaaaa gagctccgga tttctcactc 1200  
ttcgacacgt gtttcgatct ctccaatatg aacgaggtta aagtaccgac ggtggtttta 1260  
catttcctgt gagctgacgt atcacttccg gcgacgaatt acctgatccc tgtggatacc 1320  
aacggcaagt tctgttttgc gtttgccggg acgatgggcg gactatccat aattgggaat 1380  
atccagcaac aggggtttccg gggtgtatac gacttagcga gttcccgggt cgggtttgct 1440  
ccaggaggat gcgcttaa 1458

<210> 560

<211> 485

<212> PRT

<213> Arabidopsis thaliana

<400> 560

Met Val Gly Arg Arg Lys Ala Leu Leu Phe Ser Leu Cys Phe Phe Phe  
1 5 10 15

Leu Ser Leu Pro Ser Phe Ser Ser Leu Pro Ser Phe Gln Thr Leu Phe  
20 25 30

Pro Asn Ser His Ser Leu Pro Cys Ala Ser Pro Val Ser Phe Gln Pro  
35 40 45

047-E2F-PCT.ST25.txt

Asp Ser Asp Ser Glu Ser Leu Leu Glu Ser Glu Phe Glu Ser Gly Ser  
 50 55 60  
 Asp Ser Glu Ser Ser Ser Ser Ile Thr Leu Asn Leu Asp His Ile Asp  
 65 70 75 80  
 Ala Leu Ser Ser Asn Lys Thr Pro Asp Glu Leu Phe Ser Ser Arg Leu  
 85 90 95  
 Gln Arg Asp Ser Arg Arg Val Lys Ser Ile Ala Thr Leu Ala Ala Gln  
 100 105 110  
 Ile Pro Gly Arg Asn Val Thr His Ala Pro Arg Pro Gly Gly Phe Ser  
 115 120 125  
 Ser Ser Val Val Ser Gly Leu Ser Gln Gly Ser Gly Glu Tyr Phe Thr  
 130 135 140  
 Arg Leu Gly Val Gly Thr Pro Ala Arg Tyr Val Tyr Met Val Leu Asp  
 145 150 155 160  
 Thr Gly Ser Asp Ile Val Trp Leu Gln Cys Ala Pro Cys Arg Arg Cys  
 165 170 175  
 Tyr Ser Gln Ser Asp Pro Ile Phe Asp Pro Arg Lys Ser Lys Thr Tyr  
 180 185 190  
 Ala Thr Ile Pro Cys Ser Ser Pro His Cys Arg Arg Leu Asp Ser Ala  
 195 200 205  
 Gly Cys Asn Thr Arg Arg Lys Thr Cys Leu Tyr Gln Val Ser Tyr Gly  
 210 215 220  
 Asp Gly Ser Phe Thr Val Gly Asp Phe Ser Thr Glu Thr Leu Thr Phe  
 225 230 235 240  
 Arg Arg Asn Arg Val Lys Gly Val Ala Leu Gly Cys Gly His Asp Asn  
 245 250 255  
 Glu Gly Leu Phe Val Gly Ala Ala Gly Leu Leu Gly Leu Gly Lys Gly  
 260 265 270  
 Lys Leu Ser Phe Pro Gly Gln Thr Gly His Arg Phe Asn Gln Lys Phe  
 275 280 285  
 Ser Tyr Cys Leu Val Asp Arg Ser Ala Ser Ser Lys Pro Ser Ser Val  
 290 295 300

047-E2F-PCT.ST25.txt

Val Phe Gly Asn Ala Ala Val Ser Arg Ile Ala Arg Phe Thr Pro Leu  
 305 310 315 320

Leu Ser Asn Pro Lys Leu Asp Thr Phe Tyr Tyr Val Gly Leu Leu Gly  
 325 330 335

Ile Ser Val Gly Gly Thr Arg Val Pro Gly Val Thr Ala Ser Leu Phe  
 340 345 350

Lys Leu Asp Gln Ile Gly Asn Gly Gly Val Ile Ile Asp Ser Gly Thr  
 355 360 365

Ser Val Thr Arg Leu Ile Arg Pro Ala Tyr Ile Ala Met Arg Asp Ala  
 370 375 380

Phe Arg Val Gly Ala Lys Thr Leu Lys Arg Ala Pro Asp Phe Ser Leu  
 385 390 395 400

Phe Asp Thr Cys Phe Asp Leu Ser Asn Met Asn Glu Val Lys Val Pro  
 405 410 415

Thr Val Val Leu His Phe Arg Gly Ala Asp Val Ser Leu Pro Ala Thr  
 420 425 430

Asn Tyr Leu Ile Pro Val Asp Thr Asn Gly Lys Phe Cys Phe Ala Phe  
 435 440 445

Ala Gly Thr Met Gly Gly Leu Ser Ile Ile Gly Asn Ile Gln Gln Gln  
 450 455 460

Gly Phe Arg Val Val Tyr Asp Leu Ala Ser Ser Arg Val Gly Phe Ala  
 465 470 475 480

Pro Gly Gly Cys Ala  
 485

<210> 561

<211> 966

<212> DNA

<213> Arabidopsis thaliana

<400> 561

atggatctcc aaccagaaga gcttcaattc ttgacaatac ctcaactact tcaagaatca 60

atctcaatca agaaacgata tccaagaacc ttctacctca taaccctctc cttcatcttc 120



047-E2F-PCT.ST25.txt

```

cctctctcct tcgctatcct cgctcactca ctcttcactc aaccaatcct agccaaactc 180
gacaaatccg acccaccaaa ctcagatcgt tcacgtcatg attggactgt tcttctaatac 240
ttccagttca gttacttgat cttcctcttt gccttctctc ttctctcaac cgctgctggt 300
gtcttcaccg tcgcttctct ttacaccgga aagcctgttt ctttctcgtc aactctctct 360
gcgattccca aagtctttaa acgactcttt ataactttcc tttgggttgc tctgttgatg 420
tttgcttata acgcagtctt ctttgtcttc ctctgtgatgc ttctcgtagc tcttgatttg 480
aatagtttag gtttagctat tgtagccggg gttataatct ctgttctata ctttggtggt 540
catgtttatt tcaactgcttt atggcattta ggtagtgtaa tctctgttct tgaaccgggt 600
tacggaatcg ccgctatgag aaaagcttat gagttgctta aaggggaagac taagatggct 660
atgggggttaa tctttgttta tcttttcctc tgtggattga ttggagttgt ttttggtgct 720
gttggtggttc atggtggtgg gaagtatgga acttttacta ggactttggt tgggtggattg 780
ttagttggtg ttcttgtgat ggttaatctt gtggggttgt tgggttcagag tgtgttttac 840
tatgtttgta agagttatca tcatcagact attgataaga ccgctttgta tgatcaactt 900
ggtgggtatc ttggagatta tgtgcctctt aagagcaaca ttcagttgga ggatttagat 960
atttga 966

```

<210> 562

<211> 321

<212> PRT

<213> Arabidopsis thaliana

<400> 562

Met Asp Leu Gln Pro Glu Glu Leu Gln Phe Leu Thr Ile Pro Gln Leu  
1 5 10 15

Leu Gln Glu Ser Ile Ser Ile Lys Lys Arg Ser Pro Arg Thr Phe Tyr  
20 25 30

Leu Ile Thr Leu Ser Phe Ile Phe Pro Leu Ser Phe Ala Ile Leu Ala  
35 40 45

His Ser Leu Phe Thr Gln Pro Ile Leu Ala Lys Leu Asp Lys Ser Asp  
50 55 60

Pro Pro Asn Ser Asp Arg Ser Arg His Asp Trp Thr Val Leu Leu Ile  
65 70 75 80

047-E2F-PCT.ST25.txt

Phe Gln Phe Ser Tyr<sub>85</sub> Leu Ile Phe Leu Phe<sub>90</sub> Ala Phe Ser Leu<sub>95</sub> Ser  
 Thr Ala Ala Val<sub>100</sub> Val Phe Thr Val<sub>105</sub> Ala Ser Leu Tyr Thr Gly<sub>110</sub> Lys Pro  
 Val Ser Phe<sub>115</sub> Ser Ser Thr Leu Ser<sub>120</sub> Ala Ile Pro Lys Val<sub>125</sub> Phe Lys Arg  
 Leu Phe<sub>130</sub> Ile Thr Phe Leu Trp<sub>135</sub> Val Ala Leu Leu Met<sub>140</sub> Phe Ala Tyr Asn  
 Ala Val Phe Phe Val<sub>150</sub> Phe Leu Val Met Leu<sub>155</sub> Val Ala Leu Asp Leu<sub>160</sub>  
 Asn Ser Leu Gly<sub>165</sub> Leu Ala Ile Val Ala Gly<sub>170</sub> Val Ile Ile Ser Val<sub>175</sub> Leu  
 Tyr Phe Gly Val<sub>180</sub> His Val Tyr Phe Thr<sub>185</sub> Ala Leu Trp His Leu<sub>190</sub> Gly Ser  
 Val Ile Ser<sub>195</sub> Val Leu Glu Pro Val<sub>200</sub> Tyr Gly Ile Ala Ala<sub>205</sub> Met Arg Lys  
 Ala Tyr<sub>210</sub> Glu Leu Leu Lys Gly<sub>215</sub> Lys Thr Lys Met Ala<sub>220</sub> Met Gly Leu Ile  
 Phe Val Tyr Leu Phe Leu<sub>230</sub> Cys Gly Leu Ile Gly<sub>235</sub> Val Val Phe Gly Ala<sub>240</sub>  
 Val Val Val His Gly<sub>245</sub> Gly Gly Lys Tyr Gly<sub>250</sub> Thr Phe Thr Arg Thr<sub>255</sub> Leu  
 Val Gly Gly Leu<sub>260</sub> Leu Val Gly Val Leu<sub>265</sub> Val Met Val Asn Leu<sub>270</sub> Val Gly  
 Leu Leu Val<sub>275</sub> Gln Ser Val Phe Tyr<sub>280</sub> Tyr Val Cys Lys Ser<sub>285</sub> Tyr His His  
 Gln Thr<sub>290</sub> Ile Asp Lys Thr Ala<sub>295</sub> Leu Tyr Asp Gln Leu<sub>300</sub> Gly Gly Tyr Leu  
 Gly Asp Tyr Val Pro Leu<sub>310</sub> Lys Ser Asn Ile Gln<sub>315</sub> Leu Glu Asp Leu<sub>320</sub> Asp  
 Ile

&lt;210&gt; 563

&lt;211&gt; 2358

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 563

```

atgttcagct cgatgcagat actgccactg gaggtcctc ctacggatgg gaagttaggt      60
ccacttcctc cgtcgcaatt aacagatcag gaagtcgaag agagggagtt gcaagcagag    120
caaaataatt caaatctagc tcctccggcg gctgttgcta ctcacacgag gactatcgga    180
atcattcatc cacctccaga tatcagaact attgttgaga aaacggctca gtttgtctcc    240
aaaaacgggt tggagtttga aaagaggatt attgttagta atgaaaagaa tgctaagttc    300
aactttttga agagctcaga tccttatcat gccttttacc agcacaagct cactgaatac    360
cgtgctcaga ataaagacgg agctcagggg actgatgatt cagatggtac tacagatccc    420
caacttgata ctggagctgc tgatgagtct gaagctggtg atacacaacc cgaccttcag    480
gctcaattta ggattccttc taagcctttg gaagctccgg aacctgagaa gtatacagtt    540
agacttcctg aagggatcac ggggtgaagag cttgatatta ttaagctcac agcacagttt    600
gtggcacgga atgggaaatc gtttctaacg ggattgtcga atagagagaa caacaatcct    660
cagtttcatt ttatgaagcc aacacacagc atgttcactt tttttacttc tctggttgat    720
gcgtattcgg aagtattaat gcctcccaa gatttgaaag aaaagctgag aaagagtgct    780
gctgatttga cgactgttct tgagcgttgt ttgcatcggt tggaatggga tcgttcccag    840
gagcagcaga agaagaaaga agaggatgag aaagagcttg agcgagtgca gatggctatg    900
attgattggc atgattttgt ggttgttgag tcgatagatt ttgcggacga ggaagatgaa    960
gagttgccac cgcctatgac acttgacgag gttataagga ggagcaaagc atcagccatg   1020
gaagaagatg aaattgttga gcctggaaag gaggtcgaaa tggaaatgga cgaagaagaa   1080
gttaagcttg ttgcagaagg aatgagagca gcaaacctag aagagaatgt taagattgaa   1140
aatgtacatg atgaagaagc acctatgaga attgttaaga actggaagag gccagaagac   1200
aggatcccaa cagagagaga tccaactaaa gttgttatat caccaattac tggagagctg   1260
attcccatta acgagatgtc tgagcacatg aggatttctc ttattgatcc taagttcaaa   1320
gaacagaagg atcggatgtt tgctaagatt cgtgagacca ctcttgaca agatgatgag   1380
attgctaaaa acatagtcgg gttggcccg ctcgctcctg atatctttgg aacaaccgaa   1440
gaagaagtct caaatgctgt aaaagcagag attgagaaga agaaagatga gcagcccaag   1500

```

047-E2F-PCT.ST25.txt

caagtgatat gggatgggtca cacaggaagt attggtcgca cagcaaacca agccttgagt 1560  
cagaacgcta atggagagga gcaaggatgat ggcgtttacg gagatcccaa tagcttcctt 1620  
gggtccagctg ctcttccacc tcctcgacca ggtgtcccaa tagtccgacc attgccacca 1680  
cctcctaata tcgccttgaa cctccctcgt cctccccctt ctgctcagta ccccggtgca 1740  
ccaaggccac taggtgttcc gatgatgcag cccatgcata aacaacacca gctcacaatg 1800  
ccagggccac caggacaccc gcagatgatg atgaaccgac caccacagat gcagcctggt 1860  
atgcatgtgc cacctccacc gggatctcag tttgctcatt atatgcaaat tcctagacct 1920  
tatggtcagc ttccaccata tgcaatgggg atgatgcaac caccacctat gcctgggatg 1980  
gctcctcctc caccaccga ggaggctcca ccacctcttc ctgaggaacc agaggcaaag 2040  
agacaaaagt tcgatgagtc agcccttggt ccagaagacc agtttcttgc tcagcatccg 2100  
gggtccggcta caatcagggt ttctaagcca aacgagaatg atggacaatt tatggagatc 2160  
acagtgcagt cgttatctga aaacgtggga agtttgaagg agaaaatagc tggggagatt 2220  
caaatcccag caaacaaca gaagttgagt ggaaaagcag ggttcttaaa ggacaacatg 2280  
tcgcttgac attacaatgt cggagcagga gaaatcctaa cattgtcttt gagggaacgt 2340  
ggtgggagaa agagatag 2358

<210> 564

<211> 785

<212> PRT

<213> Arabidopsis thaliana

<400> 564

Met Phe Ser Ser Met Gln Ile Leu Pro Leu Glu Ala Pro Pro Thr Asp  
1 5 10 15

Gly Lys Leu Gly Pro Leu Pro Pro Ser Gln Leu Thr Asp Gln Glu Val  
20 25 30

Glu Glu Arg Glu Leu Gln Ala Glu Gln Asn Asn Ser Asn Leu Ala Pro  
35 40 45

Pro Ala Ala Val Ala Thr His Thr Arg Thr Ile Gly Ile Ile His Pro  
50 55 60

Pro Pro Asp Ile Arg Thr Ile Val Glu Lys Thr Ala Gln Phe Val Ser  
65 70 75 80

047-E2F-PCT.ST25.txt

Lys Asn Gly Leu Glu Phe Glu Lys Arg Ile Ile Val Ser Asn Glu Lys  
85 90 95

Asn Ala Lys Phe Asn Phe Leu Lys Ser Ser Asp Pro Tyr His Ala Phe  
100 105 110

Tyr Gln His Lys Leu Thr Glu Tyr Arg Ala Gln Asn Lys Asp Gly Ala  
115 120 125

Gln Gly Thr Asp Asp Ser Asp Gly Thr Thr Asp Pro Gln Leu Asp Thr  
130 135 140

Gly Ala Ala Asp Glu Ser Glu Ala Gly Asp Thr Gln Pro Asp Leu Gln  
145 150 155 160

Ala Gln Phe Arg Ile Pro Ser Lys Pro Leu Glu Ala Pro Glu Pro Glu  
165 170 175

Lys Tyr Thr Val Arg Leu Pro Glu Gly Ile Thr Gly Glu Glu Leu Asp  
180 185 190

Ile Ile Lys Leu Thr Ala Gln Phe Val Ala Arg Asn Gly Lys Ser Phe  
195 200 205

Leu Thr Gly Leu Ser Asn Arg Glu Asn Asn Asn Pro Gln Phe His Phe  
210 215 220

Met Lys Pro Thr His Ser Met Phe Thr Phe Phe Thr Ser Leu Val Asp  
225 230 235 240

Ala Tyr Ser Glu Val Leu Met Pro Pro Lys Asp Leu Lys Glu Lys Leu  
245 250 255

Arg Lys Ser Ala Ala Asp Leu Thr Thr Val Leu Glu Arg Cys Leu His  
260 265 270

Arg Leu Glu Trp Asp Arg Ser Gln Glu Gln Gln Lys Lys Lys Glu Glu  
275 280 285

Asp Glu Lys Glu Leu Glu Arg Val Gln Met Ala Met Ile Asp Trp His  
290 295 300

Asp Phe Val Val Val Glu Ser Ile Asp Phe Ala Asp Glu Glu Asp Glu  
305 310 315 320

Glu Leu Pro Pro Pro Met Thr Leu Asp Glu Val Ile Arg Arg Ser Lys  
325 330 335

047-E2F-PCT.ST25.txt

Ala Ser Ala Met Glu Glu Asp Glu Ile Val Glu Pro Gly Lys Glu Val  
340 345 350

Glu Met Glu Met Asp Glu Glu Glu Val Lys Leu Val Ala Glu Gly Met  
355 360 365

Arg Ala Ala Asn Leu Glu Glu Asn Val Lys Ile Glu Asn Val His Asp  
370 375 380

Glu Glu Ala Pro Met Arg Ile Val Lys Asn Trp Lys Arg Pro Glu Asp  
385 390 395 400

Arg Ile Pro Thr Glu Arg Asp Pro Thr Lys Val Val Ile Ser Pro Ile  
405 410 415

Thr Gly Glu Leu Ile Pro Ile Asn Glu Met Ser Glu His Met Arg Ile  
420 425 430

Ser Leu Ile Asp Pro Lys Phe Lys Glu Gln Lys Asp Arg Met Phe Ala  
435 440 445

Lys Ile Arg Glu Thr Thr Leu Ala Gln Asp Asp Glu Ile Ala Lys Asn  
450 455 460

Ile Val Gly Leu Ala Arg Leu Arg Pro Asp Ile Phe Gly Thr Thr Glu  
465 470 475 480

Glu Glu Val Ser Asn Ala Val Lys Ala Glu Ile Glu Lys Lys Lys Asp  
485 490 495

Glu Gln Pro Lys Gln Val Ile Trp Asp Gly His Thr Gly Ser Ile Gly  
500 505 510

Arg Thr Ala Asn Gln Ala Leu Ser Gln Asn Ala Asn Gly Glu Glu Gln  
515 520 525

Gly Asp Gly Val Tyr Gly Asp Pro Asn Ser Phe Pro Gly Pro Ala Ala  
530 535 540

Leu Pro Pro Pro Arg Pro Gly Val Pro Ile Val Arg Pro Leu Pro Pro  
545 550 555 560

Pro Pro Asn Leu Ala Leu Asn Leu Pro Arg Pro Pro Pro Ser Ala Gln  
565 570 575

Tyr Pro Gly Ala Pro Arg Pro Leu Gly Val Pro Met Met Gln Pro Met  
580 585 590

047-E2F-PCT.ST25.txt

His Gln Gln His Gln Leu Thr Met Pro Gly Pro Pro Gly His Pro Gln  
595 600 605

Met Met Met Asn Arg Pro Pro Gln Met Gln Pro Gly Met His Val Pro  
610 615 620

Pro Pro Pro Gly Ser Gln Phe Ala His His Met Gln Ile Pro Arg Pro  
625 630 635 640

Tyr Gly Gln Leu Pro Pro Ser Ala Met Gly Met Met Gln Pro Pro Pro  
645 650 655

Met Pro Gly Met Ala Pro Pro Pro Pro Pro Glu Glu Ala Pro Pro Pro  
660 665 670

Leu Pro Glu Glu Pro Glu Ala Lys Arg Gln Lys Phe Asp Glu Ser Ala  
675 680 685

Leu Val Pro Glu Asp Gln Phe Leu Ala Gln His Pro Gly Pro Ala Thr  
690 695 700

Ile Arg Val Ser Lys Pro Asn Glu Asn Asp Gly Gln Phe Met Glu Ile  
705 710 715 720

Thr Val Gln Ser Leu Ser Glu Asn Val Gly Ser Leu Lys Glu Lys Ile  
725 730 735

Ala Gly Glu Ile Gln Ile Pro Ala Asn Lys Gln Lys Leu Ser Gly Lys  
740 745 750

Ala Gly Phe Leu Lys Asp Asn Met Ser Leu Ala His Tyr Asn Val Gly  
755 760 765

Ala Gly Glu Ile Leu Thr Leu Ser Leu Arg Glu Arg Gly Gly Arg Lys  
770 775 780

Arg  
785

<210> 565

<211> 1176

<212> DNA

<213> Arabidopsis thaliana

<400> 565  
 atggcaccag ataacgacca tttcttagat tctccgtcgc cgcctcttct agagatgaga 60  
 caccaccaat cagcgacgga gaacggtggt ggttgcggcg agattgtgga ggtacaagga 120  
 ggtcacattg ttcggtcaac aggaagaaaa gacagacata gtaaagtatg tacagcgaaa 180  
 ggaccacgtg accggcgcggt gagactctca gctccgacgg cgattcaatt ctacgatggt 240  
 caagatagac ttgggttttga tcgaccaagt aaagctggtt attggccttat tactaaagct 300  
 aaatccgcca ttgatgatct tgctcagctt cctccttgga accccgccga tactcttcgt 360  
 caacacgccg ccgctgctgc taacgctaaa ccagaaaaa ccaaaacttt aatttctccg 420  
 ccaccgccac aaccggaaga aacagagcat catcgaatcg gagaagaaga agataacgaa 480  
 tcgagttttc ttccggcgctc aatggattct gattcgatag ctgacactat aaagtcgttt 540  
 tttccggtag cttcaacgca acagagctat catcatcagc caccgtcacg aggcaataca 600  
 cagaaccaag atcttcttcg tctctcgctt caatctttcc aaaatgggtcc accttttcct 660  
 aatcaaacag aacctgctct gttctccggc cagagcaata atcagttagc gtttgactca 720  
 tcgacggcaa gctggaaca gagtcatcag tcaccggaat ttggaaagat acagagacta 780  
 gtgtcatgga acaacgtcgg agcagctgaa tccgccggaa gtaccggagg atttgtgttt 840  
 gcttctccgt cgtcgttgca tccagtttat agccaaagtc agcttttatc acagaggggt 900  
 ccccttcagt ccattaacac acctatgatt cgtgcttggt ttgatcctca ccatcatcat 960  
 catcatcatc agcagtccat gaccactgac gatctccacc atcatcatcc ctaccatatc 1020  
 cctcccgga ttcaccaatc tgctattcca ggcattgcat ttgcttcaag tgggtgaattc 1080  
 tccggttttc gtataaccagc acggtttcaa ggcgaacaag aggagcacgg cggcgacaac 1140  
 aagccgtcct ctgcttcac cgtattctgc cattaa 1176

<210> 566

<211> 391

<212> PRT

<213> Arabidopsis thaliana

<400> 566

Met Ala Pro Asp Asn Asp His Phe Leu Asp Ser Pro Ser Pro Pro Leu  
 1 5 10 15

Leu Glu Met Arg His His Gln Ser Ala Thr Glu Asn Gly Gly Gly Cys  
 20 25 30



Gly Glu Ile Val Glu Val Gln Gly Gly His Ile Val Arg Ser Thr Gly  
 35 40 45  
 Arg Lys Asp Arg His Ser Lys Val Cys Thr Ala Lys Gly Pro Arg Asp  
 50 55 60  
 Arg Arg Val Arg Leu Ser Ala Pro Thr Ala Ile Gln Phe Tyr Asp Val  
 65 70 75 80  
 Gln Asp Arg Leu Gly Phe Asp Arg Pro Ser Lys Ala Val Asp Trp Leu  
 85 90 95  
 Ile Thr Lys Ala Lys Ser Ala Ile Asp Asp Leu Ala Gln Leu Pro Pro  
 100 105 110  
 Trp Asn Pro Ala Asp Thr Leu Arg Gln His Ala Ala Ala Ala Ala Asn  
 115 120 125  
 Ala Lys Pro Arg Lys Thr Lys Thr Leu Ile Ser Pro Pro Pro Pro Gln  
 130 135 140  
 Pro Glu Glu Thr Glu His His Arg Ile Gly Glu Glu Glu Asp Asn Glu  
 145 150 155 160  
 Ser Ser Phe Leu Pro Ala Ser Met Asp Ser Asp Ser Ile Ala Asp Thr  
 165 170 175  
 Ile Lys Ser Phe Phe Pro Val Ala Ser Thr Gln Gln Ser Tyr His His  
 180 185 190  
 Gln Pro Pro Ser Arg Gly Asn Thr Gln Asn Gln Asp Leu Leu Arg Leu  
 195 200 205  
 Ser Leu Gln Ser Phe Gln Asn Gly Pro Pro Phe Pro Asn Gln Thr Glu  
 210 215 220  
 Pro Ala Leu Phe Ser Gly Gln Ser Asn Asn Gln Leu Ala Phe Asp Ser  
 225 230 235 240  
 Ser Thr Ala Ser Trp Glu Gln Ser His Gln Ser Pro Glu Phe Gly Lys  
 245 250 255  
 Ile Gln Arg Leu Val Ser Trp Asn Asn Val Gly Ala Ala Glu Ser Ala  
 260 265 270  
 Gly Ser Thr Gly Gly Phe Val Phe Ala Ser Pro Ser Ser Leu His Pro  
 275 280 285

047-E2F-PCT.ST25.txt

Val Tyr Ser Gln Ser Gln Leu Leu Ser Gln Arg Gly Pro Leu Gln Ser  
 290 295 300  
 Ile Asn Thr Pro Met Ile Arg Ala Trp Phe Asp Pro His His His His  
 305 310 315 320  
 His His His Gln Gln Ser Met Thr Thr Asp Asp Leu His His His His  
 325 330 335  
 Pro Tyr His Ile Pro Pro Gly Ile His Gln Ser Ala Ile Pro Gly Ile  
 340 345 350  
 Ala Phe Ala Ser Ser Gly Glu Phe Ser Gly Phe Arg Ile Pro Ala Arg  
 355 360 365  
 Phe Gln Gly Glu Gln Glu Glu His Gly Gly Asp Asn Lys Pro Ser Ser  
 370 375 380  
 Ala Ser Ser Asp Ser Arg His  
 385 390

<210> 567

<211> 1686

<212> DNA

<213> Arabidopsis thaliana

<400> 567

atggaagaag atgatggaga cgcgtctacg ccggttttggc ttcaatcacg ccgcaataac	60
acttacttcc gccgcactgc aagtctcggg ggccgtacaa ccaccatcgc cactcaaata	120
ttcttcgccg gaacagctgc aatcctcata gtcgtcttca ttatccctcc tttcttctcc	180
tctgtttctc agattttccg acctcattta gtccgtaaaa gctgggatta tctcaacttc	240
gttctcgtcc ttttcgccgt cctttgcggc ttcctcagcc gcaacaccaa taatgacgaa	300
tccaatcatc acaaagaaga agacattcgt aacaaattct cgacttcacc atcgattatt	360
gatcgaagaa gtcgtgtatc taacagtggg acaacgccgc gttattggaa cgatgatcgc	420
gggtggtggcg gcggtgatca aacggtgtac aagaggttta gtagattacg aagtgttagc	480
tcgtatccag atctgaggct ccgggaatac gaagccgatg aacggtggag attctacgat	540
gatacacgtg taagtcaatg ccgttatgaa gatgtagatc cgatctatcc aaatcaaagt	600
tacagaaact ggcattgagga aggtaaacca ccgccggaag atgtagatca aacagaggac	660
ggtgataatg gagaaggaag taagggtccgt aacggcgggt cggaactga gaaagttgag	720

047-E2F-PCT.ST25.txt

gtggttgcca cggcggaagc tgaagtagta gaagagctaa aagtgccttc tgctccgccg 780  
tatattccgt ctcctccgcc gtctccgcca cgtcctccac cagcgaagca agcgaagaga 840  
aagactaata gagtgtacca agatgtttct ccacaggaag agaagaaaga aagagatgat 900  
tttgtagcga cgacgacgcc gattccacct ccggcgactg tgtatcaaaa gagcaataaa 960  
caggagaaga agaaaggagg agcaacgaaa gacttttctga ttgcgttacg gagaaagaag 1020  
aagaagcaga gacaacagag catcgatggc ctcgatctcc tcttcggctc cgatcctcca 1080  
ttggtctatt caccaccacc gccgcgcct cctccaccac ctttcttcca agggcttttc 1140  
tcattcaaaa aaggtaaaag caaaaaaac aattcaaadc caccgcctcc tcctcctcca 1200  
ccaccacctg aacggagata tgaatcacgc gcatcaacct cgaagctccg aaaagctccg 1260  
gtggaatcac ggacatccaa accaaatccg ccagctaaag taactcaata cgtaggcaca 1320  
ggaagcgaat caccactaat gccgatcccg ccggcgctc ctcctccgcc gtttaaaatg 1380  
ccggcttgga aattcgtgaa gcgtggagat tacgtcagga tggctagtga catcagcata 1440  
agctccgacg aacctgatga tccggatgta gctcaatcag ctggaagtaa ggaggccgcc 1500  
gggagtatgt tctgtccgag ccccgacgta gataccaaag ccgatgattt catcgcaaga 1560  
ttcagagccg gactcaaatt ggagaagatg aactctgtga aaagaggag atccaattta 1620  
ggacccgaac ccggacttca tgaatccgga tcttcaacgg gttataggcc cagcccaagc 1680  
gtatag 1686

<210> 568

<211> 561

<212> PRT

<213> Arabidopsis thaliana

<400> 568

Met Glu Glu Asp Asp Gly Asp Ala Ser Thr Pro Phe Trp Leu Gln Ser  
1 5 10 15

Arg Arg Asn Asn Thr Tyr Phe Arg Arg Thr Ala Ser Leu Gly Gly Arg  
20 25 30

Thr Thr Thr Ile Ala Thr Gln Ile Phe Phe Ala Gly Thr Ala Ala Ile  
35 40 45

Leu Ile Val Val Phe Ile Ile Pro Pro Phe Phe Ser Ser Val Ser Gln  
50 55 60

047-E2F-PCT.ST25.txt

Ile Phe Arg Pro His Leu Val Arg Lys Ser Trp Asp Tyr Leu Asn Phe  
65 70 75 80

Val Leu Val Leu Phe Ala Val Leu Cys Gly Phe Leu Ser Arg Asn Thr  
85 90 95

Asn Asn Asp Glu Ser Asn His His Lys Glu Glu Asp Ile Arg Asn Lys  
100 105 110

Phe Ser Thr Ser Pro Ser Ile Ile Asp Arg Arg Ser Arg Val Ser Asn  
115 120 125

Ser Gly Thr Thr Pro Arg Tyr Trp Asn Asp Asp Arg Gly Gly Gly Gly  
130 135 140

Gly Asp Gln Thr Val Tyr Lys Arg Phe Ser Arg Leu Arg Ser Val Ser  
145 150 155 160

Ser Tyr Pro Asp Leu Arg Leu Arg Glu Tyr Glu Ala Asp Glu Arg Trp  
165 170 175

Arg Phe Tyr Asp Asp Thr Arg Val Ser Gln Cys Arg Tyr Glu Asp Val  
180 185 190

Asp Pro Ile Tyr Pro Asn Gln Ser Tyr Arg Asn Trp His Glu Glu Gly  
195 200 205

Lys Pro Pro Pro Glu Asp Val Asp Gln Thr Glu Asp Gly Asp Asn Gly  
210 215 220

Glu Gly Ser Lys Val Arg Asn Gly Gly Ser Glu Thr Glu Lys Val Glu  
225 230 235 240

Val Val Ala Thr Ala Glu Ala Glu Val Val Glu Glu Leu Lys Val Pro  
245 250 255

Ser Ala Pro Pro Tyr Ile Pro Ser Pro Pro Pro Ser Pro Pro Arg Pro  
260 265 270

Pro Pro Ala Lys Gln Ala Lys Arg Lys Thr Asn Arg Val Tyr Gln Asp  
275 280 285

Val Ser Pro Gln Glu Glu Lys Lys Glu Arg Asp Asp Phe Val Ala Thr  
290 295 300

Thr Thr Pro Ile Pro Pro Pro Ala Thr Val Tyr Gln Lys Ser Asn Lys  
305 310 315 320

047-E2F-PCT.ST25.txt

Gln Glu Lys Lys Lys Gly Gly Ala Thr Lys Asp Phe Leu Ile Ala Leu  
325 330 335

Arg Arg Lys Lys Lys Lys Gln Arg Gln Gln Ser Ile Asp Gly Leu Asp  
340 345 350

Leu Leu Phe Gly Ser Asp Pro Pro Leu Val Tyr Ser Pro Pro Pro Pro  
355 360 365

Pro Pro Pro Pro Pro Pro Phe Phe Gln Gly Leu Phe Ser Ser Lys Lys  
370 375 380

Gly Lys Ser Lys Lys Asn Asn Ser Asn Pro Pro Pro Pro Pro Pro  
385 390 395 400

Pro Pro Pro Glu Arg Arg Tyr Glu Ser Arg Ala Ser Thr Ser Lys Leu  
405 410 415

Arg Lys Ala Pro Val Glu Ser Arg Thr Ser Lys Pro Asn Pro Pro Ala  
420 425 430

Lys Val Thr Gln Tyr Val Gly Thr Gly Ser Glu Ser Pro Leu Met Pro  
435 440 445

Ile Pro Pro Pro Pro Pro Pro Pro Pro Pro Phe Lys Met Pro Ala Trp Lys  
450 455 460

Phe Val Lys Arg Gly Asp Tyr Val Arg Met Ala Ser Asp Ile Ser Ile  
465 470 475 480

Ser Ser Asp Glu Pro Asp Asp Pro Asp Val Ala Gln Ser Ala Gly Ser  
485 490 495

Lys Glu Ala Ala Gly Ser Met Phe Cys Pro Ser Pro Asp Val Asp Thr  
500 505 510

Lys Ala Asp Asp Phe Ile Ala Arg Phe Arg Ala Gly Leu Lys Leu Glu  
515 520 525

Lys Met Asn Ser Val Lys Arg Gly Arg Ser Asn Leu Gly Pro Glu Pro  
530 535 540

Gly Leu His Glu Ser Gly Ser Ser Thr Gly Tyr Arg Pro Ser Pro Ser  
545 550 555 560

Val

&lt;210&gt; 569

&lt;211&gt; 753

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 569

```

atgaagttca acgttgcgaa tccaactact ggatgccaga agaagctcga gatcgacgat      60
gaccagaaac tacgtgcggt ttacgacaag agaattctctc aagaagtcag tggagatgct      120
ttgggcgagg agttcaaagg atacgttttc aagatcaagg gtggttgcca taagcaagggt      180
ttcccaatga agcagggagt tttgactcca ggccgtgttc gccttttgct tcaccgagga      240
actccttgct tcagaggaca tggaaggaga actggtgaga ggagaagaaa gtctgttcgt      300
ggttgcattg tgagccctga tctctctggt ctgaaccttg tcattgtgaa gaaggggtgag      360
aacgatcttc ctgggcttac cgatactgag aagccaagaa tgagaggacc aaagagagcc      420
tccaagatcc gtaaactggt taacctcaag aaggaagatg atgtcaggac ctatgtcaac      480
acttaccgcc gcaagttcac aaacaagaag ggcaaggaag ttagcaaagc ccctaagatc      540
cagaggcttg tgacccatt gactcttcag aggaagagag ctagaattgc tgacaagaag      600
aagaaaattg ctaaggctaa ttctgatgct gctgattacc agaagcttct cgcctcgagg      660
ttgaaggaac agcgtgacag gaggagttag agtttggcaa agaagaggtc gagactctct      720
tctgctgctg ccaagccctc tgtcacagct taa                                     753

```

&lt;210&gt; 570

&lt;211&gt; 250

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 570

```

Met Lys Phe Asn Val Ala Asn Pro Thr Thr Gly Cys Gln Lys Lys Leu
1           5           10
Glu Ile Asp Asp Asp Gln Lys Leu Arg Ala Phe Tyr Asp Lys Arg Ile
20          25          30
Ser Gln Glu Val Ser Gly Asp Ala Leu Gly Glu Glu Phe Lys Gly Tyr
35          40          45

```

047-E2F-PCT.ST25.txt

Val Phe Lys Ile Lys Gly Gly Cys Asp Lys Gln Gly Phe Pro Met Lys  
50 55 60

Gln Gly Val Leu Thr Pro Gly Arg Val Arg Leu Leu Leu His Arg Gly  
65 70 75 80

Thr Pro Cys Phe Arg Gly His Gly Arg Arg Thr Gly Glu Arg Arg Arg  
85 90 95

Lys Ser Val Arg Gly Cys Ile Val Ser Pro Asp Leu Ser Val Leu Asn  
100 105 110

Leu Val Ile Val Lys Lys Gly Glu Asn Asp Leu Pro Gly Leu Thr Asp  
115 120 125

Thr Glu Lys Pro Arg Met Arg Gly Pro Lys Arg Ala Ser Lys Ile Arg  
130 135 140

Lys Leu Phe Asn Leu Lys Lys Glu Asp Asp Val Arg Thr Tyr Val Asn  
145 150 155 160

Thr Tyr Arg Arg Lys Phe Thr Asn Lys Lys Gly Lys Glu Val Ser Lys  
165 170 175

Ala Pro Lys Ile Gln Arg Leu Val Thr Pro Leu Thr Leu Gln Arg Lys  
180 185 190

Arg Ala Arg Ile Ala Asp Lys Lys Lys Lys Ile Ala Lys Ala Asn Ser  
195 200 205

Asp Ala Ala Asp Tyr Gln Lys Leu Leu Ala Ser Arg Leu Lys Glu Gln  
210 215 220

Arg Asp Arg Arg Ser Glu Ser Leu Ala Lys Lys Arg Ser Arg Leu Ser  
225 230 235 240

Ser Ala Ala Ala Lys Pro Ser Val Thr Ala  
245 250

<210> 571

<211> 1623

<212> DNA

<213> Arabidopsis thaliana

## 047-E2F-PCT.ST25.txt

<400> 571  
 atgcaagcag taaaaagatc caggagacat gttgaagaag agccaacaat ggtagaacct 60  
 aaaaccaagt acgatcgtca gctcaggatt tggggggagg taggtcaagc ggccttgga 120  
 gaagcgagta tctgtttact caattgtggc cctactgggt ccgaggcttt gaagaatctc 180  
 gtacttggtg gtgttggtag catcaccgtt gttgatggat ctaaggttca atttggtgac 240  
 cttgggaaca atttcatggt cgatgcgaag agtgttggcc aatcaaaagc caaatctggt 300  
 tgtgcgtttc tccaagagct taatgattct gttaacgcca agtttattga ggagaatcca 360  
 gacacgttga ttactactaa cccatctttc ttctctcagt tcaactctcg ttagccact 420  
 cagctggtgg aagattcaat gttgaaactt gatagaatct gtcgagatgc aaacgttaag 480  
 ttggttttgg ttcgctctta tggccttgct ggggttgttc gcatctctgt aaaggagcac 540  
 ccataattg actcaaaacc tgatcatttt cttgacgacc tccgcctgaa taatccatgg 600  
 cctgaactca agagttttgt ggagaccatt gatctgaatg tatcagagcc ggccgctgca 660  
 cataagcaca taccttacgt cgtcattctt gtaaagatgg ctgaggagtg ggctcaatcc 720  
 catagtggta atcttccctc aaccaggga gaaaaaaag agtttaagga tttggttaag 780  
 tccaagatgg tatctacgga tgaagataac tacaagaag ccattgaagc cgctttcaaa 840  
 gtttttgctc ctcgaggaat cagctcagag gttcaaaaat taattaatga tagttgtgct 900  
 gaagtgaatt caaactcctc agcttttttg gtgatggtag cggctctgaa ggagtttggt 960  
 ttaaatgaag gtggtggaga ggcacccctt gaaggttcta taccagatat gacctcttca 1020  
 acagaacact atatcaattt gcagaaaatc tatttagcca aagccgaggc tgattttctt 1080  
 gtcattgagg aacgagttaa aaacatttta aagaaaatcg gtcgagatcc gagcagcatc 1140  
 ccaaaaccaa caatcaagag cttctgcaag aatgcaagga aacttaaatt gtgcagatat 1200  
 cgtatggtag aggacgagtt cagaaatcct tctgtaactg aaattcaaaa gtatttagcg 1260  
 gacgaggatt acagtgggtc aatgggattt tatattcttc ttagagctgc ggacagattt 1320  
 gctgccaact ataacaagtt tcctgggcag tttgatggag gaatggatga ggacatttct 1380  
 cgattaaaaa ctactgcctt gagtcttctt accgacttgg gctgtaacgg ctcaagtactc 1440  
 ccagatgacc ttatccatga gatgtgtcgc tttggtgcct cagagattca tgtggtttct 1500  
 gcctttgttg gaggaatcgc atctcaagaa gtcacaaagc ttgtcacaaa gcagtttggt 1560  
 ccgatgttgg ggacttacat cttcaatggc attgatcaca agtctcagtt attgaaattg 1620  
 tag 1623

<210> 572

<211> 540



&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 572

Met Gln Ala Val Lys Arg Ser Arg Arg His Val Glu Glu Glu Pro Thr  
 1 5 10 15

Met Val Glu Pro Lys Thr Lys Tyr Asp Arg Gln Leu Arg Ile Trp Gly  
 20 25 30

Glu Val Gly Gln Ala Ala Leu Glu Glu Ala Ser Ile Cys Leu Leu Asn  
 35 40 45

Cys Gly Pro Thr Gly Ser Glu Ala Leu Lys Asn Leu Val Leu Gly Gly  
 50 55 60

Val Gly Ser Ile Thr Val Val Asp Gly Ser Lys Val Gln Phe Gly Asp  
 65 70 75 80

Leu Gly Asn Asn Phe Met Val Asp Ala Lys Ser Val Gly Gln Ser Lys  
 85 90 95

Ala Lys Ser Val Cys Ala Phe Leu Gln Glu Leu Asn Asp Ser Val Asn  
 100 105 110

Ala Lys Phe Ile Glu Glu Asn Pro Asp Thr Leu Ile Thr Thr Asn Pro  
 115 120 125

Ser Phe Phe Ser Gln Phe Thr Leu Val Ile Ala Thr Gln Leu Val Glu  
 130 135 140

Asp Ser Met Leu Lys Leu Asp Arg Ile Cys Arg Asp Ala Asn Val Lys  
 145 150 155 160

Leu Val Leu Val Arg Ser Tyr Gly Leu Ala Gly Phe Val Arg Ile Ser  
 165 170 175

Val Lys Glu His Pro Ile Ile Asp Ser Lys Pro Asp His Phe Leu Asp  
 180 185 190

Asp Leu Arg Leu Asn Asn Pro Trp Pro Glu Leu Lys Ser Phe Val Glu  
 195 200 205

Thr Ile Asp Leu Asn Val Ser Glu Pro Ala Ala Ala His Lys His Ile  
 210 215 220

047-E2F-PCT.ST25.txt

Pro Tyr Val Val Ile Leu Val Lys Met Ala Glu Glu Trp Ala Gln Ser  
 225 230 235 240  
 His Ser Gly Asn Leu Pro Ser Thr Arg Glu Glu Lys Lys Glu Phe Lys  
 245 250 255  
 Asp Leu Val Lys Ser Lys Met Val Ser Thr Asp Glu Asp Asn Tyr Lys  
 260 265 270  
 Glu Ala Ile Glu Ala Ala Phe Lys Val Phe Ala Pro Arg Gly Ile Ser  
 275 280 285  
 Ser Glu Val Gln Lys Leu Ile Asn Asp Ser Cys Ala Glu Val Asn Ser  
 290 295 300  
 Asn Ser Ser Ala Phe Trp Val Met Val Ala Ala Leu Lys Glu Phe Val  
 305 310 315 320  
 Leu Asn Glu Gly Gly Gly Glu Ala Pro Leu Glu Gly Ser Ile Pro Asp  
 325 330 335  
 Met Thr Ser Ser Thr Glu His Tyr Ile Asn Leu Gln Lys Ile Tyr Leu  
 340 345 350  
 Ala Lys Ala Glu Ala Asp Phe Leu Val Ile Glu Glu Arg Val Lys Asn  
 355 360 365  
 Ile Leu Lys Lys Ile Gly Arg Asp Pro Ser Ser Ile Pro Lys Pro Thr  
 370 375 380  
 Ile Lys Ser Phe Cys Lys Asn Ala Arg Lys Leu Lys Leu Cys Arg Tyr  
 385 390 395 400  
 Arg Met Val Glu Asp Glu Phe Arg Asn Pro Ser Val Thr Glu Ile Gln  
 405 410 415  
 Lys Tyr Leu Ala Asp Glu Asp Tyr Ser Gly Ala Met Gly Phe Tyr Ile  
 420 425 430  
 Leu Leu Arg Ala Ala Asp Arg Phe Ala Ala Asn Tyr Asn Lys Phe Pro  
 435 440 445  
 Gly Gln Phe Asp Gly Gly Met Asp Glu Asp Ile Ser Arg Leu Lys Thr  
 450 455 460  
 Thr Ala Leu Ser Leu Leu Thr Asp Leu Gly Cys Asn Gly Ser Val Leu  
 465 470 475 480

Pro Asp Asp Leu Ile His Glu Met Cys Arg Phe Gly Ala Ser Glu Ile  
 485 490 495

His Val Val Ser Ala Phe Val Gly Gly Ile Ala Ser Gln Glu Val Ile  
 500 505 510

Lys Leu Val Thr Lys Gln Phe Val Pro Met Leu Gly Thr Tyr Ile Phe  
 515 520 525

Asn Gly Ile Asp His Lys Ser Gln Leu Leu Lys Leu  
 530 535 540

<210> 573

<211> 1881

<212> DNA

<213> Arabidopsis thaliana

<400> 573

```

atggttaaat tcgcgattat taatactctc actgtgaacg aaacttgggc gaaattgaaa      60
agttttggcg ttatggaatc gtccattgaa gggagctccg agtcaactac tgtcactact      120
tctccttcgc gtcgtgtacg agaactttta gctttgtgtt tcagttcagt tgaagaagcc      180
ggaggatttc aagactttga gagttttgtg acagaacttg tcagctgttt ggattctttg      240
tatgagaacg tagctttgga tgctaacaat gaactggaga acgatgttat tgaagaagta      300
ttagatgaaa ttttgaaagt tttatcatct cctcaaattg atcaggatgt tatagatgca      360
ctgtcatttc acttgccaaa agtaacttcc aagtttgcag acatatcaag cagatgttta      420
cagttagttg aggaaatcgt tgatcggttt gtggaagcat gcaatccacg ggatatgctt      480
tcaattcttt gtgaggcact cgatgctgca cgggtgctatc attcagcctc cacttgttct      540
actcctttat tgcattgggct ctctaaagta tttattttga tccagaggcg tcactacgag      600
caattaaagg ttgcagttcc aattgtcctg aacgttttga aggacatttc attggaaaca      660
gacgtgcaag ttgaagatth atttgataag gctctaggca ttgcctcttc aattcgagac      720
gtttcttcaa aactgaataa cgaagaagaa gcaaaagtcc gttgtctact ttgtctctat      780
gtgatacaga taacggctat tatttcagtt agcatcagag acaaagcggc ctcttgtatt      840
cctctggtga ttcagttaga accgttcttg acatcctgtg gtttaacaca tcttggttta      900
atcacgggga atgacactga aaaattaatg agcacggttg ctggagatga tgatgagttt      960
atcacctctt tccctgacat cagcttgggt gcatcgcttt tattcatctg tgcaaagatc     1020

```

tcccatgagg ttgcagaggc ggctaatgcg gttttaggaa gtgttggtga tgagcttcaa 1080  
 aacaatccag tgaagaggtg gcaagcttat gggatgttga aatatatact ttcctctgga 1140  
 gatctgctct gggaattcaa aagacatgct atcgagttct tgcttgacat aacaaaagga 1200  
 gttacttcat ctcaatgcaa tgatgagcaa atagattggt cggactacac gcctggcatc 1260  
 tacgctactt tacaggctgt tacattactg atcatgtatg cgccagacgc agatctgagg 1320  
 aaaaagacat ttgaggcact gaagaggggt ctttctgata tcccagctcc tcataggttt 1380  
 gacgttttaa gagcccttgt cacaaattcc cggctctcct caatgacagc aatccttctg 1440  
 ggtctagtta aagacagcat gagcaaaagc agtttgcaag atacagattg tgcggctggt 1500  
 gatacgcatg ttattgagct agtggagttg gtcttaaggc ctccacaggg aggtcctcca 1560  
 ctccttccgg accagagtga tgcgatcctg gcggcactta acctctacag gtttgactg 1620  
 ttatttgaat cgagagaatg tgaagcaggt aaagagagaa gcaaagtcgg cagtgatatt 1680  
 ttgtcaaaga agaactctgga gaaagcgtat aaggaatggc ttctgcctct tcgaactctt 1740  
 gtgagctgca gcatcgctga gaacctcaag gaggatcatg gccagaatc ttcactcgac 1800  
 gatgtagggc ttctgaacc aattgaattg gttctatata gatgcatcga gctcgtggaa 1860  
 gaaaagttga aaagtcatta g 1881

<210> 574

<211> 626

<212> PRT

<213> Arabidopsis thaliana

<400> 574

Met Val Lys Phe Ala Ile Ile Asn Thr Leu Thr Val Asn Glu Thr Trp  
 1 5 10 15

Ala Lys Leu Lys Ser Phe Gly Val Met Glu Ser Ser Ile Glu Gly Ser  
 20 25 30

Ser Glu Ser Thr Thr Val Thr Thr Ser Pro Ser Arg Arg Val Arg Glu  
 35 40 45

Leu Leu Ala Leu Cys Phe Ser Ser Val Glu Glu Ala Gly Gly Phe Gln  
 50 55 60

Asp Phe Glu Ser Phe Val Thr Glu Leu Val Ser Cys Leu Asp Ser Leu  
 65 70 75 80

Tyr Glu Asn Val Ala Leu Asp Ala Asn Asn Glu Leu Glu Asn Asp Val  
 85 90 95  
 Ile Glu Glu Val Leu Asp Glu Ile Leu Lys Val Leu Ser Ser Pro Gln  
 100 105 110  
 Met Asp Gln Asp Val Ile Asp Ala Leu Ser Phe His Leu Pro Lys Val  
 115 120 125  
 Thr Ser Lys Phe Ala Asp Ile Ser Ser Arg Cys Leu Gln Leu Val Glu  
 130 135 140  
 Glu Ile Val Asp Arg Phe Val Glu Ala Cys Asn Pro Arg Asp Met Leu  
 145 150 155 160  
 Ser Ile Leu Cys Glu Ala Leu Asp Ala Ala Arg Cys Tyr His Ser Ala  
 165 170 175  
 Ser Thr Cys Ser Thr Pro Leu Leu His Gly Leu Ser Lys Val Phe Ile  
 180 185 190  
 Leu Ile Gln Arg Arg His Tyr Glu Gln Leu Lys Val Ala Val Pro Ile  
 195 200 205  
 Val Leu Asn Val Leu Lys Asp Ile Ser Leu Glu Thr Asp Val Gln Val  
 210 215 220  
 Glu Asp Leu Phe Asp Lys Ala Leu Gly Ile Ala Ser Ser Ile Arg Asp  
 225 230 235 240  
 Val Ser Ser Lys Leu Asn Asn Glu Glu Glu Ala Lys Val Arg Cys Leu  
 245 250 255  
 Leu Cys Leu Tyr Val Ile Gln Ile Thr Ala Ile Ile Ser Val Ser Ile  
 260 265 270  
 Arg Asp Lys Ala Ala Ser Cys Ile Pro Leu Val Ile Gln Leu Glu Pro  
 275 280 285  
 Phe Leu Thr Ser Cys Gly Leu Thr His Leu Gly Leu Ile Thr Gly Asn  
 290 295 300  
 Asp Thr Glu Lys Leu Met Ser Thr Val Ala Gly Asp Asp Asp Glu Phe  
 305 310 315 320  
 Ile Thr Ser Phe Pro Asp Ile Ser Leu Gly Ala Ser Leu Leu Phe Ile  
 325 330 335

047-E2F-PCT.ST25.txt

Cys Ala Lys Ile Ser His Glu Val Ala Glu Ala Ala Asn Ala Val Leu  
 340 345 350  
 Gly Ser Val Val Asp Glu Leu Gln Asn Asn Pro Val Lys Arg Trp Gln  
 355 360 365  
 Ala Tyr Gly Met Leu Lys Tyr Ile Leu Ser Ser Gly Asp Leu Leu Trp  
 370 375 380  
 Glu Phe Lys Arg His Ala Ile Glu Phe Leu Leu Asp Ile Thr Lys Gly  
 385 390 395 400  
 Val Thr Ser Ser Gln Cys Asn Asp Glu Gln Ile Asp Cys Ser Asp Tyr  
 405 410 415  
 Thr Pro Gly Ile Tyr Ala Thr Leu Gln Ala Val Thr Leu Leu Ile Met  
 420 425 430  
 Tyr Ala Pro Asp Ala Asp Leu Arg Lys Lys Thr Phe Glu Ala Leu Lys  
 435 440 445  
 Arg Val Leu Ser Asp Ile Pro Ala Pro His Arg Phe Asp Val Leu Arg  
 450 455 460  
 Ala Leu Val Thr Asn Ser Arg Ser Pro Ser Met Thr Ala Ile Leu Leu  
 465 470 475 480  
 Gly Leu Val Lys Asp Ser Met Ser Lys Ser Ser Leu Gln Asp Thr Asp  
 485 490 495  
 Cys Ala Ala Val Asp Thr His Val Ile Glu Leu Val Glu Leu Val Leu  
 500 505 510  
 Arg Pro Pro Gln Gly Gly Pro Pro Leu Leu Pro Asp Gln Ser Asp Ala  
 515 520 525  
 Ile Leu Ala Ala Leu Asn Leu Tyr Arg Phe Ala Leu Leu Phe Glu Ser  
 530 535 540  
 Arg Glu Cys Glu Ala Gly Lys Glu Arg Ser Lys Val Gly Ser Asp Ile  
 545 550 555 560  
 Leu Ser Lys Lys Asn Leu Glu Lys Ala Tyr Lys Glu Trp Leu Leu Pro  
 565 570 575  
 Leu Arg Thr Leu Val Ser Cys Ser Ile Ala Glu Asn Leu Lys Glu Asp  
 580 585 590

His Gly Gln Glu Ser Ser Leu Asp Asp Val Gly Leu Leu Asn Pro Ile  
 595 600 605

Glu Leu Val Leu Tyr Arg Cys Ile Glu Leu Val Glu Glu Lys Leu Lys  
 610 615 620

Ser His  
 625

<210> 575

<211> 963

<212> DNA

<213> Arabidopsis thaliana

<400> 575

atggtgaaag caactaaggc agagaagaag atcgcttacg ataccaagct atgtcagctt	60
atcgatgagt acaccagat cttggtcggt ggggccgata acgtcggatc aactcagctt	120
cagaacatca gaaaggggtct tcgtggagac tccgtcgtgc ttatggggaa gaacactatg	180
atgaagcggt ccgtaggat tcaactctgag aacaccggaa aactgcaat cctgaatctg	240
cttcctctcc ttcagggaaa cgttgggtttg atctttacca aagggtgacct caaggaagtg	300
agcgaggagg ttgctaagta caagggttgggt gccctgtctc gtgtgggttt ggtggctcca	360
attgatgtgg ttgtccaacc tggcaacact ggtctcgacc catcccaaac atctttcttc	420
cagggtgctta acatcccaac caagattaac aagggtaccg tcgaaatcat caccacagtt	480
gagcttatca agcaagggtga caagggtcggg tcttctgagg ctgcgcttct agccaagctt	540
ggcatcaggc cgttctcata tggctcttgt gtccagtcgt tctatgacaa tggctcagtc	600
ttcagcccag aggttcttga tcttactgaa gaccaacttg tggagaagtt tgcttctggt	660
atctccatgg tcaacttcctt ggctcttgct gtgtcgtacc ctacccttgc tgctgcaccg	720
catatgttca tcaatgcgta caagaatgcc ttggctattg ctgttgccac tgagtacacc	780
ttccctcaag cagagaaggt caaggaatac ttgaaggatc caagcaagtt tgctgttgct	840
tcagtagctg cgggtgtctgc tgatgcaggt ggtgggtgcc cagctgctgc taaggtagag	900
gagaaggaag agtccgacga agaagactat ggaggtgatt tcgggtttgt cgatgaagag	960
tag	963

<210> 576

<211> 320

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 576

Met Val Lys Ala Thr Lys Ala Glu Lys Lys Ile Ala Tyr Asp Thr Lys  
 1 5 10 15

Leu Cys Gln Leu Ile Asp Glu Tyr Thr Gln Ile Leu Val Val Ala Ala  
 20 25 30

Asp Asn Val Gly Ser Thr Gln Leu Gln Asn Ile Arg Lys Gly Leu Arg  
 35 40 45

Gly Asp Ser Val Val Leu Met Gly Lys Asn Thr Met Met Lys Arg Ser  
 50 55 60

Val Arg Ile His Ser Glu Asn Thr Gly Asn Thr Ala Ile Leu Asn Leu  
 65 70 75 80

Leu Pro Leu Leu Gln Gly Asn Val Gly Leu Ile Phe Thr Lys Gly Asp  
 85 90 95

Leu Lys Glu Val Ser Glu Glu Val Ala Lys Tyr Lys Val Gly Ala Pro  
 100 105 110

Ala Arg Val Gly Leu Val Ala Pro Ile Asp Val Val Val Gln Pro Gly  
 115 120 125

Asn Thr Gly Leu Asp Pro Ser Gln Thr Ser Phe Phe Gln Val Leu Asn  
 130 135 140

Ile Pro Thr Lys Ile Asn Lys Gly Thr Val Glu Ile Ile Thr Pro Val  
 145 150 155 160

Glu Leu Ile Lys Gln Gly Asp Lys Val Gly Ser Ser Glu Ala Ala Leu  
 165 170 175

Leu Ala Lys Leu Gly Ile Arg Pro Phe Ser Tyr Gly Leu Val Val Gln  
 180 185 190

Ser Val Tyr Asp Asn Gly Ser Val Phe Ser Pro Glu Val Leu Asp Leu  
 195 200 205

Thr Glu Asp Gln Leu Val Glu Lys Phe Ala Ser Gly Ile Ser Met Val  
 210 215 220



047-E2F-PCT.ST25.txt

Thr Ser Leu Ala Leu Ala Val Ser Tyr Pro Thr Leu Ala Ala Ala Pro  
225 230 235 240

His Met Phe Ile Asn Ala Tyr Lys Asn Ala Leu Ala Ile Ala Val Ala  
245 250 255

Thr Glu Tyr Thr Phe Pro Gln Ala Glu Lys Val Lys Glu Tyr Leu Lys  
260 265 270

Asp Pro Ser Lys Phe Ala Val Ala Ser Val Ala Ala Val Ser Ala Asp  
275 280 285

Ala Gly Gly Gly Ala Pro Ala Ala Ala Lys Val Glu Glu Lys Glu Glu  
290 295 300

Ser Asp Glu Glu Asp Tyr Gly Gly Asp Phe Gly Leu Phe Asp Glu Glu  
305 310 315 320

<210> 577

<211> 3069

<212> DNA

<213> Arabidopsis thaliana

<400> 577

atgtacacca atttacttgg tttggaccct agcttgagga atggaagttt aaaagatgga	60
aacctcaact gggagatggt gcagtttaag tcaaggtttc cacgcgaagt tttgctctgc	120
agagtaggag aattttatga ggctattgga atagatgctt gtatacttgt tgaatatgct	180
ggcttcaatc cttttggtgg tcttcgatca gatagtattc caaaggctgg ctgccaatt	240
atgaatcttc gacagacttt ggatgacctg acacgcaatg gttattcagt gtgtattgtg	300
gaggaagttc aggggccaac accagcacgc tcccgtaaag gtcgatttat ttcagggcat	360
gcacatccag gaagtcctta tgtatatggg cttgtcgggtg ttgaccatga tcttgacttt	420
cctgataccta tgcctgttgt tgggatatct cgttcagcaa gggggtattg tatgatatct	480
attttcgaga ctatgaaagc atattcgcta gatgatggtc taacagaaga agccttagtt	540
accaagctcc gcactcgtcg ctgtcatcat cttttcttac atgcatcggt gaggcacaat	600
gcatcagggg cgtgccgctg gggagagttt ggggaagggg gtctactctg gggagaatgc	660
agtagcagga attttgaatg gtttgaagga gatactcttt ccgagctctt atcaagggtc	720
aaagatgttt atggtcttga tgatgaagtt tccttttagaa atgtcaatgt accttcaaaa	780

aatcggccac	gtccgttgca	tcttggaacg	gctacacaaa	ttggtgcctt	acctactgaa	840
ggaatacctt	gtttgttgaa	ggtgttactt	ccatctacgt	gcagtgggtct	gccttctttg	900
tatgttaggg	atcttcttct	gaaccctcct	gcttacgata	ttgctctgaa	aattcaagaa	960
acgtgcaagc	tcattgagcac	agtaacatgt	tcaattccag	agttttacctg	cgtctcttct	1020
gctaagcttg	tgaagcttct	tgagcaacgg	gaagccaact	acattgagtt	ctgtcgaata	1080
aaaaatgtgc	ttgatgatgt	attacatatg	catagacatg	ctgagcttgt	ggaaatcctg	1140
aaattattga	tgatcctac	ctgggtggct	actggtttga	aaattgactt	tgacactttt	1200
gtcaacgaat	gtcattgggc	gtctgataca	attggtgaaa	tgatctcttt	agatgagaat	1260
gaaagtcac	agaatgtaag	taaatgtgac	aatgtcccga	acgaattctt	ttatgatatg	1320
gagtcttcat	ggcgaggctg	cgtaaagggg	attcatatag	aggaagaaat	cactcaagta	1380
gaaaaatcag	ctgaggcttt	atcttttagca	gtagctgagg	atcttcaccc	tattatatca	1440
agaattaagg	ccaccactgc	ttcacttggg	ggcccgaaag	gcgaaatcgc	atatgcaaga	1500
gagcatgagt	ctgtttgggt	caaggggaaa	cggtttacgc	catctatctg	ggctgggtact	1560
gcaggggaag	accaaataaa	acagctgaaa	cctgccttag	actcgaaagg	aaaaaagggt	1620
ggagaagaat	ggtttacgac	cccaaagggt	gaaattgctt	tagtcagata	ccatgaagct	1680
agtgagaatg	caaaagctcg	ggtgttgga	ctgttgcgcg	agttatccgt	taaattgcaa	1740
acaaaaataa	atgttcttgt	ctttgcatct	atgcttctgg	tcatttcaaa	agcattattt	1800
tcccatgctt	gtactgtgca	caactacagt	gaagggagaa	ggcgaaagtg	ggtttttcca	1860
acgcttgctg	gattcagttt	agatgagggc	gcaaaacat	tagatgggtg	cagtcgaatg	1920
aagctgacag	gcctgtcacc	ttattgggtt	gatgtatctt	ctggaaccgc	tgttcacaat	1980
accgttgaca	tgcaatcact	gtttcttcta	actggacctt	acggtgggtg	taaatcgagt	2040
ttgctcagat	caatatgcgc	agctgctcta	cttggaattt	ccggtttaat	ggttccagct	2100
gaatcagctt	gtattcctca	ctttgattcc	atcatgcttc	acatgaaatc	atatgacagc	2160
cctgtagacg	gaaaaagttc	tttccaggta	gaaatgtcgg	aaatacgatc	tattgtaagc	2220
caggctactt	cgagaagcct	agtgtttata	gatgagatat	gccgaggggc	agagacagca	2280
aaaggcacct	gtatcgctgg	tagtgtggta	gagagtcttg	acacaagtgg	ttgtttgggt	2340
attgtatcta	ctcatctcca	tggaatcttc	agttttacct	ttacagcgaa	aaacatcaca	2400
tataaagcaa	tgggagccga	aaatgtcgaa	gggcaaacca	agccaacttg	gaaattgaca	2460
gatggagtct	gcagagagag	tcttgcgttt	gaaacagcta	agaggggaagg	tgttcccag	2520
tcagttatcc	aaagagctga	agctctttac	ctctcggtct	atgcaaaaga	cgcacagct	2580
gaagttgtca	aacccgacca	aatcataact	tcatccaaca	atgaccagca	gatccaaaaa	2640
ccagtcagct	ctgagagaag	tttggagaag	gacttagcaa	aagctatcgt	caaaatctgt	2700

047-E2F-PCT.ST25.txt

```

gggaaaaaga tgattgagcc tgaagcaata gaatgtcttt caattggtgc tcgtgagctt 2760
ccacctccat ctacagttgg ttcttcatgc gtgtatgtga tgcggagacc cgataagaga 2820
ttgtacattg gacagaccga tgatcttgaa ggacgaatac gtgcgcatcg agcaaaggaa 2880
ggactgcaag ggtcaagttt tctatacctt atggttcaag gtaagagcat ggcttgtcag 2940
ttagagactc tattgattaa tcaactccat gaacaaggct actctctggc taacctagcc 3000
gatggaaagc accgtaattt cggaacgtcc tcaagcttga gtacatcaga cgtagtcagc 3060
atcttatag 3069

```

<210> 578

<211> 1022

<212> PRT

<213> Arabidopsis thaliana

<400> 578

Met Tyr Thr Asn Leu Leu Gly Leu Asp Pro Ser Leu Arg Asn Gly Ser  
1 5 10 15

Leu Lys Asp Gly Asn Leu Asn Trp Glu Met Leu Gln Phe Lys Ser Arg  
20 25 30

Phe Pro Arg Glu Val Leu Leu Cys Arg Val Gly Glu Phe Tyr Glu Ala  
35 40 45

Ile Gly Ile Asp Ala Cys Ile Leu Val Glu Tyr Ala Gly Leu Asn Pro  
50 55 60

Phe Gly Gly Leu Arg Ser Asp Ser Ile Pro Lys Ala Gly Cys Pro Ile  
65 70 75 80

Met Asn Leu Arg Gln Thr Leu Asp Asp Leu Thr Arg Asn Gly Tyr Ser  
85 90 95

Val Cys Ile Val Glu Glu Val Gln Gly Pro Thr Pro Ala Arg Ser Arg  
100 105 110

Lys Gly Arg Phe Ile Ser Gly His Ala His Pro Gly Ser Pro Tyr Val  
115 120 125

Tyr Gly Leu Val Gly Val Asp His Asp Leu Asp Phe Pro Asp Pro Met  
130 135 140

047-E2F-PCT.ST25.txt

Pro Val Val Gly Ile Ser Arg Ser Ala Arg Gly Tyr Cys Met Ile Ser  
 145 150 155 160  
 Ile Phe Glu Thr Met Lys Ala Tyr Ser Leu Asp Asp Gly Leu Thr Glu  
 165 170 175  
 Glu Ala Leu Val Thr Lys Leu Arg Thr Arg Arg Cys His His Leu Phe  
 180 185 190  
 Leu His Ala Ser Leu Arg His Asn Ala Ser Gly Thr Cys Arg Trp Gly  
 195 200 205  
 Glu Phe Gly Glu Gly Gly Leu Leu Trp Gly Glu Cys Ser Ser Arg Asn  
 210 215 220  
 Phe Glu Trp Phe Glu Gly Asp Thr Leu Ser Glu Leu Leu Ser Arg Val  
 225 230 235 240  
 Lys Asp Val Tyr Gly Leu Asp Asp Glu Val Ser Phe Arg Asn Val Asn  
 245 250 255  
 Val Pro Ser Lys Asn Arg Pro Arg Pro Leu His Leu Gly Thr Ala Thr  
 260 265 270  
 Gln Ile Gly Ala Leu Pro Thr Glu Gly Ile Pro Cys Leu Leu Lys Val  
 275 280 285  
 Leu Leu Pro Ser Thr Cys Ser Gly Leu Pro Ser Leu Tyr Val Arg Asp  
 290 295 300  
 Leu Leu Leu Asn Pro Pro Ala Tyr Asp Ile Ala Leu Lys Ile Gln Glu  
 305 310 315 320  
 Thr Cys Lys Leu Met Ser Thr Val Thr Cys Ser Ile Pro Glu Phe Thr  
 325 330 335  
 Cys Val Ser Ser Ala Lys Leu Val Lys Leu Leu Glu Gln Arg Glu Ala  
 340 345 350  
 Asn Tyr Ile Glu Phe Cys Arg Ile Lys Asn Val Leu Asp Asp Val Leu  
 355 360 365  
 His Met His Arg His Ala Glu Leu Val Glu Ile Leu Lys Leu Leu Met  
 370 375 380  
 Asp Pro Thr Trp Val Ala Thr Gly Leu Lys Ile Asp Phe Asp Thr Phe  
 385 390 395 400

047-E2F-PCT.ST25.txt

Val Asn Glu Cys His Trp Ala Ser Asp Thr Ile Gly Glu Met Ile Ser  
405 410 415

Leu Asp Glu Asn Glu Ser His Gln Asn Val Ser Lys Cys Asp Asn Val  
420 425 430

Pro Asn Glu Phe Phe Tyr Asp Met Glu Ser Ser Trp Arg Gly Arg Val  
435 440 445

Lys Gly Ile His Ile Glu Glu Glu Ile Thr Gln Val Glu Lys Ser Ala  
450 455 460

Glu Ala Leu Ser Leu Ala Val Ala Glu Asp Phe His Pro Ile Ile Ser  
465 470 475 480

Arg Ile Lys Ala Thr Thr Ala Ser Leu Gly Gly Pro Lys Gly Glu Ile  
485 490 495

Ala Tyr Ala Arg Glu His Glu Ser Val Trp Phe Lys Gly Lys Arg Phe  
500 505 510

Thr Pro Ser Ile Trp Ala Gly Thr Ala Gly Glu Asp Gln Ile Lys Gln  
515 520 525

Leu Lys Pro Ala Leu Asp Ser Lys Gly Lys Lys Val Gly Glu Glu Trp  
530 535 540

Phe Thr Thr Pro Lys Val Glu Ile Ala Leu Val Arg Tyr His Glu Ala  
545 550 555 560

Ser Glu Asn Ala Lys Ala Arg Val Leu Glu Leu Leu Arg Glu Leu Ser  
565 570 575

Val Lys Leu Gln Thr Lys Ile Asn Val Leu Val Phe Ala Ser Met Leu  
580 585 590

Leu Val Ile Ser Lys Ala Leu Phe Ser His Ala Cys Thr Val His Asn  
595 600 605

Tyr Ser Glu Gly Arg Arg Arg Lys Trp Val Phe Pro Thr Leu Val Gly  
610 615 620

Phe Ser Leu Asp Glu Gly Ala Lys Pro Leu Asp Gly Ala Ser Arg Met  
625 630 635 640

Lys Leu Thr Gly Leu Ser Pro Tyr Trp Phe Asp Val Ser Ser Gly Thr  
Page 895

Ala Val His Asn Thr Val Asp Met Gln Ser Leu Phe Leu Leu Thr Gly  
660 665 670

Pro Asn Gly Gly Gly Lys Ser Ser Leu Leu Arg Ser Ile Cys Ala Ala  
675 680 685

Ala Leu Leu Gly Ile Ser Gly Leu Met Val Pro Ala Glu Ser Ala Cys  
690 695 700

Ile Pro His Phe Asp Ser Ile Met Leu His Met Lys Ser Tyr Asp Ser  
705 710 715 720

Pro Val Asp Gly Lys Ser Ser Phe Gln Val Glu Met Ser Glu Ile Arg  
725 730 735

Ser Ile Val Ser Gln Ala Thr Ser Arg Ser Leu Val Leu Ile Asp Glu  
740 745 750

Ile Cys Arg Gly Thr Glu Thr Ala Lys Gly Thr Cys Ile Ala Gly Ser  
755 760 765

Val Val Glu Ser Leu Asp Thr Ser Gly Cys Leu Gly Ile Val Ser Thr  
770 775 780

His Leu His Gly Ile Phe Ser Leu Pro Leu Thr Ala Lys Asn Ile Thr  
785 790 795 800

Tyr Lys Ala Met Gly Ala Glu Asn Val Glu Gly Gln Thr Lys Pro Thr  
805 810 815

Trp Lys Leu Thr Asp Gly Val Cys Arg Glu Ser Leu Ala Phe Glu Thr  
820 825 830

Ala Lys Arg Glu Gly Val Pro Glu Ser Val Ile Gln Arg Ala Glu Ala  
835 840 845

Leu Tyr Leu Ser Val Tyr Ala Lys Asp Ala Ser Ala Glu Val Val Lys  
850 855 860

Pro Asp Gln Ile Ile Thr Ser Ser Asn Asn Asp Gln Gln Ile Gln Lys  
865 870 875 880

Pro Val Ser Ser Glu Arg Ser Leu Glu Lys Asp Leu Ala Lys Ala Ile  
885 890 895

Val Lys Ile Cys Gly Lys Lys Met Ile Glu Pro Glu Ala Ile Glu Cys  
 900 905 910

Leu Ser Ile Gly Ala Arg Glu Leu Pro Pro Pro Ser Thr Val Gly Ser  
 915 920 925

Ser Cys Val Tyr Val Met Arg Arg Pro Asp Lys Arg Leu Tyr Ile Gly  
 930 935 940

Gln Thr Asp Asp Leu Glu Gly Arg Ile Arg Ala His Arg Ala Lys Glu  
 945 950 955 960

Gly Leu Gln Gly Ser Ser Phe Leu Tyr Leu Met Val Gln Gly Lys Ser  
 965 970 975

Met Ala Cys Gln Leu Glu Thr Leu Leu Ile Asn Gln Leu His Glu Gln  
 980 985 990

Gly Tyr Ser Leu Ala Asn Leu Ala Asp Gly Lys His Arg Asn Phe Gly  
 995 1000 1005

Thr Ser Ser Ser Leu Ser Thr Ser Asp Val Val Ser Ile Leu  
 1010 1015 1020

<210> 579

<211> 1608

<212> DNA

<213> Arabidopsis thaliana

<400> 579

```

atggcgctgg cgttcgatga gttcgggCGT cGttcatta tactgagaga gcaagatcaa      60
aagactcgtc ttagaggaat cgatgctcag aaagccaata tcgccgctgg taaagccgtg      120
gctcggatcc ttcgatcctc tcttggaccc aaaggaatgg ataagatgct tcaaggacct      180
gacggagaca tcaccatcac aaacgatggt gctacgatat tggagcaaat ggatgttgac      240
aaccagattg cgaaactaat ggtggaactg tcgcggagtc aggattatga aattggtgat      300
ggaacaacag gtgttgttgt tatggctggt gcacttcttg agcaagctga acgtcagtta      360
gatagaggaa ttcatcccat tcgtattgct gaaggatatg agatggcttc taggggtggct      420
gttgagcatt tggagcgtat tgcccaaaag tttgaattcg atgttaataa ttatgagcct      480
ctggttcaga cttgcatgac tactctgtcc tcgaagattg tgaatcgatg caagcgcagc      540
ttagctgaga ttgctgttaa agcggttcct gctgttgctg atttagagag gagggatggt      600

```

047-E2F-PCT.ST25.txt

aacttagatc tgatcaaagt agaggggaaa gttgggggaa agttggagga cactgagctt 660  
 atttatggaa tactgattga caaagatatg agtcatccgc aaatgccaaa gcagattgaa 720  
 gatgccaca ttgccatttt gacttgtccc tttgagccac cgaagccgaa gactaagcat 780  
 aaggtggaca ttgatacagt ggaaaagttt gagacattgc gcaagcaaga gcagcaatat 840  
 ttcgatgaga tggtagaaaa gtgcaaggat gttggtgcta cgctgggttat ttgccaatgg 900  
 ggattcgatg atgaggcaaa ccatctattg atgcacagga atttgcctgc tgtcagatgg 960  
 gtagggggtg ttgaattaga acttatcgca atagccacag gcggtagaat tgttccaaga 1020  
 ttccaggagt tgaccccaaga gaagttaggg aaggctggcg tggttcgtga gaaatctttt 1080  
 ggcacaacaa aagaacgaat gctgtatatt gagcactgtg cgaactcaa agctgtcact 1140  
 gttttcatcc gtggaggtaa caaatgatg atagaagaga cgaaacgtag tatccacgat 1200  
 gctctgtgtg tggctaggaa tctcatccgc aacaaatcaa ttgtttatgg aggtggggca 1260  
 gctgaaatcg cttgtcact tgcggttgat gcagctgctg ataaataccc tggcgtggag 1320  
 cagtatgcaa ttagggcggt tgcagaagct ttggactctg tccctatggc tcttgcagag 1380  
 aacagtggat tacagcccat tgagacactc tctgcggtta aatctcagca aattaaggag 1440  
 aatattccct tctatggaat agattgcaat gacgtgggaa caaacgatat gagggagcaa 1500  
 aatgtgtttg aaacattgat cgggaaacag caacaaattt tgctagctac gcaagtcggt 1560  
 aagatgattc taaagatcga cgatgtcatc tccaattctg aatactga 1608

<210> 580

<211> 535

<212> PRT

<213> Arabidopsis thaliana

<400> 580

Met Ala Leu Ala Phe Asp Glu Phe Gly Arg Pro Phe Ile Ile Leu Arg  
 1 5 10 15

Glu Gln Asp Gln Lys Thr Arg Leu Arg Gly Ile Asp Ala Gln Lys Ala  
 20 25 30

Asn Ile Ala Ala Gly Lys Ala Val Ala Arg Ile Leu Arg Ser Ser Leu  
 35 40 45

Gly Pro Lys Gly Met Asp Lys Met Leu Gln Gly Pro Asp Gly Asp Ile  
 50 55 60



Thr Ile Thr Asn Asp Gly Ala Thr Ile Leu Glu Gln Met Asp Val Asp  
 65 70 75 80  
 Asn Gln Ile Ala Lys Leu Met Val Glu Leu Ser Arg Ser Gln Asp Tyr  
 85 90 95  
 Glu Ile Gly Asp Gly Thr Thr Gly Val Val Val Met Ala Gly Ala Leu  
 100 105 110  
 Leu Glu Gln Ala Glu Arg Gln Leu Asp Arg Gly Ile His Pro Ile Arg  
 115 120 125  
 Ile Ala Glu Gly Tyr Glu Met Ala Ser Arg Val Ala Val Glu His Leu  
 130 135 140  
 Glu Arg Ile Ala Gln Lys Phe Glu Phe Asp Val Asn Asn Tyr Glu Pro  
 145 150 155 160  
 Leu Val Gln Thr Cys Met Thr Thr Leu Ser Ser Lys Ile Val Asn Arg  
 165 170 175  
 Cys Lys Arg Ser Leu Ala Glu Ile Ala Val Lys Ala Val Leu Ala Val  
 180 185 190  
 Ala Asp Leu Glu Arg Arg Asp Val Asn Leu Asp Leu Ile Lys Val Glu  
 195 200 205  
 Gly Lys Val Gly Gly Lys Leu Glu Asp Thr Glu Leu Ile Tyr Gly Ile  
 210 215 220  
 Leu Ile Asp Lys Asp Met Ser His Pro Gln Met Pro Lys Gln Ile Glu  
 225 230 235 240  
 Asp Ala His Ile Ala Ile Leu Thr Cys Pro Phe Glu Pro Pro Lys Pro  
 245 250 255  
 Lys Thr Lys His Lys Val Asp Ile Asp Thr Val Glu Lys Phe Glu Thr  
 260 265 270  
 Leu Arg Lys Gln Glu Gln Gln Tyr Phe Asp Glu Met Val Gln Lys Cys  
 275 280 285  
 Lys Asp Val Gly Ala Thr Leu Val Ile Cys Gln Trp Gly Phe Asp Asp  
 290 295 300  
 Glu Ala Asn His Leu Leu Met His Arg Asn Leu Pro Ala Val Arg Trp  
 305 310 315 320

047-E2F-PCT.ST25.txt

Val Gly Gly Val Glu Leu Glu Leu Ile Ala Ile Ala Thr Gly Gly Arg  
325 330 335

Ile Val Pro Arg Phe Gln Glu Leu Thr Pro Glu Lys Leu Gly Lys Ala  
340 345 350

Gly Val Val Arg Glu Lys Ser Phe Gly Thr Thr Lys Glu Arg Met Leu  
355 360 365

Tyr Ile Glu His Cys Ala Asn Ser Lys Ala Val Thr Val Phe Ile Arg  
370 375 380

Gly Gly Asn Lys Met Met Ile Glu Glu Thr Lys Arg Ser Ile His Asp  
385 390 395 400

Ala Leu Cys Val Ala Arg Asn Leu Ile Arg Asn Lys Ser Ile Val Tyr  
405 410 415

Gly Gly Gly Ala Ala Glu Ile Ala Cys Ser Leu Ala Val Asp Ala Ala  
420 425 430

Ala Asp Lys Tyr Pro Gly Val Glu Gln Tyr Ala Ile Arg Ala Phe Ala  
435 440 445

Glu Ala Leu Asp Ser Val Pro Met Ala Leu Ala Glu Asn Ser Gly Leu  
450 455 460

Gln Pro Ile Glu Thr Leu Ser Ala Val Lys Ser Gln Gln Ile Lys Glu  
465 470 475 480

Asn Ile Pro Phe Tyr Gly Ile Asp Cys Asn Asp Val Gly Thr Asn Asp  
485 490 495

Met Arg Glu Gln Asn Val Phe Glu Thr Leu Ile Gly Lys Gln Gln Gln  
500 505 510

Ile Leu Leu Ala Thr Gln Val Val Lys Met Ile Leu Lys Ile Asp Asp  
515 520 525

Val Ile Ser Asn Ser Glu Tyr  
530 535

<210> 581

<211> 1998

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 581

```

atgaagagag aaggagaaga agaagaagac aacaatcaac ttctactgca agaagaagaa      60
ccagatacag aggaagagat gtctgggagg acaatcgaac cgtggacgaa gcagataacg      120
gtgagaggag tgttcgtgag catagtgatc ggagttgtgt tcagtgtgat tgctcagaag      180
ctaaatctca cgacaggaat tgttccaaat ctcaacagct ctgcagcttt acttgctttt      240
gtctttgtcc agacttggac taagattctc aagaaatcag gatttggtgc gaaaccattc      300
acaagacaag agaacacaat gattcagaca tctgctggtt cttggttacgg catcgctgtc      360
ggaggtgggt ttgcttcata tcttctgggg ttaaaccata agacatatgt gttgtctggt      420
gtgaacttgg aaggtaactc tccaaagagt gtgaaagaac ctggccttgg ttggatgact      480
gcttatctct ttgttgtctg tttcatcggg ctttttgtcc taatccctct ccgaaagggt      540
atgattgttg accttaatt aacatatccg agtggtttag ctactgcggg tctcatcaat      600
ggcttccaca cacaaggaga tgcacaggcc aagaaacaag tgcgtgggtt catgaaatac      660
ttctcattta gtttcttgtg gggtttcttc cagtggtttt tctctggtat tgaagattgt      720
ggctttgctc aattcccaac ctttggtttg aaagcttggg aacaaacgtt cttctttgat      780
ttcagcatga ctttgtggg agcaggaatg atttgttcac atttggttaa ctttctttg      840
cttttaggag ctatcctctc ttatggctta atgtggcctc ttcttgataa acttaagggc      900
tcttggttcc ctgataatct cgacgaacac aacatgaaga gcatttacgg ctacaaagtc      960
ttcttatccg tagctctaatt cctcggcgac ggtctttaca ctttcgttaa gatcctcttt    1020
gtgaccattg ccaatgtcaa cgcaagattg aagaacaaac ctaatgatct agatgacgta    1080
ggtcacaaga aacaacggaa agatctcaag gaagatgaga atttcctcag agataaaatc    1140
ccaatgtggt tcgcagtttc cggatatctt acattcgctg cggctcctaac cgtcgtgggt    1200
cctctgatat ttctcagct caaatggtat tacgttattg tagcttacat tttcgcgcct    1260
tctctggcct tctgtaacgc ttatggagct ggacttacag acattaacat ggcttataac    1320
tacggcaaaa ttggtctttt tgtcatcgcg gctgtgacgg gaagagagaa cggagttgta    1380
gccggactcg ccggttgttg actgatcaaa tccgttggtt cggtttcttg tattttgatg    1440
caagatttca agacggctca ttacacgatg acgtcaccta aggctatggt tgctagccaa    1500
atgattggaa cggtcgttgg atgcatcgtg acgccgttaa gtttcttttt gttctacaaa    1560
gcgttcgaca ttggaaaccc taacggagaa ttcaaggctc cttacgcttt gatttacaga    1620
aatatggcga ttcttggggg gcaaggcttc tctgctctgc ctcttactg tctccaaatg    1680
tgttacgggt ttttcggggt tgctgttttg gtcaacgctg tcagagatct tactccggcg    1740

```

047-E2F-PCT.ST25.txt

aagattggaa gattcatgcc acttccgacg gcgatggctg ttccgtttct tgtcggagct 1800  
tatttcgcaa tcgacatgtg tgttgggact ttgattgtgt ttgtttggga gaagatgaat 1860  
cggaagaaag cagagtttat ggttccggcg gtggcttcag ggctaattctg tggcgaaggg 1920  
ctttggactt tacctgcggc ggtgcttgcc ctcgccggag taaaacctcc gatatgtatg 1980  
aagttcttag cttcatag 1998

<210> 582

<211> 665

<212> PRT

<213> Arabidopsis thaliana

<400> 582

Met Lys Arg Glu Gly Glu Glu Glu Glu Asp Asn Asn Gln Leu Ser Leu  
1 5 10 15

Gln Glu Glu Glu Pro Asp Thr Glu Glu Glu Met Ser Gly Arg Thr Ile  
20 25 30

Glu Pro Trp Thr Lys Gln Ile Thr Val Arg Gly Val Phe Val Ser Ile  
35 40 45

Val Ile Gly Val Val Phe Ser Val Ile Ala Gln Lys Leu Asn Leu Thr  
50 55 60

Thr Gly Ile Val Pro Asn Leu Asn Ser Ser Ala Ala Leu Leu Ala Phe  
65 70 75 80

Val Phe Val Gln Thr Trp Thr Lys Ile Leu Lys Lys Ser Gly Phe Val  
85 90 95

Ala Lys Pro Phe Thr Arg Gln Glu Asn Thr Met Ile Gln Thr Ser Ala  
100 105 110

Val Ala Cys Tyr Gly Ile Ala Val Gly Gly Gly Phe Ala Ser Tyr Leu  
115 120 125

Leu Gly Leu Asn His Lys Thr Tyr Val Leu Ser Gly Val Asn Leu Glu  
130 135 140

Gly Asn Ser Pro Lys Ser Val Lys Glu Pro Gly Leu Gly Trp Met Thr  
145 150 155 160

047-E2F-PCT.ST25.txt

Ala Tyr Leu Phe Val Val Cys Phe Ile Gly Leu Phe Val Leu Ile Pro  
165 170 175

Leu Arg Lys Val Met Ile Val Asp Leu Lys Leu Thr Tyr Pro Ser Gly  
180 185 190

Leu Ala Thr Ala Val Leu Ile Asn Gly Phe His Thr Gln Gly Asp Ala  
195 200 205

Gln Ala Lys Lys Gln Val Arg Gly Phe Met Lys Tyr Phe Ser Phe Ser  
210 215 220

Phe Leu Trp Gly Phe Phe Gln Trp Phe Phe Ser Gly Ile Glu Asp Cys  
225 230 235 240

Gly Phe Ala Gln Phe Pro Thr Phe Gly Leu Lys Ala Trp Lys Gln Thr  
245 250 255

Phe Phe Phe Asp Phe Ser Met Thr Phe Val Gly Ala Gly Met Ile Cys  
260 265 270

Ser His Leu Val Asn Leu Ser Leu Leu Leu Gly Ala Ile Leu Ser Tyr  
275 280 285

Gly Leu Met Trp Pro Leu Leu Asp Lys Leu Lys Gly Ser Trp Phe Pro  
290 295 300

Asp Asn Leu Asp Glu His Asn Met Lys Ser Ile Tyr Gly Tyr Lys Val  
305 310 315 320

Phe Leu Ser Val Ala Leu Ile Leu Gly Asp Gly Leu Tyr Thr Phe Val  
325 330 335

Lys Ile Leu Phe Val Thr Ile Ala Asn Val Asn Ala Arg Leu Lys Asn  
340 345 350

Lys Pro Asn Asp Leu Asp Asp Val Gly His Lys Lys Gln Arg Lys Asp  
355 360 365

Leu Lys Glu Asp Glu Asn Phe Leu Arg Asp Lys Ile Pro Met Trp Phe  
370 375 380

Ala Val Ser Gly Tyr Leu Thr Phe Ala Ala Val Ser Thr Val Val Val  
385 390 395 400

Pro Leu Ile Phe Pro Gln Leu Lys Trp Tyr Tyr Val Ile Val Ala Tyr  
405 410 415

047-E2F-PCT.ST25.txt

Ile Phe Ala Pro Ser Leu Ala Phe Cys Asn Ala Tyr Gly Ala Gly Leu  
420 425 430

Thr Asp Ile Asn Met Ala Tyr Asn Tyr Gly Lys Ile Gly Leu Phe Val  
435 440 445

Ile Ala Ala Val Thr Gly Arg Glu Asn Gly Val Val Ala Gly Leu Ala  
450 455 460

Gly Cys Gly Leu Ile Lys Ser Val Val Ser Val Ser Cys Ile Leu Met  
465 470 475 480

Gln Asp Phe Lys Thr Ala His Tyr Thr Met Thr Ser Pro Lys Ala Met  
485 490 495

Phe Ala Ser Gln Met Ile Gly Thr Val Val Gly Cys Ile Val Thr Pro  
500 505 510

Leu Ser Phe Phe Leu Phe Tyr Lys Ala Phe Asp Ile Gly Asn Pro Asn  
515 520 525

Gly Glu Phe Lys Ala Pro Tyr Ala Leu Ile Tyr Arg Asn Met Ala Ile  
530 535 540

Leu Gly Val Gln Gly Phe Ser Ala Leu Pro Leu His Cys Leu Gln Met  
545 550 555 560

Cys Tyr Gly Phe Phe Gly Phe Ala Val Leu Val Asn Val Val Arg Asp  
565 570 575

Leu Thr Pro Ala Lys Ile Gly Arg Phe Met Pro Leu Pro Thr Ala Met  
580 585 590

Ala Val Pro Phe Leu Val Gly Ala Tyr Phe Ala Ile Asp Met Cys Val  
595 600 605

Gly Thr Leu Ile Val Phe Val Trp Glu Lys Met Asn Arg Lys Lys Ala  
610 615 620

Glu Phe Met Val Pro Ala Val Ala Ser Gly Leu Ile Cys Gly Glu Gly  
625 630 635 640

Leu Trp Thr Leu Pro Ala Ala Val Leu Ala Leu Ala Gly Val Lys Pro  
645 650 655

Pro Ile Cys Met Lys Phe Leu Ala Ser  
660 665

&lt;210&gt; 583

&lt;211&gt; 798

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 583

```

atgggtaaag ttgcttctga taaatgtcac aagtggggtt tcaaagaacc atctgaatct    60
gaaccaaadc ttgctaatta ctggcaaagt tcttttgatg ctcttcctcc agaatggacc    120
gaccaattcg aatcaggcac tcagacaatt gctgtgattc aagctggaca tgggtctgtta    180
cagctagggtt cttgcaagat tattccagaa gatcttcatt ttgtgctaag gatgaggcaa    240
atgtttgaat caattgggta cagatcaggt ttttacctct cacagctctt ctcttcaaac    300
cgaaccgcga ctccatcttc ttccacgggt ccaaaccaga tacctcagtc tcaagggttt    360
aactggggat cacactcacc ttgtttacct tcccctagct ttcagaacca actacctgct    420
tcagctagat tcgggtttcct tcaagataac aatgttcctc ctcagatgct tcctccaatg    480
gaagagcatg aagacgacat caaatggcct aatgggttgt cgttgttcaa tgcgttgact    540
ggacgtgcag atgaagctag taggcttttg ttttaaccagg agcagaaccc gatgaatgtc    600
gaaaaccaga acgagttctt gaaccttgaa ggtcatcatc ctaacaagtt tagaagaagc    660
tatacattgc cagctcgaat ggattcttcg tcatcatcaa cctcgcttga tcagcaacaa    720
ccactggagt ttaggaacaa taactctgga agcaactcgg gtttgttccc tgacgttatg    780
gagacgtttt tgaggtga                                798

```

&lt;210&gt; 584

&lt;211&gt; 265

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 584

```

Met Gly Lys Val Ala Ser Asp Lys Cys His Lys Trp Val Phe Lys Glu
1          5          10          15

```

```

Pro Ser Glu Ser Glu Pro Asn Leu Ala Asn Tyr Trp Gln Ser Ser Phe
20          25          30

```

```

Asp Ala Leu Pro Pro Glu Trp Thr Asp Gln Phe Glu Ser Gly Ile Gln
Page 905

```

35

40

45

Thr Ile Ala Val Ile Gln Ala Gly His Gly Leu Leu Gln Leu Gly Ser  
 50 55 60  
 Cys Lys Ile Ile Pro Glu Asp Leu His Phe Val Leu Arg Met Arg Gln  
 65 70 75 80  
 Met Phe Glu Ser Ile Gly Tyr Arg Ser Gly Phe Tyr Leu Ser Gln Leu  
 85 90 95  
 Phe Ser Ser Asn Arg Thr Ala Thr Pro Ser Ser Ser Thr Val Pro Asn  
 100 105 110  
 Gln Ile Pro Gln Ser Gln Gly Phe Asn Trp Gly Ser His Ser Pro Leu  
 115 120 125  
 Leu Pro Ser Pro Ser Phe Gln Asn Gln Leu Pro Ala Ser Ala Arg Phe  
 130 135 140  
 Gly Phe Leu Gln Asp Asn Asn Val Pro Pro Gln Met Leu Pro Pro Met  
 145 150 155 160  
 Glu Glu His Glu Asp Asp Ile Lys Trp Pro Asn Gly Leu Ser Leu Phe  
 165 170 175  
 Asn Ala Leu Thr Gly Arg Ala Asp Glu Ala Ser Arg Leu Leu Phe Asn  
 180 185 190  
 Gln Glu Gln Asn Pro Met Asn Val Glu Asn Gln Asn Glu Phe Leu Asn  
 195 200 205  
 Leu Glu Gly His His Pro Asn Lys Phe Arg Arg Ser Tyr Thr Leu Pro  
 210 215 220  
 Ala Arg Met Asp Ser Ser Ser Ser Thr Ser Leu Asp Gln Gln Gln  
 225 230 235 240  
 Pro Leu Glu Phe Arg Asn Asn Asn Ser Gly Ser Asn Ser Gly Leu Phe  
 245 250 255  
 Pro Asp Val Met Glu Thr Phe Leu Arg  
 260 265

&lt;210&gt; 585

&lt;211&gt; 1758



&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 585

atggggttcca tcgaagaaga agcaagacct ctcatcgaag aagggtttaat ttacaggaa	60
gtgaaattgt atgctgaaga tggttcagtg gactttaatg gaaaccacc attgaaggag	120
aaaacaggaa actggaaagc ttgtcctttt attcttggtg atgaatgttg tgagaggcta	180
gcttactatg gtattgctgg gaatttaatc acttacctca ccactaagct tcaccaagga	240
aatgtttctg ctgctacaaa cgttaccaca tggcaaggga cttgttatct cactcctctc	300
attggagctg ttctggctga tgcttactgg ggacgttact ggaccatcgc ttgtttctcc	360
gggatttatt tcatcgggat gtctgcgtta actctttcag cttcagttcc ggcattgaag	420
ccagcggaat gtattggtga cttttgtcca tctgcaacgc cagctcagta tgcgatgttc	480
tttggtgggc ttacctgat cgctcttgga actggaggta tcaaaccgtg tgtctcatcc	540
ttcggtgccg atcagtttga tgacacggac tctcgggaac gagttagaaa agcttcgttc	600
tttaactggt ttactttctc catcaatatt ggagcacttg tgtcatctag tcttctagtt	660
tggattcaag agaatcgcgg gtgggggttta gggtttgga taccaacagt gttcatggga	720
ctagccattg caagtttctt ctttggcaca cctctttata ggtttcagaa acctggagga	780
agccctataa ctcggatttc ccaagtcgtg gttgcttcgt tccggaaatc gtctgtcaaa	840
gtccctgaag acgccacact tctgtatgaa actcaagaca agaactctgc tattgctgga	900
agtagaaaaa tcgagcatac cgatgattgc cagtatcttg acaaagccgc tgttatctca	960
gaagaagaat cgaaatccgg agattattcc aactcgtgga gactatgcac ggttacgcaa	1020
gtcgaagaac tcaagattct gatccgaatg ttcccaatct gggcttcttg tatcattttc	1080
tcagctgtat acgcacaaat gtccacaatg tttgttcaac aaggccgagc catgaactgc	1140
aaaattggat cattccagct tcctcctgca gcactcggga cattcgacac agcaagcgtc	1200
atcatctggg tgccgctcta cgaccggttc atcgttccct tagcaagaaa gttcacagga	1260
gtagacaaag gattcactga gatacaaaga atgggaattg gtctgtttgt ctctgttctc	1320
tgtatggcag ctgcagctat cgtcgaaatc atccgtctcc atatggccaa cgatcttgga	1380
ttagtcgagt caggagcccc agttcccata tccgtcttgt ggcagattcc acagtacttc	1440
attctcgggtg cagccgaagt attctacttc atcggtcagc tcgagttctt ctacgaccaa	1500
tctccagatg caatgagaag cttgtgcagt gccttggtc ttttgaccaa tgcacttggt	1560
aactacttga gctcgttgat cctcacgctc gtgacttatt ttacaacaag aaatgggcaa	1620
gaaggttgga tttcggataa tctcaattca ggtcatctcg attacttctt ctggctcttg	1680

gctggtctta gccttgtgaa catggcgggtt tacttcttct ctgctgctag gtataagcaa 1740  
aagaaagctt cgtcgtag 1758

<210> 586

<211> 585

<212> PRT

<213> Arabidopsis thaliana

<400> 586

Met Gly Ser Ile Glu Glu Glu Ala Arg Pro Leu Ile Glu Glu Gly Leu  
1 5 10 15

Ile Leu Gln Glu Val Lys Leu Tyr Ala Glu Asp Gly Ser Val Asp Phe  
20 25 30

Asn Gly Asn Pro Pro Leu Lys Glu Lys Thr Gly Asn Trp Lys Ala Cys  
35 40 45

Pro Phe Ile Leu Gly Asn Glu Cys Cys Glu Arg Leu Ala Tyr Tyr Gly  
50 55 60

Ile Ala Gly Asn Leu Ile Thr Tyr Leu Thr Thr Lys Leu His Gln Gly  
65 70 75 80

Asn Val Ser Ala Ala Thr Asn Val Thr Thr Trp Gln Gly Thr Cys Tyr  
85 90 95

Leu Thr Pro Leu Ile Gly Ala Val Leu Ala Asp Ala Tyr Trp Gly Arg  
100 105 110

Tyr Trp Thr Ile Ala Cys Phe Ser Gly Ile Tyr Phe Ile Gly Met Ser  
115 120 125

Ala Leu Thr Leu Ser Ala Ser Val Pro Ala Leu Lys Pro Ala Glu Cys  
130 135 140

Ile Gly Asp Phe Cys Pro Ser Ala Thr Pro Ala Gln Tyr Ala Met Phe  
145 150 155 160

Phe Gly Gly Leu Tyr Leu Ile Ala Leu Gly Thr Gly Gly Ile Lys Pro  
165 170 175

Cys Val Ser Ser Phe Gly Ala Asp Gln Phe Asp Asp Thr Asp Ser Arg  
180 185 190

047-E2F-PCT.ST25.txt

Glu Arg Val Arg Lys Ala Ser Phe Phe Asn Trp Phe Tyr Phe Ser Ile  
 195 200 205  
 Asn Ile Gly Ala Leu Val Ser Ser Ser Leu Leu Val Trp Ile Gln Glu  
 210 215 220  
 Asn Arg Gly Trp Gly Leu Gly Phe Gly Ile Pro Thr Val Phe Met Gly  
 225 230 235 240  
 Leu Ala Ile Ala Ser Phe Phe Phe Gly Thr Pro Leu Tyr Arg Phe Gln  
 245 250 255  
 Lys Pro Gly Gly Ser Pro Ile Thr Arg Ile Ser Gln Val Val Val Ala  
 260 265 270  
 Ser Phe Arg Lys Ser Ser Val Lys Val Pro Glu Asp Ala Thr Leu Leu  
 275 280 285  
 Tyr Glu Thr Gln Asp Lys Asn Ser Ala Ile Ala Gly Ser Arg Lys Ile  
 290 295 300  
 Glu His Thr Asp Asp Cys Gln Tyr Leu Asp Lys Ala Ala Val Ile Ser  
 305 310 315 320  
 Glu Glu Glu Ser Lys Ser Gly Asp Tyr Ser Asn Ser Trp Arg Leu Cys  
 325 330 335  
 Thr Val Thr Gln Val Glu Glu Leu Lys Ile Leu Ile Arg Met Phe Pro  
 340 345 350  
 Ile Trp Ala Ser Gly Ile Ile Phe Ser Ala Val Tyr Ala Gln Met Ser  
 355 360 365  
 Thr Met Phe Val Gln Gln Gly Arg Ala Met Asn Cys Lys Ile Gly Ser  
 370 375 380  
 Phe Gln Leu Pro Pro Ala Ala Leu Gly Thr Phe Asp Thr Ala Ser Val  
 385 390 395 400  
 Ile Ile Trp Val Pro Leu Tyr Asp Arg Phe Ile Val Pro Leu Ala Arg  
 405 410 415  
 Lys Phe Thr Gly Val Asp Lys Gly Phe Thr Glu Ile Gln Arg Met Gly  
 420 425 430  
 Ile Gly Leu Phe Val Ser Val Leu Cys Met Ala Ala Ala Ala Ile Val

435

440

445

Glu Ile Ile Arg Leu His Met Ala Asn Asp Leu Gly Leu Val Glu Ser  
 450 455 460

Gly Ala Pro Val Pro Ile Ser Val Leu Trp Gln Ile Pro Gln Tyr Phe  
 465 470 475 480

Ile Leu Gly Ala Ala Glu Val Phe Tyr Phe Ile Gly Gln Leu Glu Phe  
 485 490 495

Phe Tyr Asp Gln Ser Pro Asp Ala Met Arg Ser Leu Cys Ser Ala Leu  
 500 505 510

Ala Leu Leu Thr Asn Ala Leu Gly Asn Tyr Leu Ser Ser Leu Ile Leu  
 515 520 525

Thr Leu Val Thr Tyr Phe Thr Thr Arg Asn Gly Gln Glu Gly Trp Ile  
 530 535 540

Ser Asp Asn Leu Asn Ser Gly His Leu Asp Tyr Phe Phe Trp Leu Leu  
 545 550 555 560

Ala Gly Leu Ser Leu Val Asn Met Ala Val Tyr Phe Phe Ser Ala Ala  
 565 570 575

Arg Tyr Lys Gln Lys Lys Ala Ser Ser  
 580 585

&lt;210&gt; 587

&lt;211&gt; 717

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 587

atggggtcgcg aatctgtggc tgttgtgact gcgccgccct cggcgactgc tccgggtact	60
gcttcggtgg cgacctcgct tgctcctggc ttccgatttc atccgactga tgaggaactc	120
gtgagctatt acttgaagag gaaggttctg ggccaacctg tacgcttcga tgcgattgga	180
gaggtcgata tatacaagca tgagccctgg gatttagcag tgttttcgag attgaagaca	240
agggaccaag aatggtactt ctacagtgc ttagataaga agtatggaaa cggtgctagg	300
atgaaccgag caactaacag aggggtactgg aaagctactg gaaaagacag agaaatccgc	360
cgtgacattc tgcttctcgg tatgaaaaag acacttgttt tccacagtgg gcgtgcacca	420

047-E2F-PCT.ST25.txt

gacgggcttc ggactaattg ggttatgcat gagtatcgcc ttgtggaata tgaaaccgag 480  
 aaaaacggaa acctggtgca agatgcatat gtgttggtga gagtcttcca caagaataac 540  
 attgggccac caagtgggaa cagatatgct ccgttcatgg aagaggaatg ggctgatgat 600  
 gaaggagctc tgattccagg aatagacgtt aagctcaggc tagagccgcc gccagtagcc 660  
 aatggaaacg accagatgga ccagataatt tatgcgtcgt ctggggttca cttgtaa 717

<210> 588

<211> 238

<212> PRT

<213> Arabidopsis thaliana

<400> 588

Met Gly Arg Glu Ser Val Ala Val Val Thr Ala Pro Pro Ser Ala Thr  
 1 5 10 15

Ala Pro Gly Thr Ala Ser Val Ala Thr Ser Leu Ala Pro Gly Phe Arg  
 20 25 30

Phe His Pro Thr Asp Glu Glu Leu Val Ser Tyr Tyr Leu Lys Arg Lys  
 35 40 45

Val Leu Gly Gln Pro Val Arg Phe Asp Ala Ile Gly Glu Val Asp Ile  
 50 55 60

Tyr Lys His Glu Pro Trp Asp Leu Ala Val Phe Ser Arg Leu Lys Thr  
 65 70 75 80

Arg Asp Gln Glu Trp Tyr Phe Tyr Ser Ala Leu Asp Lys Lys Tyr Gly  
 85 90 95

Asn Gly Ala Arg Met Asn Arg Ala Thr Asn Arg Gly Tyr Trp Lys Ala  
 100 105 110

Thr Gly Lys Asp Arg Glu Ile Arg Arg Asp Ile Leu Leu Leu Gly Met  
 115 120 125

Lys Lys Thr Leu Val Phe His Ser Gly Arg Ala Pro Asp Gly Leu Arg  
 130 135 140

Thr Asn Trp Val Met His Glu Tyr Arg Leu Val Glu Tyr Glu Thr Glu  
 145 150 155 160

047-E2F-PCT.ST25.txt

Lys Asn Gly Asn Leu Val Gln Asp Ala Tyr Val Leu Cys Arg Val Phe  
165 170 175

His Lys Asn Asn Ile Gly Pro Pro Ser Gly Asn Arg Tyr Ala Pro Phe  
180 185 190

Met Glu Glu Glu Trp Ala Asp Asp Glu Gly Ala Leu Ile Pro Gly Ile  
195 200 205

Asp Val Lys Leu Arg Leu Glu Pro Pro Pro Val Ala Asn Gly Asn Asp  
210 215 220

Gln Met Asp Gln Ile Ile Tyr Ala Ser Ser Gly Val His Leu  
225 230 235

<210> 589

<211> 1353

<212> DNA

<213> Arabidopsis thaliana

<400> 589

```
atgcgagaaa tcataagcat tcacatcgga caagctggga tccaggtcgg aaattcgtgt      60
tgggagcttt actgtctcga acatggaatc cagccggacg gaatgatgcc gagtgatact      120
acagttggtg ttgcacacga tgcgttcaat actttcttta gcgagactgg tgctgggaag      180
catgtcccta gggctgtctt cgttgatctc gagcctaccg ttatcgacga agttcgtact      240
ggtacttacc gtcaactttt ccatccagag cagctcattt ctgggaaaga agatgctgct      300
aacaacttcg ctagaggaca ttacactggt gggaaggaaa ttgtggatct atgtcttgac      360
cgtgtgagga aacttgccga caactgtact ggcttacaag ggtttttggt gttcaatgct      420
gttggtggtg gaactggttc tggattgggt tctctgttgc tagagcgttt gtctgtagat      480
tatggaaaga agtctaagct tggttttacc atataccctt ctctcaggt ttctactgct      540
gttgtagaac cttacaacag tgttctctca acgcattccc ttcttgaaca tacggatgta      600
gctgtcctct tggataacga agccatctat gacatttgcc gcagatccct agatatcgag      660
aggccaacct acacaaactt gaacagggtg atatcacaga tcatttcatc cttgacaaca      720
tctttgaggt ttgatggtgc catcaacgtg gatatcactg agttccagac caatcttgtc      780
ccatatcccc gtatccattt catgctgtca tcttatgcac cagtcattct agccgccaag      840
gcttaccacg agcagctatc agtccctgag atcaccaatg ccgtttttga gccagctagc      900
atgatggcaa agtgtgaccc gagacacgga aagtacatgg cctgtttgtt gatgtaccga      960
```

047-E2F-PCT.ST25.txt

ggagatgttg ttcccaaaga tgtaaagtgt gctgttggca ccatcaagac aaagaggact 1020  
gttcagtttg ttgactggtg cccaactggg ttcaaagtgt gaatcaacta ccaacctcca 1080  
acagttgttc caggtggtga cctcgctaag gttcagagag ctgtatgtat gatcagtaac 1140  
aacacagcag ttgcagaggt gttctcacgg atcgaccaca agtttgatct catgtatgcg 1200  
aagagggcat ttgtccactg gtacgttggg gaaggaatgg aggaaggtga attctctgag 1260  
gcacgtgaag acttggccgc actggagaaa gattacgaag aagttggtgc tgaaggtgga 1320  
gacgatgaag aagatgaagg tgaagactat tga 1353

<210> 590

<211> 450

<212> PRT

<213> Arabidopsis thaliana

<400> 590

Met Arg Glu Ile Ile Ser Ile His Ile Gly Gln Ala Gly Ile Gln Val  
1 5 10 15

Gly Asn Ser Cys Trp Glu Leu Tyr Cys Leu Glu His Gly Ile Gln Pro  
20 25 30

Asp Gly Met Met Pro Ser Asp Thr Thr Val Gly Val Ala His Asp Ala  
35 40 45

Phe Asn Thr Phe Phe Ser Glu Thr Gly Ala Gly Lys His Val Pro Arg  
50 55 60

Ala Val Phe Val Asp Leu Glu Pro Thr Val Ile Asp Glu Val Arg Thr  
65 70 75 80

Gly Thr Tyr Arg Gln Leu Phe His Pro Glu Gln Leu Ile Ser Gly Lys  
85 90 95

Glu Asp Ala Ala Asn Asn Phe Ala Arg Gly His Tyr Thr Val Gly Lys  
100 105 110

Glu Ile Val Asp Leu Cys Leu Asp Arg Val Arg Lys Leu Ala Asp Asn  
115 120 125

Cys Thr Gly Leu Gln Gly Phe Leu Val Phe Asn Ala Val Gly Gly Gly  
130 135 140

## 047-E2F-PCT.ST25.txt

Thr Gly Ser Gly Leu Gly Ser Leu Leu Leu Glu Arg Leu Ser Val Asp  
 145 150 155 160  
 Tyr Gly Lys Lys Ser Lys Leu Gly Phe Thr Ile Tyr Pro Ser Pro Gln  
 165 170 175  
 Val Ser Thr Ala Val Val Glu Pro Tyr Asn Ser Val Leu Ser Thr His  
 180 185 190  
 Ser Leu Leu Glu His Thr Asp Val Ala Val Leu Leu Asp Asn Glu Ala  
 195 200 205  
 Ile Tyr Asp Ile Cys Arg Arg Ser Leu Asp Ile Glu Arg Pro Thr Tyr  
 210 215 220  
 Thr Asn Leu Asn Arg Leu Ile Ser Gln Ile Ile Ser Ser Leu Thr Thr  
 225 230 235 240  
 Ser Leu Arg Phe Asp Gly Ala Ile Asn Val Asp Ile Thr Glu Phe Gln  
 245 250 255  
 Thr Asn Leu Val Pro Tyr Pro Arg Ile His Phe Met Leu Ser Ser Tyr  
 260 265 270  
 Ala Pro Val Ile Ser Ala Ala Lys Ala Tyr His Glu Gln Leu Ser Val  
 275 280 285  
 Pro Glu Ile Thr Asn Ala Val Phe Glu Pro Ala Ser Met Met Ala Lys  
 290 295 300  
 Cys Asp Pro Arg His Gly Lys Tyr Met Ala Cys Cys Leu Met Tyr Arg  
 305 310 315 320  
 Gly Asp Val Val Pro Lys Asp Val Asn Ala Ala Val Gly Thr Ile Lys  
 325 330 335  
 Thr Lys Arg Thr Val Gln Phe Val Asp Trp Cys Pro Thr Gly Phe Lys  
 340 345 350  
 Cys Gly Ile Asn Tyr Gln Pro Pro Thr Val Val Pro Gly Gly Asp Leu  
 355 360 365  
 Ala Lys Val Gln Arg Ala Val Cys Met Ile Ser Asn Asn Thr Ala Val  
 370 375 380  
 Ala Glu Val Phe Ser Arg Ile Asp His Lys Phe Asp Leu Met Tyr Ala  
 385 390 395 400



Lys Arg Ala Phe Val His Trp Tyr Val Gly Glu Gly Met Glu Glu Gly  
 405 410 415

Glu Phe Ser Glu Ala Arg Glu Asp Leu Ala Ala Leu Glu Lys Asp Tyr  
 420 425 430

Glu Glu Val Gly Ala Glu Gly Gly Asp Asp Glu Glu Asp Glu Gly Glu  
 435 440 445

Asp Tyr  
 450

<210> 591

<211> 3417

<212> DNA

<213> Arabidopsis thaliana

<400> 591

atggaaccca agaattgtag taatgtagta gtagatcttc aagaatggct cggttatgat	60
cgtgtgtaca cagtgaaccc ggttgggtctc agtggggggtt tagctctgtt ttggaagaag	120
ggtgtaaata tcgatgtaag atatgcggat aagaacctta ttgattttca aatacaat	180
ggctcttatg atttctttgt ctctgtgtt tatggagatc cggcttttag taacaagcat	240
ttggtttggg aaaagatttc aaagattgga ctcaacagaa aagaaccttg gtgcatgtta	300
ggggatttta acgttattct tcacaatggg gagaaaagag gaggcccaag gcgtggggac	360
tcattcttta tctctttcaa agacatgttg gaatgctgtg atatgttgga gcttccaagt	420
aagggtaatc cattctcgtg gggagggaaa agaaacagct tgtggattca gtgccgtttg	480
gatagatgct ttggcaacaa aaactggttt cggcattttc cagtttctaa tcaggagttt	540
ctggataaga gaggctctga tcgtaggcca gtcttgggtga ggttatcaaa gaccaaggaa	600
gagtacaaag gtaatttcag gtttgacaaa aggttgttca accaaccctt ggttaaagag	660
gcaattcagc aggcctggaa tggaaatcaa agggctcggg gcatgcaggt tttggaaaga	720
ttgaaaaagt gcagatcagc tctaagtcgt tggaagcagg agaataacag caactcttta	780
acttgtatct ctcaagctag agcagcttta gagctggaac aatcttcagg ttttccagg	840
tctaaggtgg tttttactct gaaaaatgat ctttgcaagg ctaaccaaga tgaagaaacc	900
ttctggagtc agaagagtag agccaaatgg atgcatgggg gagataaaaa cacttctttc	960
ttccatgctt cagttaaaga caacagagat gaagtgtcaa aaggggctat tgctgaatcc	1020

tactttcaagg atctcttcaa gtctttcagag ggaagtaatt ttgctgactt gtttgccggt	1080
tttcagccaa gggtaacaga ggttatgaac agggctcctca ccgccactgt ctctaagaat	1140
gaagtttagag atgcggtctt cgcaataaga agctcaagtg ccccgggggc agacggtttt	1200
actggacaat cattggactc caagtcactc aagaggttca aaagttctgg acaatcattg	1260
gactccaagt cactcaagag gttgcagatg gtttcttctt tcagaacgtt tgtggcgga	1320
aggctgatat ctgataatat acttattgct catgagggtg tgcattggtc gagaacacac	1380
aagacaatct ctaaggattt cattgccatt aaatctgata tgtctaaggc atttgatcgg	1440
gtagagtgga actatgttaa agccttgctc gttgctcttg gttttcattc tagcttgttt	1500
atgtgtaaag ctgagaagga agaagtctca gttcttaaga acatcttcaa agtctatggt	1560
gatgctacgg gtcaaagaat aaactacgag aaatctagca ttacttttgg tgctttgatc	1620
ttagactaca tcaaagataa actcaaatcc aggttgctcg gttggtttgc taggactctg	1680
tcacttgggg gtaaggaaat ttgctaaaa gcagtggcta tggcaatgca agtctatgcg	1740
atgtcgtggt ttaaactgac aaagactacc tgcaagaatc tcacaagtgc aatgtcagat	1800
ttctggtgga atgccttaga acacaagagg aagaccatt gggttagctg ggagaaattg	1860
tgtcttgcca aagagagtgg aggccttggt tttagagaca tagaaagctt caaccaggct	1920
ctgctggcaa agcaaagctg gagaatactt caatatcctt cttttctctt cgcaagattc	1980
tttaaaagtc gatactttga tgatgaagag tttctagaag cagatttggg agtccggcca	2040
tcatatgctt gttgcagcat ttgttttggc agagaattat tagctaaagg gttaagaaaa	2100
gaagtgggca atggaaaatc cttaaattgt ttgatggacc cttggatttt tgacattgca	2160
ccaagacttc cccttcagag gcatttttct gtcaacctgg atttaaaagt caatgacctc	2220
attaattttg aagatcggtt ctggaagagg gacttactgg aggaattgtt ttacccgact	2280
gacgttgagc taataaccaa aagaaacccg gtggtgaaca tggatgattt ctggggttgg	2340
cttcacgcaa agactgggga gtactctgtg aaatcgggtt attggctagc cttccaatcc	2400
aataagctcg atctaattca gcaggcta atctcttccgt caaccaacgg ctttaaggaa	2460
caggtttgggt ccactaaatc ctctccaaaa ataaaaatgt ttctctggag aattttaagt	2520
gcagctctgc ctgtggcgga ccaaatcatt agaagaggca tgtccattga cccaagatgc	2580
caaatttgcg gcgacgaggg agagtctaca aatcatgtcc tattcacttg ttctatggca	2640
agacaagtat gggctttatc aggcgttcct actccggagt ttggatttca aaatgctca	2700
atctttgcaa atattcagtt cctctttgag ctgaaaaaga tgattttggt tccagatttg	2760
gtaaagaggt cttggccttg ggtgcttttg agattatgga agaacagaaa caagctgttt	2820
tttgatggca tcactttctg tcctttgaat tccattgtca agattcaaga agatactcta	2880
gaatggtttc aggcacaatc acagattcgt gtctctgaat ctgaggaggg acagagagtg	2940

047-E2F-PCT.ST25.txt

ataccttttta ctcacagctg ggaaccgccca cctgaagggtt gggtgaaatg taacattggt 3000  
 tcagcctgggt ctgggaagaa aaagggttgt ggtggagctt gggttctcag agatgaacat 3060  
 ggggtctgtca ttttacatag tagaagggct tttaatgggt gttctaaca aaaagaagcc 3120  
 agcctgcgat gtatTTTTTt ggctattgat agtatgCGta gccatagagt ttcaaggggtg 3180  
 ttgttcgctt ttgagccagg agacttggtt tctgctttta ctaggccgaa agcgtggccc 3240  
 tctcttgcatt ataatgttgg agaactaact ttttttttgg acaagggttga agagtgggaag 3300  
 gtagtggaag aaaaagtgggt ttccaatagg ggagcttctc ttatagctca aagtgtggta 3360  
 cagatttcag tcgtacgtcg cttccggtcc tccacgttgg ctttctcagc tctttga 3417

<210> 592

<211> 1138

<212> PRT

<213> Arabidopsis thaliana

<400> 592

Met Glu Thr Lys Asn Cys Ser Asn Val Val Val Asp Leu Gln Glu Trp  
 1 5 10 15

Leu Gly Tyr Asp Arg Val Tyr Thr Val Asn Pro Val Gly Leu Ser Gly  
 20 25 30

Gly Leu Ala Leu Phe Trp Lys Lys Gly Val Asn Ile Asp Val Arg Tyr  
 35 40 45

Ala Asp Lys Asn Leu Ile Asp Phe Gln Ile Gln Phe Gly Ser Tyr Asp  
 50 55 60

Phe Phe Val Ser Cys Val Tyr Gly Asp Pro Ala Phe Ser Asn Lys His  
 65 70 75 80

Leu Val Trp Glu Lys Ile Ser Lys Ile Gly Leu Asn Arg Lys Glu Pro  
 85 90 95

Trp Cys Met Leu Gly Asp Phe Asn Val Ile Leu His Asn Gly Glu Lys  
 100 105 110

Arg Gly Gly Pro Arg Arg Gly Asp Ser Ser Phe Ile Ser Phe Lys Asp  
 115 120 125

Met Leu Glu Cys Cys Asp Met Leu Glu Leu Pro Ser Lys Gly Asn Pro

130

135

Phe Ser Trp Gly Gly Lys Arg Asn Ser Leu Trp Ile Gln Cys Arg Leu  
145 150 155 160

Asp Arg Cys Phe Gly Asn Lys Asn Trp Phe Arg His Phe Pro Val Ser  
165 170 175

Asn Gln Glu Phe Leu Asp Lys Arg Gly Ser Asp Arg Arg Pro Val Leu  
180 185 190

Val Arg Leu Ser Lys Thr Lys Glu Glu Tyr Lys Gly Asn Phe Arg Phe  
195 200 205

Asp Lys Arg Leu Phe Asn Gln Pro Leu Val Lys Glu Ala Ile Gln Gln  
210 215 220

Ala Trp Asn Gly Asn Gln Arg Val Gly Gly Met Gln Val Leu Glu Arg  
225 230 235 240

Leu Lys Lys Cys Arg Ser Ala Leu Ser Arg Trp Lys Gln Glu Asn Asn  
245 250 255

Ser Asn Ser Leu Thr Cys Ile Ser Gln Ala Arg Ala Ala Leu Glu Leu  
260 265 270

Glu Gln Ser Ser Gly Phe Pro Arg Ser Lys Val Val Phe Thr Leu Lys  
275 280 285

Asn Asp Leu Cys Lys Ala Asn Gln Asp Glu Glu Thr Phe Trp Ser Gln  
290 295 300

Lys Ser Arg Ala Lys Trp Met His Gly Gly Asp Lys Asn Thr Ser Phe  
305 310 315 320

Phe His Ala Ser Val Lys Asp Asn Arg Asp Glu Val Ser Lys Gly Ala  
325 330 335

Ile Ala Glu Ser Tyr Phe Lys Asp Leu Phe Lys Ser Ser Glu Gly Ser  
340 345 350

Asn Phe Ala Asp Leu Phe Ala Gly Phe Gln Pro Arg Val Thr Glu Val  
355 360 365

Met Asn Arg Val Leu Thr Ala Thr Val Ser Lys Asn Glu Val Arg Asp  
370 375 380

## 047-E2F-PCT.ST25.txt

Ala Val Phe Ala Ile Arg Ser Ser Ser Ala Pro Gly Ala Asp Gly Phe  
 385 390 395 400  
 Thr Gly Gln Ser Leu Asp Ser Lys Ser Leu Lys Arg Phe Lys Ser Ser  
 405 410 415  
 Gly Gln Ser Leu Asp Ser Lys Ser Leu Lys Arg Leu Gln Met Val Ser  
 420 425 430  
 Ser Phe Arg Thr Phe Val Ala Glu Arg Leu Ile Ser Asp Asn Ile Leu  
 435 440 445  
 Ile Ala His Glu Val Val His Gly Leu Arg Thr His Lys Thr Ile Ser  
 450 455 460  
 Lys Asp Phe Ile Ala Ile Lys Ser Asp Met Ser Lys Ala Phe Asp Arg  
 465 470 475 480  
 Val Glu Trp Asn Tyr Val Lys Ala Leu Leu Val Ala Leu Gly Phe His  
 485 490 495  
 Ser Ser Leu Phe Met Cys Lys Ala Glu Lys Glu Glu Val Ser Val Leu  
 500 505 510  
 Lys Asn Ile Phe Lys Val Tyr Gly Asp Ala Thr Gly Gln Arg Ile Asn  
 515 520 525  
 Tyr Glu Lys Ser Ser Ile Thr Phe Gly Ala Leu Ile Leu Asp Tyr Ile  
 530 535 540  
 Lys Asp Lys Leu Lys Ser Arg Leu Ser Gly Trp Phe Ala Arg Thr Leu  
 545 550 555 560  
 Ser Leu Gly Gly Lys Glu Ile Leu Leu Lys Ala Val Ala Met Ala Met  
 565 570 575  
 Gln Val Tyr Ala Met Ser Cys Phe Lys Leu Thr Lys Thr Thr Cys Lys  
 580 585 590  
 Asn Leu Thr Ser Ala Met Ser Asp Phe Trp Trp Asn Ala Leu Glu His  
 595 600 605  
 Lys Arg Lys Thr His Trp Val Ser Trp Glu Lys Leu Cys Leu Ala Lys  
 610 615 620  
 Glu Ser Gly Gly Leu Gly Phe Arg Asp Ile Glu Ser Phe Asn Gln Ala  
 625 630 635 640

047-E2F-PCT.ST25.txt

Leu Leu Ala Lys Gln Ser Trp Arg Ile Leu Gln Tyr Pro Ser Phe Leu  
 645 650 655  
 Phe Ala Arg Phe Phe Lys Ser Arg Tyr Phe Asp Asp Glu Glu Phe Leu  
 660 665 670  
 Glu Ala Asp Leu Gly Val Arg Pro Ser Tyr Ala Cys Cys Ser Ile Leu  
 675 680 685  
 Phe Gly Arg Glu Leu Leu Ala Lys Gly Leu Arg Lys Glu Val Gly Asn  
 690 695 700  
 Gly Lys Ser Leu Asn Val Trp Met Asp Pro Trp Ile Phe Asp Ile Ala  
 705 710 715 720  
 Pro Arg Leu Pro Leu Gln Arg His Phe Ser Val Asn Leu Asp Leu Lys  
 725 730 735  
 Val Asn Asp Leu Ile Asn Phe Glu Asp Arg Cys Trp Lys Arg Asp Leu  
 740 745 750  
 Leu Glu Glu Leu Phe Tyr Pro Thr Asp Val Glu Leu Ile Thr Lys Arg  
 755 760 765  
 Asn Pro Val Val Asn Met Asp Asp Phe Trp Val Trp Leu His Ala Lys  
 770 775 780  
 Thr Gly Glu Tyr Ser Val Lys Ser Gly Tyr Trp Leu Ala Phe Gln Ser  
 785 790 795 800  
 Asn Lys Leu Asp Leu Ile Gln Gln Ala Asn Leu Leu Pro Ser Thr Asn  
 805 810 815  
 Gly Leu Lys Glu Gln Val Trp Ser Thr Lys Ser Ser Pro Lys Ile Lys  
 820 825 830  
 Met Phe Leu Trp Arg Ile Leu Ser Ala Ala Leu Pro Val Ala Asp Gln  
 835 840 845  
 Ile Ile Arg Arg Gly Met Ser Ile Asp Pro Arg Cys Gln Ile Cys Gly  
 850 855 860  
 Asp Glu Gly Glu Ser Thr Asn His Val Leu Phe Thr Cys Ser Met Ala  
 865 870 875 880  
 Arg Gln Val Trp Ala Leu Ser Gly Val Pro Thr Pro Glu Phe Gly Phe  
 885 890 895

047-E2F-PCT.ST25.txt

Gln Asn Ala Ser Ile Phe Ala Asn Ile Gln Phe Leu Phe Glu Leu Lys  
 900 905 910  
 Lys Met Ile Leu Val Pro Asp Leu Val Lys Arg Ser Trp Pro Trp Val  
 915 920 925  
 Leu Trp Arg Leu Trp Lys Asn Arg Asn Lys Leu Phe Phe Asp Gly Ile  
 930 935 940  
 Thr Phe Cys Pro Leu Asn Ser Ile Val Lys Ile Gln Glu Asp Thr Leu  
 945 950 955 960  
 Glu Trp Phe Gln Ala Gln Ser Gln Ile Arg Val Ser Glu Ser Glu Glu  
 965 970 975  
 Gly Gln Arg Val Ile Pro Phe Thr His Ser Trp Glu Pro Pro Pro Glu  
 980 985 990  
 Gly Trp Val Lys Cys Asn Ile Gly Ser Ala Trp Ser Gly Lys Lys Lys  
 995 1000 1005  
 Val Cys Gly Gly Ala Trp Val Leu Arg Asp Glu His Gly Ser Val  
 1010 1015 1020  
 Ile Leu His Ser Arg Arg Ala Phe Asn Gly Cys Ser Asn Lys Lys  
 1025 1030 1035  
 Glu Ala Ser Leu Arg Cys Ile Phe Trp Ala Ile Asp Ser Met Arg  
 1040 1045 1050  
 Ser His Arg Val Ser Arg Val Leu Phe Ala Phe Glu Pro Gly Asp  
 1055 1060 1065  
 Leu Leu Ser Ala Phe Thr Arg Pro Lys Ala Trp Pro Ser Leu Ala  
 1070 1075 1080  
 Tyr Asn Val Gly Glu Leu Thr Tyr Phe Leu Asp Lys Val Glu Glu  
 1085 1090 1095  
 Trp Lys Val Val Glu Glu Lys Val Val Ser Asn Arg Gly Ala Ser  
 1100 1105 1110  
 Leu Ile Ala Gln Ser Val Val Gln Ile Ser Val Val Arg Arg Phe  
 1115 1120 1125  
 Arg Ser Ser Thr Leu Ala Phe Ser Ala Leu  
 Page 921

1130

1135

&lt;210&gt; 593

&lt;211&gt; 717

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 593

```

atggtgactt cggagggatt agcaagcggt gattcttggt tatatcgcca aggtttcaac    60
gttgattcat gggtgctttc tgataccttc tctcacgaca acgatttgct cgcaagagct    120
ctccatacca ccgtcacagc ccctcatact ctcactcctt cctctgcttt cttcgattcc    180
tccgctgttt ctcacccttc ttccactaac acactctcct ctaccgtctc cgggtgcttct    240
gatccagaaa tcatcggcgg aggagctaaa cggaaacgta actgccttct taccgacggt    300
aaagccgcca agcgccgcgc tcgtgcttcc aagaaatctc agactacttt cataacggcg    360
gatccgtcca actttcgtca gatggttcag caagtgactg gcgccaagta catcgatgac    420
tcttcttcct ttggtatatt cgatccgatt gtcaagccgg agccgcttag gttcgttaac    480
aaactgcctt gtggtccttc ggatcgatcc acggcggttc caatgctcga cacatcagca    540
tttttgtcta atcatcacca ggagaatctc gcagtgggaa atgctttctc cggtaacagc    600
agcagtgtag gattaccgtc ggggaagcca agtgcaacgg ccgaccccgg tggttctgcc    660
gtggagtttg ataattacc aacatttcca acgcttgaat cgtggaaggt tatgtga      717

```

&lt;210&gt; 594

&lt;211&gt; 238

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 594

```

Met Val Thr Ser Glu Gly Leu Ala Ser Val Asp Ser Trp Leu Tyr Arg
1          5          10          15
Gln Gly Phe Asn Val Asp Ser Trp Leu Leu Ser Asp Thr Phe Ser His
          20          25          30
Asp Asn Asp Leu Leu Ala Arg Ala Leu His Thr Thr Val Thr Ala Pro
          35          40          45

```



047-E2F-PCT.ST25.txt

His Thr Leu Thr Pro Ser Ser Ala Phe Phe Asp Ser Ser Ala Val Ser  
50 55 60

His Pro Ser Ser Thr Asn Thr Leu Ser Ser Thr Val Ser Gly Ala Ser  
65 70 75 80

Asp Pro Glu Ile Ile Gly Gly Gly Ala Lys Arg Lys Arg Asn Cys Leu  
85 90 95

Leu Thr Asp Gly Lys Ala Ala Lys Arg Arg Ala Arg Ala Ser Lys Lys  
100 105 110

Ser Gln Thr Thr Phe Ile Thr Ala Asp Pro Ser Asn Phe Arg Gln Met  
115 120 125

Val Gln Gln Val Thr Gly Ala Lys Tyr Ile Asp Asp Ser Ser Ser Phe  
130 135 140

Gly Ile Phe Asp Pro Ile Val Lys Pro Glu Pro Leu Arg Phe Val Asn  
145 150 155 160

Lys Leu Pro Cys Gly Pro Ser Asp Arg Ser Thr Ala Val Pro Met Leu  
165 170 175

Asp Thr Ser Ala Phe Leu Ser Asn His His Gln Glu Asn Leu Ala Val  
180 185 190

Gly Asn Ala Phe Ser Gly Asn Ser Ser Ser Val Gly Leu Pro Ser Gly  
195 200 205

Lys Pro Ser Ala Thr Ala Asp Pro Gly Gly Ser Ala Val Glu Phe Asp  
210 215 220

Asn Tyr Pro Thr Phe Pro Thr Leu Glu Ser Trp Lys Val Met  
225 230 235

<210> 595

<211> 4512

<212> DNA

<213> Arabidopsis thaliana

<400> 595

atggactcaa agtcggttac tccagaacca accaaccct tctacgttc ttcggggcaa 60

tcaggaaaaa cctatgcttc tgttgtcgcc gccgctgctg ctgcagccgc cgataaggag 120

gatggtggtg	ctgtgagtag	tgccaaggag	ttggattcct	catcggaggc	tgtgtctggt	180
aattcggata	aggttggagc	tgatgattta	tctgactccg	agaaggagaa	gccgaatttg	240
gtgggtgatg	ggaaggtttc	cgacgaggtg	gatggttctt	taaaggagga	ttctactact	300
cctgaggcta	ctccgaagcc	tgaggtggtt	tctggtgaga	caattggtgt	agatgatggt	360
tcatcgttat	ctccgaagcc	ggaggctggt	tctgatggtg	taggggttgt	ggaggagaat	420
aagaaggtta	aggaggacgt	ggaggatatt	aaagacgatg	gtgagagtaa	gattgaaaat	480
gggagtgttg	atgttgatgt	gaaacaggct	tccacagatg	gggagagtga	gagtaaagtg	540
aaggatgtgg	aagaagaaga	tgttggaaca	aaaaaagatg	atgaggggga	gagtgaattg	600
ggtggaaaag	ttgatgttga	cgataaaaagt	gataatgtta	ttgaagaaga	gggtgtggag	660
ttaaactgata	aaggagacgt	cattgtgaac	tcgtcccctg	tagaatcagt	gcatgttgat	720
gtggcaaaac	caggggtggt	tgttgtagga	gacgcagagg	gaagtgagga	gttgaagatt	780
aatgctgatg	ctgaaactct	tgaagtggct	aataagtttg	atcaaattgg	ggatgatgat	840
agtggatgaat	ttgaacctgt	gtctgacaag	gccattgagg	aggtagaaga	aaaatttact	900
agcgaatcag	actctattgc	agactcctct	aagttagaat	ctgtggatac	cagtgtgtga	960
gagccagagg	ttgtagctgc	cgagagtggg	agtgaaccaa	aggatgtgga	aaaagccaac	1020
ggattggaga	agggatatgac	ttatgttgaa	gtaatcaagg	cagctagtgc	agtagctgac	1080
aatggaacca	aagaggagga	gagtgtgctc	ggtggcatag	tcgatgatgc	agaagaagg	1140
gttaagttaa	acaacaaagg	agactttgtg	gtggactcat	ctgctattga	agctgtgaat	1200
gtagatgtgg	caaagccagg	ggttggtgtt	gttgagacg	tagagggtgag	tgaggtgctg	1260
gaaactgatg	gcaacatccc	tgatgtgcat	aataagtttg	atccaattgg	ccaaggtgaa	1320
ggtggtgaag	ttgaacttga	atccgataaa	gccacagagg	agggaggagg	aaagttgggt	1380
agtgaaggag	actctatggt	tgactcctct	gtggtggact	ctggtgatgc	tgatatcaat	1440
gttgcagagc	caggggttgt	ggttgtcggg	gcggtctaagg	aggctgtaat	taaggaagat	1500
gataaagatg	atgaggttga	caagaccatc	tcaaataattg	aggaaacctga	tgacctgact	1560
gctgcatatg	atggaaatgt	tgaattggct	gttaaggaaa	tatcagaggc	tgccaaagta	1620
gagccagacg	aaccaaaggt	agggtgtgga	gtagaagaat	tgctgttttc	tgaaagttta	1680
aaagtgggtt	cagttgatgc	agaagaggat	tcaattcctg	cagctgagtc	acagtttgag	1740
gttcggaaaag	ttgtcgaagg	ggacagtgtc	gaagaggatg	aaaacaagct	cccagtcgaa	1800
gacattgttt	cttctcgtga	gttttagcttt	ggaggcaagg	aagtggacca	ggaaccttct	1860
ggcgaagggt	ttaccagggt	tgatgggtct	gaaagtgaag	aagaaactga	agagatgata	1920
tttgggagtt	ctgaagctgc	aaaacagttc	ttagcagagt	tggaaaaggc	ttcttctggt	1980
atagaggcac	attctgatga	agcaaacatt	tctaacaata	tgtcagatag	gattgatggc	2040

## 047-E2F-PCT.ST25.txt

cagattgtca	ccgattctga	cgaggatgta	gacacagagg	atgaaggtga	ggagaaaatg	2100
tttgatactg	cagcttttggc	tgcgctttttg	aaggcagcca	ctggtggtgg	aagttcagaa	2160
ggtggcaatt	ttaccataac	atctcaggat	ggcacgaagc	ttttctctat	ggatcgacct	2220
gctggtttga	gttcatcggt	aaggcccttg	aagcctgcag	cagctccacg	tgcaaaccgt	2280
tccaacatct	tttccaattc	taatgtcaca	atggcagatg	agactgagat	taacttgagc	2340
gaggaagaga	aacagaaatt	agaaaagttg	caaagcctcc	gtgtgaagtt	tttgcggtct	2400
ttgcaaaggt	tgggtcattc	ggcagaagat	tcaattgcag	cgcaggttct	ttaccgtctt	2460
gcactacttg	ctgggagaca	agcagggcag	ttattcagtc	ttgatgctgc	aaagaagaag	2520
gctgtggagt	ctgaggctga	gggcaacgaa	gaattgatct	tctccctaaa	catactggtc	2580
cttgaaaaag	ccgggggtggg	aaaaagtgt	actataaatt	ccattttggg	aaaccagatt	2640
gcgtccattg	atgctttttg	gctctcaacc	acttcggtta	gagaaatttc	tggaacggtg	2700
aatggtgtca	agattacctt	tattgatact	ccgggtttga	agtctgctgc	gatggatcaa	2760
agtacaaatg	caaaaatgtt	gtcctctgta	aagaaggtaa	tgaagaagtg	tccccctgat	2820
attgtactat	atgtagatcg	tcttgacacc	cagaccaggg	acttgaacaa	tttgcccttg	2880
ctaaggacga	ttactgcttc	tcttggtaca	tccatatgga	aaaacgctat	agtgacattg	2940
acccatgcgg	cttctgcccc	tcctgatggc	ccatctggca	ccccattgag	ctatgatgtg	3000
tttgtagcgc	agtgtctaca	tattgtgcaa	cagtctatag	gacaggctgt	tggagatcta	3060
cgcttgatga	atccaagtct	gatgaatcca	gtttcacttg	ttgagaatca	ccccttggtg	3120
aggaagaacc	gggagggagt	gaaggttctc	ccgaatggcc	aaacttgag	atctcagctg	3180
ttgctattgt	gttactccct	gaaggttttg	tcagaaacaa	attctctatt	gaggcctcaa	3240
gaaccattgg	accatcgtaa	agtatttggt	ttccgagtta	gatccccgcc	tctcccttac	3300
ttgttgctct	ggctgttgca	gtcccgtgca	catcctaagc	tccctggaga	ccaaggtggt	3360
gatagtgttg	actctgatat	cgaaattgat	gatgtgtctg	attctgagca	ggaagatggg	3420
gaagatgatg	agtatgacca	gctgccacca	tttaagcctc	ttcgaaaaac	ccaacttgca	3480
aagctctcaa	atgaacagag	aaaggcatat	ttcgaggagt	atgattaccg	tgtaaagctc	3540
ctgcagaaga	agcaatggag	agaggaatta	aagaggatga	aagaaatgaa	gaaaaacggg	3600
aagaagctgg	gtgaaagtga	gtttggttat	ccgggagaag	aagatgatcc	agaaaacggg	3660
gctccagctg	cagtgccagt	tccattaccc	gatatggttt	tgccaccttc	atttgatagt	3720
gataactcag	cttaccgata	ccgatatctg	gaaccactt	cacaactcct	aaccaggcca	3780
gtgttgata	cccatggttg	ggaccatgac	tgtggatatg	acggcgtcaa	tgcagaacac	3840
agtcttgctc	tagctagccg	gttccctgcc	acagctactg	tccaagtcac	caaggacaag	3900

047-E2F-PCT.ST25.txt

aaagagttca acattcatct ggactcctct gtgtctgcta agcacgggga gaatggatcc 3960  
 accatggcag ggttcgatat tcagaatgta ggcaagcagc tggcatatgt ggtcagagga 4020  
 gaaaccaaata tcaagaatatt gaggaagaac aagacaactg ttggaggggtc agtgacattc 4080  
 ttgggagaga acatcgccac tgggggtcaaa ctcgaggacc aaatagcact ggggaaaagg 4140  
 ttggtgcttg tgggcagcac tgggacaatg cgatcacagg gagattcggc ctatggtgcg 4200  
 aacctcgagg tcaggcttag ggaagctgat ttcccaattg gacaggacca atcttctttt 4260  
 gggctgtctc tggtaaagtg gagaggcgat ttagcccttg gagccaatct ccaatctcaa 4320  
 gtctctgttg gaaggaactc aaagattgctg cttcgtgcag gacttaacaa caagatgagc 4380  
 ggacagatca cagtcagaac cagcagctcg gatcagttgc aaatcgctct cacagccatt 4440  
 cttccaattg ccatgtccat ctacaagagc attcgacctg aagcgacgaa cgacaagtac 4500  
 agcatgtact aa 4512

<210> 596

<211> 1503

<212> PRT

<213> Arabidopsis thaliana

<400> 596

Met Asp Ser Lys Ser Val Thr Pro Glu Pro Thr Asn Pro Phe Tyr Ala  
 1 5 10 15  
 Ser Ser Gly Gln Ser Gly Lys Thr Tyr Ala Ser Val Val Ala Ala Ala  
 20 25 30  
 Ala Ala Ala Ala Asp Lys Glu Asp Gly Gly Ala Val Ser Ser Ala  
 35 40 45  
 Lys Glu Leu Asp Ser Ser Ser Glu Ala Val Ser Gly Asn Ser Asp Lys  
 50 55 60  
 Val Gly Ala Asp Asp Leu Ser Asp Ser Glu Lys Glu Lys Pro Asn Leu  
 65 70 75 80  
 Val Gly Asp Gly Lys Val Ser Asp Glu Val Asp Gly Ser Leu Lys Glu  
 85 90 95  
 Asp Ser Thr Thr Pro Glu Ala Thr Pro Lys Pro Glu Val Val Ser Gly  
 100 105 110

Glu Thr Ile Gly Val Asp Asp Val Ser Ser Leu Ser Pro Lys Pro Glu  
 115 120 125  
 Ala Val Ser Asp Gly Val Gly Val Val Glu Glu Asn Lys Lys Val Lys  
 130 135 140  
 Glu Asp Val Glu Asp Ile Lys Asp Asp Gly Glu Ser Lys Ile Glu Asn  
 145 150 155 160  
 Gly Ser Val Asp Val Asp Val Lys Gln Ala Ser Thr Asp Gly Glu Ser  
 165 170 175  
 Glu Ser Lys Val Lys Asp Val Glu Glu Glu Asp Val Gly Thr Lys Lys  
 180 185 190  
 Asp Asp Glu Gly Glu Ser Glu Leu Gly Gly Lys Val Asp Val Asp Asp  
 195 200 205  
 Lys Ser Asp Asn Val Ile Glu Glu Glu Gly Val Glu Leu Thr Asp Lys  
 210 215 220  
 Gly Asp Val Ile Val Asn Ser Ser Pro Val Glu Ser Val His Val Asp  
 225 230 235 240  
 Val Ala Lys Pro Gly Val Val Val Val Gly Asp Ala Glu Gly Ser Glu  
 245 250 255  
 Glu Leu Lys Ile Asn Ala Asp Ala Glu Thr Leu Glu Val Ala Asn Lys  
 260 265 270  
 Phe Asp Gln Ile Gly Asp Asp Asp Ser Gly Glu Phe Glu Pro Val Ser  
 275 280 285  
 Asp Lys Ala Ile Glu Glu Val Glu Glu Lys Phe Thr Ser Glu Ser Asp  
 290 295 300  
 Ser Ile Ala Asp Ser Ser Lys Leu Glu Ser Val Asp Thr Ser Ala Val  
 305 310 315 320  
 Glu Pro Glu Val Val Ala Ala Glu Ser Gly Ser Glu Pro Lys Asp Val  
 325 330 335  
 Glu Lys Ala Asn Gly Leu Glu Lys Gly Met Thr Tyr Ala Glu Val Ile  
 340 345 350  
 Lys Ala Ala Ser Ala Val Ala Asp Asn Gly Thr Lys Glu Glu Glu Ser  
 355 360 365

047-E2F-PCT.ST25.txt

Val Leu Gly Gly Ile Val Asp Asp Ala Glu Glu Gly Val Lys Leu Asn  
 370 375 380  
 Asn Lys Gly Asp Phe Val Val Asp Ser Ser Ala Ile Glu Ala Val Asn  
 385 390 395 400  
 Val Asp Val Ala Lys Pro Gly Val Val Val Val Gly Asp Val Glu Val  
 405 410 415  
 Ser Glu Val Leu Glu Thr Asp Gly Asn Ile Pro Asp Val His Asn Lys  
 420 425 430  
 Phe Asp Pro Ile Gly Gln Gly Glu Gly Gly Glu Val Glu Leu Glu Ser  
 435 440 445  
 Asp Lys Ala Thr Glu Glu Gly Gly Gly Lys Leu Val Ser Glu Gly Asp  
 450 455 460  
 Ser Met Val Asp Ser Ser Val Val Asp Ser Val Asp Ala Asp Ile Asn  
 465 470 475 480  
 Val Ala Glu Pro Gly Val Val Val Val Gly Ala Ala Lys Glu Ala Val  
 485 490 495  
 Ile Lys Glu Asp Asp Lys Asp Asp Glu Val Asp Lys Thr Ile Ser Asn  
 500 505 510  
 Ile Glu Glu Pro Asp Asp Leu Thr Ala Ala Tyr Asp Gly Asn Phe Glu  
 515 520 525  
 Leu Ala Val Lys Glu Ile Ser Glu Ala Ala Lys Val Glu Pro Asp Glu  
 530 535 540  
 Pro Lys Val Gly Val Glu Val Glu Glu Leu Pro Val Ser Glu Ser Leu  
 545 550 555 560  
 Lys Val Gly Ser Val Asp Ala Glu Glu Asp Ser Ile Pro Ala Ala Glu  
 565 570 575  
 Ser Gln Phe Glu Val Arg Lys Val Val Glu Gly Asp Ser Ala Glu Glu  
 580 585 590  
 Asp Glu Asn Lys Leu Pro Val Glu Asp Ile Val Ser Ser Arg Glu Phe  
 595 600 605  
 Ser Phe Gly Gly Lys Glu Val Asp Gln Glu Pro Ser Gly Glu Gly Val  
 610 615 620

047-E2F-PCT.ST25.txt

Thr Arg Val Asp Gly Ser Glu Ser Glu Glu Glu Thr Glu Glu Met Ile  
 625 630 635 640  
 Phe Gly Ser Ser Glu Ala Ala Lys Gln Phe Leu Ala Glu Leu Glu Lys  
 645 650 655  
 Ala Ser Ser Gly Ile Glu Ala His Ser Asp Glu Ala Asn Ile Ser Asn  
 660 665 670  
 Asn Met Ser Asp Arg Ile Asp Gly Gln Ile Val Thr Asp Ser Asp Glu  
 675 680 685  
 Asp Val Asp Thr Glu Asp Glu Gly Glu Glu Lys Met Phe Asp Thr Ala  
 690 695 700  
 Ala Leu Ala Ala Leu Leu Lys Ala Ala Thr Gly Gly Gly Ser Ser Glu  
 705 710 715 720  
 Gly Gly Asn Phe Thr Ile Thr Ser Gln Asp Gly Thr Lys Leu Phe Ser  
 725 730 735  
 Met Asp Arg Pro Ala Gly Leu Ser Ser Ser Leu Arg Pro Leu Lys Pro  
 740 745 750  
 Ala Ala Ala Pro Arg Ala Asn Arg Ser Asn Ile Phe Ser Asn Ser Asn  
 755 760 765  
 Val Thr Met Ala Asp Glu Thr Glu Ile Asn Leu Ser Glu Glu Glu Lys  
 770 775 780  
 Gln Lys Leu Glu Lys Leu Gln Ser Leu Arg Val Lys Phe Leu Arg Leu  
 785 790 795 800  
 Leu Gln Arg Leu Gly His Ser Ala Glu Asp Ser Ile Ala Ala Gln Val  
 805 810 815  
 Leu Tyr Arg Leu Ala Leu Leu Ala Gly Arg Gln Ala Gly Gln Leu Phe  
 820 825 830  
 Ser Leu Asp Ala Ala Lys Lys Lys Ala Val Glu Ser Glu Ala Glu Gly  
 835 840 845  
 Asn Glu Glu Leu Ile Phe Ser Leu Asn Ile Leu Val Leu Gly Lys Ala  
 850 855 860  
 Gly Val Gly Lys Ser Ala Thr Ile Asn Ser Ile Leu Gly Asn Gln Ile

865                      870                      875                      880  
 Ala Ser Ile Asp Ala Phe Gly Leu Ser Thr Thr Ser Val Arg Glu Ile  
                                  885                                   890                                   895  
 Ser Gly Thr Val Asn Gly Val Lys Ile Thr Phe Ile Asp Thr Pro Gly  
                                  900                                   905                                   910  
 Leu Lys Ser Ala Ala Met Asp Gln Ser Thr Asn Ala Lys Met Leu Ser  
                                  915                                   920                                   925  
 Ser Val Lys Lys Val Met Lys Lys Cys Pro Pro Asp Ile Val Leu Tyr  
                                  930                                   935                                   940  
 Val Asp Arg Leu Asp Thr Gln Thr Arg Asp Leu Asn Asn Leu Pro Leu  
                                  945                                   950                                   955                                   960  
 Leu Arg Thr Ile Thr Ala Ser Leu Gly Thr Ser Ile Trp Lys Asn Ala  
                                  965                                   970                                   975  
 Ile Val Thr Leu Thr His Ala Ala Ser Ala Pro Pro Asp Gly Pro Ser  
                                  980                                   985                                   990  
 Gly Thr Pro Leu Ser Tyr Asp Val Phe Val Ala Gln Cys Ser His Ile  
                                  995                                   1000                                   1005  
 Val Gln Gln Ser Ile Gly Gln Ala Val Gly Asp Leu Arg Leu Met  
                                  1010                                   1015                                   1020  
 Asn Pro Ser Leu Met Asn Pro Val Ser Leu Val Glu Asn His Pro  
                                  1025                                   1030                                   1035  
 Leu Cys Arg Lys Asn Arg Glu Gly Val Lys Val Leu Pro Asn Gly  
                                  1040                                   1045                                   1050  
 Gln Thr Trp Arg Ser Gln Leu Leu Leu Leu Cys Tyr Ser Leu Lys  
                                  1055                                   1060                                   1065  
 Val Leu Ser Glu Thr Asn Ser Leu Leu Arg Pro Gln Glu Pro Leu  
                                  1070                                   1075                                   1080  
 Asp His Arg Lys Val Phe Gly Phe Arg Val Arg Ser Pro Pro Leu  
                                  1085                                   1090                                   1095  
 Pro Tyr Leu Leu Ser Trp Leu Leu Gln Ser Arg Ala His Pro Lys  
                                  1100                                   1105                                   1110



Leu Pro Gly Asp Gln Gly Gly Asp Ser Val Asp Ser Asp Ile Glu  
 1115 1120 1125  
 Ile Asp Asp Val Ser Asp Ser Glu Gln Glu Asp Gly Glu Asp Asp  
 1130 1135 1140  
 Glu Tyr Asp Gln Leu Pro Pro Phe Lys Pro Leu Arg Lys Thr Gln  
 1145 1150 1155  
 Leu Ala Lys Leu Ser Asn Glu Gln Arg Lys Ala Tyr Phe Glu Glu  
 1160 1165 1170  
 Tyr Asp Tyr Arg Val Lys Leu Leu Gln Lys Lys Gln Trp Arg Glu  
 1175 1180 1185  
 Glu Leu Lys Arg Met Lys Glu Met Lys Lys Asn Gly Lys Lys Leu  
 1190 1195 1200  
 Gly Glu Ser Glu Phe Gly Tyr Pro Gly Glu Glu Asp Asp Pro Glu  
 1205 1210 1215  
 Asn Gly Ala Pro Ala Ala Val Pro Val Pro Leu Pro Asp Met Val  
 1220 1225 1230  
 Leu Pro Pro Ser Phe Asp Ser Asp Asn Ser Ala Tyr Arg Tyr Arg  
 1235 1240 1245  
 Tyr Leu Glu Pro Thr Ser Gln Leu Leu Thr Arg Pro Val Leu Asp  
 1250 1255 1260  
 Thr His Gly Trp Asp His Asp Cys Gly Tyr Asp Gly Val Asn Ala  
 1265 1270 1275  
 Glu His Ser Leu Ala Leu Ala Ser Arg Phe Pro Ala Thr Ala Thr  
 1280 1285 1290  
 Val Gln Val Thr Lys Asp Lys Lys Glu Phe Asn Ile His Leu Asp  
 1295 1300 1305  
 Ser Ser Val Ser Ala Lys His Gly Glu Asn Gly Ser Thr Met Ala  
 1310 1315 1320  
 Gly Phe Asp Ile Gln Asn Val Gly Lys Gln Leu Ala Tyr Val Val  
 1325 1330 1335  
 Arg Gly Glu Thr Lys Phe Lys Asn Leu Arg Lys Asn Lys Thr Thr  
 1340 1345 1350

047-E2F-PCT.ST25.txt

Val Gly Gly Ser Val Thr Phe Leu Gly Glu Asn Ile Ala Thr Gly  
1355 1360 1365

Val Lys Leu Glu Asp Gln Ile Ala Leu Gly Lys Arg Leu Val Leu  
1370 1375 1380

Val Gly Ser Thr Gly Thr Met Arg Ser Gln Gly Asp Ser Ala Tyr  
1385 1390 1395

Gly Ala Asn Leu Glu Val Arg Leu Arg Glu Ala Asp Phe Pro Ile  
1400 1405 1410

Gly Gln Asp Gln Ser Ser Phe Gly Leu Ser Leu Val Lys Trp Arg  
1415 1420 1425

Gly Asp Leu Ala Leu Gly Ala Asn Leu Gln Ser Gln Val Ser Val  
1430 1435 1440

Gly Arg Asn Ser Lys Ile Ala Leu Arg Ala Gly Leu Asn Asn Lys  
1445 1450 1455

Met Ser Gly Gln Ile Thr Val Arg Thr Ser Ser Ser Asp Gln Leu  
1460 1465 1470

Gln Ile Ala Leu Thr Ala Ile Leu Pro Ile Ala Met Ser Ile Tyr  
1475 1480 1485

Lys Ser Ile Arg Pro Glu Ala Thr Asn Asp Lys Tyr Ser Met Tyr  
1490 1495 1500

<210> 597

<211> 1170

<212> DNA

<213> Arabidopsis thaliana

<400> 597

atgggagggtt gtttcagcaa tcggattaaa acagatattg cttccagtac atggctaagt	60
tcgaaattct tgagtagaga tgggagcaag ggctcgtcga ccgcttcctt ctcttatatg	120
cctcgaacag aaggcgagat cttgcaaaat gctaattctca agaacttttag tctcagttaa	180
ctgaaatctg caactaggaa tttccggcct gatagtgtgg ttggtgaagg tggatttggt	240
tgcgttttca aaggctggat cgatgagtc tctctcgtc cttctaaacc ggggaccggg	300
attgtcattg ctgtgaaaag acttaaccaa gaagggtttc aaggatcatcg agagtggctg	360

047-E2F-PCT.ST25.txt

gctgagatca attatttagg ccagctggat catcctaacc ttgtgaaact gattggatac 420  
tgcttggaag aggagcacag gcttcttggt tacgagttta tgactcgtgg tagtcttgag 480  
aatcacttat tcagaagagg aacattctat cagccacttt catggaacac gcggggttcgt 540  
atggctcttg gtgcagctag aggacttgct tttcttcaca atgctcaacc gcaagttata 600  
taccgagact tcaaagcatc taacatcttg ctagattcga actacaacgc aaagctttcg 660  
gatttcgggt tggctagaga tggccaatg ggtgacaaca gccatgtttc taccagagtc 720  
atgggaactc agggatacgc tgctccagaa tatctagcta caggtcattt atcgggtgaag 780  
agcgatgtat acagtttttg gggtgtgtta ctggagttgt tatcaggaag acgagcaatt 840  
gacaagaatc aaccagtagg agaacacaat ctcgtggatt gggcaagacc ctacttaaca 900  
aacaagagaa gacttctgcg agtgatggat cctcgtctcc aaggtcaata ctactaacc 960  
cgagctttga aaattgcagt tcttgcactc gattgcatat ctatagatgc caagagtaga 1020  
ccgaccatga acgaaatcgt caagacaatg gaagaacttc atatccagaa ggaagcatca 1080  
aaagagcagc agaatcctca aatcagcatt gacaacatca tcaacaaatc tccacaagct 1140  
gtgaattatc ctaggccttc aattatgtaa 1170

<210> 598

<211> 389

<212> PRT

<213> Arabidopsis thaliana

<400> 598

Met Gly Gly Cys Phe Ser Asn Arg Ile Lys Thr Asp Ile Ala Ser Ser  
1 5 10 15

Thr Trp Leu Ser Ser Lys Phe Leu Ser Arg Asp Gly Ser Lys Gly Ser  
20 25 30

Ser Thr Ala Ser Phe Ser Tyr Met Pro Arg Thr Glu Gly Glu Ile Leu  
35 40 45

Gln Asn Ala Asn Leu Lys Asn Phe Ser Leu Ser Glu Leu Lys Ser Ala  
50 55 60

Thr Arg Asn Phe Arg Pro Asp Ser Val Val Gly Glu Gly Gly Phe Gly  
65 70 75 80

Cys Val Phe Lys Gly Trp Ile Asp Glu Ser Ser Leu Ala Pro Ser Lys  
Page 933

Pro Gly Thr Gly Ile Val Ile Ala Val Lys Arg Leu Asn Gln Glu Gly  
100 105 110

Phe Gln Gly His Arg Glu Trp Leu Ala Glu Ile Asn Tyr Leu Gly Gln  
115 120 125

Leu Asp His Pro Asn Leu Val Lys Leu Ile Gly Tyr Cys Leu Glu Glu  
130 135 140

Glu His Arg Leu Leu Val Tyr Glu Phe Met Thr Arg Gly Ser Leu Glu  
145 150 155 160

Asn His Leu Phe Arg Arg Gly Thr Phe Tyr Gln Pro Leu Ser Trp Asn  
165 170 175

Thr Arg Val Arg Met Ala Leu Gly Ala Ala Arg Gly Leu Ala Phe Leu  
180 185 190

His Asn Ala Gln Pro Gln Val Ile Tyr Arg Asp Phe Lys Ala Ser Asn  
195 200 205

Ile Leu Leu Asp Ser Asn Tyr Asn Ala Lys Leu Ser Asp Phe Gly Leu  
210 215 220

Ala Arg Asp Gly Pro Met Gly Asp Asn Ser His Val Ser Thr Arg Val  
225 230 235 240

Met Gly Thr Gln Gly Tyr Ala Ala Pro Glu Tyr Leu Ala Thr Gly His  
245 250 255

Leu Ser Val Lys Ser Asp Val Tyr Ser Phe Gly Val Val Leu Leu Glu  
260 265 270

Leu Leu Ser Gly Arg Arg Ala Ile Asp Lys Asn Gln Pro Val Gly Glu  
275 280 285

His Asn Leu Val Asp Trp Ala Arg Pro Tyr Leu Thr Asn Lys Arg Arg  
290 295 300

Leu Leu Arg Val Met Asp Pro Arg Leu Gln Gly Gln Tyr Ser Leu Thr  
305 310 315 320

Arg Ala Leu Lys Ile Ala Val Leu Ala Leu Asp Cys Ile Ser Ile Asp  
325 330 335

Ala Lys Ser Arg Pro Thr Met Asn Glu Ile Val Lys Thr Met Glu Glu  
 340 345 350

Leu His Ile Gln Lys Glu Ala Ser Lys Glu Gln Gln Asn Pro Gln Ile  
 355 360 365

Ser Ile Asp Asn Ile Ile Asn Lys Ser Pro Gln Ala Val Asn Tyr Pro  
 370 375 380

Arg Pro Ser Ile Met  
 385

<210> 599

<211> 4986

<212> DNA

<213> Arabidopsis thaliana

<400> 599

atggaggaag tagcagctaa ggttgaggaa gaaactgtgg aaaccaatgt agatgcagtg	60
aaagaggaca atgcaactat agctaataaa agcagaagcc cagagagtgt ttctgcagtg	120
tctgtggtgt caaatcgagc tgcttctact aaaaagaaac cagttattag ttcgaattta	180
ataaagccaa ctgcgctcttc ttcatctacgg gtctcgggta ctacgcctgt gactatcagg	240
agaaatagta ctggaggagt aacagagaat ttagctggta cctctaaggt tctgcctaag	300
caagtgaata ctactgcctc acgtactgat ccggaagac gatcacttcc agaattgagg	360
aagagctctg tgtcttctct ttctgctaag actgtatcca aaccaagcct ttccgagagt	420
aaaaagtctg tccccgtatc accaggtagt cggagtttga caaagtcaac tgggtttagt	480
ttaagtaagc ctgagctctc tgctagacca gccatgagtg tttctgtgtc ttcgaaaaga	540
gtccatctt catcagttga cagtagtggc agcaggacta gtagtggaag actacactct	600
actctcacia gtgggaggac agtttctaaa gtttcttctc cctctgcggg atcatcacct	660
tctgtttcta gcagtataag atcaaagtca ttttcgtcac ctctagaccg gacttccaac	720
ttctctggac ggaagaaaac atctaccctt gaaagccgtg attcacgact cattattctt	780
ccaaagggtg aggttaaagc tggcgatgac atgagattgg atcttagagg ccacaggatt	840
cgcagtctaa cctctggtgg cttacactta tcaccaaact tagagtttgt ctatcttaga	900
gacaatctcc tatctacgct ggaaggtatt gagatattga atcgagtcaa ggttctggat	960
ttgagtttta atgatttcaa agggcctgga tttgaaccac ttgagaattg caaaatgctg	1020
cagcaacttt atcttgctgg aaatcagata acttcacttg ctagtctgcc tcaacttcca	1080

aacttagagt	ttctctcggt	tgctcaaaat	aaattaaagt	cacttgcaat	ggcaagccag	1140
ccccggcttc	aggtactagc	agcaagtaag	aacaagataa	caactctgaa	ggactttccg	1200
tatctaccag	ttcttgagca	tctgcgggtt	gaggaaaatc	cattgctgaa	gattttctcac	1260
ttggaagcgg	catccatact	actcgtaggt	cctaccttga	agaaattcaa	tgacagagat	1320
ctctctcgtg	aggaagtggc	aattgccaaag	cgttatcctc	cacaaacagc	tctctgcctc	1380
agagaagggtt	gggagttttg	caagtctgat	cttgccagcag	aatcgacatt	ccgctttctta	1440
gttgagaggt	ggaaggacac	attaccttct	ggttatctta	ttaaagaagc	acatgttgac	1500
cgaccttctg	aagaagctcc	ctgtcaatgc	cactttggtc	tttttcagga	aagtcctact	1560
gctacagatc	aagaattagc	cctgaaattt	caatggtctg	tggcggacag	atctctttct	1620
aatttcgttc	ctattcttaa	tgcaaccaag	gagaatatca	cagtgaagtg	ctgtgcagga	1680
aagggaaatac	caaaagtgtg	gagccttgaa	ttaaattggg	aactagttga	ggggaatatt	1740
atcaagggtc	aagcagtgg	tgcatggtg	ggtgggacac	caggaaagtg	tattaccagt	1800
tggttgagga	gaaagtggaa	tgggagccct	gtggtgatcg	atggagctga	agatgaggaa	1860
tatatgttat	cttttagatga	tgtgggatca	agtatggttt	tcatgtacac	accagtcaca	1920
gaaggaggtg	caagaggaga	gcctcagtat	aagtacacag	agttcgtaaa	agcagcgcct	1980
ccatctgtaa	gtaatgttcg	aattactgga	gatgctgttg	aaggctgcgt	tctcaagggg	2040
gttgagatt	attttgagg	caaggaaggt	cctagcaagt	tcgaatggtt	acggaagaac	2100
aaggaaacag	gagaactctc	gttgatatcg	gctggaacct	ccgagtatac	attgaccag	2160
gaagatgttg	gcacacatgt	aacttttgtg	tacatacctg	caaattttga	ggcacccccg	2220
aaagtaacag	atgctaagat	agttggtgac	ttgagggaga	atagtaaggt	cactgtaaca	2280
ggtactgtta	ctggaggaac	tgaaggttca	agcagagtgc	aatggttcaa	atcaagtgtg	2340
tctatcctgg	aaggagacaa	ttctcttgaa	gaattgagca	catcaaaagt	ggcaaagtca	2400
ttccgtatac	ccttgggggc	agtgggctat	tacatagttg	caaagtatac	tccaatgaca	2460
cctgatgggg	aatgcggtga	accagtatat	gtactctcgg	aaagagcagt	tgagacgcag	2520
gctgaaaatg	atctccctgg	tgcatgtgata	cctgaagcct	ctgggcttct	tcagtatacg	2580
attactaaag	aagctatagg	taaattcatt	tcatttcaat	gtattcctgt	gagggatgat	2640
gggattgtgg	gtgagccaag	aagttgcatg	tcccaggaac	gtgttcgtcc	aggaaacca	2700
agcacggtat	ctcttcatgt	tgttgagct	cttggtgaag	gaaccatgct	atctgcagag	2760
aaagaatatt	ggggtggtga	agaaggagca	tcagttttcc	ggtggttccg	gactaattca	2820
gatggtactc	catgcgaaat	aaaggggtgca	actacttcgt	catatctact	gtcagtcggt	2880
gatatcggtt	acttcatttc	ggtttcttat	gaacctgtga	gaaatgacag	agcccgtgga	2940
cccacagcca	tttctgaaat	agctggacca	attgtagctg	gtataatact	ctcttcccat	3000

## 047-E2F-PCT.ST25.txt

ttgttatcaa	gctttgcggt	atctgaaggg	gtactaattt	ccatgaacga	gcggggccat	3060
ccaaattgtc	agtcactgga	gtttcttgga	tcaatgattg	aagggaacg	cttgagcttt	3120
gttgcttcat	atactggagg	gatgaaggga	aattgctatc	ttgaatgggt	tagggtgaaa	3180
aataatggtg	ttaaggaaat	attgagtagt	gatgagtttt	tggatttatc	actggacgat	3240
gtcggggaaa	gcattgaact	tatttacact	cctgttcgtg	aagatggaat	agaaggagat	3300
ccaaggagta	tcaggactga	tggtattgct	ccagcaaadc	ctatgggggt	ggagctttta	3360
attcctgact	gctgtgagaa	acaagagggt	gtgcctcata	aaacttattt	tgggggcat	3420
gaaggtgttg	gagagtacat	ctggtatcga	actaagggtca	agttgcatgg	atctgcactt	3480
acggaaatat	cctatgccgg	tgaagagggt	gttggttggt	gtagaacatt	aaaatatact	3540
ccatcgcttg	aagatgtggg	ggcttatcta	gtcttgatt	ggattcctac	tcgcgtagat	3600
gggagaagtg	ggaagccagt	tggtgtgata	acaaactctc	ctgttgcccc	agctgatcca	3660
gaagtatcta	atgttcgtgt	gaagaaactt	ttttcggatg	cttattctgg	agaaggagag	3720
tactttggtg	gacatgaagg	tccaagtctc	ttcagttggt	acagagagaa	tgatggaacc	3780
attgatctta	ttgatggggc	taactccaaa	acgtatgagg	tgactgagtc	agattacaat	3840
tgccggatat	tgttcgggta	cacaccagtt	cgttcagatt	ctgttggtgg	agagctaaag	3900
atgtctgagc	caactgaaat	tatcctccca	gggttctctt	tgcaacacaa	tcctaact	3960
tttgatcaca	atacagaggt	tccaaaagta	gacatgcttg	ctttcaccgg	aaaggctgta	4020
caaggtgatg	ttctcacagc	cgtccaagtg	atcccaaaga	ctgaaattca	acaacttggt	4080
tggagcaagt	acaaaggaga	tattcaatac	caatggttcc	gctcaccgga	atcaggggat	4140
aagatatcgt	atgaggctct	ctcttcagaa	atttcgtggt	catacaagggt	gcggtttgag	4200
gatattggca	gatgtctcaa	atgtgaatgt	gtagtgcatt	atgtgtttgg	aaggcttagt	4260
gaactagcat	acgccgagac	tgatccaata	tcaccagggt	ttcctaggat	agagaagcta	4320
gagattgaag	gacaagggtt	ccatactaac	ttatatgctg	tgcggggaaa	ttattttggt	4380
ggtaaagagg	gaaagagtaa	aatccaatgg	cttagatcaa	tggttggaag	ccctgatctc	4440
atctcaattc	caggtgagac	aggaaggatg	tatgaagcta	atgtggatga	tgtcggatac	4500
agactggtcg	ttgtatatac	accatacgt	gaggatggtg	tccaaggcca	cccagtttct	4560
gcatcaactg	agcctgttgc	tggtgaacct	gatattctta	aggaagtgg	acagaaatta	4620
gaaactgggt	tagtgaagtt	tgaggtgttg	tgtgacaagg	acccttatcc	caaaaagatt	4680
gtgggagagg	gaaatctcga	gagacgaatg	ctagaaatga	acaggaagag	aataaagggt	4740
gtgaaaccag	gttcaaagac	gtctttcgca	actactgaag	tccgtggaag	ctatggtcct	4800
cctttccacg	tggagacatt	tcgtaacgac	caaagaaggc	taaggatagt	tgtggatagt	4860

gagaatgaag tagacatagt ggtgcagtcg cgccatctcc gcgatgttat agtacttgtc 4920  
 attcgcggct ttgctcagcg gttcaacagc acttcactca attctctact taagatcgat 4980  
 acatga 4986

<210> 600

<211> 1661

<212> PRT

<213> Arabidopsis thaliana

<400> 600

Met Glu Glu Val Ala Ala Lys Val Glu Glu Glu Thr Val Glu Thr Asn  
 1 5 10 15  
 Val Asp Ala Val Lys Glu Asp Asn Ala Thr Ile Ala Asn Glu Ser Arg  
 20 25 30  
 Ser Pro Glu Ser Val Ser Ala Val Ser Val Val Ser Asn Arg Ala Ala  
 35 40 45  
 Ser Thr Lys Lys Lys Pro Val Ile Ser Ser Asn Leu Ile Lys Pro Thr  
 50 55 60  
 Ala Ser Ser Ser Leu Arg Val Ser Gly Thr Thr Pro Val Thr Ile Arg  
 65 70 75 80  
 Arg Asn Ser Thr Gly Gly Val Thr Glu Asn Leu Ala Gly Thr Ser Lys  
 85 90 95  
 Val Leu Pro Lys Gln Val Ser Thr Thr Ala Ser Arg Thr Asp Pro Val  
 100 105 110  
 Arg Arg Ser Leu Pro Glu Leu Arg Lys Ser Ser Val Ser Ser Leu Ser  
 115 120 125  
 Ala Lys Thr Val Ser Lys Pro Ser Leu Ser Glu Ser Lys Lys Ser Val  
 130 135 140  
 Pro Val Ser Pro Gly Ser Arg Ser Leu Thr Lys Ser Thr Gly Phe Ser  
 145 150 155 160  
 Leu Ser Lys Pro Glu Ser Ser Ala Arg Pro Ala Met Ser Val Ser Val  
 165 170 175



Ser Ser Lys Arg Ala Pro Ser Ser Ser Val Asp Ser Ser Gly Ser Arg  
 180 185 190  
 Thr Ser Ser Gly Arg Leu His Ser Thr Leu Thr Ser Gly Arg Thr Val  
 195 200 205  
 Ser Lys Val Ser Ser Pro Ser Ala Gly Ser Ser Pro Ser Val Ser Ser  
 210 215 220  
 Ser Ile Arg Ser Lys Ser Phe Ser Ser Pro Leu Asp Arg Thr Ser Asn  
 225 230 235 240  
 Phe Ser Gly Arg Lys Lys Thr Ser Thr Pro Glu Ser Arg Asp Ser Arg  
 245 250 255  
 Leu Ile Ile Leu Pro Lys Val Glu Val Lys Ala Gly Asp Asp Met Arg  
 260 265 270  
 Leu Asp Leu Arg Gly His Arg Ile Arg Ser Leu Thr Ser Gly Gly Leu  
 275 280 285  
 His Leu Ser Pro Asn Leu Glu Phe Val Tyr Leu Arg Asp Asn Leu Leu  
 290 295 300  
 Ser Thr Leu Glu Gly Ile Glu Ile Leu Asn Arg Val Lys Val Leu Asp  
 305 310 315 320  
 Leu Ser Phe Asn Asp Phe Lys Gly Pro Gly Phe Glu Pro Leu Glu Asn  
 325 330 335  
 Cys Lys Met Leu Gln Gln Leu Tyr Leu Ala Gly Asn Gln Ile Thr Ser  
 340 345 350  
 Leu Ala Ser Leu Pro Gln Leu Pro Asn Leu Glu Phe Leu Ser Val Ala  
 355 360 365  
 Gln Asn Lys Leu Lys Ser Leu Ala Met Ala Ser Gln Pro Arg Leu Gln  
 370 375 380  
 Val Leu Ala Ala Ser Lys Asn Lys Ile Thr Thr Leu Lys Asp Phe Pro  
 385 390 395 400  
 Tyr Leu Pro Val Leu Glu His Leu Arg Val Glu Glu Asn Pro Leu Leu  
 405 410 415  
 Lys Ile Ser His Leu Glu Ala Ala Ser Ile Leu Leu Val Gly Pro Thr  
 420 425 430

047-E2F-PCT.ST25.txt

Leu Lys Lys Phe Asn Asp Arg Asp Leu Ser Arg Glu Glu Val Ala Ile  
 435 440 445  
 Ala Lys Arg Tyr Pro Pro Gln Thr Ala Leu Cys Leu Arg Glu Gly Trp  
 450 455 460  
 Glu Phe Cys Lys Ser Asp Leu Ala Ala Glu Ser Thr Phe Arg Phe Leu  
 465 470 475 480  
 Val Glu Arg Trp Lys Asp Thr Leu Pro Ser Gly Tyr Leu Ile Lys Glu  
 485 490 495  
 Ala His Val Asp Arg Pro Ser Glu Glu Ala Pro Cys Gln Cys His Phe  
 500 505 510  
 Gly Leu Phe Gln Glu Ser Pro Thr Ala Thr Asp Gln Glu Leu Ala Leu  
 515 520 525  
 Lys Phe Gln Trp Ser Val Ala Asp Arg Ser Leu Ser Asn Phe Val Pro  
 530 535 540  
 Ile Leu Asn Ala Thr Lys Glu Asn Ile Thr Val Lys Cys Cys Ala Gly  
 545 550 555 560  
 Lys Gly Ile Pro Lys Val Val Ser Leu Glu Leu Asn Gly Glu Leu Val  
 565 570 575  
 Glu Gly Asn Ile Ile Lys Gly Gln Ala Val Val Ala Trp Cys Gly Gly  
 580 585 590  
 Thr Pro Gly Lys Cys Ile Thr Ser Trp Leu Arg Arg Lys Trp Asn Gly  
 595 600 605  
 Ser Pro Val Val Ile Asp Gly Ala Glu Asp Glu Glu Tyr Met Leu Ser  
 610 615 620  
 Leu Asp Asp Val Gly Ser Ser Met Val Phe Met Tyr Thr Pro Val Thr  
 625 630 635 640  
 Glu Gly Gly Ala Arg Gly Glu Pro Gln Tyr Lys Tyr Thr Glu Phe Val  
 645 650 655  
 Lys Ala Ala Pro Pro Ser Val Ser Asn Val Arg Ile Thr Gly Asp Ala  
 660 665 670  
 Val Glu Gly Cys Val Leu Lys Gly Val Gly Asp Tyr Phe Gly Gly Lys  
 675 680 685

047-E2F-PCT.ST25.txt

Glu Gly Pro Ser Lys Phe Glu Trp Leu Arg Lys Asn Lys Glu Thr Gly  
 690 695 700  
 Glu Leu Ser Leu Ile Ser Ala Gly Thr Ser Glu Tyr Thr Leu Thr Gln  
 705 710 715 720  
 Glu Asp Val Gly Thr His Val Thr Phe Val Tyr Ile Pro Ala Asn Phe  
 725 730 735  
 Glu Ala Pro Pro Lys Val Thr Asp Ala Lys Ile Val Gly Asp Leu Arg  
 740 745 750  
 Glu Asn Ser Lys Val Thr Val Thr Gly Thr Val Thr Gly Gly Thr Glu  
 755 760 765  
 Gly Ser Ser Arg Val Gln Trp Phe Lys Ser Ser Cys Ser Ile Leu Glu  
 770 775 780  
 Gly Asp Asn Ser Leu Glu Glu Leu Ser Thr Ser Lys Val Ala Lys Ser  
 785 790 795 800  
 Phe Arg Ile Pro Leu Gly Ala Val Gly Tyr Tyr Ile Val Ala Lys Tyr  
 805 810 815  
 Thr Pro Met Thr Pro Asp Gly Glu Cys Gly Glu Pro Val Tyr Val Leu  
 820 825 830  
 Ser Glu Arg Ala Val Glu Thr Gln Ala Glu Asn Asp Leu Pro Gly Ala  
 835 840 845  
 Leu Ile Pro Glu Ala Ser Gly Leu Leu Gln Tyr Thr Ile Thr Lys Glu  
 850 855 860  
 Ala Ile Gly Lys Phe Ile Ser Phe Gln Cys Ile Pro Val Arg Asp Asp  
 865 870 875 880  
 Gly Ile Val Gly Glu Pro Arg Ser Cys Met Ser Gln Glu Arg Val Arg  
 885 890 895  
 Pro Gly Asn Pro Ser Thr Val Ser Leu His Val Val Gly Ala Leu Val  
 900 905 910  
 Glu Gly Thr Met Leu Ser Ala Glu Lys Glu Tyr Trp Gly Gly Glu Glu  
 915 920 925

Gly Ala Ser Val Phe Arg Trp Phe Arg Thr Asn Ser Asp Gly Thr Pro  
 Page 941

930

935

Cys Glu Ile Lys Gly Ala Thr Thr Ser Ser Tyr Leu Leu Ser Val Gly  
945 950 955 960

Asp Ile Gly Tyr Phe Ile Ser Val Ser Tyr Glu Pro Val Arg Asn Asp  
965 970 975

Arg Ala Arg Gly Pro Thr Ala Ile Ser Glu Ile Ala Gly Pro Ile Val  
980 985 990

Ala Gly Ile Ile Leu Ser Ser His Leu Leu Ser Ser Phe Ala Val Ser  
995 1000 1005

Glu Gly Val Leu Ile Ser Met Asn Glu Arg Gly His Pro Asn Cys  
1010 1015 1020

Gln Ser Leu Glu Phe Leu Gly Ser Met Ile Glu Gly Gln Arg Leu  
1025 1030 1035

Ser Phe Val Ala Ser Tyr Thr Gly Gly Met Lys Gly Asn Cys Tyr  
1040 1045 1050

Leu Glu Trp Val Arg Val Lys Asn Asn Gly Val Lys Glu Ile Leu  
1055 1060 1065

Ser Ser Asp Glu Phe Leu Asp Leu Ser Leu Asp Asp Val Gly Glu  
1070 1075 1080

Ser Ile Glu Leu Ile Tyr Thr Pro Val Arg Glu Asp Gly Ile Glu  
1085 1090 1095

Gly Ser Pro Arg Ser Ile Arg Thr Asp Gly Ile Ala Pro Ala Asn  
1100 1105 1110

Pro Met Gly Leu Glu Leu Leu Ile Pro Asp Cys Cys Glu Lys Gln  
1115 1120 1125

Glu Val Val Pro His Lys Thr Tyr Phe Gly Gly His Glu Gly Val  
1130 1135 1140

Gly Glu Tyr Ile Trp Tyr Arg Thr Lys Val Lys Leu His Gly Ser  
1145 1150 1155

Ala Leu Thr Glu Ile Ser Tyr Ala Gly Glu Glu Val val val Cys  
1160 1165 1170

Cys	Arg	Thr	Leu	Lys	Tyr	Thr	Pro	Ser	Leu	Glu	Asp	Val	Gly	Ala
	1175					1180					1185			
Tyr	Leu	Val	Leu	Tyr	Trp	Ile	Pro	Thr	Arg	Val	Asp	Gly	Arg	Ser
	1190					1195					1200			
Gly	Lys	Pro	Val	Val	Val	Ile	Thr	Asn	Ser	Pro	Val	Ala	Pro	Ala
	1205					1210					1215			
Asp	Pro	Glu	Val	Ser	Asn	Val	Arg	Val	Lys	Lys	Leu	Phe	Ser	Asp
	1220					1225					1230			
Ala	Tyr	Ser	Gly	Glu	Gly	Glu	Tyr	Phe	Gly	Gly	His	Glu	Gly	Pro
	1235					1240					1245			
Ser	Leu	Phe	Ser	Trp	Tyr	Arg	Glu	Asn	Asp	Gly	Thr	Ile	Asp	Leu
	1250					1255					1260			
Ile	Asp	Gly	Ala	Asn	Ser	Lys	Thr	Tyr	Glu	Val	Thr	Glu	Ser	Asp
	1265					1270					1275			
Tyr	Asn	Cys	Arg	Ile	Leu	Phe	Gly	Tyr	Thr	Pro	Val	Arg	Ser	Asp
	1280					1285					1290			
Ser	Val	Val	Gly	Glu	Leu	Lys	Met	Ser	Glu	Pro	Thr	Glu	Ile	Ile
	1295					1300					1305			
Leu	Pro	Gly	Phe	Ser	Leu	Gln	His	Asn	Pro	Asn	Thr	Phe	Asp	His
	1310					1315					1320			
Asn	Thr	Glu	Val	Pro	Lys	Val	Asp	Met	Leu	Ala	Phe	Thr	Gly	Lys
	1325					1330					1335			
Ala	Val	Gln	Gly	Asp	Val	Leu	Thr	Ala	Val	Gln	Val	Ile	Pro	Lys
	1340					1345					1350			
Thr	Glu	Ile	Gln	Gln	Leu	Val	Trp	Ser	Lys	Tyr	Lys	Gly	Asp	Ile
	1355					1360					1365			
Gln	Tyr	Gln	Trp	Phe	Arg	Ser	Pro	Glu	Ser	Gly	Asp	Lys	Ile	Ser
	1370					1375					1380			
Tyr	Glu	Ala	Leu	Ser	Ser	Glu	Ile	Ser	Cys	Ser	Tyr	Lys	Val	Arg
	1385					1390					1395			
Phe	Glu	Asp	Ile	Gly	Arg	Cys	Leu	Lys	Cys	Glu	Cys	Val	Val	His
	1400					1405					1410			

## 047-E2F-PCT.ST25.txt

Asp	Val	Phe	Gly	Arg	Ser	Ser	Glu	Leu	Ala	Tyr	Ala	Glu	Thr	Asp
	1415					1420					1425			
Pro	Ile	Ser	Pro	Gly	Phe	Pro	Arg	Ile	Glu	Lys	Leu	Glu	Ile	Glu
	1430					1435					1440			
Gly	Gln	Gly	Phe	His	Thr	Asn	Leu	Tyr	Ala	Val	Arg	Gly	Asn	Tyr
	1445					1450					1455			
Phe	Gly	Gly	Lys	Glu	Gly	Lys	Ser	Lys	Ile	Gln	Trp	Leu	Arg	Ser
	1460					1465					1470			
Met	Val	Gly	Ser	Pro	Asp	Leu	Ile	Ser	Ile	Pro	Gly	Glu	Thr	Gly
	1475					1480					1485			
Arg	Met	Tyr	Glu	Ala	Asn	Val	Asp	Asp	Val	Gly	Tyr	Arg	Leu	Val
	1490					1495					1500			
Val	Val	Tyr	Thr	Pro	Ile	Arg	Glu	Asp	Gly	Val	Gln	Gly	His	Pro
	1505					1510					1515			
Val	Ser	Ala	Ser	Thr	Glu	Pro	Val	Ala	Val	Glu	Pro	Asp	Ile	Leu
	1520					1525					1530			
Lys	Glu	Val	Arg	Gln	Lys	Leu	Glu	Thr	Gly	Leu	Val	Lys	Phe	Glu
	1535					1540					1545			
Val	Leu	Cys	Asp	Lys	Asp	Pro	Tyr	Pro	Lys	Lys	Ile	Val	Gly	Glu
	1550					1555					1560			
Gly	Asn	Leu	Glu	Arg	Arg	Met	Leu	Glu	Met	Asn	Arg	Lys	Arg	Ile
	1565					1570					1575			
Lys	Val	Val	Lys	Pro	Gly	Ser	Lys	Thr	Ser	Phe	Ala	Thr	Thr	Glu
	1580					1585					1590			
Val	Arg	Gly	Ser	Tyr	Gly	Pro	Pro	Phe	His	Val	Glu	Thr	Phe	Arg
	1595					1600					1605			
Asn	Asp	Gln	Arg	Arg	Leu	Arg	Ile	Val	Val	Asp	Ser	Glu	Asn	Glu
	1610					1615					1620			
Val	Asp	Ile	Val	Val	Gln	Ser	Arg	His	Leu	Arg	Asp	Val	Ile	Val
	1625					1630					1635			
Leu	Val	Ile	Arg	Gly	Phe	Ala	Gln	Arg	Phe	Asn	Ser	Thr	Ser	Leu
	1640					1645					1650			

Asn Ser Leu Leu Lys Ile Asp Thr  
 1655 1660

<210> 601

<211> 1170

<212> DNA

<213> Arabidopsis thaliana

<400> 601

atgtctcaca ggaagtttga gcacccaaga catggttctc ttggtttcct tccaaggaag	60
agagctaacc gtcacagagg aaaggtgaag gcgttccta aggatgacca aaccaagcct	120
tgcaagttca cagctttcat gggttacaaa gctggatatga ctcacattgt cagagaagtg	180
gagaaacctg gatccaagct tcacaagaag gagacatgtg aggctgttac catcattgag	240
acacctgcta tgggtggttg tggagttggt gcctatgtga agactcctag aggtttgagg	300
tctttgaaca ctgtctgggc acagcatttg agtgaggagg tcaggagaag gttctacaag	360
aactgggcta agtctaagaa gaaggctttc actgggtacg ctaagcagta tgacagtgag	420
gatggcaaga agggatttca ggctcagctt gagaagatga agaagtacgc tactgtcatc	480
cgtgttttgg ctcacactca gatcaggaag atgaagggat tgaagcagaa gaaggctcac	540
atgatggaga tccagatcaa tgggtggtacc attgcccaga aggttgactt tgcctacagt	600
ttctttgaga agcagatccc aattgaagct gtcttcaga aggatgaaat gattgatatc	660
attggtgtga ccaagggtaa gggttatgaa ggtgttggtta ctcgttgggg tgttaccctg	720
cttcctcgta agactcacag aggtctgcgt aagggttgctt gtattggtgc gtggcatcct	780
gctagagtgt cctacactgt tgctagggct ggtcagaacg gttaccatca ccgtactgag	840
cttaacaaga agatttacag gttgggtaag gttggtactg aggcacacac agccatgact	900
gaatatgaca ggactgagaa ggatgtgact ccaatgggag gcttcccaca ctacggtatt	960
gtgaaggatg actacttgat gattaagggg tgctgtgttg gtccaagaa gagagttgta	1020
actctcagac agtcacttct cactcagact tcccgtcttg ctttgaggga gatcaaactc	1080
aagttttattg acaccgcctc cttttttgga catggctcgt tccagacctc ctttgagaag	1140
atgaggtttt acaaccgtgt cacgaagtaa	1170

<210> 602

<211> 389

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 602

```

Met Ser His Arg Lys Phe Glu His Pro Arg His Gly Ser Leu Gly Phe
 1      5      10     15
Leu Pro Arg Lys Arg Ala Asn Arg His Arg Gly Lys Val Lys Ala Phe
 20     25     30
Pro Lys Asp Asp Gln Thr Lys Pro Cys Lys Phe Thr Ala Phe Met Gly
 35     40     45
Tyr Lys Ala Gly Met Thr His Ile Val Arg Glu Val Glu Lys Pro Gly
 50     55     60
Ser Lys Leu His Lys Lys Glu Thr Cys Glu Ala Val Thr Ile Ile Glu
 65     70     75     80
Thr Pro Ala Met Val Val Val Gly Val Val Ala Tyr Val Lys Thr Pro
 85     90     95
Arg Gly Leu Arg Ser Leu Asn Thr Val Trp Ala Gln His Leu Ser Glu
100    105    110
Glu Val Arg Arg Arg Phe Tyr Lys Asn Trp Ala Lys Ser Lys Lys Lys
115    120    125
Ala Phe Thr Gly Tyr Ala Lys Gln Tyr Asp Ser Glu Asp Gly Lys Lys
130    135    140
Gly Ile Gln Ala Gln Leu Glu Lys Met Lys Lys Tyr Ala Thr Val Ile
145    150    155    160
Arg Val Leu Ala His Thr Gln Ile Arg Lys Met Lys Gly Leu Lys Gln
165    170    175
Lys Lys Ala His Met Met Glu Ile Gln Ile Asn Gly Gly Thr Ile Ala
180    185    190
Gln Lys Val Asp Phe Ala Tyr Ser Phe Phe Glu Lys Gln Ile Pro Ile
195    200    205
Glu Ala Val Phe Gln Lys Asp Glu Met Ile Asp Ile Ile Gly Val Thr
210    215    220

```



Lys Gly Lys Gly Tyr Glu Gly Val Val Thr Arg Trp Gly Val Thr Arg  
225 230 235 240

Leu Pro Arg Lys Thr His Arg Gly Leu Arg Lys Val Ala Cys Ile Gly  
245 250 255

Ala Trp His Pro Ala Arg Val Ser Tyr Thr Val Ala Arg Ala Gly Gln  
260 265 270

Asn Gly Tyr His His Arg Thr Glu Leu Asn Lys Lys Ile Tyr Arg Leu  
275 280 285

Gly Lys Val Gly Thr Glu Ala His Thr Ala Met Thr Glu Tyr Asp Arg  
290 295 300

Thr Glu Lys Asp Val Thr Pro Met Gly Gly Phe Pro His Tyr Gly Ile  
305 310 315 320

Val Lys Asp Asp Tyr Leu Met Ile Lys Gly Cys Cys Val Gly Pro Lys  
325 330 335

Lys Arg Val Val Thr Leu Arg Gln Ser Leu Leu Thr Gln Thr Ser Arg  
340 345 350

Leu Ala Leu Glu Glu Ile Lys Leu Lys Phe Ile Asp Thr Ala Ser Ile  
355 360 365

Phe Gly His Gly Arg Phe Gln Thr Ser Leu Glu Lys Met Arg Phe Tyr  
370 375 380

Asn Arg Val Thr Lys  
385

<210> 603

<211> 3291

<212> DNA

<213> Arabidopsis thaliana

<400> 603

atggcatctg agcagttgat gtctcccgcc agtggtggtg gacgctactt tcagatgcag	60
cctgagcaat ttccttcgat ggtctcttcg ctcttctctt tcgcgccggc tcctacgcag	120
gagactaatc gtatTTTTga agaattacca aaagcagtga tcgtctctgt ctctcgccct	180
gatgccggcg atattagccc tgtactcttg tcttacacca ttgagtgcc aatacaagcag	240

ttcaagtggc agcttgtgaa gaaagcatct caagtctttt atttgcattt tgcattgaag	300
aaacgtgctt ttattgaaga aattcacgag aagcaggaac aggttaaaga atggcttcaa	360
aatctaggaa taggggatca tccacccgtt gtgcaagatg aagatgctga tgaagttccg	420
ctacatcaag atgaaagtgc caaaaataga gatgttcctt cgagcgctgc tttgccagtc	480
attcgtcctt tgggaagaca gcagtccata tcagttagag gaaagcatgc aatgcaagaa	540
tatctgaatc attttctggg gaatcttgat atcgtcaatt cacgggaggt ttgcaggttt	600
ttggaggttt cgatgttgtc attctcacca gagtatgggc ccaaattgaa agaagactat	660
atcatggtaa aacatctacc gaagttttca aagagtgatg atgattctaa tagatgttgt	720
gggtgctgtt ggttctgttg ctgcaacgat aattggcaaa aggtgtgggg ggtactaaag	780
ccaggttttc tcgccttatt ggaagatcca tttgatgcga agctattaga tataattgtt	840
tttgatgtcc taccagtttc taatggaaat gatggtgtgg atatatcact agcagtagaa	900
ctgaaggatc ataatcctt gcggcatgca ttcaaggtaa catctggaaa ccggagtata	960
agaataaggg caaagaatag tgcaaaagtt aaagattggg tggcttctat taacgatgct	1020
gctcttagac ctctgaggg ttggtgccat ccccatcgct ttggctcata tgctccgccg	1080
aggggtttga cggatgacgg aagtcaagcc cagtggtttg tagatggtgg agcagctttt	1140
gcagccattg ctgcagcgat tgaaaatgct aaatctgaga tttcatctg tggctggtgg	1200
gtgtgcccag aactctatct taggcgtcct tttgaccgcg atacttcatc cagacttgat	1260
aacttgttgg agaataaagc taagcaagga gttcagatat acatccttat ctacaaggag	1320
gttgctcttg ctttaaagat caacagtgtg tatagcaaac gcaggcttct tggcattcat	1380
gagaatgtgc ggggtacttcg ttatcctgat cttttctcaa gtggtgtcta cctctggtct	1440
caccatgaaa aactcgtcat cgtcgataat caggtttgct ttatcggagg gctagacttg	1500
tgttttggcc gatatgacac gtttgaacat aaagttggag ataacccttc tgtgacatgg	1560
cctggaaagg actattacaa cccagagag tctgaacca atacttgga ggatgctctg	1620
aaagatgaat tagagcgtaa aaagcatcca cggatgcctt ggcagatgtg gcattgtgct	1680
ttatggggac caccttgccg tgatgtggct aggcactttg ttcaacgctg gaactatgct	1740
aagagaaaca aagcaccata tgaggattca attccgcttc ttatgcctca acatcacatg	1800
gttatacccc actacatggg aaggcaagag gagtcagaca ttgaaagcaa gaaagaggaa	1860
gacagtatta gagggattag aagagatgat tcattttctt ctagatcatc tttgcaggac	1920
attccattac ttttgcctca cgaaccagtt gatcaggatg gttcgagtgg ggggcataaa	1980
gaaaatggaa caaacaacag aaatggctct ttctctttcc ggaaatcaaa aattgaacca	2040
gttgatggag atactcctat gaggggcttt gtagatgatc gtaatgggct agatcttcca	2100
gtagcaaagc gtggttctaa tgcaatagat tcagagtggg gggaaacaca agatcatgat	2160

047-E2F-PCT.ST25.txt

```
tatcaggttg ggtcgccaga tgagactggg caagtcggtc cgagaacttc atgccgctgt 2220
cagattatac gaagtgtcag tcagtgggtc gccggtacaa gccaagttga agagagtatc 2280
cattctgctt accgttctct cattgacaaa gctgaacatt ttatctacat tgagaatcag 2340
tttttcatat caggcctttc tggagatgac acagtaaaga accgtgtctt agaagcattg 2400
tacaagagga ttttgcgtgc ccataacgag aagaaaattt tcagggttgt tgttggtata 2460
cctctcctcc ccggtttcca gggaggtatt gacgacagtg gtgcagcatc tgttagagcc 2520
ataatgcatt ggcagtatcg aaccatatac agaggacata actcaatatt gactaatctt 2580
tacaatacta ttggcgtaaa ggctcatgat tatatttcct tctatggcct tagggcatat 2640
ggtaaacttt ctgaggatgg acctgtcgcc actagtcagg tgtatgttca cagtaaaatc 2700
atgatagttg atgaccgtgc tgcattgatt ggatctgcca atattaacga ccggagtttg 2760
cttggctcaa gagattctga gattggagta ctaatcgaag acacagagtt agtagattct 2820
cgcattggcag gaaaaccatg gaaggctgga aaattttctt caagtcttag gctctctttg 2880
tggtccgaac accttggaact tcgtactgga gagatcgacc agattattga tcccgtctct 2940
gattcaacct acaaggagat atggatggca accgcaaaga caaacacaat gatataccag 3000
gatgtcttct cttgtgtgcc caatgatctc atccattcaa gaatggcctt cagacaaagc 3060
ctatcgtatt ggaaagagaa gctgggacac acaacgatcg atttgggaat agcaccagag 3120
aagctggagt cttaccacaa tggagacatc aagagaagcg atccaatgga cagactaaag 3180
gcgataaaag gacatctcgt ctctttccct ttagatttca tgtgcaaaga agatctaaga 3240
ccggtcttca atgagagtga atactacgcc tcccctcaag tcttccattg a 3291
```

<210> 604

<211> 1096

<212> PRT

<213> Arabidopsis thaliana

<400> 604

```
Met Ala Ser Glu Gln Leu Met Ser Pro Ala Ser Gly Gly Gly Arg Tyr
1          5          10          15
```

```
Phe Gln Met Gln Pro Glu Gln Phe Pro Ser Met Val Ser Ser Leu Phe
20          25          30
```

```
Ser Phe Ala Pro Ala Pro Thr Gln Glu Thr Asn Arg Ile Phe Glu Glu
35          40          45
```

047-E2F-PCT.ST25.txt

Leu Pro Lys Ala Val Ile Val Ser Val Ser Arg Pro Asp Ala Gly Asp  
 50 55 60  
 Ile Ser Pro Val Leu Leu Ser Tyr Thr Ile Glu Cys Gln Tyr Lys Gln  
 65 70 75 80  
 Phe Lys Trp Gln Leu Val Lys Lys Ala Ser Gln Val Phe Tyr Leu His  
 85 90 95  
 Phe Ala Leu Lys Lys Arg Ala Phe Ile Glu Glu Ile His Glu Lys Gln  
 100 105 110  
 Glu Gln Val Lys Glu Trp Leu Gln Asn Leu Gly Ile Gly Asp His Pro  
 115 120 125  
 Pro Val Val Gln Asp Glu Asp Ala Asp Glu Val Pro Leu His Gln Asp  
 130 135 140  
 Glu Ser Ala Lys Asn Arg Asp Val Pro Ser Ser Ala Ala Leu Pro Val  
 145 150 155 160  
 Ile Arg Pro Leu Gly Arg Gln Gln Ser Ile Ser Val Arg Gly Lys His  
 165 170 175  
 Ala Met Gln Glu Tyr Leu Asn His Phe Leu Gly Asn Leu Asp Ile Val  
 180 185 190  
 Asn Ser Arg Glu Val Cys Arg Phe Leu Glu Val Ser Met Leu Ser Phe  
 195 200 205  
 Ser Pro Glu Tyr Gly Pro Lys Leu Lys Glu Asp Tyr Ile Met Val Lys  
 210 215 220  
 His Leu Pro Lys Phe Ser Lys Ser Asp Asp Asp Ser Asn Arg Cys Cys  
 225 230 235 240  
 Gly Cys Cys Trp Phe Cys Cys Cys Asn Asp Asn Trp Gln Lys Val Trp  
 245 250 255  
 Gly Val Leu Lys Pro Gly Phe Leu Ala Leu Leu Glu Asp Pro Phe Asp  
 260 265 270  
 Ala Lys Leu Leu Asp Ile Ile Val Phe Asp Val Leu Pro Val Ser Asn  
 275 280 285  
 Gly Asn Asp Gly Val Asp Ile Ser Leu Ala Val Glu Leu Lys Asp His  
 290 295 300

047-E2F-PCT.ST25.txt

Asn Pro Leu Arg His Ala Phe Lys Val Thr Ser Gly Asn Arg Ser Ile  
 305 310 315 320  
 Arg Ile Arg Ala Lys Asn Ser Ala Lys Val Lys Asp Trp Val Ala Ser  
 325 330 335  
 Ile Asn Asp Ala Ala Leu Arg Pro Pro Glu Gly Trp Cys His Pro His  
 340 345 350  
 Arg Phe Gly Ser Tyr Ala Pro Pro Arg Gly Leu Thr Asp Asp Gly Ser  
 355 360 365  
 Gln Ala Gln Trp Phe Val Asp Gly Gly Ala Ala Phe Ala Ala Ile Ala  
 370 375 380  
 Ala Ala Ile Glu Asn Ala Lys Ser Glu Ile Phe Ile Cys Gly Trp Trp  
 385 390 395 400  
 Val Cys Pro Glu Leu Tyr Leu Arg Arg Pro Phe Asp Pro His Thr Ser  
 405 410 415  
 Ser Arg Leu Asp Asn Leu Leu Glu Asn Lys Ala Lys Gln Gly Val Gln  
 420 425 430  
 Ile Tyr Ile Leu Ile Tyr Lys Glu Val Ala Leu Ala Leu Lys Ile Asn  
 435 440 445  
 Ser Val Tyr Ser Lys Arg Arg Leu Leu Gly Ile His Glu Asn Val Arg  
 450 455 460  
 Val Leu Arg Tyr Pro Asp His Phe Ser Ser Gly Val Tyr Leu Trp Ser  
 465 470 475 480  
 His His Glu Lys Leu Val Ile Val Asp Asn Gln Val Cys Phe Ile Gly  
 485 490 495  
 Gly Leu Asp Leu Cys Phe Gly Arg Tyr Asp Thr Phe Glu His Lys Val  
 500 505 510  
 Gly Asp Asn Pro Ser Val Thr Trp Pro Gly Lys Asp Tyr Tyr Asn Pro  
 515 520 525  
 Arg Glu Ser Glu Pro Asn Thr Trp Glu Asp Ala Leu Lys Asp Glu Leu  
 530 535 540

Glu Arg Lys Lys His Pro Arg Met Pro Trp His Asp Val His Cys Ala  
 Page 951

545 550 560

Leu Trp Gly Pro Pro Cys Arg Asp Val Ala Arg His Phe Val Gln Arg  
565 570 575

Trp Asn Tyr Ala Lys Arg Asn Lys Ala Pro Tyr Glu Asp Ser Ile Pro  
580 585 590

Leu Leu Met Pro Gln His His Met Val Ile Pro His Tyr Met Gly Arg  
595 600 605

Gln Glu Glu Ser Asp Ile Glu Ser Lys Lys Glu Glu Asp Ser Ile Arg  
610 615 620

Gly Ile Arg Arg Asp Asp Ser Phe Ser Ser Arg Ser Ser Leu Gln Asp  
625 630 635 640

Ile Pro Leu Leu Leu Pro His Glu Pro Val Asp Gln Asp Gly Ser Ser  
645 650 655

Gly Gly His Lys Glu Asn Gly Thr Asn Asn Arg Asn Gly Pro Phe Ser  
660 665 670

Phe Arg Lys Ser Lys Ile Glu Pro Val Asp Gly Asp Thr Pro Met Arg  
675 680 685

Gly Phe Val Asp Asp Arg Asn Gly Leu Asp Leu Pro Val Ala Lys Arg  
690 695 700

Gly Ser Asn Ala Ile Asp Ser Glu Trp Trp Glu Thr Gln Asp His Asp  
705 710 715 720

Tyr Gln Val Gly Ser Pro Asp Glu Thr Gly Gln Val Gly Pro Arg Thr  
725 730 735

Ser Cys Arg Cys Gln Ile Ile Arg Ser Val Ser Gln Trp Ser Ala Gly  
740 745 750

Thr Ser Gln Val Glu Glu Ser Ile His Ser Ala Tyr Arg Ser Leu Ile  
755 760 765

Asp Lys Ala Glu His Phe Ile Tyr Ile Glu Asn Gln Phe Phe Ile Ser  
770 775 780

Gly Leu Ser Gly Asp Asp Thr Val Lys Asn Arg Val Leu Glu Ala Leu  
785 790 795 800

Tyr Lys Arg Ile Leu Arg Ala His Asn Glu Lys Lys Ile Phe Arg Val  
805 810 815

Val Val Val Ile Pro Leu Leu Pro Gly Phe Gln Gly Gly Ile Asp Asp  
820 825 830

Ser Gly Ala Ala Ser Val Arg Ala Ile Met His Trp Gln Tyr Arg Thr  
835 840 845

Ile Tyr Arg Gly His Asn Ser Ile Leu Thr Asn Leu Tyr Asn Thr Ile  
850 855 860

Gly Val Lys Ala His Asp Tyr Ile Ser Phe Tyr Gly Leu Arg Ala Tyr  
865 870 875 880

Gly Lys Leu Ser Glu Asp Gly Pro Val Ala Thr Ser Gln Val Tyr Val  
885 890 895

His Ser Lys Ile Met Ile Val Asp Asp Arg Ala Ala Leu Ile Gly Ser  
900 905 910

Ala Asn Ile Asn Asp Arg Ser Leu Leu Gly Ser Arg Asp Ser Glu Ile  
915 920 925

Gly Val Leu Ile Glu Asp Thr Glu Leu Val Asp Ser Arg Met Ala Gly  
930 935 940

Lys Pro Trp Lys Ala Gly Lys Phe Ser Ser Ser Leu Arg Leu Ser Leu  
945 950 955 960

Trp Ser Glu His Leu Gly Leu Arg Thr Gly Glu Ile Asp Gln Ile Ile  
965 970 975

Asp Pro Val Ser Asp Ser Thr Tyr Lys Glu Ile Trp Met Ala Thr Ala  
980 985 990

Lys Thr Asn Thr Met Ile Tyr Gln Asp Val Phe Ser Cys Val Pro Asn  
995 1000 1005

Asp Leu Ile His Ser Arg Met Ala Phe Arg Gln Ser Leu Ser Tyr  
1010 1015 1020

Trp Lys Glu Lys Leu Gly His Thr Thr Ile Asp Leu Gly Ile Ala  
1025 1030 1035

Pro Glu Lys Leu Glu Ser Tyr His Asn Gly Asp Ile Lys Arg Ser  
1040 1045 1050

047-E2F-PCT.ST25.txt

Asp Pro Met Asp Arg Leu Lys Ala Ile Lys Gly His Leu Val Ser  
1055 1060 1065

Phe Pro Leu Asp Phe Met Cys Lys Glu Asp Leu Arg Pro Val Phe  
1070 1075 1080

Asn Glu Ser Glu Tyr Tyr Ala Ser Pro Gln Val Phe His  
1085 1090 1095

<210> 605

<211> 1803

<212> DNA

<213> Arabidopsis thaliana

<400> 605

atgaagtacg tgcttgtaac aggaggtggt gtgagtggat tagggaaagg agtaacagca	60
agtagtattg gtgttctcct taaagcttgt ggtcttcgag ttacttctat caaaatcgat	120
ccttatctga acactgatgc tggaactatg tctccatttg aacacggatga agtttttgtc	180
ttggacgatg gtggtgaggt ggatcttgat cttggaaact acgaaagggt tctagatatc	240
aaattaacaa gagacaataa catcactact gggaaaattt atcagcatgt tattgctaaa	300
gagaggaaag gagattattt gggaaagact gttcagggtt ttcctcatgt cactgatgca	360
attcaagatt ggatcgagag agttgcgggt attcctgttg atggagaaga ggatcctgct	420
gatgtttgcy ttattgaatt aggtggaaca ataggtgata ttgaatccgc gccttttatc	480
gaggcgcttg gtcaattctc ttaccgtgta ggcccaggga atttctgtct ggtccatgtc	540
agcctcgtgc ctgtgcttaa tgttggttgg gaacagaaaa ctaagccgac acagcatagt	600
gtcaaggggc tacgaggatt gggcttgacg ccggatatct tagcttgtag gagcacaaag	660
ccacttgaag ataattgtgaa agaaaaacta gctcagtttt gccatgtccc gcttgagtat	720
atcttcactc tctatgatgt tcccaacatt tggcgtattc ctttggtgct aaaggatcag	780
aaagctcatc tggcaatctc aaaagtgtc aatcttgcta gtattcttaa tgagccttct	840
ctaggggaat ggacttccag agctgaatta tgtgacaatt tacatgtgcc ggtgagaatc	900
gctgttggtg ggaaatatac aggcctctct gatgcttata tctctgtctt aaaggctctc	960
ttacatgctt ctgtggcttg tcgcaaaaag ctcgtagttg attgggttcc agcttgatgat	1020
ctcgaaaaag aaactgagaa agagaatcca gatgcgtata aagctgcttg gaagttgcta	1080
aaggggtgtag atggaattct tgtacctgga ggttttggtg atagaggagt ggaaggggaag	1140
attcttgctg caaagtatgc acgtgaaaac aaaatcccgt tcctcggtat ttgtcttgga	1200



047-E2F-PCT.ST25.txt

atgcagattg ctgtcatcga gtttgcacga tcagttctaa gcttgcaaga cgcaaacagc 1260  
acagaattta accctgaaac caaacatcct tgcattcattt tcatgcccga gggtttctaaa 1320  
actcatatgg gaggcactat gcgcttagga tcaagaaaat ccatcttcaa tgtcaaagac 1380  
agcaaatctg caaaactata cgagaacaaa agctttgtag atgagaggca tcgtcacaga 1440  
tacgaggtga atccggacat ggttgaacgc cttgagaagg ccggtctttc tttcgctgcg 1500  
aaagatgaaa ctggcaaacg catggagatc attgaacttc caaaccatcc tttctttatc 1560  
gggtgctcaat tccaccccga gttcaaattc agaccggga aagcttctcc tctgttttta 1620  
gggctcattg cagcatcgtg tggcgagtta gacacagtcc tgaatccagc ttctgctcat 1680  
caacattcga ttagtaacgg tccaacaaac attttcatca atggaacttc caagaaatct 1740  
cccaatggct tggctgatgt aagatataat aacggctact gcaatggcct ctacactaga 1800  
tag 1803

<210> 606

<211> 600

<212> PRT

<213> Arabidopsis thaliana

<400> 606

Met Lys Tyr Val Leu Val Thr Gly Gly Val Val Ser Gly Leu Gly Lys  
1 5 10 15

Gly Val Thr Ala Ser Ser Ile Gly Val Leu Leu Lys Ala Cys Gly Leu  
20 25 30

Arg Val Thr Ser Ile Lys Ile Asp Pro Tyr Leu Asn Thr Asp Ala Gly  
35 40 45

Thr Met Ser Pro Phe Glu His Gly Glu Val Phe Val Leu Asp Asp Gly  
50 55 60

Gly Glu Val Asp Leu Asp Leu Gly Asn Tyr Glu Arg Phe Leu Asp Ile  
65 70 75 80

Lys Leu Thr Arg Asp Asn Asn Ile Thr Thr Gly Lys Ile Tyr Gln His  
85 90 95

Val Ile Ala Lys Glu Arg Lys Gly Asp Tyr Leu Gly Lys Thr Val Gln  
100 105 110

047-E2F-PCT.ST25.txt

Val Val Pro His Val Thr Asp Ala Ile Gln Asp Trp Ile Glu Arg Val  
115 120 125

Ala Val Ile Pro Val Asp Gly Glu Glu Asp Pro Ala Asp Val Cys Val  
130 135 140

Ile Glu Leu Gly Gly Thr Ile Gly Asp Ile Glu Ser Ala Pro Phe Ile  
145 150 155 160

Glu Ala Leu Gly Gln Phe Ser Tyr Arg Val Gly Pro Gly Asn Phe Cys  
165 170 175

Leu Val His Val Ser Leu Val Pro Val Leu Asn Val Val Gly Glu Gln  
180 185 190

Lys Thr Lys Pro Thr Gln His Ser Val Lys Gly Leu Arg Gly Leu Gly  
195 200 205

Leu Thr Pro Asp Ile Leu Ala Cys Arg Ser Thr Lys Pro Leu Glu Asp  
210 215 220

Asn Val Lys Glu Lys Leu Ala Gln Phe Cys His Val Pro Leu Glu Tyr  
225 230 235 240

Ile Phe Thr Leu Tyr Asp Val Pro Asn Ile Trp Arg Ile Pro Leu Leu  
245 250 255

Leu Lys Asp Gln Lys Ala His Leu Ala Ile Ser Lys Val Leu Asn Leu  
260 265 270

Ala Ser Ile Leu Asn Glu Pro Ser Leu Gly Glu Trp Thr Ser Arg Ala  
275 280 285

Glu Leu Cys Asp Asn Leu His Val Pro Val Arg Ile Ala Val Val Gly  
290 295 300

Lys Tyr Thr Gly Leu Ser Asp Ala Tyr Leu Ser Val Leu Lys Ala Leu  
305 310 315 320

Leu His Ala Ser Val Ala Cys Arg Lys Lys Leu Val Val Asp Trp Val  
325 330 335

Pro Ala Cys Asp Leu Glu Lys Glu Thr Glu Lys Glu Asn Pro Asp Ala  
340 345 350

Tyr Lys Ala Ala Trp Lys Leu Leu Lys Gly Val Asp Gly Ile Leu Val  
355 360 365

047-E2F-PCT.ST25.txt

Pro Gly Gly Phe Gly Asp Arg Gly Val Glu Gly Lys Ile Leu Ala Ala  
370 375 380

Lys Tyr Ala Arg Glu Asn Lys Ile Pro Phe Leu Gly Ile Cys Leu Gly  
385 390 395 400

Met Gln Ile Ala Val Ile Glu Phe Ala Arg Ser Val Leu Ser Leu Gln  
405 410 415

Asp Ala Asn Ser Thr Glu Phe Asn Pro Glu Thr Lys His Pro Cys Ile  
420 425 430

Ile Phe Met Pro Glu Gly Ser Lys Thr His Met Gly Gly Thr Met Arg  
435 440 445

Leu Gly Ser Arg Lys Ser Ile Phe Asn Val Lys Asp Ser Lys Ser Ala  
450 455 460

Lys Leu Tyr Glu Asn Lys Ser Phe Val Asp Glu Arg His Arg His Arg  
465 470 475 480

Tyr Glu Val Asn Pro Asp Met Val Glu Arg Leu Glu Lys Ala Gly Leu  
485 490 495

Ser Phe Ala Ala Lys Asp Glu Thr Gly Lys Arg Met Glu Ile Ile Glu  
500 505 510

Leu Pro Asn His Pro Phe Phe Ile Gly Ala Gln Phe His Pro Glu Phe  
515 520 525

Lys Ser Arg Pro Gly Lys Ala Ser Pro Leu Phe Leu Gly Leu Ile Ala  
530 535 540

Ala Ser Cys Gly Glu Leu Asp Thr Val Leu Asn Pro Ala Ser Ala His  
545 550 555 560

Gln His Ser Ile Ser Asn Gly Pro Thr Asn Ile Phe Ile Asn Gly Thr  
565 570 575

Ser Lys Lys Ser Pro Asn Gly Leu Ala Asp Val Arg Tyr Asn Asn Gly  
580 585 590

Tyr Cys Asn Gly Leu Tyr Thr Arg  
595 600

<210> 607

&lt;211&gt; 1020

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 607

```

atgtcaactt cagaaaacac tccgtttaat ggcgttgcct catccaccat tgttcgagct    60
accattgtcc aagcctccac cgtctacaac gatactcccg ccactctaga aaaggcgaac    120
aagttttattg tggaggctgc aagcaaggga tcggagctgg ttgtgttccc ggaggcgttt    180
atcggtggtt atcctcgagg ttttaggttt ggttttagggg tgggagttca taacgaagaa    240
gggcgtgatg agttccgcaa gtaccatgct tctgctatta aagttcctgg ccctgaagta    300
gaaaagttgg cggagttggc cgggaagaac aatgtgtact tggtaatggg agcgatagag    360
aaggatgggt atacactcta ttgcacagca cttttcttca gtccacaagg tcagttcttg    420
ggtaagcacc gtaaactcat gcccacaagt ttggaacggt gcatttgggg tcaaggagac    480
ggatcaacca tccccgttta cgacactccg atttgaaaac tcggtgctgc tatttgctgg    540
gagaatagga tgcccctcta cagaactgct ttgtacgcca aaggcattga gctttattgt    600
gcacctactg ctgatggttc gaaagaatgg caatcgtcga tgcttcacat tgcgatcgaa    660
ggtggatggt tcgtattgtc ggcttgccag ttctgccttc gtaaagattt ccctgatcat    720
cctgactact tgtttaccga ttggtacgac gacaaagagc ctgactctat tgtttcccaa    780
ggtggaagtg ttattatttc acctttggga caggttcttg cgggaccaa ctttgaatca    840
gagggctctca tcacagctga tcttgatctt ggtgatgtag caagagctaa gttgtacttc    900
gattcggttg gacattactc gagaccagat gttttacact tgaccgtaaa tgagcaccgg    960
aagaaaccgg tcacattcat ttcgaagggt gagaaagcgg aagatgactc aaacaagtaa   1020

```

&lt;210&gt; 608

&lt;211&gt; 339

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 608

```

Met Ser Thr Ser Glu Asn Thr Pro Phe Asn Gly Val Ala Ser Ser Thr
1      5      10      15

```

```

Ile Val Arg Ala Thr Ile Val Gln Ala Ser Thr Val Tyr Asn Asp Thr
20      25      30

```

047-E2F-PCT.ST25.txt

Pro Ala Thr Leu Glu Lys Ala Asn Lys Phe Ile Val Glu Ala Ala Ser  
35 40 45

Lys Gly Ser Glu Leu Val Val Phe Pro Glu Ala Phe Ile Gly Gly Tyr  
50 55 60

Pro Arg Gly Phe Arg Phe Gly Leu Gly Val Gly Val His Asn Glu Glu  
65 70 75 80

Gly Arg Asp Glu Phe Arg Lys Tyr His Ala Ser Ala Ile Lys Val Pro  
85 90 95

Gly Pro Glu Val Glu Lys Leu Ala Glu Leu Ala Gly Lys Asn Asn Val  
100 105 110

Tyr Leu Val Met Gly Ala Ile Glu Lys Asp Gly Tyr Thr Leu Tyr Cys  
115 120 125

Thr Ala Leu Phe Phe Ser Pro Gln Gly Gln Phe Leu Gly Lys His Arg  
130 135 140

Lys Leu Met Pro Thr Ser Leu Glu Arg Cys Ile Trp Gly Gln Gly Asp  
145 150 155 160

Gly Ser Thr Ile Pro Val Tyr Asp Thr Pro Ile Gly Lys Leu Gly Ala  
165 170 175

Ala Ile Cys Trp Glu Asn Arg Met Pro Leu Tyr Arg Thr Ala Leu Tyr  
180 185 190

Ala Lys Gly Ile Glu Leu Tyr Cys Ala Pro Thr Ala Asp Gly Ser Lys  
195 200 205

Glu Trp Gln Ser Ser Met Leu His Ile Ala Ile Glu Gly Gly Cys Phe  
210 215 220

Val Leu Ser Ala Cys Gln Phe Cys Leu Arg Lys Asp Phe Pro Asp His  
225 230 235 240

Pro Asp Tyr Leu Phe Thr Asp Trp Tyr Asp Asp Lys Glu Pro Asp Ser  
245 250 255

Ile Val Ser Gln Gly Gly Ser Val Ile Ile Ser Pro Leu Gly Gln Val  
260 265 270

Leu Ala Gly Pro Asn Phe Glu Ser Glu Gly Leu Ile Thr Ala Asp Leu

275

280

285

Asp Leu Gly Asp Val Ala Arg Ala Lys Leu Tyr Phe Asp Ser Val Gly  
 290 295 300

His Tyr Ser Arg Pro Asp Val Leu His Leu Thr Val Asn Glu His Pro  
 305 310 315 320

Lys Lys Pro Val Thr Phe Ile Ser Lys Val Glu Lys Ala Glu Asp Asp  
 325 330 335

Ser Asn Lys

<210> 609

<211> 2103

<212> DNA

<213> Arabidopsis thaliana

<400> 609

atgaacaatc	tgagttatct	tgaaccagat	tactctgagt	ttgttgaagt	tgatcctact	60
ggaagatatg	gaagatacaa	tgaagttctt	ggtaaaggag	cttcaaagac	tgtttataga	120
gcatttgatg	aatatgaagg	catagaagta	gcatggaacc	aagttaagct	atatgatttc	180
ctacaaagcc	ctgaggatct	tgagaggctt	tactgtgaga	ttcatcttct	caagactcta	240
aaacataaga	acatcatgaa	attctacact	tcttgggtcg	ataccgcaa	tcgaaatatac	300
aatttcgtca	ctgaattggt	cacttctggc	accttaagac	aatatagact	cagacataag	360
agagtgaaca	taagagctat	gaagcattgg	tgcagacaaa	tcttgagagg	cttacattat	420
cttcacagcc	atgatcctcc	tgtgatccac	agggatctca	aatgtgacaa	cattttcgtt	480
aacgggaatc	aaggagaggt	caagattgga	gatcttggcc	ttgctgctat	tttaagaaag	540
tcccatgctg	ctcactgctg	cgggactcct	gagttcatgg	cacctgaagt	ttacgaagaa	600
gcatataacg	aattgggttg	tatatactcg	ttcgggtatgt	gtatttttga	gatgggttacg	660
tttgattacc	cgtacagtga	gtgtactcat	cctgctcaga	tctacaagaa	agttatgtcg	720
ggcaagaaac	cggatgcatt	gtacaagggt	aaagaccccg	aggttaaatg	tttcattgag	780
aaatgcttgg	ccaccgtatc	gcttagagtc	tctgctcgtg	agttactaga	tgaccctttt	840
ctccgtatag	acgatggtga	gtttgattta	agatcagttg	atatggaaga	ttcgggtcggg	900
ccactctata	ggcagccgca	ccatcttcct	gactactaca	attaccgctc	gaatagtagc	960
tctttgaatc	gtcagtactc	aaatggcaac	taccgctcga	atagtagctc	attgaatcgt	1020

047-E2F-PCT.ST25.txt

cagtactcaa atggttataa tagtcatcac gagtatcaga atggatgggc gtataatcca 1080  
gctgagacag aggagactca cggcatcgag ctctttgaat ctcgaaacaa tgatgatcaa 1140  
gaagaagaaa agaaatctgg taatgttgac ataaccatca aagggaagag gagagatgat 1200  
ggtggcttgt tcttgcgctc taggatcgct gacaaagaag gacgtgtccg aaacatttac 1260  
ttcccatttg acattgagac ggacaccgca ttgagcgttg caacagagat ggtagcggaa 1320  
ctggatatgg acgatcatgg agtcacaaaa atagccaaca tgattgacgg tgagatatct 1380  
tctcttgtag ctagttggag accgggacct gaattcgaag aatgtcttgc ggctgcggcg 1440  
gcggaacatg ctgcgagcat ttgcaacaac tgcgtatcaa accgcacctc aatgggctcg 1500  
gtgatggatt tcctgagaac caatcctggg gcaaatgtga tacaatgttg cagaaacggg 1560  
tgcggtgaga ctcatggtcg gtttgaagag atcacgatca gagaaaccga ggttcgtctt 1620  
agagagctat ggaagctgca gcaacagcaa gaaagccgag agctaagctc gatagattca 1680  
ggccataacc attccgaaga agaggaggaa gaagaggtgc tatacgaaga ccccgaaaac 1740  
atgttttctt gcgaggcagg taacgagata aaccatatat cgggttcttg atcgttctcg 1800  
tttatgccat ctaaatactg cgatgagcca tccgaaaaaa ccgaaaatca ggtccaacaa 1860  
gagttgagat ggcttaaagc caaatgccaa attgagctta gagatattca ggatgaacaa 1920  
ctaaaaaccc ggtggccgga atccggagaa gaggtggaaa tttctccgaa agacgggttc 1980  
ttgggttcgg tttccgggtt aggaagagaa gaagatacgg tgaaagagat gtttggagaa 2040  
agattggtac caaagtgtct gaaaagaaca acttcacttc ctgttgatgc cattgattct 2100  
tga 2103

<210> 610

<211> 700

<212> PRT

<213> Arabidopsis thaliana

<400> 610

Met Asn Asn Leu Ser Tyr Leu Glu Pro Asp Tyr Ser Glu Phe Val Glu  
1 5 10 15

Val Asp Pro Thr Gly Arg Tyr Gly Arg Tyr Asn Glu Val Leu Gly Lys  
20 25 30

Gly Ala Ser Lys Thr Val Tyr Arg Ala Phe Asp Glu Tyr Glu Gly Ile  
35 40 45

047-E2F-PCT.ST25.txt

Glu Val Ala Trp Asn Gln Val Lys Leu Tyr Asp Phe Leu Gln Ser Pro  
 50 55 60  
 Glu Asp Leu Glu Arg Leu Tyr Cys Glu Ile His Leu Leu Lys Thr Leu  
 65 70 75 80  
 Lys His Lys Asn Ile Met Lys Phe Tyr Thr Ser Trp Val Asp Thr Ala  
 85 90 95  
 Asn Arg Asn Ile Asn Phe Val Thr Glu Leu Phe Thr Ser Gly Thr Leu  
 100 105 110  
 Arg Gln Tyr Arg Leu Arg His Lys Arg Val Asn Ile Arg Ala Met Lys  
 115 120 125  
 His Trp Cys Arg Gln Ile Leu Arg Gly Leu His Tyr Leu His Ser His  
 130 135 140  
 Asp Pro Pro Val Ile His Arg Asp Leu Lys Cys Asp Asn Ile Phe Val  
 145 150 155 160  
 Asn Gly Asn Gln Gly Glu Val Lys Ile Gly Asp Leu Gly Leu Ala Ala  
 165 170 175  
 Ile Leu Arg Lys Ser His Ala Ala His Cys Val Gly Thr Pro Glu Phe  
 180 185 190  
 Met Ala Pro Glu Val Tyr Glu Glu Ala Tyr Asn Glu Leu Val Asp Ile  
 195 200 205  
 Tyr Ser Phe Gly Met Cys Ile Leu Glu Met Val Thr Phe Asp Tyr Pro  
 210 215 220  
 Tyr Ser Glu Cys Thr His Pro Ala Gln Ile Tyr Lys Lys Val Met Ser  
 225 230 235 240  
 Gly Lys Lys Pro Asp Ala Leu Tyr Lys Val Lys Asp Pro Glu Val Lys  
 245 250 255  
 Cys Phe Ile Glu Lys Cys Leu Ala Thr Val Ser Leu Arg Val Ser Ala  
 260 265 270  
 Arg Glu Leu Leu Asp Asp Pro Phe Leu Arg Ile Asp Asp Gly Glu Phe  
 275 280 285  
 Asp Leu Arg Ser Val Asp Met Glu Asp Ser Val Gly Pro Leu Tyr Arg  
 290 295 300



047-E2F-PCT.ST25.txt

Gln Pro His His Leu Pro Asp Tyr Tyr Asn Tyr Pro Ser Asn Ser Ser  
305 310 315 320

Ser Leu Asn Arg Gln Tyr Ser Asn Gly Asn Tyr Pro Ser Asn Ser Ser  
325 330 335

Ser Leu Asn Arg Gln Tyr Ser Asn Gly Tyr Asn Ser His His Glu Tyr  
340 345 350

Gln Asn Gly Trp Ala Tyr Asn Pro Ala Glu Thr Glu Glu Thr His Gly  
355 360 365

Ile Glu Leu Phe Glu Ser Arg Asn Asn Asp Asp Gln Glu Glu Glu Lys  
370 375 380

Lys Ser Gly Asn Val Asp Ile Thr Ile Lys Gly Lys Arg Arg Asp Asp  
385 390 395 400

Gly Gly Leu Phe Leu Arg Leu Arg Ile Ala Asp Lys Glu Gly Arg Val  
405 410 415

Arg Asn Ile Tyr Phe Pro Phe Asp Ile Glu Thr Asp Thr Ala Leu Ser  
420 425 430

Val Ala Thr Glu Met Val Ala Glu Leu Asp Met Asp Asp His Gly Val  
435 440 445

Thr Lys Ile Ala Asn Met Ile Asp Gly Glu Ile Ser Ser Leu Val Pro  
450 455 460

Ser Trp Arg Pro Gly Pro Glu Phe Glu Glu Cys Leu Ala Ala Ala Ala  
465 470 475 480

Ala Ala Asn Ala Ala Ser Ile Cys Asn Asn Cys Val Ser Asn Arg Thr  
485 490 495

Ser Met Gly Ser Val Met Asp Phe Leu Arg Thr Asn Pro Gly Ala Asn  
500 505 510

Val Ile Gln Cys Cys Arg Asn Gly Cys Gly Glu Thr His Gly Arg Phe  
515 520 525

Glu Glu Ile Thr Ile Arg Glu Thr Glu Val Arg Leu Arg Glu Leu Trp  
530 535 540

047-E2F-PCT.ST25.txt

545					550					555					560
Gly	His	Asn	His	Ser 565	Glu	Glu	Glu	Glu	Glu 570	Glu	Glu	Val	Leu	Tyr 575	Glu
Asp	Pro	Glu	Asn 580	Met	Phe	Ser	Cys	Glu 585	Ala	Gly	Asn	Glu	Ile 590	Asn	His
Ile	Ser	Gly 595	Ser	Gly	Ser	Phe	Ser 600	Phe	Met	Pro	Ser	Lys 605	Tyr	Cys	Asp
Glu	Pro 610	Ser	Glu	Lys	Thr	Glu 615	Asn	Gln	Val	Gln	Gln 620	Glu	Leu	Arg	Trp
Leu 625	Lys	Ala	Lys	Cys	Gln 630	Ile	Glu	Leu	Arg	Asp 635	Ile	Gln	Asp	Glu	Gln 640
Leu	Lys	Thr	Arg	Trp 645	Pro	Glu	Ser	Gly	Glu 650	Glu	Val	Glu	Ile	Ser 655	Pro
Lys	Asp	Gly	Phe 660	Leu	Gly	Ser	Val	Ser 665	Gly	Leu	Gly	Arg	Glu 670	Glu	Asp
Thr	Val	Lys 675	Glu	Met	Phe	Gly	Glu 680	Arg	Leu	Val	Pro	Lys 685	Cys	Leu	Lys
Arg	Thr 690	Thr	Ser	Leu	Pro	Val 695	Asp	Ala	Ile	Asp	Ser 700				

$\langle 210 \rangle$     611

<211> 753

<212> DNA

<213> Arabidopsis thaliana

<400>    611

atgttggtcta	tcttccacga	ggcgtttgct	catccgccgg	aggaactcaa	cagtccggca	60
tctgagaaat	gctctaaaca	accaaaaactt	ccagaagaaa	ccctaaatga	tttcttatta	120
cgttaccctc	tcaacacttt	ctccatgtct	ttcggacaag	ctgctgttct	tgcttacggt	180
cgccccctctg	cttcctttctc	catccaccag	aggttgtttt	gtggatttga	tgacatctac	240
tgtctctttct	ttgggagctt	gaacaatctg	tgtcagctaa	acaaacagta	tggtctcacc	300
aagacaacaa	acgaggccat	gtttgtgatc	gaagcttata	ggactcttag	agacagaggt	360
ccttatccag	ctgatcaggt	cgtcaaagac	ttagacggta	gcttttccct	tgtgggttat	420

047-E2F-PCT.ST25.txt

gatagcaaag cgggctctgt cttcactgct ctgggatctg atggaggggt gaagctatac 480  
 tggggcatag ctgctgatgg atctgttggt atatcagatg atttggatgt tatcaaagag 540  
 ggttgtgcta aatcttttgc tccatttcct acaggggtgta tgttccatag tgaaggaggg 600  
 ttaatgagct ttgagcatcc aatgaacaag atcaaggcga tgccgaggggt agacagtga 660  
 ggagttctat gcggtgccaa cttcaagggt gatgtgtaca atcgtgttaa cagtatccct 720  
 cgctcaggaa gtgaagccaa ttggtctctc tga 753

<210> 612

<211> 250

<212> PRT

<213> Arabidopsis thaliana

<400> 612

Met Leu Ala Ile Phe His Glu Ala Phe Ala His Pro Pro Glu Glu Leu  
 1 5 10 15

Asn Ser Pro Ala Ser Glu Lys Cys Ser Lys Gln Pro Lys Leu Pro Glu  
 20 25 30

Glu Thr Leu Asn Asp Phe Leu Leu Arg Tyr Pro Leu Asn Thr Phe Ser  
 35 40 45

Met Ser Phe Gly Gln Ala Ala Val Leu Ala Tyr Val Arg Pro Ser Ala  
 50 55 60

Ser Phe Ser Ile His Gln Arg Leu Phe Cys Gly Phe Asp Asp Ile Tyr  
 65 70 75 80

Cys Leu Phe Phe Gly Ser Leu Asn Asn Leu Cys Gln Leu Asn Lys Gln  
 85 90 95

Tyr Gly Leu Thr Lys Thr Thr Asn Glu Ala Met Phe Val Ile Glu Ala  
 100 105 110

Tyr Arg Thr Leu Arg Asp Arg Gly Pro Tyr Pro Ala Asp Gln Val Val  
 115 120 125

Lys Asp Leu Asp Gly Ser Phe Ser Phe Val Val Tyr Asp Ser Lys Ala  
 130 135 140

Gly Ser Val Phe Thr Ala Leu Gly Ser Asp Gly Gly Val Lys Leu Tyr  
 Page 965

145                      150                      155                      160  
 Trp Gly Ile Ala Ala Asp Gly Ser Val Val Ile Ser Asp Asp Leu Asp  
                                  165                                   170                                   175  
 Val Ile Lys Glu Gly Cys Ala Lys Ser Phe Ala Pro Phe Pro Thr Gly  
                                  180                                   185                                   190  
 Cys Met Phe His Ser Glu Gly Gly Leu Met Ser Phe Glu His Pro Met  
                                  195                                   200                                   205  
 Asn Lys Ile Lys Ala Met Pro Arg Val Asp Ser Glu Gly Val Leu Cys  
                                  210                                   215                                   220  
 Gly Ala Asn Phe Lys Val Asp Val Tyr Asn Arg Val Asn Ser Ile Pro  
                                  225                                   230                                   235                                   240  
 Arg Arg Gly Ser Glu Ala Asn Trp Ser Leu  
                                  245                                   250

<210> 613

<211> 1839

<212> DNA

<213> Arabidopsis thaliana

<400> 613

```

atggacttct tcacttcaag caaagctaag aaagatagca aaaaatcatc aggactcttt      60
ggcaagaaaa ctgtcagcaa gagcactccg ggcagccctg ctcattcccc cggcgctaga      120
tccccgcccc catcgtatct ttcaaacaaa agagccgaaa cagagtacga tttcccatg      180
tccaatgaac aaagaccata ctggaaacag cctgcctctg aacgcgtccc caactcccac      240
cctaggcctc ccgtgtatgg atacggcacg cccgaccatc gtcgagacca cggtagagaa      300
agaatggagg ccatgagtta tgagccagag accaacgctc cttccagccc atatcatcca      360
gctggaaacc gcacgcctga acgtcctagg aaatcaaccg agtatcgtcg agaacaccag      420
gatcgaatgt atgaagcaga taccggaagc aatgcgagcc catttcaccc attcagaagc      480
cctttctccat ctccattcca cagcctgat cgccgcagag accactacga catgtatgag      540
cctgaggcca acaccatgct gcagaatagc gctccaggga gccattcca tccagctgga      600
agccgctctc caccaccata cagaacgcct gatcgtcgta gtaactatga taaagagcaa      660
tttgaggacc tgtacgagca agatggtgat gtcacaccgc gaaacagctc tccaccgagc      720
ccgtttcatc cagcagcata caaaacgtct gatcaacgta gtaaccatgg taaagagcaa      780

```

047-E2F-PCT.ST25.txt

```

attgaggact tttatgagca agatgacgat gtaacaccac gaaacagctc tccacctagc      840
ccattgcatc cagcagcaag ccattcacca ccaccaccac aaccatacag aacgcctgac      900
catcgtagaa gccaccagga taacgaggat ttcgaggcaa tgtatgagct agatggcgac      960
ttaatacacc agaagagcgc tcctccgagt cccgttcatg gaccatacta ttcatccagc     1020
gacgacgata atcactccac ctacctctat ccagaaatcc gcagcccact tcgttccagg     1080
atcgtatccg agaacagcac gcctgttcac cacaactacc agatagttgc ggccgagacc     1140
tatgagcaag acaagcagtt cgagccgccg gagctgcctg acgagtcaca aagcttcaca     1200
atgcaggaga ttaccaaagt gcgaggactc aagaactacg aaagcggcaa ggaagagagt     1260
caatcaatga tatccgaggc ttacgtatcc gtcgcgaatt acagagttag gcagagcgtg     1320
tcggaaaccc tgcaggcgat catcgacaag cacggcgaca tcgcagcctc ctcgaagctg     1380
caagcaatgg caactcggtc ttattacctg gaatccctag ccgctgtggt gatggagctg     1440
aaaaagacgg ttctgaggga ttgacgaaa acgcgcgtgg cggagatcgc ggcggtggtg     1500
aaagacatgg agtcggtgaa aatcaacgtg tcgtggctaa agacagcggg aacggaactg     1560
gcggaggcgg tggagtatct cgggcagtac gacacggcga aggtggagaa agaggtgtgc     1620
gagagagatc tgacggcgaa aaagggggag atggaggaga tgacggcgga gctggtgaag     1680
agggagaagg aaatcaaaga atgcagagag aaggtgacgg tggtcgcagg gaggctaggg     1740
cagctggaga tgaaagggtc gaaattgaac aagaatctcg acctcttcca gtccaaagtc     1800
cacaaattcc aaggagaagc cgtccttctc cacctttag                               1839

```

<210> 614

<211> 612

<212> PRT

<213> Arabidopsis thaliana

<400> 614

```

Met Asp Phe Phe Thr Ser Ser Lys Ala Lys Lys Asp Ser Lys Lys Ser
1          5          10         15

```

```

Ser Gly Leu Phe Gly Lys Lys Thr Val Ser Lys Ser Thr Pro Gly Ser
          20          25         30

```

```

Pro Ala His Pro Pro Gly Ala Arg Ser Pro Pro Pro Ser Tyr Leu Ser
          35          40         45

```

```

Asn Lys Arg Ala Glu Thr Glu Tyr Asp Phe Pro Met Ser Asn Glu Gln

```

50

55

Arg Pro Tyr Trp Lys Gln Pro Ala Ser Glu Arg Val Pro Asn Ser His  
65 70 75 80

Pro Arg Pro Pro Val Tyr Gly Tyr Gly Thr Pro Asp His Arg Arg Asp  
85 90 95

His Gly Arg Glu Arg Met Glu Ala Met Ser Tyr Glu Pro Glu Thr Asn  
100 105 110

Ala Pro Ser Ser Pro Tyr His Pro Ala Gly Asn Arg Thr Pro Glu Arg  
115 120 125

Pro Arg Lys Ser Thr Glu Tyr Arg Arg Glu His Gln Asp Arg Met Tyr  
130 135 140

Glu Ala Asp Thr Arg Ser Asn Ala Ser Pro Phe His Pro Phe Arg Ser  
145 150 155 160

Pro Ser Pro Ser Pro Phe His Thr Pro Asp Arg Arg Arg Asp His Tyr  
165 170 175

Asp Met Tyr Glu Pro Glu Ala Asn Thr Met Leu Gln Asn Ser Ala Pro  
180 185 190

Gly Ser Pro Phe His Pro Ala Gly Ser Arg Ser Pro Pro Pro Tyr Arg  
195 200 205

Thr Pro Asp Arg Arg Ser Asn Tyr Asp Lys Glu Gln Phe Glu Asp Leu  
210 215 220

Tyr Glu Gln Asp Gly Asp Val Thr Pro Arg Asn Ser Ser Pro Pro Ser  
225 230 235 240

Pro Phe His Pro Ala Ala Tyr Lys Thr Ser Asp Gln Arg Ser Asn His  
245 250 255

Gly Lys Glu Gln Ile Glu Asp Phe Tyr Glu Gln Asp Asp Asp Val Thr  
260 265 270

Pro Arg Asn Ser Ser Pro Pro Ser Pro Leu His Pro Ala Ala Ser His  
275 280 285

Ser Pro Pro Pro Pro Gln Pro Tyr Arg Thr Pro Asp His Arg Arg Ser  
290 295 300

His Gln Asp Asn Glu Asp Phe Glu Ala Met Tyr Glu Leu Asp Gly Asp  
 305 310 315 320  
 Leu Ile His Gln Lys Ser Ala Pro Pro Ser Pro Val His Gly Pro Tyr  
 325 330 335  
 Tyr Ser Ser Ser Asp Asp Asp Asn His Ser Thr Tyr Leu Tyr Pro Glu  
 340 345 350  
 Ile Arg Ser Pro Leu Arg Ser Arg Ile Val Ser Glu Asn Ser Thr Pro  
 355 360 365  
 Val His His Asn Tyr Gln Ile Val Ala Ala Glu Thr Tyr Glu Gln Asp  
 370 375 380  
 Lys Gln Phe Glu Pro Pro Glu Leu Pro Asp Glu Ser Gln Ser Phe Thr  
 385 390 395 400  
 Met Gln Glu Ile Thr Lys Met Arg Gly Leu Lys Asn Tyr Glu Ser Gly  
 405 410 415  
 Lys Glu Glu Ser Gln Ser Met Ile Ser Glu Ala Tyr Val Ser Val Ala  
 420 425 430  
 Asn Tyr Arg Val Arg Gln Ser Val Ser Glu Thr Leu Gln Ala Ile Ile  
 435 440 445  
 Asp Lys His Gly Asp Ile Ala Ala Ser Ser Lys Leu Gln Ala Met Ala  
 450 455 460  
 Thr Arg Ser Tyr Tyr Leu Glu Ser Leu Ala Ala Val Val Met Glu Leu  
 465 470 475 480  
 Lys Lys Thr Val Leu Arg Asp Leu Thr Lys Thr Arg Val Ala Glu Ile  
 485 490 495  
 Ala Ala Val Val Lys Asp Met Glu Ser Val Lys Ile Asn Val Ser Trp  
 500 505 510  
 Leu Lys Thr Ala Val Thr Glu Leu Ala Glu Ala Val Glu Tyr Phe Gly  
 515 520 525  
 Gln Tyr Asp Thr Ala Lys Val Glu Lys Glu Val Cys Glu Arg Asp Leu  
 530 535 540  
 Thr Ala Lys Lys Gly Glu Met Glu Glu Met Thr Ala Glu Leu Val Lys  
 545 550 555 560

047-E2F-PCT.ST25.txt

Arg Glu Lys Glu Ile Lys Glu Cys Arg Glu Lys Val Thr Val Val Ala  
565 570 575

Gly Arg Leu Gly Gln Leu Glu Met Lys Gly Ser Lys Leu Asn Lys Asn  
580 585 590

Leu Asp Leu Phe Gln Ser Lys Val His Lys Phe Gln Gly Glu Ala Val  
595 600 605

Leu Leu His Leu  
610

<210> 615

<211> 678

<212> DNA

<213> Arabidopsis thaliana

<400> 615

atgggttact ggaattccaa ggttgttcca aaattcaaga agttattcga gaaaaatagt	60
gctaagaagg ctgctgctgc tgaagctacc aagacctttg atgaatctaa ggaaacaatc	120
aacaaggaaa ttgaggagaa aaagacagaa ctccaaccaa aggtcgtgga aacctatgaa	180
gccacgtctg cagaagtcaa ggctttggtg agagacccta aggtggctgg tttgaagaaa	240
aactcagcgg ctgtgcagaa gtacctcgag gagctagtca aaattgaatt ccccggatca	300
aaagcgggtga gtgaggcttc gtctagcttc ggagctggct atgtcgcagg accggtcacg	360
ttcatattcg agaaggtatc tgttttcctc ccggaggagg tgaagactaa agaaataaccg	420
gtggaggaag tgaaagctga agaacctgcc aaaactgaag aaccagccaa aaccgaagga	480
acaagtgggtg agaaagagga gattgttgaa gagacaaaga aaggcgagac ccctgaaacc	540
gcggtcgtgg aggagaagaa accagaggta gaggagaaga aggaagaggc tactccggct	600
ccggcagtgg ttgaaactcc agttaaggaa ccggagacaa cgacgacagc gccagtggct	660
gaaccaccaa agccttga	678

<210> 616

<211> 225

<212> PRT

<213> Arabidopsis thaliana



&lt;400&gt; 616

```

Met Gly Tyr Trp Asn Ser Lys Val Val Pro Lys Phe Lys Lys Leu Phe
 1          5          10          15

Glu Lys Asn Ser Ala Lys Lys Ala Ala Ala Glu Ala Thr Lys Thr
 20          25          30

Phe Asp Glu Ser Lys Glu Thr Ile Asn Lys Glu Ile Glu Glu Lys Lys
 35          40          45

Thr Glu Leu Gln Pro Lys Val Val Glu Thr Tyr Glu Ala Thr Ser Ala
 50          55          60

Glu Val Lys Ala Leu Val Arg Asp Pro Lys Val Ala Gly Leu Lys Lys
 65          70          75          80

Asn Ser Ala Ala Val Gln Lys Tyr Leu Glu Glu Leu Val Lys Ile Glu
 85          90          95

Phe Pro Gly Ser Lys Ala Val Ser Glu Ala Ser Ser Ser Phe Gly Ala
100          105          110

Gly Tyr Val Ala Gly Pro Val Thr Phe Ile Phe Glu Lys Val Ser Val
115          120          125

Phe Leu Pro Glu Glu Val Lys Thr Lys Glu Ile Pro Val Glu Glu Val
130          135          140

Lys Ala Glu Glu Pro Ala Lys Thr Glu Glu Pro Ala Lys Thr Glu Gly
145          150          155          160

Thr Ser Gly Glu Lys Glu Glu Ile Val Glu Glu Thr Lys Lys Gly Glu
165          170          175

Thr Pro Glu Thr Ala Val Val Glu Glu Lys Lys Pro Glu Val Glu Glu
180          185          190

Lys Lys Glu Glu Ala Thr Pro Ala Pro Ala Val Val Glu Thr Pro Val
195          200          205

Lys Glu Pro Glu Thr Thr Thr Thr Ala Pro Val Ala Glu Pro Pro Lys
210          215          220

Pro
225

```

&lt;210&gt; 617

&lt;211&gt; 2934

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 617

```

atgtcgagaa gaccagacct cctacgtggc agcgtggctg ccaccgtggc tgccacgttt      60
ctcctcttca ttttcccgcc gaatgttgaa tcgaccgttg agaaacaagc tctgtttcgc      120
ttcaaaaacc gcctcgacga ctctcacaac attctacaat cttggaagcc ttccgattca      180
ccatgcgtgt ttcgcggcat cacatgcgac ccgttatccg gcgaagtcac cgggtatttct      240
ctaggaaacg taaatctctc cggcaccatt tctccatcaa tctcagctct caciaagctc      300
tctacgctat cgcttccatc taacttcac tccggaagaa tcccgccaga gatagtcaac      360
tgcaaaaacc ttaaagttct caatctcacc tccaacagac tctccggaac aatcccaaac      420
ctttctcctc taaagtcctc agaaattctc gacatctccg ggaattttct taacggagag      480
tttcaaagct ggattgggaa tatgaatcag ttggtttctc tcggtcttgg caacaatcac      540
tacgaagaag gtataattcc tgagagtatt ggaggtttta agaaacttac ttggctgttc      600
ttagctcgct ccaacttgac cgggaagatt ccaaactcga tctttgatct gaatgctctc      660
gacactttcg acatcgcgaa caacgcaatc tccgatgatt tccaatctt aatctcaaga      720
ttggtaaatc tcaccaagat tgagttgttc aacaacagct taacaggtaa aatccctccg      780
gagataaaga acttgactcg ttctacgcaa ttcgacatct cttcgaatca gttgagcggg      840
gttttacctg aagaactcgg agttttgaag gagctcagag ttttccactg tcatgaaaac      900
aacttcaccg gcgaatttcc ttctggtttc ggcgatctaa gtcacctcac ttctctttcg      960
atztatagaa acaacttctc cgggtgaattt ccggttaaca tcggccgggt ctcgccgctc     1020
gacacggttg atatatctga aaacgagttt actggtccat ttccaagatt cttatgccaa     1080
aacaagaaac tacaattctt gctcgccttg cagaacgagt tttccggcga gattccgaga     1140
tcttacggcg agtgcaaatc tctattgaga ctaaggatta acaacaaccg tctaagtggg     1200
caagttgttg aaggattctg gtctctaccg cttgctaaga tgattgatct cagcgataac     1260
gaactcaccg gagaggtttc tcctcagatt ggactttcaa cagaactgag tcagctcatt     1320
ttacagaaca acagattttc cggcaagatt cctcgtgagc tcggaagatt gactaatata     1380
gagaggatth atctgagcaa caacaatctt tccggcgaaa ttccgatgga agttggagat     1440
ttgaaagagt tatcatctct gcatcttgaa aacaattcat taacaggatt tatccctaag     1500
gaattgaaga attgtgtcaa acttgttgat ctgaatctcg ctaagaactt cttgaccgga     1560
gaaatcccta acagtttatc tcagattgct tctttaaact cgttggattt ctcagggaat     1620

```

047-E2F-PCT.ST25.txt

```

aggctaacag gtgaaatccc ggcgagtcctt gtgaagttga agctgagttt cattgacttg 1680
tctggaaatc aactttcagg aagaatacca ccgcatcttt tagcgggtggg aggatccacc 1740
gcgttctcac gtaacgagaa gctctgtgtt gataaagaga acgctaaaac aaatcagaac 1800
ttgggggttga gtatttgagc tggctaccaa aacgtgaaga ggaatagttc actcgatgga 1860
acactcttgt tcttggctct tgcaattgtt gtggtagtac tagtgagtgg tttgttcgag 1920
ttgcgttaca gagttgtgaa gatacgtgag cttgattcgg aaaacagaga tatcaacaag 1980
gcggatgcga agtggaatat cgcgtctttt catcaaattg agttggacgt tgatgagatt 2040
tgtagattgg atgaagatca tgtgattgga tctggaagtg caggaaaagt gtaccgtggt 2100
gatttgaaaa aaggtggcgg gacagtggcg gttaagtggg tgaagagagg aggaggagaa 2160
gaaggtgatg gaacagaggt ctctgttgcg gagatggaga ttcttggaag gattagacac 2220
agaaacgtgt tgaaactcta cgcttgtttg gttggaagag gttctagata tttggtgttt 2280
gagttcatgg agaattggaa cttgtatcaa gctcttggca acaatattaa aggcggtcta 2340
ccagaactgg attggctcaa aagatataaa attgcggtgg gagcggcaaa aggaatcgca 2400
tatttgcata atgattgttg tccacccatc attcacagag atataaagtc aagcaacatt 2460
ttacttgacg gagattatga gtcgaaaatc gcagattttg gagttgcaaa agttgcagac 2520
aaaggatatg aatggagctg cgttgctgga actcatggct atatggctcc tgagctggct 2580
tactccttca aggcaacgga aaagagtgat gtgtacagct tcggtgtggg tcttctagag 2640
ctagttaccg gtcttcggcc tatggaagac gagtttggag aggggaaaga cattgttgac 2700
tatgtctact ctcagattca acaagatccg aggaaccttc aaaatgtttt ggacaagcaa 2760
gttttgtcca cttatataga agaaagcatg attagagttc tgaagatggg tcttctctgc 2820
actacgaagc tcccgaatct cagaccgagt atgagagagg tcgtgagaaa gcttgacgac 2880
gctgatccct gtgtctccaa ttctcaagac acaactggaa agattacagt atag 2934

```

<210> 618

<211> 977

<212> PRT

<213> Arabidopsis thaliana

<400> 618

Met Ser Arg Arg Pro Asp Leu Leu Arg Gly Ser Val Val Ala Thr Val  
1 5 10 15

Ala Ala Thr Phe Leu Leu Phe Ile Phe Pro Pro Asn Val Glu Ser Thr  
Page 973

Val Glu Lys Gln Ala Leu Phe Arg Phe Lys Asn Arg Leu Asp Asp Ser  
 35 40 45  
 His Asn Ile Leu Gln Ser Trp Lys Pro Ser Asp Ser Pro Cys Val Phe  
 50 55 60  
 Arg Gly Ile Thr Cys Asp Pro Leu Ser Gly Glu Val Ile Gly Ile Ser  
 65 70 75 80  
 Leu Gly Asn Val Asn Leu Ser Gly Thr Ile Ser Pro Ser Ile Ser Ala  
 85 90 95  
 Leu Thr Lys Leu Ser Thr Leu Ser Leu Pro Ser Asn Phe Ile Ser Gly  
 100 105 110  
 Arg Ile Pro Pro Glu Ile Val Asn Cys Lys Asn Leu Lys Val Leu Asn  
 115 120 125  
 Leu Thr Ser Asn Arg Leu Ser Gly Thr Ile Pro Asn Leu Ser Pro Leu  
 130 135 140  
 Lys Ser Leu Glu Ile Leu Asp Ile Ser Gly Asn Phe Leu Asn Gly Glu  
 145 150 155 160  
 Phe Gln Ser Trp Ile Gly Asn Met Asn Gln Leu Val Ser Leu Gly Leu  
 165 170 175  
 Gly Asn Asn His Tyr Glu Glu Gly Ile Ile Pro Glu Ser Ile Gly Gly  
 180 185 190  
 Leu Lys Lys Leu Thr Trp Leu Phe Leu Ala Arg Ser Asn Leu Thr Gly  
 195 200 205  
 Lys Ile Pro Asn Ser Ile Phe Asp Leu Asn Ala Leu Asp Thr Phe Asp  
 210 215 220  
 Ile Ala Asn Asn Ala Ile Ser Asp Asp Phe Pro Ile Leu Ile Ser Arg  
 225 230 235 240  
 Leu Val Asn Leu Thr Lys Ile Glu Leu Phe Asn Asn Ser Leu Thr Gly  
 245 250 255  
 Lys Ile Pro Pro Glu Ile Lys Asn Leu Thr Arg Leu Arg Glu Phe Asp  
 260 265 270

Ile Ser Ser Asn Gln Leu Ser Gly Val Leu Pro Glu Glu Leu Gly Val  
 275 280 285  
 Leu Lys Glu Leu Arg Val Phe His Cys His Glu Asn Asn Phe Thr Gly  
 290 295 300  
 Glu Phe Pro Ser Gly Phe Gly Asp Leu Ser His Leu Thr Ser Leu Ser  
 305 310 315 320  
 Ile Tyr Arg Asn Asn Phe Ser Gly Glu Phe Pro Val Asn Ile Gly Arg  
 325 330 335  
 Phe Ser Pro Leu Asp Thr Val Asp Ile Ser Glu Asn Glu Phe Thr Gly  
 340 345 350  
 Pro Phe Pro Arg Phe Leu Cys Gln Asn Lys Lys Leu Gln Phe Leu Leu  
 355 360 365  
 Ala Leu Gln Asn Glu Phe Ser Gly Glu Ile Pro Arg Ser Tyr Gly Glu  
 370 375 380  
 Cys Lys Ser Leu Leu Arg Leu Arg Ile Asn Asn Asn Arg Leu Ser Gly  
 385 390 395 400  
 Gln Val Val Glu Gly Phe Trp Ser Leu Pro Leu Ala Lys Met Ile Asp  
 405 410 415  
 Leu Ser Asp Asn Glu Leu Thr Gly Glu Val Ser Pro Gln Ile Gly Leu  
 420 425 430  
 Ser Thr Glu Leu Ser Gln Leu Ile Leu Gln Asn Asn Arg Phe Ser Gly  
 435 440 445  
 Lys Ile Pro Arg Glu Leu Gly Arg Leu Thr Asn Ile Glu Arg Ile Tyr  
 450 455 460  
 Leu Ser Asn Asn Asn Leu Ser Gly Glu Ile Pro Met Glu Val Gly Asp  
 465 470 475 480  
 Leu Lys Glu Leu Ser Ser Leu His Leu Glu Asn Asn Ser Leu Thr Gly  
 485 490 495  
 Phe Ile Pro Lys Glu Leu Lys Asn Cys Val Lys Leu Val Asp Leu Asn  
 500 505 510  
 Leu Ala Lys Asn Phe Leu Thr Gly Glu Ile Pro Asn Ser Leu Ser Gln  
 515 520 525

047-E2F-PCT.ST25.txt

Ile Ala Ser Leu Asn Ser Leu Asp Phe Ser Gly Asn Arg Leu Thr Gly  
530 535 540

Glu Ile Pro Ala Ser Leu Val Lys Leu Lys Leu Ser Phe Ile Asp Leu  
545 550 555 560

Ser Gly Asn Gln Leu Ser Gly Arg Ile Pro Pro Asp Leu Leu Ala Val  
565 570 575

Gly Gly Ser Thr Ala Phe Ser Arg Asn Glu Lys Leu Cys Val Asp Lys  
580 585 590

Glu Asn Ala Lys Thr Asn Gln Asn Leu Gly Leu Ser Ile Cys Ser Gly  
595 600 605

Tyr Gln Asn Val Lys Arg Asn Ser Ser Leu Asp Gly Thr Leu Leu Phe  
610 615 620

Leu Ala Leu Ala Ile Val Val Val Val Leu Val Ser Gly Leu Phe Ala  
625 630 635 640

Leu Arg Tyr Arg Val Val Lys Ile Arg Glu Leu Asp Ser Glu Asn Arg  
645 650 655

Asp Ile Asn Lys Ala Asp Ala Lys Trp Lys Ile Ala Ser Phe His Gln  
660 665 670

Met Glu Leu Asp Val Asp Glu Ile Cys Arg Leu Asp Glu Asp His Val  
675 680 685

Ile Gly Ser Gly Ser Ala Gly Lys Val Tyr Arg Val Asp Leu Lys Lys  
690 695 700

Gly Gly Gly Thr Val Ala Val Lys Trp Leu Lys Arg Gly Gly Gly Glu  
705 710 715 720

Glu Gly Asp Gly Thr Glu Val Ser Val Ala Glu Met Glu Ile Leu Gly  
725 730 735

Lys Ile Arg His Arg Asn Val Leu Lys Leu Tyr Ala Cys Leu Val Gly  
740 745 750

Arg Gly Ser Arg Tyr Leu Val Phe Glu Phe Met Glu Asn Gly Asn Leu  
755 760 765

Tyr Gln Ala Leu Gly Asn Asn Ile Lys Gly Gly Leu Pro Glu Leu Asp  
770 775 780

047-E2F-PCT.ST25.txt

Trp Leu Lys Arg Tyr Lys Ile Ala Val Gly Ala Ala Lys Gly Ile Ala  
785 790 795 800

Tyr Leu His His Asp Cys Cys Pro Pro Ile Ile His Arg Asp Ile Lys  
805 810 815

Ser Ser Asn Ile Leu Leu Asp Gly Asp Tyr Glu Ser Lys Ile Ala Asp  
820 825 830

Phe Gly Val Ala Lys Val Ala Asp Lys Gly Tyr Glu Trp Ser Cys Val  
835 840 845

Ala Gly Thr His Gly Tyr Met Ala Pro Glu Leu Ala Tyr Ser Phe Lys  
850 855 860

Ala Thr Glu Lys Ser Asp Val Tyr Ser Phe Gly Val Val Leu Leu Glu  
865 870 875 880

Leu Val Thr Gly Leu Arg Pro Met Glu Asp Glu Phe Gly Glu Gly Lys  
885 890 895

Asp Ile Val Asp Tyr Val Tyr Ser Gln Ile Gln Gln Asp Pro Arg Asn  
900 905 910

Leu Gln Asn Val Leu Asp Lys Gln Val Leu Ser Thr Tyr Ile Glu Glu  
915 920 925

Ser Met Ile Arg Val Leu Lys Met Gly Leu Leu Cys Thr Thr Lys Leu  
930 935 940

Pro Asn Leu Arg Pro Ser Met Arg Glu Val Val Arg Lys Leu Asp Asp  
945 950 955 960

Ala Asp Pro Cys Val Ser Asn Ser Gln Asp Thr Thr Gly Lys Ile Thr  
965 970 975

Val

<210> 619

<211> 1305

<212> DNA

<213> Arabidopsis thaliana

047-E2F-PCT.ST25.txt

```

<400> 619
atggctcctc accaaacaca agaagagagg tacggccaca acttaatgcg caatcacaac 60
aaagtggaaa cactcgtgca catggcatca cagtttatgg tgtttagagc ggaggaatca 120
tgaggagaaa agtatgtgta ttacacagaa gatattggag atctttgcat ctttcttgga 180
catagtgagg ctttctgtat ccaggccagt tcgggctcaa gcctaactgc atctattttg 240
tgggctataa ctttgagatc tcacagcaag cagggttcgga tgttctcctc taagccgaca 300
taccctgact tgttgattga ccacctcctt aagacgacgg aacactgttc caatgatcaa 360
gtatactacg atgataaata ttacgaaaag aatctcgtga ttaaggacca gggactcgca 420
gaggaggtcc gagaggtgat gaccgttgga ttttcacata aagatgattg gagagttcac 480
ttggagaaat ctgaggatag ttccacaagt ctcatgatgg tgagtaacac atcgtttgtc 540
ccagtgaac atcagctccc tcctctgtct agtaattgtc gaatccagaa tgtggcaata 600
tcaaactctg ttgacataaa gaaggaagac ttggttggtg ctgtcaagtt ctttggtatct 660
gatgtgagtc tgtgcaagcc cttcagcgac tctagctctg aatggatcaa catcaatacc 720
tctggctctg tacacccttt ctcgagtcta acgtattcga agaagaataa aaaatttctc 780
agtgttagtc cttctgggac gtatctttgg tacttggtac ttacttcga tgaggatgat 840
gtcgagccct actcatcata tttatatattt agggaggacc ctctcctgag gttgtataag 900
atggatttgg aagattacat ctggcgtttc agaacagacc acctggcgga gttaccctcc 960
ggtgaacatt tcctcgtcaa gtggttcttt aaggacgtga tgatgaacgt ggggaaaatc 1020
accagaaaaa cggatgggtt taagggtgtt agagtggata caatttgagg tcacttgact 1080
aacacgcaag acattggaga tctttgtatc tttcttgga atggtgaagc atactgtgtc 1140
ccggcaagct cgtctcctgg actcagacct aactccatct attatgtggg ctgtaacttt 1200
ggtgttcacg atattgcaac cgacactacc actaacttct acacacacag taatgttcct 1260
ttaagggtcca ctgagttccc ttactggcct cttcctctct cttag 1305

```

<210> 620

<211> 434

<212> PRT

<213> Arabidopsis thaliana

<400> 620

```

Met Ala Pro His Gln Thr Gln Glu Glu Arg Tyr Gly His Asn Leu Met
1          5          10          15

```



047-E2F-PCT.ST25.txt

Arg	Asn	His	Asn	Lys	Val	Glu	Thr	Leu	Val	His	Met	Ala	Ser	Gln	Phe
			20					25					30		
Met	Val	Phe	Arg	Ala	Glu	Glu	Ser	Trp	Glu	Glu	Lys	Tyr	Val	Tyr	Tyr
		35					40					45			
Thr	Glu	Asp	Ile	Gly	Asp	Leu	Cys	Ile	Phe	Leu	Gly	His	Ser	Glu	Ala
	50					55					60				
Phe	Cys	Ile	Gln	Ala	Ser	Ser	Gly	Ser	Ser	Leu	Thr	Ala	Ser	Ile	Leu
65					70					75					80
Trp	Ala	Ile	Thr	Leu	Arg	Ser	His	Ser	Lys	Gln	Val	Arg	Met	Phe	Ser
				85					90					95	
Ser	Lys	Pro	Thr	Tyr	Pro	Tyr	Leu	Leu	Ile	Asp	His	Leu	Leu	Lys	Thr
			100					105					110		
Thr	Glu	His	Cys	Ser	Asn	Asp	Gln	Val	Tyr	Tyr	Asp	Asp	Lys	Tyr	Tyr
		115					120					125			
Glu	Lys	Asn	Leu	Val	Ile	Lys	Asp	Gln	Gly	Leu	Ala	Glu	Glu	Val	Arg
	130					135					140				
Glu	Val	Met	Thr	Val	Gly	Phe	Ser	His	Lys	Asp	Asp	Trp	Arg	Val	His
145					150					155					160
Leu	Glu	Lys	Ser	Glu	Asp	Ser	Ser	Thr	Ser	Leu	Met	Met	Val	Ser	Asn
				165					170					175	
Thr	Ser	Phe	Val	Pro	Val	Lys	His	Gln	Leu	Pro	Pro	Leu	Ser	Ser	Asn
			180					185					190		
Cys	Arg	Ile	Gln	Asn	Val	Ala	Ile	Ser	Asn	Ser	Val	Asp	Ile	Lys	Lys
		195					200					205			
Glu	Asp	Leu	Val	Val	Ala	Val	Lys	Phe	Phe	Gly	Ser	Asp	Val	Ser	Leu
	210					215					220				
Cys	Lys	Pro	Phe	Ser	Asp	Ser	Ser	Ser	Glu	Trp	Ile	Asn	Ile	Asn	Thr
225					230					235					240
Ser	Gly	Ser	Val	His	Pro	Phe	Ser	Ser	Leu	Thr	Tyr	Ser	Lys	Lys	Asn
				245					250					255	
Lys	Lys	Phe	Leu	Ser	Val	Ser	Pro	Ser	Gly	Thr	Tyr	Leu	Trp	Tyr	Leu
			260					265					270		

047-E2F-PCT.ST25.txt

Asp Leu His Phe Asp Glu Asp Asp Val Glu Pro Tyr Ser Ser Tyr Leu  
275 280 285

Tyr Phe Arg Glu Asp Pro Leu Leu Arg Leu Tyr Lys Met Asp Leu Glu  
290 295 300

Asp Tyr Ile Trp Arg Phe Arg Thr Asp His Leu Ala Glu Leu Pro Ser  
305 310 315 320

Gly Glu His Phe Leu Val Lys Trp Phe Phe Lys Asp Val Met Met Asn  
325 330 335

Val Gly Lys Ile Thr Gln Lys Thr Asp Gly Phe Lys Val Phe Arg Val  
340 345 350

Asp Thr Ile Cys Gly His Leu Thr Asn Thr Gln Asp Ile Gly Asp Leu  
355 360 365

Cys Ile Phe Leu Gly His Gly Glu Ala Tyr Cys Val Pro Ala Ser Ser  
370 375 380

Ser Pro Gly Leu Arg Pro Asn Ser Ile Tyr Tyr Val Gly Cys Asn Phe  
385 390 395 400

Gly Val His Asp Ile Ala Thr Asp Thr Thr Thr Asn Phe Tyr Thr His  
405 410 415

Ser Asn Val Pro Leu Arg Ser Thr Glu Phe Pro Tyr Trp Pro Leu Pro  
420 425 430

Leu Ser

<210> 621

<211> 1275

<212> DNA

<213> Arabidopsis thaliana

<400> 621

atggggaaag acgaagagga aatgcgaggt gagatcgagg agcgactaat caatgaagag	60
tacaagatct ggaagaagaa cactcctttc ctctacgac tcggttattac tcacgctctc	120
gagtggcctt cacttactgt tgaatggctt cctgaccgtg aagaaccttc cggtaaagac	180
tactccgttc agaagatgat tctcggtacc catacctccg agagcgagcc caattacttg	240

047-E2F-PCT.ST25.txt

atgctagccc aagttcagct tcctcttgac gataccgaga gtgaagctcg tcagtacgat 300  
gatgaccgct ctgaatttgg tggctttggc tgtgcaactg gaaaggtaca aattatccag 360  
cagataaatc atgatggtga gggttaatcga gctcgcgtata tgcctcaaaa ccctttcata 420  
attgctacca agacagttaa tgcggaggtc tatgttttcg attacagtaa gcatccatct 480  
aagcctcctc ttgatggggc ttgtaatcct gatttaaagc ttagagggtca cagctctgag 540  
ggatatggtc tctcttgag taagttcaag cagggtcatt tgcttagtgg ctctgatgat 600  
gctcagatct gcttgtggga tattaacgct actcctaaaa acaaattctt ggacgctcag 660  
cagatTTTTA aggctcatga aggggttggtg gaagatgttg catggcatct gagacatgag 720  
tacctgtttg gatcagttgg agatgaccaa taccttctca tatgggatct gcgttctcca 780  
tctgccagta aaccagtaca gtctgtggtt gctcattcga tggagggttaa ctgcttagcc 840  
ttcaatccat ttaatgagtg gggtgtggca acaggatcaa ctgacaagac tgttaaatta 900  
ttcgatctac ggaagctaag caccgctctt cacacatttg atagccacaa agaggagggtt 960  
tttcaagttg gttggaaccc aaagaacgag actatTTTtag cttcatgttg ccttggtaga 1020  
agacttatgg tttgggacct tagcaggatc gatgaggaac agacagtgga ggacgcagaa 1080  
gacggccac ctgagctgct gtttattcac ggtgggcaca ctagcaaaat ttcagatttc 1140  
tcgtggaacc cttgtgaaga ttgggttatt tccagtgttg ctgaggacaa catactccaa 1200  
atatggcaaa tggctgaaaa catctatcat gatgaggatg acgctccagg ggaagaacca 1260  
tcaaaagctt cttag 1275

<210> 622

<211> 424

<212> PRT

<213> Arabidopsis thaliana

<400> 622

Met Gly Lys Asp Glu Glu Glu Met Arg Gly Glu Ile Glu Glu Arg Leu  
1 5 10 15

Ile Asn Glu Glu Tyr Lys Ile Trp Lys Lys Asn Thr Pro Phe Leu Tyr  
20 25 30

Asp Leu Val Ile Thr His Ala Leu Glu Trp Pro Ser Leu Thr Val Glu  
35 40 45

Trp Leu Pro Asp Arg Glu Glu Pro Ser Gly Lys Asp Tyr Ser Val Gln  
Page 981

50

55

Lys Met Ile Leu Gly Thr His Thr Ser Glu Ser Glu Pro Asn Tyr Leu  
65 70 75 80

Met Leu Ala Gln Val Gln Leu Pro Leu Asp Asp Thr Glu Ser Glu Ala  
85 90 95

Arg Gln Tyr Asp Asp Asp Arg Ser Glu Phe Gly Gly Phe Gly Cys Ala  
100 105 110

Thr Gly Lys Val Gln Ile Ile Gln Gln Ile Asn His Asp Gly Glu Val  
115 120 125

Asn Arg Ala Arg Tyr Met Pro Gln Asn Pro Phe Ile Ile Ala Thr Lys  
130 135 140

Thr Val Asn Ala Glu Val Tyr Val Phe Asp Tyr Ser Lys His Pro Ser  
145 150 155 160

Lys Pro Pro Leu Asp Gly Ala Cys Asn Pro Asp Leu Lys Leu Arg Gly  
165 170 175

His Ser Ser Glu Gly Tyr Gly Leu Ser Trp Ser Lys Phe Lys Gln Gly  
180 185 190

His Leu Leu Ser Gly Ser Asp Asp Ala Gln Ile Cys Leu Trp Asp Ile  
195 200 205

Asn Ala Thr Pro Lys Asn Lys Ser Leu Asp Ala Gln Gln Ile Phe Lys  
210 215 220

Ala His Glu Gly Val Val Glu Asp Val Ala Trp His Leu Arg His Glu  
225 230 235 240

Tyr Leu Phe Gly Ser Val Gly Asp Asp Gln Tyr Leu Leu Ile Trp Asp  
245 250 255

Leu Arg Ser Pro Ser Ala Ser Lys Pro Val Gln Ser Val Val Ala His  
260 265 270

Ser Met Glu Val Asn Cys Leu Ala Phe Asn Pro Phe Asn Glu Trp Val  
275 280 285

Val Ala Thr Gly Ser Thr Asp Lys Thr Val Lys Leu Phe Asp Leu Arg  
290 295 300

047-E2F-PCT.ST25.txt

Lys Leu Ser Thr Ala Leu His Thr Phe Asp Ser His Lys Glu Glu Val  
305 310 315 320

Phe Gln Val Gly Trp Asn Pro Lys Asn Glu Thr Ile Leu Ala Ser Cys  
325 330 335

Cys Leu Gly Arg Arg Leu Met Val Trp Asp Leu Ser Arg Ile Asp Glu  
340 345 350

Glu Gln Thr Val Glu Asp Ala Glu Asp Gly Pro Pro Glu Leu Leu Phe  
355 360 365

Ile His Gly Gly His Thr Ser Lys Ile Ser Asp Phe Ser Trp Asn Pro  
370 375 380

Cys Glu Asp Trp Val Ile Ser Ser Val Ala Glu Asp Asn Ile Leu Gln  
385 390 395 400

Ile Trp Gln Met Ala Glu Asn Ile Tyr His Asp Glu Asp Asp Ala Pro  
405 410 415

Gly Glu Glu Pro Ser Lys Ala Ser  
420

<210> 623

<211> 1374

<212> DNA

<213> Arabidopsis thaliana

<400> 623

atgggaagtc caaagaagaa cgagaacaaa ggcttcttcg ccgccatgac ttctggcttc	60
tccatgttcg gtaccgccgt gtcgagatcc gttaacggcg tgcaaggtaa tgaaggagtt	120
gaggtcataa atccagaagg tggcaaggaa gatgctgaag aggaagctca gaaaggaagg	180
tggaaggacg aggaacgaga tagttactgg aagatgatgc agaaatatat aggttcggat	240
attacgtcaa tgggtgactct tcctgttggt atatttgagc ctatgactat gctccagaag	300
atggctgaga taatggagta ttctcatttg ttggatcaag cagatgaatg cgaagatcca	360
tacttgcgtt tagtatatgc ttcacatgg gctatatctg ttactatgc cttccaacga	420
acttggaagc ctttcaatcc tattcttggg gagacatatg agatgggtcaa ccatgggtggg	480
atttctttta tttctgagca ggtagccat catccaccaa tgagtgtggtg tcatgccgag	540
aacgagcact tcatttacga catcacatca aagttgaaaa ctaaactttt gggttaactct	600

047-E2F-PCT.ST25.txt

gttgatgttt accctgtggg aagaacgcgt gtaaccctca agaaagatgg tgtggttctg 660  
gatttggtgc cgcctctcac taagattcac aatctaatat ttggacgaac ctgggttgac 720  
tcacctgggg aaatggtcat gacaaattta accactggag acaaagttgt gctttatttc 780  
cagccatgtg gctggttcgg ttctggccgc tatgaagttg atggctacgt ttacagcgca 840  
gctgaagaac cgaaaatcat gatgacagga aaatggaatg agaaaatgag ctaccaacct 900  
tgtgatgccg aaggggaacc cttccagga acagagctga aagaggtgtg gcatttggtc 960  
gatgtcccca aaaacgacaa ctttcagtac actcactttg ctcacaagat aaacagcttc 1020  
gacacagcgc ctgctaagct cttggcttca gactcacgta tccgtcctga tagatattcc 1080  
cttgagcagg gtgacctttc taaagctggt tccgagaaac acagccttga ggagagacaa 1140  
agggccgaaa agaggaccag agagacaaag ggacaaaagt tcaactcaag atggttcgat 1200  
ctaacggatg agatcacacc tactccatgg ggagatattg aagtatacca atacaacggg 1260  
aagtacaatg aacaccgaga cacggcagag agctcaagta gtgcctccaa cgaaacggac 1320  
ctcaaatcga tcgagtttaa tccttggtgcaa tatggtaata tctcaaccga atga 1374

<210> 624

<211> 457

<212> PRT

<213> Arabidopsis thaliana

<400> 624

Met Gly Ser Pro Lys Lys Asn Glu Asn Lys Gly Phe Phe Ala Ala Met  
1 5 10 15

Thr Ser Gly Phe Ser Met Phe Gly Thr Ala Val Ser Arg Ser Val Asn  
20 25 30

Gly Val Gln Gly Asn Glu Gly Val Glu Val Ile Asn Pro Glu Gly Gly  
35 40 45

Lys Glu Asp Ala Glu Glu Glu Ala Gln Lys Gly Arg Trp Lys Asp Glu  
50 55 60

Glu Arg Asp Ser Tyr Trp Lys Met Met Gln Lys Tyr Ile Gly Ser Asp  
65 70 75 80

Ile Thr Ser Met Val Thr Leu Pro Val Val Ile Phe Glu Pro Met Thr  
85 90 95

Met Leu Gln Lys Met Ala Glu Ile Met Glu Tyr Ser His Leu Leu Asp  
 100 105 110  
 Gln Ala Asp Glu Cys Glu Asp Pro Tyr Leu Arg Leu Val Tyr Ala Ser  
 115 120 125  
 Ser Trp Ala Ile Ser Val Tyr Tyr Ala Phe Gln Arg Thr Trp Lys Pro  
 130 135 140  
 Phe Asn Pro Ile Leu Gly Glu Thr Tyr Glu Met Val Asn His Gly Gly  
 145 150 155 160  
 Ile Ser Phe Ile Ser Glu Gln Val Ser His His Pro Pro Met Ser Ala  
 165 170 175  
 Gly His Ala Glu Asn Glu His Phe Ile Tyr Asp Ile Thr Ser Lys Leu  
 180 185 190  
 Lys Thr Lys Leu Leu Gly Asn Ser Val Asp Val Tyr Pro Val Gly Arg  
 195 200 205  
 Thr Arg Val Thr Leu Lys Lys Asp Gly Val Val Leu Asp Leu Val Pro  
 210 215 220  
 Pro Leu Thr Lys Ile His Asn Leu Ile Phe Gly Arg Thr Trp Val Asp  
 225 230 235 240  
 Ser Pro Gly Glu Met Val Met Thr Asn Leu Thr Thr Gly Asp Lys Val  
 245 250 255  
 Val Leu Tyr Phe Gln Pro Cys Gly Trp Phe Gly Ser Gly Arg Tyr Glu  
 260 265 270  
 Val Asp Gly Tyr Val Tyr Ser Ala Ala Glu Glu Pro Lys Ile Met Met  
 275 280 285  
 Thr Gly Lys Trp Asn Glu Lys Met Ser Tyr Gln Pro Cys Asp Ala Glu  
 290 295 300  
 Gly Glu Pro Leu Pro Gly Thr Glu Leu Lys Glu Val Trp His Leu Ala  
 305 310 315 320  
 Asp Val Pro Lys Asn Asp Asn Phe Gln Tyr Thr His Phe Ala His Lys  
 325 330 335  
 Ile Asn Ser Phe Asp Thr Ala Pro Ala Lys Leu Leu Ala Ser Asp Ser  
 340 345 350

047-E2F-PCT.ST25.txt

Arg Ile Arg Pro Asp Arg Tyr Ser Leu Glu Gln Gly Asp Leu Ser Lys  
355 360 365

Ala Gly Ser Glu Lys His Ser Leu Glu Glu Arg Gln Arg Ala Glu Lys  
370 375 380

Arg Thr Arg Glu Thr Lys Gly Gln Lys Phe Thr Pro Arg Trp Phe Asp  
385 390 395 400

Leu Thr Asp Glu Ile Thr Pro Thr Pro Trp Gly Asp Ile Glu Val Tyr  
405 410 415

Gln Tyr Asn Gly Lys Tyr Asn Glu His Arg Asp Thr Ala Glu Ser Ser  
420 425 430

Ser Ser Ala Ser Asn Glu Thr Asp Leu Lys Ser Ile Glu Phe Asn Pro  
435 440 445

Trp Gln Tyr Gly Asn Ile Ser Thr Glu  
450 455

<210> 625

<211> 432

<212> DNA

<213> Arabidopsis thaliana

<400> 625  
atggcaatga ccgcggctgc agttccatca agtggatctt tccagaaaca agacgaagag 60  
tggcgtgctg ttctgtctcc tgagcagttt agggttctca gactaaaagg aacagataaa 120  
cgaggcaaag gagagtttac aaagaagttc gaggaaggga cttatagttg tgctggttgt 180  
ggaactgctc ttataaatc gaccactaag ttcgactccg gttgcggttg gcctgcgttc 240  
ttcgacgcca tccccggtgc tattaaacaa actccagaag caggtggaag aagaatggag 300  
ataacatgtg cagtgtgtga tggacatcta ggccatgttt tcaaaggcga aggttactct 360  
actccaaccg atcaacgtca ctgcgttaac agtgtctctc tcaaattcgc ttctgctgat 420  
tcttccaaat aa 432

<210> 626

<211> 143

<212> PRT



<213> *Arabidopsis thaliana*

&lt;400&gt; 626

```

Met Ala Met Thr Ala Ala Ala Val Pro Ser Ser Gly Ser Phe Gln Lys
1      5      10      15

Gln Asp Glu Glu Trp Arg Ala Val Leu Ser Pro Glu Gln Phe Arg Val
      20      25      30

Leu Arg Leu Lys Gly Thr Asp Lys Arg Gly Lys Gly Glu Phe Thr Lys
      35      40      45

Lys Phe Glu Glu Gly Thr Tyr Ser Cys Ala Gly Cys Gly Thr Ala Leu
      50      55      60

Tyr Lys Ser Thr Thr Lys Phe Asp Ser Gly Cys Gly Trp Pro Ala Phe
65      70      75      80

Phe Asp Ala Ile Pro Gly Ala Ile Lys Gln Thr Pro Glu Ala Gly Gly
      85      90      95

Arg Arg Met Glu Ile Thr Cys Ala Val Cys Asp Gly His Leu Gly His
      100      105      110

Val Phe Lys Gly Glu Gly Tyr Ser Thr Pro Thr Asp Gln Arg His Cys
      115      120      125

Val Asn Ser Val Ser Leu Lys Phe Ala Ser Ala Asp Ser Ser Lys
      130      135      140

```

&lt;210&gt; 627

&lt;211&gt; 591

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 627

```

atggccggag ttttcaaaac ggttacgttt cttgttttgg ttttcgctgc cgttgttgtc      60
ttcgcggagg actacgatgt tggtgatgat acggaatgga cgagacctat ggaccccgag      120
ttctatacta cttgggctac cggtaaaact ttccgtgtag gcgacgagct cgaatttgat      180
ttcgtgctg ggaggcatga tgtggcagtt gtatcagaag ctgcatttga aaactgtgag      240
aaagagaaac ccattagcca catgaccgtt cctccggtca aaattatgct aaacaccact      300

```

ggaccacaat actttatctg caccgtcggg gaccattgtc gttttgggtca aaaactttcc 360  
 atcactgtag ttgctgctgg tgcaactgga ggtgctactc ctgggtgccgg tgctacccca 420  
 gcacctggat caacccaag tactggagga accactcctc ccaactgcggg tgggaccaca 480  
 acaccttcag gctctagcgg aaccactact ccagctggaa atgccgcttc ctcattaggt 540  
 ggtgctactt ttctggtcgc ttttgtttct gctgttggtg ctctcttttg a 591

<210> 628

<211> 196

<212> PRT

<213> Arabidopsis thaliana

<400> 628

Met Ala Gly Val Phe Lys Thr Val Thr Phe Leu Val Leu Val Phe Ala  
1 5 10 15

Ala Val Val Val Phe Ala Glu Asp Tyr Asp Val Gly Asp Asp Thr Glu  
20 25 30

Trp Thr Arg Pro Met Asp Pro Glu Phe Tyr Thr Thr Trp Ala Thr Gly  
35 40 45

Lys Thr Phe Arg Val Gly Asp Glu Leu Glu Phe Asp Phe Ala Ala Gly  
50 55 60

Arg His Asp Val Ala Val Val Ser Glu Ala Ala Phe Glu Asn Cys Glu  
65 70 75 80

Lys Glu Lys Pro Ile Ser His Met Thr Val Pro Pro Val Lys Ile Met  
85 90 95

Leu Asn Thr Thr Gly Pro Gln Tyr Phe Ile Cys Thr Val Gly Asp His  
100 105 110

Cys Arg Phe Gly Gln Lys Leu Ser Ile Thr Val Val Ala Ala Gly Ala  
115 120 125

Thr Gly Gly Ala Thr Pro Gly Ala Gly Ala Thr Pro Ala Pro Gly Ser  
130 135 140

Thr Pro Ser Thr Gly Gly Thr Thr Pro Pro Thr Ala Gly Gly Thr Thr  
145 150 155 160

Thr Pro Ser Gly Ser Ser Gly Thr Thr Thr Pro Ala Gly Asn Ala Ala  
 165 170 175

Ser Ser Leu Gly Gly Ala Thr Phe Leu Val Ala Phe Val Ser Ala Val  
 180 185 190

Val Ala Leu Phe  
 195

<210> 629

<211> 3267

<212> DNA

<213> Arabidopsis thaliana

<400> 629

atgagcgtat ggaactacgc cgttacggct cagaaaccga cctgtgtcac tcactcttgc	60
gtcgggaact tcacaagtcc tcaagaactc aatctcattg ttgcgaaatc cactcgaatc	120
gagatccatc tgctttctcc acagggactt cagactatac tggatgttcc tctatatggg	180
agaatcgcaa ctatggaatt gttccgtccc catggtgaag cacaagactt tttgtttggt	240
gcaactgaaa gatataaatt ctgtgttctt caatgggatt atgagtcctc tgagcttatt	300
acaagggcaa tgggggatgt ttctgatcgt ataggccgac cgacagacaa tggtcagatt	360
gggtataattg atcctgattg cagagtaatt ggtctgcac tgtatgacgg cttgtttaag	420
gtcattccat ttgacaataa aggacagctc aaggaagcct ttaacataag gctggaggag	480
ttgcagggtcc tagatatcaa gtttctgtat ggatgcacga aaccaacaat tgcagtactt	540
tatcaggaca acaaagatgc tcgtcatgtc aaaacatatg aagtttctct aaaggataag	600
aactttgtcg aagggtccatg gtcacagaac aatctcgaca atgggtgctga cttattgatc	660
cctgtacctt cacctctatg tggcgtcctc atcattgggg aagaaacaat tgtctattgt	720
agtgccaatg cattcaaagc aataccaata agaccttcca tcacaaaagc atatggaaga	780
gttgatcttg atggttctag gtatcttctt ggtgaccatg ccggactgat tcacctgctt	840
gttataaccc atgagaaaga aaagggtcact ggcctcaaaa ttgagctttt ggggtgaaacc	900
tctattgcat cttccatctc gtatctggac aatgctgtcg tctttgtcgg ttcaagctat	960
ggagattcac agcttattaa gctaaacctg caaccggatg caaaagggtc atatgtagaa	1020
attttagaaa agtatgtcaa cttggggcct attgtcgatt tttgtgtagt tgaccttgag	1080
agacaggggc aagggtcaggt tgtaacttgc tctggagcat acaaggatgg ttctcttcgc	1140
atagttcgca atgggatagg aataaatgaa caggcgtccg tggaacttca aggcacaaa	1200

ggaatgtggt	cgttgaaatc	gtcaattgat	gaagcctttg	atacattcct	tgtagttagt	1260
tttatcagtg	aaactcgtat	actagccatg	aatatagagg	atgaactgga	agaaacagag	1320
attgaggggt	ttttgtctga	agttcagact	ttattttgcc	atgatgctgt	ctacaaccaa	1380
cttgtagagg	ttacctcaaa	ttctgttaga	ttagtttagtt	ctacaactag	agagttgcgg	1440
aataaatggg	atgccccagc	tggattctct	gttaatgttg	caactgcaaa	tgcgagccag	1500
gttctttttg	ccactggagg	tgggcatttg	gtctatctag	aaattgggga	tgggacattg	1560
acggaagtga	aacatgtcct	gttgaggtac	gaggtttctt	gtcttgacat	aaacccatt	1620
ggtgataatc	ctaattacag	tcagctagct	gccgtcggga	tgtggactga	tataagtgtg	1680
aggatttttg	tgctaccaga	cttgactctt	attactaagg	aggaactagg	aggagagatc	1740
attccccgat	ctgttcttct	ttgtgcattt	gaagggatat	cttacttgct	ctgtgctctt	1800
ggagacggtc	atctcttaaa	cttccagttg	gatacaagtt	gcgggaaatt	aagagatcgg	1860
aaaaaagtat	cactggggac	tcgacctata	actctgcgta	ctttttcatc	taaaagtgca	1920
acgcatgtct	tcgctgcata	agatagacca	gctgttatat	atagcaacaa	caagaagcta	1980
ttatacagca	acgtgaatct	gaaagaagtt	agtcatatgt	gtcccttcaa	ctctgctgct	2040
tttccagaca	gtctagcaat	tgcaagggag	ggcgaactta	caattggtac	catcgatgac	2100
attcagaagc	ttcacatacg	caccattccc	attggagagc	atgctcgtcg	gatatgtcat	2160
caggaacaaa	cacgaacatt	tgctatctcc	tgtttgagaa	acgaaccaag	tgagaagaa	2220
tctgaatcgc	attttgtccg	tctgctggat	gccccaaagt	tcgagttctt	gtcaagttac	2280
cctttggatg	cctttgaatg	tggttgctcc	atattgagct	gctcgtttac	agacgacaaa	2340
aatgtctatt	attgtgttgg	tacagcatat	gttttgcccg	aggaaaatga	accaactaag	2400
ggaaggatac	ttgtgtttat	agttgaagaa	ggaagattgc	agcttatcac	agagaaggaa	2460
accaagggag	ctgtttattc	tctcaatgcc	ttcaatggca	aacttcttgc	ttctattaat	2520
caaaagattc	agttgtataa	gtggatgctg	cgggatgatg	gcactcgcga	gctgcaatct	2580
gaatgtggac	atcacggtca	catactagct	ctctacgtgc	agaccctggg	agacttcata	2640
gctgttggtg	atctcatgaa	atcaatctct	ttattgatct	acaagcacga	ggaaggtgcg	2700
atcgaggaga	gagctcggga	ctataatgca	aactggatga	cggcagttga	gatactcaat	2760
gatgacatct	acctcggtac	tgataattgc	ttcaacatat	tcaccgtaaa	gaagaacaac	2820
gaaggtgcta	cagatgaaga	acgtgctcgt	atggaggtgg	ttggtgagta	tcacataggg	2880
gaatttgtga	accgattccg	ccatggctct	cttgtcatga	agctgcctga	ttcagatatt	2940
ggtcagatac	cgacagtcac	atgtggcact	gtcagtgagg	tgattggagt	gatagcgtct	3000
ctgcctcaag	aacagtatgc	gtttctagag	aaactgcaga	cgagtctgag	gaaagtgatt	3060
aaaggagttg	gtggtctaag	ccacgagcag	tggagatcgt	tcaacaacga	gaaaagaact	3120

047-E2F-PCT.ST25.txt

gcggaagcaa aggggttactt ggatggagac cttattgaat cggttcttgga tttgagcaga 3180  
 ggtaagatgg aggagatctc caaaggtatg gatgttcaag tggaagagtt gtgcaagaga 3240  
 gttgaagaac tcactaggct tcactga 3267

<210> 630

<211> 1088

<212> PRT

<213> Arabidopsis thaliana

<400> 630

Met Ser Val Trp Asn Tyr Ala Val Thr Ala Gln Lys Pro Thr Cys Val  
 1 5 10 15

Thr His Ser Cys Val Gly Asn Phe Thr Ser Pro Gln Glu Leu Asn Leu  
 20 25 30

Ile Val Ala Lys Ser Thr Arg Ile Glu Ile His Leu Leu Ser Pro Gln  
 35 40 45

Gly Leu Gln Thr Ile Leu Asp Val Pro Leu Tyr Gly Arg Ile Ala Thr  
 50 55 60

Met Glu Leu Phe Arg Pro His Gly Glu Ala Gln Asp Phe Leu Phe Val  
 65 70 75 80

Ala Thr Glu Arg Tyr Lys Phe Cys Val Leu Gln Trp Asp Tyr Glu Ser  
 85 90 95

Ser Glu Leu Ile Thr Arg Ala Met Gly Asp Val Ser Asp Arg Ile Gly  
 100 105 110

Arg Pro Thr Asp Asn Gly Gln Ile Gly Ile Ile Asp Pro Asp Cys Arg  
 115 120 125

Val Ile Gly Leu His Leu Tyr Asp Gly Leu Phe Lys Val Ile Pro Phe  
 130 135 140

Asp Asn Lys Gly Gln Leu Lys Glu Ala Phe Asn Ile Arg Leu Glu Glu  
 145 150 155 160

Leu Gln Val Leu Asp Ile Lys Phe Leu Tyr Gly Cys Thr Lys Pro Thr  
 165 170 175

047-E2F-PCT.ST25.txt

Ile Ala Val Leu Tyr Gln Asp Asn Lys Asp Ala Arg His Val Lys Thr  
180 185 190

Tyr Glu Val Ser Leu Lys Asp Lys Asn Phe Val Glu Gly Pro Trp Ser  
195 200 205

Gln Asn Asn Leu Asp Asn Gly Ala Asp Leu Leu Ile Pro Val Pro Ser  
210 215 220

Pro Leu Cys Gly Val Leu Ile Ile Gly Glu Glu Thr Ile Val Tyr Cys  
225 230 235 240

Ser Ala Asn Ala Phe Lys Ala Ile Pro Ile Arg Pro Ser Ile Thr Lys  
245 250 255

Ala Tyr Gly Arg Val Asp Leu Asp Gly Ser Arg Tyr Leu Leu Gly Asp  
260 265 270

His Ala Gly Leu Ile His Leu Leu Val Ile Thr His Glu Lys Glu Lys  
275 280 285

Val Thr Gly Leu Lys Ile Glu Leu Leu Gly Glu Thr Ser Ile Ala Ser  
290 295 300

Ser Ile Ser Tyr Leu Asp Asn Ala Val Val Phe Val Gly Ser Ser Tyr  
305 310 315 320

Gly Asp Ser Gln Leu Ile Lys Leu Asn Leu Gln Pro Asp Ala Lys Gly  
325 330 335

Ser Tyr Val Glu Ile Leu Glu Lys Tyr Val Asn Leu Gly Pro Ile Val  
340 345 350

Asp Phe Cys Val Val Asp Leu Glu Arg Gln Gly Gln Gly Gln Val Val  
355 360 365

Thr Cys Ser Gly Ala Tyr Lys Asp Gly Ser Leu Arg Ile Val Arg Asn  
370 375 380

Gly Ile Gly Ile Asn Glu Gln Ala Ser Val Glu Leu Gln Gly Ile Lys  
385 390 395 400

Gly Met Trp Ser Leu Lys Ser Ser Ile Asp Glu Ala Phe Asp Thr Phe  
405 410 415

Leu Val Val Ser Phe Ile Ser Glu Thr Arg Ile Leu Ala Met Asn Ile  
420 425 430

047-E2F-PCT.ST25.txt

Glu Asp Glu Leu Glu Glu Thr Glu Ile Glu Gly Phe Leu Ser Glu Val  
 435 440 445  
 Gln Thr Leu Phe Cys His Asp Ala Val Tyr Asn Gln Leu Val Gln Val  
 450 455 460  
 Thr Ser Asn Ser Val Arg Leu Val Ser Ser Thr Thr Arg Glu Leu Arg  
 465 470 475 480  
 Asn Lys Trp Asp Ala Pro Ala Gly Phe Ser Val Asn Val Ala Thr Ala  
 485 490 495  
 Asn Ala Ser Gln Val Leu Leu Ala Thr Gly Gly Gly His Leu Val Tyr  
 500 505 510  
 Leu Glu Ile Gly Asp Gly Thr Leu Thr Glu Val Lys His Val Leu Leu  
 515 520 525  
 Glu Tyr Glu Val Ser Cys Leu Asp Ile Asn Pro Ile Gly Asp Asn Pro  
 530 535 540  
 Asn Tyr Ser Gln Leu Ala Ala Val Gly Met Trp Thr Asp Ile Ser Val  
 545 550 555 560  
 Arg Ile Phe Val Leu Pro Asp Leu Thr Leu Ile Thr Lys Glu Glu Leu  
 565 570 575  
 Gly Gly Glu Ile Ile Pro Arg Ser Val Leu Leu Cys Ala Phe Glu Gly  
 580 585 590  
 Ile Ser Tyr Leu Leu Cys Ala Leu Gly Asp Gly His Leu Leu Asn Phe  
 595 600 605  
 Gln Leu Asp Thr Ser Cys Gly Lys Leu Arg Asp Arg Lys Lys Val Ser  
 610 615 620  
 Leu Gly Thr Arg Pro Ile Thr Leu Arg Thr Phe Ser Ser Lys Ser Ala  
 625 630 635 640  
 Thr His Val Phe Ala Ala Ser Asp Arg Pro Ala Val Ile Tyr Ser Asn  
 645 650 655  
 Asn Lys Lys Leu Leu Tyr Ser Asn Val Asn Leu Lys Glu Val Ser His  
 660 665 670  
 Met Cys Pro Phe Asn Ser Ala Ala Phe Pro Asp Ser Leu Ala Ile Ala

675

680

685

Arg Glu Gly Glu Leu Thr Ile Gly Thr Ile Asp Asp Ile Gln Lys Leu  
 690 695 700  
 His Ile Arg Thr Ile Pro Ile Gly Glu His Ala Arg Arg Ile Cys His  
 705 710 715 720  
 Gln Glu Gln Thr Arg Thr Phe Ala Ile Ser Cys Leu Arg Asn Glu Pro  
 725 730 735  
 Ser Ala Glu Glu Ser Glu Ser His Phe Val Arg Leu Leu Asp Ala Gln  
 740 745 750  
 Ser Phe Glu Phe Leu Ser Ser Tyr Pro Leu Asp Ala Phe Glu Cys Gly  
 755 760 765  
 Cys Ser Ile Leu Ser Cys Ser Phe Thr Asp Asp Lys Asn Val Tyr Tyr  
 770 775 780  
 Cys Val Gly Thr Ala Tyr Val Leu Pro Glu Glu Asn Glu Pro Thr Lys  
 785 790 795 800  
 Gly Arg Ile Leu Val Phe Ile Val Glu Glu Gly Arg Leu Gln Leu Ile  
 805 810 815  
 Thr Glu Lys Glu Thr Lys Gly Ala Val Tyr Ser Leu Asn Ala Phe Asn  
 820 825 830  
 Gly Lys Leu Leu Ala Ser Ile Asn Gln Lys Ile Gln Leu Tyr Lys Trp  
 835 840 845  
 Met Leu Arg Asp Asp Gly Thr Arg Glu Leu Gln Ser Glu Cys Gly His  
 850 855 860  
 His Gly His Ile Leu Ala Leu Tyr Val Gln Thr Arg Gly Asp Phe Ile  
 865 870 875 880  
 Ala Val Gly Asp Leu Met Lys Ser Ile Ser Leu Leu Ile Tyr Lys His  
 885 890 895  
 Glu Glu Gly Ala Ile Glu Glu Arg Ala Arg Asp Tyr Asn Ala Asn Trp  
 900 905 910  
 Met Thr Ala Val Glu Ile Leu Asn Asp Asp Ile Tyr Leu Gly Thr Asp  
 915 920 925



047-E2F-PCT.ST25.txt

Asn Cys Phe Asn Ile Phe Thr Val Lys Lys Asn Asn Glu Gly Ala Thr  
930 935 940

Asp Glu Glu Arg Ala Arg Met Glu Val Val Gly Glu Tyr His Ile Gly  
945 950 955 960

Glu Phe Val Asn Arg Phe Arg His Gly Ser Leu Val Met Lys Leu Pro  
965 970 975

Asp Ser Asp Ile Gly Gln Ile Pro Thr Val Ile Phe Gly Thr Val Ser  
980 985 990

Gly Met Ile Gly Val Ile Ala Ser Leu Pro Gln Glu Gln Tyr Ala Phe  
995 1000 1005

Leu Glu Lys Leu Gln Thr Ser Leu Arg Lys Val Ile Lys Gly Val  
1010 1015 1020

Gly Gly Leu Ser His Glu Gln Trp Arg Ser Phe Asn Asn Glu Lys  
1025 1030 1035

Arg Thr Ala Glu Ala Lys Gly Tyr Leu Asp Gly Asp Leu Ile Glu  
1040 1045 1050

Ser Phe Leu Asp Leu Ser Arg Gly Lys Met Glu Glu Ile Ser Lys  
1055 1060 1065

Gly Met Asp Val Gln Val Glu Glu Leu Cys Lys Arg Val Glu Glu  
1070 1075 1080

Leu Thr Arg Leu His  
1085

<210> 631

<211> 714

<212> DNA

<213> Arabidopsis thaliana

<400> 631

atggttgctc agggattcac tgtggatctt aaaaagcccc ttgtatttca ggttggtcat 60

cttgagagaag attatgagga atgggttcac caacctatcg cgaccaagga aggccctcgg 120

ttttttcaga gtgacttttg ggagttcttg acacttacag tttggtgggc agttcctgtc 180

atgtggttgc cagttgtagt ctggtgcata tcaaggtcag taagtatggg atgttcactt 240

047-E2F-PCT.ST25.txt

ccagaaatcg tcccaattgt tgtcatggga atattcatct ggacattttt tgaatacggt 300  
 cttcaccggt tcgttttcca cataaaaacg aagagttact ggggaaacac tgcacactat 360  
 cttattcacg gatgccatca taagcaccg atggaccacc ttcggctcgt ctttcctcct 420  
 actgcaacag cgattttatg ctttccgttc tggaacattg cgaaggctat ctcaactcct 480  
 tcaaccgcac ctgcattggt tggtggaggc atgctcggat atgtgatgta cgatgtcact 540  
 cattattacc ttcaccatgc ccaacctact agaccagtga ccaaaaatct caagaagtac 600  
 catttgaatc atcacttcag gattcaggac aaaggatttg gtataacttc gtcgttatgg 660  
 gacatagtct ttgggacact tcccaccaca aaagcccca gaaaagagca atag 714

<210> 632

<211> 237

<212> PRT

<213> Arabidopsis thaliana

<400> 632

Met Val Ala Gln Gly Phe Thr Val Asp Leu Lys Lys Pro Leu Val Phe  
 1 5 10 15

Gln Val Gly His Leu Gly Glu Asp Tyr Glu Glu Trp Val His Gln Pro  
 20 25 30

Ile Ala Thr Lys Glu Gly Pro Arg Phe Phe Gln Ser Asp Phe Trp Glu  
 35 40 45

Phe Leu Thr Leu Thr Val Trp Trp Ala Val Pro Val Ile Trp Leu Pro  
 50 55 60

Val Val Val Trp Cys Ile Ser Arg Ser Val Ser Met Gly Cys Ser Leu  
 65 70 75 80

Pro Glu Ile Val Pro Ile Val Val Met Gly Ile Phe Ile Trp Thr Phe  
 85 90 95

Phe Glu Tyr Val Leu His Arg Phe Val Phe His Ile Lys Thr Lys Ser  
 100 105 110

Tyr Trp Gly Asn Thr Ala His Tyr Leu Ile His Gly Cys His His Lys  
 115 120 125

His Pro Met Asp His Leu Arg Leu Val Phe Pro Pro Thr Ala Thr Ala  
 130 135 140

047-E2F-PCT.ST25.txt

Ile Leu Cys Phe Pro Phe Trp Asn Ile Ala Lys Ala Ile Ser Thr Pro  
145 150 155 160

Ser Thr Ala Pro Ala Leu Phe Gly Gly Gly Met Leu Gly Tyr Val Met  
165 170 175

Tyr Asp Val Thr His Tyr Tyr Leu His His Ala Gln Pro Thr Arg Pro  
180 185 190

Val Thr Lys Asn Leu Lys Lys Tyr His Leu Asn His His Phe Arg Ile  
195 200 205

Gln Asp Lys Gly Phe Gly Ile Thr Ser Ser Leu Trp Asp Ile Val Phe  
210 215 220

Gly Thr Leu Pro Thr Thr Lys Ala Pro Arg Lys Glu Gln  
225 230 235

<210> 633

<211> 717

<212> DNA

<213> Arabidopsis thaliana

<400> 633

atggcgactc tcaaagcttc ctttttgatc aaaaccctcg acagtgcagt caccggagat	60
tttctctccg atctggaacg tcgtgggtca ggtgctgttc atgttatcat gggtcctatg	120
ttttctggga aatcgacctc tctccttcgc cgaatcaagt cagagatcag cgacggaaga	180
agtgttgcca tgctgaaatc gagtaaggat acgagatacg caaaagattc ggtggtgaca	240
catgatggaa ttggattccc ttgctgggct cttccagatc tcatgtcatt tcctgagaaa	300
ttcggactag atgcttataa caagcttgat gtgattggta ttgatgaggc tcagttcttt	360
ggagatcttt atgagttttg ctgcaaagtc gctgatgatg atggtaaaat tgtgatcggt	420
gctggcctag atggtgacta tttaaggagg agttttgggg ctgtacttga cattatacca	480
atagctgatt ctgtgactaa gctaactgca aggtgtgagg tctgtggaca taaagctttc	540
ttcactttaa gaaagaattg tgacaccaga actgagctta ttggtggagc tgatgtctat	600
atgcctgttt gtcgcaagca ttacatcact aatcatattg ttattaaagc ctctaagaaa	660
gtcttggaag attctgacaa ggctagagct gaatcctgtg ttgctgctac aatctaa	717

<210> 634

&lt;211&gt; 238

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 634

Met Ala Thr Leu Lys Ala Ser Phe Leu Ile Lys Thr Leu Asp Ser Asp  
 1 5 10 15

Val Thr Gly Asp Phe Leu Ser Asp Leu Glu Arg Arg Gly Ser Gly Ala  
 20 25 30

Val His Val Ile Met Gly Pro Met Phe Ser Gly Lys Ser Thr Ser Leu  
 35 40 45

Leu Arg Arg Ile Lys Ser Glu Ile Ser Asp Gly Arg Ser Val Ala Met  
 50 55 60

Leu Lys Ser Ser Lys Asp Thr Arg Tyr Ala Lys Asp Ser Val Val Thr  
 65 70 75 80

His Asp Gly Ile Gly Phe Pro Cys Trp Ala Leu Pro Asp Leu Met Ser  
 85 90 95

Phe Pro Glu Lys Phe Gly Leu Asp Ala Tyr Asn Lys Leu Asp Val Ile  
 100 105 110

Gly Ile Asp Glu Ala Gln Phe Phe Gly Asp Leu Tyr Glu Phe Cys Cys  
 115 120 125

Lys Val Ala Asp Asp Asp Gly Lys Ile Val Ile Val Ala Gly Leu Asp  
 130 135 140

Gly Asp Tyr Leu Arg Arg Ser Phe Gly Ala Val Leu Asp Ile Ile Pro  
 145 150 155 160

Ile Ala Asp Ser Val Thr Lys Leu Thr Ala Arg Cys Glu Val Cys Gly  
 165 170 175

His Lys Ala Phe Phe Thr Leu Arg Lys Asn Cys Asp Thr Arg Thr Glu  
 180 185 190

Leu Ile Gly Gly Ala Asp Val Tyr Met Pro Val Cys Arg Lys His Tyr  
 195 200 205

Ile Thr Asn His Ile Val Ile Lys Ala Ser Lys Lys Val Leu Glu Asp  
 210 215 220

Ser Asp Lys Ala Arg Ala Glu Ser Cys Val Ala Ala Thr Ile  
 225 230 235

<210> 635

<211> 1206

<212> DNA

<213> Arabidopsis thaliana

<400> 635

atgactatgg ggaatttctt aaagagattt ggaagtggaa aaagcagaag cagtagaaat	60
atgactctgg gaacgacgtc gtctcaatct catgaaccat caccgtcgga tccttcactc	120
tcccttgccg ataataccaa cgccaccaag aagaagtacg ctctcatccc tgaccgcttc	180
tcttccctcg accaggtatc aaaagctcta agagaagctg gtcttgaatc atccaatctc	240
attctcggag ttgatttcac aaagagcaac gagtggactg ggaaaacttc tttcgatgga	300
aaatgtctgc acgcgctcgg cgaaacttcg aatccatatg aaaaggcgat ttttgtaatc	360
ggccaaacgt tggctccttt tgatgaagac aatctcatcc cttgtttcgg ctttggcgat	420
tcaacaactc atgacgagga agtggttcggt ttccatagcg acaattctcc atgtcatggc	480
ttcgaagagg tcttagcatg ttacaagaga attgcacca acttgctgtc atcagggcca	540
acgtcgtatg gaccgctcat cgatgctgct gtcgacattg tggagaagaa caacggacaa	600
ttccatgttc tgggtgattgt tgcagatgga caggtaacga gaggtacgga tatggccgag	660
ggagaactca gtcaacaaga gaaaacaacc atcgacgcga ttgtaaatgc aagctcgtat	720
gctttgtcga ttgttttagt cgggtgttgga gacggaccat gggaagacat gaggaagttc	780
gatgataaga tccctaagcg tgaattcgac aactttcagt ttgtgaattt cacagagatt	840
atgacgagaa actcaccaga gtctgccaaa gaaactgctt ttgctctagc tgctctaattg	900
gagattccct ttcagtatca agcagccatc gaactccgct tactcgggaa gcagacgggc	960
ttagcgaaga caatagttcc gaggccacca ccaattccgt acacacctcc aactaatgct	1020
gaactacat caactgcatc acctgcatca cctgaacaaa cccagagttg cccgatttgt	1080
ctgactaacc gaaaagacgt ggctttcagc tgtggccaca tgacttgtgg agattgcgga	1140
tccaaaatat caaattgccc gatctgtcga gtaaggatca cgaaccggct aaagctttac	1200
acatga	1206

<210> 636

&lt;211&gt; 401

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 636

Met Thr Met Gly Asn Phe Leu Lys Arg Phe Gly Ser Gly Lys Ser Arg  
 1 5 10 15

Ser Ser Arg Asn Met Thr Leu Gly Thr Thr Ser Ser Gln Ser His Glu  
 20 25 30

Pro Ser Pro Ser Asp Pro Ser Leu Ser Leu Ala Asp Asn Thr Asn Ala  
 35 40 45

Thr Lys Lys Lys Tyr Ala Leu Ile Pro Asp Arg Phe Ser Ser Leu Asp  
 50 55 60

Gln Val Ser Lys Ala Leu Arg Glu Ala Gly Leu Glu Ser Ser Asn Leu  
 65 70 75 80

Ile Leu Gly Val Asp Phe Thr Lys Ser Asn Glu Trp Thr Gly Lys Thr  
 85 90 95

Ser Phe Asp Gly Lys Cys Leu His Ala Leu Gly Glu Thr Ser Asn Pro  
 100 105 110

Tyr Glu Lys Ala Ile Phe Val Ile Gly Gln Thr Leu Ala Pro Phe Asp  
 115 120 125

Glu Asp Asn Leu Ile Pro Cys Phe Gly Phe Gly Asp Ser Thr Thr His  
 130 135 140

Asp Glu Glu Val Phe Gly Phe His Ser Asp Asn Ser Pro Cys His Gly  
 145 150 155 160

Phe Glu Glu Val Leu Ala Cys Tyr Lys Arg Ile Ala Pro Asn Leu Arg  
 165 170 175

Leu Ser Gly Pro Thr Ser Tyr Gly Pro Leu Ile Asp Ala Ala Val Asp  
 180 185 190

Ile Val Glu Lys Asn Asn Gly Gln Phe His Val Leu Val Ile Val Ala  
 195 200 205

Asp Gly Gln Val Thr Arg Gly Thr Asp Met Ala Glu Gly Glu Leu Ser  
 210 215 220  
 Gln Gln Glu Lys Thr Thr Ile Asp Ala Ile Val Asn Ala Ser Ser Tyr  
 225 230 235 240  
 Ala Leu Ser Ile Val Leu Val Gly Val Gly Asp Gly Pro Trp Glu Asp  
 245 250 255  
 Met Arg Lys Phe Asp Asp Lys Ile Pro Lys Arg Glu Phe Asp Asn Phe  
 260 265 270  
 Gln Phe Val Asn Phe Thr Glu Ile Met Thr Arg Asn Ser Pro Glu Ser  
 275 280 285  
 Ala Lys Glu Thr Ala Phe Ala Leu Ala Ala Leu Met Glu Ile Pro Phe  
 290 295 300  
 Gln Tyr Gln Ala Ala Ile Glu Leu Arg Leu Leu Gly Lys Gln Thr Gly  
 305 310 315 320  
 Leu Ala Lys Thr Ile Val Pro Arg Pro Pro Pro Ile Pro Tyr Thr Pro  
 325 330 335  
 Pro Thr Asn Ala Glu Leu Pro Ser Thr Ala Ser Pro Ala Ser Pro Glu  
 340 345 350  
 Gln Thr Gln Ser Cys Pro Ile Cys Leu Thr Asn Arg Lys Asp Val Ala  
 355 360 365  
 Phe Ser Cys Gly His Met Thr Cys Gly Asp Cys Gly Ser Lys Ile Ser  
 370 375 380  
 Asn Cys Pro Ile Cys Arg Val Arg Ile Thr Asn Arg Leu Lys Leu Tyr  
 385 390 395 400

Thr

<210> 637

<211> 1539

<212> DNA

<213> Arabidopsis thaliana

<400> 637

047-E2F-PCT.ST25.txt

atggaagaag acaagcaaat gcacgaggag aaatcatctc tggttaaaga agaaccggtt	60
cgtggagaag agcccgagat tgagaaattg acagtggcag atgtggacgc gccaccgaag	120
agtaccggtg gttgggggtt gggtttctct ggcttctctg tgctttccga tctccaaaaa	180
gctgcggaag atatttctcg taatgctgca gcggtggcag agaaagcagc gaaaagcatt	240
gcagagatgg gagaagtgga tgaagactct gaatcttctg ctaaggaaga agagaaaact	300
gaagaagctg atacagagca ggatagtgat gatgagaatg cgaagttaaa gaagtcagct	360
cttgagagat tggaggggtg aagtgaagag tcacttctta gccaggggtt gaagggtttc	420
gatgattcag ttgagagttt cacttctgga gcttggcaag catttggaat tgcgttaaaa	480
gggggcacaa gtttggtgca aaagcttgaa aacagtgtcc agcaagggtt ttcgcctagg	540
gaagctggat ctggtgcacc gtcttacta gagacaggaa aagcattaac tgcgaaagga	600
atgcaagtac ttgaatttgt gggcaaggaa actatggatt tactgattac agagactggt	660
attggagctg agaaggatag ggtagacttt aaggatcaag tacttgagga ggttacattt	720
gatcgatgct ttacatttta tgggtggtcct gagcagcttg aggaattgga agcattggct	780
agccactata ctctgttggt caacaggaga aaggggaaat tgtcaccaga tcaaaaatcg	840
ctgtatgacg ggaagctcaa acaaatccag caacttttca gctttgctga tgaaatgagt	900
ggaagtaaag cagagtctga caaagggag aaaatagata tcaaaactga aggcaatgat	960
gatgacatga agaactctga taactcaagt gtcagcaaag ctgctgatat ggctactggg	1020
ttcacaaatg ctttagcggg actacacgta aatgatatga tccagcgaac cggtggcagg	1080
cttgaatctc ttactcaga aggagttcat agactttcag agatgtgctg ttttgcagtc	1140
acacatctgc ttatcctcgg taagtccatg atatctcatg ccaacaaagt tcaggatgaa	1200
gacactgagg cattgaaaat cgagtgggca gaggatccta cagagaaagc taagctgatt	1260
agaggcaagg cagaaacaat ggctggatat gttgaagcag tttccaatag ctttataaca	1320
ggaatatcag atgtatctga aacatactca gctgcgatta aaggagttgc agctgctgat	1380
tccaaagatg atcttctgaa aacatcgacc atgcaggaaa aagcaagcac cttcaacgat	1440
agtcttcgct ctgaccaaac cacagctatc acaaagatcc aggaagggct tcagtacctg	1500
tcctatgtcg tgatttctac ctcgatgccc tctgcctaa	1539

<210> 638

<211> 512

<212> PRT

<213> Arabidopsis thaliana



&lt;400&gt; 638

Met Glu Glu Asp Lys Gln Met His Glu Glu Lys Ser Ser Leu Val Lys  
 1 5 10 15

Glu Glu Pro Val Arg Gly Glu Glu Pro Glu Ile Glu Lys Leu Thr Val  
 20 25 30

Ala Asp Val Asp Ala Pro Pro Lys Ser Thr Gly Gly Trp Gly Trp Gly  
 35 40 45

Phe Ser Gly Phe Ser Val Leu Ser Asp Leu Gln Lys Ala Ala Glu Asp  
 50 55 60

Ile Ser Arg Asn Ala Ala Ala Val Ala Glu Lys Ala Ala Lys Ser Ile  
 65 70 75 80

Ala Glu Met Gly Glu Val Asp Glu Asp Ser Glu Ser Ser Ala Lys Glu  
 85 90 95

Glu Glu Lys Thr Glu Glu Ala Asp Thr Glu Gln Asp Ser Asp Asp Glu  
 100 105 110

Asn Ala Lys Leu Lys Lys Ser Ala Leu Glu Arg Leu Glu Gly Ala Ser  
 115 120 125

Glu Glu Ser Leu Leu Ser Gln Gly Leu Lys Val Phe Asp Asp Ser Val  
 130 135 140

Glu Ser Phe Thr Ser Gly Ala Trp Gln Ala Phe Gly Asn Ala Leu Lys  
 145 150 155 160

Gly Gly Thr Ser Leu Val Gln Lys Leu Glu Asn Ser Val Gln Gln Gly  
 165 170 175

Ser Ser Pro Arg Glu Ala Gly Ser Gly Ala Pro Ser Leu Leu Glu Thr  
 180 185 190

Gly Lys Ala Leu Thr Ala Lys Gly Met Gln Val Leu Glu Phe Val Gly  
 195 200 205

Lys Glu Thr Met Asp Leu Leu Ile Thr Glu Thr Gly Ile Gly Ala Glu  
 210 215 220

Lys Asp Arg Val Asp Phe Lys Asp Gln Val Leu Glu Glu Val Thr Phe  
 225 230 235 240

Asp Arg Cys Phe Tyr Ile Tyr Gly Gly Pro Glu Gln Leu Glu Glu Leu  
 Page 1003

Glu Ala Leu Ala Ser His Tyr Thr Leu Leu Phe Asn Arg Arg Lys Gly  
260 265 270

Lys Leu Ser Pro Asp Gln Lys Ser Leu Tyr Asp Gly Lys Leu Lys Gln  
275 280 285

Ile Gln Gln Leu Phe Ser Phe Ala Asp Glu Met Ser Gly Ser Lys Ala  
290 295 300

Glu Ser Asp Lys Gly Lys Lys Ile Asp Ile Lys Thr Glu Gly Asn Asp  
305 310 315 320

Asp Asp Met Lys Asn Leu His Asn Ser Ser Val Ser Lys Ala Ala Asp  
325 330 335

Met Ala Thr Gly Phe Thr Asn Ala Leu Ala Gly Leu His Val Asn Asp  
340 345 350

Met Ile Gln Arg Thr Gly Gly Arg Leu Glu Ser Leu His Ser Glu Gly  
355 360 365

Val His Arg Leu Ser Glu Met Cys Cys Phe Ala Val Thr His Leu Leu  
370 375 380

Ile Leu Gly Lys Ser Met Ile Ser His Ala Asn Lys Val Gln Asp Glu  
385 390 395 400

Asp Thr Glu Ala Leu Lys Ile Glu Trp Ala Glu Asp Pro Thr Glu Lys  
405 410 415

Ala Lys Leu Ile Arg Gly Lys Ala Glu Thr Met Ala Gly Tyr Val Glu  
420 425 430

Ala Val Ser Asn Ser Phe Ile Thr Gly Ile Ser Asp Val Ser Glu Thr  
435 440 445

Tyr Ser Ala Ala Ile Lys Gly Val Ala Ala Ala Asp Ser Lys Asp Asp  
450 455 460

Leu Leu Lys Thr Ser Thr Met Gln Glu Lys Ala Ser Thr Phe Asn Asp  
465 470 475 480

Ser Leu Arg Ser Asp Gln Thr Thr Ala Ile Thr Lys Ile Gln Glu Gly  
485 490 495

047-E2F-PCT.ST25.txt  
 Leu Gln Tyr Leu Ser Tyr Val Val Ile Ser Thr Ser Met Pro Ser Ala  
 500 505 510

<210> 639

<211> 1041

<212> DNA

<213> *Arabidopsis thaliana*

<400> 639

```

atgggaacga gcagcgatcc gattcaagat ggttccgatg agcagcagaa gcgatcagag      60
atctatacat acgaagcgcc atggcacatc tacgcaatga attggagcgt tcgtcgcgat      120
aagaagtatc gtctcgccat cactagcctc ctcgagcaat acccgaaccg tgtcgagatt      180
gtgcagctcg atgaatccaa tggtagatc cgttccgatc ctaacctctc ctttgagcat      240
ccttatccac caacgaagac cattttcata cctgacaagg aatgccaaag acctgatctt      300
ctcgctactt caagtgattt ccttcgttta tggagaatcg ctgatgatca ttcccgtggt      360
gagctcaaat cttgtctcaa tagcaataag aacagtgagt tttgtggtcc tcttacttct      420
tttgattgga atgaagctga gccacgtcga attggaacat ctagtactga tacgacttgt      480
actatctggg acattgagcg tgaagctggt gatactcagc ttattgctca tgataaggaa      540
gtttttgata ttgcttgggg tgggtgttggg gtttttgcag ctgtttcagc tgatggctcc      600
gttaggggtgt ttgatcttcg tgataaggaa cattcgacga ttatctatga gagctccgag      660
cctgatactc ctttagtgcg tcttggttgg aacaaacagg atcctaggta catggctact      720
attatcatgg acagtgctaa agttgtggtg cttgacattc gttttccggc tcttcctgtg      780
gttgagcttc aacgacatca agctagtgtc aatgccattg cttgggctcc tcatagctct      840
tgtcacattt gtactgctgg agatgattct caagctttga tttgggatat ttcattcatg      900
ggacagcatg ttgaagggtg tcttgaccct attctagctt acactgctgg tgctgagatt      960
gagcagcttc agtggtcctc ttctcagcct gattgggtcg caattgcttt ctctactaag     1020
ctgcaaattc tcagggtttg a                                             1041
  
```

<210> 640

<211> 346

<212> PRT

<213> *Arabidopsis thaliana*

<400> 640

047-E2F-PCT.ST25.txt

Met Gly Thr Ser Ser Asp Pro Ile Gln Asp Gly Ser Asp Glu Gln Gln  
1 5 10 15  
Lys Arg Ser Glu Ile Tyr Thr Tyr Glu Ala Pro Trp His Ile Tyr Ala  
20 25 30  
Met Asn Trp Ser Val Arg Arg Asp Lys Lys Tyr Arg Leu Ala Ile Thr  
35 40 45  
Ser Leu Leu Glu Gln Tyr Pro Asn Arg Val Glu Ile Val Gln Leu Asp  
50 55 60  
Glu Ser Asn Gly Glu Ile Arg Ser Asp Pro Asn Leu Ser Phe Glu His  
65 70 75 80  
Pro Tyr Pro Pro Thr Lys Thr Ile Phe Ile Pro Asp Lys Glu Cys Gln  
85 90 95  
Arg Pro Asp Leu Leu Ala Thr Ser Ser Asp Phe Leu Arg Leu Trp Arg  
100 105 110  
Ile Ala Asp Asp His Ser Arg Val Glu Leu Lys Ser Cys Leu Asn Ser  
115 120 125  
Asn Lys Asn Ser Glu Phe Cys Gly Pro Leu Thr Ser Phe Asp Trp Asn  
130 135 140  
Glu Ala Glu Pro Arg Arg Ile Gly Thr Ser Ser Thr Asp Thr Thr Cys  
145 150 155 160  
Thr Ile Trp Asp Ile Glu Arg Glu Ala Val Asp Thr Gln Leu Ile Ala  
165 170 175  
His Asp Lys Glu Val Phe Asp Ile Ala Trp Gly Gly Val Gly Val Phe  
180 185 190  
Ala Ser Val Ser Ala Asp Gly Ser Val Arg Val Phe Asp Leu Arg Asp  
195 200 205  
Lys Glu His Ser Thr Ile Ile Tyr Glu Ser Ser Glu Pro Asp Thr Pro  
210 215 220  
Leu Val Arg Leu Gly Trp Asn Lys Gln Asp Pro Arg Tyr Met Ala Thr  
225 230 235 240  
Ile Ile Met Asp Ser Ala Lys Val Val Val Leu Asp Ile Arg Phe Pro  
245 250 255

047-E2F-PCT.ST25.txt

Ala Leu Pro Val Val Glu Leu Gln Arg His Gln Ala Ser Val Asn Ala  
260 265 270

Ile Ala Trp Ala Pro His Ser Ser Cys His Ile Cys Thr Ala Gly Asp  
275 280 285

Asp Ser Gln Ala Leu Ile Trp Asp Ile Ser Ser Met Gly Gln His Val  
290 295 300

Glu Gly Gly Leu Asp Pro Ile Leu Ala Tyr Thr Ala Gly Ala Glu Ile  
305 310 315 320

Glu Gln Leu Gln Trp Ser Ser Ser Gln Pro Asp Trp Val Ala Ile Ala  
325 330 335

Phe Ser Thr Lys Leu Gln Ile Leu Arg Val  
340 345

<210> 641

<211> 2079

<212> DNA

<213> Arabidopsis thaliana

<400> 641

atgttttctg ggataaagat catacctcgt gatgaggtgc atgatgatag ttgggagggg	60
gaaagagaga aatctaaagg tgggaaggat agaagaagaa agaacaagga cgtaaataga	120
aaggagcgta ggggagaagg aagtaagaga gatgggaaga agattgccaa gagtggagat	180
ggcgagaccg ttgatgatga cttgcttgaa ggggatattg ttagaaagaa aatgggtctc	240
gattggatgc tgccgccaac ccgaaaggct gatccaaacc ctgcttcaga tgtagaggat	300
aaatttgaag aaagtgcacc tgaggtaact aaagttaacc caagggaact aaatccttat	360
ttgaaagaaa atggaaccgg ttatccagag gaagaatctg agaaaaaaca tggtaaagac	420
cagcttttac cttcttcggt tgttggagat gggggtgcaa gttggagaat gaaagcactc	480
aagcgtgcga aagaacaggc tgcgagagaa gggctaaggc ttgaggaggt tgctggcgag	540
cgatatgggtt ctcttggtaa ccttgttgag tctgtcgcac ctcaaagagc agctccatct	600
cgtgcccatt tgaatgccat aaataataga agaagagggg aaaatgaaaa gaatgattca	660
gaaaaaaaaac caaaagaaag aatttctgag aagggttaata atcgggagta tttgaaaggt	720
gagtcgttga accatcgtgt attgagagcc cccaaaaccg acccttcttt atcctgggga	780

```

aagagaaaga gccaaactca tagaaacgaa gactcgaagc tgatatctga agctgcagct 840
cacatgaata agttttccaa tgacggaaat ttcataagg aaatgctttc taagcagaag 900
aatgtatcag tgtctcccgt agagactcgt ggagatcaca gaagtgatgt ggagcaggaa 960
gcattaccgt cagagaccaa taaggatgac gaagggactc ttccgagtat ggaaaattta 1020
agtgtgaata aactggctgc taaagcctta cagctccgta tgaaggggaa acatgaagaa 1080
gccagaaaaa ttatggaaga agcggaaagg ctgaaagcaa aacaagctgt tggagacgat 1140
tcatccaaag accaccactc catcagaacc gcagtgagat atcctgtcaa agatatgtcg 1200
ggtagaagga agaatagaaga tgatacggat atgcatctag ccaagagcat aatgcagaac 1260
aaacagtaca aaacatcgaa tcaagctgct gatgatgagt atgaatatgg agacgctcca 1320
agcaaaaagt cccggaagcg ggaatcgtca agtaacattc ctgaaaagga caaccgtgtg 1380
aaacgtatta tgaccagca agaacgctgt ctcttctgtt ttgagaaccc aaagcggccg 1440
aaacatttag ttgtgtccat tgccaacttc acctatctga tgttaccaca acatcagccc 1500
cttgtccaag gccattgctg tatcttgcca atgcagcacg aggcagccag cagaagtgtt 1560
gacgacaatg tttgggacga gattcgtaat ttcaaaaagt gtcttataat gatgtatgca 1620
aaagaaggaa aagacgcagt gtttctggag acagtgattg gtttgtctca gcaacgtcgc 1680
cactgtttga tcgagtgtat cccaatcccc caagagatag caaaagaagg tcctttatac 1740
ttcaagaagg cgatcgatga agcggaaagt gaatggagtc agcacaatgc gaagaagctc 1800
atagacacta gcgtgaaagg tctgaggaac tctataccga agaatttccc ttacttccac 1860
gttgagtttg gtttagacaa agggtttgtt cacgtgattg atgatgaaca acagttcaat 1920
agcaatcttg gactaaatgt aatcagagga atgctcgagt taccagaaga agatatgtat 1980
agacgtagaa ggcaggagtc ggtggagagc cagaagaagg cggttgcgac ctttgcccgc 2040
gaatgggaac actttgattg gacgaaacag cttgattaa 2079

```

&lt;210&gt; 642

&lt;211&gt; 692

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 642

```

Met Phe Ser Gly Ile Lys Ile Ile Pro Arg Asp Glu Val His Asp Asp
1           5           10           15

```

```

Ser Trp Glu Gly Glu Arg Glu Lys Ser Lys Gly Gly Lys Asp Arg Arg
          20           25           30

```

047-E2F-PCT.ST25.txt

Arg Lys Asn Lys Asp Val Asn Arg Lys Glu Arg Arg Gly Glu Gly Ser  
35 40 45

Lys Arg Asp Gly Lys Lys Ile Ala Lys Ser Gly Asp Gly Glu Thr Val  
50 55 60

Asp Asp Asp Leu Leu Glu Gly Asp Ile Val Arg Lys Lys Met Gly Leu  
65 70 75 80

Asp Trp Met Leu Pro Pro Thr Arg Lys Ala Asp Pro Asn Pro Ala Ser  
85 90 95

Asp Val Glu Asp Lys Phe Glu Glu Ser Ala Pro Glu Val Thr Lys Val  
100 105 110

Asn Pro Arg Glu Leu Asn Pro Tyr Leu Lys Glu Asn Gly Thr Gly Tyr  
115 120 125

Pro Glu Glu Glu Ser Glu Lys Lys His Gly Lys Asp Gln Leu Leu Pro  
130 135 140

Ser Ser Val Val Gly Asp Gly Gly Ala Ser Trp Arg Met Lys Ala Leu  
145 150 155 160

Lys Arg Ala Lys Glu Gln Ala Ala Arg Glu Gly Leu Arg Leu Glu Glu  
165 170 175

Val Ala Gly Glu Arg Tyr Gly Ser Leu Gly Asn Leu Val Glu Ser Val  
180 185 190

Ala Ser Gln Arg Ala Ala Pro Ser Arg Ala His Leu Asn Ala Ile Asn  
195 200 205

Asn Arg Arg Arg Gly Glu Asn Glu Lys Asn Asp Ser Glu Lys Lys Pro  
210 215 220

Lys Glu Arg Ile Ser Glu Lys Gly Asn Asn Arg Glu Tyr Leu Lys Gly  
225 230 235 240

Glu Ser Leu Asn His Arg Val Leu Arg Ala Pro Lys Thr Asp Pro Ser  
245 250 255

Leu Ser Trp Gly Lys Arg Lys Ser Gln Thr His Arg Asn Glu Asp Ser  
260 265 270

Lys Leu Ile Ser Glu Ala Ala Ala His Met Asn Lys Phe Ser Asn Asp

275

280

285

Gly Asn Phe Met Lys Glu Met Leu Ser Lys Gln Lys Asn Val Ser Val  
 290 295 300  
 Ser Pro Val Glu Thr Arg Gly Asp His Arg Ser Asp Val Glu Gln Glu  
 305 310 315 320  
 Ala Leu Pro Ser Glu Thr Asn Lys Asp Asp Glu Gly Thr Leu Pro Ser  
 325 330 335  
 Met Glu Asn Leu Ser Val Asn Lys Leu Ala Ala Lys Ala Leu Gln Leu  
 340 345 350  
 Arg Met Lys Gly Lys His Glu Glu Ala Gln Lys Ile Met Glu Glu Ala  
 355 360 365  
 Glu Arg Leu Lys Ala Lys Gln Ala Val Gly Asp Asp Ser Ser Lys Asp  
 370 375 380  
 His His Ser Ile Arg Thr Ala Val Arg Tyr Pro Val Lys Asp Met Ser  
 385 390 395 400  
 Gly Arg Arg Lys Asn Glu Asp Asp Thr Asp Met His Leu Ala Lys Ser  
 405 410 415  
 Ile Met Gln Asn Lys Gln Tyr Lys Thr Ser Asn Gln Ala Ala Asp Asp  
 420 425 430  
 Glu Tyr Glu Tyr Gly Asp Ala Pro Ser Lys Lys Ser Arg Lys Arg Glu  
 435 440 445  
 Ser Ser Ser Asn Ile Pro Glu Lys Asp Asn Arg Val Lys Arg Ile Met  
 450 455 460  
 Thr Gln Gln Glu Arg Cys Leu Phe Cys Phe Glu Asn Pro Lys Arg Pro  
 465 470 475 480  
 Lys His Leu Val Val Ser Ile Ala Asn Phe Thr Tyr Leu Met Leu Pro  
 485 490 495  
 Gln His Gln Pro Leu Val Gln Gly His Cys Cys Ile Leu Pro Met Gln  
 500 505 510  
 His Glu Ala Ala Ser Arg Ser Val Asp Asp Asn Val Trp Asp Glu Ile  
 515 520 525



Arg Asn Phe Lys Lys Cys Leu Ile Met Met Tyr Ala Lys Glu Gly Lys  
 530 535 540

Asp Ala Val Phe Leu Glu Thr Val Ile Gly Leu Ser Gln Gln Arg Arg  
 545 550 555 560

His Cys Leu Ile Glu Cys Ile Pro Ile Pro Gln Glu Ile Ala Lys Glu  
 565 570 575

Gly Pro Leu Tyr Phe Lys Lys Ala Ile Asp Glu Ala Glu Ser Glu Trp  
 580 585 590

Ser Gln His Asn Ala Lys Lys Leu Ile Asp Thr Ser Val Lys Gly Leu  
 595 600 605

Arg Asn Ser Ile Pro Lys Asn Phe Pro Tyr Phe His Val Glu Phe Gly  
 610 615 620

Leu Asp Lys Gly Phe Val His Val Ile Asp Asp Glu Gln Gln Phe Asn  
 625 630 635 640

Ser Asn Leu Gly Leu Asn Val Ile Arg Gly Met Leu Glu Leu Pro Glu  
 645 650 655

Glu Asp Met Tyr Arg Arg Arg Arg Gln Glu Ser Val Glu Ser Gln Lys  
 660 665 670

Lys Ala Val Ala Thr Phe Ala Arg Glu Trp Glu His Phe Asp Trp Thr  
 675 680 685

Lys Gln Leu Asp  
 690

<210> 643

<211> 1143

<212> DNA

<213> Arabidopsis thaliana

<400> 643

atggatcttg ttgagagttt ttcccatggc gatcctgata ctccgcgttt cagtgacgac	60
ttcggttctg gctctgcttg ctctactccg ttcgtttagc ctccgtctag tcccggccgt	120
ggtcctccgc ctggttattt cttcagtgc cgcgtcagtc cgatgcattt cttcctttgc	180
tctgcttctt cttcatcgga gaatcctaaa aagcttgaca cgtcttcatg cggcgacttt	240

047-E2F-PCT.ST25.txt

gagtttgact tctcgtcgag gttgtcttca agcagtgggc ctttaggcgg tgtttccatg 300  
 acttcagctg aagagctttt ctctaattggc cagatcaagc caatgaagct ctcttcgcat 360  
 cttcagagac ctcagatctt atctccgctt ctagatctgg agaacgagga agaagacgac 420  
 gatgatgaga ccaaaccaaa cggtgagatg aagcgtggga gagatctgaa actaagaagc 480  
 agatctgttc accggaaggc cagatccctc tctccgctcc gaaacgcagc gtatcaatgg 540  
 aaccaagaag aaggagaaga agaagaagtc gccggagaga gagaagttaa agagtgtata 600  
 agaaagcttc aagaagacga aaacgtgcct tcagctgaaa cgacaccgtc ttgttctgct 660  
 tcttcttcac gatcatcgtc ttacggtaga aactctaaga aatggatctt tcttaaagat 720  
 ctgcttcaca gaagcaaaag cgaaggaaga ggcaacggga aagagaagtt ctggtccaac 780  
 atttccttct ctccttccaa tttcaaagac aagaaactca aatcatctca acttgaagag 840  
 aaaccgattc aagaaacagt tgacgctgcc gtggaatcaa agaagcagaa gcagaaacaa 900  
 ccgccggcga agaaagctcc ggttaacgga aaaccaacca acgggatagc aaaacggaga 960  
 ggattgcagc cgtctgctca cgagctacat tacacaacga acagagctca agcagaggaa 1020  
 atgaagaaga gaacatattt gccttacagg catggactct ttggttgttt agggtttagt 1080  
 tccaaagggtt acagtgcctt gaacgggtta gcccgtagct taaaccagc ttcattctggt 1140  
 taa 1143

<210> 644

<211> 380

<212> PRT

<213> Arabidopsis thaliana

<400> 644

Met Asp Leu Val Glu Ser Phe Ser His Gly Asp Pro Asp Thr Pro Arg  
 1 5 10 15

Phe Ser Asp Asp Phe Gly Ser Gly Ser Ala Cys Ser Thr Pro Phe Val  
 20 25 30

Ser Ala Pro Ser Ser Pro Gly Arg Gly Pro Pro Pro Gly Tyr Phe Phe  
 35 40 45

Ser Ala Pro Ser Ser Pro Met His Phe Phe Leu Cys Ser Ala Ser Ser  
 50 55 60

Ser Ser Glu Asn Pro Lys Lys Leu Asp Thr Ser Ser Cys Gly Asp Phe  
 65 70 75 80

047-E2F-PCT.ST25.txt

Glu Phe Asp Phe Ser Ser Arg Leu Ser Ser Ser Ser Gly Pro Leu Gly  
                     85                    90                    95  
 Gly Val Ser Met Thr Ser Ala Glu Glu Leu Phe Ser Asn Gly Gln Ile  
                     100                    105                    110  
 Lys Pro Met Lys Leu Ser Ser His Leu Gln Arg Pro Gln Ile Leu Ser  
                     115                    120                    125  
 Pro Leu Leu Asp Leu Glu Asn Glu Glu Glu Asp Asp Asp Asp Glu Thr  
                     130                    135                    140  
 Lys Pro Asn Gly Glu Met Lys Arg Gly Arg Asp Leu Lys Leu Arg Ser  
                     145                    150                    155                    160  
 Arg Ser Val His Arg Lys Ala Arg Ser Leu Ser Pro Leu Arg Asn Ala  
                     165                    170                    175  
 Ala Tyr Gln Trp Asn Gln Glu Glu Gly Glu Glu Glu Glu Val Ala Gly  
                     180                    185                    190  
 Glu Arg Glu Val Lys Glu Cys Ile Arg Lys Leu Gln Glu Asp Glu Asn  
                     195                    200                    205  
 Val Pro Ser Ala Glu Thr Thr Pro Ser Cys Ser Ala Ser Ser Ser Arg  
                     210                    215                    220  
 Ser Ser Ser Tyr Gly Arg Asn Ser Lys Lys Trp Ile Phe Leu Lys Asp  
                     225                    230                    235                    240  
 Leu Leu His Arg Ser Lys Ser Glu Gly Arg Gly Asn Gly Lys Glu Lys  
                     245                    250                    255  
 Phe Trp Ser Asn Ile Ser Phe Ser Pro Ser Asn Phe Lys Asp Lys Lys  
                     260                    265                    270  
 Leu Lys Ser Ser Gln Leu Glu Glu Lys Pro Ile Gln Glu Thr Val Asp  
                     275                    280                    285  
 Ala Ala Val Glu Ser Lys Lys Gln Lys Gln Lys Gln Pro Pro Ala Lys  
                     290                    295                    300  
 Lys Ala Pro Val Asn Gly Lys Pro Thr Asn Gly Ile Ala Lys Arg Arg  
                     305                    310                    315                    320  
 Gly Leu Gln Pro Ser Ala His Glu Leu His Tyr Thr Thr Asn Arg Ala

325

335

Gln Ala Glu Glu Met Lys Lys Arg Thr Tyr Leu Pro Tyr Arg His Gly  
340 345 350

Leu Phe Gly Cys Leu Gly Phe Ser Ser Lys Gly Tyr Ser Ala Leu Asn  
355 360 365

Gly Leu Ala Arg Ser Leu Asn Pro Val Ser Ser Gly  
370 375 380

<210> 645

<211> 3864

<212> DNA

<213> Arabidopsis thaliana

<400> 645

```
atgggtgagg aaggttcaat gtttggtctg ggaggtgaat ttccggttga tgattgtgat      60
ggtggtttttg agtttgaaga tgatgacgag actattgaca tcgaaacgct ttatcggatt      120
ctagatgaga agcctgattc tgctgaggta gttttctcgg cttttgtggg tagccaagaa      180
aacttatcac cagttggttc atctgctgac gagctcaagg attcacagtt gctaaatggt      240
tcatttgatg aacatgtgaa aatggaagcc gggctgagtc cttcacctgc tcatacttgc      300
tctgcaagtc ttaaagattg gttttcgttt agtcaggggtg agcagcctgt ggaaacatgt      360
ggagtatctc aatctgagat gactagtgtg agtatatcgt ctagtttctc tgatcctgat      420
ggcaatatga tggccttcaa tcctgtgaat tgtgacgttg acactgtttc caagcaggat      480
gataagataa tcgattccaa atctatgttg actccatatt ttgacaacgt gactggatac      540
ggagtggggg tgggagccaa tcataattcg tctgccatgt ctgttttttt taataattcc      600
aattccctca gtgacagtgc ggataactat gtctcttctg cacaagattg ctacaataca      660
agtggtacat ccttgctcaga ccataccccc aattctgttc agaatttcgc gtttgagttc      720
tttcctaata aagaagaagc tgtaaattgat gttgagagtg gagtaagtga gtctcagtcg      780
gatggtgcc a gccggatgat ttttgataga catggaagag tggataatgg atcttttagaa      840
aggaaacctc ctattgattt ttctagtgc aagaggatca gtttcaagtt tgaaagtaat      900
ccttcagttt ctctgcctg tgtcaaacc tacaacagtt ttgacagtca ttttagctgat      960
agtgcacctg accggcctaa taattattca tgcagttttc aggataataa aactgttcat     1020
gtgaaggtta aaccagaggc tgaatcagag aaagttgtct acagttcagt tccaggggaa     1080
tttagtgtca gggatgatgc ttatctttct ggagaaacca atcgttgggtg gtctggtgca     1140
```

## 047-E2F-PCT.ST25.txt

tcaagctctg	cagtctccta	tcaaacagat	attgaaaaag	gataactcata	tatggcaccg	1200
caaacagctc	tacctagcca	agacagtggc	aagataagct	ccaatcattt	ttacgattca	1260
gatacatggt	tgcaatatgt	tgtagaagat	cccagcccag	tgacacaaaa	caatgagtat	1320
aaagactttc	aaattcaaca	aggagaccgg	gaatatattc	aaccgagggg	cattgattct	1380
caatttctca	atgccagctt	tgaatcagtt	caaagccatt	cttcagaatg	tatatccgat	1440
agtgatgatg	attctgacgt	ctgcataata	gaaccttatg	gtcaatctgc	aatcccacat	1500
cgacctctag	ctatgaaaat	gccggtagtt	tcttcagaat	attctacagt	tagtcataat	1560
tttaatcaat	ctggaggcct	gaagcttcag	tcaaataaag	aaaatatgat	ctttcaagct	1620
gcattgcagg	atctcactca	gcctaattct	gaagcaattc	tgcttgatgg	tgtcttgaca	1680
gtcccgcctc	tgagacatca	gcgaatcgca	ttgtcatgga	tgggccagaa	ggagacaagt	1740
ggcttccccct	gttcgggtgg	aattcttgct	gatgatcagg	gtcttgggaa	gacagtttcc	1800
actatagctc	ttatactgaa	ggaaaggtct	aaacctgccc	aagcatgtga	agaaagtacg	1860
aagaaagaaa	tttttgacct	agaaagcgag	actggagaat	gtgcgctttt	aaaaccagct	1920
ggaagaagca	agcattttga	acactctcaa	ttgctttcca	atgaaaacaa	agttggtgga	1980
gacagtgtgg	gtaaagtgac	gggaaggcca	gctgctggaa	cgcttgttgt	atgtcccact	2040
agtgttatgc	ggcagtgggc	tgatgaatta	cataagaagg	tgactagtga	agcaaattct	2100
tctgttctgg	tataccatgg	gtctagcaga	acaaaggatc	ctcatgagtt	ggctaaatat	2160
gatgtttgtg	ttaccacatt	ttctattgta	agtatggaag	tgccaaagca	gcctcttggt	2220
gatgatgagg	atgaagagaa	ggatggtgta	catgatggtg	gaactgcagc	tactggcttt	2280
tgctcaaaca	agaaaaggaa	atatcctccc	gattctaaaa	agaaggggtc	aaagaagaag	2340
aaagttgagt	ttctgtctgg	ccctcttgcg	aaagtttcat	ggtttagagt	tgttctagat	2400
gaggcacaga	gcattaaaaa	ttacaaaacc	caagttgcaa	gagcatgctg	gggccttcgt	2460
gctaaacgga	ggtggtgttt	gtctggcact	ccaatccaga	attcaatcga	tgacctttac	2520
agctactttc	gattcctcaa	atatgatcct	tactcttcct	acgtattggt	ctgtagcacg	2580
attaagaacc	ctataactag	gaaccagtg	aaaggatatc	agaagctgca	ggctatcctt	2640
aaaacagtga	tgcttcgccg	aactaaaggt	tcacttcttg	atgggaaacc	cataatctct	2700
ttacctccga	agtcatttga	gttgagaaaa	gtggatttca	ctgtggagga	acgtgatttc	2760
tactccaaac	tagaggctga	atctcgtact	caattcaggg	aatatgcaga	agctggaaca	2820
gtgaagcaaa	attatgtaaa	tatcttggtg	atgctcttgc	gccttcgcca	agcttgatgat	2880
caccctcttc	tcgtgaatgg	tgaatacagt	tttacctggg	aatcttctgt	tggattagct	2940
aagaagcaga	ttcagtcaga	cgcttcattg	gcaatttgtg	gtatctgcaa	tgatgcacct	3000

047-E2F-PCT.ST25.txt

gaagatgctg ttgcttcagt ttgcggtcat gttttctgta aacagtgcac ttatgaacgc 3060  
 cttactggtg atagtaatca ctgtcccttt gcaaactgca atgtcagact caccatctca 3120  
 tcgttatctt ccaaaacgag attggacgat gctatgcctg acatgcagga gcgtgctact 3180  
 tcgaatagcc ttagcccttg ttctgatgaa gatcttccat atggttcatc taaaatcaag 3240  
 gctgctctag agatcttaca atcactgccc aaagcacatg atttgacaga ttcaaatacag 3300  
 atctctgaaa acagagaata ctccggtctt tctataactc ctgtgaagaa tgaggggatg 3360  
 agcggttgatg ttccgattaa ggtagctgga gaaaaagcca ttgttttttc ccaatggaca 3420  
 aagatgctaa acctacttga agcttctctt gtaagttcac atattcagta tagaaggctc 3480  
 gatggaacaa tgtcagttgc tgctagggat aaagcagtcg aggatttcaa cactctccct 3540  
 gaggttactg taatgataat gtctctcaag gctgctagtc tcggactgaa catggtggca 3600  
 gcttgctcatg ttctgatgct ggacttatgg tggaacccaa caaccgagga tcaagcaatc 3660  
 gatagagcac atcgtatagg acagacacga ccagtaacag tagttcgctt cacagtaaaa 3720  
 gatacagtcg aagatcggat attagccctt cagcaaaaaga agagaatgat ggtagcctct 3780  
 gcatttgag aagatgaaaa gggaagccga cagtctcacc tcacagtaga ggacttgagc 3840  
 tatctgttta tggctgattc atga 3864

<210> 646

<211> 1287

<212> PRT

<213> Arabidopsis thaliana

<400> 646

Met Gly Glu Glu Gly Ser Met Phe Gly Leu Gly Gly Glu Phe Pro Val  
 1 5 10 15

Asp Asp Cys Asp Gly Gly Phe Glu Phe Glu Asp Asp Asp Glu Thr Ile  
 20 25 30

Asp Ile Glu Thr Leu Tyr Arg Ile Leu Asp Glu Lys Pro Asp Ser Ala  
 35 40 45

Glu Val Val Phe Ser Ala Phe Val Gly Ser Gln Glu Asn Leu Ser Pro  
 50 55 60

Val Gly Ser Ser Ala Asp Glu Leu Lys Asp Ser Gln Leu Leu Asn Gly  
 65 70 75 80

Ser Phe Asp Glu His Val Lys Met Glu Ala Gly Leu Ser Pro Ser Pro  
 85 90 95  
 Ala His Thr Cys Ser Ala Ser Leu Lys Asp Trp Phe Ser Leu Ser Gln  
 100 105 110  
 Gly Glu Gln Pro Val Glu Thr Cys Gly Val Ser Gln Ser Glu Met Thr  
 115 120 125  
 Ser Cys Ser Ile Ser Ser Ser Phe Ser Asp Pro Asp Gly Asn Met Met  
 130 135 140  
 Ala Phe Asn Pro Val Asn Cys Asp Val Asp Thr Val Ser Lys Gln Asp  
 145 150 155 160  
 Asp Lys Ile Ile Asp Ser Lys Ser Met Leu Thr Pro Tyr Phe Asp Asn  
 165 170 175  
 Val Thr Gly Tyr Gly Val Gly Leu Gly Ala Asn His Asn Ser Ser Ala  
 180 185 190  
 Met Ser Val Phe Phe Asn Asn Ser Asn Ser Leu Ser Asp Ser Ala Asp  
 195 200 205  
 Asn Tyr Val Ser Ser Ala Gln Asp Cys Tyr Asn Thr Ser Gly Thr Ser  
 210 215 220  
 Leu Ser Asp His Thr Pro Asn Ser Val Gln Asn Phe Ala Phe Glu Phe  
 225 230 235 240  
 Phe Pro Asn Lys Glu Glu Ala Val Asn Asp Val Glu Ser Gly Val Ser  
 245 250 255  
 Glu Ser Gln Ser Asp Gly Ala Ser Arg Met Ile Phe Asp Arg His Gly  
 260 265 270  
 Arg Val Asp Asn Gly Ser Leu Glu Arg Lys Pro Pro Ile Asp Phe Ser  
 275 280 285  
 Ser Ala Arg Gly Ile Ser Phe Lys Phe Glu Ser Asn Pro Ser Val Ser  
 290 295 300  
 Pro Ala Cys Val Lys Pro Tyr Asn Ser Phe Asp Ser His Leu Ala Asp  
 305 310 315 320  
 Ser Asp Leu Asp Arg Pro Asn Asn Tyr Ser Cys Ser Phe Gln Asp Asn  
 325 330 335

047-E2F-PCT.ST25.txt

Lys Thr Val His Val Lys Val Lys Pro Glu Ala Glu Ser Glu Lys Val  
 340 345 350  
 Val Tyr Ser Ser Val Pro Gly Glu Phe Ser Val Arg Asp Asp Ala Tyr  
 355 360 365  
 Leu Ser Gly Glu Thr Asn Arg Trp Trp Ser Gly Ala Ser Ser Ser Ala  
 370 375 380  
 Val Ser Tyr Gln Thr Asp Ile Glu Lys Gly Tyr Ser Tyr Met Ala Pro  
 385 390 395 400  
 Gln Thr Ala Leu Pro Ser Gln Asp Ser Gly Lys Ile Ser Ser Asn His  
 405 410 415  
 Phe Tyr Asp Ser Asp Thr Cys Leu Gln Tyr Val Val Glu Asp Pro Ser  
 420 425 430  
 Pro Val Thr Gln Asn Asn Glu Tyr Lys Asp Phe Gln Ile Gln Gln Gly  
 435 440 445  
 Asp Arg Glu Tyr Ile Gln Pro Arg Gly Ile Asp Ser Gln Phe Ser Asn  
 450 455 460  
 Ala Ser Phe Glu Ser Val Gln Ser His Ser Ser Glu Cys Ile Ser Asp  
 465 470 475 480  
 Ser Asp Asp Asp Ser Asp Val Cys Ile Ile Glu Pro Tyr Gly Gln Ser  
 485 490 495  
 Ala Ile Pro His Arg Pro Leu Ala Met Lys Met Pro Val Val Ser Ser  
 500 505 510  
 Glu Tyr Ser Thr Val Ser His Asn Phe Asn Gln Ser Gly Gly Leu Lys  
 515 520 525  
 Leu Gln Ser Asn Lys Glu Asn Met Ile Phe Gln Ala Ala Leu Gln Asp  
 530 535 540  
 Leu Thr Gln Pro Asn Ser Glu Ala Ile Leu Pro Asp Gly Val Leu Thr  
 545 550 555 560  
 Val Pro Leu Leu Arg His Gln Arg Ile Ala Leu Ser Trp Met Ala Gln  
 565 570 575  
 Lys Glu Thr Ser Gly Phe Pro Cys Ser Gly Gly Ile Leu Ala Asp Asp  
 580 585 590



047-E2F-PCT.ST25.txt

Gln Gly Leu Gly Lys Thr Val Ser Thr Ile Ala Leu Ile Leu Lys Glu  
595 600 605

Arg Ser Lys Pro Ala Gln Ala Cys Glu Glu Ser Thr Lys Lys Glu Ile  
610 615 620

Phe Asp Leu Glu Ser Glu Thr Gly Glu Cys Ala Pro Leu Lys Pro Ser  
625 630 635 640

Gly Arg Ser Lys His Phe Glu His Ser Gln Leu Leu Ser Asn Glu Asn  
645 650 655

Lys Val Gly Gly Asp Ser Val Gly Lys Val Thr Gly Arg Pro Ala Ala  
660 665 670

Gly Thr Leu Val Val Cys Pro Thr Ser Val Met Arg Gln Trp Ala Asp  
675 680 685

Glu Leu His Lys Lys Val Thr Ser Glu Ala Asn Leu Ser Val Leu Val  
690 695 700

Tyr His Gly Ser Ser Arg Thr Lys Asp Pro His Glu Leu Ala Lys Tyr  
705 710 715 720

Asp Val Val Val Thr Thr Phe Ser Ile Val Ser Met Glu Val Pro Lys  
725 730 735

Gln Pro Leu Val Asp Asp Glu Asp Glu Glu Lys Asp Gly Val His Asp  
740 745 750

Gly Gly Thr Ala Ala Thr Gly Phe Cys Ser Asn Lys Lys Arg Lys Tyr  
755 760 765

Pro Pro Asp Ser Lys Lys Lys Gly Ser Lys Lys Lys Lys Val Glu Phe  
770 775 780

Leu Ser Gly Pro Leu Ala Lys Val Ser Trp Phe Arg Val Val Leu Asp  
785 790 795 800

Glu Ala Gln Ser Ile Lys Asn Tyr Lys Thr Gln Val Ala Arg Ala Cys  
805 810 815

Trp Gly Leu Arg Ala Lys Arg Arg Trp Cys Leu Ser Gly Thr Pro Ile  
820 825 830

Gln Asn Ser Ile Asp Asp Leu Tyr Ser Tyr Phe Arg Phe Leu Lys Tyr

835

840

845

Asp Pro Tyr Ser Ser Tyr Val Leu Phe Cys Ser Thr Ile Lys Asn Pro  
 850 855 860

Ile Thr Arg Asn Pro Val Lys Gly Tyr Gln Lys Leu Gln Ala Ile Leu  
 865 870 875 880

Lys Thr Val Met Leu Arg Arg Thr Lys Gly Ser Leu Leu Asp Gly Lys  
 885 890 895

Pro Ile Ile Ser Leu Pro Pro Lys Ser Ile Glu Leu Arg Lys Val Asp  
 900 905 910

Phe Thr Val Glu Glu Arg Asp Phe Tyr Ser Lys Leu Glu Ala Glu Ser  
 915 920 925

Arg Thr Gln Phe Arg Glu Tyr Ala Glu Ala Gly Thr Val Lys Gln Asn  
 930 935 940

Tyr Val Asn Ile Leu Leu Met Leu Leu Arg Leu Arg Gln Ala Cys Asp  
 945 950 955 960

His Pro Leu Leu Val Asn Gly Glu Tyr Ser Phe Thr Trp Glu Ser Ser  
 965 970 975

Val Gly Leu Ala Lys Lys Gln Ile Gln Ser Asp Ala Ser Leu Ala Ile  
 980 985 990

Cys Gly Ile Cys Asn Asp Ala Pro Glu Asp Ala Val Ala Ser Val Cys  
 995 1000 1005

Gly His Val Phe Cys Lys Gln Cys Ile Tyr Glu Arg Leu Thr Gly  
 1010 1015 1020

Asp Ser Asn His Cys Pro Phe Ala Asn Cys Asn Val Arg Leu Thr  
 1025 1030 1035

Ile Ser Ser Leu Ser Ser Lys Thr Arg Leu Asp Asp Ala Met Pro  
 1040 1045 1050

Asp Met Gln Glu Arg Ala Thr Ser Asn Ser Leu Ser Pro Cys Ser  
 1055 1060 1065

Asp Glu Asp Leu Pro Tyr Gly Ser Ser Lys Ile Lys Ala Ala Leu  
 1070 1075 1080

Glu Ile Leu Gln Ser Leu Pro Lys Ala His Asp Leu Thr Asp Ser  
 1085 1090 1095  
 Asn Gln Ile Ser Glu Asn Arg Glu Tyr Ser Gly Leu Ser Ile Thr  
 1100 1105 1110  
 Pro Val Lys Asn Glu Gly Met Ser Val Asp Val Pro Ile Lys Val  
 1115 1120 1125  
 Ala Gly Glu Lys Ala Ile Val Phe Ser Gln Trp Thr Lys Met Leu  
 1130 1135 1140  
 Asn Leu Leu Glu Ala Ser Leu Val Ser Ser His Ile Gln Tyr Arg  
 1145 1150 1155  
 Arg Leu Asp Gly Thr Met Ser Val Ala Ala Arg Asp Lys Ala Val  
 1160 1165 1170  
 Gln Asp Phe Asn Thr Leu Pro Glu Val Thr Val Met Ile Met Ser  
 1175 1180 1185  
 Leu Lys Ala Ala Ser Leu Gly Leu Asn Met Val Ala Ala Cys His  
 1190 1195 1200  
 Val Leu Met Leu Asp Leu Trp Trp Asn Pro Thr Thr Glu Asp Gln  
 1205 1210 1215  
 Ala Ile Asp Arg Ala His Arg Ile Gly Gln Thr Arg Pro Val Thr  
 1220 1225 1230  
 Val Val Arg Phe Thr Val Lys Asp Thr Val Glu Asp Arg Ile Leu  
 1235 1240 1245  
 Ala Leu Gln Gln Lys Lys Arg Met Met Val Ala Ser Ala Phe Gly  
 1250 1255 1260  
 Glu Asp Glu Lys Gly Ser Arg Gln Ser His Leu Thr Val Glu Asp  
 1265 1270 1275  
 Leu Ser Tyr Leu Phe Met Ala Asp Ser  
 1280 1285

&lt;210&gt; 647

&lt;211&gt; 990

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

```

<400> 647
atgagtgctg cagcacacag gactcctaaa tcagggaggc aatctctgct atttcaagat    60
ttagcttctc ctgtttcagc acgtagaggg aaattctcga gtccgggaca ggcagctgcg    120
gtatctgcac tatggcgtga gaatttcgga ggatctgata ttccaccacc tccaatgtat    180
actttggatg accggtccga tttctctcct gagtctggta ttgcagacta ctctgcgtct    240
ccagatgcta agtctgacag aagaacacca ttccagagtt ctggaaagaa tattgtaact    300
cctggtaaag gaaagttgga agcaagccct tctttttctc tactgaatgc acaacagagt    360
cagcaagttt cagggagttc gagttggtgg tcgcagtcaa aggcaggtag tagtaccgag    420
caggatgata aaggggaaggg atctcctgta gaaggggtgg ttcagccagg tgcattggtc    480
actcttccgc cgccaagaga agttgctagg ccagaggttc agaggcagat tatacctaca    540
ggaaaccttg atgaggaaga gtgggtcact gtctatggat tttctccagg tgatacaaat    600
ttagtactac gggagtttga aaaatgtggt atggtcttga aacatgttcc tgggtccaaga    660
aatgccaact ggatgcacat cctctaccag aaccggtctg atgcacataa ggcgctgaac    720
aaagcagggg tgatgataaa cggagttgta atagtaggag tgaagccagt agaccaata    780
cagaagcaag cgttaaacga gagactcaac aaccaaggat tcatgccttt acctccacca    840
tcatccacta gaaacactgc tcgaccctg tctcgtcctc agtacttgca aaacggcagc    900
gctttctctc ctcaaccaag tggtagcgct atggcctctc cgtcaaagtc aatgggtctca    960
aagttctttg acttgatggt cggtgtttta    990

```

<210> 648

<211> 329

<212> PRT

<213> Arabidopsis thaliana

<400> 648

```

Met Ser Ala Ala Ala His Arg Thr Pro Lys Ser Gly Arg Gln Ser Leu
1           5           10          15

```

```

Leu Phe Gln Asp Leu Ala Ser Pro Val Ser Ala Arg Arg Gly Lys Phe
20          25          30

```

```

Ser Ser Pro Gly Gln Ala Ala Ala Val Ser Ala Leu Trp Arg Glu Asn
35          40          45

```

047-E2F-PCT.ST25.txt

Phe Gly Gly Ser Asp Leu Pro Pro Pro Pro Met Tyr Thr Leu Asp Asp  
 50 55 60  
 Arg Ser Asp Phe Ser Pro Glu Ser Gly Ile Ala Asp Tyr Ser Ala Ser  
 65 70 75 80  
 Pro Asp Ala Lys Ser Asp Arg Arg Thr Pro Phe Gln Ser Ser Gly Lys  
 85 90 95  
 Asn Ile Val Thr Pro Gly Lys Gly Lys Leu Glu Ala Ser Pro Ser Phe  
 100 105 110  
 Ser Leu Leu Asn Ala Gln Gln Ser Gln Gln Val Ser Gly Ser Pro Ser  
 115 120 125  
 Trp Trp Ser Gln Ser Lys Ala Gly Ser Ser Thr Glu Gln Asp Asp Lys  
 130 135 140  
 Gly Lys Gly Ser Pro Val Glu Gly Val Val Gln Pro Gly Ala Leu Val  
 145 150 155 160  
 Thr Leu Pro Pro Pro Arg Glu Val Ala Arg Pro Glu Val Gln Arg Gln  
 165 170 175  
 Ile Ile Pro Thr Gly Asn Leu Asp Glu Glu Glu Trp Val Thr Val Tyr  
 180 185 190  
 Gly Phe Ser Pro Gly Asp Thr Asn Leu Val Leu Arg Glu Phe Glu Lys  
 195 200 205  
 Cys Gly Met Val Leu Lys His Val Pro Gly Pro Arg Asn Ala Asn Trp  
 210 215 220  
 Met His Ile Leu Tyr Gln Asn Arg Ser Asp Ala His Lys Ala Leu Asn  
 225 230 235 240  
 Lys Ala Gly Met Met Ile Asn Gly Val Val Ile Val Gly Val Lys Pro  
 245 250 255  
 Val Asp Pro Ile Gln Lys Gln Ala Leu Asn Glu Arg Leu Asn Asn Gln  
 260 265 270  
 Gly Phe Met Pro Leu Pro Pro Pro Ser Ser Thr Arg Asn Thr Ala Arg  
 275 280 285  
 Pro Leu Ser Arg Pro Gln Tyr Leu Gln Asn Gly Ser Ala Phe Ser Pro  
 290 295 300

047-E2F-PCT.ST25.txt

Gln Pro Ser Gly Gly Ala Met Ala Ser Pro Ser Lys Ser Met Val Ser  
305 310 315 320

Lys Phe Phe Asp Leu Met Phe Gly Val  
325

<210> 649

<211> 1488

<212> DNA

<213> Arabidopsis thaliana

<400> 649

```

atggtttccg aaacaaccaa atcttctcca cttcactttg ttctcttccc tttcatggct    60
caaggccaca tgattcccat ggttgatatt gcaaggctct tggctcagcg tgggtgtgatc    120
ataacaattg tcacgacgcc tcacaatgca gcgagggttca agaatgtcct aaaccgtgcc    180
attgagtctg gcttgcccat caacttagtg caagtcaagt ttccatatct agaagctgggt    240
ttgcaagaag gacaagagaa tatcgattct cttgacacaa tggagcggat gatacctttc    300
tttaaagcgg ttaactttct cgaagaacca gtccagaagc tcattgaaga gatgaaccct    360
cgaccaagct gtctaatttc tgatTTTTgt ttgccttata caagcaaat cgccaagaag    420
ttcaatatcc caaagatcct cttccatggc atggggttgct tttgtcttct gtgtatgcat    480
gttttacgca agaaccgtga gatcttggac aatttaaagt cagataagga gcttttctact    540
gttcctgatt ttcctgatag agttgaattc acaagaacgc aagttccgggt agaaacatat    600
gttccagctg gagactggaa agatatcttt gatggtatgg tagaagcgaa tgagacatct    660
tatggtgtga tcgtcaactc atttcaagag ctcgagcctg cttatgccaa agactacaag    720
gaggtaagggt ccggtaaagc atggaccatt ggaccggtt ccttgtgcaa caaggtagga    780
gccgacaaag cagagagggg aaacaaatca gacattgatc aagatgagtg ccttaaattgg    840
ctcgattcta agaaacatgg ctcggtgctt tacgtttgtc ttggaagtat ctgtaatctt    900
cctttgtctc aactcaagga gctgggacta ggcctagagg aatcccaaag acctttcatt    960
tgggtcataa gaggttgagg gaagtacaaa gagttagttg agtggttctc ggaaagcggc    1020
tttgaagata gaatccaaga tagaggactt ctcatacaag gatggtcccc tcaaattgctt    1080
atcctttcac atccatcagt tggaggggttc ctaacacact gtggttgga ctcgactctt    1140
gaggggataa ctgctgggtc accgctactt acatggccgc tattcgcaga ccaattctgc    1200
aatgagaaat tggtcgttga ggtactaaaa gccggtgtaa gatccgggggt tgaacagcct    1260
atgaaatggg gagaagagga gaaaatagga gtgttggtgg ataaagaagg agtgaagaag    1320

```

047-E2F-PCT.ST25.txt

gcagtggaag aattaatggg tgagagtgat gatgcaaaag agagaagaag aagagccaaa 1380  
gagcttggag attcagctca caaggctgtg gaagaaggag gctcttctca ttctaacatc 1440  
tctttcttgc tacaagacat aatggaactg gcagaacca ataattga 1488

<210> 650

<211> 495

<212> PRT

<213> Arabidopsis thaliana

<400> 650

Met Val Ser Glu Thr Thr Lys Ser Ser Pro Leu His Phe Val Leu Phe  
1 5 10 15

Pro Phe Met Ala Gln Gly His Met Ile Pro Met Val Asp Ile Ala Arg  
20 25 30

Leu Leu Ala Gln Arg Gly Val Ile Ile Thr Ile Val Thr Thr Pro His  
35 40 45

Asn Ala Ala Arg Phe Lys Asn Val Leu Asn Arg Ala Ile Glu Ser Gly  
50 55 60

Leu Pro Ile Asn Leu Val Gln Val Lys Phe Pro Tyr Leu Glu Ala Gly  
65 70 75 80

Leu Gln Glu Gly Gln Glu Asn Ile Asp Ser Leu Asp Thr Met Glu Arg  
85 90 95

Met Ile Pro Phe Phe Lys Ala Val Asn Phe Leu Glu Glu Pro Val Gln  
100 105 110

Lys Leu Ile Glu Glu Met Asn Pro Arg Pro Ser Cys Leu Ile Ser Asp  
115 120 125

Phe Cys Leu Pro Tyr Thr Ser Lys Ile Ala Lys Lys Phe Asn Ile Pro  
130 135 140

Lys Ile Leu Phe His Gly Met Gly Cys Phe Cys Leu Leu Cys Met His  
145 150 155 160

Val Leu Arg Lys Asn Arg Glu Ile Leu Asp Asn Leu Lys Ser Asp Lys  
165 170 175

047-E2F-PCT.ST25.txt

Glu Leu Phe Thr Val Pro Asp Phe Pro Asp Arg Val Glu Phe Thr Arg  
 180 185 190  
 Thr Gln Val Pro Val Glu Thr Tyr Val Pro Ala Gly Asp Trp Lys Asp  
 195 200 205  
 Ile Phe Asp Gly Met Val Glu Ala Asn Glu Thr Ser Tyr Gly Val Ile  
 210 215 220  
 Val Asn Ser Phe Gln Glu Leu Glu Pro Ala Tyr Ala Lys Asp Tyr Lys  
 225 230 235 240  
 Glu Val Arg Ser Gly Lys Ala Trp Thr Ile Gly Pro Val Ser Leu Cys  
 245 250 255  
 Asn Lys Val Gly Ala Asp Lys Ala Glu Arg Gly Asn Lys Ser Asp Ile  
 260 265 270  
 Asp Gln Asp Glu Cys Leu Lys Trp Leu Asp Ser Lys Lys His Gly Ser  
 275 280 285  
 Val Leu Tyr Val Cys Leu Gly Ser Ile Cys Asn Leu Pro Leu Ser Gln  
 290 295 300  
 Leu Lys Glu Leu Gly Leu Gly Leu Glu Glu Ser Gln Arg Pro Phe Ile  
 305 310 315 320  
 Trp Val Ile Arg Gly Trp Glu Lys Tyr Lys Glu Leu Val Glu Trp Phe  
 325 330 335  
 Ser Glu Ser Gly Phe Glu Asp Arg Ile Gln Asp Arg Gly Leu Leu Ile  
 340 345 350  
 Lys Gly Trp Ser Pro Gln Met Leu Ile Leu Ser His Pro Ser Val Gly  
 355 360 365  
 Gly Phe Leu Thr His Cys Gly Trp Asn Ser Thr Leu Glu Gly Ile Thr  
 370 375 380  
 Ala Gly Leu Pro Leu Leu Thr Trp Pro Leu Phe Ala Asp Gln Phe Cys  
 385 390 395 400  
 Asn Glu Lys Leu Val Val Glu Val Leu Lys Ala Gly Val Arg Ser Gly  
 405 410 415  
 Val Glu Gln Pro Met Lys Trp Gly Glu Glu Glu Lys Ile Gly Val Leu  
 420 425 430



Val Asp Lys Glu Gly Val Lys Lys Ala Val Glu Glu Leu Met Gly Glu  
 435 440 445

Ser Asp Asp Ala Lys Glu Arg Arg Arg Arg Ala Lys Glu Leu Gly Asp  
 450 455 460

Ser Ala His Lys Ala Val Glu Glu Gly Gly Ser Ser His Ser Asn Ile  
 465 470 475 480

Ser Phe Leu Leu Gln Asp Ile Met Glu Leu Ala Glu Pro Asn Asn  
 485 490 495

<210> 651

<211> 1035

<212> DNA

<213> Arabidopsis thaliana

<400> 651

```

atgtttggtg gaggaagagg gcctatgggt ggcggcggag gtatgttacg cgccgccggt      60
cgtgcatga cgaggaccgg ttagccaac ggtggtattc aagatccctt tgcttcttca      120
tcatcatcgt ccacgtcgtc tccggctgga aacgcctctg tttcgcattg ccagaaacag      180
agatcttctt cttctgggtc gaataatctg acgtattccg cggcttcttg gttgttgttg      240
aatcttccgg tggctgcaac ctccggatgg agcggcggcg gtcctttttc ctttggttaat      300
tctggagggt atgatgattt tgagtgggtt tctgaggaag aagatgattc tctgtttggc      360
tctgttcctt ctgttgatga agtccaagat gctgtttctg ctctccagca ggttttcgat      420
gctagttcat attcccagct ggtagagac aaatacgagt gctatccgga aaatggtggt      480
ggaaaccaga gccctatagc cacagggatg gttcatcaag ttccttcatt cgggtcggat      540
tcggactgga tggagccatc aatgcattta tgccattcaa gaacgttaaa gcctcatgct      600
tatgatcagg tttaaatgc ttttgacctt ctacgaaccg aaccatctgt ccagaaaatg      660
gtagtatcat tgtcgtctga caaagcagtt tgggaggcgg tgatgaacaa cgatgtggtg      720
cgagagatta gggacttgta caacaatggc ataagtcaag atgaggaaaa ttcagaagac      780
acccttaggg agaataacgc agcaacggat ttcataaagt gggatattga caacacaatg      840
gttaaggcca cggaagtgtt tgtgaaaata acaaaggctg tgaccgagct cttcaattgt      900
tacaatggtg atggtgttaa caacaagggg aaagatgcca aattcaacaa ttggctcgag      960
gaaaagctga ccacttcggt cctgctatcc atcatcggtt tgctgggtcgt gatggtatcc     1020

```

cgagcctgca actag

1035

&lt;210&gt; 652

&lt;211&gt; 344

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 652

Met Phe Gly Gly Gly Arg Gly Pro Met Gly Gly Gly Gly Gly Met Leu  
 1 5 10 15

Arg Ala Ala Gly Arg Ala Met Thr Arg Thr Gly Val Ala Asn Gly Gly  
 20 25 30

Ile Gln Asp Pro Phe Ala Ser Ser Ser Ser Ser Thr Ser Ser Pro  
 35 40 45

Ala Gly Asn Ala Ser Val Ser His Val Gln Lys Gln Arg Ser Ser Ser  
 50 55 60

Ser Gly Ser Asn Asn Leu Thr Tyr Ser Ala Ala Ser Gly Leu Leu Leu  
 65 70 75 80

Asn Leu Pro Val Ala Ala Thr Ser Gly Trp Ser Gly Gly Gly Pro Phe  
 85 90 95

Ser Phe Val Asn Ser Gly Gly Tyr Asp Asp Phe Glu Trp Val Ser Glu  
 100 105 110

Glu Glu Asp Asp Ser Leu Phe Gly Ser Val Pro Ser Val Asp Glu Val  
 115 120 125

Gln Asp Ala Val Ser Ala Leu Gln Gln Val Phe Asp Ala Ser Ser Tyr  
 130 135 140

Ser Gln Leu Val Arg Asp Lys Tyr Glu Cys Tyr Pro Glu Asn Gly Gly  
 145 150 155 160

Gly Asn Gln Ser Pro Ile Ala Thr Gly Met Val His Gln Val Pro Ser  
 165 170 175

Phe Gly Ser Asp Ser Asp Trp Met Glu Pro Ser Met His Leu Cys His  
 180 185 190

Ser Arg Thr Leu Lys Pro His Ala Tyr Asp Gln Val Tyr Asn Ala Phe  
 195 200 205  
 Asp Leu Leu Arg Thr Glu Pro Ser Val Gln Lys Met Val Val Ser Leu  
 210 215 220  
 Ser Ser Asp Lys Ala Val Trp Glu Ala Val Met Asn Asn Asp Val Val  
 225 230 235 240  
 Arg Glu Ile Arg Asp Leu Tyr Asn Asn Gly Ile Ser Gln Asp Glu Glu  
 245 250 255  
 Asn Ser Glu Asp Thr Pro Arg Glu Asn Asn Ala Ala Thr Asp Phe Ile  
 260 265 270  
 Lys Trp Val Phe Asp Asn Thr Met Val Lys Ala Thr Glu Val Phe Val  
 275 280 285  
 Lys Ile Thr Lys Val Val Thr Glu Leu Phe Asn Cys Tyr Asn Gly Asp  
 290 295 300  
 Gly Val Asn Asn Lys Gly Lys Asp Ala Lys Phe Asn Asn Trp Leu Glu  
 305 310 315 320  
 Glu Lys Leu Thr Thr Ser Val Leu Leu Ser Ile Ile Val Met Leu Val  
 325 330 335  
 Val Met Val Ser Arg Ala Cys Asn  
 340

&lt;210&gt; 653

&lt;211&gt; 6375

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 653

atgttgctctc ccttatttgt gatctctatt ggagcagtca gaaagtgtct tagagctatc	60
aatgaatctc gtgcactgaa gcgcaaggta atcaagagac tctcagactc caatcctttt	120
caatttatct tttgtgcaga gttcagggct ggtcaggttt atgggggtgcc tctctctggt	180
tcgcttctat gtaagcctgg atttccagaa caaagggtcat gtggggagga gacaaagaaa	240
agatggatcg agagtttatc acaacagcac aaacgattgc gctctttggc tgataacatt	300
cctggatata ggagaaaaac cttatttgaa gtccttataa ggaacaatgt cccactattg	360

agagctactt ggtttataaa agtgacttat ctcaatcagg tacattggtg ggcaataaat 420  
 tgggtgcgacc tagtcctgct gctatttctt caggaacacc tgacaagaca caagcttctc 480  
 ggtgtgagca atggacaaaa gatgttattg aatatttgca atacctcttg gatgaacttt 540  
 tgtcacggaa tagctcattt cctgctcagc aaactagaga taggtcacca cagatgcttt 600  
 atacaggatc aatgcaaaaag aatagtccag catcaacaag cctttacggc gaggaaacat 660  
 ctctacattt taaatggttg tatatggtgc gtcttctaca gtggcaccat gctgaagggc 720  
 ttctttttcc taatctcatt gttgattggg ttctcaagct cttacagctt tgtgaatttc 780  
 cattttgctt tactgcagga aaaggagatc tttgaaattt tgcagctgct actccccatt 840  
 gtgtatggtg ttttagagag tattgttctc tctcagacat atgtacagag tcttgtagct 900  
 attgctgtcc gtttcattca ggaacctgct cctggtggat ctgatcttgt tgataactct 960  
 cgaagagctt atactctatc tgctctaatt gagatggttc gctacttggt acttgctgca 1020  
 cccgacacat ttgttgcttc agatttcttt cctcttcctc cttccgtagc agcatgtgga 1080  
 cctaattgatg tgagctatac gtcaaaggct tatgagaatc tggaaaagct gagaagtaac 1140  
 tctgcggaga tttctgcca gtttcaagga agaggagttc tttcccgggt tgagttcctt 1200  
 tcttttgatt ataccatttc aaccattcaa agaagtgcag atgatttggc aaagatagct 1260  
 agcgctgggt accctcaaca taacgtggct aaagctgttc aggccttgga taaagctttg 1320  
 tcggatggag atatcagagc tgcttacagt tatctctttg aagaccttg caatggagcc 1380  
 gttgatgagg cctggattac tgacgtcagt ccatgtttaa gatcatccct tagatggatt 1440  
 ggcgctatta gcacatcctt tgtttgctcc gtttttttcc ttatagaatg ggctacatgt 1500  
 gatttttagag atttccgtgc tgggtgtgcct aaagatatca agttctcttg cagaaaagat 1560  
 tgttctcagg tgtatttagt cattcagctt ctgaagcaaa agattctggg tggagaattc 1620  
 acagctcgca aaggaaagaa ttgtcgcaac aattttcttg gtgtttctaa acctagcggg 1680  
 tcgatggatg catttgaaag cccgggcca ttacatgata tcatagtctg ttggattgat 1740  
 cagcatgagg tacacaaggg aggagcaaag cgcttgcaat tactcgtttt tgaacttata 1800  
 cgttctggaa tctttaatcc catagcatat gtgaggcaac tcatagttag cgggatgatc 1860  
 gatgtgattc aacctgctgt tgatcctgaa aggagaaatga ggcaccatcg catattgaaa 1920  
 cagctacctg ggtgttttgt acatgaaacc ttagaggaag ctcaactctt tggaggggat 1980  
 aagctttccg aggctgtgag aacttattct aatgaacggc gccttcttct tcgagaactg 2040  
 cttgttgaga aaggtaaata ctggaataat ttagttctct cagatcagaa gtcaaagaaa 2100  
 atttccactt ccctttcgtc tgttattttt ccaagggcgt gtaatgcaa gagcaatagt 2160  
 aagggacctc gcaaacatac caagagtagt gtggatatta gagaactaaa ggagcgcata 2220  
 tcagctctac tgcagtttcc aggtatgtca tgtggtgtgg aaaccccagt gcgagatgaa 2280

## 047-E2F-PCT.ST25.txt

ttccaaaata	gtgttaagag	atcaagtgga	tctgtgtata	gcaagatgga	tcaaccagaa	2340	
gctacaccag	ggtgtgaaga	ctgtagaaga	gcaaaaagac	caaaaatgaa	tgatgaaaag	2400	
agctcttgct	atcaagggaa	ttcaccaatt	gcatcagatg	aagaagataa	ctggtggatc	2460	
aagaaaggat	cgaaaactgt	ggagtcttct	ctgaaggttg	atcctcagat	agagataact	2520	
aaacaagtac	cacgaggtag	gcagaagatg	gcgcgtaaga	cacagtcgct	ggctcaacta	2580	
caagctgcta	gaattgaagg	tagccagggc	gcttcaacga	gtcatgtttg	tgataataaa	2640	
gtaagctgtc	ctcatcatgg	ccctggagtg	gaaggagaaa	atcagaaggt	ggttgatgtg	2700	
tttagaactt	ccaccctgt	ggatatggta	tctgttggaa	actctttgaa	gcagctacag	2760	
tttgttgata	agcgatctat	tgcagtttgg	cttactactg	cagttcggca	acttgttgaa	2820	
gagcccaaaa	agagcagtgt	gagagttggg	cagttcaata	gaggtgctcc	agttgaggag	2880	
aagaacacaa	ttaggtggaa	gcttggggca	gacgagctat	actccatatt	atttctcttg	2940	
gatatctctc	ttgacttggt	ttcagcgggt	ggaagaaacc	ttgtaactgt	accaaggaat	3000	
gttgaaaaca	acatgtgtga	aataggcgag	gcgattctag	tatcatcact	gagaaggtat	3060	
gaaaacattc	tactttcagc	tgatcttggt	cctgaggcca	tgacagcttt	gatgaaccgt	3120	
gctgcatcac	ttatgtctag	taatggaaaa	atttctggat	cagcagcctt	agtttatact	3180	
cgctatat	tgaaaagata	tggaagcctc	cccagtgttg	tggaatggca	taacaatttc	3240	
aaagcaacat	ccgaaaagaa	gctactttct	gaactagatc	atacgcgatc	aggaaatggg	3300	
gagtatggga	acccctcgg	ggttccagca	ggagtagata	atccagatga	ctatttacgt	3360	
aaaaaaatca	gcattggcgg	tgcacgtcct	tcaagagtgg	gtttgagtat	gcgagatggt	3420	
ttgcaacgac	atgttgaaga	ggcgactcat	tatctcaaaa	aactcattgg	gactgggtact	3480	
atgaaagcct	ctctcgctga	gaaaaatgat	gacgggtatc	aggtgggtca	acaaattgta	3540	
gttggactaa	tggactgcat	tagacagact	ggcgggtgcag	ctcaagaggg	tgatccctct	3600	
ttggtttctt	ctgcggtttc	tgcgattata	aacagtgtag	gcctttcagt	ggcaaggatt	3660	
acagatttct	ctttgggaaa	catttatcag	aatcatcctt	ctggcgttga	ttcatcta	3720	
attgcacgat	acattttacg	aatccatata	acctgtctgt	gccttcttaa	ggaagctctt	3780	
ggagagcgtc	aaagccgagt	gtttgaaata	gcacttgcaa	cagaaagttc	cactgcgctt	3840	
actggagttt	ttgctcctgt	gaagggatca	cgaggtcagc	atcagctatc	tcctgaatcc	3900	
tatgattcaa	atgcaaacaa	ttcaacaatc	gatatgtcga	atggtactgg	aaaaatggcg	3960	
ctgagcagag	cgacaaaaat	tactgcagct	gtatctgcac	ttgttatagg	ttctatcaca	4020	
catggtgtta	taacccttga	gaggattggt	ggtctactga	gactaaagga	ttacttagat	4080	
ttcgttcagt	ttgtaaggcg	tacaaaatcg	agttcta	atg	gcagtgctag	atccatggga	4140

gcctctaaag	tggaagccc	tattgaagtg	tatgtacatt	ggttcagact	ccttgttggt	4200
aactgtaaaa	ctgtttcggg	agggctgggt	ttggagcttg	tgggagaatc	ttccgtgggtg	4260
gctatatcac	gcatgcagcg	tatgcttccg	ctgaaattgg	tcttcccacc	agcctattca	4320
attattgcgt	ttgttctgtg	gaggcctttt	gtttcaaata	gtaactctaa	ctccagcgtc	4380
catgaagaca	ctcaccgcct	ttatcagtct	ttgacaatgg	ccttccatga	tgttattaag	4440
catcttcctt	tccgagacgt	gtgcttcaga	gacaccaggg	gactttatga	actgatagtt	4500
gctgattcca	cagatgctga	atttgcgtcg	gtgtttgaat	cgcatggatt	ggatatgcac	4560
ttgaaatctg	tggcctttgc	tcctcttcga	gcgcgtcttt	tcttaaattc	cctaattgat	4620
tgtaaggtgc	catcctctgg	ttattcccat	gaaggagtta	gtgaagcaaa	aaaccgacat	4680
cagggaaatg	gaacaaagct	tgtggacaag	cttgtatctg	tattagattg	cctgcagcct	4740
gcaaaatttc	actggcagtg	ggttgaactc	aggctgcttc	taaacgagca	agcacttgct	4800
gagaaactcg	aaaatcatga	tatgcctttg	acagatgcaa	tacgatcttc	ctgtcctacc	4860
tctgagaagc	ctgatgcctc	tgagaatgag	aaaaatttca	ttcaaatcct	cctcacaagg	4920
ttattggtta	gacctgatgc	ggtcctctct	ttctcagaag	tggttcatct	cttcggtaga	4980
tcggttgagg	attcaatggt	gaagcaagct	gaatggtttc	tagcaggcca	agatgttctt	5040
tttggacgaa	aaacaatcag	acaaaaactg	attattgtag	gtgaaagcaa	aggactcccc	5100
acgaaacctc	agtttttgaa	accttggggg	tgggtgaaca	gctctagtcc	cgatcatatt	5160
acagcaaaca	aggcagggaa	gaaaaggaag	tttgaaatta	cttctatcga	agaaggggaa	5220
gtgattgagg	aagggttcagg	ttcaagaaag	gtattattac	cccgggtatt	ggatgagaat	5280
agtcccagtg	ttggctatgg	gattacaact	gagagggcct	ttgttcagct	agtgcctcca	5340
tgcatagacc	aaagctctga	tgagtctcga	agtacctttg	tgaatgagtt	ggtaagacag	5400
tttagcaata	ttgagcagca	attaagttca	gttaccaacc	gcagtacaac	aagcaacaag	5460
caaatgggaa	ctgcttcttc	tgggtctgag	atttcatcaa	ataaaggaag	taccggaag	5520
ggccttcgcg	gtggttagccc	tagtttgga	agaagatcct	cagccaatac	tactgacact	5580
tcgccgccgc	cttcccctgc	tgctttgaga	gcttctatgt	ctttgcgggt	gcaatttctt	5640
ctaagattac	tgctgtcat	ctgcggggaa	ccttcattta	agaacaccag	acatgcactt	5700
gcgtctacaa	tagttcgtct	acttggaagc	agagtagttt	atgaagatta	tgctgtatgt	5760
tctcctcgta	gtgagctatc	aaaggcagaa	acagaatcaa	caatagatcc	ttcttccatg	5820
gcagatctct	ctagtgaagt	cttatttgac	cgagagagc	ttacaggttt	gtcaacaaat	5880
tttaaaaaat	ccttaaaagt	ctgtcttctt	ggctgcaaaa	atgagctttc	gcggatgcag	5940
ttaccagaca	ccattagatg	gcggatccaa	gcagcgatgc	caatcctcct	tccttctcta	6000
cgctgttctc	tctcatgcca	gcctcattct	gttccgccaa	ccgcactcac	acttgttcag	6060

047-E2F-PCT.ST25.txt

ccctctggat ctactgctgc tgctggaacc aatcaaagaa actcccctgc catatcgaaa 6120  
 agtggaaactg cagcagcaca aggggaagctg aagccgacaa tgttggcacc acatcaacaa 6180  
 caagaagcag acaacacgga tgtggttgac ccgtggacgc tcctcgaaga tgggacaagt 6240  
 tcaggtctat caagcagcaa cgcttcaaat agcagcgaca tggccaacct tcgagccacc 6300  
 tgttggctga aaggtgcagt cagggtcaga cggactgata taacttacgt tggttcagta 6360  
 gacgacgaca gctga 6375

<210> 654

<211> 2124

<212> PRT

<213> Arabidopsis thaliana

<400> 654

Met Leu Ser Pro Leu Phe Val Ile Ser Ile Gly Ala Val Arg Lys Cys  
 1 5 10 15

Leu Arg Ala Ile Asn Glu Ser Arg Ala Leu Lys Arg Lys Val Ile Lys  
 20 25 30

Arg Leu Ser Asp Ser Asn Pro Phe Gln Phe Ile Phe Cys Ala Glu Phe  
 35 40 45

Arg Ala Gly Gln Val Tyr Gly Val Pro Leu Ser Gly Ser Leu Leu Cys  
 50 55 60

Lys Pro Gly Phe Pro Glu Gln Arg Ser Cys Gly Glu Glu Thr Lys Lys  
 65 70 75 80

Arg Trp Ile Glu Ser Leu Ser Gln Gln His Lys Arg Leu Arg Ser Leu  
 85 90 95

Ala Asp Asn Ile Pro Gly Tyr Arg Arg Lys Thr Leu Phe Glu Val Leu  
 100 105 110

Ile Arg Asn Asn Val Pro Leu Leu Arg Ala Thr Trp Phe Ile Lys Val  
 115 120 125

Thr Tyr Leu Asn Gln Val His Cys Trp Ala Ile Asn Trp Cys Asp Leu  
 130 135 140

Val Leu Leu Leu Phe Leu Gln Glu His Leu Thr Arg His Lys Leu Leu

145					150											160
Gly	Val	Ser	Asn	Gly	Gln	Lys	Met	Leu	Leu	Asn	Ile	Cys	Asn	Thr	Ser	
				165					170					175		
Trp	Met	Asn	Phe	Cys	His	Gly	Ile	Ala	His	Phe	Leu	Leu	Ser	Lys	Leu	
			180					185					190			
Glu	Ile	Gly	His	His	Arg	Cys	Phe	Ile	Gln	Asp	Gln	Cys	Lys	Arg	Ile	
		195					200					205				
Val	Gln	His	Gln	Gln	Ala	Phe	Thr	Ala	Arg	Lys	His	Leu	Tyr	Ile	Leu	
	210					215					220					
Asn	Gly	Gly	Ile	Trp	Cys	Val	Phe	Tyr	Ser	Gly	Thr	Met	Leu	Lys	Gly	
225					230					235					240	
Phe	Phe	Phe	Leu	Ile	Ser	Leu	Leu	Ile	Gly	Phe	Ser	Ser	Ser	Tyr	Ser	
				245					250					255		
Phe	Val	Asn	Phe	His	Phe	Ala	Leu	Leu	Gln	Glu	Lys	Glu	Ile	Phe	Glu	
			260					265					270			
Ile	Leu	Gln	Leu	Leu	Leu	Pro	Ile	Val	Tyr	Gly	Val	Leu	Glu	Ser	Ile	
		275					280					285				
Val	Leu	Ser	Gln	Thr	Tyr	Val	Gln	Ser	Leu	Val	Ala	Ile	Ala	Val	Arg	
	290					295					300					
Phe	Ile	Gln	Glu	Pro	Ala	Pro	Gly	Gly	Ser	Asp	Leu	Val	Asp	Asn	Ser	
305					310					315					320	
Arg	Arg	Ala	Tyr	Thr	Leu	Ser	Ala	Leu	Ile	Glu	Met	Val	Arg	Tyr	Leu	
				325					330					335		
Val	Leu	Ala	Ala	Pro	Asp	Thr	Phe	Val	Ala	Ser	Asp	Phe	Phe	Pro	Leu	
			340					345					350			
Pro	Pro	Ser	Val	Ala	Ala	Cys	Gly	Pro	Asn	Asp	Val	Ser	Tyr	Thr	Ser	
		355					360					365				
Lys	Ala	Tyr	Glu	Asn	Leu	Glu	Lys	Leu	Arg	Ser	Asn	Ser	Ala	Glu	Ile	
	370					375					380					
Ser	Ala	Gln	Phe	Gln	Gly	Arg	Gly	Val	Leu	Ser	Arg	Phe	Glu	Phe	Leu	
385					390					395					400	



Ser Phe Asp Tyr Thr Ile Ser Thr Ile Gln Arg Ser Ala Asp Asp Leu  
 405 410 415  
 Ala Lys Ile Ala Ser Ala Gly Tyr Pro Gln His Asn Val Ala Lys Ala  
 420 425 430  
 Val Gln Ala Leu Asp Lys Ala Leu Ser Asp Gly Asp Ile Arg Ala Ala  
 435 440 445  
 Tyr Ser Tyr Leu Phe Glu Asp Leu Cys Asn Gly Ala Val Asp Glu Ala  
 450 455 460  
 Trp Ile Thr Asp Val Ser Pro Cys Leu Arg Ser Ser Leu Arg Trp Ile  
 465 470 475 480  
 Gly Ala Ile Ser Thr Ser Phe Val Cys Ser Val Phe Phe Leu Ile Glu  
 485 490 495  
 Trp Ala Thr Cys Asp Phe Arg Asp Phe Arg Ala Gly Val Pro Lys Asp  
 500 505 510  
 Ile Lys Phe Ser Gly Arg Lys Asp Cys Ser Gln Val Tyr Leu Val Ile  
 515 520 525  
 Gln Leu Leu Lys Gln Lys Ile Leu Gly Gly Glu Phe Thr Ala Arg Lys  
 530 535 540  
 Gly Lys Asn Cys Arg Asn Asn Phe Leu Gly Val Ser Lys Pro Ser Gly  
 545 550 555 560  
 Ser Met Asp Ala Phe Glu Ser Pro Gly Pro Leu His Asp Ile Ile Val  
 565 570 575  
 Cys Trp Ile Asp Gln His Glu Val His Lys Gly Gly Ala Lys Arg Leu  
 580 585 590  
 Gln Leu Leu Val Phe Glu Leu Ile Arg Ser Gly Ile Phe Asn Pro Ile  
 595 600 605  
 Ala Tyr Val Arg Gln Leu Ile Val Ser Gly Met Ile Asp Val Ile Gln  
 610 615 620  
 Pro Ala Val Asp Pro Glu Arg Arg Met Arg His His Arg Ile Leu Lys  
 625 630 635 640  
 Gln Leu Pro Gly Cys Phe Val His Glu Thr Leu Glu Glu Ala Gln Leu  
 645 650 655

047-E2F-PCT.ST25.txt

Phe Gly Gly Asp Lys Leu Ser Glu Ala Val Arg Thr Tyr Ser Asn Glu  
 660 665 670  
 Arg Arg Leu Leu Leu Arg Glu Leu Leu Val Glu Lys Gly Lys Tyr Trp  
 675 680 685  
 Asn Asn Leu Val Leu Ser Asp Gln Lys Ser Lys Lys Ile Ser Thr Ser  
 690 695 700  
 Leu Ser Ser Val Ile Phe Pro Arg Ala Cys Asn Ala Lys Ser Asn Ser  
 705 710 715 720  
 Lys Gly Pro Arg Lys His Thr Lys Ser Ser Val Asp Ile Arg Glu Leu  
 725 730 735  
 Lys Glu Arg Ile Ser Ala Leu Leu Gln Phe Pro Gly Met Ser Cys Gly  
 740 745 750  
 Val Glu Thr Pro Val Arg Asp Glu Phe Gln Asn Ser Val Lys Arg Ser  
 755 760 765  
 Ser Gly Ser Val Tyr Ser Lys Met Asp Gln Pro Glu Ala Thr Pro Gly  
 770 775 780  
 Cys Glu Asp Cys Arg Arg Ala Lys Arg Pro Lys Met Asn Asp Glu Lys  
 785 790 795 800  
 Ser Ser Cys Tyr Gln Gly Asn Ser Pro Ile Ala Ser Asp Glu Glu Asp  
 805 810 815  
 Asn Trp Trp Ile Lys Lys Gly Ser Lys Thr Val Glu Ser Ser Leu Lys  
 820 825 830  
 Val Asp Pro Gln Ile Glu Ile Thr Lys Gln Val Pro Arg Gly Arg Gln  
 835 840 845  
 Lys Met Ala Arg Lys Thr Gln Ser Leu Ala Gln Leu Gln Ala Ala Arg  
 850 855 860  
 Ile Glu Gly Ser Gln Gly Ala Ser Thr Ser His Val Cys Asp Asn Lys  
 865 870 875 880  
 Val Ser Cys Pro His His Gly Pro Gly Val Glu Gly Glu Asn Gln Lys  
 885 890 895  
 Val Val Asp Val Phe Arg Thr Ser Thr Pro Val Asp Met Val Ser Val  
 900 905 910

047-E2F-PCT.ST25.txt

Gly Asn Ser Leu Lys Gln Leu Gln Phe Val Asp Lys Arg Ser Ile Ala  
 915 920 925  
 Val Trp Leu Thr Thr Ala Val Arg Gln Leu Val Glu Glu Pro Gln Lys  
 930 935 940  
 Ser Ser Val Arg Val Gly Gln Phe Asn Arg Gly Ala Pro Val Glu Glu  
 945 950 955 960  
 Lys Asn Thr Ile Arg Trp Lys Leu Gly Ala Asp Glu Leu Tyr Ser Ile  
 965 970 975  
 Leu Phe Leu Leu Asp Ile Ser Leu Asp Leu Val Ser Ala Gly Gly Arg  
 980 985 990  
 Asn Leu Val Thr Val Pro Arg Asn Val Glu Asn Asn Met Cys Glu Ile  
 995 1000 1005  
 Gly Glu Ala Ile Leu Val Ser Ser Leu Arg Arg Tyr Glu Asn Ile  
 1010 1015 1020  
 Leu Leu Ser Ala Asp Leu Val Pro Glu Ala Met Thr Ala Leu Met  
 1025 1030 1035  
 Asn Arg Ala Ala Ser Leu Met Ser Ser Asn Gly Lys Ile Ser Gly  
 1040 1045 1050  
 Ser Ala Ala Leu Val Tyr Thr Arg Tyr Ile Leu Lys Arg Tyr Gly  
 1055 1060 1065  
 Ser Leu Pro Ser Val Val Glu Trp His Asn Asn Phe Lys Ala Thr  
 1070 1075 1080  
 Ser Glu Lys Lys Leu Leu Ser Glu Leu Asp His Thr Arg Ser Gly  
 1085 1090 1095  
 Asn Gly Glu Tyr Gly Asn Pro Leu Gly Val Pro Ala Gly Val Asp  
 1100 1105 1110  
 Asn Pro Asp Asp Tyr Leu Arg Lys Lys Ile Ser Ile Gly Gly Ala  
 1115 1120 1125  
 Arg Pro Ser Arg Val Gly Leu Ser Met Arg Asp Val Leu Gln Arg  
 1130 1135 1140  
 His Val Glu Glu Ala Thr His Tyr Leu Lys Lys Leu Ile Gly Thr  
 Page 1037

1145						1150						1155
Gly	Thr	Met	Lys	Ala	Ser	Leu	Ala	Glu	Lys	Asn	Asp	Asp Gly Tyr
1160						1165					1170	
Gln	Val	Ala	Gln	Gln	Ile	Val	Val	Gly	Leu	Met	Asp	Cys Ile Arg
1175						1180					1185	
Gln	Thr	Gly	Gly	Ala	Ala	Gln	Glu	Gly	Asp	Pro	Ser	Leu Val Ser
1190						1195					1200	
Ser	Ala	Val	Ser	Ala	Ile	Ile	Asn	Ser	Val	Gly	Leu	Ser Val Ala
1205						1210					1215	
Arg	Ile	Thr	Asp	Phe	Ser	Leu	Gly	Asn	Ile	Tyr	Gln	Asn His Pro
1220						1225					1230	
Ser	Gly	Val	Asp	Ser	Ser	Asn	Ile	Ala	Arg	Tyr	Ile	Leu Arg Ile
1235						1240					1245	
His	Ile	Thr	Cys	Leu	Cys	Leu	Leu	Lys	Glu	Ala	Leu	Gly Glu Arg
1250						1255					1260	
Gln	Ser	Arg	Val	Phe	Glu	Ile	Ala	Leu	Ala	Thr	Glu	Ser Ser Thr
1265						1270					1275	
Ala	Leu	Thr	Gly	Val	Phe	Ala	Pro	Val	Lys	Gly	Ser	Arg Gly Gln
1280						1285					1290	
His	Gln	Leu	Ser	Pro	Glu	Ser	Tyr	Asp	Ser	Asn	Ala	Asn Asn Ser
1295						1300					1305	
Thr	Ile	Asp	Met	Ser	Asn	Gly	Thr	Gly	Lys	Met	Ala	Leu Ser Arg
1310						1315					1320	
Ala	Thr	Lys	Ile	Thr	Ala	Ala	Val	Ser	Ala	Leu	Val	Ile Gly Ser
1325						1330					1335	
Ile	Thr	His	Gly	Val	Ile	Thr	Leu	Glu	Arg	Ile	Val	Gly Leu Leu
1340						1345					1350	
Arg	Leu	Lys	Asp	Tyr	Leu	Asp	Phe	Val	Gln	Phe	Val	Arg Arg Thr
1355						1360					1365	
Lys	Ser	Ser	Ser	Asn	Gly	Ser	Ala	Arg	Ser	Met	Gly	Ala Ser Lys
1370						1375					1380	

Val	Glu	Ser	Pro	Ile	Glu	Val	Tyr	Val	His	Trp	Phe	Arg	Leu	Leu
	1385					1390					1395			
Val	Gly	Asn	Cys	Lys	Thr	Val	Ser	Glu	Gly	Leu	Val	Leu	Glu	Leu
	1400					1405					1410			
Val	Gly	Glu	Ser	Ser	Val	Val	Ala	Ile	Ser	Arg	Met	Gln	Arg	Met
	1415					1420					1425			
Leu	Pro	Leu	Lys	Leu	Val	Phe	Pro	Pro	Ala	Tyr	Ser	Ile	Ile	Ala
	1430					1435					1440			
Phe	Val	Leu	Trp	Arg	Pro	Phe	Val	Ser	Asn	Ser	Asn	Ser	Asn	Ser
	1445					1450					1455			
Ser	Val	His	Glu	Asp	Thr	His	Arg	Leu	Tyr	Gln	Ser	Leu	Thr	Met
	1460					1465					1470			
Ala	Phe	His	Asp	Val	Ile	Lys	His	Leu	Pro	Phe	Arg	Asp	Val	Cys
	1475					1480					1485			
Phe	Arg	Asp	Thr	Gln	Gly	Leu	Tyr	Glu	Leu	Ile	Val	Ala	Asp	Ser
	1490					1495					1500			
Thr	Asp	Ala	Glu	Phe	Ala	Ser	Val	Phe	Glu	Ser	His	Gly	Leu	Asp
	1505					1510					1515			
Met	His	Leu	Lys	Ser	Val	Ala	Phe	Ala	Pro	Leu	Arg	Ala	Arg	Leu
	1520					1525					1530			
Phe	Leu	Asn	Ser	Leu	Ile	Asp	Cys	Lys	Val	Pro	Ser	Ser	Gly	Tyr
	1535					1540					1545			
Ser	His	Glu	Gly	Val	Ser	Glu	Ala	Lys	Asn	Arg	His	Gln	Gly	Asn
	1550					1555					1560			
Gly	Thr	Lys	Leu	Val	Asp	Lys	Leu	Val	Ser	Val	Leu	Asp	Cys	Leu
	1565					1570					1575			
Gln	Pro	Ala	Lys	Phe	His	Trp	Gln	Trp	Val	Glu	Leu	Arg	Leu	Leu
	1580					1585					1590			
Leu	Asn	Glu	Gln	Ala	Leu	Ala	Glu	Lys	Leu	Glu	Asn	His	Asp	Met
	1595					1600					1605			
Pro	Leu	Thr	Asp	Ala	Ile	Arg	Ser	Ser	Cys	Pro	Thr	Ser	Glu	Lys
	1610					1615					1620			

## 047-E2F-PCT.ST25.txt

Pro	Asp 1625	Ala	Ser	Glu	Asn	Glu 1630	Lys	Asn	Phe	Ile	Gln 1635	Ile	Leu	Leu
Thr	Arg 1640	Leu	Leu	Val	Arg	Pro 1645	Asp	Ala	Val	Pro	Leu 1650	Phe	Ser	Glu
Val	Val 1655	His	Leu	Phe	Gly	Arg 1660	Ser	Val	Glu	Asp	Ser 1665	Met	Leu	Lys
Gln	Ala 1670	Glu	Trp	Phe	Leu	Ala 1675	Gly	Gln	Asp	Val	Leu 1680	Phe	Gly	Arg
Lys	Thr 1685	Ile	Arg	Gln	Lys	Leu 1690	Ile	Ile	Val	Gly	Glu 1695	Ser	Lys	Gly
Leu	Pro 1700	Thr	Lys	Pro	Gln	Phe 1705	Trp	Lys	Pro	Trp	Gly 1710	Trp	Cys	Asn
Ser	Ser 1715	Ser	Ser	Asp	His	Ile 1720	Thr	Ala	Asn	Lys	Ala 1725	Gly	Lys	Lys
Arg	Lys 1730	Phe	Glu	Ile	Thr	Ser 1735	Ile	Glu	Glu	Gly	Glu 1740	Val	Ile	Glu
Glu	Gly 1745	Ser	Gly	Ser	Arg	Lys 1750	Val	Leu	Leu	Pro	Arg 1755	Val	Leu	Asp
Glu	Asn 1760	Ser	Pro	Ser	Val	Gly 1765	Tyr	Gly	Ile	Thr	Thr 1770	Glu	Arg	Ala
Phe	Val 1775	Gln	Leu	Val	Leu	Pro 1780	Cys	Ile	Asp	Gln	Ser 1785	Ser	Asp	Glu
Ser	Arg 1790	Ser	Thr	Phe	Val	Asn 1795	Glu	Leu	Val	Arg	Gln 1800	Phe	Ser	Asn
Ile	Glu 1805	Gln	Gln	Leu	Ser	Ser 1810	Val	Thr	Asn	Arg	Ser 1815	Thr	Thr	Ser
Asn	Lys 1820	Gln	Met	Gly	Thr	Ala 1825	Ser	Ser	Gly	Ser	Glu 1830	Ile	Ser	Ser
Asn	Lys 1835	Gly	Ser	Thr	Arg	Lys 1840	Gly	Leu	Arg	Gly	Gly 1845	Ser	Pro	Ser
Leu	Ala 1850	Arg	Arg	Ser	Ser	Ala 1855	Asn	Thr	Thr	Asp	Thr 1860	Ser	Pro	Pro

047-E2F-PCT.ST25.txt

Pro	Ser	Pro	Ala	Ala	Leu	Arg	Ala	Ser	Met	Ser	Leu	Arg	Leu	Gln
	1865					1870					1875			
Phe	Leu	Leu	Arg	Leu	Leu	Pro	Val	Ile	Cys	Gly	Glu	Pro	Ser	Phe
	1880					1885					1890			
Lys	Asn	Thr	Arg	His	Ala	Leu	Ala	Ser	Thr	Ile	Val	Arg	Leu	Leu
	1895					1900					1905			
Gly	Ser	Arg	Val	Val	Tyr	Glu	Asp	Tyr	Ala	Val	Cys	Ser	Pro	Arg
	1910					1915					1920			
Ser	Glu	Leu	Ser	Lys	Ala	Glu	Thr	Glu	Ser	Thr	Ile	Asp	Pro	Ser
	1925					1930					1935			
Ser	Met	Ala	Asp	Leu	Ser	Ser	Glu	Val	Leu	Phe	Asp	Arg	Arg	Glu
	1940					1945					1950			
Leu	Thr	Gly	Leu	Ser	Thr	Asn	Phe	Lys	Lys	Ser	Leu	Lys	Val	Cys
	1955					1960					1965			
Leu	Leu	Gly	Cys	Lys	Asn	Glu	Leu	Ser	Arg	Met	Gln	Leu	Pro	Asp
	1970					1975					1980			
Thr	Ile	Arg	Trp	Arg	Ile	Gln	Ala	Ala	Met	Pro	Ile	Leu	Leu	Pro
	1985					1990					1995			
Ser	Leu	Arg	Cys	Ser	Leu	Ser	Cys	Gln	Pro	His	Ser	Val	Pro	Pro
	2000					2005					2010			
Thr	Ala	Leu	Thr	Leu	Val	Gln	Pro	Ser	Gly	Ser	Thr	Ala	Ala	Ala
	2015					2020					2025			
Gly	Thr	Asn	Gln	Arg	Asn	Ser	Pro	Ala	Ile	Ser	Lys	Ser	Gly	Thr
	2030					2035					2040			
Ala	Ala	Ala	Gln	Gly	Lys	Leu	Lys	Pro	Thr	Met	Leu	Ala	Pro	His
	2045					2050					2055			
Gln	Gln	Gln	Glu	Ala	Asp	Asn	Thr	Asp	Val	Val	Asp	Pro	Trp	Thr
	2060					2065					2070			
Leu	Leu	Glu	Asp	Gly	Thr	Ser	Ser	Gly	Leu	Ser	Ser	Ser	Asn	Ala
	2075					2080					2085			
Ser	Asn	Ser	Ser	Asp	Met	Ala	Asn	Leu	Arg	Ala	Thr	Cys	Trp	Leu

2090

2095

Lys Gly Ala Val Arg Val Arg Arg Thr Asp Leu Thr Tyr Val Gly  
2105 2110 2115

Ser Val Asp Asp Asp Ser  
2120

<210> 655

<211> 648

<212> DNA

<213> Arabidopsis thaliana

<400> 655

atggtgctaa aggtgtacgg acctcacttt gcttcaccaa agagagcttt ggtcacactg	60
atcgagaagg gcgttgcctt cgagaccatc cccgtcgatc tcatgaaagg agaacacaag	120
cagcctgctt atctcgctct acagcctttt ggtactgttc ctgctgttgt tgacggtgac	180
tacaaaatct tcgagtcccg tgcggtgatg aggtacgtag ctgagaagta caggtcacao	240
ggacctgatc ttttggggaa aaccgttgaa gacagaggtc aagttgaaca atggcttgat	300
gtggaagcga ccacttacca cccaccgcta ttgaacttaa cgcttcacat aatgttcgca	360
tcagtcattg gattcccatc tgatgagaag ctgatcaagg agagtgaaga gaagcttgcg	420
ggtgttcttg atgtctacga ggcacatctc tcaaagagca agtacttggc cggtgacttc	480
gtgagcttgg ctgatttggc tcacctcccg ttactgatt acttggttgg tccgattggg	540
aaagcttaca tgatcaaaga taggaaacac gtgagcgcgt ggtgggatga tattagcagc	600
cgctctgcgt ggaaggagac tgttgccaag tattcattcc cagcttaa	648

<210> 656

<211> 215

<212> PRT

<213> Arabidopsis thaliana

<400> 656

Met Val Leu Lys Val Tyr Gly Pro His Phe Ala Ser Pro Lys Arg Ala  
1 5 10 15

Leu Val Thr Leu Ile Glu Lys Gly Val Ala Phe Glu Thr Ile Pro Val  
20 25 30



047-E2F-PCT.ST25.txt

Asp Leu Met Lys Gly Glu His Lys Gln Pro Ala Tyr Leu Ala Leu Gln  
35 40 45

Pro Phe Gly Thr Val Pro Ala Val Val Asp Gly Asp Tyr Lys Ile Phe  
50 55 60

Glu Ser Arg Ala Val Met Arg Tyr Val Ala Glu Lys Tyr Arg Ser Gln  
65 70 75 80

Gly Pro Asp Leu Leu Gly Lys Thr Val Glu Asp Arg Gly Gln Val Glu  
85 90 95

Gln Trp Leu Asp Val Glu Ala Thr Thr Tyr His Pro Pro Leu Leu Asn  
100 105 110

Leu Thr Leu His Ile Met Phe Ala Ser Val Met Gly Phe Pro Ser Asp  
115 120 125

Glu Lys Leu Ile Lys Glu Ser Glu Glu Lys Leu Ala Gly Val Leu Asp  
130 135 140

Val Tyr Glu Ala His Leu Ser Lys Ser Lys Tyr Leu Ala Gly Asp Phe  
145 150 155 160

Val Ser Leu Ala Asp Leu Ala His Leu Pro Phe Thr Asp Tyr Leu Val  
165 170 175

Gly Pro Ile Gly Lys Ala Tyr Met Ile Lys Asp Arg Lys His Val Ser  
180 185 190

Ala Trp Trp Asp Asp Ile Ser Ser Arg Pro Ala Trp Lys Glu Thr Val  
195 200 205

Ala Lys Tyr Ser Phe Pro Ala  
210 215

<210> 657

<211> 2055

<212> DNA

<213> Arabidopsis thaliana

<400> 657  
atggcggaaa ctgagagacc ccaccggtct tcaagtatta acagtagtag caacaacaac 60

agtggttcat	caaccgatct	attcatttgt	ttcacatctc	gtttctcttc	ttcttcctct	120
atgcgtctct	cttctaaatc	catccatagc	ccagctcgtt	ccgcttgtct	caccacttct	180
cttagccgtc	gtctccgtac	tagcggtagc	ttgaagaacg	cttcagctgg	agttttgaac	240
tctcccatgt	ttggtgctaa	tggaggacgg	aagagatctg	gatctggcta	cgagaatagt	300
aacaacaaca	acaataataa	catagagccg	tcgtctccga	aggtgacgtg	tattgggtcaa	360
gttagagtga	agactaggaa	gcatgtgaag	aagaagatga	gagctagatc	tagaaggaaa	420
ggaggtgaga	atagtttcag	gagatccgtt	gatcaaaacg	acggtgggtg	tggatgtcgt	480
tttaaagcga	gtgagaatcg	tttgggtgcat	cttccgggtga	ctatctgcga	gtcgttgaga	540
tcgtttgggt	ctgagctcaa	ctgcttcttc	ccgtgtcgat	cttcctgtac	ggagaatagt	600
catggagatg	ggaggagagc	tgagagtaac	aacgacgggt	gcggcggcgg	cggaggagga	660
agtaattcgt	gtggtgcggt	gtttacgagg	tggtttgtgg	cggaggagga	gacttcggga	720
gggaagagaa	gagagattga	gcttggtgtt	ggtggagaag	acgaagtga	ggaggatagg	780
cggaggagtc	gtcggagaca	tgttttcgag	gggcttgatt	taagtgagat	agagatgaag	840
acggagaaga	aagagagagg	agaagaagtt	ggacggatga	gtatttgttc	tccgccgaag	900
aatgctttgt	tgttgatgcg	gtgtagatct	gatccgggtta	aggttgcggc	gttagctaac	960
cgggttcgtg	aaagacagtt	gtcgttaaac	gacggcgtat	acacagagga	ggaagaagat	1020
gagagaagaa	gaaggtttga	gctggaaatt	gaagataaga	aacggatcga	cttgtgtgag	1080
aaatggatct	ctggtgagac	tactgtggaa	acagaagaag	tttcagtagc	agttgcagaa	1140
gcagaagcag	aagcagaagc	agaagctcct	ttgccttcaa	atccagctac	agaggaagaa	1200
gaaagagtca	aagttgtgga	agattcgatt	gttgaagaag	aacaagaagc	ttcgaaaatt	1260
ctggattcgt	ttgaggaaga	aatagaagct	acgatcatga	aaaaaattga	agacgaaatc	1320
agaaacgcta	tagaagaaga	ggagaaactt	gctgagatgg	aagaattagc	ggttgtggcg	1380
gtggctgaga	cggaggaggt	agaagaaagc	aaagagggtt	ttcctgattg	tataacctcaa	1440
aatgaggaaa	gatccgaaca	aggaaaccgg	gaacccgacc	cgagtccgga	agtggatgatg	1500
agaagaagtc	tacaagagga	aacaacggag	aaagagaaga	cgacggcgac	gccgtataag	1560
gtgttaccgg	attgtttgct	gcttatgatg	tgtgaaccaa	agctctcaat	ggaagtctct	1620
aaggagactt	gggtttgcag	tacagatttc	gtcagatggt	taccaggaag	acctccggcg	1680
aagaagatac	caccagaagc	cgtcggagac	aatcatcatc	atcatcaacc	caagaagcga	1740
atcgtcacag	ccgttgattc	caacgcatcc	tctcgccggc	ggtcaatcga	tagaccacca	1800
cttcacctac	agccgccacg	gtcatcgtgt	tcatacccag	cagctccacc	gataataacg	1860
gcagctgcgg	cggttgggga	acagagggta	gccggagcta	ataagggtaca	gccaccagtg	1920
ctgccacggt	gcaaatcgga	accgaggaag	tcagcgtcga	agctagcgcc	ggaagcttgt	1980

047-E2F-PCT.ST25.txt

ttctggaaaa ataggaagct tgagccacac cctccggcaa ccgtcgggtgt cggcggcgcc 2040  
ggagtaggggt tctag 2055

<210> 658

<211> 684

<212> PRT

<213> Arabidopsis thaliana

<400> 658

Met Ala Glu Thr Glu Arg Pro His Arg Ser Ser Ser Ile Asn Ser Ser  
1 5 10 15

Ser Asn Asn Asn Ser Gly Ser Ser Thr Asp Leu Phe Ile Cys Phe Thr  
20 25 30

Ser Arg Phe Ser Ser Ser Ser Ser Met Arg Leu Ser Ser Lys Ser Ile  
35 40 45

His Ser Pro Ala Arg Ser Ala Cys Leu Thr Thr Ser Leu Ser Arg Arg  
50 55 60

Leu Arg Thr Ser Gly Ser Leu Lys Asn Ala Ser Ala Gly Val Leu Asn  
65 70 75 80

Ser Pro Met Phe Gly Ala Asn Gly Gly Arg Lys Arg Ser Gly Ser Gly  
85 90 95

Tyr Glu Asn Ser Asn Asn Asn Asn Asn Asn Ile Glu Pro Ser Ser  
100 105 110

Pro Lys Val Thr Cys Ile Gly Gln Val Arg Val Lys Thr Arg Lys His  
115 120 125

Val Lys Lys Lys Met Arg Ala Arg Ser Arg Arg Lys Gly Gly Glu Asn  
130 135 140

Ser Phe Arg Arg Ser Val Asp Gln Asn Asp Gly Gly Gly Gly Cys Arg  
145 150 155 160

Phe Lys Ala Ser Glu Asn Arg Leu Val His Leu Pro Val Thr Ile Cys  
165 170 175

Glu Ser Leu Arg Ser Phe Gly Ser Glu Leu Asn Cys Phe Phe Pro Cys  
Page 1045

180  
 185  
 190  
 Arg Ser Ser Cys Thr Glu Asn Ser His Gly Asp Gly Arg Arg Ala Glu  
 195 200 205  
 Ser Asn Asn Asp Gly Cys Gly Gly Gly Gly Gly Ser Asn Ser Cys  
 210 215 220  
 Gly Ala Val Phe Thr Arg Trp Phe Val Ala Val Glu Glu Thr Ser Gly  
 225 230 235 240  
 Gly Lys Arg Arg Glu Ile Glu Leu Val Val Gly Gly Glu Asp Glu Val  
 245 250 255  
 Glu Glu Asp Arg Arg Arg Ser Arg Arg Arg His Val Phe Glu Gly Leu  
 260 265 270  
 Asp Leu Ser Glu Ile Glu Met Lys Thr Glu Lys Lys Glu Arg Gly Glu  
 275 280 285  
 Glu Val Gly Arg Met Ser Ile Cys Ser Pro Pro Lys Asn Ala Leu Leu  
 290 295 300  
 Leu Met Arg Cys Arg Ser Asp Pro Val Lys Val Ala Ala Leu Ala Asn  
 305 310 315 320  
 Arg Val Arg Glu Arg Gln Leu Ser Leu Asn Asp Gly Val Tyr Thr Glu  
 325 330 335  
 Glu Glu Glu Asp Glu Arg Arg Arg Arg Phe Glu Leu Glu Ile Glu Asp  
 340 345 350  
 Lys Lys Arg Ile Asp Leu Cys Glu Lys Trp Ile Ser Gly Glu Thr Thr  
 355 360 365  
 Val Glu Thr Glu Glu Val Ser Val Ala Val Ala Glu Ala Glu Ala Glu  
 370 375 380  
 Ala Glu Ala Glu Ala Pro Leu Pro Ser Asn Pro Ala Thr Glu Glu Glu  
 385 390 395 400  
 Glu Arg Val Lys Val Val Glu Asp Ser Ile Val Glu Glu Glu Gln Glu  
 405 410 415  
 Ala Ser Lys Ile Leu Asp Ser Phe Glu Glu Glu Ile Glu Ala Thr Ile  
 420 425 430

Met Lys Lys Ile Glu Asp Glu Ile Arg Asn Ala Ile Glu Glu Glu Glu  
 435 440 445  
 Lys Leu Ala Glu Met Glu Glu Leu Ala Val Val Ala Val Ala Glu Thr  
 450 455 460  
 Glu Glu Val Glu Glu Ser Lys Glu Val Val Pro Asp Cys Ile Pro Gln  
 465 470 475 480  
 Asn Glu Glu Arg Ser Glu Gln Gly Asn Arg Glu Pro Asp Pro Ser Pro  
 485 490 495  
 Glu Val Val Met Arg Arg Ser Leu Gln Glu Glu Thr Thr Glu Lys Glu  
 500 505 510  
 Lys Thr Thr Ala Thr Pro Tyr Lys Val Leu Pro Asp Cys Leu Leu Leu  
 515 520 525  
 Met Met Cys Glu Pro Lys Leu Ser Met Glu Val Ser Lys Glu Thr Trp  
 530 535 540  
 Val Cys Ser Thr Asp Phe Val Arg Cys Leu Pro Gly Arg Pro Pro Ala  
 545 550 555 560  
 Lys Lys Ile Pro Pro Glu Ala Val Gly Asp Asn His His His His Gln  
 565 570 575  
 Pro Lys Lys Arg Ile Val Thr Ala Val Asp Ser Asn Ala Ser Ser Arg  
 580 585 590  
 Arg Arg Ser Ile Asp Arg Pro Pro Leu His Leu Gln Pro Pro Arg Ser  
 595 600 605  
 Ser Cys Ser Tyr Pro Ala Ala Pro Pro Ile Ile Thr Ala Ala Ala Ala  
 610 615 620  
 Val Gly Glu Gln Arg Val Ala Gly Ala Asn Lys Val Gln Pro Pro Val  
 625 630 635 640  
 Leu Pro Arg Cys Lys Ser Glu Pro Arg Lys Ser Ala Ser Lys Leu Ala  
 645 650 655  
 Pro Glu Ala Cys Phe Trp Lys Asn Arg Lys Leu Glu Pro His Pro Pro  
 660 665 670  
 Ala Thr Val Gly Val Gly Gly Ala Gly Val Gly Phe  
 675 680

&lt;210&gt; 659

&lt;211&gt; 768

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 659

```

atggcgacac acgacttcga ttctactgat ccctatggaa ataaagatag aaaaagtttg      60
tactcaaacc aagataacta tttcaataat tgggtcttcac ttactcaatc agaggaagtt      120
gttgaggagc tttctattca acagactaaa tacgaccatc ggagtctgcc ttctttgaga      180
actgccgaag ccgaggctgc tgagtggaaat gagttggaga gatgggggaa ccaagagttg      240
cagcataatg gcactcgcac tagaggaatt ataacttaca aatcagggaa cttgcccggc      300
gttttgtcat tctctgtaat agagattctc atgatggttg tggcttcggt tgttccaaac      360
ttcttgactg gtcttttcac tggagctggc cttattggaa tcatcatgac gtcttctgga      420
ttctcccgtc ttcttcctga tcttcccaa atcttttgcc gtttctcgat ttcctacacg      480
atctcttaca tgatttttgg atcttgggcc atcaagctag ggcacaacaa caattttctc      540
gggcctctat caccggacga gccgaaaatg acaggagaag aaatgaatat gaatgaattt      600
ggagtaaagg tgacgcattc aggatggtgg ggcttccctg agattgtgat agcaatcctt      660
gtgtgtacct ggcttctttt cttcgtggcc caaaagctga aggagagagc acgaccagct      720
tcaaggggtga ttcaggcgaa agttttatattt aatgtgcagc tttcataa      768

```

&lt;210&gt; 660

&lt;211&gt; 255

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 660

```

Met Ala Thr His Asp Phe Asp Phe Thr Asp Pro Tyr Gly Asn Lys Asp
1           5           10           15

Arg Lys Ser Leu Tyr Ser Asn Gln Asp Asn Tyr Phe Asn Asn Trp Ser
          20           25           30

Ser Leu Thr Gln Ser Glu Glu Val Val Glu Glu Leu Ser Ile Gln Gln
          35           40           45

```

047-E2F-PCT.ST25.txt

Thr Lys Tyr Asp His Arg Ser Leu Pro Ser Leu Arg Thr Ala Glu Ala  
50 55 60

Glu Ala Ala Glu Trp Asn Glu Leu Glu Arg Trp Gly Asn Gln Glu Leu  
65 70 75 80

Gln His Asn Gly Thr Arg Ile Arg Gly Ile Ile Thr Tyr Lys Ser Gly  
85 90 95

Asn Leu Pro Gly Val Leu Ser Phe Ser Val Ile Glu Ile Leu Met Met  
100 105 110

Val Val Ala Ser Phe Val Pro Asn Phe Leu Thr Gly Leu Phe Thr Gly  
115 120 125

Ala Gly Leu Ile Gly Ile Ile Met Thr Ser Ser Gly Phe Ser Arg Leu  
130 135 140

Leu Pro Asp Leu Pro Lys Ile Phe Cys Arg Phe Ser Ile Ser Tyr Thr  
145 150 155 160

Ile Ser Tyr Met Ile Phe Gly Ser Trp Ala Ile Lys Leu Gly His Asn  
165 170 175

Asn Asn Phe Leu Gly Pro Leu Ser Pro Asp Glu Pro Lys Met Thr Gly  
180 185 190

Glu Glu Met Asn Met Asn Glu Phe Gly Val Lys Val Thr His Ser Gly  
195 200 205

Trp Trp Gly Phe Pro Glu Ile Val Ile Ala Ile Leu Val Cys Thr Trp  
210 215 220

Leu Leu Phe Phe Val Ala Gln Lys Leu Lys Glu Arg Ala Arg Pro Ala  
225 230 235 240

Ser Arg Val Ile Gln Ala Lys Val Tyr Phe Asn Val Gln Leu Ser  
245 250 255

<210> 661

<211> 855

<212> DNA

<213> Arabidopsis thaliana

<400> 661

047-E2F-PCT.ST25.txt

atggcgatca cttacttgct tcctctgttt ctttctctta tcatcacctc ctctgtttca 60  
gctaatttcc aaagagacgt tgagatcact tggggtgatg gtcgtggaca gatcaagaac 120  
aatggagagc ttctcacttt atctctagat aaatcctctg gttctggatt ccaatccaaa 180  
aacgagtact tgtttggtaa agtctccatg caaatgaagc ttgtccctgg aaactccgca 240  
ggaacagtca caacacttta cttgaaatca cctggaacaa catgggacga gatagatttc 300  
gagtttttag ggaattcaag tggagaacct tacacacttc acacaaatgt ctacacacaa 360  
ggcaaaggag acaaagaaca acaattcaaa ctctggtttg atccaacagc taatttccac 420  
acttacacta ttctctggaa cccacaaaga atcattttca ccgtcgatgg aactccgatc 480  
agagaattca agaacatgga gtctctaggc actctgtttc ccaagaacaa accaatgaga 540  
atgtactcga gtctttggaa cgctgatgat tgggcaacga gaggtggttt ggtcaaaacc 600  
gattgggtcta aagctccttt cactgcttct taccgtggct ttcaacaaga agcttgtgtt 660  
tggtcaaacg gcaagtcttc ttgtccta atgcctcgaaac aggggactac tactggctcg 720  
tggttgtcac aagagcttga ctcaacagct caacaaagga tgagatgggt gcagaggaac 780  
tacatgatct ataattattg tacggatgcg aagaggttcc ctcaaggtct tcctaaagag 840  
tgcttagctg catag 855

<210> 662

<211> 284

<212> PRT

<213> Arabidopsis thaliana

<400> 662

Met Ala Ile Thr Tyr Leu Leu Pro Leu Phe Leu Ser Leu Ile Ile Thr  
1 5 10 15

Ser Ser Val Ser Ala Asn Phe Gln Arg Asp Val Glu Ile Thr Trp Gly  
20 25 30

Asp Gly Arg Gly Gln Ile Lys Asn Asn Gly Glu Leu Leu Thr Leu Ser  
35 40 45

Leu Asp Lys Ser Ser Gly Ser Gly Phe Gln Ser Lys Asn Glu Tyr Leu  
50 55 60

Phe Gly Lys Val Ser Met Gln Met Lys Leu Val Pro Gly Asn Ser Ala  
65 70 75 80



Gly Thr Val Thr Thr Leu Tyr Leu Lys Ser Pro Gly Thr Thr Trp Asp  
 85 90 95  
 Glu Ile Asp Phe Glu Phe Leu Gly Asn Ser Ser Gly Glu Pro Tyr Thr  
 100 105 110  
 Leu His Thr Asn Val Tyr Thr Gln Gly Lys Gly Asp Lys Glu Gln Gln  
 115 120 125  
 Phe Lys Leu Trp Phe Asp Pro Thr Ala Asn Phe His Thr Tyr Thr Ile  
 130 135 140  
 Leu Trp Asn Pro Gln Arg Ile Ile Phe Thr Val Asp Gly Thr Pro Ile  
 145 150 155 160  
 Arg Glu Phe Lys Asn Met Glu Ser Leu Gly Thr Leu Phe Pro Lys Asn  
 165 170 175  
 Lys Pro Met Arg Met Tyr Ser Ser Leu Trp Asn Ala Asp Asp Trp Ala  
 180 185 190  
 Thr Arg Gly Gly Leu Val Lys Thr Asp Trp Ser Lys Ala Pro Phe Thr  
 195 200 205  
 Ala Ser Tyr Arg Gly Phe Gln Gln Glu Ala Cys Val Trp Ser Asn Gly  
 210 215 220  
 Lys Ser Ser Cys Pro Asn Ala Ser Lys Gln Gly Thr Thr Thr Gly Ser  
 225 230 235 240  
 Trp Leu Ser Gln Glu Leu Asp Ser Thr Ala Gln Gln Arg Met Arg Trp  
 245 250 255  
 Val Gln Arg Asn Tyr Met Ile Tyr Asn Tyr Cys Thr Asp Ala Lys Arg  
 260 265 270  
 Phe Pro Gln Gly Leu Pro Lys Glu Cys Leu Ala Ala  
 275 280

<210> 663

<211> 1686

<212> DNA

<213> Arabidopsis thaliana

<400> 663

atgagaggta ctactgagaa tacggatctg ttcgatccca aaacccaaat ggatcctgac	60
ttcactcgtc atggttcttc ctccgacggc gattttggat tcgcttttaa cgacagtaac	120
ttctctgata gtttgcttcg gatcgagatc atgggtggac cttcggattc tcggtctgaa	180
gttgaagggg gtacgagtat cgctgattgg gctcgtcatc gcaagagaag aagagaagat	240
atcaagaagg aatctggtgt cacgatttca gacattgtgg catgtcctga ggagcagatt	300
ttaactgatg aacaacctga catggatgga tgtcctgggtg gtgagaatcc tgatgatgaa	360
ggaggagagg caatggttga agaagcttta tcaggtgatg aagaggaaac gtctagttag	420
ccaaactggg gaatggattg ttctacagtt gttaggggta aagaacttca tattagttct	480
cctattttag ctgccaaaag ccctttcttt tacaagttgt tctccaatgg aatgagggaa	540
tctgagcaaa ggcattgtcac ccttaggatt aatgcatcag aggaagctgc tttgatggag	600
cttttaaact ttatgtatag caatgcggta tctgtcacca cagcacctgc cttattagat	660
gtgttgatgg ctgctgataa gtttgaagtt gcctcttgta tgaggtagctg cagtagactt	720
ctccgtaata tgcctatgac tccagagtct gccctgctct atctcgagct tccctctagt	780
gttctaattg ccaaagctgt tcagccttta actgatgctg caaacagtt ccttgcagcc	840
cgctacaagg atattaccaa gtttcatgag gaggtaatgt ctctaccttt ggctggaatt	900
gaggcaattc tatcaagcga tgaactccaa attgcatcag aggatgcagt ttatgatttt	960
atcttgaagt gggcaagggc gcaataccct tgtttggaag agcgaagaga gattctcggg	1020
tcacgccttg cactctccat ccgcttccca ttcattgacat gccgaaagct gaagaaagtg	1080
ctgacttgca gtgactttga gcatgaaata gcatcaaagc ttgttctaga agctcttttc	1140
ttcaaagcag aagccccaca cagacaacgt agcctagcct ccgaagaatc tgcattccctg	1200
aaccgccgcc tgatagagag ggcttacaaa tacagacccg tcaaagtggg cgagtttgag	1260
cttcctagac cgcagtgtgt agtctaccta gacttgaaaa gagaagaatg tgggggactg	1320
ttcccgtcgg gtagagtgtg ttgcgaggcc tttcacttgg gaggtcaagg gtttttcctg	1380
tcagctcact gcaacatgga ccaacagagc tcgttccact gtttcgggct gttcctaggg	1440
atgcaggaga aagggctcggg gagtttcgga gtggactatg aattctcggc aaggtcaaag	1500
cccgcagagg atttcataag caaatacaaa ggggaactaca cattcacagg agggaaagca	1560
gtaggttaca gaaacctgtt tgggggtccca tggacgtctt ttatagcgga agatagtcaa	1620
tacttcatca atggcattct ccatctcaga gcagagctta ccatcaaaag gtctacagat	1680
ccttag	1686

&lt;210&gt; 664

&lt;211&gt; 561

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 664

Met Arg Gly Thr Thr Glu Asn Thr Asp Leu Phe Asp Pro Lys Thr Gln  
 1 5 10 15

Met Asp Pro Asp Phe Thr Arg His Gly Ser Ser Ser Asp Gly Asp Phe  
 20 25 30

Gly Phe Ala Phe Asn Asp Ser Asn Phe Ser Asp Arg Leu Leu Arg Ile  
 35 40 45

Glu Ile Met Gly Gly Pro Ser Asp Ser Arg Ser Glu Val Glu Gly Cys  
 50 55 60

Thr Ser Ile Ala Asp Trp Ala Arg His Arg Lys Arg Arg Arg Glu Asp  
 65 70 75 80

Ile Lys Lys Glu Ser Gly Val Thr Ile Ser Asp Ile Val Ala Cys Pro  
 85 90 95

Glu Glu Gln Ile Leu Thr Asp Glu Gln Pro Asp Met Asp Gly Cys Pro  
 100 105 110

Gly Gly Glu Asn Pro Asp Asp Glu Gly Gly Glu Ala Met Val Glu Glu  
 115 120 125

Ala Leu Ser Gly Asp Glu Glu Glu Thr Ser Ser Glu Pro Asn Trp Gly  
 130 135 140

Met Asp Cys Ser Thr Val Val Arg Val Lys Glu Leu His Ile Ser Ser  
 145 150 155 160

Pro Ile Leu Ala Ala Lys Ser Pro Phe Phe Tyr Lys Leu Phe Ser Asn  
 165 170 175

Gly Met Arg Glu Ser Glu Gln Arg His Val Thr Leu Arg Ile Asn Ala  
 180 185 190

Ser Glu Glu Ala Ala Leu Met Glu Leu Leu Asn Phe Met Tyr Ser Asn  
 195 200 205

Ala Val Ser Val Thr Thr Ala Pro Ala Leu Leu Asp Val Leu Met Ala  
 210 215 220

## 047-E2F-PCT.ST25.txt

Ala Asp Lys Phe Glu Val Ala Ser Cys Met Arg Tyr Cys Ser Arg Leu  
 225 230 235 240  
 Leu Arg Asn Met Pro Met Thr Pro Glu Ser Ala Leu Leu Tyr Leu Glu  
 245 250 255  
 Leu Pro Ser Ser Val Leu Met Ala Lys Ala Val Gln Pro Leu Thr Asp  
 260 265 270  
 Ala Ala Lys Gln Phe Leu Ala Ala Arg Tyr Lys Asp Ile Thr Lys Phe  
 275 280 285  
 His Glu Glu Val Met Ser Leu Pro Leu Ala Gly Ile Glu Ala Ile Leu  
 290 295 300  
 Ser Ser Asp Glu Leu Gln Ile Ala Ser Glu Asp Ala Val Tyr Asp Phe  
 305 310 315 320  
 Ile Leu Lys Trp Ala Arg Ala Gln Tyr Pro Cys Leu Glu Glu Arg Arg  
 325 330 335  
 Glu Ile Leu Gly Ser Arg Leu Ala Leu Ser Ile Arg Phe Pro Phe Met  
 340 345 350  
 Thr Cys Arg Lys Leu Lys Lys Val Leu Thr Cys Ser Asp Phe Glu His  
 355 360 365  
 Glu Ile Ala Ser Lys Leu Val Leu Glu Ala Leu Phe Phe Lys Ala Glu  
 370 375 380  
 Ala Pro His Arg Gln Arg Ser Leu Ala Ser Glu Glu Ser Ala Ser Leu  
 385 390 395 400  
 Asn Arg Arg Leu Ile Glu Arg Ala Tyr Lys Tyr Arg Pro Val Lys Val  
 405 410 415  
 Val Glu Phe Glu Leu Pro Arg Pro Gln Cys Val Val Tyr Leu Asp Leu  
 420 425 430  
 Lys Arg Glu Glu Cys Gly Gly Leu Phe Pro Ser Gly Arg Val Tyr Ser  
 435 440 445  
 Gln Ala Phe His Leu Gly Gly Gln Gly Phe Phe Leu Ser Ala His Cys  
 450 455 460  
 Asn Met Asp Gln Gln Ser Ser Phe His Cys Phe Gly Leu Phe Leu Gly  
 465 470 475 480

## 047-E2F-PCT.ST25.txt

Met Gln Glu Lys Gly Ser Val Ser Phe Gly Val Asp Tyr Glu Phe Ser  
485 490 495

Ala Arg Ser Lys Pro Ala Glu Asp Phe Ile Ser Lys Tyr Lys Gly Asn  
500 505 510

Tyr Thr Phe Thr Gly Gly Lys Ala Val Gly Tyr Arg Asn Leu Phe Gly  
515 520 525

Val Pro Trp Thr Ser Phe Ile Ala Glu Asp Ser Gln Tyr Phe Ile Asn  
530 535 540

Gly Ile Leu His Leu Arg Ala Glu Leu Thr Ile Lys Arg Ser Thr Asp  
545 550 555 560

Pro

<210> 665

<211> 2787

<212> DNA

<213> Arabidopsis thaliana

<400> 665

atggaggctc	ctacgcctct	cctccttctc	gtcctcctca	caaccataac	cttcttcacc	60
acctccgtcg	ctgatgacca	aacagcaatg	ctcgccttag	ctaaatcatt	caatcctccg	120
ccgtcagatt	ggtcttccac	caccgatttc	tgcaaattgt	ccggcgtagc	atgtaccggc	180
ggtcgtgtca	caaccatcag	cctcgcgtgat	aaatctctca	ccggattcat	cgcacctgag	240
atctcgactc	tttcagagct	caaatctggt	tctattcaac	gtaacaaact	ctccgggtaca	300
atcccttcgt	ttgctaaact	ctcgtctctt	caagagatct	atatggatga	gaataatttc	360
gtcggagttag	aaaccggagc	tttcgccgga	cttactagtc	tccagatctt	gagtttaagc	420
gataacaaca	acattactac	ttggagtttc	ccatcggagc	tcgtcgattc	gacttctctc	480
actacgattt	atctcgataa	cacaaacatc	gccggagttt	tgcttgacat	tttcgattcc	540
ttagcttctc	ttcaaaaatct	ccggttatct	tacaacaaca	tcaccggcgt	tttaccaccg	600
tcgcttgga	aatcttcgat	tcagaatctt	tggaatcaaca	atcaagacct	aggaatgtca	660
ggaacgatcg	aagttctttc	gagtatgacg	tccttgtcac	aagcttggct	tcacaagaat	720
cacttctttg	gaccgattcc	agatctctcc	aagagcgaga	atctcttcga	tctacagctc	780

cgggataatg	atttaaccgg	aatagtagct	ccgacgcttc	ttacactcgc	tagcttgaag	840
aatattttctc	tagataacaa	taaatttcaa	ggacctcttc	ctttgttttc	accggagggtt	900
aaagtaacaa	tagaccacaa	cgttttttgt	actactaaag	ctggacaaag	ctgtagtcct	960
caggtgatga	cgcttttagc	ggtggctgga	ggtttgggat	atccttcaat	gttggctgag	1020
tcttggcaag	gtgatgatgc	ttgtagtggt	tgggcttatg	ttagttgtga	ttcagctggg	1080
aagaatgttg	tcacgttgaa	tcttgggaaa	catggattca	ccgggtttat	atctccggcg	1140
attgcgaatc	ttacttcatt	gaagagtctt	tatcttaatg	gtaacgattt	gactggtggt	1200
attcctaagg	agttgacatt	tatgactagt	ttgcagttaa	ttgatgtctc	gaataacaat	1260
cttagagggg	agatacctaa	gtttccggct	acggtgaagt	ttagttacaa	accggggaat	1320
gctttgttgg	gaactaatgg	tggagatggt	tcgagtcctg	gaactggtgg	tgctagtggg	1380
ggtcctggtg	ggtcttctgg	tgggtggtgg	agtaagggtg	gtgtgattgt	tgggtgtgatt	1440
gtggcggttt	tagtgtttct	tgccatttta	ggatttgtgg	tttataaatt	tgttatgaag	1500
aggaagtatg	ggagggttaa	taggacggat	cctgagaagg	ttgggaagat	tttggttagt	1560
gatgctgtat	ctaattggtg	tagtggtaat	ggtggatatg	ctaattggca	tggagctaatt	1620
aacttcaatg	ctttgaatag	tcctagtagt	ggtgacaata	gtgatcgttt	ccttcttgaa	1680
ggtggaagtg	ttaccattcc	aatggagggt	cttcgccagg	ttacaaataa	tttcagtgaag	1740
gataacatat	tgggcagagg	gggtttcggg	gtcgtgtatg	ctggagaatt	acacgatgga	1800
acaaagactg	ctgttaagag	gatggaatgt	gcagcaatgg	gtaataaagg	aatgagcgag	1860
tttcaggctg	agatagcggg	acttactaag	gtcaggcata	gacatttggt	tgctctattg	1920
ggttactgtg	tgaacgggaa	cgagagggtg	cttgtctatg	agtacatgcc	acagggaaat	1980
cttggacagc	atttgtttga	gtggagtga	ctcggttact	ctcctttgac	atggaaacag	2040
agagtgaagca	ttgctttaga	cgtggcaaga	ggtgtggaat	atctccatag	cttggctcaa	2100
caaagcttca	tccacagaga	tttaaagccc	tctaacatcc	ttctaggaga	tgacatgaga	2160
gccaaagggtg	ctgatttttg	attggtcaag	aacgcacctg	atggtaaata	ctctgttgaa	2220
acaagattag	caggcacatt	cggttatcta	gcaccagaat	acgccgctac	tgggaagagta	2280
acgacgaaag	tggatgtgta	tgcatthtgg	gtggttctca	tggaaataact	aactggaaga	2340
aaagcttttag	atgattcatt	accagacgag	agatctcatc	tagtcacatg	gttcagaaga	2400
atcctaataca	acaaagaaaa	catcccaaag	gcactcgacc	aaaccttaga	agcagacgag	2460
gaaacaatgg	agagcattta	cagagtgtgt	gagctagctg	gacactgcac	agcccgcgaa	2520
cctcaacaaa	gacccgacat	gggccacgca	gtaaacgtgc	taggtccact	tgtagagaag	2580
tggaaaccgt	cgtgccaaaga	agaagaagag	agtttcggaa	tcgatgtgaa	catgagttta	2640
cctcaagctc	tacaaagatg	gcaaaacgaa	ggaacatcgt	catcaacaat	gttccatgga	2700

gactttctctt attctcagac acagtctagt attcctccta aagcctctgg ctttcctaatt 2760  
 acttttcgatt cagctgatgg tcggtga 2787

<210> 666

<211> 928

<212> PRT

<213> Arabidopsis thaliana

<400> 666

Met Glu Ala Pro Thr Pro Leu Leu Leu Leu Val Leu Leu Thr Thr Ile  
 1 5 10 15

Thr Phe Phe Thr Thr Ser Val Ala Asp Asp Gln Thr Ala Met Leu Ala  
 20 25 30

Leu Ala Lys Ser Phe Asn Pro Pro Pro Ser Asp Trp Ser Ser Thr Thr  
 35 40 45

Asp Phe Cys Lys Trp Ser Gly Val Arg Cys Thr Gly Gly Arg Val Thr  
 50 55 60

Thr Ile Ser Leu Ala Asp Lys Ser Leu Thr Gly Phe Ile Ala Pro Glu  
 65 70 75 80

Ile Ser Thr Leu Ser Glu Leu Lys Ser Val Ser Ile Gln Arg Asn Lys  
 85 90 95

Leu Ser Gly Thr Ile Pro Ser Phe Ala Lys Leu Ser Ser Leu Gln Glu  
 100 105 110

Ile Tyr Met Asp Glu Asn Asn Phe Val Gly Val Glu Thr Gly Ala Phe  
 115 120 125

Ala Gly Leu Thr Ser Leu Gln Ile Leu Ser Leu Ser Asp Asn Asn Asn  
 130 135 140

Ile Thr Thr Trp Ser Phe Pro Ser Glu Leu Val Asp Ser Thr Ser Leu  
 145 150 155 160

Thr Thr Ile Tyr Leu Asp Asn Thr Asn Ile Ala Gly Val Leu Pro Asp  
 165 170 175

Ile Phe Asp Ser Leu Ala Ser Leu Gln Asn Leu Arg Leu Ser Tyr Asn  
 Page 1057

```

180                                     185                                     190
Asn Ile Thr Gly Val Leu Pro Pro Ser Leu Gly Lys Ser Ser Ile Gln
    195                                200                                205

Asn Leu Trp Ile Asn Asn Gln Asp Leu Gly Met Ser Gly Thr Ile Glu
    210                                215                                220

Val Leu Ser Ser Met Thr Ser Leu Ser Gln Ala Trp Leu His Lys Asn
    225                                230                                235                                240

His Phe Phe Gly Pro Ile Pro Asp Leu Ser Lys Ser Glu Asn Leu Phe
    245                                250                                255

Asp Leu Gln Leu Arg Asp Asn Asp Leu Thr Gly Ile Val Pro Pro Thr
    260                                265                                270

Leu Leu Thr Leu Ala Ser Leu Lys Asn Ile Ser Leu Asp Asn Asn Lys
    275                                280                                285

Phe Gln Gly Pro Leu Pro Leu Phe Ser Pro Glu Val Lys Val Thr Ile
    290                                295                                300

Asp His Asn Val Phe Cys Thr Thr Lys Ala Gly Gln Ser Cys Ser Pro
    305                                310                                315                                320

Gln Val Met Thr Leu Leu Ala Val Ala Gly Gly Leu Gly Tyr Pro Ser
    325                                330                                335

Met Leu Ala Glu Ser Trp Gln Gly Asp Asp Ala Cys Ser Gly Trp Ala
    340                                345                                350

Tyr Val Ser Cys Asp Ser Ala Gly Lys Asn Val Val Thr Leu Asn Leu
    355                                360                                365

Gly Lys His Gly Phe Thr Gly Phe Ile Ser Pro Ala Ile Ala Asn Leu
    370                                375                                380

Thr Ser Leu Lys Ser Leu Tyr Leu Asn Gly Asn Asp Leu Thr Gly Val
    385                                390                                395                                400

Ile Pro Lys Glu Leu Thr Phe Met Thr Ser Leu Gln Leu Ile Asp Val
    405                                410                                415

Ser Asn Asn Asn Leu Arg Gly Glu Ile Pro Lys Phe Pro Ala Thr Val
    420                                425                                430

```



Lys Phe Ser Tyr Lys Pro Gly Asn Ala Leu Leu Gly Thr Asn Gly Gly  
 435 440 445  
 Asp Gly Ser Ser Pro Gly Thr Gly Gly Ala Ser Gly Gly Pro Gly Gly  
 450 455 460  
 Ser Ser Gly Gly Gly Gly Ser Lys Val Gly Val Ile Val Gly Val Ile  
 465 470 475 480  
 Val Ala Val Leu Val Phe Leu Ala Ile Leu Gly Phe Val Val Tyr Lys  
 485 490 495  
 Phe Val Met Lys Arg Lys Tyr Gly Arg Phe Asn Arg Thr Asp Pro Glu  
 500 505 510  
 Lys Val Gly Lys Ile Leu Val Ser Asp Ala Val Ser Asn Gly Gly Ser  
 515 520 525  
 Gly Asn Gly Gly Tyr Ala Asn Gly His Gly Ala Asn Asn Phe Asn Ala  
 530 535 540  
 Leu Asn Ser Pro Ser Ser Gly Asp Asn Ser Asp Arg Phe Leu Leu Glu  
 545 550 555 560  
 Gly Gly Ser Val Thr Ile Pro Met Glu Val Leu Arg Gln Val Thr Asn  
 565 570 575  
 Asn Phe Ser Glu Asp Asn Ile Leu Gly Arg Gly Gly Phe Gly Val Val  
 580 585 590  
 Tyr Ala Gly Glu Leu His Asp Gly Thr Lys Thr Ala Val Lys Arg Met  
 595 600 605  
 Glu Cys Ala Ala Met Gly Asn Lys Gly Met Ser Glu Phe Gln Ala Glu  
 610 615 620  
 Ile Ala Val Leu Thr Lys Val Arg His Arg His Leu Val Ala Leu Leu  
 625 630 635 640  
 Gly Tyr Cys Val Asn Gly Asn Glu Arg Leu Leu Val Tyr Glu Tyr Met  
 645 650 655  
 Pro Gln Gly Asn Leu Gly Gln His Leu Phe Glu Trp Ser Glu Leu Gly  
 660 665 670  
 Tyr Ser Pro Leu Thr Trp Lys Gln Arg Val Ser Ile Ala Leu Asp Val  
 675 680 685

047-E2F-PCT.ST25.txt

Ala Arg Gly Val Glu Tyr Leu His Ser Leu Ala Gln Gln Ser Phe Ile  
690 695 700

His Arg Asp Leu Lys Pro Ser Asn Ile Leu Leu Gly Asp Asp Met Arg  
705 710 715 720

Ala Lys Val Ala Asp Phe Gly Leu Val Lys Asn Ala Pro Asp Gly Lys  
725 730 735

Tyr Ser Val Glu Thr Arg Leu Ala Gly Thr Phe Gly Tyr Leu Ala Pro  
740 745 750

Glu Tyr Ala Ala Thr Gly Arg Val Thr Thr Lys Val Asp Val Tyr Ala  
755 760 765

Phe Gly Val Val Leu Met Glu Ile Leu Thr Gly Arg Lys Ala Leu Asp  
770 775 780

Asp Ser Leu Pro Asp Glu Arg Ser His Leu Val Thr Trp Phe Arg Arg  
785 790 795 800

Ile Leu Ile Asn Lys Glu Asn Ile Pro Lys Ala Leu Asp Gln Thr Leu  
805 810 815

Glu Ala Asp Glu Glu Thr Met Glu Ser Ile Tyr Arg Val Ala Glu Leu  
820 825 830

Ala Gly His Cys Thr Ala Arg Glu Pro Gln Gln Arg Pro Asp Met Gly  
835 840 845

His Ala Val Asn Val Leu Gly Pro Leu Val Glu Lys Trp Lys Pro Ser  
850 855 860

Cys Gln Glu Glu Glu Glu Ser Phe Gly Ile Asp Val Asn Met Ser Leu  
865 870 875 880

Pro Gln Ala Leu Gln Arg Trp Gln Asn Glu Gly Thr Ser Ser Ser Thr  
885 890 895

Met Phe His Gly Asp Phe Ser Tyr Ser Gln Thr Gln Ser Ser Ile Pro  
900 905 910

Pro Lys Ala Ser Gly Phe Pro Asn Thr Phe Asp Ser Ala Asp Gly Arg  
915 920 925

<210> 667

&lt;211&gt; 1674

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 667

atggctacct cctccgcttg gaagctcgat gaccacccca agctcccca gggtaagacc	60
atcgccgtaa tcgtcttaga tgggtggggg gaatctgccc ctgatcagta caactgtatc	120
cacaacgctc caactccagc catggattct cttaaacaatg gagctcctga tacttggact	180
ttgatcaaag ctcacgggtac tgctgtagga cttcctagtg aagatgatat gggaaacagt	240
gaggttgggtc ataatgctct tgggtgctggt cgtatctttg ctcaagggtgc taagctttgt	300
gaccaagctc ttgcttcttg caaaatcttt gaagggtgaag gttttaaata cgtttctgaa	360
tctttcgaga cgaatacttt gcatcttggt ggacttctca gtgacgggtg agttcactct	420
cgtctcgatc aactacagtt gttgattaaa ggatctgctg aacgtgggtgc taagagaatc	480
agagtccata ttcttactga tggctgctgat gttttggatg gttctagtgt tggatttgtg	540
gaaacccttg aagccgacct cgttgcatta cgtgagaatg gtgtggatgc tcagattgca	600
tctggtggag gacgtatgta tgtgactttg gaccgatatg agaatgattg ggaagttggt	660
aaaagagggt gggatgctca agttcttgga gaagctctc acaaattcaa aaacgctggt	720
gaagctgtga agactttgag gaaagagcct ggtgctaata accagtatctt gccccggtt	780
gtgattgttg atgaatcagg gaaagcagtt ggtccgattg tggacgggtga tgctgttggt	840
accttcaact tcagggctga tcgtatggtt atgcatgcta aggcacttga gtacgaagat	900
tttgacaaat ttgaccgtgt gaggtaccca aagattcggt atgctgggtat gcttcagtat	960
gatggagagc ttaagctacc aagccgttac cttgtttctc ccccgagat tgatagaaca	1020
tctggtgaat atttgactca caatggcgtc agtacttttg cttgcagtga gaccgtcaag	1080
tttgggcatg tcaccttctt ctggaatgga aatcgatctg gatatttcaa cgagaaattg	1140
gaggagtatg ttgaaatccc aagtgacagt ggaatatcat tcaatgtcca gccaaagatg	1200
aaagctcttg aaattggtga gaaggcaagg gatgcaatcc ttagtggcaa gtttgatcag	1260
gtgcgagtta acattccaaa tggagatatg gtgggtcata cagggtgatat tgaagccacg	1320
gttgttgcat gcgaggctgc tgatcttgct gtgaagatga tttttgatgc aatcgaacaa	1380
gtgaaaggaa tttatgttgt gactgctgat cacggaaacg cagaggacat ggtgaagagg	1440
gataaatctg gcaagcctgc tttggataag gaagggaagc ttcagattct aacctctcac	1500
acactcaagc cagtgccaat tgctattgga ggtcctggtt tggctcaagg agtgagattc	1560
cgtaaagatc tggaacacc ggggcttgca aatgtagctg caacagtgat gaacctccat	1620

ggatttgtgg ctccctctga ctatgagccc accctgattg aagtagtgga gtag

1674

<210> 668

<211> 557

<212> PRT

<213> Arabidopsis thaliana

<400> 668

Met Ala Thr Ser Ser Ala Trp Lys Leu Asp Asp His Pro Lys Leu Pro  
1 5 10 15

Lys Gly Lys Thr Ile Ala Val Ile Val Leu Asp Gly Trp Gly Glu Ser  
20 25 30

Ala Pro Asp Gln Tyr Asn Cys Ile His Asn Ala Pro Thr Pro Ala Met  
35 40 45

Asp Ser Leu Lys His Gly Ala Pro Asp Thr Trp Thr Leu Ile Lys Ala  
50 55 60

His Gly Thr Ala Val Gly Leu Pro Ser Glu Asp Asp Met Gly Asn Ser  
65 70 75 80

Glu Val Gly His Asn Ala Leu Gly Ala Gly Arg Ile Phe Ala Gln Gly  
85 90 95

Ala Lys Leu Cys Asp Gln Ala Leu Ala Ser Gly Lys Ile Phe Glu Gly  
100 105 110

Glu Gly Phe Lys Tyr Val Ser Glu Ser Phe Glu Thr Asn Thr Leu His  
115 120 125

Leu Val Gly Leu Leu Ser Asp Gly Gly Val His Ser Arg Leu Asp Gln  
130 135 140

Leu Gln Leu Leu Ile Lys Gly Ser Ala Glu Arg Gly Ala Lys Arg Ile  
145 150 155 160

Arg Val His Ile Leu Thr Asp Gly Arg Asp Val Leu Asp Gly Ser Ser  
165 170 175

Val Gly Phe Val Glu Thr Leu Glu Ala Asp Leu Val Ala Leu Arg Glu  
180 185 190

Asn Gly Val Asp Ala Gln Ile Ala Ser Gly Gly Gly Arg Met Tyr Val  
 195 200 205  
 Thr Leu Asp Arg Tyr Glu Asn Asp Trp Glu Val Val Lys Arg Gly Trp  
 210 215 220  
 Asp Ala Gln Val Leu Gly Glu Ala Pro His Lys Phe Lys Asn Ala Val  
 225 230 235 240  
 Glu Ala Val Lys Thr Leu Arg Lys Glu Pro Gly Ala Asn Asp Gln Tyr  
 245 250 255  
 Leu Pro Pro Phe Val Ile Val Asp Glu Ser Gly Lys Ala Val Gly Pro  
 260 265 270  
 Ile Val Asp Gly Asp Ala Val Val Thr Phe Asn Phe Arg Ala Asp Arg  
 275 280 285  
 Met Val Met His Ala Lys Ala Leu Glu Tyr Glu Asp Phe Asp Lys Phe  
 290 295 300  
 Asp Arg Val Arg Tyr Pro Lys Ile Arg Tyr Ala Gly Met Leu Gln Tyr  
 305 310 315 320  
 Asp Gly Glu Leu Lys Leu Pro Ser Arg Tyr Leu Val Ser Pro Pro Glu  
 325 330 335  
 Ile Asp Arg Thr Ser Gly Glu Tyr Leu Thr His Asn Gly Val Ser Thr  
 340 345 350  
 Phe Ala Cys Ser Glu Thr Val Lys Phe Gly His Val Thr Phe Phe Trp  
 355 360 365  
 Asn Gly Asn Arg Ser Gly Tyr Phe Asn Glu Lys Leu Glu Glu Tyr Val  
 370 375 380  
 Glu Ile Pro Ser Asp Ser Gly Ile Ser Phe Asn Val Gln Pro Lys Met  
 385 390 395 400  
 Lys Ala Leu Glu Ile Gly Glu Lys Ala Arg Asp Ala Ile Leu Ser Gly  
 405 410 415  
 Lys Phe Asp Gln Val Arg Val Asn Ile Pro Asn Gly Asp Met Val Gly  
 420 425 430  
 His Thr Gly Asp Ile Glu Ala Thr Val Val Ala Cys Glu Ala Ala Asp  
 435 440 445

047-E2F-PCT.ST25.txt

Leu Ala Val Lys Met Ile Phe Asp Ala Ile Glu Gln Val Lys Gly Ile  
450 455 460

Tyr Val Val Thr Ala Asp His Gly Asn Ala Glu Asp Met Val Lys Arg  
465 470 475 480

Asp Lys Ser Gly Lys Pro Ala Leu Asp Lys Glu Gly Lys Leu Gln Ile  
485 490 495

Leu Thr Ser His Thr Leu Lys Pro Val Pro Ile Ala Ile Gly Gly Pro  
500 505 510

Gly Leu Ala Gln Gly Val Arg Phe Arg Lys Asp Leu Glu Thr Pro Gly  
515 520 525

Leu Ala Asn Val Ala Ala Thr Val Met Asn Leu His Gly Phe Val Ala  
530 535 540

Pro Ser Asp Tyr Glu Pro Thr Leu Ile Glu Val Val Glu  
545 550 555

<210> 669

<211> 1290

<212> DNA

<213> Arabidopsis thaliana

<400> 669

atgatcggag	ctgtgaactc	ggtggaggct	gtgataacgt	caatccaagg	tttatcgggg	60
agtccagagg	atttatctgc	acttcacgat	cttttgagag	gagctcaaga	ctcgctccga	120
gccgaaccag	gtgttaat	ctctactctt	gaccagctcg	acgcctcgaa	gcactctctc	180
ggttacctgt	atttccttga	ggttcttacc	tgtggtccag	tgtcgaagga	gaaagctgct	240
tatgagatac	cgataattgc	acggttcac	aattcttgtg	atgctgggca	gattcgtttg	300
gcgagctata	aatttgtatc	tctttgtaag	atattgaaag	accatgttat	agcactggga	360
gatccgttgc	gaggagtagg	gccactgtta	aacgctgttc	agaagcttca	ggtctcctcc	420
aagcgtttga	ctgcattgca	tccagatggt	cttcaactct	gtttgcaggc	gaaatcgtac	480
aaatctgggt	tctccattct	tagtgatgat	atcgtggaga	ttgaccagcc	aagagacttt	540
tttctctata	gctattatgg	gggaatgatt	tgtattggac	tgaagagatt	tcagaaagca	600
ttagagcttc	tttacaatgt	tgtgactgct	cctatgcac	aagtcaatgc	catagctctt	660
gaggcgtaca	aaaagtacat	attggtgtct	ctcattcaca	atgggcagtt	tactaacact	720

047-E2F-PCT.ST25.txt

ctccccaagt gtgctttctac agcagcacag aggagcttca agaactatac cggaccttac 780  
attgaactgg gtaattgtta caacgacggg aagattgggtg aactagaggc attggttgtg 840  
gccaggaatg cagaatttga agaggataag aaccttggat tagttaagca agcagtgtca 900  
tccctttaca agcgtaacat tctgagattg acacagaagt acttgaccct gtcgcttcaa 960  
gatatagcca acatggtcca acttggtaat gctaaggagg cggaaatgca tgtgcttcag 1020  
atgatccagg atggtcagat acatgccctt atcaaccaga aagacgggat ggtcagattc 1080  
ttggaggacc ctgagcagta caaatctagt gagatgattg agatcatgga ttctgttata 1140  
caaaggacta ttggtctgtc gaagaatctc ttagccatgg atgagagctt atcatgtgac 1200  
cctttatact tgggaaaggt aggaagggaa agacaaaggt acgactttgg agacgatttc 1260  
gatactgttc ctcagaagtt ctccatgtaa 1290

<210> 670

<211> 429

<212> PRT

<213> Arabidopsis thaliana

<400> 670

Met Ile Gly Ala Val Asn Ser Val Glu Ala Val Ile Thr Ser Ile Gln  
1 5 10 15

Gly Leu Ser Gly Ser Pro Glu Asp Leu Ser Ala Leu His Asp Leu Leu  
20 25 30

Arg Gly Ala Gln Asp Ser Leu Arg Ala Glu Pro Gly Val Asn Phe Ser  
35 40 45

Thr Leu Asp Gln Leu Asp Ala Ser Lys His Ser Leu Gly Tyr Leu Tyr  
50 55 60

Phe Leu Glu Val Leu Thr Cys Gly Pro Val Ser Lys Glu Lys Ala Ala  
65 70 75 80

Tyr Glu Ile Pro Ile Ile Ala Arg Phe Ile Asn Ser Cys Asp Ala Gly  
85 90 95

Gln Ile Arg Leu Ala Ser Tyr Lys Phe Val Ser Leu Cys Lys Ile Leu  
100 105 110

Lys Asp His Val Ile Ala Leu Gly Asp Pro Leu Arg Gly Val Gly Pro  
Page 1065

047-E2F-PCT.ST25.txt

115

120

125

Leu Leu Asn Ala Val Gln Lys Leu Gln Val Ser Ser Lys Arg Leu Thr  
130 135 140

Ala Leu His Pro Asp Val Leu Gln Leu Cys Leu Gln Ala Lys Ser Tyr  
145 150 155 160

Lys Ser Gly Phe Ser Ile Leu Ser Asp Asp Ile Val Glu Ile Asp Gln  
165 170 175

Pro Arg Asp Phe Phe Leu Tyr Ser Tyr Tyr Gly Gly Met Ile Cys Ile  
180 185 190

Gly Leu Lys Arg Phe Gln Lys Ala Leu Glu Leu Leu Tyr Asn Val Val  
195 200 205

Thr Ala Pro Met His Gln Val Asn Ala Ile Ala Leu Glu Ala Tyr Lys  
210 215 220

Lys Tyr Ile Leu Val Ser Leu Ile His Asn Gly Gln Phe Thr Asn Thr  
225 230 235 240

Leu Pro Lys Cys Ala Ser Thr Ala Ala Gln Arg Ser Phe Lys Asn Tyr  
245 250 255

Thr Gly Pro Tyr Ile Glu Leu Gly Asn Cys Tyr Asn Asp Gly Lys Ile  
260 265 270

Gly Glu Leu Glu Ala Leu Val Val Ala Arg Asn Ala Glu Phe Glu Glu  
275 280 285

Asp<sub>290</sub> Lys Asn Leu Gly Leu Val<sub>295</sub> Lys Gln Ala Val<sub>300</sub> Ser Ser Leu Tyr Lys

Arg Asn Ile Leu Arg Leu Thr Gln Lys Tyr Leu Thr Leu Ser Leu Gln  
305 310 315 320

Asp Ile Ala Asn Met Val Gln Leu Gly Asn Ala Lys Glu Ala Glu Met  
325 330 335

His Val Leu Gln Met Ile Gln Asp Gly Gln Ile His Ala Leu Ile Asn  
340 345 350

Gln Lys Asp Gly Met Val Arg Phe Leu Glu Asp Pro Glu Gln Tyr Lys  
355 360 365



Ser Ser Glu Met Ile Glu Ile Met Asp Ser Val Ile Gln Arg Thr Ile  
 370 375 380

Gly Leu Ser Lys Asn Leu Leu Ala Met Asp Glu Ser Leu Ser Cys Asp  
 385 390 395 400

Pro Leu Tyr Leu Gly Lys Val Gly Arg Glu Arg Gln Arg Tyr Asp Phe  
 405 410 415

Gly Asp Asp Phe Asp Thr Val Pro Gln Lys Phe Ser Met  
 420 425

<210> 671

<211> 855

<212> DNA

<213> Arabidopsis thaliana

<400> 671

atgggtagga aaaagaaatc tagggcttcg acaaccgaag aagatgagat tgagatggat	60
aatgctggcc catcctctga gacaagtctt tacgaggttc ttggagttga aagaagagcc	120
acttcacagg aaataagaaa agcataccat aagttggcat tgaagcttca ccctgataaa	180
aatcaggatg ataaggaagc taaagacaag ttccagcagc tgcaaaaagt gatatcaatt	240
cttggtgatg aagagaaaag ggcagtctat gatcaaactg gctcaattga tgatgctgat	300
attcctggag atgcgtttga gaatttgcg gatttcttcc gggacatgta taagaaggtc	360
aacgaagctg atattgaaga gtttgaggca aactacaggg gatctgagtc agagaagaaa	420
gacttgcttg agcttttcaa caagtttaag ggtaaaatga acaggctatt ctgctcaatg	480
ctttgctcgg accccaagct tgattcacac cgtttcaaag acatgcttga tgaggccatt	540
gcagcaggag aagtgaagtc aagcaaggca tatgagaaat gggcaaataa aatttcagaa	600
acgaaaccgc ccaccagtcc attgaggaag aggaagaaga agaagtcagc agcaaaggat	660
tcagagacag atctttgctt gatgattgcy aaacgacaag aggagaggaa agggaagggtg	720
gactcgatgt ttatcatcact tatctctagg tatggtggtg atgcggaagc agagcccact	780
gaagaagaat ttgaagctgc ccagagaagg attgaaagca aaagaaaacc atccaagaag	840
tctagaggaa agtag	855

<210> 672

<211> 284

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 672

```

Met Gly Arg Lys Lys Lys Ser Arg Ala Ser Thr Thr Glu Glu Asp Glu
1      5      10      15
Ile Glu Met Asp Asn Ala Gly Pro Ser Ser Glu Thr Ser Leu Tyr Glu
20     25     30
Val Leu Gly Val Glu Arg Arg Ala Thr Ser Gln Glu Ile Arg Lys Ala
35     40     45
Tyr His Lys Leu Ala Leu Lys Leu His Pro Asp Lys Asn Gln Asp Asp
50     55     60
Lys Glu Ala Lys Asp Lys Phe Gln Gln Leu Gln Lys Val Ile Ser Ile
65     70     75     80
Leu Gly Asp Glu Glu Lys Arg Ala Val Tyr Asp Gln Thr Gly Ser Ile
85     90     95
Asp Asp Ala Asp Ile Pro Gly Asp Ala Phe Glu Asn Leu Arg Asp Phe
100    105    110
Phe Arg Asp Met Tyr Lys Lys Val Asn Glu Ala Asp Ile Glu Glu Phe
115    120    125
Glu Ala Asn Tyr Arg Gly Ser Glu Ser Glu Lys Lys Asp Leu Leu Glu
130    135    140
Leu Phe Asn Lys Phe Lys Gly Lys Met Asn Arg Leu Phe Cys Ser Met
145    150    155    160
Leu Cys Ser Asp Pro Lys Leu Asp Ser His Arg Phe Lys Asp Met Leu
165    170    175
Asp Glu Ala Ile Ala Ala Gly Glu Val Lys Ser Ser Lys Ala Tyr Glu
180    185    190
Lys Trp Ala Asn Lys Ile Ser Glu Thr Lys Pro Pro Thr Ser Pro Leu
195    200    205
Arg Lys Arg Lys Lys Lys Lys Ser Ala Ala Lys Asp Ser Glu Thr Asp
210    215    220

```

Leu Cys Leu Met Ile Ala Lys Arg Gln Glu Glu Arg Lys Gly Lys Val  
 225 230 235 240

Asp Ser Met Phe Ser Ser Leu Ile Ser Arg Tyr Gly Gly Asp Ala Glu  
 245 250 255

Ala Glu Pro Thr Glu Glu Glu Phe Glu Ala Ala Gln Arg Arg Ile Glu  
 260 265 270

Ser Lys Arg Lys Pro Ser Lys Lys Ser Arg Gly Lys  
 275 280

<210> 673

<211> 1647

<212> DNA

<213> Arabidopsis thaliana

<400> 673

```

atgCGtttaa ttctcaccgt catgtgctca ttcattcctt acctttattc atcttctcct    60
caccgtcctt gctcttcccc aatctctcgt cctcctcctc gaatccgtcc ttgtcgtctc    120
agtcgtttcg ccaccgcatt agtcgctacc tccgctcttc ttctcgcttc cgtcgtttgg    180
ctttctctcg tcttctcacc aaccacttcc cgttggttggc atcttcttaa agattgggaa    240
gacaatcatc tctggaacaa acggtaccat catccaattg taactcctcc tccgccgccg    300
ccgtcgcgcg cgtctcttcc agctcttccg ttattcgatc atgaatttag aaatcgtagt    360
ctctcagaga ttgataaact tgatctgtct atgaatcact tgatgtttgg tattgctgga    420
tcttcacagc tttgggaacg tcgtaaggaa cttgtgagat tatggtggaa accttctcag    480
atgCGtggaC atgtctggct tgaagagcaa gtttctcctg aggaaggatga tgattctctt    540
cctctataaa ttgtctctga agacagctct cgttttctgt acactaatcc tactggtcat    600
ccttctggac ttcgaatctc tcgtattgct atggagtctt ttcgtctctc tctccctaata    660
gttcggtggg ttgttcttgg tgatgatgat actatcttca atgttcataa tcttcttgct    720
gtgttaagca agtatgatcc ttcggagatg gtttatattg gaaaccctc ggagagccac    780
tctgctaact cttacttttag tcataacatg gcttttggag gcggtggcat tgccattagc    840
tacccttttag cggaagctct ctcccggatt cacgacgatt gtctcgatag ataccgaag    900
ctatacggtg gtgatgatcg tctccacgcc tgcactactg aactcggagt tcctttgtcc    960
agagagcctg gctttcacca gtgggatatt aagggaatg ctcatggtct cttgtcctct   1020
catcctattg caccatttgt ctcaattcat cacgttgaag ctgttaatcc tctctatccg   1080

```

```

ggattatcta cattagatag tttgaaactc ttgacaagag ctatgagttt ggatcctagg 1140
agtgttttgc agcgatcgat ctgctatgat catactcaca aactgacatt tgcgatatct 1200
cttggttatg ttgtacaagt tttcccaagt attctcctac cacgggatct tgagcgagct 1260
gaactttctt tctctgcttg gaacgggata agtcaacca gtgagtttga tcttgacata 1320
aagcttccaa tttcgtctct ctgtaagaag cctatcctct tcttcttgaa agaggttggc 1380
caagaaggta atgctacact tggaacgtac tcaagatcct tggtaaagga tgatttgaag 1440
acgaagcttc tatgttttcc acgctctcta cctctgcaca aagtggataa aatccaggtc 1500
tcagggtttc ctctgagtaa aaattggcac ttggcgccga gacggttggtg ttgcagagca 1560
acccaacta ctactaacga gcctctcaga ttaacagttg ggcagtgtgg taagataatt 1620
ttgggttcca cgattagttc tcaatga 1647

```

&lt;210&gt; 674

&lt;211&gt; 548

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 674

```

Met Arg Leu Ile Leu Thr Val Met Cys Ser Phe Ile Pro Tyr Leu Tyr
1           5           10          15

```

```

Ser Ser Ser Pro His Arg Pro Cys Ser Ser Pro Ile Ser Arg Pro Pro
          20           25          30

```

```

Pro Arg Ile Arg Pro Cys Arg Leu Ser Arg Phe Ala Thr Ala Leu Val
35           40          45

```

```

Ala Thr Ser Ala Leu Leu Leu Ala Ser Val Ala Trp Leu Ser Leu Val
50           55          60

```

```

Phe Ser Pro Thr Thr Ser Arg Cys Trp His Leu Leu Lys Asp Trp Glu
65           70          75          80

```

```

Asp Asn His Leu Trp Asn Lys Arg Tyr His His Pro Ile Val Thr Pro
85           90          95

```

```

Pro Pro Pro Pro Pro Ser Pro Pro Ser Leu Pro Ala Leu Pro Leu Phe
100           105          110

```

```

Asp His Glu Phe Arg Asn Arg Ser Leu Ser Glu Ile Asp Lys Leu Asp
115           120          125

```

047-E2F-PCT.ST25.txt

Leu Ser Met Asn His Leu Met Phe Gly Ile Ala Gly Ser Ser Gln Leu  
 130 135 140  
 Trp Glu Arg Arg Lys Glu Leu Val Arg Leu Trp Trp Lys Pro Ser Gln  
 145 150 155 160  
 Met Arg Gly His Val Trp Leu Glu Glu Gln Val Ser Pro Glu Glu Gly  
 165 170 175  
 Asp Asp Ser Leu Pro Pro Ile Ile Val Ser Glu Asp Ser Ser Arg Phe  
 180 185 190  
 Arg Tyr Thr Asn Pro Thr Gly His Pro Ser Gly Leu Arg Ile Ser Arg  
 195 200 205  
 Ile Ala Met Glu Ser Phe Arg Leu Ser Leu Pro Asn Val Arg Trp Phe  
 210 215 220  
 Val Leu Gly Asp Asp Asp Thr Ile Phe Asn Val His Asn Leu Leu Ala  
 225 230 235 240  
 Val Leu Ser Lys Tyr Asp Pro Ser Glu Met Val Tyr Ile Gly Asn Pro  
 245 250 255  
 Ser Glu Ser His Ser Ala Asn Ser Tyr Phe Ser His Asn Met Ala Phe  
 260 265 270  
 Gly Gly Gly Gly Ile Ala Ile Ser Tyr Pro Leu Ala Glu Ala Leu Ser  
 275 280 285  
 Arg Ile His Asp Asp Cys Leu Asp Arg Tyr Pro Lys Leu Tyr Gly Ser  
 290 295 300  
 Asp Asp Arg Leu His Ala Cys Ile Thr Glu Leu Gly Val Pro Leu Ser  
 305 310 315 320  
 Arg Glu Pro Gly Phe His Gln Trp Asp Ile Lys Gly Asn Ala His Gly  
 325 330 335  
 Leu Leu Ser Ser His Pro Ile Ala Pro Phe Val Ser Ile His His Val  
 340 345 350  
 Glu Ala Val Asn Pro Leu Tyr Pro Gly Leu Ser Thr Leu Asp Ser Leu  
 355 360 365  
 Lys Leu Leu Thr Arg Ala Met Ser Leu Asp Pro Arg Ser Val Leu Gln

370

375

Arg Ser Ile Cys Tyr Asp His Thr His Lys Leu Thr Phe Ala Ile Ser  
385 390 395 400

Leu Gly Tyr Val Val Gln Val Phe Pro Ser Ile Leu Leu Pro Arg Asp  
405 410 415

Leu Glu Arg Ala Glu Leu Ser Phe Ser Ala Trp Asn Gly Ile Ser Gln  
420 425 430

Pro Ser Glu Phe Asp Leu Asp Ile Lys Leu Pro Ile Ser Ser Leu Cys  
435 440 445

Lys Lys Pro Ile Leu Phe Phe Leu Lys Glu Val Gly Gln Glu Gly Asn  
450 455 460

Ala Thr Leu Gly Thr Tyr Ser Arg Ser Leu Val Lys Asp Asp Leu Lys  
465 470 475 480

Thr Lys Leu Leu Cys Phe Pro Arg Ser Leu Pro Leu His Lys Val Asp  
485 490 495

Lys Ile Gln Val Ser Gly Phe Pro Leu Ser Lys Asn Trp His Leu Ala  
500 505 510

Pro Arg Arg Leu Cys Cys Arg Ala Thr Pro Thr Thr Thr Asn Glu Pro  
515 520 525

Leu Arg Leu Thr Val Gly Gln Cys Gly Lys Ile Ile Leu Gly Ser Thr  
530 535 540

Ile Ser Ser Gln  
545

<210> 675

<211> 954

<212> DNA

<213> Arabidopsis thaliana

<400> 675

atgactattc ttgttgaaca ttttgttcct gattcaagag tggatgaaaa gaaagtgata 60

gaggagaggg ataatgaatt ggtgttggat ggaggttttg tggttccaaa atcaaaggaa 120

actgatgcat tcgatgctcc tgatatgaat ttcttgggcc attccttcag ggattatgag 180

047-E2F-PCT.ST25.txt

aatggtgaaa gcgagagaca acaaggtggt gaggaatddd acaggatgca acacattcac 240  
cagacctatg actttgtgaa gaagatgagg aaagagtatg gaaaacttaa caagatggaa 300  
atgagtatat gggaatgttg tgagttattg aacaatgttg ttgatgaaag cgatccggat 360  
cttgatgagc ctcaaattca acaccttctc caaaccgctg aagccattcg aagggactat 420  
cccgcagaag attggctcca tctcactgcc ctaatccatg atcttggcaa ggttctcctt 480  
ctgccagaat tcggtggtct tccccagtgg gctgtcgttg gcgatacatt tccagttgga 540  
tgtaccttcg actcagccaa tattcaccac aagtatttca aaggaaacca tgatatcaac 600  
aacccaaagt acaacacaaa aaatggagtt tacactgaag gatgtgggtt agacaatggt 660  
ctcatgtcat ggggtcatga cgactacatg ttttgggtgg ctaagaagaa tggcacgacc 720  
cttcctcacg ctggtctctt cattattcga tatcattcct tttatccatt gcacaaggca 780  
ggagcctaca cacacttgat gaacgatgag gacagagatg atctcaagtg gctccatgtc 840  
ttcaataaat atgacctata cagtaagagc aaagttctgg tagatgtcga acaagtgaag 900  
ccttactaca tttcactcat caacaagtat tttccggcga aactaaaatg gtga 954

<210> 676

<211> 317

<212> PRT

<213> Arabidopsis thaliana

<400> 676

Met Thr Ile Leu Val Glu His Phe Val Pro Asp Ser Arg Val Asp Glu  
1 5 10 15

Lys Lys Val Ile Glu Glu Arg Asp Asn Glu Leu Val Leu Asp Gly Gly  
20 25 30

Phe Val Val Pro Lys Ser Lys Glu Thr Asp Ala Phe Asp Ala Pro Asp  
35 40 45

Met Asn Phe Leu Gly His Ser Phe Arg Asp Tyr Glu Asn Gly Glu Ser  
50 55 60

Glu Arg Gln Gln Gly Val Glu Glu Phe Tyr Arg Met Gln His Ile His  
65 70 75 80

Gln Thr Tyr Asp Phe Val Lys Lys Met Arg Lys Glu Tyr Gly Lys Leu  
85 90 95

047-E2F-PCT.ST25.txt

Asn Lys Met Glu Met Ser Ile Trp Glu Cys Cys Glu Leu Leu Asn Asn  
 100 105 110  
 Val Val Asp Glu Ser Asp Pro Asp Leu Asp Glu Pro Gln Ile Gln His  
 115 120 125  
 Leu Leu Gln Thr Ala Glu Ala Ile Arg Arg Asp Tyr Pro Asp Glu Asp  
 130 135 140  
 Trp Leu His Leu Thr Ala Leu Ile His Asp Leu Gly Lys Val Leu Leu  
 145 150 155 160  
 Leu Pro Glu Phe Gly Gly Leu Pro Gln Trp Ala Val Val Gly Asp Thr  
 165 170 175  
 Phe Pro Val Gly Cys Thr Phe Asp Ser Ala Asn Ile His His Lys Tyr  
 180 185 190  
 Phe Lys Gly Asn His Asp Ile Asn Asn Pro Lys Tyr Asn Thr Lys Asn  
 195 200 205  
 Gly Val Tyr Thr Glu Gly Cys Gly Leu Asp Asn Val Leu Met Ser Trp  
 210 215 220  
 Gly His Asp Asp Tyr Met Tyr Leu Val Ala Lys Lys Asn Gly Thr Thr  
 225 230 235 240  
 Leu Pro His Ala Gly Leu Phe Ile Ile Arg Tyr His Ser Phe Tyr Pro  
 245 250 255  
 Leu His Lys Ala Gly Ala Tyr Thr His Leu Met Asn Asp Glu Asp Arg  
 260 265 270  
 Asp Asp Leu Lys Trp Leu His Val Phe Asn Lys Tyr Asp Leu Tyr Ser  
 275 280 285  
 Lys Ser Lys Val Leu Val Asp Val Glu Gln Val Lys Pro Tyr Tyr Ile  
 290 295 300  
 Ser Leu Ile Asn Lys Tyr Phe Pro Ala Lys Leu Lys Trp  
 305 310 315

<210> 677

<211> 1173

<212> DNA



<213> *Arabidopsis thaliana*

&lt;400&gt; 677

```

atgtctattg catcatcact tacttcagcc acactttgcg gcgcctcagt ttttcctaaa      60
gcattagcct gcagctctga gttccctatc aatcttccca gcccttttga aagttcaaag      120
atgtgtttga cttcgtttcc tgcctctagg gatctcaaga aaaatgctac tttgaatctg      180
actcgaaatg ttggtccagt caggtgtcat gctatgcaag ctgggacgag ggagttgaag      240
aaatttgaac ttagtgatgt gattgaaggg aaacagtttg atagagagat gctaagcgct      300
atattcgatg ttgcacgcga aatggaaaag atagaaaaga gctcttcaca aagtgaaatc      360
ctcaagggtt atttaatggc taccctcttt tatgagcctt ctaccggtac caggctttca      420
tttgaatctg ctatgaaacg ccttggaggt gaagtcttaa ctactgagaa cgctagagag      480
ttttcgtctg ccgcgaaagg ggaaacactt gaagacacaa taagaacagt ggaggggttat      540
tcagatataa ttgtgatgcg acattttgaa agcgggtgctg caagaaaagc tgcagctact      600
gccaatatac ctgtcattaa tgcaggtgat ggtcctggag agcatcctac tcaggctcta      660
ttggacgtct ataccatcca aagtgaaatt ggaaaattag atggcatcag tgtagcctta      720
gttggagacc ttgccaacgg aaggactgtg cggctctcttg catacttgct tgccaagttc      780
aaagacgtga agatctactt tgtttccctt gaaattgtga aaatgaagga tgatataaaa      840
gactatttga catcaagcgg ggttgaatgg gaagaaagtt cagatttaat ggaagtagca      900
tccaagtgtg atgtagttta tcaaacacga atccaaagag agaggttttg agaaaggctg      960
gacctttacg aagcagctcg tgggaagtat atcgtagaca aggatctggt aggagtgatg     1020
cagaaaaaag ctattatcat gcacacctta ccgagattgg atgaaatcac cgcagatggt     1080
gatgctgatc caagagctgc ctacttcaga caagcaaaga acggtttggt cattagaatg     1140
gctcttctaa agctactgct tgtcgggttg tga                                  1173

```

&lt;210&gt; 678

&lt;211&gt; 390

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 678

```

Met Ser Ile Ala Ser Ser Leu Thr Ser Ala Thr Leu Cys Gly Ala Ser
1           5           10           15

```

```

Val Phe Pro Lys Ala Leu Ala Cys Ser Ser Glu Phe Pro Ile Asn Leu
Page 1075

```

Pro Ser Pro Phe Glu Ser Ser Lys Ile Cys Leu Thr Ser Phe Pro Ala  
 35 40 45  
 Ser Arg Asp Leu Lys Lys Asn Ala Thr Leu Asn Leu Thr Arg Asn Val  
 50 55 60  
 Gly Pro Val Arg Cys His Ala Met Gln Ala Gly Thr Arg Glu Leu Lys  
 65 70 75 80  
 Lys Phe Glu Leu Ser Asp Val Ile Glu Gly Lys Gln Phe Asp Arg Glu  
 85 90 95  
 Met Leu Ser Ala Ile Phe Asp Val Ala Arg Glu Met Glu Lys Ile Glu  
 100 105 110  
 Lys Ser Ser Ser Gln Ser Glu Ile Leu Lys Gly Tyr Leu Met Ala Thr  
 115 120 125  
 Leu Phe Tyr Glu Pro Ser Thr Arg Thr Arg Leu Ser Phe Glu Ser Ala  
 130 135 140  
 Met Lys Arg Leu Gly Gly Glu Val Leu Thr Thr Glu Asn Ala Arg Glu  
 145 150 155 160  
 Phe Ser Ser Ala Ala Lys Gly Glu Thr Leu Glu Asp Thr Ile Arg Thr  
 165 170 175  
 Val Glu Gly Tyr Ser Asp Ile Ile Val Met Arg His Phe Glu Ser Gly  
 180 185 190  
 Ala Ala Arg Lys Ala Ala Ala Thr Ala Asn Ile Pro Val Ile Asn Ala  
 195 200 205  
 Gly Asp Gly Pro Gly Glu His Pro Thr Gln Ala Leu Leu Asp Val Tyr  
 210 215 220  
 Thr Ile Gln Ser Glu Ile Gly Lys Leu Asp Gly Ile Ser Val Ala Leu  
 225 230 235 240  
 Val Gly Asp Leu Ala Asn Gly Arg Thr Val Arg Ser Leu Ala Tyr Leu  
 245 250 255  
 Leu Ala Lys Phe Lys Asp Val Lys Ile Tyr Phe Val Ser Pro Glu Ile  
 260 265 270

Val Lys Met Lys Asp Asp Ile Lys Asp Tyr Leu Thr Ser Ser Gly Val  
 275 280 285

Glu Trp Glu Glu Ser Ser Asp Leu Met Glu Val Ala Ser Lys Cys Asp  
 290 295 300

Val Val Tyr Gln Thr Arg Ile Gln Arg Glu Arg Phe Gly Glu Arg Leu  
 305 310 315 320

Asp Leu Tyr Glu Ala Ala Arg Gly Lys Tyr Ile Val Asp Lys Asp Leu  
 325 330 335

Leu Gly Val Met Gln Lys Lys Ala Ile Ile Met His Pro Leu Pro Arg  
 340 345 350

Leu Asp Glu Ile Thr Ala Asp Val Asp Ala Asp Pro Arg Ala Ala Tyr  
 355 360 365

Phe Arg Gln Ala Lys Asn Gly Leu Phe Ile Arg Met Ala Leu Leu Lys  
 370 375 380

Leu Leu Leu Val Gly Trp  
 385 390

<210> 679

<211> 978

<212> DNA

<213> Arabidopsis thaliana

<400> 679

atgggagacg accagctaga tttcgagctc ccagaagagg ttttgtcggg gattccgatg	60
gacccttttg agcagctgga tctcgcgagg aagattacat caatggcgat agcttcaagg	120
gtgtcgaatc tggactctga ggtggttgaa ttgagacaga agcttctggg taaggaaagt	180
gttgtccgtg agcttgagga gaaagcgtct cgcctggaga gagactgccg cgaggctgat	240
tcgagattga aggtcgttct cgaagataat atgaacctga caaaggagaa ggattcactg	300
gcaatgactg taacgaaact caccctgtgat ttggctaagc tggagacatt caagcggcag	360
ttaatcaaat ccctgagcga tgagagtggg ccgcaaacag aacctgttga tattaggaca	420
tgcgaccagc caggatcata tccaggcaaa gatggaagga tcaatgcaca ctcaattaaa	480
caagcttaca gtggatctac agacacgaac aatccagttg ttgaagcttc aaaatacact	540
ggaaacaaat tttcaatgac atcatacata tctccacgtc ttaccccaac cgcaacacca	600

047-E2F-PCT.ST25.txt

aagatcatct ccacaagtgt gtctcctcga ggctattctg cagcaggttc tcctaaaaga 660  
 acatcagggtg cagtttctcc cacaaaggca acactctggt acccgtaag tcagcaatca 720  
 tcggctgcga atttctctcc tcgcaaccgc acactcccag ctcgtacacc gcggatggat 780  
 ggtaaagaat tcttccggca agccaggagc cgattatcct atgaacaatt cagttccttc 840  
 ttagctaaca tcaaagagct caacgcccag aagcaaacc gagaggaaac tctgaggaaa 900  
 gcagatgaga ttttgggga agagaacaaa gatctttatt tatctttcca aggtctcctt 960  
 aacagaaaca tgcgttaa 978

<210> 680

<211> 325

<212> PRT

<213> Arabidopsis thaliana

<400> 680

Met Gly Asp Asp Gln Leu Asp Phe Glu Leu Pro Glu Glu Val Leu Ser  
 1 5 10 15

Val Ile Pro Met Asp Pro Phe Glu Gln Leu Asp Leu Ala Arg Lys Ile  
 20 25 30

Thr Ser Met Ala Ile Ala Ser Arg Val Ser Asn Leu Asp Ser Glu Val  
 35 40 45

Val Glu Leu Arg Gln Lys Leu Leu Gly Lys Glu Ser Val Val Arg Glu  
 50 55 60

Leu Glu Glu Lys Ala Ser Arg Leu Glu Arg Asp Cys Arg Glu Ala Asp  
 65 70 75 80

Ser Arg Leu Lys Val Val Leu Glu Asp Asn Met Asn Leu Thr Lys Glu  
 85 90 95

Lys Asp Ser Leu Ala Met Thr Val Thr Lys Leu Thr Arg Asp Leu Ala  
 100 105 110

Lys Leu Glu Thr Phe Lys Arg Gln Leu Ile Lys Ser Leu Ser Asp Glu  
 115 120 125

Ser Gly Pro Gln Thr Glu Pro Val Asp Ile Arg Thr Cys Asp Gln Pro  
 130 135 140

047-E2F-PCT.ST25.txt

Gly Ser Tyr Pro Gly Lys Asp Gly Arg Ile Asn Ala His Ser Ile Lys  
 145 150 155 160

Gln Ala Tyr Ser Gly Ser Thr Asp Thr Asn Asn Pro Val Val Glu Ala  
 165 170 175

Ser Lys Tyr Thr Gly Asn Lys Phe Ser Met Thr Ser Tyr Ile Ser Pro  
 180 185 190

Arg Leu Thr Pro Thr Ala Thr Pro Lys Ile Ile Ser Thr Ser Val Ser  
 195 200 205

Pro Arg Gly Tyr Ser Ala Ala Gly Ser Pro Lys Arg Thr Ser Gly Ala  
 210 215 220

Val Ser Pro Thr Lys Ala Thr Leu Trp Tyr Pro Ser Ser Gln Gln Ser  
 225 230 235 240

Ser Ala Ala Asn Ser Pro Pro Arg Asn Arg Thr Leu Pro Ala Arg Thr  
 245 250 255

Pro Arg Met Asp Gly Lys Glu Phe Phe Arg Gln Ala Arg Ser Arg Leu  
 260 265 270

Ser Tyr Glu Gln Phe Ser Ser Phe Leu Ala Asn Ile Lys Glu Leu Asn  
 275 280 285

Ala Gln Lys Gln Thr Arg Glu Glu Thr Leu Arg Lys Ala Asp Glu Ile  
 290 295 300

Phe Gly Glu Glu Asn Lys Asp Leu Tyr Leu Ser Phe Gln Gly Leu Leu  
 305 310 315 320

Asn Arg Asn Met Arg  
 325

<210> 681

<211> 1440

<212> DNA

<213> Arabidopsis thaliana

<400> 681

atggatcctt ctctctctgc aaccaatgat cctcatcatc ctctctctcc tcagttcaca 60

tctttccctc ctttcaccaa caccaacccc ttgcctctc caaacacccc cttcttcacc 120

```

ggaccaccg ccgtcgcgcc gccaaacaac atccatctct atcaagcagc tcctccgcag 180
cagccacaaa catctccagt tcctcctcat ccatctatctt cccaccctcc ttactctgac 240
atgatttgca cggcgattgc agcggttaaac gaaccagatg ggtcaagcaa gcaagctatt 300
tcgaggtaca tagagagaat ttacactggg attcctactg ctcattggagc tttgttgaca 360
caccatctca agactttgaa gaccagtggg attcttgtca tgggttaagaa atcttacaag 420
cttgctttcta ctctcctcc tcctcctcct actagtgtag ctctagtct tgaacctccc 480
agatctgatt tcatagtcaa cgagaaccaa cctttacctg atccggtttt ggcttcttct 540
actcctcaga ctattaaacg tggtcgtggt cgacctcaa aagctaaacc agatgttggt 600
caacctcaac ctctgactaa tggaaaactc acctgggaac agagtgaatt acctgtctct 660
cgaccagagg agatacagat acagccgcca cagttaccgt tacagccaca gcagccggtt 720
aagagaccgc cgggtcgtcc tagaaaagat ggaacttcgc cgacggtgaa gccagctgct 780
tctgtttccg gtggtgtgga gactgtgaaa cgaagaggta gacctccgag tggaagagct 840
gctgggaggg agagaaagcc tatagtagtc tcagctccag cttcagtgtt cccgtatggt 900
gctaattggtg gtgttagacg ccgagggaga ccaaagagag ttgacgctgg tgggtgcttc 960
tctgttgctc caccaccacc accaccaact aacgtagaga gtggaggaga ggaggttgca 1020
gtcaagaaac gaggaagagg acggcctcct aagattggag gtgttatcag gaagcctatg 1080
aagccgatga gaagctttgc tcgtactgga aaaccgtag gaagaccag aaagaatgcg 1140
gtgtcagtgg gagcttctgg acgacaagat ggtgactatg gagaactgaa gaagaagttt 1200
gagttgtttc aagcgagagc taaggatatt gtaattgtgt tgaaatccga gataggagga 1260
agtggaaatc aagcagtggg tcaagccata caggacctgg aagggatagc agagacaaca 1320
aacgagccaa agcacatgga agaagtgcag ctgccagacg aggaacacct tgaaaccgaa 1380
ccagaagcag aggggtcaagg acagacagaa gcagaggcaa tgcaagaagc tctgtttctaa 1440

```

&lt;210&gt; 682

&lt;211&gt; 479

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 682

```

Met Asp Pro Ser Leu Ser Ala Thr Asn Asp Pro His His Pro Pro Pro
1      5      10      15

```

```

Pro Gln Phe Thr Ser Phe Pro Pro Phe Thr Asn Thr Asn Pro Phe Ala
20      25      30

```

047-E2F-PCT.ST25.txt

Ser Pro Asn His Pro Phe Phe Thr Gly Pro Thr Ala Val Ala Pro Pro  
35 40 45

Asn Asn Ile His Leu Tyr Gln Ala Ala Pro Pro Gln Gln Pro Gln Thr  
50 55 60

Ser Pro Val Pro Pro His Pro Ser Ile Ser His Pro Pro Tyr Ser Asp  
65 70 75 80

Met Ile Cys Thr Ala Ile Ala Ala Leu Asn Glu Pro Asp Gly Ser Ser  
85 90 95

Lys Gln Ala Ile Ser Arg Tyr Ile Glu Arg Ile Tyr Thr Gly Ile Pro  
100 105 110

Thr Ala His Gly Ala Leu Leu Thr His His Leu Lys Thr Leu Lys Thr  
115 120 125

Ser Gly Ile Leu Val Met Val Lys Lys Ser Tyr Lys Leu Ala Ser Thr  
130 135 140

Pro Pro Pro Pro Pro Pro Thr Ser Val Ala Pro Ser Leu Glu Pro Pro  
145 150 155 160

Arg Ser Asp Phe Ile Val Asn Glu Asn Gln Pro Leu Pro Asp Pro Val  
165 170 175

Leu Ala Ser Ser Thr Pro Gln Thr Ile Lys Arg Gly Arg Gly Arg Pro  
180 185 190

Pro Lys Ala Lys Pro Asp Val Val Gln Pro Gln Pro Leu Thr Asn Gly  
195 200 205

Lys Leu Thr Trp Glu Gln Ser Glu Leu Pro Val Ser Arg Pro Glu Glu  
210 215 220

Ile Gln Ile Gln Pro Pro Gln Leu Pro Leu Gln Pro Gln Gln Pro Val  
225 230 235 240

Lys Arg Pro Pro Gly Arg Pro Arg Lys Asp Gly Thr Ser Pro Thr Val  
245 250 255

Lys Pro Ala Ala Ser Val Ser Gly Gly Val Glu Thr Val Lys Arg Arg  
260 265 270

Gly Arg Pro Pro Ser Gly Arg Ala Ala Gly Arg Glu Arg Lys Pro Ile

275

280

285

Val Val Ser Ala Pro Ala Ser Val Phe Pro Tyr Val Ala Asn Gly Gly  
 290 295 300  
 Val Arg Arg Arg Gly Arg Pro Lys Arg Val Asp Ala Gly Gly Ala Ser  
 305 310 315 320  
 Ser Val Ala Pro Pro Pro Pro Pro Pro Thr Asn Val Glu Ser Gly Gly  
 325 330 335  
 Glu Glu Val Ala Val Lys Lys Arg Gly Arg Gly Arg Pro Pro Lys Ile  
 340 345 350  
 Gly Gly Val Ile Arg Lys Pro Met Lys Pro Met Arg Ser Phe Ala Arg  
 355 360 365  
 Thr Gly Lys Pro Val Gly Arg Pro Arg Lys Asn Ala Val Ser Val Gly  
 370 375 380  
 Ala Ser Gly Arg Gln Asp Gly Asp Tyr Gly Glu Leu Lys Lys Lys Phe  
 385 390 395 400  
 Glu Leu Phe Gln Ala Arg Ala Lys Asp Ile Val Ile Val Leu Lys Ser  
 405 410 415  
 Glu Ile Gly Gly Ser Gly Asn Gln Ala Val Val Gln Ala Ile Gln Asp  
 420 425 430  
 Leu Glu Gly Ile Ala Glu Thr Thr Asn Glu Pro Lys His Met Glu Glu  
 435 440 445  
 Val Gln Leu Pro Asp Glu Glu His Leu Glu Thr Glu Pro Glu Ala Glu  
 450 455 460  
 Gly Gln Gly Gln Thr Glu Ala Glu Ala Met Gln Glu Ala Leu Phe  
 465 470 475

&lt;210&gt; 683

&lt;211&gt; 609

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 683

atgagttctc agatttcgga gattgaacaa gagcagctga tcgagaagct tgagatcttc

60



047-E2F-PCT.ST25.txt

aagatccatg gcagagacaa acgtggccgt aagatccttc gtattatcgg aaaattcttc 120  
ccagctcgat ttctgtcact ggatgtgttg aagaagtatc tagaggagaa gatatttcct 180  
cgattaggtg gaaaaccatt cgccgtactc tacgtccaca ccggcgtaca gagaagcgag 240  
aacttcccag gtatctcagc tctacgagcg atctacgacg caattccggg aaacgtcaga 300  
gacaatcttc aggaggttta cttcctccat ccagggtcttc aatcacgtct cttcctcgcc 360  
acctgcggcc gatttctatt ttccggcggg ttgtacggga agctgaggta cataagcaga 420  
gttgattatc tgtgggaaca tgtgaggagg aatgagatag agatgccgga gtttgtatac 480  
gatcacgatg atgatctgga gtatcgtccg atgatggatt acgggtcaaga aagcgatcac 540  
gcgaggggtt tcgccggagc cgccgtggat tcatcagtct caagtttctc catgaggtgt 600  
atctcatag 609

<210> 684

<211> 202

<212> PRT

<213> Arabidopsis thaliana

<400> 684

Met Ser Ser Gln Ile Ser Glu Ile Glu Gln Glu Gln Leu Ile Glu Lys  
1 5 10 15

Leu Glu Ile Phe Lys Ile His Gly Arg Asp Lys Arg Gly Arg Lys Ile  
20 25 30

Leu Arg Ile Ile Gly Lys Phe Phe Pro Ala Arg Phe Leu Ser Leu Asp  
35 40 45

Val Leu Lys Lys Tyr Leu Glu Glu Lys Ile Phe Pro Arg Leu Gly Arg  
50 55 60

Lys Pro Phe Ala Val Leu Tyr Val His Thr Gly Val Gln Arg Ser Glu  
65 70 75 80

Asn Phe Pro Gly Ile Ser Ala Leu Arg Ala Ile Tyr Asp Ala Ile Pro  
85 90 95

Val Asn Val Arg Asp Asn Leu Gln Glu Val Tyr Phe Leu His Pro Gly  
100 105 110

Leu Gln Ser Arg Leu Phe Leu Ala Thr Cys Gly Arg Phe Leu Phe Ser  
Page 1083

115

120

125

Gly Gly Leu Tyr Gly Lys Leu Arg Tyr Ile Ser Arg Val Asp Tyr Leu  
 130 135 140

Trp Glu His Val Arg Arg Asn Glu Ile Glu Met Pro Glu Phe Val Tyr  
 145 150 155 160

Asp His Asp Asp Asp Leu Glu Tyr Arg Pro Met Met Asp Tyr Gly Gln  
 165 170 175

Glu Ser Asp His Ala Arg Val Phe Ala Gly Ala Ala Val Asp Ser Ser  
 180 185 190

Val Ser Ser Phe Ser Met Arg Cys Ile Ser  
 195 200

&lt;210&gt; 685

&lt;211&gt; 1437

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 685

atggcaatct cagaggcattc gaaatcgagc cactgagctcc cagtaacaac agccgaatcc	60
agcgggaaga aagcaaccgc aaagaaactg actttaatcc ctttggtttt cttattttac	120
tttgaggtcg ctggtggtcc atttggtgaa gaaccggcgg ttcaagcggc tggaccgctt	180
ttagcgattc tcggtttcct tatcttcctt ttcatttgga gtatccctga agccctaattc	240
actgcagagc tctccactgc gtttccaggc aacggagggt ttgtgatatg ggcgcattcga	300
gcatttggtc ctttcgtggg ctcaatgatg gggttcgttga agttccttag tgggggtgatt	360
aacggttgctt cgtttcctgt tctctgtgtc acttacttgg ataagctctt ccctgttctt	420
gaatccggat ggcctcgaat tgtctgcata ttcgcctcga cgggtggtctt gtctttctta	480
aactatactg gcttagccat ttaggtttac gcagctgttg tgctcggctt ggtgtctctc	540
tcgcctttcc ttgtcatgtc ggctatggct atccctaaga tcaaacctca ccgttgggggt	600
agtttaggaa ccaagaaaaa ggattggaat ctctacttca acacactctt ctggaacttg	660
aatttctggg acaatgtcag tactcttgca ggggaagtgg acgagcctca aaagacgttc	720
cctttggcgc ttcttatcgc tgtgatcttc acttgtgtag cttacttgat tcctcttttc	780
gctgtcacgg gtgcggtctc ggtagatcag agcagatggg aaaacgggtt tcacgcagaa	840
gcagctgaga tgattgcagg gaaatgggtt aaaatatgga ttgagattgg tgctgtctta	900

047-E2F-PCT.ST25.txt

tcgagcattg gacttttcga agctcagtta agcagtagtg cttatcagct ggaggggatg 960  
 gcggaattag ggttcttgcc taaattcttt ggggtacggt cgaaatggtt caacactcct 1020  
 tgggtcggga ttctaattctc agctctcatg tcgctcgggt tatcgtacat gaacttcaca 1080  
 gacatcatat cctcggcgaa tttcttgtag actctaggga tgtttctaga gtttgcattt 1140  
 ttcatttggg taagaagaaa actacctcag ctaaagagac cttaccgagt tccgctgaaa 1200  
 ataccggggc tgggtggttat gtgcttgata ccttcggcgt ttctagtgtt gatttttagtg 1260  
 tttgctacta agattgtgta ccttatttgc ggtgtaatga ccataggagc aatcggttgg 1320  
 tacttcttga tcaactactt cagaaagacg aagatcttcg aattcaacga agttatcgat 1380  
 gatcttgaca acaatgtcaa cggagaacat cccaaagtcg atgatcaca ttcatga 1437

<210> 686

<211> 478

<212> PRT

<213> Arabidopsis thaliana

<400> 686

Met Ala Ile Ser Glu Ala Ser Lys Ser Ser His Glu Leu Pro Val Thr  
 1 5 10 15

Thr Ala Glu Ser Ser Gly Lys Lys Ala Thr Ala Lys Lys Leu Thr Leu  
 20 25 30

Ile Pro Leu Val Phe Leu Ile Tyr Phe Glu Val Ala Gly Gly Pro Phe  
 35 40 45

Gly Glu Glu Pro Ala Val Gln Ala Ala Gly Pro Leu Leu Ala Ile Leu  
 50 55 60

Gly Phe Leu Ile Phe Pro Phe Ile Trp Ser Ile Pro Glu Ala Leu Ile  
 65 70 75 80

Thr Ala Glu Leu Ser Thr Ala Phe Pro Gly Asn Gly Gly Phe Val Ile  
 85 90 95

Trp Ala His Arg Ala Phe Gly Ser Phe Val Gly Ser Met Met Gly Ser  
 100 105 110

Leu Lys Phe Leu Ser Gly Val Ile Asn Val Ala Ser Phe Pro Val Leu  
 115 120 125

## 047-E2F-PCT.ST25.txt

Cys Val Thr Tyr Leu Asp Lys Leu Phe Pro Val Leu Glu Ser Gly Trp  
 130 135 140  
 Pro Arg Asn Val Cys Ile Phe Ala Ser Thr Val Val Leu Ser Phe Leu  
 145 150 155 160  
 Asn Tyr Thr Gly Leu Ala Ile Val Gly Tyr Ala Ala Val Val Leu Gly  
 165 170 175  
 Leu Val Ser Leu Ser Pro Phe Leu Val Met Ser Ala Met Ala Ile Pro  
 180 185 190  
 Lys Ile Lys Pro His Arg Trp Gly Ser Leu Gly Thr Lys Lys Lys Asp  
 195 200 205  
 Trp Asn Leu Tyr Phe Asn Thr Leu Phe Trp Asn Leu Asn Phe Trp Asp  
 210 215 220  
 Asn Val Ser Thr Leu Ala Gly Glu Val Asp Glu Pro Gln Lys Thr Phe  
 225 230 235 240  
 Pro Leu Ala Leu Leu Ile Ala Val Ile Phe Thr Cys Val Ala Tyr Leu  
 245 250 255  
 Ile Pro Leu Phe Ala Val Thr Gly Ala Val Ser Val Asp Gln Ser Arg  
 260 265 270  
 Trp Glu Asn Gly Phe His Ala Glu Ala Ala Glu Met Ile Ala Gly Lys  
 275 280 285  
 Trp Leu Lys Ile Trp Ile Glu Ile Gly Ala Val Leu Ser Ser Ile Gly  
 290 295 300  
 Leu Phe Glu Ala Gln Leu Ser Ser Ser Ala Tyr Gln Leu Glu Gly Met  
 305 310 315 320  
 Ala Glu Leu Gly Phe Leu Pro Lys Phe Phe Gly Val Arg Ser Lys Trp  
 325 330 335  
 Phe Asn Thr Pro Trp Val Gly Ile Leu Ile Ser Ala Leu Met Ser Leu  
 340 345 350  
 Gly Leu Ser Tyr Met Asn Phe Thr Asp Ile Ile Ser Ser Ala Asn Phe  
 355 360 365  
 Leu Tyr Thr Leu Gly Met Phe Leu Glu Phe Ala Ser Phe Ile Trp Leu  
 370 375 380

047-E2F-PCT.ST25.txt

Arg Arg Lys Leu Pro Gln Leu Lys Arg Pro Tyr Arg Val Pro Leu Lys  
385 390 395 400

Ile Pro Gly Leu Val Val Met Cys Leu Ile Pro Ser Ala Phe Leu Val  
405 410 415

Leu Ile Leu Val Phe Ala Thr Lys Ile Val Tyr Leu Ile Cys Gly Val  
420 425 430

Met Thr Ile Gly Ala Ile Gly Trp Tyr Phe Leu Ile Asn Tyr Phe Arg  
435 440 445

Lys Thr Lys Ile Phe Glu Phe Asn Glu Val Ile Asp Asp Leu Asp Asn  
450 455 460

Asn Val Asn Gly Glu His Pro Lys Val Asp Asp His Asn Ser  
465 470 475

<210> 687

<211> 1857

<212> DNA

<213> Arabidopsis thaliana

<400> 687

atggctgcta cgcgtgctgc ttctgttgct cgttacgcac ctgaggatca tactcttccc	60
aagccctgga aaggccttat cgatgataga actggttact tgtacttttg gaatcctgag	120
accaatgtta ctcagtacga gaaaccaacc ccctctctac ctcctaagtt ttctcccgcc	180
gtttctgtta gctcttccgt tcaggttcaa caaactgatg cctatgctcc tcccaaggat	240
gacgataagt actccagagg ctctgaacgt gtgtccaggt tttctgaggg tggcaggagt	300
ggaccgcctt attcgaacgg tgctgctaatt ggagttgggg attctgctta tgggtgcagca	360
tctaccagag ttctctttcc ttcacagct ccagcaagtg aactatcccc tgaggcctat	420
tcccgccgtc atgaaattac tgtcagtggg ggccaagtac caccacctt aatgtccttt	480
gaagctactg gttttccacc tgagcttctg cgggaggtac tcagtcaggg tttctctgct	540
ccaactccaa ttcaagctca gtcattggccc attgctatgc aaggtaggga catagtagcc	600
attgctaaaa ctggctcggg aaaaactttg gggtacttga ttcttgatt tttgcatctt	660
caacgtatcc gaaatgattc gcgaatgggc ccaacaatct tgggtattgtc tccaacgaga	720
gagctggcca cacaaatcca agaagaagct gttaaatttg ggaggtcatc aagaatttcg	780

047-E2F-PCT.ST25.txt

tgtacgtggt tgtatggtgg tgcaccaaag ggccttcagt tgagggattt agaaagagga 840  
gcagatatcg tggttgcaac tcctgggaga ttgaatgata tccttgaaat gaggaggatt 900  
agtctgcgtc agatatctta tcttggtgcta gatgaggcag atagaatggt ggacatgggt 960  
tttgaacctc agataaggaa gattgtgaaa gaaattccca ctaagcgtca aacccttatg 1020  
tacacagcta catggccaaa gggagttagg aaaattgcag ctgacttgct tgttaaccct 1080  
gctcaagtca acattggcaa tgttgacgag cttgtggcta acaagtcaat cacacagcat 1140  
attgaagtgg tagcaccaat ggagaaacag aggaggttag agcagatctt gcggtctcag 1200  
gaaccaggct caaaggatgat aatattctgc tcaacaaaaa ggatgtgtga tcaactaaca 1260  
cgcaatctaa cccgccatt tggagctgct gctatacatg gagacaagtc ccagcctgag 1320  
agagacaatg ttcttaatca attccgcagt ggcagaactc cggttcttgt agcaaccgat 1380  
gttgctgctc gtggtctgga cgtaaggac atcagggcgg tcgtaaacta tgatttcccc 1440  
aatggagtgg aagactatgt tcatagaatc ggaagaacag gaagagctgg agcgactggt 1500  
caggcattca cattctttgg tgatcaagat tcgaaacatg cttcgatct gatcaagatt 1560  
ttggaaggag caaaccagcg agttcctcct cagatccgcg aaatggctac acgtggtggt 1620  
gggggaatga acaaattcag tcgttgggga cctccttcg gcggccgtgg tcgtggtggc 1680  
gactctggtt atggtggcag aggtagcttt gcttcccgtg acagaagcag caatggatgg 1740  
ggaagagagc gagaaaggag ccgtagccct gagagattca acagagctcc accaccgtct 1800  
tccaccggat ctctcctcg cagcttcac gagacgatga tgatgaaaca cagatga 1857

<210> 688

<211> 618

<212> PRT

<213> Arabidopsis thaliana

<400> 688

Met Ala Ala Thr Ala Ala Ala Ser Val Val Arg Tyr Ala Pro Glu Asp  
1 5 10 15

His Thr Leu Pro Lys Pro Trp Lys Gly Leu Ile Asp Asp Arg Thr Gly  
20 25 30

Tyr Leu Tyr Phe Trp Asn Pro Glu Thr Asn Val Thr Gln Tyr Glu Lys  
35 40 45

Pro Thr Pro Ser Leu Pro Pro Lys Phe Ser Pro Ala Val Ser Val Ser  
50 55 60

047-E2F-PCT.ST25.txt

Ser Ser Val Gln Val Gln Gln Thr Asp Ala Tyr Ala Pro Pro Lys Asp  
 65 70 75 80  
 Asp Asp Lys Tyr Ser Arg Gly Ser Glu Arg Val Ser Arg Phe Ser Glu  
 85 90 95  
 Gly Gly Arg Ser Gly Pro Pro Tyr Ser Asn Gly Ala Ala Asn Gly Val  
 100 105 110  
 Gly Asp Ser Ala Tyr Gly Ala Ala Ser Thr Arg Val Pro Leu Pro Ser  
 115 120 125  
 Ser Ala Pro Ala Ser Glu Leu Ser Pro Glu Ala Tyr Ser Arg Arg His  
 130 135 140  
 Glu Ile Thr Val Ser Gly Gly Gln Val Pro Pro Pro Leu Met Ser Phe  
 145 150 155 160  
 Glu Ala Thr Gly Phe Pro Pro Glu Leu Leu Arg Glu Val Leu Ser Ala  
 165 170 175  
 Gly Phe Ser Ala Pro Thr Pro Ile Gln Ala Gln Ser Trp Pro Ile Ala  
 180 185 190  
 Met Gln Gly Arg Asp Ile Val Ala Ile Ala Lys Thr Gly Ser Gly Lys  
 195 200 205  
 Thr Leu Gly Tyr Leu Ile Pro Gly Phe Leu His Leu Gln Arg Ile Arg  
 210 215 220  
 Asn Asp Ser Arg Met Gly Pro Thr Ile Leu Val Leu Ser Pro Thr Arg  
 225 230 235 240  
 Glu Leu Ala Thr Gln Ile Gln Glu Glu Ala Val Lys Phe Gly Arg Ser  
 245 250 255  
 Ser Arg Ile Ser Cys Thr Cys Leu Tyr Gly Gly Ala Pro Lys Gly Pro  
 260 265 270  
 Gln Leu Arg Asp Leu Glu Arg Gly Ala Asp Ile Val Val Ala Thr Pro  
 275 280 285  
 Gly Arg Leu Asn Asp Ile Leu Glu Met Arg Arg Ile Ser Leu Arg Gln  
 290 295 300  
 Ile Ser Tyr Leu Val Leu Asp Glu Ala Asp Arg Met Leu Asp Met Gly

305 310 320  
Phe Glu Pro Gln Ile Arg Lys Ile Val Lys Glu Ile Pro Thr Lys Arg  
325 330 335  
Gln Thr Leu Met Tyr Thr Ala Thr Trp Pro Lys Gly Val Arg Lys Ile  
340 345 350  
Ala Ala Asp Leu Leu Val Asn Pro Ala Gln Val Asn Ile Gly Asn Val  
355 360 365  
Asp Glu Leu Val Ala Asn Lys Ser Ile Thr Gln His Ile Glu Val Val  
370 375 380  
Ala Pro Met Glu Lys Gln Arg Arg Leu Glu Gln Ile Leu Arg Ser Gln  
385 390 395 400  
Glu Pro Gly Ser Lys Val Ile Ile Phe Cys Ser Thr Lys Arg Met Cys  
405 410 415  
Asp Gln Leu Thr Arg Asn Leu Thr Arg Gln Phe Gly Ala Ala Ala Ile  
420 425 430  
His Gly Asp Lys Ser Gln Pro Glu Arg Asp Asn Val Leu Asn Gln Phe  
435 440 445  
Arg Ser Gly Arg Thr Pro Val Leu Val Ala Thr Asp Val Ala Ala Arg  
450 455 460  
Gly Leu Asp Val Lys Asp Ile Arg Ala Val Val Asn Tyr Asp Phe Pro  
465 470 475 480  
Asn Gly Val Glu Asp Tyr Val His Arg Ile Gly Arg Thr Gly Arg Ala  
485 490 495  
Gly Ala Thr Gly Gln Ala Phe Thr Phe Phe Gly Asp Gln Asp Ser Lys  
500 505 510  
His Ala Ser Asp Leu Ile Lys Ile Leu Glu Gly Ala Asn Gln Arg Val  
515 520 525  
Pro Pro Gln Ile Arg Glu Met Ala Thr Arg Gly Gly Gly Gly Met Asn  
530 535 540  
Lys Phe Ser Arg Trp Gly Pro Pro Ser Gly Gly Arg Gly Arg Gly Gly  
545 550 555 560



Asp Ser Gly Tyr Gly Gly Arg Gly Ser Phe Ala Ser Arg Asp Arg Ser  
565 570 575

Ser Asn Gly Trp Gly Arg Glu Arg Glu Arg Ser Arg Ser Pro Glu Arg  
580 585 590

Phe Asn Arg Ala Pro Pro Pro Ser Ser Thr Gly Ser Pro Pro Arg Ser  
595 600 605

Phe His Glu Thr Met Met Met Lys His Arg  
610 615

<210> 689

<211> 960

<212> DNA

<213> Arabidopsis thaliana

<400> 689

atggccgccc	ccgtcgcagc	accgagactc	atctccttga	aagccgtcgc	gaagctaggt	60
ttccgtgaga	tctctcaa	at	ccgacaattg	gctccgcttc	actctgcat	120
ac	ctcatttc					
ggaatgctgc	gatgtagatc	gcggcagccg	ttttctacct	ctgttgtaga	agctcaagct	180
actgctactg	agcaatcacc	aggggaagtt	gttcaaaaag	tggaatctcc	agtggtcggt	240
atcactgggtg	cctcgagagg	gattggtaaa	gcaattgctc	tagccttggg	taaagctggc	300
tgcaaggtct	tggtgaatta	tgctaggtca	gcaaaagagg	ctgaagaagt	tgctaaacag	360
attgaagaat	atggtggcca	ggctatcact	tttgggggtg	atgtctcgaa	agcgactgat	420
gtggatgcga	tgatgaaaac	cgctcttgac	aaatggggaa	ccattgatgt	tgtggttaac	480
aatgcaggaa	ttactcgga	taccttggtta	atacgaatga	agcaatcaca	atgggacgaa	540
gtgattgctt	tgaatctcac	tggtgtat	tttctgtactc	aggcagcagt	aaagatcatg	600
atgaagaaaa	aaaggggaag	aatcatcaat	atctcgtcag	ttgttggtct	cattggtaat	660
attggtcaag	caactacgc	agcggctaaa	ggtggagtta	tttcgttttc	caagactgct	720
gccagagaag	gtgagagcag	gaatataaat	gtcaatgtgg	tttgccccgg	attcattgca	780
tctgacatga	ctgcagagct	tgagagaagac	atggaaaaga	aaatcctggg	aacaatccca	840
ttaggacggt	atggaaaagc	tgaagaagtg	gctggcttgg	tagaattctt	ggctctcagt	900
cctgcagcca	gttacataac	cggacaggca	ttcaccattg	atggaggtat	tgctatctag	960

<210> 690

<211> 319

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 690

Met Ala Ala Ala Val Ala Ala Pro Arg Leu Ile Ser Leu Lys Ala Val  
 1 5 10 15

Ala Lys Leu Gly Phe Arg Glu Ile Ser Gln Ile Arg Gln Leu Ala Pro  
 20 25 30

Leu His Ser Ala Ile Pro His Phe Gly Met Leu Arg Cys Arg Ser Arg  
 35 40 45

Gln Pro Phe Ser Thr Ser Val Val Lys Ala Gln Ala Thr Ala Thr Glu  
 50 55 60

Gln Ser Pro Gly Glu Val Val Gln Lys Val Glu Ser Pro Val Val Val  
 65 70 75 80

Ile Thr Gly Ala Ser Arg Gly Ile Gly Lys Ala Ile Ala Leu Ala Leu  
 85 90 95

Gly Lys Ala Gly Cys Lys Val Leu Val Asn Tyr Ala Arg Ser Ala Lys  
 100 105 110

Glu Ala Glu Glu Val Ala Lys Gln Ile Glu Glu Tyr Gly Gly Gln Ala  
 115 120 125

Ile Thr Phe Gly Gly Asp Val Ser Lys Ala Thr Asp Val Asp Ala Met  
 130 135 140

Met Lys Thr Ala Leu Asp Lys Trp Gly Thr Ile Asp Val Val Val Asn  
 145 150 155 160

Asn Ala Gly Ile Thr Arg Asp Thr Leu Leu Ile Arg Met Lys Gln Ser  
 165 170 175

Gln Trp Asp Glu Val Ile Ala Leu Asn Leu Thr Gly Val Phe Leu Cys  
 180 185 190

Thr Gln Ala Ala Val Lys Ile Met Met Lys Lys Lys Arg Gly Arg Ile  
 195 200 205

Ile Asn Ile Ser Ser Val Val Gly Leu Ile Gly Asn Ile Gly Gln Ala  
 210 215 220

047-E2F-PCT.ST25.txt

Asn Tyr Ala Ala Ala Lys Gly Gly Val Ile Ser Phe Ser Lys Thr Ala  
225 230 235 240

Ala Arg Glu Gly Ala Ser Arg Asn Ile Asn Val Asn Val Val Cys Pro  
245 250 255

Gly Phe Ile Ala Ser Asp Met Thr Ala Glu Leu Gly Glu Asp Met Glu  
260 265 270

Lys Lys Ile Leu Gly Thr Ile Pro Leu Gly Arg Tyr Gly Lys Ala Glu  
275 280 285

Glu Val Ala Gly Leu Val Glu Phe Leu Ala Leu Ser Pro Ala Ala Ser  
290 295 300

Tyr Ile Thr Gly Gln Ala Phe Thr Ile Asp Gly Gly Ile Ala Ile  
305 310 315

<210> 691

<211> 2919

<212> DNA

<213> Arabidopsis thaliana

<400> 691

atggagtgga atcgggagac tctagtgttc ctttcgcaat gttttcttaa cacgctctct	60
ccgataccgg agcctcgtcg aacggctgag agagcactct cggatgctgc tgatcaggct	120
aactacggcc tagccgttct ccgtttggtg gctgagccag caatcgatga acagacgcgt	180
cacgccgctg ctgtcaactt taagaaccat ctccgttcgc gatggcatcc tgctggtgat	240
tctggtatct caccgatcgt agattctgag aaggagcaga tcaagacact catcgtctct	300
cttatgctct ctgcttctcc tcgtatccag agccagttga gtgaagccct aaccgtcatt	360
ggtaagcacg atttcccaa agcttggcct gctttgcttc ctgagcttat cgccaacctt	420
caaaacgctg ctctcgctgg cgattatgtg tccgtcaatg gtattcttgg gaccgctagt	480
tcgattttca aaaagtttag ttatgagtat agaaccgatg ctctgtttgt tgatttgaag	540
tattgcctgg ataattttgc tgctcctttg actgaaatat tcctgaaaac gtcttcgttg	600
attgattctg ctgcgagctc tgggtggttca cctccgatcc tgaagcctct cttcgagtcc	660
caaaggctgt gctgtacaat attttactct ttgaactttc aggacttacc ggagtttttc	720
gaggatcata tgaaggagtg gatgggagag ttttaagaagt atctatcttc aaattatccc	780

gccttgga	gcacagagga	gggggttaaca	cttggtgatg	atcttcgcgc	tgctatttgc	840
gagaatatca	atcattatat	tgagaaaaac	gaagaagagt	ttcaaggctt	tttgaatgag	900
tttgcacag	ttgtctggac	attgctccgg	gatgtgtcaa	agtctcctag	cagagatcaa	960
ctagctacta	cagcaatcaa	gttcttgacc	tctgtgagca	caagtgttca	ccatgctttg	1020
tttgcggggg	acaatgttat	caaggaaatt	tgccaaagta	ttgtgattcc	taatgtttct	1080
ttgaggggtg	aagatgaaga	aattttcgag	atgaactata	ttgagtttat	ccgtagagat	1140
atggaaggaa	gtgatgtgga	cactagaagg	agaatagctt	gtgagctact	caaaggcctt	1200
gccacaaact	acaaaacaca	agtgacagaa	gtagtttctc	ttgagataca	gaggctcttg	1260
agttcatttt	cagcaaacc	gtcggcaaac	tggaaagata	aggattgtgc	aatttacttg	1320
gttgtctctc	tatctactaa	gaaggcaggg	gggtgcatctg	tgtctacaga	tctcattgat	1380
gttcaaaact	tctttgcaaa	cattattctc	ccggagctgc	aaagccgcga	tgtcaacagc	1440
tttccaatgc	taaaggcagg	gtccttgaag	ttcttaacta	tgtttcgtag	tcatatacca	1500
aagccctttg	caatgcagtt	gttcccagag	ttggtccggt	tccttaaagc	agagtcgaac	1560
gtggtccact	cttatgctgc	tagctgcata	gagaagctct	tgctagtga	ggaggaaggc	1620
gcaaggggta	ataggtatgc	tgctgggtgat	ttaagtcctt	ttttgctgca	gttgatgaca	1680
aacctgtttg	atgcgctgaa	attcccagaa	tcagaggaga	atcaatatct	gatgaagtgt	1740
ataatgcggg	tccttggtgt	tgctgatatc	agtgtgagg	ttgctggacc	ttgcatcggg	1800
ggattgacct	ctattctcag	tgaagtttgc	aaaaatccta	aaaatcctat	atttaaccac	1860
tatctctttg	agtctgtggc	tgtacttggt	cgacgggcat	gtgaacgtga	tatttctctt	1920
atatctgcat	ttgaaacgag	tcttttccca	agcctccaga	tgattttggc	gaatgatatc	1980
acagagttct	tgccttatgg	gtttcagttg	ctggctcagc	ttgttgagtt	aaatagacca	2040
actctctcac	caaactacat	gcagatcttc	ttgctgctcc	tctcgcctga	gtcatggaag	2100
agaagtggca	atgttccagc	tcttgtgcgc	ctgcttcaag	cttttctgca	gaaagcacct	2160
catgagggtta	ctcaagagaa	tcggttgagt	caagttctgg	ggatatttga	aaagctgggt	2220
gcatctccta	gcacggatga	gcaaggcttt	tatatcctta	acacgattat	tgagaatctg	2280
gactacagtg	tgattgcacc	ttacatgaaa	gggtgatgga	gtgctctatt	cacacgcggt	2340
caaaacaaaa	agacagtcaa	gttccagaag	tcgctagtaa	tattcatgtc	gcttttcttg	2400
gtgaagcatg	gacaggctta	tctagtggag	actatgaata	ctgttcagcc	aaacatcatc	2460
actgctatcg	tggagcattt	ctggattccg	aacctgaaac	tgatcatggg	gagtatggag	2520
gtcaagttaa	cggcagttgc	tgcaactaga	ctcatatgtg	agactccggc	tctcctggat	2580
ccatcagctg	ctaaactctg	ggggaagatg	cttgatagca	tagtgacgct	tgtttccagg	2640
cctgagcaag	aaagggtact	tgatgaacct	gaaatgccag	aaatctcaga	gaatgttgga	2700

047-E2F-PCT.ST25.txt

tacacagctg catttgtgaa actccacaat gctgggaaaa aagaagagga tcctctgaaa 2760  
gacatcaagg acccaaaaca gttcttggtc gcttctgttt cgaggctttc ttctgcttct 2820  
cctggtaggt acccacagat aattggtgag aatcttgaac aagcaaacca aacagctttg 2880  
atccagctct gcaatgctta caactgtgga attgcttga 2919

<210> 692

<211> 972

<212> PRT

<213> Arabidopsis thaliana

<400> 692

Met Glu Trp Asn Arg Glu Thr Leu Val Phe Leu Ser Gln Cys Phe Leu  
1 5 10 15

Asn Thr Leu Ser Pro Ile Pro Glu Pro Arg Arg Thr Ala Glu Arg Ala  
20 25 30

Leu Ser Asp Ala Ala Asp Gln Ala Asn Tyr Gly Leu Ala Val Leu Arg  
35 40 45

Leu Val Ala Glu Pro Ala Ile Asp Glu Gln Thr Arg His Ala Ala Ala  
50 55 60

Val Asn Phe Lys Asn His Leu Arg Ser Arg Trp His Pro Ala Gly Asp  
65 70 75 80

Ser Gly Ile Ser Pro Ile Val Asp Ser Glu Lys Glu Gln Ile Lys Thr  
85 90 95

Leu Ile Val Ser Leu Met Leu Ser Ala Ser Pro Arg Ile Gln Ser Gln  
100 105 110

Leu Ser Glu Ala Leu Thr Val Ile Gly Lys His Asp Phe Pro Lys Ala  
115 120 125

Trp Pro Ala Leu Leu Pro Glu Leu Ile Ala Asn Leu Gln Asn Ala Ala  
130 135 140

Leu Ala Gly Asp Tyr Val Ser Val Asn Gly Ile Leu Gly Thr Ala Ser  
145 150 155 160

Ser Ile Phe Lys Lys Phe Ser Tyr Glu Tyr Arg Thr Asp Ala Leu Phe

Val Asp Leu Lys Tyr Cys Leu Asp Asn Phe Ala Ala Pro Leu Thr Glu  
180 185 190

Ile Phe Leu Lys Thr Ser Ser Leu Ile Asp Ser Ala Ala Ser Ser Gly  
195 200 205

Gly Ser Pro Pro Ile Leu Lys Pro Leu Phe Glu Ser Gln Arg Leu Cys  
210 215 220

Cys Thr Ile Phe Tyr Ser Leu Asn Phe Gln Asp Leu Pro Glu Phe Phe  
225 230 235 240

Glu Asp His Met Lys Glu Trp Met Gly Glu Phe Lys Lys Tyr Leu Ser  
245 250 255

Ser Asn Tyr Pro Ala Leu Glu Ser Thr Glu Glu Gly Leu Thr Leu Val  
260 265 270

Asp Asp Leu Arg Ala Ala Ile Cys Glu Asn Ile Asn His Tyr Ile Glu  
275 280 285

Lys Asn Glu Glu Glu Phe Gln Gly Phe Leu Asn Glu Phe Ala Ser Val  
290 295 300

Val Trp Thr Leu Leu Arg Asp Val Ser Lys Ser Pro Ser Arg Asp Gln  
305 310 315 320

Leu Ala Thr Thr Ala Ile Lys Phe Leu Thr Ser Val Ser Thr Ser Val  
325 330 335

His His Ala Leu Phe Ala Gly Asp Asn Val Ile Lys Glu Ile Cys Gln  
340 345 350

Ser Ile Val Ile Pro Asn Val Ser Leu Arg Val Glu Asp Glu Glu Ile  
355 360 365

Phe Glu Met Asn Tyr Ile Glu Phe Ile Arg Arg Asp Met Glu Gly Ser  
370 375 380

Asp Val Asp Thr Arg Arg Arg Ile Ala Cys Glu Leu Leu Lys Gly Leu  
385 390 395 400

Ala Thr Asn Tyr Lys Thr Gln Val Thr Glu Val Val Ser Leu Glu Ile  
405 410 415

Gln Arg Leu Leu Ser Ser Phe Ser Ala Asn Pro Ser Ala Asn Trp Lys  
 420 425 430  
 Asp Lys Asp Cys Ala Ile Tyr Leu Val Val Ser Leu Ser Thr Lys Lys  
 435 440 445  
 Ala Gly Gly Ala Ser Val Ser Thr Asp Leu Ile Asp Val Gln Asn Phe  
 450 455 460  
 Phe Ala Asn Ile Ile Leu Pro Glu Leu Gln Ser Arg Asp Val Asn Ser  
 465 470 475 480  
 Phe Pro Met Leu Lys Ala Gly Ser Leu Lys Phe Leu Thr Met Phe Arg  
 485 490 495  
 Ser His Ile Pro Lys Pro Phe Ala Met Gln Leu Phe Pro Glu Leu Val  
 500 505 510  
 Arg Phe Leu Lys Ala Glu Ser Asn Val Val His Ser Tyr Ala Ala Ser  
 515 520 525  
 Cys Ile Glu Lys Leu Leu Leu Val Lys Glu Glu Gly Ala Arg Gly Asn  
 530 535 540  
 Arg Tyr Ala Ala Gly Asp Leu Ser Pro Phe Leu Leu Gln Leu Met Thr  
 545 550 555 560  
 Asn Leu Phe Asp Ala Leu Lys Phe Pro Glu Ser Glu Glu Asn Gln Tyr  
 565 570 575  
 Leu Met Lys Cys Ile Met Arg Val Leu Gly Val Ala Asp Ile Ser Ala  
 580 585 590  
 Glu Val Ala Gly Pro Cys Ile Gly Gly Leu Thr Ser Ile Leu Ser Glu  
 595 600 605  
 Val Cys Lys Asn Pro Lys Asn Pro Ile Phe Asn His Tyr Leu Phe Glu  
 610 615 620  
 Ser Val Ala Val Leu Val Arg Arg Ala Cys Glu Arg Asp Ile Ser Leu  
 625 630 635 640  
 Ile Ser Ala Phe Glu Thr Ser Leu Phe Pro Ser Leu Gln Met Ile Leu  
 645 650 655  
 Ala Asn Asp Ile Thr Glu Phe Leu Pro Tyr Gly Phe Gln Leu Leu Ala  
 660 665 670

047-E2F-PCT.ST25.txt

Gln Leu Val Glu Leu Asn Arg Pro Thr Leu Ser Pro Asn Tyr Met Gln  
675 680 685

Ile Phe Leu Leu Leu Leu Ser Pro Glu Ser Trp Lys Arg Ser Gly Asn  
690 695 700

Val Pro Ala Leu Val Arg Leu Leu Gln Ala Phe Leu Gln Lys Ala Pro  
705 710 715 720

His Glu Val Thr Gln Glu Asn Arg Leu Ser Gln Val Leu Gly Ile Phe  
725 730 735

Glu Lys Leu Val Ala Ser Pro Ser Thr Asp Glu Gln Gly Phe Tyr Ile  
740 745 750

Leu Asn Thr Ile Ile Glu Asn Leu Asp Tyr Ser Val Ile Ala Pro Tyr  
755 760 765

Met Lys Gly Val Trp Ser Ala Leu Phe Thr Arg Val Gln Asn Lys Lys  
770 775 780

Thr Val Lys Phe Gln Lys Ser Leu Val Ile Phe Met Ser Leu Phe Leu  
785 790 795 800

Val Lys His Gly Gln Ala Tyr Leu Val Glu Thr Met Asn Thr Val Gln  
805 810 815

Pro Asn Ile Ile Thr Ala Ile Val Glu His Phe Trp Ile Pro Asn Leu  
820 825 830

Lys Leu Ile Met Gly Ser Met Glu Val Lys Leu Thr Ala Val Ala Ala  
835 840 845

Thr Arg Leu Ile Cys Glu Thr Pro Ala Leu Leu Asp Pro Ser Ala Ala  
850 855 860

Lys Leu Trp Gly Lys Met Leu Asp Ser Ile Val Thr Leu Val Ser Arg  
865 870 875 880

Pro Glu Gln Glu Arg Val Leu Asp Glu Pro Glu Met Pro Glu Ile Ser  
885 890 895

Glu Asn Val Gly Tyr Thr Ala Ala Phe Val Lys Leu His Asn Ala Gly  
900 905 910

Lys Lys Glu Glu Asp Pro Leu Lys Asp Ile Lys Asp Pro Lys Gln Phe  
915 920 925



Leu Val Ala Ser Val Ser Arg Leu Ser Ser Ala Ser Pro Gly Arg Tyr  
 930 935 940

Pro Gln Ile Ile Gly Glu Asn Leu Glu Gln Ala Asn Gln Thr Ala Leu  
 945 950 955 960

Ile Gln Leu Cys Asn Ala Tyr Asn Cys Gly Ile Ala  
 965 970

<210> 693

<211> 1161

<212> DNA

<213> Arabidopsis thaliana

<400> 693

```

atgtcgggtgt acgacgctgc tttccttaat acagagcttt cgaaaccgac atcgattttt      60
gggtctccggc tatgggtcgt gatcggaatc ttacttggat ctctaattgt catcgacttc      120
tttcttctct ccctctgctt aactttctgc cggaaaaatc gaaagccgag agccgatttc      180
gcctccgccg ccatcgctac accgccgatt tcaaaggaga ttaaagagat cgttccggcg      240
cagaatcagt ctgttccggc ggagatccag gtcgatatcg ggaagatcga gcatcgagtg      300
gtgttttcag atcgagtgtc gagtgggtgag agtagaggaa cagcgagtgc aagtgaaacg      360
gcgtcgtatt ccggtagcgg gaattgtggg ccggaggtgt cgcattcttg atggggccga      420
tggtatactc tgagagagct tgaagcggcc acgaatgggc tttgtgaaga gaatgtaatc      480
ggagaagggtg gttacgggat tgtgtatcgt ggcattttta ctgatggaac caaagtcgcc      540
gtcaagaact tgcttaacaa taggggtcaa gcagagaagg aattcaaagt agaagtggaa      600
gtcattgggc gagtacgaca caagaatctt gttaggcttt tagggatttg cgtggaagg      660
gcatacagga tgctcgtgta tgactttgtc gacaatggta atttggagca atggattcac      720
ggatgatgttg gcgatgtcag cccgctaact tgggatatac gtatgaatat tatactgggg      780
atggccaaag gattggcgta tctacacgag ggtcttgagc caaaagttgt tcatcgggat      840
attaaatcaa gcaatatctt acttgatcgc caatggaatg ctaaggtttc ggattttgga      900
cttgctaagc tcttggggtc tgagagcagt tatgtgacta ctcgtgtgat gggaaactttc      960
ggttatgtag caccagaata cgcttgacc ggaatgttaa acgagaagag tgatatctat      1020
agcttcggaa tactaatcat ggagataatc actggaagaa acccggttga ttatagtcgg      1080
cctcaaggag aggtatttga taagcatatt caatcctctc tatgtttttg taaatgggtct      1140

```

tactatgtgt cgtggctgta g

1161

&lt;210&gt; 694

&lt;211&gt; 386

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 694

Met Ser Val Tyr Asp Ala Ala Phe Leu Asn Thr Glu Leu Ser Lys Pro  
 1 5 10 15

Thr Ser Ile Phe Gly Leu Arg Leu Trp Val Val Ile Gly Ile Leu Leu  
 20 25 30

Gly Ser Leu Ile Val Ile Ala Leu Phe Leu Leu Ser Leu Cys Leu Thr  
 35 40 45

Ser Arg Arg Lys Asn Arg Lys Pro Arg Ala Asp Phe Ala Ser Ala Ala  
 50 55 60

Ile Ala Thr Pro Pro Ile Ser Lys Glu Ile Lys Glu Ile Val Pro Ala  
 65 70 75 80

Gln Asn Gln Ser Val Pro Ala Glu Ile Gln Val Asp Ile Gly Lys Ile  
 85 90 95

Glu His Arg Val Val Phe Ser Asp Arg Val Ser Ser Gly Glu Ser Arg  
 100 105 110

Gly Thr Ala Ser Ala Ser Glu Thr Ala Ser Tyr Ser Gly Ser Gly Asn  
 115 120 125

Cys Gly Pro Glu Val Ser His Leu Gly Trp Gly Arg Trp Tyr Thr Leu  
 130 135 140

Arg Glu Leu Glu Ala Ala Thr Asn Gly Leu Cys Glu Glu Asn Val Ile  
 145 150 155 160

Gly Glu Gly Gly Tyr Gly Ile Val Tyr Arg Gly Ile Leu Thr Asp Gly  
 165 170 175

Thr Lys Val Ala Val Lys Asn Leu Leu Asn Asn Arg Gly Gln Ala Glu  
 180 185 190

Lys Glu Phe Lys Val Glu Val Glu Val Ile Gly Arg Val Arg His Lys  
195 200 205

Asn Leu Val Arg Leu Leu Gly Tyr Cys Val Glu Gly Ala Tyr Arg Met  
210 215 220

Leu Val Tyr Asp Phe Val Asp Asn Gly Asn Leu Glu Gln Trp Ile His  
225 230 235 240

Gly Asp Val Gly Asp Val Ser Pro Leu Thr Trp Asp Ile Arg Met Asn  
245 250 255

Ile Ile Leu Gly Met Ala Lys Gly Leu Ala Tyr Leu His Glu Gly Leu  
260 265 270

Glu Pro Lys Val Val His Arg Asp Ile Lys Ser Ser Asn Ile Leu Leu  
275 280 285

Asp Arg Gln Trp Asn Ala Lys Val Ser Asp Phe Gly Leu Ala Lys Leu  
290 295 300

Leu Gly Ser Glu Ser Ser Tyr Val Thr Thr Arg Val Met Gly Thr Phe  
305 310 315 320

Gly Tyr Val Ala Pro Glu Tyr Ala Cys Thr Gly Met Leu Asn Glu Lys  
325 330 335

Ser Asp Ile Tyr Ser Phe Gly Ile Leu Ile Met Glu Ile Ile Thr Gly  
340 345 350

Arg Asn Pro Val Asp Tyr Ser Arg Pro Gln Gly Glu Val Phe Asp Lys  
355 360 365

His Ile Gln Ser Ser Leu Cys Phe Cys Lys Trp Ser Tyr Tyr Val Ser  
370 375 380

Trp Leu  
385

<210> 695

<211> 2577

<212> DNA

<213> Arabidopsis thaliana

<400> 695

atggtttaca	cgatttcagg	cgtacgtttt	cctcatcttc	catcgattaa	gaagaagaat	60
tcgtctcttc	acagtttcaa	tgaagatctc	aggagaagca	acgctgtctc	attctctctg	120
aggaaggact	ctcgttcttc	tgggaagggt	tttgctcgga	agccatcgta	tgattctgat	180
tcgtcttcct	tagctaccac	tgcatctgag	aagctccgtg	gccatcagag	tgatagctct	240
tcatctgcct	ctgatcaagt	acaatctcgg	gatactgtct	ctgacgatac	tcagggtgctc	300
ggcaatgtag	acgttcagaa	aactgaagaa	gcccaggaaa	cagagacact	agatcaaact	360
tctgcactct	caacatctgg	aagcataagt	tataaagaag	attttgcaaa	gatgtcacac	420
tctgtcgacc	aagaagttgg	gcagaggaag	attccacctc	ctggagatgg	gaagagaata	480
tatgacattg	atcctatgtt	gaacagtcac	cgtaatcatc	ttgattaccg	atatgggcag	540
tacagaaaac	tgctgaaga	aattgacaag	aatgaagggtg	gtttggaggc	attttctcgt	600
ggttatgaaa	tatttggtt	cactcgaagc	gccactggta	tcacttaccg	ggaatgggca	660
ccgggagcta	aggcagcatc	actgatcgga	gattttaata	actggaatgc	gaaatctgat	720
gttatggctc	ggaacgactt	tggtgtgtgg	gaaatatctt	tgccaaataa	tgctgatggc	780
tcaccagcaa	ttccccatgg	ctcccgtgtg	aagatccgca	tgatacccc	atctggtatt	840
aaagactcca	ttccagcttg	gatcaagtat	tctgtccagc	cacctggcga	gatcccatat	900
aatggagtat	attatgacct	tcctgaggag	gataaatatg	cgttcaaaca	tcctcgtcca	960
aagaaacca	catcgctgcg	tatatatgaa	tcacatgttg	gaatgagtag	tacggaacca	1020
aagataaata	catatgccaa	ctttagagat	gatgtacttc	cccgtataaa	aaagctaggc	1080
tataatgctg	tgagataaat	ggccattcaa	gagcatgcct	actatgccag	ctttgggtat	1140
catgtgacaa	attttttcgc	acctagcagc	cgctttggaa	cacctgatga	ccttaaactt	1200
ttgatagaca	aagctcatga	gctagggtctg	gttgttctga	tgatatttgt	gcacagccat	1260
gcatcaaaaa	acacactgga	tggcctggac	atgtttgatg	gtactgatgg	tcaatatctt	1320
cactctggat	cgcgtgggtt	tcattggatg	tgggattctc	gtcttttcaa	ttacggaagc	1380
tgggaagtgc	ttaggtatct	tccttccaac	gcgagatggg	ggctggaaga	atacaagttt	1440
gatgggttca	gatttgatgg	tgtgacttcc	atgatgtaca	ctcatcatgg	actgcaggct	1500
gaatttactg	ggaattacaa	tgagtacttt	ggatattcta	ctgatgttga	cgctgtggct	1560
tatctaagtc	tgggtgaacga	tttgattcat	gggctatacc	ctgaggctat	tggtgtcggc	1620
gaagatgtta	gcgggatgcc	agctttttgc	gttcctgtcg	aagacgggtg	tgtgggtttt	1680
gactaccgtc	tacacatggc	agtggcagat	aaatggattg	agcttcttaa	gaagagagac	1740
gaggactggc	aggttgggtga	tataactttc	acgcttacca	acaggagggtg	gggagaaaaa	1800
tgtgtcgtct	atgcagagag	tcatgatcaa	gcccttggtg	gagacaaaac	gatagctttc	1860
tggctaattg	ataaggacat	gtatgatctt	atggccgttg	atagacaggc	cactccgcgt	1920

047-E2F-PCT.ST25.txt

gtagaccgtg ggattgcttt acacaaaatg atccgtctca ttacgatggg attgggtgga 1980  
gaaggatacc tcaatttcat gggaaacgaa tttggacacc cagaatggat cgacttccca 2040  
aggaccgacc agcaccttcc tgatggcaga gtcatcgctg ggaataatgg tagttatgat 2100  
aaatgccgac gtaggtttga tctgggagat gcagaatatc ttagatacca tggactacaa 2160  
gagtttgatc gagcaatgca aaatctagag gagacgtatg gtttcatgac ttcagagcac 2220  
cagtacatat cccgcaagga tgaaggagac agagtcattg tattcgagag aggtaacttg 2280  
ctcttcgtct tcaacttcca ctggaccaac agttactctg actaccgtat cggttgctct 2340  
gttcccgga agtacaaaat cgttttggac tctgataact ctttatttgg aggcttcaac 2400  
cggctagatg actccgcgga gtttttcacc tctgatggaa ggcacgacga taggccttgc 2460  
tccttcatgg tgtatgcacc gtgcagaacc gctgtagttt acgctgcagt agatgatgat 2520  
gatgatgatg aacgttcttc tcttgtcccc ataggcctgt taccgaaga tgtttag 2577

<210> 696

<211> 858

<212> PRT

<213> Arabidopsis thaliana

<400> 696

Met Val Tyr Thr Ile Ser Gly Val Arg Phe Pro His Leu Pro Ser Ile  
1 5 10 15

Lys Lys Lys Asn Ser Ser Leu His Ser Phe Asn Glu Asp Leu Arg Arg  
20 25 30

Ser Asn Ala Val Ser Phe Ser Leu Arg Lys Asp Ser Arg Ser Ser Gly  
35 40 45

Lys Val Phe Ala Arg Lys Pro Ser Tyr Asp Ser Asp Ser Ser Ser Leu  
50 55 60

Ala Thr Thr Ala Ser Glu Lys Leu Arg Gly His Gln Ser Asp Ser Ser  
65 70 75 80

Ser Ser Ala Ser Asp Gln Val Gln Ser Arg Asp Thr Val Ser Asp Asp  
85 90 95

Thr Gln Val Leu Gly Asn Val Asp Val Gln Lys Thr Glu Glu Ala Gln  
100 105 110

## 047-E2F-PCT.ST25.txt

Glu Thr Glu Thr Leu Asp Gln Thr Ser Ala Leu Ser Thr Ser Gly Ser  
 115 120 125  
 Ile Ser Tyr Lys Glu Asp Phe Ala Lys Met Ser His Ser Val Asp Gln  
 130 135 140  
 Glu Val Gly Gln Arg Lys Ile Pro Pro Pro Gly Asp Gly Lys Arg Ile  
 145 150 155 160  
 Tyr Asp Ile Asp Pro Met Leu Asn Ser His Arg Asn His Leu Asp Tyr  
 165 170 175  
 Arg Tyr Gly Gln Tyr Arg Lys Leu Arg Glu Glu Ile Asp Lys Asn Glu  
 180 185 190  
 Gly Gly Leu Glu Ala Phe Ser Arg Gly Tyr Glu Ile Phe Gly Phe Thr  
 195 200 205  
 Arg Ser Ala Thr Gly Ile Thr Tyr Arg Glu Trp Ala Pro Gly Ala Lys  
 210 215 220  
 Ala Ala Ser Leu Ile Gly Asp Phe Asn Asn Trp Asn Ala Lys Ser Asp  
 225 230 235 240  
 Val Met Ala Arg Asn Asp Phe Gly Val Trp Glu Ile Phe Leu Pro Asn  
 245 250 255  
 Asn Ala Asp Gly Ser Pro Ala Ile Pro His Gly Ser Arg Val Lys Ile  
 260 265 270  
 Arg Met Asp Thr Pro Ser Gly Ile Lys Asp Ser Ile Pro Ala Trp Ile  
 275 280 285  
 Lys Tyr Ser Val Gln Pro Pro Gly Glu Ile Pro Tyr Asn Gly Val Tyr  
 290 295 300  
 Tyr Asp Pro Pro Glu Glu Asp Lys Tyr Ala Phe Lys His Pro Arg Pro  
 305 310 315 320  
 Lys Lys Pro Thr Ser Leu Arg Ile Tyr Glu Ser His Val Gly Met Ser  
 325 330 335  
 Ser Thr Glu Pro Lys Ile Asn Thr Tyr Ala Asn Phe Arg Asp Asp Val  
 340 345 350  
 Leu Pro Arg Ile Lys Lys Leu Gly Tyr Asn Ala Val Gln Ile Met Ala  
 355 360 365

047-E2F-PCT.ST25.txt

Ile Gln Glu His Ala Tyr Tyr Ala Ser Phe Gly Tyr His Val Thr Asn  
370 375 380

Phe Phe Ala Pro Ser Ser Arg Phe Gly Thr Pro Asp Asp Leu Lys Ser  
385 390 395 400

Leu Ile Asp Lys Ala His Glu Leu Gly Leu Val Val Leu Met Asp Ile  
405 410 415

Val His Ser His Ala Ser Lys Asn Thr Leu Asp Gly Leu Asp Met Phe  
420 425 430

Asp Gly Thr Asp Gly Gln Tyr Phe His Ser Gly Ser Arg Gly Tyr His  
435 440 445

Trp Met Trp Asp Ser Arg Leu Phe Asn Tyr Gly Ser Trp Glu Val Leu  
450 455 460

Arg Tyr Leu Leu Ser Asn Ala Arg Trp Trp Leu Glu Glu Tyr Lys Phe  
465 470 475 480

Asp Gly Phe Arg Phe Asp Gly Val Thr Ser Met Met Tyr Thr His His  
485 490 495

Gly Leu Gln Val Glu Phe Thr Gly Asn Tyr Asn Glu Tyr Phe Gly Tyr  
500 505 510

Ser Thr Asp Val Asp Ala Val Val Tyr Leu Met Leu Val Asn Asp Leu  
515 520 525

Ile His Gly Leu Tyr Pro Glu Ala Ile Val Val Gly Glu Asp Val Ser  
530 535 540

Gly Met Pro Ala Phe Cys Val Pro Val Glu Asp Gly Gly Val Gly Phe  
545 550 555 560

Asp Tyr Arg Leu His Met Ala Val Ala Asp Lys Trp Ile Glu Leu Leu  
565 570 575

Lys Lys Arg Asp Glu Asp Trp Gln Val Gly Asp Ile Thr Phe Thr Leu  
580 585 590

Thr Asn Arg Arg Trp Gly Glu Lys Cys Val Val Tyr Ala Glu Ser His  
595 600 605

Asp Gln Ala Leu Val Gly Asp Lys Thr Ile Ala Phe Trp Leu Met Asp

610

615

Lys Asp Met Tyr Asp Phe Met Ala Val Asp Arg Gln Ala Thr Pro Arg  
625 630 635 640

Val Asp Arg Gly Ile Ala Leu His Lys Met Ile Arg Leu Ile Thr Met  
645 650 655

Gly Leu Gly Gly Glu Gly Tyr Leu Asn Phe Met Gly Asn Glu Phe Gly  
660 665 670

His Pro Glu Trp Ile Asp Phe Pro Arg Thr Asp Gln His Leu Pro Asp  
675 680 685

Gly Arg Val Ile Ala Gly Asn Asn Gly Ser Tyr Asp Lys Cys Arg Arg  
690 695 700

Arg Phe Asp Leu Gly Asp Ala Glu Tyr Leu Arg Tyr His Gly Leu Gln  
705 710 715 720

Glu Phe Asp Arg Ala Met Gln Asn Leu Glu Glu Thr Tyr Gly Phe Met  
725 730 735

Thr Ser Glu His Gln Tyr Ile Ser Arg Lys Asp Glu Gly Asp Arg Val  
740 745 750

Ile Val Phe Glu Arg Gly Asn Leu Leu Phe Val Phe Asn Phe His Trp  
755 760 765

Thr Asn Ser Tyr Ser Asp Tyr Arg Ile Gly Cys Ser Val Pro Gly Lys  
770 775 780

Tyr Lys Ile Val Leu Asp Ser Asp Asn Ser Leu Phe Gly Gly Phe Asn  
785 790 795 800

Arg Leu Asp Asp Ser Ala Glu Phe Phe Thr Ser Asp Gly Arg His Asp  
805 810 815

Asp Arg Pro Cys Ser Phe Met Val Tyr Ala Pro Cys Arg Thr Ala Val  
820 825 830

Val Tyr Ala Ala Val Asp Asp Asp Asp Asp Glu Arg Ser Ser Leu  
835 840 845

Val Pro Ile Gly Leu Leu Pro Glu Asp Val  
850 855



&lt;210&gt; 697

&lt;211&gt; 597

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 697

```

atggtgcacg tttgctacta ccgcaactat ggaaagacct tcaagggacc acgtcgtcct      60
tacgagaagg agcgtcttga ttctgaattg aagctggttg gtgagtatgg tctgcgtaac      120
aagcgtgagc tctggagagt gcagtactct cttagccgta tccgtaatgc tgctagagat      180
cttttgactc ttgatgagaa gagtccaaga aggatctttg aaggtgaggc tttgctccgt      240
aggatgaacc gttacgggct tcttgatgag agccagaaca agctcgatta cgtcttggct      300
ttgactgttg agaactttct tgagcgtcgt cttcagacta ttgtgttcaa gtctggtatg      360
gctaagtcta tccatcactc tcgtgtcctc atcaggcaga ggcataatcag gggttgaaaag      420
caattggtga acattccatc attcatggtg agacttgatt cacagaagca cattgacttt      480
gccctcacca gtcccttcgg tgggtggccgt ccaggaagag tgaagagaag gaacgagaag      540
tctgcctcca agaaagcctc aggtggcggt gatgcagacg gtgatgacga agagtaa      597

```

&lt;210&gt; 698

&lt;211&gt; 198

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 698

```

Met Val His Val Cys Tyr Tyr Arg Asn Tyr Gly Lys Thr Phe Lys Gly
1          5          10          15
Pro Arg Arg Pro Tyr Glu Lys Glu Arg Leu Asp Ser Glu Leu Lys Leu
20        25        30
Val Gly Glu Tyr Gly Leu Arg Asn Lys Arg Glu Leu Trp Arg Val Gln
35        40        45
Tyr Ser Leu Ser Arg Ile Arg Asn Ala Ala Arg Asp Leu Leu Thr Leu
50        55        60
Asp Glu Lys Ser Pro Arg Arg Ile Phe Glu Gly Glu Ala Leu Leu Arg
65        70        75        80

```

047-E2F-PCT.ST25.txt

Arg Met Asn Arg Tyr Gly Leu Leu Asp Glu Ser Gln Asn Lys Leu Asp  
85 90 95

Tyr Val Leu Ala Leu Thr Val Glu Asn Phe Leu Glu Arg Arg Leu Gln  
100 105 110

Thr Ile Val Phe Lys Ser Gly Met Ala Lys Ser Ile His His Ser Arg  
115 120 125

Val Leu Ile Arg Gln Arg His Ile Arg Val Gly Lys Gln Leu Val Asn  
130 135 140

Ile Pro Ser Phe Met Val Arg Leu Asp Ser Gln Lys His Ile Asp Phe  
145 150 155 160

Ala Leu Thr Ser Pro Phe Gly Gly Gly Arg Pro Gly Arg Val Lys Arg  
165 170 175

Arg Asn Glu Lys Ser Ala Ser Lys Lys Ala Ser Gly Gly Gly Asp Ala  
180 185 190

Asp Gly Asp Asp Glu Glu  
195

<210> 699

<211> 879

<212> DNA

<213> Arabidopsis thaliana

<400> 699

atgtactcgg cgattcggtc ttcgcttcct ctagatggca gcttgggaga ctactctgac	60
ggaaccaatc ttcccatcga cgcttgctctg gtcctaacca ctgaccccaa gcctcgcctt	120
cgttggacct ctgagctcca tgaaagattc gttgacgccg tctactcagct cggcggaccc	180
gacaaagcaa cgcctaaaac tataatgaga acaatgggag tgaagggctt cactctttac	240
catctcaaat ctcatcttca gaaattccgc ttggggaggc aatcttgtaa agaataaatt	300
gacaactcta aggatgtttc ttgtgttgcg gagagtcagg aacttggttc atcttcaaca	360
tcatccttaa gattggctgc tcaagaacag aacgagagtt accaggtcac tgaagctttg	420
cgtgcccaga tggaagtcca aagaagacta cactgagcaac tagaggtgca aaggcgactc	480
cagttaagga tcgaggcaca aggggaagtac ctgcaatcaa ttctagagaa agcttgcaag	540
gctatagagg agcaagctgt tgcatttgct ggggttagagg cagctagaga agagctttca	600

047-E2F-PCT.ST25.txt

gagctagcca taaaggcctc catcaccaat gggtgccaag gaacaacaag caccttcgac 660  
 acaaccaaaa tgatgattcc atccttatcc gagcttgcag tagcaataga gcacaagaac 720  
 aactgttcag cagagagctc tctgacttcc agcactgtag gaagtccggt atcagctgcg 780  
 ttgatgaaga agagacaacg aggagtgttt ggaaatggag atagtgtggt tgttggtcat 840  
 gatgctggat gggttatgcc tagtagtagc attggatga 879

<210> 700

<211> 292

<212> PRT

<213> Arabidopsis thaliana

<400> 700

Met Tyr Ser Ala Ile Arg Ser Ser Leu Pro Leu Asp Gly Ser Leu Gly  
 1 5 10 15

Asp Tyr Ser Asp Gly Thr Asn Leu Pro Ile Asp Ala Cys Leu Val Leu  
 20 25 30

Thr Thr Asp Pro Lys Pro Arg Leu Arg Trp Thr Ser Glu Leu His Glu  
 35 40 45

Arg Phe Val Asp Ala Val Thr Gln Leu Gly Gly Pro Asp Lys Ala Thr  
 50 55 60

Pro Lys Thr Ile Met Arg Thr Met Gly Val Lys Gly Leu Thr Leu Tyr  
 65 70 75 80

His Leu Lys Ser His Leu Gln Lys Phe Arg Leu Gly Arg Gln Ser Cys  
 85 90 95

Lys Glu Ser Ile Asp Asn Ser Lys Asp Val Ser Cys Val Ala Glu Ser  
 100 105 110

Gln Asp Thr Gly Ser Ser Ser Thr Ser Ser Leu Arg Leu Ala Ala Gln  
 115 120 125

Glu Gln Asn Glu Ser Tyr Gln Val Thr Glu Ala Leu Arg Ala Gln Met  
 130 135 140

Glu Val Gln Arg Arg Leu His Glu Gln Leu Glu Val Gln Arg Arg Leu  
 145 150 155 160

047-E2F-PCT.ST25.txt

Gln Leu Arg Ile Glu Ala Gln Gly Lys Tyr Leu Gln Ser Ile Leu Glu  
165 170 175

Lys Ala Cys Lys Ala Ile Glu Glu Gln Ala Val Ala Phe Ala Gly Leu  
180 185 190

Glu Ala Ala Arg Glu Glu Leu Ser Glu Leu Ala Ile Lys Ala Ser Ile  
195 200 205

Thr Asn Gly Cys Gln Gly Thr Thr Ser Thr Phe Asp Thr Thr Lys Met  
210 215 220

Met Ile Pro Ser Leu Ser Glu Leu Ala Val Ala Ile Glu His Lys Asn  
225 230 235 240

Asn Cys Ser Ala Glu Ser Ser Leu Thr Ser Ser Thr Val Gly Ser Pro  
245 250 255

Val Ser Ala Ala Leu Met Lys Lys Arg Gln Arg Gly Val Phe Gly Asn  
260 265 270

Gly Asp Ser Val Val Val Gly His Asp Ala Gly Trp Val Met Pro Ser  
275 280 285

Ser Ser Ile Gly  
290

<210> 701

<211> 798

<212> DNA

<213> Arabidopsis thaliana

<400> 701

atgggaagct ttctcttcct catcgtagtc atcttcctct tctcttcacg	cgtaacgct	60
tgatgatcgat gtcttcaccg ttctaaagca gcttatttct cctctgcctc	tgctctctct	120
tctggagctt gtgcttatgg ctctatggct acgagtttct tcgccggaca	tatcgctgca	180
gctatccctt ctatctacaa agacggtgct ggctgtggag cttgctttca	agtcagatgc	240
aagaacccta agctgtgtag cactaaagga accattgtga tgatcacaga	cttaaacaag	300
agtaaccaaa ccgatcttgt ccttagtagc agagctttta gagctatggc	taaacctatt	360
gttggtgctg acaaagacct tctcaaaca ggcattgtcg acatcgaata	ccaaagagtt	420
ccttgcgatt acggcaacaa gaacatgaac gtgagagtag aagaagcaag	caagaaacca	480

047-E2F-PCT.ST25.txt

aactacttag agataaagct tttataccaa ggaggtcaaa cagaagtagt atccatcgac 540  
attgctcaag tcggttcacg gccaaattgg ggttacatga caagaagcca cggagctggt 600  
tggttaactg acaaagtacc caccggagct atccagttca ggttcgtagt aaccgggtgga 660  
tacgacggta aaatgatttg gtcacagagt gttcttccat ccaattggga agctgggaaa 720  
atttacgacg ccggtgttca aatcactgac attgctcaag aaggttgtga tccttgcgat 780  
gctcacatct ggaactaa 798

<210> 702

<211> 265

<212> PRT

<213> Arabidopsis thaliana

<400> 702

Met Gly Ser Phe Leu Phe Leu Ile Val Val Ile Phe Leu Phe Ser Ser  
1 5 10 15

Ser Val Asn Ala Cys Asp Arg Cys Leu His Arg Ser Lys Ala Ala Tyr  
20 25 30

Phe Ser Ser Ala Ser Ala Leu Ser Ser Gly Ala Cys Ala Tyr Gly Ser  
35 40 45

Met Ala Thr Ser Phe Phe Ala Gly His Ile Ala Ala Ala Ile Pro Ser  
50 55 60

Ile Tyr Lys Asp Gly Ala Gly Cys Gly Ala Cys Phe Gln Val Arg Cys  
65 70 75 80

Lys Asn Pro Lys Leu Cys Ser Thr Lys Gly Thr Ile Val Met Ile Thr  
85 90 95

Asp Leu Asn Lys Ser Asn Gln Thr Asp Leu Val Leu Ser Ser Arg Ala  
100 105 110

Phe Arg Ala Met Ala Lys Pro Ile Val Gly Ala Asp Lys Asp Leu Leu  
115 120 125

Lys Gln Gly Ile Val Asp Ile Glu Tyr Gln Arg Val Pro Cys Asp Tyr  
130 135 140

Gly Asn Lys Asn Met Asn Val Arg Val Glu Glu Ala Ser Lys Lys Pro

145                      150                      155                      160  
 Asn Tyr Leu Glu Ile Lys Leu Leu Tyr Gln Gly Gly Gln Thr Glu Val  
                                  165                      170                      175  
 Val Ser Ile Asp Ile Ala Gln Val Gly Ser Ser Pro Asn Trp Gly Tyr  
                                  180                      185                      190  
 Met Thr Arg Ser His Gly Ala Val Trp Val Thr Asp Lys Val Pro Thr  
                                  195                      200                      205  
 Gly Ala Ile Gln Phe Arg Phe Val Val Thr Gly Gly Tyr Asp Gly Lys  
                                  210                      215                      220  
 Met Ile Trp Ser Gln Ser Val Leu Pro Ser Asn Trp Glu Ala Gly Lys  
                                  225                      230                      235                      240  
 Ile Tyr Asp Ala Gly Val Gln Ile Thr Asp Ile Ala Gln Glu Gly Cys  
                                  245                      250                      255  
 Asp Pro Cys Asp Ala His Ile Trp Asn  
                                  260                      265

<210> 703

<211> 1296

<212> DNA

<213> Arabidopsis thaliana

<400> 703

atgggacttt cattgagagt gagacgtcgt ggaggaagtg ttagcaagaa agagatcatt 60  
 ccggtgacaa gttgctcggg ggaagtggag ataaccatac catcgcagtt tcaatgtccg 120  
 atatcttacg agctaataa ggatccggtg attattgcct cggggatcac ttacgatcgc 180  
 gaaaacatcg agaagtgggt cgagtcgggg taccaaactt gtcccgttac aaacacgggt 240  
 ttgacaagtt tggaacagat tccgaaccat acgattcgga ggatgattca aggttggtgc 300  
 gggtcgtcac taggcggcgg gattgaacga atcccgacgc ctctgtgtacc cgtgaccagt 360  
 catcaagtct ccgagatttg tgagagggtta tccgctgcta cgcggcgtgg agactacgcc 420  
 gcgtgcatgg agatgggttac gaagatgacg agactaggaa aagagagcga gaggaatcga 480  
 aaatgcgtta aggaaaacgg cgcgggattg gttctttgcg tttgcttcga cgcgttttcc 540  
 gaaaacgcaa atgcgtcatt attattggag gagactgtgt ctgtgctgac gtggatgctt 600  
 ccattgggtt tagaagggtca atccaaactc accacgacgt cgtcgtttta tcgttttagtg 660

047-E2F-PCT.ST25.txt

gaactgttga gaaatggtga tcaaacgct gcgtttttga taaaagagct tcttgagctt 720  
aacgtaactc acgttcacgc gttaacaaag atcaatggcg tccaagaagc gttcatgaaa 780  
tcgattaatc gcgattctac atgcgtcaac tcgttaatat caatccacca tatgatcttg 840  
acaaatcaag aaaccgtatc aagggtttctt gaattggatc ttgtgaatat aacagtggag 900  
atgctagtgg attcagaaaa cagcgtttgc gagaaagcgt taacgggtatt aaacgtgatt 960  
tgtgaaacta aagaaggaag agagaaagtg agaagaaaca agctgggtgat accgattttg 1020  
gtgaagaaga ttttgaagat ttctgagaag aaagatttgg tttctgtgat gtggaagggtt 1080  
tgtaaaagtg gtgatgggtc tgaagttgaa gaagcgttga gattaggtgc gtttaagaag 1140  
cttgttgtca tgttacaagt tggatgtggt gaaggaacta aggagaaagt tacagagttg 1200  
ttgaagatga tgaataaagt tatgaagatg aatggttttg ttgatcgttc ttattcttct 1260  
tcaattgagt ttaaacaatgt taagaaacca ttttaa 1296

<210> 704

<211> 431

<212> PRT

<213> Arabidopsis thaliana

<400> 704

Met Gly Leu Ser Leu Arg Val Arg Arg Arg Gly Gly Ser Val Ser Lys  
1 5 10 15

Lys Glu Ile Ile Pro Val Thr Ser Cys Ser Glu Glu Val Glu Ile Thr  
20 25 30

Ile Pro Ser Gln Phe Gln Cys Pro Ile Ser Tyr Glu Leu Met Lys Asp  
35 40 45

Pro Val Ile Ile Ala Ser Gly Ile Thr Tyr Asp Arg Glu Asn Ile Glu  
50 55 60

Lys Trp Phe Glu Ser Gly Tyr Gln Thr Cys Pro Val Thr Asn Thr Val  
65 70 75 80

Leu Thr Ser Leu Glu Gln Ile Pro Asn His Thr Ile Arg Arg Met Ile  
85 90 95

Gln Gly Trp Cys Gly Ser Ser Leu Gly Gly Gly Ile Glu Arg Ile Pro  
100 105 110

## 047-E2F-PCT.ST25.txt

Thr Pro Arg Val Pro Val Thr Ser His Gln Val Ser Glu Ile Cys Glu  
 115 120 125  
 Arg Leu Ser Ala Ala Thr Arg Arg Gly Asp Tyr Ala Ala Cys Met Glu  
 130 135 140  
 Met Val Thr Lys Met Thr Arg Leu Gly Lys Glu Ser Glu Arg Asn Arg  
 145 150 155 160  
 Lys Cys Val Lys Glu Asn Gly Ala Gly Leu Val Leu Cys Val Cys Phe  
 165 170 175  
 Asp Ala Phe Ser Glu Asn Ala Asn Ala Ser Leu Leu Leu Glu Glu Thr  
 180 185 190  
 Val Ser Val Leu Thr Trp Met Leu Pro Ile Gly Leu Glu Gly Gln Ser  
 195 200 205  
 Lys Leu Thr Thr Thr Ser Ser Phe Asn Arg Leu Val Glu Leu Leu Arg  
 210 215 220  
 Asn Gly Asp Gln Asn Ala Ala Phe Leu Ile Lys Glu Leu Leu Glu Leu  
 225 230 235 240  
 Asn Val Thr His Val His Ala Leu Thr Lys Ile Asn Gly Val Gln Glu  
 245 250 255  
 Ala Phe Met Lys Ser Ile Asn Arg Asp Ser Thr Cys Val Asn Ser Leu  
 260 265 270  
 Ile Ser Ile His His Met Ile Leu Thr Asn Gln Glu Thr Val Ser Arg  
 275 280 285  
 Phe Leu Glu Leu Asp Leu Val Asn Ile Thr Val Glu Met Leu Val Asp  
 290 295 300  
 Ser Glu Asn Ser Val Cys Glu Lys Ala Leu Thr Val Leu Asn Val Ile  
 305 310 315 320  
 Cys Glu Thr Lys Glu Gly Arg Glu Lys Val Arg Arg Asn Lys Leu Val  
 325 330 335  
 Ile Pro Ile Leu Val Lys Lys Ile Leu Lys Ile Ser Glu Lys Lys Asp  
 340 345 350  
 Leu Val Ser Val Met Trp Lys Val Cys Lys Ser Gly Asp Gly Ser Glu  
 355 360 365



Val Glu Glu Ala Leu Arg Leu Gly Ala Phe Lys Lys Leu Val Val Met  
 370 375 380

Leu Gln Val Gly Cys Gly Glu Gly Thr Lys Glu Lys Val Thr Glu Leu  
 385 390 395 400

Leu Lys Met Met Asn Lys Val Met Lys Met Asn Gly Phe Val Asp Arg  
 405 410 415

Ser Tyr Ser Ser Ser Ile Glu Phe Lys His Val Lys Lys Pro Phe  
 420 425 430

<210> 705

<211> 747

<212> DNA

<213> Arabidopsis thaliana

<400> 705

atgtgtggcg gtgctattat ttccgattat gcccctctcg tcaccaaggc caagggccgt	60
aaactcacgg ctgaggaact ctggtcagag ctcgatgctt ccgccgccga cgacttctgg	120
ggtttctatt ccacctcaa actccatccc accaaccaag ttaacgtgaa agaggaggca	180
gtgaagaagg agcaggcaac agagccgggg aaacggagga agaggaagaa tgtttataga	240
gggatacgta agcgtccatg gggaaaatgg gcggtgaga ttcgagatcc acgaaaaggt	300
gtagagttt ggcttggtac gttcaacacg gcgagggaag ctgccatggc ttatgatgtt	360
gcggccaagc agatccgtgg tgataaagcc aagctcaact tcccagatct gcaccatcct	420
cctcctccta attatactcc tccgccgtca tcgccacgat caaccgatca gcctccggcg	480
aagaagggtc gcgttgtctc tcagagttag agcgagttaa gtcagccgag tttcccggtg	540
gagtgtatag gatttggaat tggggacgag tttcagaacc tgagttacgg atttgagccg	600
gattatgatc tgaaacagca gatatcgagc ttggaatcgt tccttgagct ggacggtaac	660
acggcgggagc aaccgagtca gcttgatgag tccgtttccg aggtggatat gtggatgctt	720
gatgatgtca ttgcgtcgta tgagtaa	747

<210> 706

<211> 248

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 706

Met Cys Gly Gly Ala Ile Ile Ser Asp Tyr Ala Pro Leu Val Thr Lys  
 1 5 10 15

Ala Lys Gly Arg Lys Leu Thr Ala Glu Glu Leu Trp Ser Glu Leu Asp  
 20 25 30

Ala Ser Ala Ala Asp Asp Phe Trp Gly Phe Tyr Ser Thr Ser Lys Leu  
 35 40 45

His Pro Thr Asn Gln Val Asn Val Lys Glu Glu Ala Val Lys Lys Glu  
 50 55 60

Gln Ala Thr Glu Pro Gly Lys Arg Arg Lys Arg Lys Asn Val Tyr Arg  
 65 70 75 80

Gly Ile Arg Lys Arg Pro Trp Gly Lys Trp Ala Ala Glu Ile Arg Asp  
 85 90 95

Pro Arg Lys Gly Val Arg Val Trp Leu Gly Thr Phe Asn Thr Ala Glu  
 100 105 110

Glu Ala Ala Met Ala Tyr Asp Val Ala Ala Lys Gln Ile Arg Gly Asp  
 115 120 125

Lys Ala Lys Leu Asn Phe Pro Asp Leu His His Pro Pro Pro Pro Asn  
 130 135 140

Tyr Thr Pro Pro Pro Ser Ser Pro Arg Ser Thr Asp Gln Pro Pro Ala  
 145 150 155 160

Lys Lys Val Cys Val Val Ser Gln Ser Glu Ser Glu Leu Ser Gln Pro  
 165 170 175

Ser Phe Pro Val Glu Cys Ile Gly Phe Gly Asn Gly Asp Glu Phe Gln  
 180 185 190

Asn Leu Ser Tyr Gly Phe Glu Pro Asp Tyr Asp Leu Lys Gln Gln Ile  
 195 200 205

Ser Ser Leu Glu Ser Phe Leu Glu Leu Asp Gly Asn Thr Ala Glu Gln  
 210 215 220

Pro Ser Gln Leu Asp Glu Ser Val Ser Glu Val Asp Met Trp Met Leu  
 225 230 235 240

Asp Asp Val Ile Ala Ser Tyr Glu  
245

<210> 707

<211> 4509

<212> DNA

<213> *Arabidopsis thaliana*

<400> 707

```

atggagaaca gaggccagaa acgaatggag gttgtggaag agttacctgc tgataagaga      60
gcttgtaact ctcaggattt tagaccaagc acatccggat catctgttca agctcaagct      120
aatgatacga atccaggaca tgaaaacggt gacgctgata tggatacttc ttcattctgct      180
tcgccttcga gtcgatcaga tgaagaagaa caggaagagc aggataagga ggattcggac      240
tatggatcctt gcgattctga tgaggaagat ccgaggcaga ggggtgcttca ggattaccag      300
aggcagagat catctgggtga tcatgggaaa ttgaagtctc ttttggttgaa tttgactgga      360
gaaactgata cttctggaca gttatccagg ctactgagt tatgtgaagt gttgtcattt      420
tctactgaag aatcgctgtc cagtgttatg gccaacatgc tatcaccggt gcttgtaaag      480
ttagctaagc atgagaacaa tgcagatatt atgctcctcg caattagagc tattacttat      540
ttgtgtgatg tttatccgcc gtcagtagaa ttccttgtaa gacatgatac cattcctgct      600
ctctgccaaa gacttttgac tattgagtac ttggacgttg ctgagcagtg tttgcaagca      660
cttgagaaaa tatcccagaga tgagccggta gcctgcttga atgctggagc aattatggca      720
gtgctttcgt ttattgattt cttctcaaca agcatacaga gagtcgcaat ttctactgtg      780
gtcaatatat gtaagcagct ttcttctgag tctccctcgc ctttcatgga tgctgttcca      840
atattatgca ctcttcttca atatgaagat cgacagctgg tcgagaatgt ggctatttgc      900
ttgacaaaaa tagcagatca agccagtgag tcaccggcaa tgttggatca actgtgtagg      960
catggactaa ttaatgaatc aacacatctc ttaaacttga atagccgcac taccctatct     1020
caacctgtct acaatggtgt gattggaatg ctaagaaaac tatcttctgg ttcagcttta     1080
gctttcagaa cgttatatga gcttaacatt ggctacagtt taaaagaaat catgtccacg     1140
tatgacattt ctcattcagt gtcttctaca catcctatca atgcatgttc taatcaggtg     1200
catgaagtcc tgaagttggt gattgagctt cttccagctt caccgtaga ggataatcag     1260
ctggcatcgg aaaaggaaag ttttctcgtc aatcagcctg atcttttgca acaatttgga     1320
agagacatgc ttcctgtcat gattcaggtg ctaaactctg gagctaacgt atatgtttct     1380

```

tatggttgcc	tatcagcaat	tcacaagctg	acttgcttga	gtaagtccgg	tgatattgtc	1440
gagttactga	agaacaccaa	catgtcaagt	gttttggtcg	gcattctgtc	aaggaaggat	1500
catcatgtaa	ttgtagtagc	actacaggtt	gcggaagtgc	ttcttgagaa	atacagagat	1560
acttttttga	attcttttat	aaaggaaggt	gtttttttcg	cgattgaagc	actcttaagt	1620
tctgatagag	ggcaacaaaa	tcagggatca	gctgaccttt	cacaaaagcc	tgttacaaaa	1680
gagattgtga	aatgcttgtg	ccaatctttt	gaaagatcgc	tatcctcttc	ttcacaaact	1740
tgtaagattg	aaaaggattc	tgtctacgtt	cttgcaacac	gtatcaagga	gggtttcttt	1800
ggacctgagg	tattcaactc	tgagaaaggc	ttgacagatg	tcctccaaaa	cctcaagaac	1860
ttgtcggtag	cacttagcga	gttgatgact	gtaccttattg	atgcgcatgt	cctgcatgat	1920
gagaaattct	tctcaatatg	gaaccaaadc	atggaaaggc	tgaatggaag	ggaatctgtg	1980
tccacttttg	aattcattga	gagcggagtt	gtaaagtcac	tggaagttta	tctttctaata	2040
ggactctatc	aaaggaaact	tagcaaaggg	ggctctgaat	gtgatagttt	accattttatt	2100
ggtaagagat	ttgaggtgtt	cacaagattg	ctttgggtctg	atggagaggc	aacttcatcc	2160
ttgttaatac	agaagctcca	aaattccctt	tcttcttttg	aaaacttccc	aattgtccta	2220
agccaatttt	tgaagcagaa	gaactcattt	gcggtctattc	caaattgggcg	ttgcactagt	2280
tatccatgcc	taaaagtctg	ttttctgaaa	gcagaggggg	agacttcttt	gcgtgattac	2340
tccaagact	ttgtcactgt	tgacctactt	tgctattttg	atgctgtcga	tcaatacttg	2400
tggcctaaag	ttaatataga	acctatagat	tctgtggaag	caaagatca	agctatagaa	2460
tgtcaatctt	ctcaattgca	gtcaacttcg	atatcttgtc	aagctgaaag	ctcaagtcct	2520
atggagattg	acagtgagtc	ttctgatgcg	tctcagttgc	agggatctca	agtggaagat	2580
cagacgcaac	ttccaggaca	acagaatgct	tcctcctctg	aaacctcttc	tgaaaaagag	2640
gatgcggtac	ctagactttt	gtttcgtctc	gaagggcttg	aactagaccg	ttctttgaca	2700
gtatatcagg	cgatttcttt	gcacaaacta	aaatcagaaa	gtgaagcaac	caacgattcg	2760
aagctgagtg	gacccccaaa	catcacttat	gaaaggtctg	cacaacttgg	ggatttctgt	2820
gaaaatctgt	ttccacctgg	atctatggaa	gatgatgagt	atcgcccgtt	cttgtcctat	2880
ttgtttactc	atagacttgc	tttgcgcttg	aaggggtcaa	gtcatcctcc	gtatgacata	2940
ttgtttcttc	ttaagagtct	ggagggcatg	aacagatttc	tctttcacct	gatttctctt	3000
gaacggatta	atgcttttgg	tgaaggtagg	ctagagaatt	tggaatgatct	gaggggtacaa	3060
gttcgtcctg	tgccacattc	tgaatttggt	agcagtaagc	ttacagagaa	gttagagcag	3120
cagcttcgtg	attcttttgc	tgtgtcaacc	tgcggtctgc	caccatgggt	taatgatcta	3180
atggattcat	gtccgtgttt	atttagtttt	gaagccaagt	ctaaatactt	ccgacttgca	3240
gcctttgggt	cacagaaaat	ccgtcatcat	ccacagcacc	ttagcagttc	aaatgttcat	3300

047-E2F-PCT.ST25.txt

```

ggcgaagcgc gccagtgac tggtagttta cctcgtaaaa agttcttagc ttgccgtgaa 3360
aacattctag agtctgctgc caaaatgatg gagttatatg gaaaccagaa ggtggtcatt 3420
gaggttgaat acagtgaaga agtcgggact ggtcttgggc caacactgga gttctatacg 3480
cttgtcagta gggcatttca aaatcccgat cttggtatgt ggagaaatga ttgtagtttt 3540
attgttggaa agccagtcga acactcggga gttttggcat cttcttcagg actctttcca 3600
cgcccttggg caggtacatc aactacgtca gatgtgctgc agaaatttgt cctcttgggg 3660
acagtggtag caaaggcttt acaagatgga cgagtcttag acctccact ttccaaagcc 3720
ttctacaaat taattctcgg acaggagttg agttcatttg acatccactt cgttgaccct 3780
gaactttgta aaacactggg ggaattgcaa gctctgggtac gtaggaaaaa gcttttcgct 3840
gaagcacatg gtgattccgg agcagccaag tgtgatttaa gtttccatgg aacaaagatt 3900
gaggaccttt gtcttgaatt tgcattgcct ggctacacgg attatgatct cgctccctat 3960
tctgcaaatg atatggtaaa tttggataac ctcgaggaat atatcaaggg tattgtcaat 4020
gccacagtat gtaatgggat ccaaaaacaa gtggaagcat ttcgggtctgg atttaatcag 4080
gttttctcta ttgaacatct tcggatatct aacgaagagg agctggaaac tatgctgtgt 4140
ggagaatgtg atctcttttag tatgaatgaa gtcttggatc acatcaagtt tgatcatgga 4200
tatacttcta gcagcccacc agttgaatat ttattgcaga ttctgcatga gtttgatagg 4260
gagcaacaac gagccttttt gcaatttgta acaggatctc cccggttacc tcatggtggg 4320
ttggcgtctc tcagtcccaa actaacaatc gtccgcaagc atggtagcga ttcttcagat 4380
actgacctcc ctagtgtgat gacatgcgcc aattatctga agcttcctcc ttattcatcc 4440
aaagagaaga tgaaggagaa gctgatttat gccataacgg aagggtcaagg ttccttccat 4500
ctctcttaa 4509

```

<210> 708

<211> 1502

<212> PRT

<213> Arabidopsis thaliana

<400> 708

Met Glu Asn Arg Gly Gln Lys Arg Met Glu Val Val Glu Glu Leu Pro  
1 5 10 15

Ala Asp Lys Arg Ala Cys Asn Ser Gln Asp Phe Arg Pro Ser Thr Ser  
20 25 30

047-E2F-PCT.ST25.txt

Gly Ser Ser Val Gln Ala Gln Ala Asn Asp Thr Asn Pro Gly His Glu  
 35 40 45  
 Asn Val Asp Ala Asp Met Asp Thr Ser Ser Ser Ala Ser Pro Ser Ser  
 50 55 60  
 Arg Ser Asp Glu Glu Glu Gln Glu Glu Gln Asp Lys Glu Asp Ser Asp  
 65 70 75 80  
 Tyr Gly Ser Cys Asp Ser Asp Glu Glu Asp Pro Arg Gln Arg Val Leu  
 85 90 95  
 Gln Asp Tyr Gln Arg Gln Arg Ser Ser Gly Asp His Gly Lys Leu Lys  
 100 105 110  
 Ser Leu Leu Leu Asn Leu Thr Gly Glu Thr Asp Pro Ser Gly Gln Leu  
 115 120 125  
 Ser Arg Leu Thr Glu Leu Cys Glu Val Leu Ser Phe Ser Thr Glu Glu  
 130 135 140  
 Ser Leu Ser Ser Val Met Ala Asn Met Leu Ser Pro Val Leu Val Lys  
 145 150 155 160  
 Leu Ala Lys His Glu Asn Asn Ala Asp Ile Met Leu Leu Ala Ile Arg  
 165 170 175  
 Ala Ile Thr Tyr Leu Cys Asp Val Tyr Pro Pro Ser Val Glu Phe Leu  
 180 185 190  
 Val Arg His Asp Thr Ile Pro Ala Leu Cys Gln Arg Leu Leu Thr Ile  
 195 200 205  
 Glu Tyr Leu Asp Val Ala Glu Gln Cys Leu Gln Ala Leu Glu Lys Ile  
 210 215 220  
 Ser Arg Asp Glu Pro Val Ala Cys Leu Asn Ala Gly Ala Ile Met Ala  
 225 230 235 240  
 Val Leu Ser Phe Ile Asp Phe Phe Ser Thr Ser Ile Gln Arg Val Ala  
 245 250 255  
 Ile Ser Thr Val Val Asn Ile Cys Lys Gln Leu Ser Ser Glu Ser Pro  
 260 265 270  
 Ser Pro Phe Met Asp Ala Val Pro Ile Leu Cys Thr Leu Leu Gln Tyr  
 275 280 285

047-E2F-PCT.ST25.txt

Glu Asp Arg Gln Leu Val Glu Asn Val Ala Ile Cys Leu Thr Lys Ile  
 290 295 300  
 Ala Asp Gln Ala Ser Glu Ser Pro Ala Met Leu Asp Gln Leu Cys Arg  
 305 310 315 320  
 His Gly Leu Ile Asn Glu Ser Thr His Leu Leu Asn Leu Asn Ser Arg  
 325 330 335  
 Thr Thr Leu Ser Gln Pro Val Tyr Asn Gly Val Ile Gly Met Leu Arg  
 340 345 350  
 Lys Leu Ser Ser Gly Ser Ala Leu Ala Phe Arg Thr Leu Tyr Glu Leu  
 355 360 365  
 Asn Ile Gly Tyr Ser Leu Lys Glu Ile Met Ser Thr Tyr Asp Ile Ser  
 370 375 380  
 His Ser Val Ser Ser Thr His Pro Ile Asn Ala Cys Ser Asn Gln Val  
 385 390 395 400  
 His Glu Val Leu Lys Leu Val Ile Glu Leu Leu Pro Ala Ser Pro Val  
 405 410 415  
 Glu Asp Asn Gln Leu Ala Ser Glu Lys Glu Ser Phe Leu Val Asn Gln  
 420 425 430  
 Pro Asp Leu Leu Gln Gln Phe Gly Arg Asp Met Leu Pro Val Met Ile  
 435 440 445  
 Gln Val Leu Asn Ser Gly Ala Asn Val Tyr Val Ser Tyr Gly Cys Leu  
 450 455 460  
 Ser Ala Ile His Lys Leu Thr Cys Leu Ser Lys Ser Gly Asp Ile Val  
 465 470 475 480  
 Glu Leu Leu Lys Asn Thr Asn Met Ser Ser Val Leu Ala Gly Ile Leu  
 485 490 495  
 Ser Arg Lys Asp His His Val Ile Val Val Ala Leu Gln Val Ala Glu  
 500 505 510  
 Val Leu Leu Glu Lys Tyr Arg Asp Thr Phe Leu Asn Ser Phe Ile Lys  
 515 520 525  
 Glu Gly Val Phe Phe Ala Ile Glu Ala Leu Leu Ser Ser Asp Arg Gly

530

535

Gln Gln Asn Gln Gly Ser Ala Asp Leu Ser Gln Lys Pro Val Thr Lys  
545 550 555 560

Glu Ile Val Lys Cys Leu Cys Gln Ser Phe Glu Arg Ser Leu Ser Ser  
565 570 575

Ser Ser Gln Thr Cys Lys Ile Glu Lys Asp Ser Val Tyr Val Leu Ala  
580 585 590

Thr Arg Ile Lys Glu Gly Phe Phe Gly Pro Glu Val Phe Asn Ser Glu  
595 600 605

Lys Gly Leu Thr Asp Val Leu Gln Asn Leu Lys Asn Leu Ser Val Ala  
610 615 620

Leu Ser Glu Leu Met Thr Val Pro Ile Asp Ala His Val Leu His Asp  
625 630 635 640

Glu Lys Phe Phe Ser Ile Trp Asn Gln Ile Met Glu Arg Leu Asn Gly  
645 650 655

Arg Glu Ser Val Ser Thr Phe Glu Phe Ile Glu Ser Gly Val Val Lys  
660 665 670

Ser Leu Ala Ser Tyr Leu Ser Asn Gly Leu Tyr Gln Arg Lys Leu Ser  
675 680 685

Lys Gly Gly Pro Glu Cys Asp Ser Leu Pro Phe Ile Gly Lys Arg Phe  
690 695 700

Glu Val Phe Thr Arg Leu Leu Trp Ser Asp Gly Glu Ala Thr Ser Ser  
705 710 715 720

Leu Leu Ile Gln Lys Leu Gln Asn Ser Leu Ser Ser Leu Glu Asn Phe  
725 730 735

Pro Ile Val Leu Ser Gln Phe Leu Lys Gln Lys Asn Ser Phe Ala Ala  
740 745 750

Ile Pro Asn Gly Arg Cys Thr Ser Tyr Pro Cys Leu Lys Val Arg Phe  
755 760 765

Leu Lys Ala Glu Gly Glu Thr Ser Leu Arg Asp Tyr Ser Gln Asp Phe  
770 775 780



Val Thr Val Asp Pro Leu Cys Tyr Leu Asp Ala Val Asp Gln Tyr Leu  
785 790 795 800

Trp Pro Lys Val Asn Ile Glu Pro Ile Asp Ser Val Glu Ala Lys Asp  
805 810 815

Gln Ala Ile Glu Cys Gln Ser Ser Gln Leu Gln Ser Thr Ser Ile Ser  
820 825 830

Cys Gln Ala Glu Ser Ser Ser Pro Met Glu Ile Asp Ser Glu Ser Ser  
835 840 845

Asp Ala Ser Gln Leu Gln Gly Ser Gln Val Glu Asp Gln Thr Gln Leu  
850 855 860

Pro Gly Gln Gln Asn Ala Ser Ser Ser Glu Thr Ser Ser Glu Lys Glu  
865 870 875 880

Asp Ala Val Pro Arg Leu Leu Phe Arg Leu Glu Gly Leu Glu Leu Asp  
885 890 895

Arg Ser Leu Thr Val Tyr Gln Ala Ile Leu Leu His Lys Leu Lys Ser  
900 905 910

Glu Ser Glu Ala Thr Asn Asp Ser Lys Leu Ser Gly Pro His Asn Ile  
915 920 925

Thr Tyr Glu Arg Ser Ala Gln Leu Gly Asp Ser Arg Glu Asn Leu Phe  
930 935 940

Pro Pro Gly Ser Met Glu Asp Asp Glu Tyr Arg Pro Phe Leu Ser Tyr  
945 950 955 960

Leu Phe Thr His Arg Leu Ala Leu Arg Leu Lys Gly Ser Ser His Pro  
965 970 975

Pro Tyr Asp Ile Leu Phe Leu Leu Lys Ser Leu Glu Gly Met Asn Arg  
980 985 990

Phe Leu Phe His Leu Ile Ser Leu Glu Arg Ile Asn Ala Phe Gly Glu  
995 1000 1005

Gly Arg Leu Glu Asn Leu Asp Asp Leu Arg Val Gln Val Arg Pro  
1010 1015 1020

Val Pro His Ser Glu Phe Val Ser Ser Lys Leu Thr Glu Lys Leu  
1025 1030 1035

047-E2F-PCT.ST25.txt

Glu	Gln	Gln	Leu	Arg	Asp	Ser	Phe	Ala	Val	Ser	Thr	Cys	Gly	Leu
	1040					1045					1050			
Pro	Pro	Trp	Phe	Asn	Asp	Leu	Met	Asp	Ser	Cys	Pro	Cys	Leu	Phe
	1055					1060					1065			
Ser	Phe	Glu	Ala	Lys	Ser	Lys	Tyr	Phe	Arg	Leu	Ala	Ala	Phe	Gly
	1070					1075					1080			
Ser	Gln	Lys	Ile	Arg	His	His	Pro	Gln	His	Leu	Ser	Ser	Ser	Asn
	1085					1090					1095			
Val	His	Gly	Glu	Ala	Arg	Pro	Val	Thr	Gly	Ser	Leu	Pro	Arg	Lys
	1100					1105					1110			
Lys	Phe	Leu	Ala	Cys	Arg	Glu	Asn	Ile	Leu	Glu	Ser	Ala	Ala	Lys
	1115					1120					1125			
Met	Met	Glu	Leu	Tyr	Gly	Asn	Gln	Lys	Val	Val	Ile	Glu	Val	Glu
	1130					1135					1140			
Tyr	Ser	Glu	Glu	Val	Gly	Thr	Gly	Leu	Gly	Pro	Thr	Leu	Glu	Phe
	1145					1150					1155			
Tyr	Thr	Leu	Val	Ser	Arg	Ala	Phe	Gln	Asn	Pro	Asp	Leu	Gly	Met
	1160					1165					1170			
Trp	Arg	Asn	Asp	Cys	Ser	Phe	Ile	Val	Gly	Lys	Pro	Val	Glu	His
	1175					1180					1185			
Ser	Gly	Val	Leu	Ala	Ser	Ser	Ser	Gly	Leu	Phe	Pro	Arg	Pro	Trp
	1190					1195					1200			
Ser	Gly	Thr	Ser	Thr	Thr	Ser	Asp	Val	Leu	Gln	Lys	Phe	Val	Leu
	1205					1210					1215			
Leu	Gly	Thr	Val	Val	Ala	Lys	Ala	Leu	Gln	Asp	Gly	Arg	Val	Leu
	1220					1225					1230			
Asp	Leu	Pro	Leu	Ser	Lys	Ala	Phe	Tyr	Lys	Leu	Ile	Leu	Gly	Gln
	1235					1240					1245			
Glu	Leu	Ser	Ser	Phe	Asp	Ile	His	Phe	Val	Asp	Pro	Glu	Leu	Cys
	1250					1255					1260			
Lys	Thr	Leu	Val	Glu	Leu	Gln	Ala	Leu	Val	Arg	Arg	Lys	Lys	Leu
	1265					1270					1275			

## 047-E2F-PCT.ST25.txt

Phe Ala Glu Ala His Gly Asp Ser Gly Ala Ala Lys Cys Asp Leu  
 1280 1285 1290  
 Ser Phe His Gly Thr Lys Ile Glu Asp Leu Cys Leu Glu Phe Ala  
 1295 1300 1305  
 Leu Pro Gly Tyr Thr Asp Tyr Asp Leu Ala Pro Tyr Ser Ala Asn  
 1310 1315 1320  
 Asp Met Val Asn Leu Asp Asn Leu Glu Glu Tyr Ile Lys Gly Ile  
 1325 1330 1335  
 Val Asn Ala Thr Val Cys Asn Gly Ile Gln Lys Gln Val Glu Ala  
 1340 1345 1350  
 Phe Arg Ser Gly Phe Asn Gln Val Phe Ser Ile Glu His Leu Arg  
 1355 1360 1365  
 Ile Phe Asn Glu Glu Glu Leu Glu Thr Met Leu Cys Gly Glu Cys  
 1370 1375 1380  
 Asp Leu Phe Ser Met Asn Glu Val Leu Asp His Ile Lys Phe Asp  
 1385 1390 1395  
 His Gly Tyr Thr Ser Ser Ser Pro Pro Val Glu Tyr Leu Leu Gln  
 1400 1405 1410  
 Ile Leu His Glu Phe Asp Arg Glu Gln Gln Arg Ala Phe Leu Gln  
 1415 1420 1425  
 Phe Val Thr Gly Ser Pro Arg Leu Pro His Gly Gly Leu Ala Ser  
 1430 1435 1440  
 Leu Ser Pro Lys Leu Thr Ile Val Arg Lys His Gly Ser Asp Ser  
 1445 1450 1455  
 Ser Asp Thr Asp Leu Pro Ser Val Met Thr Cys Ala Asn Tyr Leu  
 1460 1465 1470  
 Lys Leu Pro Pro Tyr Ser Ser Lys Glu Lys Met Lys Glu Lys Leu  
 1475 1480 1485  
 Ile Tyr Ala Ile Thr Glu Gly Gln Gly Ser Phe His Leu Ser  
 1490 1495 1500

&lt;210&gt; 709

&lt;211&gt; 6627

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 709

```

atgtcggcag cttcttctag ctccgttctt cacctccgaa ccaaccaaca actgttatca      60
ctccgatctc tcaaaaattc cacctccggt gcttctcaat tggccgttac gtctggtggt      120
agccgtagaa gatcgtgtac ggcgcgatgc tctgtgaaga aaccggtgat tcctgagagt      180
cctttcctag ggactcgtgt gcggagatcc ggatccgaga cgcttcagtt ctggagatca      240
gatggtcctg gacggctctgc gaagcttcga acggtggtta aatcgtcatt ttccgctggt      300
ccggagaagc ctcttgggtct ttatgatcct tcctatgata aagactcttg tgggtgttgg      360
tttgtagcag agttgtccgg cgagaccacc cgaaaacgg tgactgattc gttggagatg      420
ttgatacgga tgactcatag aggtgcttgt ggttgtgaga gcaacactgg tgacggcgct      480
gggattcttg ttggtctgcc tcatgatttc tatgcagagg ctgcgacaga gcttggcttt      540
gtacttcctt ctgctggaaa ttatgctggt ggtatgttct tcttgccaac tgttgaaagc      600
aggagagaag aaagcaagaa tgttttcact aagggttgctg aatcacttgg ccactcgggt      660
cttggatgga gattagtgcc taccgataat tctggactgg gaaactccgc tttgcagact      720
gaaccgatta ttgcgcaagt tttccttact cctacaacta aatctaaagc tgactttgag      780
caacagatgt atatccttag aagggtttct atggttgcta ttcgagctgc gttgaacctt      840
caacatggtg cgatgaagga cttctacatc tgttcgttgt cttctaggac tatcgtctac      900
aaaggacaat tgaagcctga tcaactaaag gactattact atgcggatct tgggagtga      960
aggtttacga gctacatggc cctggttcat tctcggttct ctaccaatac atttcccagc     1020
tgggatcgtg ctgagccgat gcgtgttttg ggccacaatg gggagatcaa tacactcagg     1080
ggaaacgtga actggatgag ggcacgtgag ggtctgctca agtgcaatga acttggatta     1140
tcaaagaaag agttgaagaa gcttctacct attgtggacg ttagctcttc tgactcaggt     1200
gcttttgatg gtgttcttga gcttcttgct cgagctggta gaagtcttcc tgaagctggt     1260
atgatgatga tccctgaagc atggcaaaat gacaaaaaca ttgatccaag caggaaagag     1320
ttttatgaat acttatctgc tctaattggag ccatgggatg gacctgccct catatcattc     1380
actgatggtc gctacttggg tgccacattg gaccgtaatg gacttcgtcc tggtaggttc     1440
tacataaccc acagtggaag ggttatcatg gctagtgaag ttggggtagt ggatgtacca     1500
cctgaagatg tgatgaggaa aggaagactt aaccgggta tgatgcttct tgtcgatttt     1560
gagaagcata ttgttggtga tgacgatgcc ttgaagcagc agtattcact ggcaaggcct     1620

```

## 047-E2F-PCT.ST25.txt

tatggtgagt	ggcttaaaag	gcaaaagatt	gaacttaaag	acatcattga	gtcagttccg	1680
gaggctgaac	ggattgctcc	ttcaattttct	ggggttgtac	cggcctctaa	tgatgatgac	1740
tcaatggaga	gcatgggcat	tcatggttta	ttgtctccac	taaaagcctt	tggctacaca	1800
gttgaggcct	tggagatggt	gctgcttccg	atggctaaag	atggctctga	agcacttggt	1860
tctatgggaa	atgatacccc	tctagctgta	atgtcaaaca	gagaaaaatt	atgctttgag	1920
tacttcaagc	aaatgtttgc	tcaagtaaca	aatcctccaa	ttgatcctat	tcgtgagaaa	1980
attgttacat	caatggagtg	catgatcggg	ccagaaggcg	atctaaccga	aacaactgaa	2040
gagcaatgtc	accgtctctc	cctaaaagggt	cctcttttga	aaatcgaaga	gatggaagcc	2100
atcaagaaaa	tgaactacag	aggctggcgg	actaaagttc	tggatataac	ttatgcaaaa	2160
gaaagaggta	caaaaggggt	agaggagact	ttggaccgaa	tttgtgatga	agcaaatgaa	2220
gcaataaagg	agggctacac	attactgggt	ttgtctgatc	gagctttctc	tgcaacacgt	2280
gttgctgtga	gctccctcat	ggctgttggt	gccgttcata	accacctggt	taagacactt	2340
gcgcgcaccc	aagttgggtt	ggtagtggaa	tctgctgaac	cacgtgaagt	gcatcatttc	2400
tgacacactg	tcggatttgg	agcagatgct	atctgccccat	atttggtgtg	agaggccggt	2460
tatagattac	aggttgatgg	caaaatacca	cccaaatacta	atggggaatt	ccattccaaa	2520
gaagagttgg	tcaagaagta	ttacaaggca	agtaactatg	gaatgatgaa	ggttcttgcc	2580
aaaatgggaa	tttctactct	agcctcatac	aaagggtgctc	agatatttga	agctcttggg	2640
ctttcatctg	aagtaattca	gaaatgtttt	gccggtaccc	caagccgagt	ggaaggagca	2700
acatttgaga	tgcttgacag	agatggactt	caattgcatg	agttggcctt	tccaaccctg	2760
ggctatgccc	caggaagtgc	agaagcttca	gcacttacca	accctggaaa	ctatcactgg	2820
aggaaaaatg	gagagattca	tctcaacgat	cctcttgcaa	tagccaaatt	acaagaggca	2880
gcacggacca	acagtgtggc	cgcctacaag	gaataactcaa	agcgtatcaa	tgaattgaac	2940
aagcaaagta	atttgcgtgg	gctcatgaag	tttaaagacg	cagatgtgaa	aattccacta	3000
gatgaagtcg	agcctgccag	tgaattgttt	aagcggttct	gcactggtgc	catgagttat	3060
ggatcaattt	ctctggaggc	gcatacaacc	cttgcaatgg	ccatgaacaa	gcttggagga	3120
aagtcgaata	caggtgaggg	aggggaactg	ccatcccgtg	tggagcctct	tgcggtatgg	3180
tcaaggaacc	ccaaaagaag	ttcgatcaaa	caaattgcta	gtggaagatt	tggagtttct	3240
agctactatc	ttacaaatgc	tgatgagctg	cagataaaga	tggctcaggg	tgccaaacct	3300
ggggaagggtg	gggagctacc	aggccacaag	gtcataggag	acattgctat	aaccagaaat	3360
tccactgctg	gtgtaggact	tatcagtcca	cctcctcatc	atgatatacta	ctctatcgag	3420
gatcttgccc	agctaattca	cgatcttaag	aatgccaatc	ctggcgcacg	tattagtgtt	3480

aagcttgtat	ctgaagctgg	tgttggagtt	attgctagcg	gtgtggtgaa	ggggcatgct	3540
gaccatgttc	tgatagcagg	tcatgatgga	ggtactggtg	catctcgctg	gaccggtatt	3600
aaaaatgctg	gtcttccatg	ggaactgggt	ctagctgaga	cacaccaaac	tcttggtgcc	3660
aatgaccttc	gtggccgtac	tgttcttcag	acagatggcc	agctaaaaac	tggcagagac	3720
gttgcagttg	ctgcacttct	tggtgcagaa	gaatttggtt	ttagtactgc	accccttatt	3780
acactagggg	gtatcatgat	gagaaagtgc	cacaagaaca	cctgccctgt	gggaattgct	3840
accaagatc	cagttctccg	tgaaaaat	gctggggagc	ctgaacatgt	tattaacttc	3900
ttctttatgc	ttgctgagga	agttagggag	atcatgtctg	gacttggttt	tagaactgta	3960
actgagatga	ttggtcgtgc	ggatatgctt	gaacttgata	gggaagttgt	caagaacaac	4020
gataagctgg	agaacattga	cctatctctt	ttgctcagac	ctgctgctga	gattcgtcct	4080
ggggctgctc	agtactgtgt	tcagaaacaa	gatcatgggt	tagacatggc	tttgatcaa	4140
gagctgattg	cattgtctaa	atctgctctg	gagaaatctc	ttccggtgta	cattgaaact	4200
cctatctgca	acgttaaccg	tgctgttggg	acaatgctga	gccatgaggt	aaccaaactg	4260
taccacttga	ctgggcttcc	aaaggacaca	attcatatca	agttcacagg	aagtgctggg	4320
cagagtcttg	gagctttctt	gtgtcctgga	attatgctag	aacttgaagg	agatagcaat	4380
gactatgttg	gaaaagggct	ctctggaggt	aaagtgtgtg	tttaccctcc	aaaaggaagc	4440
agctttgatc	caaaagaaaa	tatcgttatt	ggtaatgtag	cactttacgg	tgccactagt	4500
ggtgaagcat	acttcaatgg	gatggctgct	gaaagggtct	ctgttcgtaa	ttctggtgct	4560
aaagctgttg	tggaaggtct	tggtgatcat	ggttgtgagt	acatgactgg	tggtactgtt	4620
gtggtgcttg	gaaagactgg	tagaaacttt	gctgctggta	tgagtgggtg	tattgcttat	4680
gtccttgatg	tggacggaaa	gtttaacacc	agatgcaacc	ttgaactggt	tgatttggtg	4740
aaagttgaag	atgaggagga	caaatgacg	ctcaaatga	tgatccagca	acatcaaaga	4800
cacaccaaca	gccaacttgc	tcaagaagtt	cttgcagact	ttgagaat	gctgccaag	4860
tttatcaagg	ttttccaag	agattacaaa	cgtgttttat	cagccatgaa	acacgaagag	4920
gtctccaagc	aagcaatcga	gcgggcttct	gaggaagctg	acgagactga	agagaaagaa	4980
ctcgaggaga	aagatgcatt	tgcaagaactg	aagaacatgg	cagctgcttc	gtcaaaagag	5040
gagatgtcag	gaaacggagt	ggcagctgaa	gctagacctt	ctaaggtaga	taatgctgtt	5100
aaaaacggtg	gtttcattgc	ttatgagcgt	gagggagtta	agtacaggga	tcccaatgtt	5160
cgtcttaatg	actggaacga	agtcatggag	gaatcaaaac	ctggaccact	ccttacaact	5220
cagtcagctc	gttgcattga	ttgtggaact	ccattctgcc	accaggagaa	ctctgggtgt	5280
cctctcggtg	ataagatccc	tgaattcaat	gaacttgtct	accagaacag	atggcaagaa	5340
gccttgaatc	gtctacttga	gacaaacaac	tttcagaat	ttactgggcg	agtatgccct	5400

047-E2F-PCT.ST25.txt

```
gcaccatgtg aaggttcttg tgttcttgga ataattgaga accctgtttc tatcaaaagc 5460
attgaatgtg ctattatcga taaagccttt gaggaagggt ggatggtacc aaggcctcct 5520
ctcaagagaa cagggaaaaa ggttgctatt atcggaagtg gaccggctgg gttagctgcg 5580
gctgaccagc tgaacaaaat gggccattta gtaaccgtgt atgagcgctc ggacagaatt 5640
gggtgggctga tgatgtatgg agtaccaaac atgaagactg acaaaattga cgtcgttcaa 5700
cggcggggttg atcttatgac caaagaaggt atcaactttg tggatcaatgc caatattgga 5760
aaggacccat cttactccct tgatggactt aaggaagaga atgatgcaat cgttcttgct 5820
gttggttcca caaaaccaag agatcttcca gtgcctgggtc gtgatctatc tgggtgttcac 5880
tttgccatgg agtttcttca tgcaaacacc aaaagttttac ttgacagcaa tcatgaggat 5940
ggcaattaca tttctgcaaa agggaaaaag gttgttggtta ttggtggagg tgataccggc 6000
acagattgca tcggaacatc tatccgccat ggatgtacca acattgtaaa cctagaactt 6060
cttcctcagc caccctcaac aagagctcct ggaaaccctt ggccacagtg gcctcgtgta 6120
ttccgtattg actacggaca tcaagaagct accaccaa at tcggaaaaga ccctaggacc 6180
tatgaggtct taacgaagag gttcatagga gatgacaatg gaaacgtgaa ggggcttgaa 6240
cttgtgcgtg tgagttggga gaaggatgaa accgggaggt tccagttcaa ggagatcgaa 6300
ggctctgagg aaatcattga agcagacctc gttttcttg ccatgggttt ccttggaact 6360
gagccaacac ttgctgagaa gctaggtctc gaatgtgaca acaggtcaaa ctttaaggcc 6420
gagtatggcc ggttttccac aaccgtggaa ggtgttttcg cagcaggtga ttgtcggaga 6480
ggccagtctt tggttgtctg ggctatctca gaaggacgtc aagctgcaga tcaggtagac 6540
aaattcctca ccaaaacgga tgatgacgaa gacgccaagc tacaacaaga ccttaaccag 6600
atgaaacaca acactatcac aaactga 6627
```

<210> 710

<211> 2208

<212> PRT

<213> Arabidopsis thaliana

<400> 710

Met Ser Ala Ala Ser Ser Ser Ser Val Leu His Leu Arg Thr Asn Gln  
1 5 10 15

Gln Leu Leu Ser Leu Arg Ser Leu Lys Asn Ser Thr Ser Val Ala Ser  
20 25 30

047-E2F-PCT.ST25.txt

Gln Leu Ala Val Thr Ser Gly Val Ser Arg Arg Arg Ser Cys Thr Ala  
35 40 45

Arg Cys Ser Val Lys Lys Pro Val Ile Pro Glu Ser Pro Phe Leu Gly  
50 55 60

Thr Arg Val Arg Arg Ser Gly Ser Glu Thr Leu Gln Phe Trp Arg Ser  
65 70 75 80

Asp Gly Pro Gly Arg Ser Ala Lys Leu Arg Thr Val Val Lys Ser Ser  
85 90 95

Phe Ser Ala Val Pro Glu Lys Pro Leu Gly Leu Tyr Asp Pro Ser Tyr  
100 105 110

Asp Lys Asp Ser Cys Gly Val Gly Phe Val Ala Glu Leu Ser Gly Glu  
115 120 125

Thr Thr Arg Lys Thr Val Thr Asp Ser Leu Glu Met Leu Ile Arg Met  
130 135 140

Thr His Arg Gly Ala Cys Gly Cys Glu Ser Asn Thr Gly Asp Gly Ala  
145 150 155 160

Gly Ile Leu Val Gly Leu Pro His Asp Phe Tyr Ala Glu Ala Ala Thr  
165 170 175

Glu Leu Gly Phe Val Leu Pro Ser Ala Gly Asn Tyr Ala Val Gly Met  
180 185 190

Phe Phe Leu Pro Thr Val Glu Ser Arg Arg Glu Glu Ser Lys Asn Val  
195 200 205

Phe Thr Lys Val Ala Glu Ser Leu Gly His Ser Val Leu Gly Trp Arg  
210 215 220

Leu Val Pro Thr Asp Asn Ser Gly Leu Gly Asn Ser Ala Leu Gln Thr  
225 230 235 240

Glu Pro Ile Ile Ala Gln Val Phe Leu Thr Pro Thr Thr Lys Ser Lys  
245 250 255

Ala Asp Phe Glu Gln Gln Met Tyr Ile Leu Arg Arg Val Ser Met Val  
260 265 270

Ala Ile Arg Ala Ala Leu Asn Leu Gln His Gly Ala Met Lys Asp Phe  
275 280 285



047-E2F-PCT.ST25.txt

Tyr Ile Cys Ser Leu Ser Ser Arg Thr Ile Val Tyr Lys Gly Gln Leu  
 290 295 300  
 Lys Pro Asp Gln Leu Lys Asp Tyr Tyr Tyr Ala Asp Leu Gly Ser Glu  
 305 310 315 320  
 Arg Phe Thr Ser Tyr Met Ala Leu Val His Ser Arg Phe Ser Thr Asn  
 325 330 335  
 Thr Phe Pro Ser Trp Asp Arg Ala Gln Pro Met Arg Val Leu Gly His  
 340 345 350  
 Asn Gly Glu Ile Asn Thr Leu Arg Gly Asn Val Asn Trp Met Arg Ala  
 355 360 365  
 Arg Glu Gly Leu Leu Lys Cys Asn Glu Leu Gly Leu Ser Lys Lys Glu  
 370 375 380  
 Leu Lys Lys Leu Leu Pro Ile Val Asp Val Ser Ser Ser Asp Ser Gly  
 385 390 395 400  
 Ala Phe Asp Gly Val Leu Glu Leu Leu Val Arg Ala Gly Arg Ser Leu  
 405 410 415  
 Pro Glu Ala Val Met Met Met Ile Pro Glu Ala Trp Gln Asn Asp Lys  
 420 425 430  
 Asn Ile Asp Pro Ser Arg Lys Glu Phe Tyr Glu Tyr Leu Ser Ala Leu  
 435 440 445  
 Met Glu Pro Trp Asp Gly Pro Ala Leu Ile Ser Phe Thr Asp Gly Arg  
 450 455 460  
 Tyr Leu Gly Ala Thr Leu Asp Arg Asn Gly Leu Arg Pro Gly Arg Phe  
 465 470 475 480  
 Tyr Ile Thr His Ser Gly Arg Val Ile Met Ala Ser Glu Val Gly Val  
 485 490 495  
 Val Asp Val Pro Pro Glu Asp Val Met Arg Lys Gly Arg Leu Asn Pro  
 500 505 510  
 Gly Met Met Leu Leu Val Asp Phe Glu Lys His Ile Val Val Asp Asp  
 515 520 525  
 Asp Ala Leu Lys Gln Gln Tyr Ser Leu Ala Arg Pro Tyr Gly Glu Trp

530

535

Leu Lys Arg Gln Lys Ile Glu Leu Lys Asp Ile Ile Glu Ser Val Pro  
545 550 555 560

Glu Ala Glu Arg Ile Ala Pro Ser Ile Ser Gly Val Val Pro Ala Ser  
565 570 575

Asn Asp Asp Asp Ser Met Glu Ser Met Gly Ile His Gly Leu Leu Ser  
580 585 590

Pro Leu Lys Ala Phe Gly Tyr Thr Val Glu Ala Leu Glu Met Leu Leu  
595 600 605

Leu Pro Met Ala Lys Asp Gly Ser Glu Ala Leu Gly Ser Met Gly Asn  
610 615 620

Asp Thr Pro Leu Ala Val Met Ser Asn Arg Glu Lys Leu Cys Phe Glu  
625 630 635 640

Tyr Phe Lys Gln Met Phe Ala Gln Val Thr Asn Pro Pro Ile Asp Pro  
645 650 655

Ile Arg Glu Lys Ile Val Thr Ser Met Glu Cys Met Ile Gly Pro Glu  
660 665 670

Gly Asp Leu Thr Glu Thr Thr Glu Glu Gln Cys His Arg Leu Ser Leu  
675 680 685

Lys Gly Pro Leu Leu Lys Ile Glu Glu Met Glu Ala Ile Lys Lys Met  
690 695 700

Asn Tyr Arg Gly Trp Arg Thr Lys Val Leu Asp Ile Thr Tyr Ala Lys  
705 710 715 720

Glu Arg Gly Thr Lys Gly Leu Glu Glu Thr Leu Asp Arg Ile Cys Asp  
725 730 735

Glu Ala Asn Glu Ala Ile Lys Glu Gly Tyr Thr Leu Leu Val Leu Ser  
740 745 750

Asp Arg Ala Phe Ser Ala Thr Arg Val Ala Val Ser Ser Leu Met Ala  
755 760 765

Val Gly Ala Val His His His Leu Val Lys Thr Leu Ala Arg Thr Gln  
770 775 780

Val Gly Leu Val Val Glu Ser Ala Glu Pro Arg Glu Val His His Phe  
785 790 795 800

Cys Thr Leu Val Gly Phe Gly Ala Asp Ala Ile Cys Pro Tyr Leu Ala  
805 810 815

Val Glu Ala Val Tyr Arg Leu Gln Val Asp Gly Lys Ile Pro Pro Lys  
820 825 830

Ser Asn Gly Glu Phe His Ser Lys Glu Glu Leu Val Lys Lys Tyr Tyr  
835 840 845

Lys Ala Ser Asn Tyr Gly Met Met Lys Val Leu Ala Lys Met Gly Ile  
850 855 860

Ser Thr Leu Ala Ser Tyr Lys Gly Ala Gln Ile Phe Glu Ala Leu Gly  
865 870 875 880

Leu Ser Ser Glu Val Ile Gln Lys Cys Phe Ala Gly Thr Pro Ser Arg  
885 890 895

Val Glu Gly Ala Thr Phe Glu Met Leu Ala Arg Asp Gly Leu Gln Leu  
900 905 910

His Glu Leu Ala Phe Pro Thr Arg Gly Tyr Ala Pro Gly Ser Ala Glu  
915 920 925

Ala Ser Ala Leu Thr Asn Pro Gly Asn Tyr His Trp Arg Lys Asn Gly  
930 935 940

Glu Ile His Leu Asn Asp Pro Leu Ala Ile Ala Lys Leu Gln Glu Ala  
945 950 955 960

Ala Arg Thr Asn Ser Val Ala Ala Tyr Lys Glu Tyr Ser Lys Arg Ile  
965 970 975

Asn Glu Leu Asn Lys Gln Ser Asn Leu Arg Gly Leu Met Lys Phe Lys  
980 985 990

Asp Ala Asp Val Lys Ile Pro Leu Asp Glu Val Glu Pro Ala Ser Glu  
995 1000 1005

Ile Val Lys Arg Phe Cys Thr Gly Ala Met Ser Tyr Gly Ser Ile  
1010 1015 1020

Ser Leu Glu Ala His Thr Thr Leu Ala Met Ala Met Asn Lys Leu  
1025 1030 1035

## 047-E2F-PCT.ST25.txt

Gly	Gly	Lys	Ser	Asn	Thr	Gly	Glu	Gly	Gly	Glu	Leu	Pro	Ser	Arg
	1040					1045					1050			
Met	Glu	Pro	Leu	Ala	Asp	Gly	Ser	Arg	Asn	Pro	Lys	Arg	Ser	Ser
	1055					1060					1065			
Ile	Lys	Gln	Ile	Ala	Ser	Gly	Arg	Phe	Gly	Val	Ser	Ser	Tyr	Tyr
	1070					1075					1080			
Leu	Thr	Asn	Ala	Asp	Glu	Leu	Gln	Ile	Lys	Met	Ala	Gln	Gly	Ala
	1085					1090					1095			
Lys	Pro	Gly	Glu	Gly	Gly	Glu	Leu	Pro	Gly	His	Lys	Val	Ile	Gly
	1100					1105					1110			
Asp	Ile	Ala	Ile	Thr	Arg	Asn	Ser	Thr	Ala	Gly	Val	Gly	Leu	Ile
	1115					1120					1125			
Ser	Pro	Pro	Pro	His	His	Asp	Ile	Tyr	Ser	Ile	Glu	Asp	Leu	Ala
	1130					1135					1140			
Gln	Leu	Ile	His	Asp	Leu	Lys	Asn	Ala	Asn	Pro	Gly	Ala	Arg	Ile
	1145					1150					1155			
Ser	Val	Lys	Leu	Val	Ser	Glu	Ala	Gly	Val	Gly	Val	Ile	Ala	Ser
	1160					1165					1170			
Gly	Val	Val	Lys	Gly	His	Ala	Asp	His	Val	Leu	Ile	Ala	Gly	His
	1175					1180					1185			
Asp	Gly	Gly	Thr	Gly	Ala	Ser	Arg	Trp	Thr	Gly	Ile	Lys	Asn	Ala
	1190					1195					1200			
Gly	Leu	Pro	Trp	Glu	Leu	Gly	Leu	Ala	Glu	Thr	His	Gln	Thr	Leu
	1205					1210					1215			
Val	Ala	Asn	Asp	Leu	Arg	Gly	Arg	Thr	Val	Leu	Gln	Thr	Asp	Gly
	1220					1225					1230			
Gln	Leu	Lys	Thr	Gly	Arg	Asp	Val	Ala	Val	Ala	Ala	Leu	Leu	Gly
	1235					1240					1245			
Ala	Glu	Glu	Phe	Gly	Phe	Ser	Thr	Ala	Pro	Leu	Ile	Thr	Leu	Gly
	1250					1255					1260			
Cys	Ile	Met	Met	Arg	Lys	Cys	His	Lys	Asn	Thr	Cys	Pro	Val	Gly
	1265					1270					1275			

047-E2F-PCT.ST25.txt

Ile	Ala	Thr	Gln	Asp	Pro	Val	Leu	Arg	Glu	Lys	Phe	Ala	Gly	Glu
1280						1285					1290			
Pro	Glu	His	Val	Ile	Asn	Phe	Phe	Phe	Met	Leu	Ala	Glu	Glu	Val
1295						1300					1305			
Arg	Glu	Ile	Met	Ser	Gly	Leu	Gly	Phe	Arg	Thr	Val	Thr	Glu	Met
1310						1315					1320			
Ile	Gly	Arg	Ala	Asp	Met	Leu	Glu	Leu	Asp	Arg	Glu	Val	Val	Lys
1325						1330					1335			
Asn	Asn	Asp	Lys	Leu	Glu	Asn	Ile	Asp	Leu	Ser	Leu	Leu	Leu	Arg
1340						1345					1350			
Pro	Ala	Ala	Glu	Ile	Arg	Pro	Gly	Ala	Ala	Gln	Tyr	Cys	Val	Gln
1355						1360					1365			
Lys	Gln	Asp	His	Gly	Leu	Asp	Met	Ala	Leu	Asp	Gln	Glu	Leu	Ile
1370						1375					1380			
Ala	Leu	Ser	Lys	Ser	Ala	Leu	Glu	Lys	Ser	Leu	Pro	Val	Tyr	Ile
1385						1390					1395			
Glu	Thr	Pro	Ile	Cys	Asn	Val	Asn	Arg	Ala	Val	Gly	Thr	Met	Leu
1400						1405					1410			
Ser	His	Glu	Val	Thr	Lys	Arg	Tyr	His	Leu	Thr	Gly	Leu	Pro	Lys
1415						1420					1425			
Asp	Thr	Ile	His	Ile	Lys	Phe	Thr	Gly	Ser	Ala	Gly	Gln	Ser	Leu
1430						1435					1440			
Gly	Ala	Phe	Leu	Cys	Pro	Gly	Ile	Met	Leu	Glu	Leu	Glu	Gly	Asp
1445						1450					1455			
Ser	Asn	Asp	Tyr	Val	Gly	Lys	Gly	Leu	Ser	Gly	Gly	Lys	Val	Val
1460						1465					1470			
Val	Tyr	Pro	Pro	Lys	Gly	Ser	Ser	Phe	Asp	Pro	Lys	Glu	Asn	Ile
1475						1480					1485			
Val	Ile	Gly	Asn	Val	Ala	Leu	Tyr	Gly	Ala	Thr	Ser	Gly	Glu	Ala
1490						1495					1500			
Tyr	Phe	Asn	Gly	Met	Ala	Ala	Glu	Arg	Phe	Ser	Val	Arg	Asn	Ser

Page 1136

Arg	Cys	Met	Asp	Cys	Gly	Thr	Pro	Phe	Cys	His	Gln	Glu	Asn	Ser
1745						1750					1755			
Gly	Cys	Pro	Leu	Gly	Asn	Lys	Ile	Pro	Glu	Phe	Asn	Glu	Leu	Val
1760						1765					1770			
Tyr	Gln	Asn	Arg	Trp	Gln	Glu	Ala	Leu	Asn	Arg	Leu	Leu	Glu	Thr
1775						1780					1785			
Asn	Asn	Phe	Pro	Glu	Phe	Thr	Gly	Arg	Val	Cys	Pro	Ala	Pro	Cys
1790						1795					1800			
Glu	Gly	Ser	Cys	Val	Leu	Gly	Ile	Ile	Glu	Asn	Pro	Val	Ser	Ile
1805						1810					1815			
Lys	Ser	Ile	Glu	Cys	Ala	Ile	Ile	Asp	Lys	Ala	Phe	Glu	Glu	Gly
1820						1825					1830			
Trp	Met	Val	Pro	Arg	Pro	Pro	Leu	Lys	Arg	Thr	Gly	Lys	Lys	Val
1835						1840					1845			
Ala	Ile	Ile	Gly	Ser	Gly	Pro	Ala	Gly	Leu	Ala	Ala	Ala	Asp	Gln
1850						1855					1860			
Leu	Asn	Lys	Met	Gly	His	Leu	Val	Thr	Val	Tyr	Glu	Arg	Ser	Asp
1865						1870					1875			
Arg	Ile	Gly	Gly	Leu	Met	Met	Tyr	Gly	Val	Pro	Asn	Met	Lys	Thr
1880						1885					1890			
Asp	Lys	Ile	Asp	Val	Val	Gln	Arg	Arg	Val	Asp	Leu	Met	Thr	Lys
1895						1900					1905			
Glu	Gly	Ile	Asn	Phe	Val	Val	Asn	Ala	Asn	Ile	Gly	Lys	Asp	Pro
1910						1915					1920			
Ser	Tyr	Ser	Leu	Asp	Gly	Leu	Lys	Glu	Glu	Asn	Asp	Ala	Ile	Val
1925						1930					1935			
Leu	Ala	Val	Gly	Ser	Thr	Lys	Pro	Arg	Asp	Leu	Pro	Val	Pro	Gly
1940						1945					1950			
Arg	Asp	Leu	Ser	Gly	Val	His	Phe	Ala	Met	Glu	Phe	Leu	His	Ala
1955						1960					1965			
Asn	Thr	Lys	Ser	Leu	Leu	Asp	Ser	Asn	His	Glu	Asp	Gly	Asn	Tyr
1970						1975					1980			

## 047-E2F-PCT.ST25.txt

Ile Ser Ala Lys Gly Lys Lys Val Val Val Ile Gly Gly Gly Asp  
 1985 1990 1995  
 Thr Gly Thr Asp Cys Ile Gly Thr Ser Ile Arg His Gly Cys Thr  
 2000 2005 2010  
 Asn Ile Val Asn Leu Glu Leu Leu Pro Gln Pro Pro Ser Thr Arg  
 2015 2020 2025  
 Ala Pro Gly Asn Pro Trp Pro Gln Trp Pro Arg Val Phe Arg Ile  
 2030 2035 2040  
 Asp Tyr Gly His Gln Glu Ala Thr Thr Lys Phe Gly Lys Asp Pro  
 2045 2050 2055  
 Arg Thr Tyr Glu Val Leu Thr Lys Arg Phe Ile Gly Asp Asp Asn  
 2060 2065 2070  
 Gly Asn Val Lys Gly Leu Glu Leu Val Arg Val Ser Trp Glu Lys  
 2075 2080 2085  
 Asp Glu Thr Gly Arg Phe Gln Phe Lys Glu Ile Glu Gly Ser Glu  
 2090 2095 2100  
 Glu Ile Ile Glu Ala Asp Leu Val Phe Leu Ala Met Gly Phe Leu  
 2105 2110 2115  
 Gly Pro Glu Pro Thr Leu Ala Glu Lys Leu Gly Leu Glu Cys Asp  
 2120 2125 2130  
 Asn Arg Ser Asn Phe Lys Ala Glu Tyr Gly Arg Phe Ser Thr Thr  
 2135 2140 2145  
 Val Glu Gly Val Phe Ala Ala Gly Asp Cys Arg Arg Gly Gln Ser  
 2150 2155 2160  
 Leu Val Val Trp Ala Ile Ser Glu Gly Arg Gln Ala Ala Asp Gln  
 2165 2170 2175  
 Val Asp Lys Phe Leu Thr Lys Thr Asp Asp Asp Glu Asp Ala Lys  
 2180 2185 2190  
 Leu Gln Gln Asp Leu Asn Gln Met Lys His Asn Thr Ile Thr Asn  
 2195 2200 2205

&lt;210&gt; 711



&lt;211&gt; 795

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 711

```

atgaggccag tgttcgtcgg caatttcgag tatgaaactc gccagtcgga tctggaacgg      60
ttgttcgaca agtatgggag agtcgaccga gtggacatga aatctggata tgcttttgtg      120
tactttgagg atgaacgtga tgctgaagac gctattcgca aactcgacaa ttttcctttt      180
ggatatgaga aacgcagggtt atcagttgaa tgggcaaagg gtgaacgtgg caggcctcgt      240
ggtgacgcga aagccccttc aaatctgaag cctacaaaga cactgtttgt cattaacttt      300
gaccccata gaacaaaaga gcacgacatt gaaaaaactt ttgagcccta tggtaaggtc      360
accaacgtgc gtatcagacg caacttctca tttgttcagt ttgaaacaca agaggatgct      420
acaaaagccc ttgaagctac tcaaagaagc aaaatattgg atagggttgt ttccgtggag      480
tatgcgttga aagatgacga tgaaagagat gatcgaaatg gtggtcgtag cccgagaagg      540
tctcttagtc ctgtgtatcg taggcgtcca agtccagatt atggcaggcg tccaagccct      600
ggtcagggta ggcgtccaag tccagattat ggtcgtgctc gaagcccaga atacgacaga      660
tacaaaggtc cagcagctta tgaaagacgg aggagtccag attatggacg aaggagttct      720
gattatggta gacaaaggag ccctggttat gaccgataca gaagtcgttc tccagtccca      780
agaggaagac cttga                                         795

```

&lt;210&gt; 712

&lt;211&gt; 264

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 712

```

Met Arg Pro Val Phe Val Gly Asn Phe Glu Tyr Glu Thr Arg Gln Ser
1           5           10          15

```

```

Asp Leu Glu Arg Leu Phe Asp Lys Tyr Gly Arg Val Asp Arg Val Asp
          20          25          30

```

```

Met Lys Ser Gly Tyr Ala Phe Val Tyr Phe Glu Asp Glu Arg Asp Ala
          35          40          45

```

```

Glu Asp Ala Ile Arg Lys Leu Asp Asn Phe Pro Phe Gly Tyr Glu Lys

```

50

55

Arg Arg Leu Ser Val Glu Trp Ala Lys Gly Glu Arg Gly Arg Pro Arg  
65 70 75 80

Gly Asp Ala Lys Ala Pro Ser Asn Leu Lys Pro Thr Lys Thr Leu Phe  
85 90 95

Val Ile Asn Phe Asp Pro Ile Arg Thr Lys Glu His Asp Ile Glu Lys  
100 105 110

His Phe Glu Pro Tyr Gly Lys Val Thr Asn Val Arg Ile Arg Arg Asn  
115 120 125

Phe Ser Phe Val Gln Phe Glu Thr Gln Glu Asp Ala Thr Lys Ala Leu  
130 135 140

Glu Ala Thr Gln Arg Ser Lys Ile Leu Asp Arg Val Val Ser Val Glu  
145 150 155 160

Tyr Ala Leu Lys Asp Asp Asp Glu Arg Asp Asp Arg Asn Gly Gly Arg  
165 170 175

Ser Pro Arg Arg Ser Leu Ser Pro Val Tyr Arg Arg Arg Pro Ser Pro  
180 185 190

Asp Tyr Gly Arg Arg Pro Ser Pro Gly Gln Gly Arg Arg Pro Ser Pro  
195 200 205

Asp Tyr Gly Arg Ala Arg Ser Pro Glu Tyr Asp Arg Tyr Lys Gly Pro  
210 215 220

Ala Ala Tyr Glu Arg Arg Arg Ser Pro Asp Tyr Gly Arg Arg Ser Ser  
225 230 235 240

Asp Tyr Gly Arg Gln Arg Ser Pro Gly Tyr Asp Arg Tyr Arg Ser Arg  
245 250 255

Ser Pro Val Pro Arg Gly Arg Pro  
260

<210> 713

<211> 1266

<212> DNA

<213> Arabidopsis thaliana

```

<400> 713
atggcgcctg ttaatatgac tggcgcctggt gttgcagcag cggcgttggt gatgcttact    60
tcttacagct tctttttccg tctctccgag aagaagaaga ggaaggagaa gttgactatg    120
agaaacgggc ttgttgatgc cattggcaat actcctctga ttcgtatcaa tagtctctct    180
gaggctactg gatgtgagat tcttgggaaa tgcgagtttt tgaatccagg aggtagtgtt    240
aaagatagag ttgctgtcaa gatcattcaa gaggccttgg aatctggtaa gctattccct    300
ggaggaattg taactgaggg tagtgcagga agtactgcca ttagccttgc tacagttgct    360
ccggcttatg ggtgtaaatg tcatgttggt atacctgatg atgctgctat tgaaaagtct    420
caaataattg aagcccttgg agcttctggt gagagagtga ggccagtgtc aataactcac    480
aaggatcact atgtcaacat tgcgaggcga cgggctgacg aagcaaacga gttagcatca    540
aagagaagac tagggagcga aacaaatggc atacaccagg agaaaactaa tggttgcacg    600
gttgaggaag tgaaagagcc ttccttattc tcagattcag ttaccggtgg cttctttgca    660
gatcaatttg aaaacttggc aaattatagg gctcattatg aaggtactgg ccctgaaatc    720
tggcaccaga ctgagggtaa tattgacgcc tttgttgctg ctgcggttac aggcgggact    780
ttagctggtg tttcaagggt tcttcaggat aagaatgaaa gagttaaatg ttttctgatt    840
gatcctcctg gatctggtct gtacaataaa gtaacacggg gagtgatgta cacaagagaa    900
gaagctgaag ggcgtcggct aaagaaccca tttgatacaa taacagaagg gatcgggaatc    960
aacaggctta ctaaaaactt cctgatggca aaacttgacg gtggtttttcg tgggactgat   1020
aaagaagcgg ttgagatgtc gaggtttctt ctgaagaatg atgggctctt tgttggaagc   1080
tcctcggcta tgaactgtgt tggggcagta aggggtggctc agacccttgg tcctggtcac   1140
acaattgtca ccattctttg tgatagcgga atgagacatc taagcaagtt tcacgaccct   1200
aagtacttga atttatacgg gttaagtcca accgctatcg gattagagtt cctcggcata   1260
aagtga                                           1266

```

<210> 714

<211> 421

<212> PRT

<213> *Arabidopsis thaliana*

<400> 714

```

Met Ala Pro Val Asn Met Thr Gly Ala Val Val Ala Ala Ala Ala Leu
1           5           10           15

```

047-E2F-PCT.ST25.txt

Leu Met Leu Thr Ser Tyr Ser Phe Phe Phe Arg Leu Ser Glu Lys Lys  
 20 25 30  
 Lys Arg Lys Glu Lys Leu Thr Met Arg Asn Gly Leu Val Asp Ala Ile  
 35 40 45  
 Gly Asn Thr Pro Leu Ile Arg Ile Asn Ser Leu Ser Glu Ala Thr Gly  
 50 55 60  
 Cys Glu Ile Leu Gly Lys Cys Glu Phe Leu Asn Pro Gly Gly Ser Val  
 65 70 75 80  
 Lys Asp Arg Val Ala Val Lys Ile Ile Gln Glu Ala Leu Glu Ser Gly  
 85 90 95  
 Lys Leu Phe Pro Gly Gly Ile Val Thr Glu Gly Ser Ala Gly Ser Thr  
 100 105 110  
 Ala Ile Ser Leu Ala Thr Val Ala Pro Ala Tyr Gly Cys Lys Cys His  
 115 120 125  
 Val Val Ile Pro Asp Asp Ala Ala Ile Glu Lys Ser Gln Ile Ile Glu  
 130 135 140  
 Ala Leu Gly Ala Ser Val Glu Arg Val Arg Pro Val Ser Ile Thr His  
 145 150 155 160  
 Lys Asp His Tyr Val Asn Ile Ala Arg Arg Arg Ala Asp Glu Ala Asn  
 165 170 175  
 Glu Leu Ala Ser Lys Arg Arg Leu Gly Ser Glu Thr Asn Gly Ile His  
 180 185 190  
 Gln Glu Lys Thr Asn Gly Cys Thr Val Glu Glu Val Lys Glu Pro Ser  
 195 200 205  
 Leu Phe Ser Asp Ser Val Thr Gly Gly Phe Phe Ala Asp Gln Phe Glu  
 210 215 220  
 Asn Leu Ala Asn Tyr Arg Ala His Tyr Glu Gly Thr Gly Pro Glu Ile  
 225 230 235 240  
 Trp His Gln Thr Gln Gly Asn Ile Asp Ala Phe Val Ala Ala Ala Gly  
 245 250 255  
 Thr Gly Gly Thr Leu Ala Gly Val Ser Arg Phe Leu Gln Asp Lys Asn  
 260 265 270

047-E2F-PCT.ST25.txt

Glu Arg Val Lys Cys Phe Leu Ile Asp Pro Pro Gly Ser Gly Leu Tyr  
 275 280 285  
 Asn Lys Val Thr Arg Gly Val Met Tyr Thr Arg Glu Glu Ala Glu Gly  
 290 295 300  
 Arg Arg Leu Lys Asn Pro Phe Asp Thr Ile Thr Glu Gly Ile Gly Ile  
 305 310 315 320  
 Asn Arg Leu Thr Lys Asn Phe Leu Met Ala Lys Leu Asp Gly Gly Phe  
 325 330 335  
 Arg Gly Thr Asp Lys Glu Ala Val Glu Met Ser Arg Phe Leu Leu Lys  
 340 345 350  
 Asn Asp Gly Leu Phe Val Gly Ser Ser Ser Ala Met Asn Cys Val Gly  
 355 360 365  
 Ala Val Arg Val Ala Gln Thr Leu Gly Pro Gly His Thr Ile Val Thr  
 370 375 380  
 Ile Leu Cys Asp Ser Gly Met Arg His Leu Ser Lys Phe His Asp Pro  
 385 390 395 400  
 Lys Tyr Leu Asn Leu Tyr Gly Leu Ser Pro Thr Ala Ile Gly Leu Glu  
 405 410 415  
 Phe Leu Gly Ile Lys  
 420

<210> 715

<211> 1776

<212> DNA

<213> Arabidopsis thaliana

<400> 715

atggtaaccg aagctttcga attcgtcgcc gttcctttca attccgatgg ctggggacct	60
ccagacgctt ccgacgtttc ctctccgcc tctccacca gcgtcgccgc cgctaatttt	120
ctcccgaaacg ttcctttcgc ttcctttctc cgttccgata agctcggccg tgtagctgat	180
tggactcgca atctctctaa tccatccgct cgtcctaaca ccggatccaa atcagatccg	240
tctgcagttt tcgattttctc cgcttttcgca atcgacgaag gcttcggtct cgcttcctcc	300

047-E2F-PCT.ST25.txt

ggtggtaatc cgcacgaaga cgcagctttc cgtctcgtcg acggtaaacc tccgccgcgt 360  
cctaaattcg gacctaaatg gcgtttcaat cctcaccaca atcggaatca gcttcctcaa 420  
cggcgagatg aagaagttga agctaagaag cgtgatgctg agaaggaacg agctcgtcgt 480  
gatcgtctct acaataacaa ccgtaacaac atccatcacc aacgccgtga agctgccgct 540  
ttcaaatacat ccgttgatat tcagccggag tggaacatgc ttgagcagat ccctttctca 600  
acattctcga agctctcgtg cacagttcaa gaaccagaag atcttcttct ctgtggtggc 660  
cttgagtact acaaccgcct tttcgatcgc ataacgccga aaaacgaacg cagactcgag 720  
cgtttcaaga acaggaactt cttcaaagtc actactagtg atgatcctgt gattaggcgt 780  
ttagctaagg aagacaaagc tactgttttc gctactgatg ctatattagc tgctcttatg 840  
tgtgtccta gatctgttta ctcttgggat attgttattc aacgtgttgg taacaaactg 900  
ttctttgaca agagagatgg atcacagctt gatttggtgt ctgtgcatga gacatctcaa 960  
gagccattgc ctgagtctaa agatgatatc aattctgctc attctctagg tgtggaagct 1020  
gcttacatca atcagaactt ttcgcagcag gttttggtta gagatggaaa gaaggaaact 1080  
tttgatgaag ccaatccatt tgctaataaa ggtgaagaga ttgcttctgt tgcttatagg 1140  
tatagaaggt ggaagcttga tgataatat catcttgttg cgaggtgtga gttacagagt 1200  
gttgctgata tcaacaacca aaggctggtt cttactttga atgctcttaa cgagtttgat 1260  
cctaagtact ctggtgttga ttggagacag aagcttgaaa ctgagagagg tgcggtttta 1320  
gctacagaat tgaagaacaa tggaaataag ttggctaaat ggactgcaca agctttattg 1380  
gctaatactg atatgatgaa gattgggttt gtctctaggg ttcacctcgt tgatcatttc 1440  
aaccatgtta tattatctgt tttgggggat aagccgaagg atttcgctgg acagattaat 1500  
ctcaacactt ctaacatgtg ggggattgtg aaatccatag ttgatctgtg tatgaaacta 1560  
agcgaagggg agtatgttct tgtgaaggat ccatcgaagc ctcaagtga gatttatgag 1620  
gttccacctg atgctttcga gaatgattac gttgaggaac cgttgcctga agatgaacag 1680  
gttcagccaa ctgaggaaaa cacagagggg gcagaagcaa gtgtagctgc aactaaagaa 1740  
accgaggaga agaaagctga tgatgctcaa gcttga 1776

<210> 716

<211> 591

<212> PRT

<213> *Arabidopsis thaliana*

<400> 716

Met Val Thr Glu Ala Phe Glu Phe Val Ala Val Pro Phe Asn Ser Asp  
 1 5 10 15  
 Gly Trp Gly Pro Pro Asp Ala Ser Asp Val Ser Ser Ser Ala Ser Pro  
 20 25 30  
 Thr Ser Val Ala Ala Ala Asn Leu Leu Pro Asn Val Pro Phe Ala Ser  
 35 40 45  
 Phe Ser Arg Ser Asp Lys Leu Gly Arg Val Ala Asp Trp Thr Arg Asn  
 50 55 60  
 Leu Ser Asn Pro Ser Ala Arg Pro Asn Thr Gly Ser Lys Ser Asp Pro  
 65 70 75 80  
 Ser Ala Val Phe Asp Phe Ser Ala Phe Ala Ile Asp Glu Gly Phe Gly  
 85 90 95  
 Leu Ala Ser Ser Gly Gly Asn Pro Asp Glu Asp Ala Ala Phe Arg Leu  
 100 105 110  
 Val Asp Gly Lys Pro Pro Pro Arg Pro Lys Phe Gly Pro Lys Trp Arg  
 115 120 125  
 Phe Asn Pro His His Asn Arg Asn Gln Leu Pro Gln Arg Arg Asp Glu  
 130 135 140  
 Glu Val Glu Ala Lys Lys Arg Asp Ala Glu Lys Glu Arg Ala Arg Arg  
 145 150 155 160  
 Asp Arg Leu Tyr Asn Asn Asn Arg Asn Asn Ile His His Gln Arg Arg  
 165 170 175  
 Glu Ala Ala Ala Phe Lys Ser Ser Val Asp Ile Gln Pro Glu Trp Asn  
 180 185 190  
 Met Leu Glu Gln Ile Pro Phe Ser Thr Phe Ser Lys Leu Ser Tyr Thr  
 195 200 205  
 Val Gln Glu Pro Glu Asp Leu Leu Leu Cys Gly Gly Leu Glu Tyr Tyr  
 210 215 220  
 Asn Arg Leu Phe Asp Arg Ile Thr Pro Lys Asn Glu Arg Arg Leu Glu  
 225 230 235 240  
 Arg Phe Lys Asn Arg Asn Phe Phe Lys Val Thr Thr Ser Asp Asp Pro  
 245 250 255

047-E2F-PCT.ST25.txt

Val Ile Arg Arg Leu Ala Lys Glu Asp Lys Ala Thr Val Phe Ala Thr  
260 265 270

Asp Ala Ile Leu Ala Ala Leu Met Cys Ala Pro Arg Ser Val Tyr Ser  
275 280 285

Trp Asp Ile Val Ile Gln Arg Val Gly Asn Lys Leu Phe Phe Asp Lys  
290 295 300

Arg Asp Gly Ser Gln Leu Asp Leu Leu Ser Val His Glu Thr Ser Gln  
305 310 315 320

Glu Pro Leu Pro Glu Ser Lys Asp Asp Ile Asn Ser Ala His Ser Leu  
325 330 335

Gly Val Glu Ala Ala Tyr Ile Asn Gln Asn Phe Ser Gln Gln Val Leu  
340 345 350

Val Arg Asp Gly Lys Lys Glu Thr Phe Asp Glu Ala Asn Pro Phe Ala  
355 360 365

Asn Glu Gly Glu Glu Ile Ala Ser Val Ala Tyr Arg Tyr Arg Arg Trp  
370 375 380

Lys Leu Asp Asp Asn Met His Leu Val Ala Arg Cys Glu Leu Gln Ser  
385 390 395 400

Val Ala Asp Leu Asn Asn Gln Arg Ser Phe Leu Thr Leu Asn Ala Leu  
405 410 415

Asn Glu Phe Asp Pro Lys Tyr Ser Gly Val Asp Trp Arg Gln Lys Leu  
420 425 430

Glu Thr Gln Arg Gly Ala Val Leu Ala Thr Glu Leu Lys Asn Asn Gly  
435 440 445

Asn Lys Leu Ala Lys Trp Thr Ala Gln Ala Leu Leu Ala Asn Ala Asp  
450 455 460

Met Met Lys Ile Gly Phe Val Ser Arg Val His Pro Arg Asp His Phe  
465 470 475 480

Asn His Val Ile Leu Ser Val Leu Gly Tyr Lys Pro Lys Asp Phe Ala  
485 490 495

Gly Gln Ile Asn Leu Asn Thr Ser Asn Met Trp Gly Ile Val Lys Ser  
500 505 510



Ile Val Asp Leu Cys Met Lys Leu Ser Glu Gly Lys Tyr Val Leu Val  
 515 520 525

Lys Asp Pro Ser Lys Pro Gln Val Arg Ile Tyr Glu Val Pro Pro Asp  
 530 535 540

Ala Phe Glu Asn Asp Tyr Val Glu Glu Pro Leu Pro Glu Asp Glu Gln  
 545 550 555 560

Val Gln Pro Thr Glu Glu Asn Thr Glu Gly Ala Glu Ala Ser Val Ala  
 565 570 575

Ala Thr Lys Glu Thr Glu Glu Lys Lys Ala Asp Asp Ala Gln Ala  
 580 585 590

<210> 717

<211> 942

<212> DNA

<213> Arabidopsis thaliana

<400> 717

```

atggg'gcgca attctattcc gacggacgca accattgatc ttgatgagca gatctcgcag      60
ctcatgcagt gcaagcctct ctcggagcaa caggttagag cattatgcga gaaagccaag      120
gagatcttaa tggatgaaag caatgttcag cctgtgaaaa gccctgtgac aatctgcggt      180
gatattcatg gacagttcca tgatcttgca gagcttttcc gtataggggg aatgtgccct      240
gataccaatt acctgtttat gggagactat gtggaccgtg gttattattc tgttgaaact      300
gttacgctgt tagtcgcctt aaagatgcga taccctcagc gaatcactat tcttagagga      360
aaccatgaaa gtcgtcagat tactcagggt tatggatttt atgatgaatg tctacgaaag      420
tacggcaacg caaatgtttg gaaaatcttt acagacctct tcgactatct tcctctgaca      480
gccttggttg agtcagaaat attttgcctt catggtggat tatctccatc tatcgagacc      540
cttgacaaca taaggaatct tgatcgagtt caagaagtgc cccatgaagg gccgatgtgt      600
gacttattat ggtctgaccc cgatgaccga tgtgggtggg gcatctctcc tcggggtgcc      660
ggatatacat ttggtcagga tatatctgaa caattcaatc acacaaacaa cttaaagctg      720
atcgcccagag ctcaccagtt gggttatggat ggatacaact gggctcacga gcaaaaagtg      780
gttactatct tcagtgcacc aaactattgt taccgtttgt ggaacatggc ctcgattctt      840
gaggtcgacg actgcaggaa ccacaccttc atccagtttg aaccagcacc gaggagagga      900

```

gaaccagacg tcacccgaag gactccagac tatttcctgt ga

942

&lt;210&gt; 718

&lt;211&gt; 313

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 718

Met Gly Ala Asn Ser Ile Pro Thr Asp Ala Thr Ile Asp Leu Asp Glu  
1 5 10 15Gln Ile Ser Gln Leu Met Gln Cys Lys Pro Leu Ser Glu Gln Gln Val  
20 25 30Arg Ala Leu Cys Glu Lys Ala Lys Glu Ile Leu Met Asp Glu Ser Asn  
35 40 45Val Gln Pro Val Lys Ser Pro Val Thr Ile Cys Gly Asp Ile His Gly  
50 55 60Gln Phe His Asp Leu Ala Glu Leu Phe Arg Ile Gly Gly Met Cys Pro  
65 70 75 80Asp Thr Asn Tyr Leu Phe Met Gly Asp Tyr Val Asp Arg Gly Tyr Tyr  
85 90 95Ser Val Glu Thr Val Thr Leu Leu Val Ala Leu Lys Met Arg Tyr Pro  
100 105 110Gln Arg Ile Thr Ile Leu Arg Gly Asn His Glu Ser Arg Gln Ile Thr  
115 120 125Gln Val Tyr Gly Phe Tyr Asp Glu Cys Leu Arg Lys Tyr Gly Asn Ala  
130 135 140Asn Val Trp Lys Ile Phe Thr Asp Leu Phe Asp Tyr Phe Pro Leu Thr  
145 150 155 160Ala Leu Val Glu Ser Glu Ile Phe Cys Leu His Gly Gly Leu Ser Pro  
165 170 175Ser Ile Glu Thr Leu Asp Asn Ile Arg Asn Phe Asp Arg Val Gln Glu  
180 185 190

Val Pro His Glu Gly Pro Met Cys Asp Leu Leu Trp Ser Asp Pro Asp  
 195 200 205

Asp Arg Cys Gly Trp Gly Ile Ser Pro Arg Gly Ala Gly Tyr Thr Phe  
 210 215 220

Gly Gln Asp Ile Ser Glu Gln Phe Asn His Thr Asn Asn Leu Lys Leu  
 225 230 235 240

Ile Ala Arg Ala His Gln Leu Val Met Asp Gly Tyr Asn Trp Ala His  
 245 250 255

Glu Gln Lys Val Val Thr Ile Phe Ser Ala Pro Asn Tyr Cys Tyr Arg  
 260 265 270

Cys Gly Asn Met Ala Ser Ile Leu Glu Val Asp Asp Cys Arg Asn His  
 275 280 285

Thr Phe Ile Gln Phe Glu Pro Ala Pro Arg Arg Gly Glu Pro Asp Val  
 290 295 300

Thr Arg Arg Thr Pro Asp Tyr Phe Leu  
 305 310

<210> 719

<211> 1527

<212> DNA

<213> Arabidopsis thaliana

<400> 719

atgtcttata gtaattcaaa cccggaaaat tattcagctg caacgagctc gccggagctt	60
aaactatatc aagcatttat cttttctgtt ccaatttggt tcacatttat tattctcttc	120
ttgttttact tgatctacct ccgtcgtagt agctctgatt tgtcttctct tggaatgcga	180
actactttca tccccgggaa ctctctctcc acgattgaat taggattgag caaagagctg	240
agagagatgc ttccatttgt tgtcttttaa gagagcttca ccgtaatgga ttcacaatgt	300
tcagtgtgcc ttggggacta tcaaccaa at gacaagcttc aacagatccc ggtatgtaaa	360
cacacttttc acatggactg cattgatctt tggctcacat cacataccac ttgccctctt	420
tgccgcctcg ctctaattccc gagtcgttcc cgtcaaagcc aagatgatcc tgttccgagt	480
ctcgtaaagcc ctgatgaaga agtgtcgagt caaccagaat ctgagccagt aaaccacaga	540
gtagtgtcga ctcaaccaga atctgagcca gtaaaccaca gtggagtctc gagtcaacca	600

047-E2F-PCT.ST25.txt

gaatctcagc cagtagtaaa ccacagagga gtctcgagtc aaccggagtc tcagccagta 660  
aaccacatta acgatggcca tgagcagcaa tgtgatcaag atgtagaggg ctttaaggaa 720  
atggaagagg acgaacgaaa caacatcggg acatcgagtg cttgtttag tagtagaact 780  
gttcactact gttgtgtctc aagagacaat cagattatgt acgcttaca caatgccgga 840  
gaccaccgca acaacgagag tcttcgagcg ttatgcttg aaaagactcc accttttcac 900  
aagtgggtact tcgaaacgag gggtaagaag acttttggat tcttgatgaa agatgacttc 960  
gtttattttcg ccattgttga tgatgttttc aagaaatcta gcgttcttga ttttcttgaa 1020  
aaactgagag atgagttaaa agaagctaata aagaagaatt ctagaggaag tttctctggt 1080  
agtatcagtt ttagcaatgt tcaagaccaa attgtccgaa gactcatagc ttcattagag 1140  
tttgatcaca cttgtcttcc attatcatca ccttccattg atgggtgctga acaaagctac 1200  
gcatctaact ccaaagctcc tcttttagga agatccaaca agcaagataa gaagaaaggg 1260  
agagatcatg cgcactcact aagaggtatt gagatagagg aacaccgaaa atcaaagat 1320  
agaggaaacg taacagaatg ttctaattgct tcatttgaat cagcaacgta tgttccaaga 1380  
aggggacgat ctggtggctc tcagagcatt gagaggaagt ggcggcgta agtgaagatt 1440  
gttcttgcca ttgatatagc tatttgctta acgctgcttg gtgtttggtt ggctatttgt 1500  
catggcattg agtgtacacg ttcttga 1527

<210> 720

<211> 508

<212> PRT

<213> Arabidopsis thaliana

<400> 720

Met Ser Tyr Ser Asn Ser Asn Pro Glu Asn Tyr Ser Ala Ala Thr Ser  
1 5 10 15

Ser Pro Glu Leu Lys Leu Tyr Gln Ala Phe Ile Phe Ser Val Pro Ile  
20 25 30

Cys Phe Thr Phe Ile Ile Leu Phe Leu Phe Tyr Leu Ile Tyr Leu Arg  
35 40 45

Arg Ser Ser Ser Asp Leu Ser Ser Leu Gly Met Arg Thr Thr Phe Ile  
50 55 60

Pro Gly Asn Ser Leu Ser Thr Ile Glu Leu Gly Leu Ser Lys Glu Leu  
65 70 75 80

047-E2F-PCT.ST25.txt

Arg Glu Met Leu Pro Ile Val Val Phe Lys Glu Ser Phe Thr Val Met  
85 90 95

Asp Ser Gln Cys Ser Val Cys Leu Gly Asp Tyr Gln Pro Asn Asp Lys  
100 105 110

Leu Gln Gln Ile Pro Val Cys Lys His Thr Phe His Met Asp Cys Ile  
115 120 125

Asp Leu Trp Leu Thr Ser His Thr Thr Cys Pro Leu Cys Arg Leu Ala  
130 135 140

Leu Ile Pro Ser Arg Ser Arg Gln Ser Gln Asp Asp Pro Val Pro Ser  
145 150 155 160

Leu Val Ser Pro Asp Glu Glu Val Ser Ser Gln Pro Glu Ser Glu Pro  
165 170 175

Val Asn His Arg Val Val Ser Thr Gln Pro Glu Ser Glu Pro Val Asn  
180 185 190

His Ser Gly Val Ser Ser Gln Pro Glu Ser Gln Pro Val Val Asn His  
195 200 205

Arg Gly Val Ser Ser Gln Pro Glu Ser Gln Pro Val Asn His Ile Asn  
210 215 220

Asp Gly His Glu Gln Gln Cys Asp Gln Asp Val Glu Gly Phe Lys Glu  
225 230 235 240

Met Glu Glu Asp Glu Arg Asn Asn Ile Gly Thr Ser Ser Ala Cys Cys  
245 250 255

Ser Cys Arg Thr Val His Tyr Cys Cys Val Ser Arg Asp Asn Gln Ile  
260 265 270

Met Tyr Ala Tyr Asn Asn Ala Gly Asp His Arg Asn Asn Glu Ser Leu  
275 280 285

Ala Ala Leu Cys Leu Glu Lys Thr Pro Pro Phe His Lys Trp Tyr Phe  
290 295 300

Glu Thr Arg Gly Lys Lys Thr Phe Gly Phe Leu Met Lys Asp Asp Phe  
305 310 315 320

Val Tyr Phe Ala Ile Val Asp Asp Val Phe Lys Lys Ser Ser Val Leu

325

335

Asp Phe Leu Glu Lys Leu Arg Asp Glu Leu Lys Glu Ala Asn Lys Lys  
340 345 350

Asn Ser Arg Gly Ser Phe Ser Gly Ser Ile Ser Phe Ser Asn Val Gln  
355 360 365

Asp Gln Ile Val Arg Arg Leu Ile Ala Ser Leu Glu Phe Asp His Thr  
370 375 380

Cys Leu Pro Leu Ser Ser Pro Ser Ile Asp Gly Ala Glu Gln Ser Tyr  
385 390 395 400

Ala Ser Asn Ser Lys Ala Pro Leu Leu Gly Arg Ser Asn Lys Gln Asp  
405 410 415

Lys Lys Lys Gly Arg Asp His Ala His Ser Leu Arg Gly Ile Glu Ile  
420 425 430

Glu Glu His Arg Lys Ser Asn Asp Arg Gly Asn Val Thr Glu Cys Ser  
435 440 445

Asn Ala Ser Ser Glu Ser Ala Thr Tyr Val Pro Arg Arg Gly Arg Ser  
450 455 460

Gly Gly Ser Gln Ser Ile Glu Arg Lys Trp Arg Arg Gln Val Lys Ile  
465 470 475 480

Val Leu Ala Ile Asp Ile Ala Ile Cys Leu Thr Leu Leu Gly Val Trp  
485 490 495

Leu Ala Ile Cys His Gly Ile Glu Cys Thr Arg Ser  
500 505

<210> 721

<211> 1005

<212> DNA

<213> Arabidopsis thaliana

<400> 721

atgtccgatg ctccgtcgtc ttccccggat gccacggcgt cgcactggtg ctatcactgc 60

aacaaacgcg tcgtcgttga aaccttagat gactttgtcg tgtgctgcga atgtaacaaa 120

ggtttcgtcg agtcaattca accgactccc gccgcttatt catcgccggc gccaccgcag 180

047-E2F-PCT.ST25.txt

```

ccactttccc cagatctgaa tgtagaagac tccagtattg gctcgcattt cctccagatg 240
ctccgcttgt tagcccacgc gccttctcag cgttcaccac cacgacacct tgatgtttta 300
tcttacgaag atgattttctt caggttggag ctcaatagta gaaacgaaat cgacgatgac 360
gaagacgaag atgaagatga tggagatgaa gaagaagagg atgaggaaga gaatttaacc 420
gtcaacgacg aagaagacga agaagatgat ctgaggagga gaaatcgttt tcctctcacg 480
acgacgcagt cgagaaccgg aagaaacaga attctcgatt gggctgagat tttgatggga 540
atcgaagaca attcgattga gttccgtatg gaatcagatc gatacgcagg aaatccggct 600
gattacatag acgatgcagc cggatacgaa gctttgctac agaatttagc agaaggagat 660
ggtggtggtg gcggaggaag gagaggcgca ccaccggctg cgaaatcggc aatagaggca 720
ttggagactt tcgaggttag ttcttcggag ggagagatgg ttatggtttg tgctgtgtgt 780
aaagatggaa tggatgatggg agaaactggt aagaagttaac cgtgtggaca ttgttaccac 840
ggagattgta ttgtgccatg gttaggaaca aggaactctt gtcctgtctg tagattccag 900
cttgagactg atgatgctga atatgaggaa gagaggaaaa aaagaacttc taccgtgtca 960
gattctgctg ctgcttcttc ttcttcttca acttctcgtt actga 1005

```

<210> 722

<211> 334

<212> PRT

<213> Arabidopsis thaliana

<400> 722

```

Met Ser Asp Ala Pro Ser Ser Ser Pro Asp Ala Thr Ala Ser His Trp
1          5          10          15

```

```

Cys Tyr His Cys Asn Lys Arg Val Val Val Glu Thr Leu Asp Asp Phe
          20          25          30

```

```

Val Val Cys Cys Glu Cys Asn Lys Gly Phe Val Glu Ser Ile Gln Pro
          35          40          45

```

```

Thr Pro Ala Ala Tyr Ser Ser Pro Ala Pro Pro Gln Pro Leu Ser Pro
          50          55          60

```

```

Asp Leu Asn Val Glu Asp Ser Ser Ile Gly Ser His Phe Leu Gln Met
65          70          75          80

```

```

Leu Arg Leu Leu Ala His Ala Pro Ser Gln Arg Ser Pro Pro Arg His

```

Leu Asp Val Leu Ser Tyr Glu Asp Asp Phe Phe Arg Leu Glu Leu Asn  
100 105 110

Ser Arg Asn Glu Ile Asp Asp Asp Glu Asp Glu Asp Glu Asp Asp Gly  
115 120 125

Asp Glu Glu Glu Glu Asp Glu Glu Glu Asn Leu Thr Val Asn Asp Glu  
130 135 140

Glu Asp Glu Glu Asp Asp Leu Arg Arg Arg Asn Arg Phe Pro Leu Thr  
145 150 155 160

Thr Thr Gln Ser Arg Thr Gly Arg Asn Arg Ile Leu Asp Trp Ala Glu  
165 170 175

Ile Leu Met Gly Ile Glu Asp Asn Ser Ile Glu Phe Arg Met Glu Ser  
180 185 190

Asp Arg Tyr Ala Gly Asn Pro Ala Asp Tyr Ile Asp Asp Ala Ala Gly  
195 200 205

Tyr Glu Ala Leu Leu Gln Asn Leu Ala Glu Gly Asp Gly Gly Gly Gly  
210 215 220

Gly Gly Arg Arg Gly Ala Pro Pro Ala Ala Lys Ser Ala Ile Glu Ala  
225 230 235 240

Leu Glu Thr Phe Glu Val Ser Ser Ser Glu Gly Glu Met Val Met Val  
245 250 255

Cys Ala Val Cys Lys Asp Gly Met Val Met Gly Glu Thr Gly Lys Lys  
260 265 270

Leu Pro Cys Gly His Cys Tyr His Gly Asp Cys Ile Val Pro Trp Leu  
275 280 285

Gly Thr Arg Asn Ser Cys Pro Val Cys Arg Phe Gln Leu Glu Thr Asp  
290 295 300

Asp Ala Glu Tyr Glu Glu Glu Arg Lys Lys Arg Thr Ser Thr Val Ser  
305 310 315 320

Asp Ser Ala Ala Ala Ser Ser Ser Ser Ser Thr Ser Arg Tyr  
325 330



&lt;210&gt; 723

&lt;211&gt; 2991

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 723

atggaaccaa cagaaaaacc atcgaccaaa ccatcttctc ggactctacc tagagacact	60
cgtggctctc tcgaagtatt caaccctgtca actcagctga cccgaccga taaccgggtg	120
ttccgtcctg aaccaccagc gtggcaaaac ttgagtgatc cacgtggcac cagtcctcaa	180
ccccgaccac aacaagaacc agctccatcc aaccctgttc ggtctgatca agaaatcgct	240
gtcacgacct catggatggc tctgaaagac ccatcaccgg agacaatctc caagaagacg	300
atcaccgccg agaaaccaca gaagtcggcg gtggcggctg agcagagagc ggcagagtgg	360
ggattggttt tgaagaccga tacaagacg ggaaagccac aaggagtagg cgtgaggaac	420
tctggtggaa ctgagaatga tcctaacggg aaaaagacta catcgcagag aaactcgcaa	480
aaactttgcc ggagctccgg tgagatgtcg gacggagatg ttcccggcgg gaggagtggg	540
attccaagag tatcggaaga tctaaaagat gcgttgtcga cgtttcaaca aacgtttgtg	600
gtctcagatg ctacaaaacc tgattatccg attatgtatg caagtgtgg tttcttcaat	660
atgactgggtt acacttccaa agaagtcgtc ggcagaaact gccgattttt acaaggatca	720
ggtacagatg cagatgagtt agcaaagata agagagacat tagctgctgg taacaattat	780
tgtgggcgta tattgaatta caagaaagat gggacctctt tttggaatct tctcacgatt	840
gctccatta aagacgagag tggcaaagtc ctcaaattta tcggaatgca agtggagggtg	900
agcaagcaca ctgaaggggc caaagaaaag gctttgaggc ccaatgggct tccggaatct	960
ctgattcgat acgatgcccg ccaaaaagat atggcgacaa actcagtgac agagctagta	1020
gaggcgggtga agagacctcg ggcactaagc gaatcgacga atctccatcc cttcatgaca	1080
aaatcggaga gcgatgaact tccgaaaaaa ccagctcggc gaatgtccga aaatgttggt	1140
ccgtcaggcc gaagaaactc tggcggcgga agaagaaact cgatgcagcg aatcaacgaa	1200
attcccgaga aaaaatctag aaaatcttcc ctttcttca tggggatcaa gaagaagagc	1260
gaatctttgg atgaatctat agacgatgga tttatagagt atggagaaga agacgatgag	1320
attagtgata gggacgagag acctgagagt gtggatgata aagtgagaca aaaggaaatg	1380
agaaagggtg ttgatctagc tactacactc gaacgtatcg agaagaattt cgtcatcact	1440
gatcctaggc ttcccgataa tcccattatt tttgcatctg atagtttctt ggagctcacg	1500
gaatatagcc gtgaagaaat tcttggaaga aattgcaggt ttctacaagg tccagagact	1560

gatctaacca cagtgaagaa gattcgaaat gctattgata accaaaccga agtgacagtt 1620  
cagctcatca actacaccaa gagcggaaag aagttctgga acattttcca cttgcaacct 1680  
atgcgtgatc agaagggaga agtacaatac tttattggag ttcaactaga cgggagcaag 1740  
cacgtagaac cagttcgcaa tgtcattgaa gaaaccgcag tgaaagaggg agaagacctg 1800  
gtgaaaaaaaa cagctgtgaa tatcgatgaa gcggttcgag aacttcctga tgccaacatg 1860  
acaccagagg atttatgggc aaaccactca aagggttggtc attgtaagcc tcacaggaaa 1920  
gattcaccac catggatagc tatccaaaag gtggttgaaa gtggtgaacc gattggtttg 1980  
aagcatttca aaccggtgaa acctttgggt tctggtgaca caggaagtgt gcatctagtg 2040  
gaactcgttg gaacagatca gttgtttgca atgaaagcaa tggacaaggc tgttatgctt 2100  
aaccgaaaca aagtacatag agctagagct gagagagaga tcctagattt gcttgaccat 2160  
ccttttcttc ctgcactcta cgcttctttt cagacaaaaa cacatatatg tcttataaca 2220  
gattactatc caggaggaga actcttcatg ctcttagatc gacaacctag gaaggttctc 2280  
aaagaagatg ctgtaagatt ctatgctgct caagttgtcg ttgcactcga gtatcttcac 2340  
tgtcaaggaa taatttaccg agacttgaaa ccggaaaacg ttttaatcca aggcaatggc 2400  
gatattctctt tgtcggattt tgatctgtct tgcttgacat cttgcaaacc tcagctgttg 2460  
attccgagta tagacgagaa gaagaagaaa aagcaacaaa agagtcaaca aactccaatc 2520  
ttcatggctg aaccaatgcg tgcataaac tcatttggtg gactgaaga gtacattgct 2580  
ccggaaatta tatccggagc aggacatacg agtgcagtag actggtgggc tcttggtata 2640  
cttatgtatg aaatgttata cggatacact ccttttagag gaaaaacaag acagaagact 2700  
ttcaccaatg ttcttcaaaa agatctcaag tttccagcta gcattcctgc aagtcttcaa 2760  
gtgaaacagc tgatttttag gctgttacaa cgagatccga agaaaagact aggttggttt 2820  
gaaggagcaa atgaagtcaa gcaacattct ttcttcaaag gcataaattg ggctctgatt 2880  
cgatgcacga accctccaga gctcgagact ccgatatttt ctggtgaagc tgaaaacgga 2940  
gagaaagttg ttgatcctga gctagaagat ctgcaaacaa atgttttttg a 2991

<210> 724

<211> 996

<212> PRT

<213> Arabidopsis thaliana

<400> 724

Met Glu Pro Thr Glu Lys Pro Ser Thr Lys Pro Ser Ser Arg Thr Leu  
1 5 10 15

047-E2F-PCT.ST25.txt

Pro Arg Asp Thr Arg Gly Ser Leu Glu Val Phe Asn Pro Ser Thr Gln  
20 25 30

Leu Thr Arg Pro Asp Asn Pro Val Phe Arg Pro Glu Pro Pro Ala Trp  
35 40 45

Gln Asn Leu Ser Asp Pro Arg Gly Thr Ser Pro Gln Pro Arg Pro Gln  
50 55 60

Gln Glu Pro Ala Pro Ser Asn Pro Val Arg Ser Asp Gln Glu Ile Ala  
65 70 75 80

Val Thr Thr Ser Trp Met Ala Leu Lys Asp Pro Ser Pro Glu Thr Ile  
85 90 95

Ser Lys Lys Thr Ile Thr Ala Glu Lys Pro Gln Lys Ser Ala Val Ala  
100 105 110

Ala Glu Gln Arg Ala Ala Glu Trp Gly Leu Val Leu Lys Thr Asp Thr  
115 120 125

Lys Thr Gly Lys Pro Gln Gly Val Gly Val Arg Asn Ser Gly Gly Thr  
130 135 140

Glu Asn Asp Pro Asn Gly Lys Lys Thr Thr Ser Gln Arg Asn Ser Gln  
145 150 155 160

Asn Ser Cys Arg Ser Ser Gly Glu Met Ser Asp Gly Asp Val Pro Gly  
165 170 175

Gly Arg Ser Gly Ile Pro Arg Val Ser Glu Asp Leu Lys Asp Ala Leu  
180 185 190

Ser Thr Phe Gln Gln Thr Phe Val Val Ser Asp Ala Thr Lys Pro Asp  
195 200 205

Tyr Pro Ile Met Tyr Ala Ser Ala Gly Phe Phe Asn Met Thr Gly Tyr  
210 215 220

Thr Ser Lys Glu Val Val Gly Arg Asn Cys Arg Phe Leu Gln Gly Ser  
225 230 235 240

Gly Thr Asp Ala Asp Glu Leu Ala Lys Ile Arg Glu Thr Leu Ala Ala  
245 250 255

Gly Asn Asn Tyr Cys Gly Arg Ile Leu Asn Tyr Lys Lys Asp Gly Thr  
Page 1157

260

265

270

Ser Phe Trp Asn Leu Leu Thr Ile Ala Pro Ile Lys Asp Glu Ser Gly  
 275 280 285  
 Lys Val Leu Lys Phe Ile Gly Met Gln Val Glu Val Ser Lys His Thr  
 290 295 300  
 Glu Gly Ala Lys Glu Lys Ala Leu Arg Pro Asn Gly Leu Pro Glu Ser  
 305 310 315 320  
 Leu Ile Arg Tyr Asp Ala Arg Gln Lys Asp Met Ala Thr Asn Ser Val  
 325 330 335  
 Thr Glu Leu Val Glu Ala Val Lys Arg Pro Arg Ala Leu Ser Glu Ser  
 340 345 350  
 Thr Asn Leu His Pro Phe Met Thr Lys Ser Glu Ser Asp Glu Leu Pro  
 355 360 365  
 Lys Lys Pro Ala Arg Arg Met Ser Glu Asn Val Val Pro Ser Gly Arg  
 370 375 380  
 Arg Asn Ser Gly Gly Gly Arg Arg Asn Ser Met Gln Arg Ile Asn Glu  
 385 390 395 400  
 Ile Pro Glu Lys Lys Ser Arg Lys Ser Ser Leu Ser Phe Met Gly Ile  
 405 410 415  
 Lys Lys Lys Ser Glu Ser Leu Asp Glu Ser Ile Asp Asp Gly Phe Ile  
 420 425 430  
 Glu Tyr Gly Glu Glu Asp Asp Glu Ile Ser Asp Arg Asp Glu Arg Pro  
 435 440 445  
 Glu Ser Val Asp Asp Lys Val Arg Gln Lys Glu Met Arg Lys Gly Ile  
 450 455 460  
 Asp Leu Ala Thr Thr Leu Glu Arg Ile Glu Lys Asn Phe Val Ile Thr  
 465 470 475 480  
 Asp Pro Arg Leu Pro Asp Asn Pro Ile Ile Phe Ala Ser Asp Ser Phe  
 485 490 495  
 Leu Glu Leu Thr Glu Tyr Ser Arg Glu Glu Ile Leu Gly Arg Asn Cys  
 500 505 510

Arg Phe Leu Gln Gly Pro Glu Thr Asp Leu Thr Thr Val Lys Lys Ile  
 515 520 525

Arg Asn Ala Ile Asp Asn Gln Thr Glu Val Thr Val Gln Leu Ile Asn  
 530 535 540

Tyr Thr Lys Ser Gly Lys Lys Phe Trp Asn Ile Phe His Leu Gln Pro  
 545 550 555 560

Met Arg Asp Gln Lys Gly Glu Val Gln Tyr Phe Ile Gly Val Gln Leu  
 565 570 575

Asp Gly Ser Lys His Val Glu Pro Val Arg Asn Val Ile Glu Glu Thr  
 580 585 590

Ala Val Lys Glu Gly Glu Asp Leu Val Lys Lys Thr Ala Val Asn Ile  
 595 600 605

Asp Glu Ala Val Arg Glu Leu Pro Asp Ala Asn Met Thr Pro Glu Asp  
 610 615 620

Leu Trp Ala Asn His Ser Lys Val Val His Cys Lys Pro His Arg Lys  
 625 630 635 640

Asp Ser Pro Pro Trp Ile Ala Ile Gln Lys Val Leu Glu Ser Gly Glu  
 645 650 655

Pro Ile Gly Leu Lys His Phe Lys Pro Val Lys Pro Leu Gly Ser Gly  
 660 665 670

Asp Thr Gly Ser Val His Leu Val Glu Leu Val Gly Thr Asp Gln Leu  
 675 680 685

Phe Ala Met Lys Ala Met Asp Lys Ala Val Met Leu Asn Arg Asn Lys  
 690 695 700

Val His Arg Ala Arg Ala Glu Arg Glu Ile Leu Asp Leu Leu Asp His  
 705 710 715 720

Pro Phe Leu Pro Ala Leu Tyr Ala Ser Phe Gln Thr Lys Thr His Ile  
 725 730 735

Cys Leu Ile Thr Asp Tyr Tyr Pro Gly Gly Glu Leu Phe Met Leu Leu  
 740 745 750

Asp Arg Gln Pro Arg Lys Val Leu Lys Glu Asp Ala Val Arg Phe Tyr  
 755 760 765

047-E2F-PCT.ST25.txt

Ala Ala Gln Val Val Val Ala Leu Glu Tyr Leu His Cys Gln Gly Ile  
770 775 780

Ile Tyr Arg Asp Leu Lys Pro Glu Asn Val Leu Ile Gln Gly Asn Gly  
785 790 795 800

Asp Ile Ser Leu Ser Asp Phe Asp Leu Ser Cys Leu Thr Ser Cys Lys  
805 810 815

Pro Gln Leu Leu Ile Pro Ser Ile Asp Glu Lys Lys Lys Lys Lys Gln  
820 825 830

Gln Lys Ser Gln Gln Thr Pro Ile Phe Met Ala Glu Pro Met Arg Ala  
835 840 845

Ser Asn Ser Phe Val Gly Thr Glu Glu Tyr Ile Ala Pro Glu Ile Ile  
850 855 860

Ser Gly Ala Gly His Thr Ser Ala Val Asp Trp Trp Ala Leu Gly Ile  
865 870 875 880

Leu Met Tyr Glu Met Leu Tyr Gly Tyr Thr Pro Phe Arg Gly Lys Thr  
885 890 895

Arg Gln Lys Thr Phe Thr Asn Val Leu Gln Lys Asp Leu Lys Phe Pro  
900 905 910

Ala Ser Ile Pro Ala Ser Leu Gln Val Lys Gln Leu Ile Phe Arg Leu  
915 920 925

Leu Gln Arg Asp Pro Lys Lys Arg Leu Gly Cys Phe Glu Gly Ala Asn  
930 935 940

Glu Val Lys Gln His Ser Phe Phe Lys Gly Ile Asn Trp Ala Leu Ile  
945 950 955 960

Arg Cys Thr Asn Pro Pro Glu Leu Glu Thr Pro Ile Phe Ser Gly Glu  
965 970 975

Ala Glu Asn Gly Glu Lys Val Val Asp Pro Glu Leu Glu Asp Leu Gln  
980 985 990

Thr Asn Val Phe  
995

<210> 725

&lt;211&gt; 621

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 725

```

atgcaagggtg tgattcgatc cttcgtctcc ggtggaaatg ttgtgaaagg ctctgtgctg      60
caacatctcc gtgtgattaa cccggcgatt cagccttctg tgttttgttc acgctctgaa      120
tcaactcaac ctgcacgtat ggaggaatct ggattcgaga gcacaactat ttccgatgtc      180
atgaaatcca aaggcaaaag tgctgatgga tcttggcttt ggtgtactac tgatgacact      240
gtttatgatg ctgttaaadc catgacacaa cacaatgttg gtgccttggt ggttgtgaaa      300
cctggtgagc aacaagctct tgctggtatc attacagaga gagattatct acggaagatc      360
atttgtcaag ggagatcatc caaatcaaca aaagttggag acattatgac tgaagagaat      420
aagcttatca ctgtgacacc ggagaccaag gtcttgctgt ctatgcaact gatgacagat      480
aaccgaatca ggcattattcc ggtaatcaaa gacaagggca tgattggaat ggtgtccata      540
ggagatgttg tccgtgcagt ggttcatgag catagagagg agcttcaacg cctaaatgcg      600
tatattcagg gaggttacta g                                     621

```

&lt;210&gt; 726

&lt;211&gt; 206

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 726

```

Met Gln Gly Val Ile Arg Ser Phe Val Ser Gly Gly Asn Val Val Lys
1          5          10          15

Gly Ser Val Leu Gln His Leu Arg Val Ile Asn Pro Ala Ile Gln Pro
20          25          30

Ser Val Phe Cys Ser Arg Ser Glu Ser Thr Gln Pro Ala Arg Met Glu
35          40          45

Glu Ser Gly Phe Glu Ser Thr Thr Ile Ser Asp Val Met Lys Ser Lys
50          55          60

Gly Lys Ser Ala Asp Gly Ser Trp Leu Trp Cys Thr Thr Asp Asp Thr
65          70          75          80

```

047-E2F-PCT.ST25.txt

Val Tyr Asp Ala Val Lys Ser Met Thr Gln His Asn Val Gly Ala Leu  
85 90 95

Val Val Val Lys Pro Gly Glu Gln Gln Ala Leu Ala Gly Ile Ile Thr  
100 105 110

Glu Arg Asp Tyr Leu Arg Lys Ile Ile Val Gln Gly Arg Ser Ser Lys  
115 120 125

Ser Thr Lys Val Gly Asp Ile Met Thr Glu Glu Asn Lys Leu Ile Thr  
130 135 140

Val Thr Pro Glu Thr Lys Val Leu Arg Ala Met Gln Leu Met Thr Asp  
145 150 155 160

Asn Arg Ile Arg His Ile Pro Val Ile Lys Asp Lys Gly Met Ile Gly  
165 170 175

Met Val Ser Ile Gly Asp Val Val Arg Ala Val Val His Glu His Arg  
180 185 190

Glu Glu Leu Gln Arg Leu Asn Ala Tyr Ile Gln Gly Gly Tyr  
195 200 205

<210> 727

<211> 867

<212> DNA

<213> Arabidopsis thaliana

<400> 727

atgcttaact ctatcacttt aaccgga aa ccaccactcc cgttcaactc tgttgggttt	60
tcaggtaatc actcttcgtc ttttggtcga agaactataa cggaaggtag ttcgagcaag	120
gctctttcgt ttgggtacaa aaatgttggt tcaactgaagt gtggtcggag caattggccg	180
gggcgttctg ggactgcgtt tgggcatcta gtccgggtct ctgcgggtccc aggtgggaat	240
tcagggtggct ctggcgggtt aggtggttca ggcgggtggtg gtggtggttc cggcggcgggt	300
ggtggtgatg gaagcgacgg aaaaggaaag aagtgggtcac ttctctcatg gtaccaggct	360
cttctctcaa actctcctgt tttgacaaaa gctgtgaccg cagcactttt gaacctcgtt	420
ggagatttga tctgtcagct tactatcaac aagacctcat cgctggacaa gaagaggaca	480
ctcaccttta ccttcttggg cttagggcta gtcgggtccaa cattgcattt ctggtatttg	540
tatttgagca aagtggtgac agcttctgga ttatcaggcg cagttatacg acttctactg	600



047-E2F-PCT.ST25.txt

gatcagtttg tttttgctcc ttttttggtt ggagttttct tatcagcagt tgtgacactt 660  
 gaaggaaaac catcaaagt cataccgaag ctacaacagg agtggactgg tgcaatgata 720  
 gcaaattggc agctatggat accatttcag tttcttaact tcagatttgt tccacagaac 780  
 taccaggtac ttgcttcaaa cgtagtggct ttggcttgga atgtgatttt atcattcaaa 840  
 gctcaciaag aagttgttgc aaagtag 867

<210> 728

<211> 288

<212> PRT

<213> Arabidopsis thaliana

<400> 728

Met	Leu	Asn	Ser	Ile	Thr	Leu	Thr	Arg	Lys	Pro	Pro	Leu	Pro	Phe	Asn
1				5					10					15	
Ser	Val	Gly	Phe	Ser	Gly	Asn	His	Ser	Ser	Ser	Phe	Gly	Arg	Arg	Thr
			20					25					30		
Ile	Thr	Glu	Gly	Ser	Ser	Ser	Lys	Ala	Leu	Ser	Phe	Gly	Tyr	Lys	Asn
		35					40					45			
Val	Gly	Ser	Leu	Lys	Cys	Gly	Arg	Ser	Asn	Trp	Pro	Gly	Arg	Ser	Gly
	50					55					60				
Thr	Ala	Phe	Gly	His	Leu	Val	Arg	Val	Ser	Ala	Val	Pro	Gly	Gly	Asn
65					70					75					80
Ser	Gly	Gly	Ser	Gly	Gly	Leu	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Gly	Gly
				85					90					95	
Ser	Gly	Gly	Gly	Gly	Gly	Asp	Gly	Ser	Asp	Gly	Lys	Gly	Lys	Lys	Trp
			100					105					110		
Ser	Leu	Leu	Ser	Trp	Tyr	Gln	Ala	Leu	Leu	Ser	Asn	Ser	Pro	Val	Leu
		115					120					125			
Thr	Lys	Ala	Val	Thr	Ala	Ala	Leu	Leu	Asn	Leu	Val	Gly	Asp	Leu	Ile
	130					135					140				
Cys	Gln	Leu	Thr	Ile	Asn	Lys	Thr	Ser	Ser	Leu	Asp	Lys	Lys	Arg	Thr
145					150					155					160

047-E2F-PCT.ST25.txt

Leu Thr Phe Thr Phe Leu Gly Leu Gly Leu Val Gly Pro Thr Leu His  
165 170 175

Phe Trp Tyr Leu Tyr Leu Ser Lys Val Val Thr Ala Ser Gly Leu Ser  
180 185 190

Gly Ala Val Ile Arg Leu Leu Leu Asp Gln Phe Val Phe Ala Pro Ile  
195 200 205

Phe Val Gly Val Phe Leu Ser Ala Val Val Thr Leu Glu Gly Lys Pro  
210 215 220

Ser Asn Val Ile Pro Lys Leu Gln Gln Glu Trp Thr Gly Ala Met Ile  
225 230 235 240

Ala Asn Trp Gln Leu Trp Ile Pro Phe Gln Phe Leu Asn Phe Arg Phe  
245 250 255

Val Pro Gln Asn Tyr Gln Val Leu Ala Ser Asn Val Val Ala Leu Ala  
260 265 270

Trp Asn Val Ile Leu Ser Phe Lys Ala His Lys Glu Val Val Ala Lys  
275 280 285

<210> 729

<211> 1410

<212> DNA

<213> Arabidopsis thaliana

<400> 729

atggcttctt ctatcttctt cttcttcctt atcttcctct ccgtcgtctc cgccgtcaaa	60
ctacctctct ctcccttctc ccactccgac caatcaccaa aagaccctta cctctctctc	120
cgtcgtctcg ctgaatcctc aatcgctaga gtcataaac tcaaacacgg cacctcaata	180
aaacccgacg aagatgctct ctctccacc accaccgat ccgccaccgt cgtgaaatct	240
cctctctctg ctaaaagcta cggcggatac tcagtctctc tcagcttcgg cacaccgtcg	300
caaacaatcc cattcgtttt cgataccgga agcagtctcg tttggctacc ttgtacctca	360
agatatctct gtcctgggtt cgattttctc ggtttggatc cgactctaata ccctagattt	420
atccccaaga actcttcctc ttcgaagatt atcggtgtgc agagtccaaa atgtcagttt	480
ctatacggac ccaatgttca atgcagagga tgtgaccgga ataccgaaa ctgcaccgtc	540
ggttgtccac cgtacattct tcaatacggg ttaggatcaa cggctggggt ttttaataacc	600

047-E2F-PCT.ST25.txt

gaaaagcttg atttcccgga tctaaccgta cccgatttcg tagtcggatg ttcaattatc 660  
 tccacccgac aaccgcgtgg tatcgctggg tttgggagag gaccgcgtatc gtttccttca 720  
 caaatgaatc tcaagagatt ctctcactgt ttggtttctc gtcgggttga cgataccaac 780  
 gtaaccaccg atcttgattt agataccgga tcgggtcata attccgggtc taaaactccg 840  
 ggtctcacat acacgccgtt tcggaaaaat cccaatgtct ccaacaaagc ttttctcgag 900  
 tattattacc tcaatctccg gcgaatctac gtcggaagaa agcacgtgaa gattccgtat 960  
 aagtatctcg cgccgggaac taacggagac ggaggatcca ttgttgattc cggatctaca 1020  
 ttcactttca tggagcgacc cgttttcgag ctctgttgctg aagaattcgc ttcacagatg 1080  
 tcgaactaca ctctgagaaa agacttgagag aaggaaacag gacttgagacc gtgttttaat 1140  
 atctccggga agggagatgt gacggtgccg gagctgattt ttgagtttaa aggtggagcg 1200  
 aagttggaat tgccgttatc caattacttc acgttcgttg ggaatactga taccgtttgt 1260  
 cttacggtgg tttcggataa aaccgttaat ccctccggcg ggactggacc ggcgataatt 1320  
 ctggggagtt tccagcaaca gaactattta gttgaatacg atttggagaa tgacaggttt 1380  
 gggttcgcga agaagaagtg tagcccgtag 1410

<210> 730

<211> 469

<212> PRT

<213> Arabidopsis thaliana

<400> 730

Met Ala Ser Ser Ile Phe Phe Phe Phe Leu Ile Phe Leu Ser Val Val  
 1 5 10 15

Ser Ala Val Lys Leu Pro Leu Ser Pro Phe Ser His Ser Asp Gln Ser  
 20 25 30

Pro Lys Asp Pro Tyr Leu Ser Leu Arg Arg Leu Ala Glu Ser Ser Ile  
 35 40 45

Ala Arg Ala His Lys Leu Lys His Gly Thr Ser Ile Lys Pro Asp Glu  
 50 55 60

Asp Ala Leu Ser Ser Thr Thr Thr Ala Ser Ala Thr Val Val Lys Ser  
 65 70 75 80

Pro Leu Ser Ala Lys Ser Tyr Gly Gly Tyr Ser Val Ser Leu Ser Phe  
 Page 1165

Gly Thr Pro Ser<sub>100</sub> Gln Thr Ile Pro Phe<sub>105</sub> Val Phe Asp Thr Gly<sub>110</sub> Ser Ser  
Leu Val Trp<sub>115</sub> Leu Pro Cys Thr Ser<sub>120</sub> Arg Tyr Leu Cys Ser<sub>125</sub> Gly Cys Asp  
Phe Ser<sub>130</sub> Gly Leu Asp Pro Thr<sub>135</sub> Leu Ile Pro Arg Phe<sub>140</sub> Ile Pro Lys Asn  
Ser<sub>145</sub> Ser Ser Ser Lys Ile<sub>150</sub> Ile Gly Cys Gln Ser<sub>155</sub> Pro Lys Cys Gln Phe<sub>160</sub>  
Leu Tyr Gly Pro Asn<sub>165</sub> Val Gln Cys Arg Gly<sub>170</sub> Cys Asp Pro Asn Thr<sub>175</sub> Arg  
Asn Cys Thr Val<sub>180</sub> Gly Cys Pro Pro Tyr<sub>185</sub> Ile Leu Gln Tyr Gly<sub>190</sub> Leu Gly  
Ser Thr Ala<sub>195</sub> Gly Val Leu Ile Thr<sub>200</sub> Glu Lys Leu Asp Phe<sub>205</sub> Pro Asp Leu  
Thr Val<sub>210</sub> Pro Asp Phe Val Val<sub>215</sub> Gly Cys Ser Ile Ile<sub>220</sub> Ser Thr Arg Gln  
Pro Ala Gly Ile Ala Gly<sub>230</sub> Phe Gly Arg Gly Pro<sub>235</sub> Val Ser Leu Pro Ser<sub>240</sub>  
Gln Met Asn Leu Lys<sub>245</sub> Arg Phe Ser His Cys<sub>250</sub> Leu Val Ser Arg Arg<sub>255</sub> Phe  
Asp Asp Thr Asn<sub>260</sub> Val Thr Thr Asp Leu<sub>265</sub> Asp Leu Asp Thr Gly<sub>270</sub> Ser Gly  
His Asn Ser<sub>275</sub> Gly Ser Lys Thr Pro<sub>280</sub> Gly Leu Thr Tyr Thr<sub>285</sub> Pro Phe Arg  
Lys Asn<sub>290</sub> Pro Asn Val Ser Asn<sub>295</sub> Lys Ala Phe Leu Glu<sub>300</sub> Tyr Tyr Tyr Leu  
Asn<sub>305</sub> Leu Arg Arg Ile Tyr<sub>310</sub> Val Gly Arg Lys His<sub>315</sub> Val Lys Ile Pro Tyr<sub>320</sub>  
Lys Tyr Leu Ala Pro<sub>325</sub> Gly Thr Asn Gly Asp<sub>330</sub> Gly Gly Ser Ile Val<sub>335</sub> Asp

Ser Gly Ser Thr Phe Thr Phe Met Glu Arg Pro Val Phe Glu Leu Val  
340 345 350

Ala Glu Glu Phe Ala Ser Gln Met Ser Asn Tyr Thr Arg Glu Lys Asp  
355 360 365

Leu Glu Lys Glu Thr Gly Leu Gly Pro Cys Phe Asn Ile Ser Gly Lys  
370 375 380

Gly Asp Val Thr Val Pro Glu Leu Ile Phe Glu Phe Lys Gly Gly Ala  
385 390 395 400

Lys Leu Glu Leu Pro Leu Ser Asn Tyr Phe Thr Phe Val Gly Asn Thr  
405 410 415

Asp Thr Val Cys Leu Thr Val Val Ser Asp Lys Thr Val Asn Pro Ser  
420 425 430

Gly Gly Thr Gly Pro Ala Ile Ile Leu Gly Ser Phe Gln Gln Gln Asn  
435 440 445

Tyr Leu Val Glu Tyr Asp Leu Glu Asn Asp Arg Phe Gly Phe Ala Lys  
450 455 460

Lys Lys Cys Ser Pro  
465

<210> 731

<211> 423

<212> DNA

<213> Arabidopsis thaliana

<400> 731

atgggtaatc atttttaac gttatctctg cttctcgtaa cagtctgcgt ttgcgtttct	60
ttcatcacca cgaagctaaa ccctaaagaa gcaatcgat ctgtctcttc cgattctgag	120
attcctactg aaattcatgg tgtcaagatc ttgcgtcaag cttcagatac caaacttgct	180
caattaggcg ttgcctcttg gcccaagtgg gaaggtgctc caagcaagtt tccatgggag	240
tttaagaaga cagagacaat atatttcatg gaagggaaag tgaaagtga ttagacgga	300
tacgacgaag aagaagaaac ctttgagata gggaaaggag atgttggtgt tttccctaaa	360
gatatgaaag ttgtttggga gataactgaa gctgtgaaga agcaatatag cttagaggag	420
tag	423

&lt;210&gt; 732

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 732

Met Gly Asn His Phe Leu Thr Leu Ser Leu Leu Leu Val Thr Val Cys  
 1 5 10 15

Val Cys Val Ser Phe Ile Thr Thr Lys Leu Asn Pro Lys Glu Ala Ile  
 20 25 30

Val Ser Val Ser Ser Asp Ser Glu Ile Pro Thr Glu Ile His Gly Val  
 35 40 45

Lys Ile Leu Arg Gln Ala Ser Asp Thr Lys Leu Ala Gln Leu Gly Val  
 50 55 60

Ala Ser Trp Pro Lys Trp Glu Gly Ala Pro Ser Lys Phe Pro Trp Glu  
 65 70 75 80

Phe Lys Lys Thr Glu Thr Ile Tyr Phe Met Glu Gly Lys Val Lys Val  
 85 90 95

Asn Val Asp Gly Tyr Asp Glu Glu Glu Glu Thr Phe Glu Ile Gly Lys  
 100 105 110

Gly Asp Val Val Val Phe Pro Lys Asp Met Lys Val Val Trp Glu Ile  
 115 120 125

Thr Glu Ala Val Lys Lys Gln Tyr Ser Leu Glu Glu  
 130 135 140

&lt;210&gt; 733

&lt;211&gt; 1500

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 733

atggatctct tattgattat agccggttta gtagcggctg cagccttctt tttcctccgt 60

agcacgacca agaaatctct ccggttacct ccgggaccaa aaggtcttcc tattatagga 120

047-E2F-PCT.ST25.txt

```

aaccttcacc agatggagaa attcaacccc caacacttcc ttttccgtct ctccaagcta 180
tacggcccca ttttcacgat gaaaatcggg ggccgctgcc tcgcggtgat ctctcggcc 240
gagctagcca aggagctact caaaactcaa gacctcaact tcaccgctcg tcctctcttg 300
aaagggcaac aaaccatgtc gtatcaaggc cgtgagcttg gtttcggaca gtacaccgcg 360
tactaccgtg agatgaggaa gatgtgtatg gtgaacctct tcagcccga cgtgtcgcga 420
agtttcagac cggttagaga agaagagtgt caacggatga tggacaagat ctataaagcc 480
gctgatcaat caggcaccgt tgatctaagt gagcttctct tgtctttcac taactgtgtc 540
gtatgtagac aagcttttgg gaaacggtac aatgagtacg gcacagagat gaagagattc 600
atagatatct tgtacgagac gcaagcactt ttgggcactc tgtttttctc cgaccttttc 660
ccttatttcg gattccttga caacctcact ggtctcagtg cacgtctcaa gaaagctttc 720
aaggagcttg acacttacct tcaagaactt ctagacgaga ctcttgacct taaccgccct 780
aaacaagaaa cagagagttt cattgatctt ttgatgcaga tctacaaaga ccaacctttc 840
tccatcaaat tcactcacga aaatgtcaag gccatgatat tggatattgt tgtgccggga 900
actgacacgg cggtgcagt ggtggtatgg gccatgactt accttattaa gtaccctgaa 960
gcaatgaaga aagctcaaga cgaagtgagg agtgtgatag gtgacaaagg atatgtctct 1020
gaagaagaca tacctaactt cccttaccta aaggcagtca tcaaggagtc tcttcggctc 1080
gaaccagtca tccccattct tctacacaga gaaactatcg cagacgcaaa gatagggtggc 1140
tatgatattc cgccaagac catcattcag gtgaacgcag gggcggtttc tcgtgacaca 1200
gccgcgtggg gagacaaccc taatgagttc attccagaga ggttcatgaa cgagcacaaa 1260
ggagtggact tcaagggcca agattttgag ctctacctt tcgggtcggg cgggagaatg 1320
tgcccgcca tgcatcttgg gattgcaatg gtagagatac ctttcgctaa ctttctctac 1380
aaatttgact ggagtctacc taaagggatt aaaccagagg atataaagat ggacgtcatg 1440
actggactcg ctatgcacaa gaaagaacac ctcgttcttg caccaacgaa acacatctga 1500

```

<210> 734

<211> 499

<212> PRT

<213> Arabidopsis thaliana

<400> 734

Met Asp Leu Leu Leu Ile Ile Ala Gly Leu Val Ala Ala Ala Ala Phe  
1 5 10 15

047-E2F-PCT.ST25.txt

Phe Phe Leu Arg Ser Thr Thr Lys Lys Ser Leu Arg Leu Pro Pro Gly  
 20 25 30  
 Pro Lys Gly Leu Pro Ile Ile Gly Asn Leu His Gln Met Glu Lys Phe  
 35 40 45  
 Asn Pro Gln His Phe Leu Phe Arg Leu Ser Lys Leu Tyr Gly Pro Ile  
 50 55 60  
 Phe Thr Met Lys Ile Gly Gly Arg Arg Leu Ala Val Ile Ser Ser Ala  
 65 70 75 80  
 Glu Leu Ala Lys Glu Leu Leu Lys Thr Gln Asp Leu Asn Phe Thr Ala  
 85 90 95  
 Arg Pro Leu Leu Lys Gly Gln Gln Thr Met Ser Tyr Gln Gly Arg Glu  
 100 105 110  
 Leu Gly Phe Gly Gln Tyr Thr Ala Tyr Tyr Arg Glu Met Arg Lys Met  
 115 120 125  
 Cys Met Val Asn Leu Phe Ser Pro Asn Arg Val Ala Ser Phe Arg Pro  
 130 135 140  
 Val Arg Glu Glu Glu Cys Gln Arg Met Met Asp Lys Ile Tyr Lys Ala  
 145 150 155 160  
 Ala Asp Gln Ser Gly Thr Val Asp Leu Ser Glu Leu Leu Leu Ser Phe  
 165 170 175  
 Thr Asn Cys Val Val Cys Arg Gln Ala Phe Gly Lys Arg Tyr Asn Glu  
 180 185 190  
 Tyr Gly Thr Glu Met Lys Arg Phe Ile Asp Ile Leu Tyr Glu Thr Gln  
 195 200 205  
 Ala Leu Leu Gly Thr Leu Phe Phe Ser Asp Leu Phe Pro Tyr Phe Gly  
 210 215 220  
 Phe Leu Asp Asn Leu Thr Gly Leu Ser Ala Arg Leu Lys Lys Ala Phe  
 225 230 235 240  
 Lys Glu Leu Asp Thr Tyr Leu Gln Glu Leu Leu Asp Glu Thr Leu Asp  
 245 250 255  
 Pro Asn Arg Pro Lys Gln Glu Thr Glu Ser Phe Ile Asp Leu Leu Met  
 260 265 270



047-E2F-PCT.ST25.txt

Gln Ile Tyr Lys Asp Gln Pro Phe Ser Ile Lys Phe Thr His Glu Asn  
275 280 285

Val Lys Ala Met Ile Leu Asp Ile Val Val Pro Gly Thr Asp Thr Ala  
290 295 300

Ala Ala Val Val Val Trp Ala Met Thr Tyr Leu Ile Lys Tyr Pro Glu  
305 310 315 320

Ala Met Lys Lys Ala Gln Asp Glu Val Arg Ser Val Ile Gly Asp Lys  
325 330 335

Gly Tyr Val Ser Glu Glu Asp Ile Pro Asn Leu Pro Tyr Leu Lys Ala  
340 345 350

Val Ile Lys Glu Ser Leu Arg Leu Glu Pro Val Ile Pro Ile Leu Leu  
355 360 365

His Arg Glu Thr Ile Ala Asp Ala Lys Ile Gly Gly Tyr Asp Ile Pro  
370 375 380

Ala Lys Thr Ile Ile Gln Val Asn Ala Trp Ala Val Ser Arg Asp Thr  
385 390 395 400

Ala Ala Trp Gly Asp Asn Pro Asn Glu Phe Ile Pro Glu Arg Phe Met  
405 410 415

Asn Glu His Lys Gly Val Asp Phe Lys Gly Gln Asp Phe Glu Leu Leu  
420 425 430

Pro Phe Gly Ser Gly Arg Arg Met Cys Pro Ala Met His Leu Gly Ile  
435 440 445

Ala Met Val Glu Ile Pro Phe Ala Asn Leu Leu Tyr Lys Phe Asp Trp  
450 455 460

Ser Leu Pro Lys Gly Ile Lys Pro Glu Asp Ile Lys Met Asp Val Met  
465 470 475 480

Thr Gly Leu Ala Met His Lys Lys Glu His Leu Val Leu Ala Pro Thr  
485 490 495

Lys His Ile

<210> 735

&lt;211&gt; 567

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 735

```

atgttagttt acggtatcct caacgacgcc ttccacggcg gttgggagcc gtcttcttcg      60
tcttccgacg aagatcgtag ctctttcccg agtgtaaga tcgagactcc ggagagtttc      120
gcggcggttg attctgttcc ggtcaagaag gagaagacga gtcctgtttc ggcgcggtg      180
acggcggcga agggaaagca ttatagagga gtgagacaaa ggccgtgggg gaaatttgcg      240
gcggagatta gagaccggc gaagaacgga gctagggttt ggtaggaac gtttgagacg      300
gcggaggacg cggcgttggc ttacgacaga gctgctttca ggatgcgtgg ttcccgcgct      360
ttgttgaaatt ttccgttgag agttaattca ggagaaccg acccggttcg aatcaagtcc      420
aagagatctt ctttttcttc ttctaacgag aacggagctc cgaagaagag gagaacggtg      480
gccgccggtg gtggaatgga taagggattg acggtgaagt gcgaggttgt tgaagtggca      540
cgtggcgatc gtttattggt ttataa                                     567

```

&lt;210&gt; 736

&lt;211&gt; 188

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 736

```

Met Leu Val Tyr Gly Ile Leu Asn Asp Ala Phe His Gly Gly Trp Glu
1          5          10          15

Pro Ser Ser Ser Ser Asp Glu Asp Arg Ser Ser Phe Pro Ser Val
          20          25          30

Lys Ile Glu Thr Pro Glu Ser Phe Ala Ala Val Asp Ser Val Pro Val
          35          40          45

Lys Lys Glu Lys Thr Ser Pro Val Ser Ala Ala Val Thr Ala Ala Lys
          50          55          60

Gly Lys His Tyr Arg Gly Val Arg Gln Arg Pro Trp Gly Lys Phe Ala
65          70          75          80

```

Ala Glu Ile Arg Asp Pro Ala Lys Asn Gly Ala Arg Val Trp Leu Gly  
85 90 95

Thr Phe Glu Thr Ala Glu Asp Ala Ala Leu Ala Tyr Asp Arg Ala Ala  
100 105 110

Phe Arg Met Arg Gly Ser Arg Ala Leu Leu Asn Phe Pro Leu Arg Val  
115 120 125

Asn Ser Gly Glu Pro Asp Pro Val Arg Ile Lys Ser Lys Arg Ser Ser  
130 135 140

Phe Ser Ser Ser Asn Glu Asn Gly Ala Pro Lys Lys Arg Arg Thr Val  
145 150 155 160

Ala Ala Gly Gly Gly Met Asp Lys Gly Leu Thr Val Lys Cys Glu Val  
165 170 175

Val Glu Val Ala Arg Gly Asp Arg Leu Leu Val Leu  
180 185

<210> 737

<211> 795

<212> DNA

<213> Arabidopsis thaliana

<400> 737

atgacagacg acagagttaa cctgcatca aaacctcccg ccatcgtcgg tggcgggtgcc	60
ccaaccacca atccaacttt cccggcgaa aaagctcagc tctacaacgc aaatcgcccc	120
gcttaccgtc caccagctgg tcgtcgtcgt actagccata cccgtggatg ttgctgccgt	180
tgctgttgct ggacgatatt cgtaatcatc ctcttactcc tcatcgtcgc cgccgcatca	240
gccgtcgtat acctaactta ccgtcctcaa cgacctagct tcaccgtctc tgaactcaaa	300
atctccactc tcaacttcac atccgccgtt cgcctcacca ccgccatttc cctctccgtc	360
atcgccagaa accctaacaa aaacgttgga ttcattctacg acgtcaccga catcacactc	420
tacaaagcat ccaccggagg agatgatgac gtagtcattg gtaaagggaac gatcgcggcg	480
ttttctcacg ggaagaagaa cagactacg cttagaagta cgatcggaag tcctccggat	540
gaactcgatg agatctcggc gggtaagctg aaaggagatc tgaaggcgaa gaaagcagtg	600
gcgattaaga ttgttttgaa ctcgaagggtg aaagtgaaga tgggagctct aaaaactcct	660
aaatcaggaa ttaggggttac ttgtgaaggg attaaagtgg tggctccgac gggaaagaag	720

gcgacgacgg ctacgacttc cgccgctaag tgtaagggtg atccaagatt taagatctgg 780  
 aaaattactt tctaa 795

<210> 738

<211> 264

<212> PRT

<213> Arabidopsis thaliana

<400> 738

Met Thr Asp Asp Arg Val Tyr Pro Ala Ser Lys Pro Pro Ala Ile Val  
 1 5 10 15

Gly Gly Gly Ala Pro Thr Thr Asn Pro Thr Phe Pro Ala Asn Lys Ala  
 20 25 30

Gln Leu Tyr Asn Ala Asn Arg Pro Ala Tyr Arg Pro Pro Ala Gly Arg  
 35 40 45

Arg Arg Thr Ser His Thr Arg Gly Cys Cys Cys Arg Cys Cys Cys Trp  
 50 55 60

Thr Ile Phe Val Ile Ile Leu Leu Leu Leu Ile Val Ala Ala Ala Ser  
 65 70 75 80

Ala Val Val Tyr Leu Ile Tyr Arg Pro Gln Arg Pro Ser Phe Thr Val  
 85 90 95

Ser Glu Leu Lys Ile Ser Thr Leu Asn Phe Thr Ser Ala Val Arg Leu  
 100 105 110

Thr Thr Ala Ile Ser Leu Ser Val Ile Ala Arg Asn Pro Asn Lys Asn  
 115 120 125

Val Gly Phe Ile Tyr Asp Val Thr Asp Ile Thr Leu Tyr Lys Ala Ser  
 130 135 140

Thr Gly Gly Asp Asp Asp Val Val Ile Gly Lys Gly Thr Ile Ala Ala  
 145 150 155 160

Phe Ser His Gly Lys Lys Asn Thr Thr Thr Leu Arg Ser Thr Ile Gly  
 165 170 175

Ser Pro Pro Asp Glu Leu Asp Glu Ile Ser Ala Gly Lys Leu Lys Gly  
 180 185 190

047-E2F-PCT.ST25.txt

Asp Leu Lys Ala Lys Lys Ala Val Ala Ile Lys Ile Val Leu Asn Ser  
195 200 205

Lys Val Lys Val Lys Met Gly Ala Leu Lys Thr Pro Lys Ser Gly Ile  
210 215 220

Arg Val Thr Cys Glu Gly Ile Lys Val Val Ala Pro Thr Gly Lys Lys  
225 230 235 240

Ala Thr Thr Ala Thr Thr Ser Ala Ala Lys Cys Lys Val Asp Pro Arg  
245 250 255

Phe Lys Ile Trp Lys Ile Thr Phe  
260

<210> 739

<211> 822

<212> DNA

<213> Arabidopsis thaliana

<400> 739

atgtccctgt gtcttaaaat acctcttatac aaacacacaaa ccacaccaga acagaactca	60
gccatggctt cttcttcttc ttctcttcta atcctagccg ttgcttggtt cgtctcgcta	120
atctcaccgg cgatttcaca acaggcttgc aaatcacaga acttgaactc cgccgggtccg	180
ttcgatagtt gcgaagacct tccggtactc aattcctacc tccattacac ctacaattcc	240
tcaaattcat ctctctccgt cgctttcgtc gccactccat ctcaagccaa cgggtggctgg	300
gtcgcttggg ctattaaccc tacggggact aagatggctg gttctcaagc cttcctcgct	360
tacagatccg gcggtggtgc ggctccggtc gtgaagacgt acaacattag cagctacagc	420
agtctcgtcg aaggtaaaact tgcttttgat ttttggaatc tacgcgccga gtcgttaagc	480
ggcggtagga tcgccatttt caccgaggtt aagggtccgg cgggagctga tagtgtgaat	540
caggatatggc agatcggcgg caatgttacc aacggctcgtc ccggtgtaca tcctttcgggt	600
cctgataatt tgggctccca ccgtgtgttg agtttcacag aagatgcagc accgggctct	660
gctccttcgc cgggatctgc tccggcgccg ggcaccagtg gctcgactac cccaggaaca	720
gcggcgggag gtccagggaa cgcgggggtca ttgacgagga acgtaaattt tgggggtcaat	780
ttgggaattt tggttttggt gggttctatt tttattttct ga	822

<210> 740

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 740

Met Ser Leu Cys Leu Lys Ile Pro Leu Ile Lys His Gln Thr Thr Pro  
 1 5 10 15

Glu Gln Asn Ser Ala Met Ala Ser Ser Ser Ser Ser Leu Leu Ile Leu  
 20 25 30

Ala Val Ala Cys Phe Val Ser Leu Ile Ser Pro Ala Ile Ser Gln Gln  
 35 40 45

Ala Cys Lys Ser Gln Asn Leu Asn Ser Ala Gly Pro Phe Asp Ser Cys  
 50 55 60

Glu Asp Leu Pro Val Leu Asn Ser Tyr Leu His Tyr Thr Tyr Asn Ser  
 65 70 75 80

Ser Asn Ser Ser Leu Ser Val Ala Phe Val Ala Thr Pro Ser Gln Ala  
 85 90 95

Asn Gly Gly Trp Val Ala Trp Ala Ile Asn Pro Thr Gly Thr Lys Met  
 100 105 110

Ala Gly Ser Gln Ala Phe Leu Ala Tyr Arg Ser Gly Gly Gly Ala Ala  
 115 120 125

Pro Val Val Lys Thr Tyr Asn Ile Ser Ser Tyr Ser Ser Leu Val Glu  
 130 135 140

Gly Lys Leu Ala Phe Asp Phe Trp Asn Leu Arg Ala Glu Ser Leu Ser  
 145 150 155 160

Gly Gly Arg Ile Ala Ile Phe Thr Thr Val Lys Val Pro Ala Gly Ala  
 165 170 175

Asp Ser Val Asn Gln Val Trp Gln Ile Gly Gly Asn Val Thr Asn Gly  
 180 185 190

Arg Pro Gly Val His Pro Phe Gly Pro Asp Asn Leu Gly Ser His Arg  
 195 200 205

Val Leu Ser Phe Thr Glu Asp Ala Ala Pro Gly Ser Ala Pro Ser Pro  
 210 215 220

Gly Ser Ala Pro Ala Pro Gly Thr Ser Gly Ser Thr Thr Pro Gly Thr  
 225 230 235 240

Ala Ala Gly Gly Pro Gly Asn Ala Gly Ser Leu Thr Arg Asn Val Asn  
 245 250 255

Phe Gly Val Asn Leu Gly Ile Leu Val Leu Leu Gly Ser Ile Phe Ile  
 260 265 270

Phe

<210> 741

<211> 1884

<212> DNA

<213> Arabidopsis thaliana

<400> 741

atgaagtata agcgtaaagt aagtctctct gttgtcttcc tctttgtctt ctatctcgct	60
gcggtgactt cagatctaga gtctgaccgg agagctttac tcgctgttcg taacagtgtc	120
cgtggccgct ctttgctatg gaacatgagt gcttcttctc cttgtaattg gcacggagtc	180
cactgcgatg cgggtcgggt cacggctctc cgattaccgg gatctggttt attcggttct	240
ttaccaatcg gtggtattgg taatctaacc cagcttaaga ctctttctct cgggttcaat	300
tctctctctg gtcctatccc ttcggttttc tccaaccttg ttctcctccg ttacttgat	360
cttcaaggta atgccttttc cggtgagatt ccgtcgcttc tcttcacgct tccgagcata	420
atcagaatca atctagggga gaataaattc tcgggtcgga tcccggataa tgtcaattct	480
gcgacccggt tggttactct gtatttgag aggaatcaac tctctggtcc gatccctgag	540
atcacgcttc ctcttcagca attcaatgtt tcttctaate agttaaacgg gtctattccg	600
agttcgttgt cgtcttgccc tcgaactgct tttgaaggta acactctctg tgggaagcct	660
ttagacactt gtgaggcaga gagccccaat ggtggtgacg ctggaggacc caatacgccg	720
ccggagaaga aagatagcga caagttatcc gccggagcta ttgtcgggat tgtgatcgga	780
tgtgttggtg gtctgttact gcttcttttg attctgttct gtctctgtag aaagagaaag	840
aaagaagaga acgttccatc taggaatgtt gaagctcctg tcgctgctgc gacttcctcc	900
gctgctatac caaaggaaac ggtggttggt gtcccgccgg ctaaggctac ggggtcggag	960

047-E2F-PCT.ST25.txt

```

agtgggtgcgg tgaataaaga tttgaccttt ttcgtgaaat ctttcgggga attcgatttg 1020
gatggattgt tgaaggcttc agctgagggt cttgggaaag gaacagttgg gtcgtcgtat 1080
aaggcaagct ttgagcatgg gttagtgggt gctgtgaaac ggттаagaga tgттgtgggtg 1140
cctgagaaag agttcagaga gagattgcat gttttgggat caatgagtca tgccaatctc 1200
gtgactctga tcgcttacta tttcagccgt gacgagaagc ttcttgctct tgagtacatg 1260
tctaaaggaa gcttgctctgc gatattgcac ggggaacaaag gaaacgggag aactccgttg 1320
aactgggaaa ccagagccgg tatagcctta ggagctgcaa gagcgattag ctacctacat 1380
tcgcgtgatg ggacaacttc tcatggaaac attaagtcct cgaacatact attatctgac 1440
tcctatgaag ctaaggcttc tgattacggt cttgctccca tcattagttc tacatctgca 1500
cctaaccgta ttgatggcta ccgtgcccct gaaatcactg atgctcgcaa aatatcccaa 1560
aaagctgatg tctatagctt tggcgtccta atccttgaat tactcacagg taagtctcca 1620
acgcatcagc agttgaatga agaaggcgta gatttgccga gatgggtcca atctgttacc 1680
gagcaacaaa caccgtccga tgtgcttgat cccgagctca caaggtagca acctgagggc 1740
aatgagaaca tcattcgttt attgaagatc ggtatgagct gtacggctca gttcccagat 1800
agtcgtcctt cgatggctga agtcaccaga ctcattgagg aggtttctca ttcattctggc 1860
tccccaaatc ctgtatccga ctga 1884

```

<210> 742

<211> 627

<212> PRT

<213> Arabidopsis thaliana

<400> 742

```

Met Lys Tyr Lys Arg Lys Leu Ser Leu Ser Val Val Phe Leu Phe Val
1      5      10     15
Phe Tyr Leu Ala Ala Val Thr Ser Asp Leu Glu Ser Asp Arg Arg Ala
20     25     30
Leu Leu Ala Val Arg Asn Ser Val Arg Gly Arg Pro Leu Leu Trp Asn
35     40     45
Met Ser Ala Ser Ser Pro Cys Asn Trp His Gly Val His Cys Asp Ala
50     55     60
Gly Arg Val Thr Ala Leu Arg Leu Pro Gly Ser Gly Leu Phe Gly Ser
65     70     75     80

```



047-E2F-PCT.ST25.txt

Leu Pro Ile Gly Gly Ile Gly Asn Leu Thr Gln Leu Lys Thr Leu Ser  
 85 90 95  
 Leu Arg Phe Asn Ser Leu Ser Gly Pro Ile Pro Ser Asp Phe Ser Asn  
 100 105 110  
 Leu Val Leu Leu Arg Tyr Leu Tyr Leu Gln Gly Asn Ala Phe Ser Gly  
 115 120 125  
 Glu Ile Pro Ser Leu Leu Phe Thr Leu Pro Ser Ile Ile Arg Ile Asn  
 130 135 140  
 Leu Gly Glu Asn Lys Phe Ser Gly Arg Ile Pro Asp Asn Val Asn Ser  
 145 150 155 160  
 Ala Thr Arg Leu Val Thr Leu Tyr Leu Glu Arg Asn Gln Leu Ser Gly  
 165 170 175  
 Pro Ile Pro Glu Ile Thr Leu Pro Leu Gln Gln Phe Asn Val Ser Ser  
 180 185 190  
 Asn Gln Leu Asn Gly Ser Ile Pro Ser Ser Leu Ser Ser Trp Pro Arg  
 195 200 205  
 Thr Ala Phe Glu Gly Asn Thr Leu Cys Gly Lys Pro Leu Asp Thr Cys  
 210 215 220  
 Glu Ala Glu Ser Pro Asn Gly Gly Asp Ala Gly Gly Pro Asn Thr Pro  
 225 230 235 240  
 Pro Glu Lys Lys Asp Ser Asp Lys Leu Ser Ala Gly Ala Ile Val Gly  
 245 250 255  
 Ile Val Ile Gly Cys Val Val Gly Leu Leu Leu Leu Leu Leu Ile Leu  
 260 265 270  
 Phe Cys Leu Cys Arg Lys Arg Lys Lys Glu Glu Asn Val Pro Ser Arg  
 275 280 285  
 Asn Val Glu Ala Pro Val Ala Ala Ala Thr Ser Ser Ala Ala Ile Pro  
 290 295 300  
 Lys Glu Thr Val Val Val Val Pro Pro Ala Lys Ala Thr Gly Ser Glu  
 305 310 315 320  
 Ser Gly Ala Val Asn Lys Asp Leu Thr Phe Phe Val Lys Ser Phe Gly

Glu Phe Asp Leu Asp Gly Leu Leu Lys Ala Ser Ala Glu Val Leu Gly  
340 345 350

Lys Gly Thr Val Gly Ser Ser Tyr Lys Ala Ser Phe Glu His Gly Leu  
355 360 365

Val Val Ala Val Lys Arg Leu Arg Asp Val Val Val Pro Glu Lys Glu  
370 375 380

Phe Arg Glu Arg Leu His Val Leu Gly Ser Met Ser His Ala Asn Leu  
385 390 395 400

Val Thr Leu Ile Ala Tyr Tyr Phe Ser Arg Asp Glu Lys Leu Leu Val  
405 410 415

Phe Glu Tyr Met Ser Lys Gly Ser Leu Ser Ala Ile Leu His Gly Asn  
420 425 430

Lys Gly Asn Gly Arg Thr Pro Leu Asn Trp Glu Thr Arg Ala Gly Ile  
435 440 445

Ala Leu Gly Ala Ala Arg Ala Ile Ser Tyr Leu His Ser Arg Asp Gly  
450 455 460

Thr Thr Ser His Gly Asn Ile Lys Ser Ser Asn Ile Leu Leu Ser Asp  
465 470 475 480

Ser Tyr Glu Ala Lys Val Ser Asp Tyr Gly Leu Ala Pro Ile Ile Ser  
485 490 495

Ser Thr Ser Ala Pro Asn Arg Ile Asp Gly Tyr Arg Ala Pro Glu Ile  
500 505 510

Thr Asp Ala Arg Lys Ile Ser Gln Lys Ala Asp Val Tyr Ser Phe Gly  
515 520 525

Val Leu Ile Leu Glu Leu Leu Thr Gly Lys Ser Pro Thr His Gln Gln  
530 535 540

Leu Asn Glu Glu Gly Val Asp Leu Pro Arg Trp Val Gln Ser Val Thr  
545 550 555 560

Glu Gln Gln Thr Pro Ser Asp Val Leu Asp Pro Glu Leu Thr Arg Tyr  
565 570 575

Gln Pro Glu Gly Asn Glu Asn Ile Ile Arg Leu Leu Lys Ile Gly Met  
580 585 590

Ser Cys Thr Ala Gln Phe Pro Asp Ser Arg Pro Ser Met Ala Glu Val  
595 600 605

Thr Arg Leu Ile Glu Glu Val Ser His Ser Ser Gly Ser Pro Asn Pro  
610 615 620

Val Ser Asp  
625

<210> 743

<211> 1137

<212> DNA

<213> Arabidopsis thaliana

<400> 743

atgaagatttt tcgtgaagac tctcagtgggt tcgaacttcg agatcgaagt aaaacctgca	60
gataagggttt ctgatgttaa aacggctata gaaactgtta aagggtgcaga ataccctgct	120
gctaagcaga tgctgatcca ccaaggaaag gttctaaagg atgagaccac attggaagag	180
aacaatgtttg ttgagaacag tttcattggt atcatgttgt ccaagaccaa ggctttctcca	240
agtggggcat caaccgcatc tgcaccagca cctagtgtca cacagccaca gacagtagct	300
acacctcagg tttctgctcc tactgcctca gttccagttc ctacaagtgg aactgcaacc	360
gctgcagctc cagctactgc tgcttcgggt cagacagatg tgtatggtca agcagcatca	420
aaccttggtg ctggaactac tttagagtcc actgttcagc aaattcttga tatgggtgga	480
ggtagttggg accgtgacac tggtgttcgt gctctgagag ctgcgttcaa caatcctgaa	540
agagctgttg aatacctgta ctcggttatc cctgctcaag ctgaaatccc accagttgct	600
caagccccag ctactgggga acaggcagcc aatcctctag cacagcccca acaagcagca	660
gctccagcag ctgcaactgg tgggtccaaac gcaaattccat taaacctgtt cccccagggc	720
atgcccgctg cagatgctgg tgctggagct ggtaatcttg atttcctgcg taacagtcaa	780
cagttccaag ccttgcgagc tatggtacaa gcaaaccac aaattctaca gcctatgctt	840
caggagctcg gtaaacaaaa cccccagctt gtgcgactaa ttcaagagca ccaggctgac	900
ttcctacgct tgataaacga acctgtcgag ggagaagaga atgttatgga acagttggaa	960
gcagcaatgc cacaagctgt taccgttaca cctgaagagc gtgaagccat tgaacggctt	1020
gaagggatgg ggtttgatcg tgcgatggtc ttggaagtgt tctttgctg taacaagaat	1080

gaagaacttg cagctaatta ccttctagat cacatgcatg agtttgaaga tcaataa 1137

<210> 744

<211> 378

<212> PRT

<213> Arabidopsis thaliana

<400> 744

Met Lys Ile Phe Val Lys Thr Leu Ser Gly Ser Asn Phe Glu Ile Glu  
1 5 10 15

Val Lys Pro Ala Asp Lys Val Ser Asp Val Lys Thr Ala Ile Glu Thr  
20 25 30

Val Lys Gly Ala Glu Tyr Pro Ala Ala Lys Gln Met Leu Ile His Gln  
35 40 45

Gly Lys Val Leu Lys Asp Glu Thr Thr Leu Glu Glu Asn Asn Val Val  
50 55 60

Glu Asn Ser Phe Ile Val Ile Met Leu Ser Lys Thr Lys Ala Ser Pro  
65 70 75 80

Ser Gly Ala Ser Thr Ala Ser Ala Pro Ala Pro Ser Ala Thr Gln Pro  
85 90 95

Gln Thr Val Ala Thr Pro Gln Val Ser Ala Pro Thr Ala Ser Val Pro  
100 105 110

Val Pro Thr Ser Gly Thr Ala Thr Ala Ala Ala Pro Ala Thr Ala Ala  
115 120 125

Ser Val Gln Thr Asp Val Tyr Gly Gln Ala Ala Ser Asn Leu Val Ala  
130 135 140

Gly Thr Thr Leu Glu Ser Thr Val Gln Gln Ile Leu Asp Met Gly Gly  
145 150 155 160

Gly Ser Trp Asp Arg Asp Thr Val Val Arg Ala Leu Arg Ala Ala Phe  
165 170 175

Asn Asn Pro Glu Arg Ala Val Glu Tyr Leu Tyr Ser Gly Ile Pro Ala  
180 185 190

Gln Ala Glu Ile Pro Pro Val Ala Gln Ala Pro Ala Thr Gly Glu Gln  
 195 200 205

Ala Ala Asn Pro Leu Ala Gln Pro Gln Gln Ala Ala Ala Pro Ala Ala  
 210 215 220

Ala Thr Gly Gly Pro Asn Ala Asn Pro Leu Asn Leu Phe Pro Gln Gly  
 225 230 235 240

Met Pro Ala Ala Asp Ala Gly Ala Gly Ala Gly Asn Leu Asp Phe Leu  
 245 250 255

Arg Asn Ser Gln Gln Phe Gln Ala Leu Arg Ala Met Val Gln Ala Asn  
 260 265 270

Pro Gln Ile Leu Gln Pro Met Leu Gln Glu Leu Gly Lys Gln Asn Pro  
 275 280 285

Gln Leu Val Arg Leu Ile Gln Glu His Gln Ala Asp Phe Leu Arg Leu  
 290 295 300

Ile Asn Glu Pro Val Glu Gly Glu Glu Asn Val Met Glu Gln Leu Glu  
 305 310 315 320

Ala Ala Met Pro Gln Ala Val Thr Val Thr Pro Glu Glu Arg Glu Ala  
 325 330 335

Ile Glu Arg Leu Glu Gly Met Gly Phe Asp Arg Ala Met Val Leu Glu  
 340 345 350

Val Phe Phe Ala Cys Asn Lys Asn Glu Glu Leu Ala Ala Asn Tyr Leu  
 355 360 365

Leu Asp His Met His Glu Phe Glu Asp Gln  
 370 375

<210> 745

<211> 651

<212> DNA

<213> Arabidopsis thaliana

<400> 745

atggcggttg cgccggcaag agctcggttca gactatgatt acctcatcaa gcttcttctc 60

atcggcgata gcggtgtggg gaagagttgt ttgttacttc gattctcaga tgatactttc 120

047-E2F-PCT.ST25.txt

actacaagtt tcattactac cattggtatt gacttcaaga taagaactgt tgaacttgat 180  
 ggggaagcgta tcaaattgca gatttgggac actgctgggc aagaacgttt cagaactatc 240  
 actacagcgt attacagggg agcgatgggt atattgcttg tctacgatgt aacggatgag 300  
 tcattctttta acaatattag gaactggatg aagaacattg agcaacatgc ctcagataat 360  
 gtcaacaaaa tattggttgg taacaaagct gatatggatg aaagcaaaag ggctgttcca 420  
 acagcaaagg gccaaagcttt ggctgatgag tatggaatca aattctttga gacgagtgc 480  
 aaaacaaacc tcaatgtcga aaatgttttc atgtcaatcg caaaagacat aaaacaaaga 540  
 ttgacagaaa ccgacacgaa ggcagagccc caaggcatca agatcactaa acaagatact 600  
 gccgcacgt cttctacagc cgagaagtca gcttgctgta gttacgttta g 651

<210> 746

<211> 216

<212> PRT

<213> Arabidopsis thaliana

<400> 746

Met Ala Val Ala Pro Ala Arg Ala Arg Ser Asp Tyr Asp Tyr Leu Ile  
 1 5 10 15

Lys Leu Leu Leu Ile Gly Asp Ser Gly Val Gly Lys Ser Cys Leu Leu  
 20 25 30

Leu Arg Phe Ser Asp Asp Thr Phe Thr Thr Ser Phe Ile Thr Thr Ile  
 35 40 45

Gly Ile Asp Phe Lys Ile Arg Thr Val Glu Leu Asp Gly Lys Arg Ile  
 50 55 60

Lys Leu Gln Ile Trp Asp Thr Ala Gly Gln Glu Arg Phe Arg Thr Ile  
 65 70 75 80

Thr Thr Ala Tyr Tyr Arg Gly Ala Met Gly Ile Leu Leu Val Tyr Asp  
 85 90 95

Val Thr Asp Glu Ser Ser Phe Asn Asn Ile Arg Asn Trp Met Lys Asn  
 100 105 110

Ile Glu Gln His Ala Ser Asp Asn Val Asn Lys Ile Leu Val Gly Asn  
 115 120 125

Lys Ala Asp Met Asp Glu Ser Lys Arg Ala Val Pro Thr Ala Lys Gly  
 130 135 140

Gln Ala Leu Ala Asp Glu Tyr Gly Ile Lys Phe Phe Glu Thr Ser Ala  
 145 150 155 160

Lys Thr Asn Leu Asn Val Glu Asn Val Phe Met Ser Ile Ala Lys Asp  
 165 170 175

Ile Lys Gln Arg Leu Thr Glu Thr Asp Thr Lys Ala Glu Pro Gln Gly  
 180 185 190

Ile Lys Ile Thr Lys Gln Asp Thr Ala Ala Ser Ser Ser Thr Ala Glu  
 195 200 205

Lys Ser Ala Cys Cys Ser Tyr Val  
 210 215

<210> 747

<211> 2664

<212> DNA

<213> Arabidopsis thaliana

<400> 747

atggaaacga cagatagcat gaccgataag aaaagtgttg aagacgcgga aaatgtgcct	60
gagcatgcga ctgagtccat gcatgtttct caaaacaacg tgaatgatac ttctacagct	120
ttggctattg aacacgatca tagagatggc acaatcactg ctagtgccaa taagattaca	180
gatacggttg acgagaaagg tgacaaagat gaggattata aggagaacct tcatggagtg	240
aagttggaag aaactcttta tccagatgtt cctgaacggt tggaagagct taaggaagtg	300
aagggtaatg atggtgatgc caacaaagcg gaagttgaag gcccggaatg tgttgaggaa	360
aatgctctag ctaatagaac gcctgcagaa tacattagca gtgtatcgga tagctccgtc	420
cacaaatgca aggataaagg caaaaattct gatgtccctc ttacacattt agttggaaat	480
gctctctttt ctgaaagcaa gactgaggat cttcatgaca aggataaaga tgaaaaagat	540
gacaacttcg gaggaccgag tatcagaggg tttgaactgt tctctagttc tccggttagg	600
agagcaaaaa aaactgagca gtcagggtgtc aataagcaca aggatgagaa gttgttggtg	660
gagccactgg atctgtcact tagcctacca gatgtattgt tgccgattgg tggccaggat	720
actaatcagc tggggtcacc agtccgttct ggaagtgttc ggtctttgac agacacgttt	780
tgtaccaatt ctgatggctt tacaatgtct atgtcctttt cagggtcccg ttcgttcaat	840

cataatccaa gctgttcgct gagtcacaat attggagaca atgagcagtc agttcatagc	900
cgacctatat ttcaggggtat agattggcag gcactgtctc ataatgattc aaagtacaat	960
gagaatacag tctatcaaag actgatggaa aatggaaatg gttcagttca acctcgagca	1020
atgaaaggca atttaatttc ggggtcaagct gatgaagagc atcttagatt gcccgatggg	1080
agctctaagg cagcaaatat acttgagaaa caattgagtt tccagaaaag tgttgatggt	1140
agatcagcat gtccaagaac gggctctctt gaaaatgggt caaagtttac tgttgagaag	1200
aaaacggcca aggactttta cagtggtagt aattcgtgga taactgggct ggaagccggt	1260
gggcatgatt ttgttgagac cgtcatcaga tacattctct ccgattcgat gcctgtaatg	1320
accaagagat ttcatgaaat gcccaactga aacatcacta gcctgaagga aaacattcgg	1380
cagatgatgc tgaacatgga taagaatgta caacttggtg cttttcaaga tgctttgcag	1440
aacaggactg atataaact ggaattgctt acaaaatctc atcgcgctca gttggagatc	1500
ttggctgcac tgaaatctgg gcgttctgat ttccttcttt tggacaacag catctcgtct	1560
tcccatttag ctgagatttt catgaacatg agatgcaaaa atctttcttg tagggttctg	1620
ttgcctgtgg acgaatgcga ttgcagggtt tgttcaagga aggatggatt ttgtagtgct	1680
tgcatgtgtc ttgtgtgtc aaattttgat atggcatcca acacctgtag ctgggttggg	1740
tgtgatgtgt gcctacactg gtgccacaca gattgtggga taaaagagtc ttacatccgg	1800
aatgggatca atgcttctgg tgctccagga atgaccgaga tgcaatttca ctgtgttgcc	1860
tgtaaccatc cctcagagat gtttggtctt gtcaaagaag tgtttctgaa ttttgcaagg	1920
gaatggaaat ttgagcgctt ttgcaaggaa ctggagtatg tcaataaaat attttcatca	1980
agcaaagact ctagagggaa acagctgaga caagctgctg atgcatgct ggcaagtgtg	2040
aaaagtaaat tgataggcct tcctgaagct tgcaatcgca tattgggttt catttcagac	2100
tgtgattcct ccactcctgc tgaaactagt gcaccgttca tatacgaaca gccaaaaccc	2160
aggcatgaga ggggaagccc tagtcaggac acggcgtggc tgagatcggg gtgctcagat	2220
aaccgcgata atcagctgaa aaggctcagc agcgtagctg atgcattcca cagagagagg	2280
caagttgaaa tatgtgcagt ggagatggag ttggaaaggg gttcaccaaa ggaacctcgt	2340
ttcgaagagc tagagagcat tgtgagaatg aagcaagcag aggagaaat gttccaaggg	2400
cgggccgatg atgcacgaag agaagcagag ggactgaaac gaatagcaat agcgaagaag	2460
gagaagatag aagaagagta caatcggaga atggggaagt tgagtatgga ggatgcacag	2520
gagagaagga ggaggaggta cgaggagtta gaggcaatgc agagagggca gagagagttt	2580
tatgaaatga agatgagaat ggaggaagag atgagagggc ttctcaccaa aatggaaatg	2640
acgaagcaga gtctggcctt gtaa	2664



&lt;210&gt; 748

&lt;211&gt; 887

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 748

Met Glu Thr Thr Asp Ser Met Thr Asp Lys Lys Ser Val Glu Asp Ala  
1 5 10 15

Glu Asn Val Pro Glu His Ala Thr Glu Ser Met His Val Ser Gln Asn  
20 25 30

Asn Val Asn Asp Thr Ser Thr Ala Leu Ala Ile Glu His Asp His Arg  
35 40 45

Asp Gly Thr Ile Thr Ala Ser Ala Asn Lys Ile Thr Asp Thr Val Asp  
50 55 60

Glu Lys Gly Asp Lys Asp Glu Asp Tyr Lys Glu Asn Leu His Gly Val  
65 70 75 80

Lys Leu Glu Glu Thr Leu Tyr Pro Asp Val Pro Glu Arg Leu Glu Glu  
85 90 95

Leu Lys Glu Val Lys Gly Asn Asp Gly Asp Ala Asn Lys Ala Glu Val  
100 105 110

Glu Gly Pro Glu Cys Val Glu Glu Asn Ala Leu Ala Asn Arg Thr Pro  
115 120 125

Ala Glu Tyr Ile Ser Ser Val Ser Asp Ser Ser Val His Lys Cys Lys  
130 135 140

Asp Lys Gly Lys Asn Ser Asp Val Pro Leu Thr His Leu Val Gly Asn  
145 150 155 160

Ala Leu Phe Ser Glu Ser Lys Thr Glu Asp Leu His Asp Lys Asp Lys  
165 170 175

Asp Glu Lys Asp Asp Asn Phe Gly Gly Pro Ser Ile Arg Gly Phe Glu  
180 185 190

Leu Phe Ser Ser Ser Pro Val Arg Arg Ala Lys Lys Thr Glu Gln Ser  
195 200 205

047-E2F-PCT.ST25.txt

Gly Val Asn Lys His Lys Asp Glu Lys Leu Leu Leu Glu Pro Leu Asp  
 210 215 220  
 Leu Ser Leu Ser Leu Pro Asp Val Leu Leu Pro Ile Gly Gly Gln Asp  
 225 230 235 240  
 Thr Asn Gln Leu Gly Ser Pro Val Arg Ser Gly Ser Val Arg Ser Leu  
 245 250 255  
 Thr Asp Thr Phe Cys Thr Asn Ser Asp Gly Phe Thr Met Ser Met Ser  
 260 265 270  
 Phe Ser Gly Ser Arg Ser Phe Asn His Asn Pro Ser Cys Ser Leu Ser  
 275 280 285  
 His Asn Ile Gly Asp Asn Glu Gln Ser Val His Ser Arg Pro Ile Phe  
 290 295 300  
 Gln Gly Ile Asp Trp Gln Ala Leu Ser His Asn Asp Ser Lys Tyr Asn  
 305 310 315 320  
 Glu Asn Thr Val Tyr Gln Arg Leu Met Glu Asn Gly Asn Gly Ser Val  
 325 330 335  
 Gln Pro Arg Ala Met Lys Gly Asn Leu Ile Ser Gly Gln Ala Asp Glu  
 340 345 350  
 Glu His Leu Arg Leu Pro Asp Gly Ser Ser Lys Ala Ala Asn Ile Leu  
 355 360 365  
 Glu Lys Gln Leu Ser Phe Gln Lys Ser Val Asp Val Arg Ser Ala Cys  
 370 375 380  
 Pro Arg Thr Gly Ser Leu Glu Asn Gly Ser Lys Phe Thr Val Glu Lys  
 385 390 395 400  
 Lys Thr Ala Lys Asp Phe Tyr Ser Gly Ser Asn Ser Trp Ile Thr Gly  
 405 410 415  
 Leu Glu Ala Gly Gly His Asp Phe Val Glu Thr Val Ile Arg Tyr Ile  
 420 425 430  
 Leu Ser Asp Ser Met Pro Val Met Thr Lys Arg Phe His Glu Met Pro  
 435 440 445  
 Thr Arg Asn Ile Thr Ser Leu Lys Glu Asn Ile Arg Gln Met Met Leu  
 450 455 460

047-E2F-PCT.ST25.txt

Asn Met Asp Lys Asn Val Gln Leu Gly Ala Phe Gln Asp Ala Leu Gln  
465 470 475 480

Asn Arg Thr Asp Ile Thr Leu Glu Leu Leu Thr Lys Ser His Arg Ala  
485 490 495

Gln Leu Glu Ile Leu Val Ala Leu Lys Ser Gly Arg Ser Asp Phe Leu  
500 505 510

Leu Leu Asp Asn Ser Ile Ser Ser His Leu Ala Glu Ile Phe Met  
515 520 525

Asn Met Arg Cys Lys Asn Leu Ser Cys Arg Val Leu Leu Pro Val Asp  
530 535 540

Glu Cys Asp Cys Arg Val Cys Ser Arg Lys Asp Gly Phe Cys Ser Ala  
545 550 555 560

Cys Met Cys Leu Val Cys Ser Asn Phe Asp Met Ala Ser Asn Thr Cys  
565 570 575

Ser Trp Val Gly Cys Asp Val Cys Leu His Trp Cys His Thr Asp Cys  
580 585 590

Gly Ile Lys Glu Ser Tyr Ile Arg Asn Gly Ile Asn Ala Ser Gly Ala  
595 600 605

Pro Gly Met Thr Glu Met Gln Phe His Cys Val Ala Cys Asn His Pro  
610 615 620

Ser Glu Met Phe Gly Phe Val Lys Glu Val Phe Leu Asn Phe Ala Arg  
625 630 635 640

Glu Trp Lys Phe Glu Arg Phe Cys Lys Glu Leu Glu Tyr Val Asn Lys  
645 650 655

Ile Phe Ser Ser Ser Lys Asp Ser Arg Gly Lys Gln Leu Arg Gln Ala  
660 665 670

Ala Asp Ala Met Leu Ala Ser Leu Lys Ser Lys Leu Ile Gly Leu Pro  
675 680 685

Glu Ala Cys Asn Arg Ile Leu Gly Phe Ile Ser Asp Cys Asp Ser Ser  
690 695 700

Thr Pro Ala Glu Thr Ser Ala Pro Phe Ile Tyr Glu Gln Pro Lys Pro  
Page 1189

705 710 720  
Arg His Glu Arg Gly Ser Pro Ser Gln Asp Thr Ala Trp Leu Arg Ser  
725 730 735  
Val Cys Ser Asp Asn Pro His Asn Gln Leu Lys Arg Ser Ala Ser Val  
740 745 750  
Ala Asp Ala Phe His Arg Glu Arg Gln Val Glu Ile Cys Ala Val Glu  
755 760 765  
Met Glu Leu Glu Arg Gly Ser Pro Lys Glu Pro Arg Phe Glu Glu Leu  
770 775 780  
Glu Ser Ile Val Arg Met Lys Gln Ala Glu Ala Glu Met Phe Gln Gly  
785 790 795 800  
Arg Ala Asp Asp Ala Arg Arg Glu Ala Glu Gly Leu Lys Arg Ile Ala  
805 810 815  
Ile Ala Lys Lys Glu Lys Ile Glu Glu Glu Tyr Asn Arg Arg Met Gly  
820 825 830  
Lys Leu Ser Met Glu Asp Ala Gln Glu Arg Arg Arg Arg Arg Tyr Glu  
835 840 845  
Glu Leu Glu Ala Met Gln Arg Gly Gln Arg Glu Phe Tyr Glu Met Lys  
850 855 860  
Met Arg Met Glu Glu Glu Met Arg Gly Leu Leu Thr Lys Met Glu Met  
865 870 875 880  
Thr Lys Gln Ser Leu Ala Leu  
885

<210> 749

<211> 888

<212> DNA

<213> Arabidopsis thaliana

<400> 749

atggcggttt ctcaccgtct cctcaggccg gcgacgacga cgataaagaa tactttttct 60  
tctctcttta ttaggtctct ctcttcttct tcgtctgggt cctcgctaga ccccaaatc 120  
gatctggagg aggctgcggc tcagctcggg aagtcttcgt ctacgtcaac gtctccatac 180

047-E2F-PCT.ST25.txt

aaaggcagaa atttccactg ggtgtttctt ggatgtcctg gtgttggtaa aggaacctat 240  
gcctctcgtc tctcttctct cctcggcggt cctcatattg cacttggtga tctcgttcgt 300  
gaagagctct cctcctctgg cctcctctcc tctcagctca aggagcttgt taaccatgga 360  
aaactagttc ctgatgaatt cataataagt ttgttatcaa agcgtctcca agctggcaaa 420  
gacaagggtg aatctggata cattcttgat ggttttccac gcaccgtgac tcaagcgga 480  
atactggagg gagtaactaa tatcgatctg gtgattaacc tgaagctacg agaagaggca 540  
ttgcttgcca aatgtttagg aagaagaatt tgcagcgagt gtggtggaaa ctataacgtt 600  
gcctgcattg atatcaaagg tgatgatgat actcccagaa tgtatatgcc tcctcttctt 660  
cctccgcaa actgtgaatc gaagcttata agccgagctg atgacactga agaagttgtc 720  
aaggaaagac tcaggattta caacaaaatg actcaaccag tggaggaatt ctacaagaaa 780  
cgcggaagc tgttggaatt tgaattgcc ggtggaatcc cagagtcatt ggcaaggctc 840  
cttagggcat tacaccttga agacgataaa cagtctgcaa tagcctaa 888

<210> 750

<211> 295

<212> PRT

<213> Arabidopsis thaliana

<400> 750

Met Ala Val Ser His Arg Leu Leu Arg Pro Ala Thr Thr Thr Ile Lys  
1 5 10 15

Asn Thr Phe Ser Ser Leu Phe Ile Arg Ser Leu Ser Ser Ser Ser Ser  
20 25 30

Gly Ser Ser Leu Asp Pro Lys Ile Asp Leu Glu Glu Ala Ala Ala Gln  
35 40 45

Leu Gly Lys Ser Ser Ser Thr Ser Thr Ser Pro Tyr Lys Gly Arg Asn  
50 55 60

Phe His Trp Val Phe Leu Gly Cys Pro Gly Val Gly Lys Gly Thr Tyr  
65 70 75 80

Ala Ser Arg Leu Ser Ser Leu Leu Gly Val Pro His Ile Ala Thr Gly  
85 90 95

Asp Leu Val Arg Glu Glu Leu Ser Ser Ser Gly Leu Leu Ser Ser Gln

100

105

110

Leu Lys Glu Leu Val Asn His Gly Lys Leu Val Pro Asp Glu Phe Ile  
 115 120 125

Ile Ser Leu Leu Ser Lys Arg Leu Gln Ala Gly Lys Asp Lys Gly Glu  
 130 135 140

Ser Gly Tyr Ile Leu Asp Gly Phe Pro Arg Thr Val Thr Gln Ala Glu  
 145 150 155 160

Ile Leu Glu Gly Val Thr Asn Ile Asp Leu Val Ile Asn Leu Lys Leu  
 165 170 175

Arg Glu Glu Ala Leu Leu Ala Lys Cys Leu Gly Arg Arg Ile Cys Ser  
 180 185 190

Glu Cys Gly Gly Asn Tyr Asn Val Ala Cys Ile Asp Ile Lys Gly Asp  
 195 200 205

Asp Asp Thr Pro Arg Met Tyr Met Pro Pro Leu Leu Pro Pro Pro Asn  
 210 215 220

Cys Glu Ser Lys Leu Ile Ser Arg Ala Asp Asp Thr Glu Glu Val Val  
 225 230 235 240

Lys Glu Arg Leu Arg Ile Tyr Asn Lys Met Thr Gln Pro Val Glu Glu  
 245 250 255

Phe Tyr Lys Lys Arg Gly Lys Leu Leu Glu Phe Glu Leu Pro Gly Gly  
 260 265 270

Ile Pro Glu Ser Trp Ala Arg Leu Leu Arg Ala Leu His Leu Glu Asp  
 275 280 285

Asp Lys Gln Ser Ala Ile Ala  
 290 295

<210> 751

<211> 1470

<212> DNA

<213> Arabidopsis thaliana

<400> 751

atgggacctc gttgctctaa gctctctctc tgttggtggc cgacccatct caaatcaact

60

047-E2F-PCT.ST25.txt

```

cacaacgaag cttctgatct agataacgga acggacgatt tgccgtcggt tacggagttt 120
agtttcgacc aactacgagc tgctacttgt ggattctcta cagacagtat tgtctccgaa 180
catggtgtta aagctcctaa tgttgtgtat aaaggcagac ttgaagatga ccgatggatc 240
gctgttaaac gattcaatag atccgcttgg cctgatactc gtcaatttct tgaagaagca 300
aaagctgtgg ggcagttgag gaatgagagg ttggcgaatt tgattggatt ctgttgtgaa 360
ggagacgaga gattgctcgt tgctgagttt atgccttttg aaactctctc gaagcatctc 420
tttctactggg atagtcagcc aatgaagtgg tctatgaggt tgagagtggc tttgtatctt 480
gcacaagcac ttgagtattg tagcagcaaa ggtcgcgcct tgtaccacga tcttaatgct 540
tacaggatct tgtttgacca ggatggtaac ccgagattat cttgcttttg tcttatgaag 600
aatagtaggg atgggaagag ttacagtaca aatttggtt tcacacctcc tgaataccta 660
agaacagggg gagtgattcc ggagagtgtg gtctacagct tcggaacgct gttgctagat 720
cttctcagcg gcaaacacat accaccaagc catgcgcttg atctgattcg tgggaagaat 780
ttcctgatgc tgatggactc gtgtctagat ggccatttct caaacgatga tggaaaccgat 840
ttggttcgtt tagcttcccg ttgtttgcag tatgaagctc gtgaaaggcc aaatgtgaaa 900
tctctcgtgt cctcactcgc tcctcttcag aaagaaactg atattccgtc tcatgtttta 960
atggggattc cacatggagc tgcttctcca aaggaaacaa cttcgcttac ccctcttggt 1020
gacgcttggt cacgacatga tctcacagca atacatgaaa ttctcgaaaa ggttggatac 1080
aaagatgacg aggggtgtagc aaatgagctc tcgttccaag tgtggaccga ccagattcag 1140
gagactctaa actccaagaa acaaggagat gctgcgttca aaggcaaaga ctttgtcact 1200
gctgttgaat gttacacgca gttcatcgaa gatggcacia tggatcgcc aacagttttt 1260
gcaaggaggt gtttgtgtta tctgatgagc aatatgcctc aagaggctct tggatgatgca 1320
atgcaggcgc aagtagtgct tcctgaatgg ccaacggctt tctatcttca ggccgctgct 1380
ctcttcagcc ttggaatgga taaagacgcc tgtgaaaccc taaaagatgg aacttccttg 1440
gaagccaaga aacataacaa cagaaactga 1470

```

<210> 752

<211> 489

<212> PRT

<213> Arabidopsis thaliana

<400> 752

Met Gly Pro Arg Cys Ser Lys Leu Ser Leu Cys Trp Trp Pro Thr His

1 5 15

Leu Lys Ser Thr His Asn Glu Ala Ser Asp Leu Asp Asn Gly Thr Asp  
20 25 30

Asp Leu Pro Ser Phe Thr Glu Phe Ser Phe Asp Gln Leu Arg Ala Ala  
35 40 45

Thr Cys Gly Phe Ser Thr Asp Ser Ile Val Ser Glu His Gly Val Lys  
50 55 60

Ala Pro Asn Val Val Tyr Lys Gly Arg Leu Glu Asp Asp Arg Trp Ile  
65 70 75 80

Ala Val Lys Arg Phe Asn Arg Ser Ala Trp Pro Asp Thr Arg Gln Phe  
85 90 95

Leu Glu Glu Ala Lys Ala Val Gly Gln Leu Arg Asn Glu Arg Leu Ala  
100 105 110

Asn Leu Ile Gly Phe Cys Cys Glu Gly Asp Glu Arg Leu Leu Val Ala  
115 120 125

Glu Phe Met Pro Phe Glu Thr Leu Ser Lys His Leu Phe His Trp Asp  
130 135 140

Ser Gln Pro Met Lys Trp Ser Met Arg Leu Arg Val Ala Leu Tyr Leu  
145 150 155 160

Ala Gln Ala Leu Glu Tyr Cys Ser Ser Lys Gly Arg Ala Leu Tyr His  
165 170 175

Asp Leu Asn Ala Tyr Arg Ile Leu Phe Asp Gln Asp Gly Asn Pro Arg  
180 185 190

Leu Ser Cys Phe Gly Leu Met Lys Asn Ser Arg Asp Gly Lys Ser Tyr  
195 200 205

Ser Thr Asn Leu Ala Phe Thr Pro Pro Glu Tyr Leu Arg Thr Gly Arg  
210 215 220

Val Ile Pro Glu Ser Val Val Tyr Ser Phe Gly Thr Leu Leu Leu Asp  
225 230 235 240

Leu Leu Ser Gly Lys His Ile Pro Pro Ser His Ala Leu Asp Leu Ile  
245 250 255



Arg Gly Lys Asn Phe Leu Met Leu Met Asp Ser Cys Leu Asp Gly His  
260 265 270

Phe Ser Asn Asp Asp Gly Thr Asp Leu Val Arg Leu Ala Ser Arg Cys  
275 280 285

Leu Gln Tyr Glu Ala Arg Glu Arg Pro Asn Val Lys Ser Leu Val Ser  
290 295 300

Ser Leu Ala Pro Leu Gln Lys Glu Thr Asp Ile Pro Ser His Val Leu  
305 310 315 320

Met Gly Ile Pro His Gly Ala Ala Ser Pro Lys Glu Thr Thr Ser Leu  
325 330 335

Thr Pro Leu Gly Asp Ala Cys Ser Arg His Asp Leu Thr Ala Ile His  
340 345 350

Glu Ile Leu Glu Lys Val Gly Tyr Lys Asp Asp Glu Gly Val Ala Asn  
355 360 365

Glu Leu Ser Phe Gln Val Trp Thr Asp Gln Ile Gln Glu Thr Leu Asn  
370 375 380

Ser Lys Lys Gln Gly Asp Ala Ala Phe Lys Gly Lys Asp Phe Val Thr  
385 390 395 400

Ala Val Glu Cys Tyr Thr Gln Phe Ile Glu Asp Gly Thr Met Val Ser  
405 410 415

Pro Thr Val Phe Ala Arg Arg Cys Leu Cys Tyr Leu Met Ser Asn Met  
420 425 430

Pro Gln Glu Ala Leu Gly Asp Ala Met Gln Ala Gln Val Val Ser Pro  
435 440 445

Glu Trp Pro Thr Ala Phe Tyr Leu Gln Ala Ala Ala Leu Phe Ser Leu  
450 455 460

Gly Met Asp Lys Asp Ala Cys Glu Thr Leu Lys Asp Gly Thr Ser Leu  
465 470 475 480

Glu Ala Lys Lys His Asn Asn Arg Asn  
485

<210> 753

<211> 864

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 753

```

atgggaagag aagttgttga ggtgcttatg gaccgaaacg cgcacgtttc aagcgctaga      60
gttcatgttg ctcctaagat agctgcagag gagactgatg aggaatttga agtcaaagaa      120
tgcacagagg agaagtctct ttctgagaat gcaccaaattg ttggatctgc tgagagagtt      180
ggagctcaga aatcacctaa aacccgtaat ggaaatgcta aagtttcaaa gcagcaggat      240
gctcctcttc tcgcggtgag gaagccattg caacccgaga acaagaagca tattgatgac      300
gaagataatt gctccattgc ttcttccggt gcaacttcca tgaggatggg taagtctgga      360
ttgacttatg gaagtgtctc aacgtttagg agtgctcaac gtgctgagaa acgcaaggag      420
tattaccaa agctcgagga gaaaaaccaa gcgcttgaag ctgagaggaa cgagcttgaa      480
cagaggcaaa aggatgaaca agaagcagcc ttgaagcaac ttagaaagaa tctcaagttc      540
aaggctaaac ccgtcccaa cttctactac gaggcacctc ctgcgaaacc tgagctcaag      600
aagcttcctt tgacacgtcc caagtcgcca aaactgatcc tttctcggag aaaaagcttc      660
agcgacgcag tcagctcgtc ttcccgtgaa gagattctga agacagtctc taaccggaac      720
cgacacagca ctggaacagt tcagaacaaa gacgatgatc acaggaacaa gaacaccaat      780
gctgcgcacg acagccctcg tgtcagatca ggcaaaggta aatccggatt gaaaccagtg      840
aacgagtcct cagaagaagc ttga                                         864

```

&lt;210&gt; 754

&lt;211&gt; 287

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 754

```

Met Gly Arg Glu Val Val Glu Val Leu Met Asp Arg Asn Ala Asp Val
1          5          10          15

Ser Ser Ala Arg Val His Val Ala Pro Lys Ile Ala Ala Glu Glu Thr
20        25        30

Asp Glu Glu Phe Glu Val Lys Glu Cys Thr Glu Glu Lys Ser Leu Ser
35          40          45

```

047-E2F-PCT.ST25.txt

Glu Asn Ala Pro Asn Val Gly Ser Ala Glu Arg Val Gly Ala Gln Lys  
50 55 60

Ser Pro Lys Thr Arg Asn Gly Asn Ala Lys Val Ser Lys Gln Gln Asp  
65 70 75 80

Ala Pro Leu Leu Ala Val Arg Lys Pro Leu Gln Pro Glu Asn Lys Lys  
85 90 95

His Ile Asp Asp Glu Asp Asn Cys Ser Ile Ala Ser Ser Val Ala Thr  
100 105 110

Ser Met Arg Met Gly Lys Ser Gly Leu Thr Tyr Gly Ser Ala Pro Thr  
115 120 125

Phe Arg Ser Ala Gln Arg Ala Glu Lys Arg Lys Glu Tyr Tyr Gln Lys  
130 135 140

Leu Glu Glu Lys Asn Gln Ala Leu Glu Ala Glu Arg Asn Glu Leu Glu  
145 150 155 160

Gln Arg Gln Lys Asp Glu Gln Glu Ala Ala Leu Lys Gln Leu Arg Lys  
165 170 175

Asn Leu Lys Phe Lys Ala Lys Pro Val Pro Asn Phe Tyr Tyr Glu Ala  
180 185 190

Pro Pro Ala Lys Pro Glu Leu Lys Lys Leu Pro Leu Thr Arg Pro Lys  
195 200 205

Ser Pro Lys Leu Ile Leu Ser Arg Arg Lys Ser Phe Ser Asp Ala Val  
210 215 220

Ser Ser Ser Ser Arg Glu Glu Ile Leu Lys Thr Val Ser Asn Arg Asn  
225 230 235 240

Arg His Ser Thr Gly Thr Val Gln Asn Lys Asp Asp Asp His Arg Asn  
245 250 255

Lys Asn Thr Asn Ala Ala His Asp Ser Pro Arg Val Arg Ser Gly Lys  
260 265 270

Gly Lys Ser Gly Leu Lys Pro Val Asn Glu Ser Ser Glu Glu Ala  
275 280 285

<210> 755

<211> 780

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 755

```

atggaccgga ggctcaagaa atgctcgaca tccaccgatg ttgaatcagt tcatgatggt      60
agtaagggtca cggatccttt gcagaaagct aagagagagt tggataatgt ggaaatcaaa    120
gaaaaacaga agaagcagaa gaaccaaagt gaaacatctg agaaggaaac taaaaaatc      180
agcaccgttt acgaaaagtt taatgatact attaaagaac tagacagggt ttctggaaca    240
tgtcccatac gacctgccat tccattcacg cccccaaagg aaaagggtgga accgatatat    300
cacaatgagt gcaatttcga tgataaagct catctgggag tatctgacag cgcccttttt    360
gtacaaggat ttgatacttc ccatccaagg catgaaatca agacagcatt gtggaatcat    420
ttctcttcat gtggttaagg ctatctgatt tatgttccca ttgcgtgttc taccggtgct    480
tcggtgggat atgctttcat tgatatgaaa aatgaaacca aggggttgac actcaatgga    540
agtcatttgg gaggacggaa gatcgatggt atgttcgcca tagatagaga agagttttac    600
ttctcttcta acttaaaaca ctgtcaacgc tgccgtaatt ataggccatg gcttgtttta    660
aaagccatgt cagatgcctg ctttgaatat caccagagga ttaaaccgcg gatcgttggc    720
actcccata gcaagattgg tcgttttaca gccattattg gtcgtcgctc ttacagctag    780

```

&lt;210&gt; 756

&lt;211&gt; 259

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 756

```

Met Asp Arg Arg Leu Lys Lys Cys Ser Thr Ser Thr Asp Val Glu Ser
 1          5          10          15

Val His Asp Val Ser Lys Val Thr Asp Pro Leu Gln Lys Ala Lys Arg
          20          25          30

Glu Leu Asp Asn Val Glu Ile Lys Glu Lys Gln Lys Lys Gln Lys Asn
          35          40          45

Gln Asn Glu Thr Ser Glu Lys Glu Thr Lys Lys Phe Ser Thr Val Tyr
          50          55          60

```

Glu Lys Phe Asn Asp Thr Ile Lys Glu Leu Asp Arg Val Ser Gly Thr  
 65 70 75 80

Cys Pro Ile Arg Pro Ala Ile Pro Phe Thr Pro Pro Lys Glu Lys Val  
 85 90 95

Glu Pro Ile Tyr His Asn Glu Cys Asn Phe Asp Asp Lys Ala His Leu  
 100 105 110

Gly Val Ser Asp Ser Ala Leu Phe Val Gln Gly Phe Asp Thr Ser His  
 115 120 125

Pro Arg His Glu Ile Lys Thr Ala Leu Trp Asn His Phe Ser Ser Cys  
 130 135 140

Gly Lys Val Tyr Leu Ile Tyr Val Pro Ile Ala Cys Ser Thr Gly Ala  
 145 150 155 160

Ser Val Gly Tyr Ala Phe Ile Asp Met Lys Asn Glu Thr Lys Gly Leu  
 165 170 175

Thr Leu Asn Gly Ser His Leu Gly Gly Arg Lys Ile Asp Val Met Phe  
 180 185 190

Ala Ile Asp Arg Glu Glu Phe Tyr Phe Ser Ser Asn Leu Lys His Cys  
 195 200 205

Gln Arg Cys Arg Asn Tyr Arg Pro Trp Leu Val Leu Lys Ala Met Ser  
 210 215 220

Asp Ala Cys Phe Glu Tyr His Gln Arg Ile Lys Pro Arg Ile Val Gly  
 225 230 235 240

Thr Pro His Ser Lys Ile Gly Arg Phe Thr Ala Ile Ile Gly Arg Arg  
 245 250 255

Ser Tyr Ser

<210> 757

<211> 2433

<212> DNA

<213> Arabidopsis thaliana

<400> 757

atggcgagc	atctgttgca	cgggacttta	catgctacca	tctatgaagt	tgatgccctc	60
catggtggtg	gtgttaggca	aggcttcctt	ggcaagattc	tggcaaagt	agaagagacg	120
attggtgttg	gtaaaggaga	aacacagttg	tatgcgacga	ttgatctgca	aaaagctaga	180
gttgggagaa	ccaggaagat	caaaaatgaa	cctaagaacc	caaagtggta	tgagtcgttt	240
catatttact	gtgctcactt	ggcttctgat	atcatcttca	ctgttaaaga	tgataatccc	300
attggagcta	cccttatcgg	aagagcttac	attcctgttg	atcaagtcac	taacggcgag	360
gaagtggatc	agtgggttga	gatcttggat	aatgacagaa	accctattca	gggaggatca	420
aagattcatg	tcaagcttca	atatttccat	gttgaggagg	atcgtaactg	gaacatgggt	480
atcaaaagt	ccaagttccc	tggagtgcc	tacacattct	tctcgagag	acaaggctgc	540
aaagtttctc	tgtaccaaga	tgctcatatt	ccagacaact	ttgtccctag	aattcctctc	600
gctggaggga	agaactatga	gcctcaaaga	tggtgggagg	atatttttga	tgctattagc	660
aatgcaaac	acttgatcta	cattactggt	tggtctgttt	acgctgagat	tgcttttagtg	720
agggactcga	ggaggcctaa	gcctggagg	gatgtgacca	ttggtgagct	actcaagaag	780
aaggctagtg	aagggtgtcag	ggttcttttg	cttgtttggg	atgacagaac	ttctgttgat	840
gtgctgaaga	aagatgggct	catggctact	catgatgaag	agaccgagaa	tttcttcagg	900
ggaagtgatg	tccattgtat	tctgtgccct	cgtaaccg	atgacggtgg	tagcatagtc	960
caaagtttgc	agatctctac	tatgttcacg	catcatcaga	aaatcgttgt	tgtggacagc	1020
gagatgcaa	gcagaggagg	atcagaaatg	aggagaattg	tgagttttgt	tggcggtatt	1080
gatctttgtg	atggaagata	cgacactccg	ttccactcct	tgttcaggac	attggacaca	1140
gtccaccatg	atgacttcca	tcaacctaac	ttcactggtg	ctgctatcac	taaagggtgg	1200
ccaagggagc	cttggcatga	cattcactcc	cgtcttgaag	gtccaattgc	ttgggatgtc	1260
atgtacaact	tcgagcagag	atggagcaag	cagggtggta	aagacattct	ggttaagttg	1320
agagatctta	gtgatattat	tatcacccct	tctcctgtta	tgttccaaga	ggaccacgat	1380
gtgtggaatg	tccaattgtt	taggtccatt	gatggaggag	ctgctgctgg	gtttcccgag	1440
tcgcctgaag	ctgctgcgga	agccgggctt	gtaagtggga	aagataacat	cattgatagg	1500
agtatccaag	atgcttacat	tcatgcaatc	agacgtgcta	aggatttcat	ctacgttgaa	1560
aaccagtact	tccttgggag	ttcttttgct	tgggcagccg	atggtattac	tcctgaggac	1620
atcaatgccc	tgcacttaac	cccaaaagag	ttgtcgctga	agatagttag	caagattgag	1680
aaaggagaga	agttcagggt	ctatgttgtg	gttccaatgt	ggccagaagg	tctcccagag	1740
agtggatcag	tgcaagctat	attagactgg	cagaggagga	ccatggagat	gatgtacaag	1800
gatgtgattc	aggctctcag	ggcccagggt	cttgaggaag	atccaagaaa	ctatctgaca	1860
ttcttctgtc	ttggaaaccg	tgagggtcaag	aaagatggag	agtatgagcc	tgctgagaaa	1920

047-E2F-PCT.ST25.txt

ccagaccccg acactgatta catgagggcg caagaagcac gccgtttcat gatttacgtc 1980  
cacaccaaaa tgatgatcgt tgacgatgaa tacattatca ttgggtctgc taacatcaac 2040  
cagaggtcaa tggacggtgc aagagactct gagatagcaa tgggagggtta tcaaccacat 2100  
cacttgtccc atagacaacc agctcgtggc cagatccatg ggtttcgtat gtcactctgg 2160  
tacgaacacc tgggaatgct cgatgaaacc ttcctcgatc catcaagctt ggaatgcatt 2220  
gagaaagtta accgcatttc tgacaagtat tgggactttt actcaagtga gtcactcgaa 2280  
catgaccttc ctggtcactt gctccgctac ccgatcgggtg tagccagcga aggcgacatc 2340  
actgagcttc caggatttga attcttcccg gacacaaagg cccgtatcct cggcaccaaa 2400  
tcagactacc tgcctccaat ccttacaacc taa 2433

<210> 758

<211> 810

<212> PRT

<213> Arabidopsis thaliana

<400> 758

Met Ala Gln His Leu Leu His Gly Thr Leu His Ala Thr Ile Tyr Glu  
1 5 10 15

Val Asp Ala Leu His Gly Gly Gly Val Arg Gln Gly Phe Leu Gly Lys  
20 25 30

Ile Leu Ala Asn Val Glu Glu Thr Ile Gly Val Gly Lys Gly Glu Thr  
35 40 45

Gln Leu Tyr Ala Thr Ile Asp Leu Gln Lys Ala Arg Val Gly Arg Thr  
50 55 60

Arg Lys Ile Lys Asn Glu Pro Lys Asn Pro Lys Trp Tyr Glu Ser Phe  
65 70 75 80

His Ile Tyr Cys Ala His Leu Ala Ser Asp Ile Ile Phe Thr Val Lys  
85 90 95

Asp Asp Asn Pro Ile Gly Ala Thr Leu Ile Gly Arg Ala Tyr Ile Pro  
100 105 110

Val Asp Gln Val Ile Asn Gly Glu Glu Val Asp Gln Trp Val Glu Ile  
115 120 125

047-E2F-PCT.ST25.txt

Leu Asp Asn Asp Arg Asn Pro Ile Gln Gly Gly Ser Lys Ile His Val  
 130 135 140  
 Lys Leu Gln Tyr Phe His Val Glu Glu Asp Arg Asn Trp Asn Met Gly  
 145 150 155 160  
 Ile Lys Ser Ala Lys Phe Pro Gly Val Pro Tyr Thr Phe Phe Ser Gln  
 165 170 175  
 Arg Gln Gly Cys Lys Val Ser Leu Tyr Gln Asp Ala His Ile Pro Asp  
 180 185 190  
 Asn Phe Val Pro Arg Ile Pro Leu Ala Gly Gly Lys Asn Tyr Glu Pro  
 195 200 205  
 Gln Arg Cys Trp Glu Asp Ile Phe Asp Ala Ile Ser Asn Ala Lys His  
 210 215 220  
 Leu Ile Tyr Ile Thr Gly Trp Ser Val Tyr Ala Glu Ile Ala Leu Val  
 225 230 235 240  
 Arg Asp Ser Arg Arg Pro Lys Pro Gly Gly Asp Val Thr Ile Gly Glu  
 245 250 255  
 Leu Leu Lys Lys Lys Ala Ser Glu Gly Val Arg Val Leu Leu Leu Val  
 260 265 270  
 Trp Asp Asp Arg Thr Ser Val Asp Val Leu Lys Lys Asp Gly Leu Met  
 275 280 285  
 Ala Thr His Asp Glu Glu Thr Glu Asn Phe Phe Arg Gly Ser Asp Val  
 290 295 300  
 His Cys Ile Leu Cys Pro Arg Asn Pro Asp Asp Gly Gly Ser Ile Val  
 305 310 315 320  
 Gln Ser Leu Gln Ile Ser Thr Met Phe Thr His His Gln Lys Ile Val  
 325 330 335  
 Val Val Asp Ser Glu Met Pro Ser Arg Gly Gly Ser Glu Met Arg Arg  
 340 345 350  
 Ile Val Ser Phe Val Gly Gly Ile Asp Leu Cys Asp Gly Arg Tyr Asp  
 355 360 365  
 Thr Pro Phe His Ser Leu Phe Arg Thr Leu Asp Thr Val His His Asp  
 370 375 380



047-E2F-PCT.ST25.txt

Asp Phe His Gln Pro Asn Phe Thr Gly Ala Ala Ile Thr Lys Gly Gly  
 385 390 395 400  
 Pro Arg Glu Pro Trp His Asp Ile His Ser Arg Leu Glu Gly Pro Ile  
 405 410 415  
 Ala Trp Asp Val Met Tyr Asn Phe Glu Gln Arg Trp Ser Lys Gln Gly  
 420 425 430  
 Gly Lys Asp Ile Leu Val Lys Leu Arg Asp Leu Ser Asp Ile Ile Ile  
 435 440 445  
 Thr Pro Ser Pro Val Met Phe Gln Glu Asp His Asp Val Trp Asn Val  
 450 455 460  
 Gln Leu Phe Arg Ser Ile Asp Gly Gly Ala Ala Ala Gly Phe Pro Glu  
 465 470 475 480  
 Ser Pro Glu Ala Ala Ala Glu Ala Gly Leu Val Ser Gly Lys Asp Asn  
 485 490 495  
 Ile Ile Asp Arg Ser Ile Gln Asp Ala Tyr Ile His Ala Ile Arg Arg  
 500 505 510  
 Ala Lys Asp Phe Ile Tyr Val Glu Asn Gln Tyr Phe Leu Gly Ser Ser  
 515 520 525  
 Phe Ala Trp Ala Ala Asp Gly Ile Thr Pro Glu Asp Ile Asn Ala Leu  
 530 535 540  
 His Leu Ile Pro Lys Glu Leu Ser Leu Lys Ile Val Ser Lys Ile Glu  
 545 550 555 560  
 Lys Gly Glu Lys Phe Arg Val Tyr Val Val Val Pro Met Trp Pro Glu  
 565 570 575  
 Gly Leu Pro Glu Ser Gly Ser Val Gln Ala Ile Leu Asp Trp Gln Arg  
 580 585 590  
 Arg Thr Met Glu Met Met Tyr Lys Asp Val Ile Gln Ala Leu Arg Ala  
 595 600 605  
 Gln Gly Leu Glu Glu Asp Pro Arg Asn Tyr Leu Thr Phe Phe Cys Leu  
 610 615 620  
 Gly Asn Arg Glu Val Lys Lys Asp Gly Glu Tyr Glu Pro Ala Glu Lys

625                      630                      635                      640  
 Pro Asp Pro Asp Thr Asp Tyr Met Arg Ala Gln Glu Ala Arg Arg Phe  
                                  645                      650                      655  
 Met Ile Tyr Val His Thr Lys Met Met Ile Val Asp Asp Glu Tyr Ile  
                                  660                      665                      670  
 Ile Ile Gly Ser Ala Asn Ile Asn Gln Arg Ser Met Asp Gly Ala Arg  
                                  675                      680                      685  
 Asp Ser Glu Ile Ala Met Gly Gly Tyr Gln Pro His His Leu Ser His  
                                  690                      695                      700  
 Arg Gln Pro Ala Arg Gly Gln Ile His Gly Phe Arg Met Ser Leu Trp  
                                  705                      710                      715                      720  
 Tyr Glu His Leu Gly Met Leu Asp Glu Thr Phe Leu Asp Pro Ser Ser  
                                  725                      730                      735  
 Leu Glu Cys Ile Glu Lys Val Asn Arg Ile Ser Asp Lys Tyr Trp Asp  
                                  740                      745                      750  
 Phe Tyr Ser Ser Glu Ser Leu Glu His Asp Leu Pro Gly His Leu Leu  
                                  755                      760                      765  
 Arg Tyr Pro Ile Gly Val Ala Ser Glu Gly Asp Ile Thr Glu Leu Pro  
                                  770                      775                      780  
 Gly Phe Glu Phe Phe Pro Asp Thr Lys Ala Arg Ile Leu Gly Thr Lys  
                                  785                      790                      795                      800  
 Ser Asp Tyr Leu Pro Pro Ile Leu Thr Thr  
                                  805                      810

<210> 759

<211> 1599

<212> DNA

<213> Arabidopsis thaliana

<400> 759

atgtcactga gacccaacgc taagacggag gttcgccgga accgatacaa agttgcagtg 60  
 gatgctggagg aaggacgacg gaggagagaa gacaacatgg ttgagatccg taaaagcaag 120  
 cgtgaggaga gtttgatgaa gaagagacgt gaaggatatgc aagctcttca gggtttccct 180

047-E2F-PCT.ST25.txt

tcagcttccg	ccgcctccgt	cgataagaag	ttggatagtc	tgaaggatat	ggtcgctggg	240
gtttggtccg	atgaccctgc	cttgcagctt	gagtccacta	ctcagttcag	gaagcttctc	300
tctattgaga	gaagtcctcc	aatcgaggaa	gtgataagtg	ctggtgttgt	tcctaggttt	360
gttgagtttc	ttaagaaaga	agattacccc	gccattcagt	ttgaggcagc	ttgggctcta	420
acaaacattg	catctggaac	atcggatcac	actaagggtt	taatcgatca	caatgctggt	480
ccaatctttg	ttcagcttct	tgcttccctt	agcgatgatg	ttcgtgaaca	ggctgtatgg	540
gctttgggta	acgttgctgg	tgattcacca	cggtgccgtg	atcttgttct	tggatgtggg	600
gcaactgctt	cgctgctcaa	tcagcttaat	gagcatgcta	aattgtccat	gcttcgaaat	660
gccacttgga	ccttgtcaaa	cttctgtcgt	ggcaagcctc	agcctcactt	tgaccaggtc	720
aaacctgctc	ttcccgccct	tgaacgacta	attcattcag	atgatgaaga	agtcttgaca	780
gatgcctggt	gggctctttc	ttacctctct	gatgggacca	atgacaaaat	ccagactgtc	840
atccaggccg	gtgttggtccc	aaaacttggt	gaacttctcc	tccatcattc	tccatctgtg	900
ctaattcctg	ctcttcgcac	tgttggaaat	atagttactg	gagatgatat	acaaacacag	960
tgctgtgatca	atagtgggtg	tctaccttgt	cttgccaacc	tgctcactca	aaaccataag	1020
aaaagcataa	agaaggaagc	ttgctggacg	atttcaaaca	tcacagcagg	caacaaagat	1080
cagatccaga	cggtagttga	ggctaatttg	atttccccgt	tggtgagtct	gcttcaaaat	1140
gctgaatttg	acattaagaa	ggaagctgca	tgggcaattt	caaagtcaac	ttcagggtgg	1200
tctcatgatc	aaataaaata	cctggtggag	caagggtgca	taaaaccatt	atgcatcttc	1260
ctggtttgcc	cagatccaag	aatcataact	gtctgccttg	aaggattgga	aaacattttg	1320
aagggtgggag	aggcagagaa	gaacttgggt	cacacaggag	acatgaacta	ttacgctcag	1380
ctgattgatg	atgcagaagg	gctagaaaag	atcgagaacc	ttcagagcca	tgacaacaat	1440
gagatctatg	agaaggctgt	taaaattctg	gagacatact	ggcttgaaga	ggaagatgat	1500
gagacacagc	aacctccagg	tgttgatggg	tctcaggctg	ggttccagtt	tggaggggaat	1560
caagctccag	taccatccgg	aggattcaac	ttcagctga			1599

<210> 760

<211> 532

<212> PRT

<213> Arabidopsis thaliana

<400> 760

Met Ser Leu Arg Pro Asn Ala Lys Thr Glu Val Arg Arg Asn Arg Tyr

1 5 15

Lys Val Ala Val Asp Ala Glu Glu Gly Arg Arg Arg Arg Glu Asp Asn  
20 25 30

Met Val Glu Ile Arg Lys Ser Lys Arg Glu Glu Ser Leu Met Lys Lys  
35 40 45

Arg Arg Glu Gly Met Gln Ala Leu Gln Gly Phe Pro Ser Ala Ser Ala  
50 55 60

Ala Ser Val Asp Lys Lys Leu Asp Ser Leu Lys Asp Met Val Ala Gly  
65 70 75 80

Val Trp Ser Asp Asp Pro Ala Leu Gln Leu Glu Ser Thr Thr Gln Phe  
85 90 95

Arg Lys Leu Leu Ser Ile Glu Arg Ser Pro Pro Ile Glu Glu Val Ile  
100 105 110

Ser Ala Gly Val Val Pro Arg Phe Val Glu Phe Leu Lys Lys Glu Asp  
115 120 125

Tyr Pro Ala Ile Gln Phe Glu Ala Ala Trp Ala Leu Thr Asn Ile Ala  
130 135 140

Ser Gly Thr Ser Asp His Thr Lys Val Val Ile Asp His Asn Ala Val  
145 150 155 160

Pro Ile Phe Val Gln Leu Leu Ala Ser Pro Ser Asp Asp Val Arg Glu  
165 170 175

Gln Ala Val Trp Ala Leu Gly Asn Val Ala Gly Asp Ser Pro Arg Cys  
180 185 190

Arg Asp Leu Val Leu Gly Cys Gly Ala Leu Leu Pro Leu Leu Asn Gln  
195 200 205

Leu Asn Glu His Ala Lys Leu Ser Met Leu Arg Asn Ala Thr Trp Thr  
210 215 220

Leu Ser Asn Phe Cys Arg Gly Lys Pro Gln Pro His Phe Asp Gln Val  
225 230 235 240

Lys Pro Ala Leu Pro Ala Leu Glu Arg Leu Ile His Ser Asp Asp Glu  
245 250 255

Glu Val Leu Thr Asp Ala Cys Trp Ala Leu Ser Tyr Leu Ser Asp Gly  
 260 265 270  
 Thr Asn Asp Lys Ile Gln Thr Val Ile Gln Ala Gly Val Val Pro Lys  
 275 280 285  
 Leu Val Glu Leu Leu Leu His His Ser Pro Ser Val Leu Ile Pro Ala  
 290 295 300  
 Leu Arg Thr Val Gly Asn Ile Val Thr Gly Asp Asp Ile Gln Thr Gln  
 305 310 315 320  
 Cys Val Ile Asn Ser Gly Ala Leu Pro Cys Leu Ala Asn Leu Leu Thr  
 325 330 335  
 Gln Asn His Lys Lys Ser Ile Lys Lys Glu Ala Cys Trp Thr Ile Ser  
 340 345 350  
 Asn Ile Thr Ala Gly Asn Lys Asp Gln Ile Gln Thr Val Val Glu Ala  
 355 360 365  
 Asn Leu Ile Ser Pro Leu Val Ser Leu Leu Gln Asn Ala Glu Phe Asp  
 370 375 380  
 Ile Lys Lys Glu Ala Ala Trp Ala Ile Ser Asn Ala Thr Ser Gly Gly  
 385 390 395 400  
 Ser His Asp Gln Ile Lys Tyr Leu Val Glu Gln Gly Cys Ile Lys Pro  
 405 410 415  
 Leu Cys Asp Leu Leu Val Cys Pro Asp Pro Arg Ile Ile Thr Val Cys  
 420 425 430  
 Leu Glu Gly Leu Glu Asn Ile Leu Lys Val Gly Glu Ala Glu Lys Asn  
 435 440 445  
 Leu Gly His Thr Gly Asp Met Asn Tyr Tyr Ala Gln Leu Ile Asp Asp  
 450 455 460  
 Ala Glu Gly Leu Glu Lys Ile Glu Asn Leu Gln Ser His Asp Asn Asn  
 465 470 475 480  
 Glu Ile Tyr Glu Lys Ala Val Lys Ile Leu Glu Thr Tyr Trp Leu Glu  
 485 490 495  
 Glu Glu Asp Asp Glu Thr Gln Gln Pro Pro Gly Val Asp Gly Ser Gln  
 500 505 510

Ala Gly Phe Gln Phe Gly Gly Asn Gln Ala Pro Val Pro Ser Gly Gly  
 515 520 525

Phe Asn Phe Ser  
 530

<210> 761

<211> 1128

<212> DNA

<213> Arabidopsis thaliana

<400> 761

```

atggagggag cgggagagac gacgacgtcg gaggggcatt tgacttcggc agcagctttt      60
gtggaagggg gaattcaaga tgcttgatgat gatgcttgta gcatttgctt tgaatccttc      120
tgcgaaagcg atccttctac ttgactagt tgcaagcatg agtatcatct tcaatgcatt      180
cttgagtggg gtcaaagaag ctcacagtgc cctatgtgtt ggcaatcaat tagtctcaaa      240
gacccacaaa gtcaggagtt gcttgaggct gtggaacagg agaggaattt ccgcttcaat      300
ccaactagaa atgccaccat atttcgtcat ccaactcttg gtgattttga attacaacat      360
cttccagtgg ggggtgataa tgctgagatt gaagaacgaa tcattcagca cttggctgct      420
gctgctgcta tgggacgagc aagacatggg gtaagaaggg aaggccacag aagcaggctg      480
tcaagtcaag gacatcaaca gttcatggtg ttctcttcgc aacctaatac ttcttctcct      540
ccacctcatc ctcccatgcc ttcttctcca tctcagagag atgagagtga cacagtgtca      600
aaccttcttc acaatgcttt aggggagggg tctcatcagt caaacacgca gccaccaact      660
tcttctcatc cccgccaggg ttctccctca gcatctgatt caaacagcag gcctcttaat      720
caatcttccc caagtgaaca agatagagct ggaccatcag aactccagtc attttcggaa      780
tcacttaagt ctcgattaaa cgctgtctcc acgagataca aagaatcgat atcaaagaat      840
acaaggaact ggaaagatag acttttttct cgcaacacgt ccatggcaga tcttggctct      900
gagggttaaaa gagagggtcag tgccggaatc gccactgtgt cccgcatgat ggaacgttta      960
gaaacgagag aaaacagtag acccagcact gcatctgtat cagatgtctc tgaaaatcac     1020
actcctgaaa caaacaatga gcacaataga gcagcagcgg gtgatgaaca ttctgtgaat     1080
gaaagagggtg ttaaagaaac atgtgcgact ggttctgggt caagctaa                       1128

```

<210> 762

<211> 375

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 762

Met Glu Gly Ala Gly Glu Thr Thr Thr Ser Glu Gly His Leu Thr Ser  
 1 5 10 15

Ala Ala Ala Phe Val Glu Gly Gly Ile Gln Asp Ala Cys Asp Asp Ala  
 20 25 30

Cys Ser Ile Cys Leu Glu Ser Phe Cys Glu Ser Asp Pro Ser Thr Leu  
 35 40 45

Thr Ser Cys Lys His Glu Tyr His Leu Gln Cys Ile Leu Glu Trp Cys  
 50 55 60

Gln Arg Ser Ser Gln Cys Pro Met Cys Trp Gln Ser Ile Ser Leu Lys  
 65 70 75 80

Asp Pro Thr Ser Gln Glu Leu Leu Glu Ala Val Glu Gln Glu Arg Asn  
 85 90 95

Phe Arg Phe Asn Pro Thr Arg Asn Ala Thr Ile Phe Arg His Pro Thr  
 100 105 110

Leu Gly Asp Phe Glu Leu Gln His Leu Pro Val Gly Val Asp Asn Ala  
 115 120 125

Glu Ile Glu Glu Arg Ile Ile Gln His Leu Ala Ala Ala Ala Ala Met  
 130 135 140

Gly Arg Ala Arg His Gly Val Arg Arg Glu Gly His Arg Ser Arg Ser  
 145 150 155 160

Ser Ser Gln Gly His Gln Gln Phe Met Val Phe Ser Ser Gln Pro Asn  
 165 170 175

Ala Ser Ser Pro Pro Pro His Pro Pro Met Pro Ser Ser Pro Ser Gln  
 180 185 190

Arg Asp Glu Ser Asp Thr Val Ser Asn Leu Pro His Asn Ala Leu Gly  
 195 200 205

Glu Gly Ser His Gln Ser Asn Thr Gln Pro Pro Thr Ser Ser His Pro  
 210 215 220

047-E2F-PCT.ST25.txt

Arg Gln Val Ser Pro Ser Ala Ser Asp Ser Asn Ser Arg Pro Leu Asn  
225 230 235 240

Gln Ser Ser Pro Ser Glu Gln Asp Arg Ala Gly Pro Ser Glu Leu Gln  
245 250 255

Ser Phe Ser Glu Ser Leu Lys Ser Arg Leu Asn Ala Val Ser Thr Arg  
260 265 270

Tyr Lys Glu Ser Ile Ser Lys Asn Thr Arg Asn Trp Lys Asp Arg Leu  
275 280 285

Phe Ser Arg Asn Thr Ser Met Ala Asp Leu Gly Ser Glu Val Lys Arg  
290 295 300

Glu Val Ser Ala Gly Ile Ala Thr Val Ser Arg Met Met Glu Arg Leu  
305 310 315 320

Glu Thr Arg Glu Asn Ser Arg Pro Ser Thr Ala Ser Val Ser Asp Val  
325 330 335

Ser Glu Asn His Thr Pro Glu Thr Asn Asn Glu His Asn Arg Ala Ala  
340 345 350

Ala Gly Asp Glu His Ser Val Asn Glu Arg Gly Val Lys Glu Thr Cys  
355 360 365

Ala Thr Gly Ser Gly Ser Ser  
370 375

<210> 763

<211> 939

<212> DNA

<213> Arabidopsis thaliana

<400> 763  
atgaaggaga gggaaagtgt acaagatcag tctgatccga gtgagacaga ctctgaggag 60  
ctattgcagt tagatggaaa gagtatatct gagtgggtga gtgaaataga tgcaatttcc 120  
aaagaagtag aggcagagtt agtctcacga gatatcggct gtcacttggt tcaagttctt 180  
gaagctgtaa atacagttct cttcgatctg agaggcttca agaggacatc tattacttta 240  
gacccggaga attcctacct tcaactctgta ctttaactgta gatgcagcac tgcgtttctg 300  
attagtgtaa tatacattga agtttgtaag cgcctgaatg taccaattgt tggatctcca 360



047-E2F-PCT.ST25.txt

gttggggaag attttctgat ttggcctaaa acggagtatc ctgaggaact ctttaaagca 420  
 acttcaggac agagcttggt ctctattgtc aatggaaggt gtgttgatga tcctggatca 480  
 atggcatcag acttaactgc aaaatcactt caagacctcg acatggcaac aaacagagac 540  
 attatagggg ttgctctagc caatttgatt aggcttcact ggagacgtgc ttctaagtca 600  
 tcccatggac ttatgctgac ttctcctctt agtcaactta acaacatcag tagtttcta 660  
 ttcccattgt tgcggcctca agatcttagg ttggctattg cggctgcaga aagggttggtg 720  
 attttgcaac ctcataactg ggcacttcgc agagaccttg gtatgatgct gtactacgac 780  
 aggcaatatg gagaggcggg acaagagctg agcatatgta tggcatttgc tcctcctgaa 840  
 gaagaagctg tgttgagacc atttgtagaa agacttcac tccttcgtct catatcttca 900  
 ttgaagcctc ttggttctga tcgcttgacc gttccttga 939

<210> 764

<211> 312

<212> PRT

<213> Arabidopsis thaliana

<400> 764

Met Lys Glu Arg Glu Ser Val Gln Asp Gln Ser Asp Pro Ser Glu Thr  
 1 5 10 15

Asp Ser Glu Glu Leu Leu Gln Leu Asp Gly Lys Ser Ile Ser Glu Trp  
 20 25 30

Val Ser Glu Ile Asp Ala Ile Ser Lys Glu Val Glu Ala Glu Leu Val  
 35 40 45

Ser Arg Asp Ile Gly Cys His Leu Val Gln Val Leu Glu Ala Val Asn  
 50 55 60

Thr Val Leu Phe Asp Leu Arg Gly Phe Lys Arg Thr Ser Ile Thr Leu  
 65 70 75 80

Asp Pro Glu Asn Ser Tyr Leu His Ser Val Leu Asn Cys Arg Cys Ser  
 85 90 95

Thr Ala Phe Leu Ile Ser Val Ile Tyr Ile Glu Val Cys Lys Arg Leu  
 100 105 110

Asn Val Pro Ile Val Gly Ser Pro Val Gly Glu Asp Phe Leu Ile Trp  
 Page 1211

115

120

125

Pro Lys Thr Glu Tyr Pro Glu Glu Leu Phe Lys Ala Thr Ser Gly Gln  
 130 135 140  
 Ser Leu Phe Ser Ile Val Asn Gly Arg Cys Val Asp Asp Pro Gly Ser  
 145 150 155 160  
 Met Ala Ser Asp Leu Thr Ala Lys Ser Leu Gln Asp Leu Asp Met Ala  
 165 170 175  
 Thr Asn Arg Asp Ile Ile Gly Ile Ala Leu Ala Asn Leu Ile Arg Leu  
 180 185 190  
 His Trp Arg Arg Ala Ser Lys Ser Ser His Gly Leu Met Leu Thr Ser  
 195 200 205  
 Pro Leu Ser Gln Leu Asn Asn Ile Ser Ser Ser Asn Phe Pro Leu Leu  
 210 215 220  
 Arg Pro Gln Asp Leu Arg Leu Ala Ile Ala Ala Ala Glu Arg Leu Leu  
 225 230 235 240  
 Ile Leu Gln Pro His Asn Trp Ala Leu Arg Arg Asp Leu Gly Met Met  
 245 250 255  
 Leu Tyr Tyr Asp Arg Gln Tyr Gly Glu Ala Val Gln Glu Leu Ser Ile  
 260 265 270  
 Cys Met Ala Phe Ala Pro Pro Glu Glu Glu Ala Val Leu Glu Pro Phe  
 275 280 285  
 Val Glu Arg Leu His Leu Leu Arg Leu Ile Ser Ser Leu Lys Pro Leu  
 290 295 300  
 Gly Ser Asp Arg Leu Thr Val Pro  
 305 310

&lt;210&gt; 765

&lt;211&gt; 1134

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 765

atgagaatca gaaaaggaag tagagttgag gtatttagca acaaagaggc gccttatggt

60

047-E2F-PCT.ST25.txt

```

gcgtggcgat gtgctgagat tgtctcgggt aatggacata cctacaatgt tagattttac 120
tctttccaaa ttgaacacga ggaggcagtt atggagaaag ttccaaggaa gataattagg 180
ccttgtcctc cacttgtgga tgttgagaga tgggatactg gtgaattggg ggaagttctt 240
gataatTTTT cctggaaagc tgccacagtt cgagaggagt tatctggaca ttactatgtg 300
gttcgcttac ttgggactcc agaagaactc acatttcaca aagttaacct cagggcccga 360
aagtcgtggc aagatgagag atgggttgca attggaaaga tatctgggtc tctgaagtca 420
tccacactga ctggatcaga cgtacatcag aagctacagc cccacaggaa cagcatgcct 480
ctccacgagc ctagcgtggg ctctgctaga ttgttaaaga ggccgtcacc ttacaactgg 540
tctgaatgtg ctgaatcatg tacaggaaac cctaagaaga tgcgttcatt ggaaaaagaa 600
ggacagcagc aaaaggtaga tgccatttct tgccgaccag aaaacagggg tggtaaattc 660
cacgtgcaag cttccttaaa caatcacaaa actggttact gtcaaattgt cagggtaaga 720
tcaaaagggg ttagtgagag tggtcgtgct gatgattggt ctgatagcga tgtatgctca 780
gttggtagtt gtagtgctac tagttatgat gagagtaaca tgccacctg tatgctagat 840
ggctctactc aacaggcaga ctcatgtagc agcgatgctg aatcttcttg tggcctgggg 900
gaagaaccaa ggtggaaaca ttcacagtt ggtgatggag caagaaattc ttgtaggtcg 960
gaactatatt cttaccgcag tactctgggg gaattatTTT cttctggtcc cctaagttgg 1020
gagcaagaag catcattaac tgatcttcgt ctttctctta atatatcaga tgatgaacat 1080
ttgatggagg taagaaattt gatatctact ggtacccgca gtcaattttg ttag 1134

```

<210> 766

<211> 377

<212> PRT

<213> Arabidopsis thaliana

<400> 766

Met Arg Ile Arg Lys Gly Ser Arg Val Glu Val Phe Ser Asn Lys Glu  
1 5 10 15

Ala Pro Tyr Gly Ala Trp Arg Cys Ala Glu Ile Val Ser Gly Asn Gly  
20 25 30

His Thr Tyr Asn Val Arg Phe Tyr Ser Phe Gln Ile Glu His Glu Glu  
35 40 45

Ala Val Met Glu Lys Val Pro Arg Lys Ile Ile Arg Pro Cys Pro Pro  
Page 1213

50

55

Leu Val Asp Val Glu Arg Trp Asp Thr Gly Glu Leu Val Glu Val Leu  
65 70 75 80

Asp Asn Phe Ser Trp Lys Ala Ala Thr Val Arg Glu Glu Leu Ser Gly  
85 90 95

His Tyr Tyr Val Val Arg Leu Leu Gly Thr Pro Glu Glu Leu Thr Phe  
100 105 110

His Lys Val Asn Leu Arg Ala Arg Lys Ser Trp Gln Asp Glu Arg Trp  
115 120 125

Val Ala Ile Gly Lys Ile Ser Gly Ser Leu Lys Ser Ser Thr Leu Thr  
130 135 140

Gly Ser Asp Val His Gln Lys Leu Gln Pro His Arg Asn Ser Met Pro  
145 150 155 160

Leu His Glu Pro Ser Val Val Ser Ala Arg Leu Leu Lys Arg Pro Ser  
165 170 175

Pro Tyr Asn Trp Ser Glu Cys Ala Glu Ser Cys Thr Gly Asn Pro Lys  
180 185 190

Lys Met Arg Ser Leu Glu Lys Glu Gly Gln Gln Gln Lys Val Asp Ala  
195 200 205

Ile Ser Cys Arg Pro Glu Asn Arg Gly Gly Lys Ser His Val Gln Ala  
210 215 220

Ser Leu Asn Asn His Lys Thr Gly Tyr Cys Gln Ile Val Arg Val Arg  
225 230 235 240

Ser Lys Gly Phe Ser Glu Ser Val Arg Ala Asp Asp Cys Ser Asp Ser  
245 250 255

Asp Val Cys Ser Val Gly Ser Cys Ser Ala Thr Ser Tyr Asp Glu Ser  
260 265 270

Asn Met Pro Pro Cys Met Leu Asp Gly Ser Thr Gln Gln Ala Asp Ser  
275 280 285

Cys Ser Ser Asp Ala Glu Ser Ser Cys Gly Leu Gly Glu Glu Pro Arg  
290 295 300

Trp Lys His Ser Ser Val Gly Asp Gly Ala Arg Asn Ser Cys Arg Ser  
 305 310 315 320

Glu Leu Tyr Ser Tyr Arg Ser Thr Leu Gly Glu Leu Phe Ser Ser Gly  
 325 330 335

Pro Leu Ser Trp Glu Gln Glu Ala Ser Leu Thr Asp Leu Arg Leu Ser  
 340 345 350

Leu Asn Ile Ser Asp Asp Glu His Leu Met Glu Val Arg Asn Leu Ile  
 355 360 365

Ser Thr Gly Thr Arg Ser Gln Phe Cys  
 370 375

<210> 767

<211> 870

<212> DNA

<213> Arabidopsis thaliana

<400> 767

atgaccggtg	gagaaatcct	ccacaagatg	aaggaatccg	tcaaggagaa	agttgggctt	60
ggtgcatctg	cttcatctgc	agattcaggg	aaaggtaaga	gcaagatggt	gaagcagatc	120
acacatgggt	ttcatttggt	gaaagggaaa	gcttttcacg	agatggaaga	ttatgtgggt	180
gccaaattca	aggaagttga	tgataatgag	cttggtctgt	ttgctatctt	cgatggccat	240
cttagccacg	agattccgga	ctacttgtgc	tcccatttgt	ttgagaacat	cttgaaagag	300
ccgaatttct	ggcaagaacc	tgagaaagcg	ataaagaaag	cttactatat	aacggataca	360
acgattctag	acaaggcaga	tgatttggga	aaaggagggt	ctactgctgt	gactgcgata	420
ttgatcaatt	gccagaagct	ggtggttgct	aatgttggtg	actctcgagc	tgttatttgc	480
caaaatggtg	ttgcgaagcc	actctcagtt	gatcatgagc	cgaacatgga	gaaggatgaa	540
atcgagaaca	gaggaggatt	cgtttctaac	tttcctgggg	atgttcctcg	agttgatggt	600
caactggctg	tggcaagggc	atttggtgat	aagagtttaa	agatgcattt	gagttcagaa	660
ccatatgtta	cgggtggagat	aattgatgat	gatgcagaat	ttcttatcct	agcaagtgat	720
ggactatgga	aggtcatgtc	aaaccaagaa	gccgttgact	caatcaaggg	aataaaagat	780
gcgaaggctg	cagcaaagca	ccttcgagag	gaggctggtg	caaggaaaag	ctcagacgat	840
atctcagtcg	tcgtcgtgaa	atttcagtga				870

<210> 768

&lt;211&gt; 289

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 768

Met Thr Gly Arg Glu Ile Leu His Lys Met Lys Glu Ser Val Lys Glu  
1 5 10 15

Lys Val Gly Leu Gly Ala Ser Ala Ser Ser Ala Asp Ser Gly Lys Gly  
20 25 30

Lys Ser Lys Met Leu Lys Gln Ile Thr His Gly Phe His Leu Val Lys  
35 40 45

Gly Lys Ala Phe His Glu Met Glu Asp Tyr Val Val Ala Lys Phe Lys  
50 55 60

Glu Val Asp Asp Asn Glu Leu Gly Leu Phe Ala Ile Phe Asp Gly His  
65 70 75 80

Leu Ser His Glu Ile Pro Asp Tyr Leu Cys Ser His Leu Phe Glu Asn  
85 90 95

Ile Leu Lys Glu Pro Asn Phe Trp Gln Glu Pro Glu Lys Ala Ile Lys  
100 105 110

Lys Ala Tyr Tyr Ile Thr Asp Thr Thr Ile Leu Asp Lys Ala Asp Asp  
115 120 125

Leu Gly Lys Gly Gly Ser Thr Ala Val Thr Ala Ile Leu Ile Asn Cys  
130 135 140

Gln Lys Leu Val Val Ala Asn Val Gly Asp Ser Arg Ala Val Ile Cys  
145 150 155 160

Gln Asn Gly Val Ala Lys Pro Leu Ser Val Asp His Glu Pro Asn Met  
165 170 175

Glu Lys Asp Glu Ile Glu Asn Arg Gly Gly Phe Val Ser Asn Phe Pro  
180 185 190

Gly Asp Val Pro Arg Val Asp Gly Gln Leu Ala Val Ala Arg Ala Phe  
195 200 205

Gly Asp Lys Ser Leu Lys Met His Leu Ser Ser Glu Pro Tyr Val Thr  
 210 215 220

Val Glu Ile Ile Asp Asp Asp Ala Glu Phe Leu Ile Leu Ala Ser Asp  
 225 230 235 240

Gly Leu Trp Lys Val Met Ser Asn Gln Glu Ala Val Asp Ser Ile Lys  
 245 250 255

Gly Ile Lys Asp Ala Lys Ala Ala Ala Lys His Leu Ala Glu Glu Ala  
 260 265 270

Val Ala Arg Lys Ser Ser Asp Asp Ile Ser Val Val Val Val Lys Phe  
 275 280 285

Gln

<210> 769

<211> 831

<212> DNA

<213> Arabidopsis thaliana

<400> 769

```

atgggaactg atacagttat gtctggacga gtaaggaaag atctatcaaa aacgaatcca      60
aatgggaata ttcctgagaa tcgttctaata tcacgtaaga agatccaacg acggagtaag      120
aaaaccctaa tctgtccggt tcaaaaacta ttcgatactt gtaagaaagt tttcgctgat      180
ggcaaactctg gtaccgtccc ttctcaagaa aacattgaga tgcttcgagc cgttttggat      240
gaaatcaagc ctgaggatgt tggcgtaaata cctaagatgt cgtattttcg atctacagtg      300
accggacgat ctccggttagt gacgtatctt cacatctatg catgtcatag attctcgatt      360
tgcattttct gtttacctcc atctgggtggt atccctcttc acaatcaccg ggagatgact      420
gtgttttagta agctcttggt tgggtacaatg catatcaaata cctatgattg ggtccctgat      480
tctccccagc cgagttcaga tactcgtttg gcgaaagtga aagtagattc ggactttacc      540
gcaccttggtg atacttctat actgtacccg gctgatggag ggaatatgca ttgcttcacc      600
gcgaaaacgg cttgcgcggt tcttgatggt attggctctc catactctga tcccgcagga      660
cgtcattgta cttactatct cgattatccg ttctctagtt tctcggtcga tggagtcgtg      720
gttgccgagg aggagaagga aggctatgca tggttgaagg agaggggaaga gaagccagag      780
gatttaacgg ttactgcatt gatgtatagt ggaccaacca tcaaagaatg a              831

```

&lt;210&gt; 770

&lt;211&gt; 276

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 770

Met Gly Thr Asp Thr Val Met Ser Gly Arg Val Arg Lys Asp Leu Ser  
 1 5 10 15

Lys Thr Asn Pro Asn Gly Asn Ile Pro Glu Asn Arg Ser Asn Ser Arg  
 20 25 30

Lys Lys Ile Gln Arg Arg Ser Lys Lys Thr Leu Ile Cys Pro Val Gln  
 35 40 45

Lys Leu Phe Asp Thr Cys Lys Lys Val Phe Ala Asp Gly Lys Ser Gly  
 50 55 60

Thr Val Pro Ser Gln Glu Asn Ile Glu Met Leu Arg Ala Val Leu Asp  
 65 70 75 80

Glu Ile Lys Pro Glu Asp Val Gly Val Asn Pro Lys Met Ser Tyr Phe  
 85 90 95

Arg Ser Thr Val Thr Gly Arg Ser Pro Leu Val Thr Tyr Leu His Ile  
 100 105 110

Tyr Ala Cys His Arg Phe Ser Ile Cys Ile Phe Cys Leu Pro Pro Ser  
 115 120 125

Gly Val Ile Pro Leu His Asn His Pro Glu Met Thr Val Phe Ser Lys  
 130 135 140

Leu Leu Phe Gly Thr Met His Ile Lys Ser Tyr Asp Trp Val Pro Asp  
 145 150 155 160

Ser Pro Gln Pro Ser Ser Asp Thr Arg Leu Ala Lys Val Lys Val Asp  
 165 170 175

Ser Asp Phe Thr Ala Pro Cys Asp Thr Ser Ile Leu Tyr Pro Ala Asp  
 180 185 190

Gly Gly Asn Met His Cys Phe Thr Ala Lys Thr Ala Cys Ala Val Leu  
 195 200 205



Asp Val Ile Gly Pro Pro Tyr Ser Asp Pro Ala Gly Arg His Cys Thr  
 210 215 220

Tyr Tyr Phe Asp Tyr Pro Phe Ser Ser Phe Ser Val Asp Gly Val Val  
 225 230 235 240

Val Ala Glu Glu Glu Lys Glu Gly Tyr Ala Trp Leu Lys Glu Arg Glu  
 245 250 255

Glu Lys Pro Glu Asp Leu Thr Val Thr Ala Leu Met Tyr Ser Gly Pro  
 260 265 270

Thr Ile Lys Glu  
 275

<210> 771

<211> 615

<212> DNA

<213> Arabidopsis thaliana

<400> 771

atgggtgcgt acaagtatgt atctgagcta tggaggaaga aacagtccga tgtgatgaga	60
ttcctccaga gggttagggtg ctgggagtac agacagcaac cttcgattgt tcgtctcgtc	120
aggcctactc gtcctgataa ggctcgtcgt ttgggttaca aggccaagca gggctttggt	180
gtgtaccgtg tacgtgtgag acgtggtgga cgcaagaggc cagtgcctaa ggggtattgtg	240
tatggtaagc caacaaacca gggagtgaca caactcaagt tccagcgtag caagcgttct	300
gttgctgagg agcgtgctgg caggaaattg ggtggtctca gagttgtcaa ctcttactgg	360
ctcaatgagg attcgacctc caagtactac gagatcatct tggttgaccc agcacacaat	420
gctgtgctga atgacccgag aatcaactgg atctgcaacc cagttcacia gcaccgtgag	480
ctcagaggac ttacctcaga gggaaagaag aacagaggtc tccgcggaaa gggtcacaac	540
aaccacaaga accgtccatc tcgcagggtc acatggaaga aaaacaactc tctcagcctt	600
cgtcggttacc gttga	615

<210> 772

<211> 204

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 772

Met Gly Ala Tyr Lys Tyr Val Ser Glu Leu Trp Arg Lys Lys Gln Ser  
 1 5 10 15

Asp Val Met Arg Phe Leu Gln Arg Val Arg Cys Trp Glu Tyr Arg Gln  
 20 25 30

Gln Pro Ser Ile Val Arg Leu Val Arg Pro Thr Arg Pro Asp Lys Ala  
 35 40 45

Arg Arg Leu Gly Tyr Lys Ala Lys Gln Gly Phe Val Val Tyr Arg Val  
 50 55 60

Arg Val Arg Arg Gly Gly Arg Lys Arg Pro Val Pro Lys Gly Ile Val  
 65 70 75 80

Tyr Gly Lys Pro Thr Asn Gln Gly Val Thr Gln Leu Lys Phe Gln Arg  
 85 90 95

Ser Lys Arg Ser Val Ala Glu Glu Arg Ala Gly Arg Lys Leu Gly Gly  
 100 105 110

Leu Arg Val Val Asn Ser Tyr Trp Leu Asn Glu Asp Ser Thr Tyr Lys  
 115 120 125

Tyr Tyr Glu Ile Ile Leu Val Asp Pro Ala His Asn Ala Val Arg Asn  
 130 135 140

Asp Pro Arg Ile Asn Trp Ile Cys Asn Pro Val His Lys His Arg Glu  
 145 150 155 160

Leu Arg Gly Leu Thr Ser Glu Gly Lys Lys Asn Arg Gly Leu Arg Gly  
 165 170 175

Lys Gly His Asn Asn His Lys Asn Arg Pro Ser Arg Arg Ala Thr Trp  
 180 185 190

Lys Lys Asn Asn Ser Leu Ser Leu Arg Arg Tyr Arg  
 195 200

&lt;210&gt; 773

&lt;211&gt; 369

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 773

```

atggttctgc tagagaagct ttgggatgat gttgtggctg gacctcagcc tgaccgtggc      60
cttggccgcc tccgtaagat caccacccaa cccattaata tccgagatat aggagaaggg      120
agcagcagta aggtggtgat gcataggtcg ttgaccatgc cggcggcagt gagccctgga      180
actccaacga ctccaaccac tccgacgacg ccacgtaagg ataacgtgtg gaggagcgtc      240
tttaatccgg gaagcaacct cgccactaga gccatcggct ccaacatctt tgataaaccc      300
acccatccaa attctccctc cgtctacgac tggttgtaca gcggtgactc aaggagtcag      360
caccgttag                                     369

```

&lt;210&gt; 774

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 774

```

Met Val Leu Leu Glu Lys Leu Trp Asp Asp Val Val Ala Gly Pro Gln
1          5          10          15

Pro Asp Arg Gly Leu Gly Arg Leu Arg Lys Ile Thr Thr Gln Pro Ile
          20          25          30

Asn Ile Arg Asp Ile Gly Glu Gly Ser Ser Ser Lys Val Val Met His
          35          40          45

Arg Ser Leu Thr Met Pro Ala Ala Val Ser Pro Gly Thr Pro Thr Thr
          50          55          60

Pro Thr Thr Pro Thr Thr Pro Arg Lys Asp Asn Val Trp Arg Ser Val
65          70          75          80

Phe Asn Pro Gly Ser Asn Leu Ala Thr Arg Ala Ile Gly Ser Asn Ile
          85          90          95

Phe Asp Lys Pro Thr His Pro Asn Ser Pro Ser Val Tyr Asp Trp Leu
          100          105          110

Tyr Ser Gly Asp Ser Arg Ser Gln His Arg
          115          120

```

&lt;210&gt; 775

&lt;211&gt; 525

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 775

```

atggcgtacg agaaagtcaa cgagcttaac cttaaggaca cagagctatg tcttggatta      60
cccggaagaa cagagaagat caaagaagaa caagagggtt cttgcgttaa aagtaacaac      120
aagcgtctat ttgaggaaac tcgtgatgaa gaagaatcta cacctcctac caaaactcaa      180
atcgttgggt ggccaccagt gagatcttcc cgtaagaaca acaacagtgt gagctacgtg      240
aaagtgagta tggacggagc tccttacctt cgcaagatcg atctcaagac atacaaaaac      300
taccgagcgt ttctcaaagc gttagagaat atgttcaaag tcatgattgg tgaatattgt      360
gagagagaag gatacaaagg atctggattt gtaccaacat acgaagataa agatggtgac      420
tggatgttgg ttggtgatgt tccatgggac atgttctctt cttcttgtaa gagactcaga      480
atcatgaagg gatccgacgc tcctgctcta gactcttcct tatga                      525

```

&lt;210&gt; 776

&lt;211&gt; 174

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 776

```

Met Ala Tyr Glu Lys Val Asn Glu Leu Asn Leu Lys Asp Thr Glu Leu
1      5      10      15

Cys Leu Gly Leu Pro Gly Arg Thr Glu Lys Ile Lys Glu Glu Gln Glu
20     25     30

Val Ser Cys Val Lys Ser Asn Asn Lys Arg Leu Phe Glu Glu Thr Arg
35     40     45

Asp Glu Glu Glu Ser Thr Pro Pro Thr Lys Thr Gln Ile Val Gly Trp
50     55     60

Pro Pro Val Arg Ser Ser Arg Lys Asn Asn Asn Ser Val Ser Tyr Val
65     70     75     80

```

Lys Val Ser Met Asp Gly Ala Pro Tyr Leu Arg Lys Ile Asp Leu Lys  
85 90 95

Thr Tyr Lys Asn Tyr Pro Glu Leu Leu Lys Ala Leu Glu Asn Met Phe  
100 105 110

Lys Val Met Ile Gly Glu Tyr Cys Glu Arg Glu Gly Tyr Lys Gly Ser  
115 120 125

Gly Phe Val Pro Thr Tyr Glu Asp Lys Asp Gly Asp Trp Met Leu Val  
130 135 140

Gly Asp Val Pro Trp Asp Met Phe Ser Ser Ser Cys Lys Arg Leu Arg  
145 150 155 160

Ile Met Lys Gly Ser Asp Ala Pro Ala Leu Asp Ser Ser Leu  
165 170

<210> 777

<211> 1053

<212> DNA

<213> Arabidopsis thaliana

<400> 777

atggataagt atcaacgagt ggtgaagccg aaagcggata cgccgattga tgcgaatgag	60
attcgtatca ctagtcaagg cagggcacga aactacatca cctatgcat gactcttctt	120
caggataaag ggtcaactga agttgtattc aaggcaatgg gaagagctat caacaagact	180
gtgaccattg tagagctgat taagagaagg atccctgatc ttcacagaa cacatctatt	240
ggatccacag acatcacaga cacatgggaa ccaacagagg aaggccttct acctttggag	300
actacaaggc atgtgtcaat gataaccatt accctatcca agattgagct taatacctcc	360
tctgttgggt accagtgcc aattcctatt gagttggtga agccaatggg cgatattgat	420
tatgaaggac gagagggttc acctggtggc agaggaggagg gaagaggaag aggaagggga	480
agaggaaggg ggcgaggtgg cagaggaaat gcttatgtga acgttgagca tgaagatgga	540
ggttgggaac gtgagcagtc ctatggtaga ggaagaggac gtggcagagg acgcagcagt	600
cgtggtcgtg gaagaggagg atacaatggc cctccgaatg agtatgatgc accacaagat	660
ggaggttacg gttacgatgc tcctcatgaa caccgtggat atgatgaccg tgggtggttat	720
gatgccctc ctcagggccg tgggtggttac gatggctctc agggtcgcgg tggttacgat	780
ggtcctcagg gtcgccgtgg ttatgatggc cctcctcagg gccgtggtgg ttatgatggc	840

cctttctcaag gccgtggtgg ttatgatggt cctttctcagg gccgtggtgg ttatgatggt 900  
 cctttctcagg gccgtggtgg ttatgatggt cctcaggggc gtgggcgtgg acgtggacgt 960  
 ggaaggggag gacgtggaag aggaggagga cgtggtggtg atggtggttt caacaacaga 1020  
 tcagatggac caccagtcca ggcagctgct tga 1053

<210> 778

<211> 350

<212> PRT

<213> Arabidopsis thaliana

<400> 778

Met Asp Lys Tyr Gln Arg Val Val Lys Pro Lys Ala Asp Thr Pro Ile  
 1 5 10 15  
 Asp Ala Asn Glu Ile Arg Ile Thr Ser Gln Gly Arg Ala Arg Asn Tyr  
 20 25 30  
 Ile Thr Tyr Ala Met Thr Leu Leu Gln Asp Lys Gly Ser Thr Glu Val  
 35 40 45  
 Val Phe Lys Ala Met Gly Arg Ala Ile Asn Lys Thr Val Thr Ile Val  
 50 55 60  
 Glu Leu Ile Lys Arg Arg Ile Pro Asp Leu His Gln Asn Thr Ser Ile  
 65 70 75 80  
 Gly Ser Thr Asp Ile Thr Asp Thr Trp Glu Pro Thr Glu Glu Gly Leu  
 85 90 95  
 Leu Pro Leu Glu Thr Thr Arg His Val Ser Met Ile Thr Ile Thr Leu  
 100 105 110  
 Ser Lys Ile Glu Leu Asn Thr Ser Ser Val Gly Tyr Gln Cys Pro Ile  
 115 120 125  
 Pro Ile Glu Leu Val Lys Pro Met Gly Asp Ile Asp Tyr Glu Gly Arg  
 130 135 140  
 Glu Gly Ser Pro Gly Gly Arg Gly Arg Gly Arg Gly Arg Gly Arg Gly  
 145 150 155 160  
 Arg Gly Arg Gly Arg Gly Gly Arg Gly Asn Ala Tyr Val Asn Val Glu  
 165 170 175

047-E2F-PCT.ST25.txt

His Glu Asp Gly Gly Trp Glu Arg Glu Gln Ser Tyr Gly Arg Gly Arg  
180 185 190

Gly Arg Gly Arg Gly Arg Ser Ser Arg Gly Arg Gly Arg Gly Gly Tyr  
195 200 205

Asn Gly Pro Pro Asn Glu Tyr Asp Ala Pro Gln Asp Gly Gly Tyr Gly  
210 215 220

Tyr Asp Ala Pro His Glu His Arg Gly Tyr Asp Asp Arg Gly Gly Tyr  
225 230 235 240

Asp Ala Pro Pro Gln Gly Arg Gly Gly Tyr Asp Gly Pro Gln Gly Arg  
245 250 255

Gly Gly Tyr Asp Gly Pro Gln Gly Arg Arg Gly Tyr Asp Gly Pro Pro  
260 265 270

Gln Gly Arg Gly Gly Tyr Asp Gly Pro Ser Gln Gly Arg Gly Gly Tyr  
275 280 285

Asp Gly Pro Ser Gln Gly Arg Gly Gly Tyr Asp Gly Pro Ser Gln Gly  
290 295 300

Arg Gly Gly Tyr Asp Gly Pro Gln Gly Arg Gly Arg Gly Arg Gly Arg  
305 310 315 320

Gly Arg Gly Gly Arg Gly Arg Gly Gly Gly Arg Gly Gly Asp Gly Gly  
325 330 335

Phe Asn Asn Arg Ser Asp Gly Pro Pro Val Gln Ala Ala Ala  
340 345 350

<210> 779

<211> 1440

<212> DNA

<213> Arabidopsis thaliana

<400> 779

atggacttga aaatggataa tgttattggg ggaaagttta aacttggtcg gaagatcggt	60
ggtggctctt ttggagaact ttttcttgcc gtaagtttgc aaaccggaga ggaagcagct	120
gttaagctgg agcctgcgaa aactaagcat ccccaacttc attatgagtc gaagatatac	180

atgcttctac aaggaggaag tggcatcccc agccttaagt ggtttgggggt tcagggagac 240  
 tacaatgcga tggtcattga tctgcttggg ccgagtttgg aagacttggt caactactgc 300  
 aataggaggc ttactttgaa ggcagttttg atgcttgcag atcaactgat tagcagagtt 360  
 gaatatatgc attcaagggg gtttcttcac cgtgacatca aacctgacaa tttcttgatg 420  
 ggacttggtc gcaaagcaaa ccaggtgtat atcattgatt ttgggcttgc aaagaagtat 480  
 agggatctcc aaacacatag gcatatcccc tatagagaaa acaagaacct tacgggcaca 540  
 gctcgggtatg ctagtgtcaa cactcaccta ggagttgagc aaagtaggag ggatgatctg 600  
 gagtctcttg gttacgtact catgtatttc ctgagaggaa gcttaccgtg gcagggacta 660  
 aaagctggca caaagaagca aaagtatgac agaattagcg agaagaaagt atcaactcct 720  
 atagaggtct tgtgcaagtc atatccaccc gaattcgtat catactttca atactgcaga 780  
 tctctgcgat tcgaagacaa accagactac tcatatctaa agagactttt ccgagacttg 840  
 tttatccgtg aaggttatca gtttgattat gtattcgact ggactgcatt gaaacaccct 900  
 cagagtagtg ccaggtccca ttccagtaca catgaaaggc atcgtaccgg taaaccaggg 960  
 atgggtgcgg gaccgtctgc tgaaaaacct gaaaggattt cagtagggaa catccgcgat 1020  
 aaattctcag gtgcggtcga agcatttgcg agaaggaacg ttagaggacc cagtcccat 1080  
 caaaaccata ccagacatcg aactcttgac gaaattcctt caatgaaacc tgctgtgaat 1140  
 atggtatctg agaaaggaag aaacacttcc agatacggca gtgcttcgag gagagcagta 1200  
 gcctcaggaa gtagaccaag ctcatcaggt gaacaaaggg agagccggga ctcgagccgc 1260  
 gtagcctcaa gcggtggcgg tgtccgacca tcagtcttcc aaagaacca agcagcagct 1320  
 gctgtgagtg gatacgagtc aaagacagca tctgccttta accgcgaccg agtagccgct 1380  
 tcaagaacag cacgagacga ggctctcaga agcttcgagc ttctttcgat ccgcaaatga 1440

<210> 780

<211> 479

<212> PRT

<213> Arabidopsis thaliana

<400> 780

Met Asp Leu Lys Met Asp Asn Val Ile Gly Gly Lys Phe Lys Leu Gly  
 1 5 10 15

Arg Lys Ile Gly Gly Gly Ser Phe Gly Glu Leu Phe Leu Ala Val Ser  
 20 25 30



Leu Gln Thr Gly Glu Glu Ala Ala Val Lys Leu Glu Pro Ala Lys Thr  
 35 40 45  
 Lys His Pro Gln Leu His Tyr Glu Ser Lys Ile Tyr Met Leu Leu Gln  
 50 55 60  
 Gly Gly Ser Gly Ile Pro Ser Leu Lys Trp Phe Gly Val Gln Gly Asp  
 65 70 75 80  
 Tyr Asn Ala Met Val Ile Asp Leu Leu Gly Pro Ser Leu Glu Asp Leu  
 85 90 95  
 Phe Asn Tyr Cys Asn Arg Arg Leu Thr Leu Lys Ala Val Leu Met Leu  
 100 105 110  
 Ala Asp Gln Leu Ile Ser Arg Val Glu Tyr Met His Ser Arg Gly Phe  
 115 120 125  
 Leu His Arg Asp Ile Lys Pro Asp Asn Phe Leu Met Gly Leu Gly Arg  
 130 135 140  
 Lys Ala Asn Gln Val Tyr Ile Ile Asp Phe Gly Leu Ala Lys Lys Tyr  
 145 150 155 160  
 Arg Asp Leu Gln Thr His Arg His Ile Pro Tyr Arg Glu Asn Lys Asn  
 165 170 175  
 Leu Thr Gly Thr Ala Arg Tyr Ala Ser Val Asn Thr His Leu Gly Val  
 180 185 190  
 Glu Gln Ser Arg Arg Asp Asp Leu Glu Ser Leu Gly Tyr Val Leu Met  
 195 200 205  
 Tyr Phe Leu Arg Gly Ser Leu Pro Trp Gln Gly Leu Lys Ala Gly Thr  
 210 215 220  
 Lys Lys Gln Lys Tyr Asp Arg Ile Ser Glu Lys Lys Val Ser Thr Pro  
 225 230 235 240  
 Ile Glu Val Leu Cys Lys Ser Tyr Pro Pro Glu Phe Val Ser Tyr Phe  
 245 250 255  
 Gln Tyr Cys Arg Ser Leu Arg Phe Glu Asp Lys Pro Asp Tyr Ser Tyr  
 260 265 270  
 Leu Lys Arg Leu Phe Arg Asp Leu Phe Ile Arg Glu Gly Tyr Gln Phe  
 275 280 285

047-E2F-PCT.ST25.txt

Asp Tyr Val Phe Asp Trp Thr Ala Leu Lys His Pro Gln Ser Ser Ala  
290 295 300

Arg Ser His Ser Ser Thr His Glu Arg His Arg Thr Gly Lys Pro Gly  
305 310 315 320

Met Gly Ala Gly Pro Ser Ala Glu Lys Pro Glu Arg Ile Ser Val Gly  
325 330 335

Asn Ile Arg Asp Lys Phe Ser Gly Ala Val Glu Ala Phe Ala Arg Arg  
340 345 350

Asn Val Arg Gly Pro Ser Pro His Gln Asn His Thr Arg His Arg Thr  
355 360 365

Leu Asp Glu Ile Pro Ser Met Lys Pro Ala Val Asn Met Val Ser Glu  
370 375 380

Lys Gly Arg Asn Thr Ser Arg Tyr Gly Ser Ala Ser Arg Arg Ala Val  
385 390 395 400

Ala Ser Gly Ser Arg Pro Ser Ser Ser Gly Glu Gln Arg Glu Ser Arg  
405 410 415

Asp Ser Ser Arg Val Ala Ser Ser Gly Gly Gly Val Arg Pro Ser Val  
420 425 430

Phe Gln Arg Thr Gln Ala Ala Ala Ala Val Ser Gly Tyr Glu Ser Lys  
435 440 445

Thr Ala Ser Ala Phe Asn Arg Asp Arg Val Ala Ala Ser Arg Thr Ala  
450 455 460

Arg Asp Glu Ala Leu Arg Ser Phe Glu Leu Leu Ser Ile Arg Lys  
465 470 475

<210> 781

<211> 456

<212> DNA

<213> Arabidopsis thaliana

<400> 781

atgaagcgca gtactaccga ctctgatttg gccggtgatg ctcacaacga gacaaacaag 60

aagatgaaga gtacagagga agaagaaatc ggattctcca atttagacga gaatctagtg 120

047-E2F-PCT.ST25.txt

tacgaggtgt tgaacacagt cgacgcaaag accttagcta tgtcatcttg cgtgagcaag 180  
atctggcaca aaacggcaca agacgagcgg ctttgggagc tgatctgtac tcgtcactgg 240  
actaacatcg gctgcgggca gaaccagctc agatctgttg tgttggcgct tgggtggcttc 300  
cgaagactcc actctcttta cctctggcct ctctctaaac ccaatccgcg tgctagggttc 360  
ggtaaggacg agcttaaact cactctttct cttctctcaa ttcgatacta cgagaagatg 420  
agtttctaata agagacctct tccagaatcc aaataa 456

<210> 782

<211> 151

<212> PRT

<213> Arabidopsis thaliana

<400> 782

Met Lys Arg Ser Thr Thr Asp Ser Asp Leu Ala Gly Asp Ala His Asn  
1 5 10 15

Glu Thr Asn Lys Lys Met Lys Ser Thr Glu Glu Glu Glu Ile Gly Phe  
20 25 30

Ser Asn Leu Asp Glu Asn Leu Val Tyr Glu Val Leu Lys His Val Asp  
35 40 45

Ala Lys Thr Leu Ala Met Ser Ser Cys Val Ser Lys Ile Trp His Lys  
50 55 60

Thr Ala Gln Asp Glu Arg Leu Trp Glu Leu Ile Cys Thr Arg His Trp  
65 70 75 80

Thr Asn Ile Gly Cys Gly Gln Asn Gln Leu Arg Ser Val Val Leu Ala  
85 90 95

Leu Gly Gly Phe Arg Arg Leu His Ser Leu Tyr Leu Trp Pro Leu Ser  
100 105 110

Lys Pro Asn Pro Arg Ala Arg Phe Gly Lys Asp Glu Leu Lys Leu Thr  
115 120 125

Leu Ser Leu Leu Ser Ile Arg Tyr Tyr Glu Lys Met Ser Phe Thr Lys  
130 135 140

Arg Pro Leu Pro Glu Ser Lys

145

150

&lt;210&gt; 783

&lt;211&gt; 1269

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 783

```

atggccttct cttctctcct cagatctgcc gcctcctaca cggttgccgc tcctcgccct    60
gactttttct cgtcgccggc gtctgatcat tctaagggtgt tgtcaagtct tggatttagt    120
cgcaacctga agccatcaag attttcttct gggatatctt catctctaca aaatggcaat    180
gcaagaagtg tgcaacccat caaggccacg gctacagaag tgccatctgc agttcgaagg    240
tcaagtagca gtggaaagac aaagggttggg atcaacggtt ttggtcggat tggaagggtt    300
gtcctccgca ttgcaacatc aagggatgat attgaggttg tagcagtga tgaccattc    360
attgatgcca agtacatggc ttacatgttg aagtatgatt ctactcatgg aaatttcaag    420
ggaagcatca atgtcattga tgattctact ttggagatca atgggaagaa ggtcaatgtt    480
gtcagcaaga gagatccatc tgagatccca tgggctgata ttggagctga ttatgttggt    540
gagtcttccg gtgtattcac caccctgtca aaggctgcat cccatttgaa gggcggtgcc    600
aagaaagtta taatttctgc cccttctgct gacgcacctg tgtttggtgt tggagtaaac    660
gagcacacat accaaccaaa catggatata gtctccaatg caagttgtac caccaattgt    720
cttgcccctc ttgccaaggt ggtgcatgag gaatttggtg ttcttgaagg cttgatgaca    780
actgtccacg caactacagc tactcagaaa actgttgatg ggccatcaat gaaggactgg    840
agaggagggtc ggggcgctag tcaaaacatc attcctagct caaccggcgc cgcgaaggct    900
gtaggtaaag ttcttccaga actgaatggg aaacttacgg gaatggcctt ccgtgtacca    960
acatcgaatg tttctgtggt ggatttaact tgtcgacttg agaagggtgc ctcttacgaa   1020
gatgttaagg cagccattaa gcatgcctca gaaggacctc ttaaaggcat tctcgggtac   1080
acagatgaag atgtcgtctc caatgatttc gtcggtgatt caagggtccag tatctttgac   1140
gccaatgctg gtattggatt gagcaagtcc tttgtgaaac ttgtctcttg gtacgacaac   1200
gaatgggggtt acagcaaccg agttcttgac cttatagagc acatggcttt ggtagctgcc   1260
agccactaa                                     1269

```

&lt;210&gt; 784

&lt;211&gt; 422

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 784

Met Ala Phe Ser Ser Leu Leu Arg Ser Ala Ala Ser Tyr Thr Val Ala  
 1 5 10 15

Ala Pro Arg Pro Asp Phe Phe Ser Ser Pro Ala Ser Asp His Ser Lys  
 20 25 30

Val Leu Ser Ser Leu Gly Phe Ser Arg Asn Leu Lys Pro Ser Arg Phe  
 35 40 45

Ser Ser Gly Ile Ser Ser Ser Leu Gln Asn Gly Asn Ala Arg Ser Val  
 50 55 60

Gln Pro Ile Lys Ala Thr Ala Thr Glu Val Pro Ser Ala Val Arg Arg  
 65 70 75 80

Ser Ser Ser Ser Gly Lys Thr Lys Val Gly Ile Asn Gly Phe Gly Arg  
 85 90 95

Ile Gly Arg Leu Val Leu Arg Ile Ala Thr Ser Arg Asp Asp Ile Glu  
 100 105 110

Val Val Ala Val Asn Asp Pro Phe Ile Asp Ala Lys Tyr Met Ala Tyr  
 115 120 125

Met Leu Lys Tyr Asp Ser Thr His Gly Asn Phe Lys Gly Ser Ile Asn  
 130 135 140

Val Ile Asp Asp Ser Thr Leu Glu Ile Asn Gly Lys Lys Val Asn Val  
 145 150 155 160

Val Ser Lys Arg Asp Pro Ser Glu Ile Pro Trp Ala Asp Leu Gly Ala  
 165 170 175

Asp Tyr Val Val Glu Ser Ser Gly Val Phe Thr Thr Leu Ser Lys Ala  
 180 185 190

Ala Ser His Leu Lys Gly Gly Ala Lys Lys Val Ile Ile Ser Ala Pro  
 195 200 205

Ser Ala Asp Ala Pro Met Phe Val Val Gly Val Asn Glu His Thr Tyr  
 210 215 220

047-E2F-PCT.ST25.txt

Gln Pro Asn Met Asp Ile Val Ser Asn Ala Ser Cys Thr Thr Asn Cys  
 225 230 235 240

Leu Ala Pro Leu Ala Lys Val Val His Glu Glu Phe Gly Ile Leu Glu  
 245 250 255

Gly Leu Met Thr Thr Val His Ala Thr Thr Ala Thr Gln Lys Thr Val  
 260 265 270

Asp Gly Pro Ser Met Lys Asp Trp Arg Gly Gly Arg Gly Ala Ser Gln  
 275 280 285

Asn Ile Ile Pro Ser Ser Thr Gly Ala Ala Lys Ala Val Gly Lys Val  
 290 295 300

Leu Pro Glu Leu Asn Gly Lys Leu Thr Gly Met Ala Phe Arg Val Pro  
 305 310 315 320

Thr Ser Asn Val Ser Val Val Asp Leu Thr Cys Arg Leu Glu Lys Gly  
 325 330 335

Ala Ser Tyr Glu Asp Val Lys Ala Ala Ile Lys His Ala Ser Glu Gly  
 340 345 350

Pro Leu Lys Gly Ile Leu Gly Tyr Thr Asp Glu Asp Val Val Ser Asn  
 355 360 365

Asp Phe Val Gly Asp Ser Arg Ser Ser Ile Phe Asp Ala Asn Ala Gly  
 370 375 380

Ile Gly Leu Ser Lys Ser Phe Val Lys Leu Val Ser Trp Tyr Asp Asn  
 385 390 395 400

Glu Trp Gly Tyr Ser Asn Arg Val Leu Asp Leu Ile Glu His Met Ala  
 405 410 415

Leu Val Ala Ala Ser His  
 420

<210> 785

<211> 2103

<212> DNA

<213> Arabidopsis thaliana

## 047-E2F-PCT.ST25.txt

&lt;400&gt; 785

atggtttcaa	gatcgtattc	aaatctgttg	gagtttagctt	caggagactc	accaacgttt	60
ggacgcatga	accgacaaat	cccacgaatc	atggccgttg	ctggaatcat	gtcaaacatc	120
gataatgact	ctaaagacac	tgatctgtct	cctaaagatc	gtatcatcat	tgtagccaat	180
gaattaccta	tacgagctca	gagaaggggt	gatggtaatg	gtagtggtag	tagtagtagt	240
agtacttggt	gtagcaaagg	ttggaacttt	tcttgggatg	agaattcact	tcttctccaa	300
ttgaaagatg	ggttaggaga	tgaagctatt	gaagttatct	atgttggttg	tttgaaagaa	360
gagattcctc	ttaatgagca	agaagaagtg	tatcagattc	ttcttgagag	tttcaagtgt	420
gtgcctacgt	ttttgccttt	ggatttgtac	actagatact	accatggatt	ctgtaagcaa	480
cagctttggc	ccttgcttca	ttacatgttg	ccactttctc	ctgatcttgg	aggtaggttt	540
gataggactt	tgtggcaagc	ttatgtctct	gtgaacaaga	tttttgctga	tagaattatg	600
gaggtgatta	atcctgagga	tgattttgtg	tggatacatg	attatcattt	gatggttttg	660
cctactttct	tgaggaagag	gtttaacaga	gtcaagcttg	gtttcttcct	tcatagtcca	720
tttccatcgt	ctgagattta	caaaactttg	cctattcgtg	aagagcttct	tcgggctttg	780
ctaaactcgg	atttgatagg	gttccatact	tttgactacg	ctaggcattt	cttgtcttgt	840
tgtagtcgaa	tgcttggctt	tacttatgaa	tctaagagag	gatacattgg	acttgagtat	900
tatggtagaa	ccgtgagtat	caaaattcta	cctgttgga	tccacatggg	tcagcttcag	960
tcggttttga	gcttaccgga	gactgaaagg	aaagtcgggg	aacttattga	acggtatggg	1020
cgaaaaggca	ggacgatgct	gcttgggtgtg	gatgatatgg	acattttcaa	agggattact	1080
ttaaagctgt	tggctatgga	gcagctgctt	atgcaacatc	ctgaatggca	aggggaagggt	1140
gtgttggtgc	agatagctaa	tccggcgaga	gggaaaggga	aagatgttaa	agagatgcaa	1200
gctgagacgt	attcaactgt	taagcggatt	aatgaaacgt	ttgggagacc	cggttacgat	1260
cctatagtat	tgatcgatgc	accgttgaag	ttctatgaaa	gggttgctta	ttacgtagta	1320
gctgagtgtt	gtttggtgac	agcggttagg	gatgggatga	atcttatacc	ttatgagtac	1380
atagtttctc	gtcaaggaaa	tgagaaactg	gacaaaattc	tgaagctgga	ggcgaataat	1440
cgtaacaaga	aaagcatgct	ggtggtttct	gagtttattg	gttgctctcc	atcgctaagc	1500
ggagccattc	gtgttaatcc	atggaatgtt	gatgcagtag	ctgatgcaat	ggatagtgcc	1560
cttgaagtag	ctgaaccgga	gaagcagcta	agacatgaga	agcattacaa	gtatgtgagc	1620
acacatgatg	ttggctattg	ggctcgtagc	ttctccaag	atcttgagag	gagttgtggt	1680
gagcatggac	gaaggagggtg	ttgggggaatt	gggtttggtc	tcagtttcag	agttgtggca	1740
ctagaccaga	gcttcaggaa	gctgtcaatg	gaacacatag	tatcagctta	taagaggaca	1800
aagacacggg	ctatcctttt	agactatgat	gatactttta	tgccacaagg	ctcgatcgat	1860

aaaaggcctt catcgaagtc aatcgacata ttgaacacct tgtgtaggga caagggcaat 1920  
 ctggtgttca ttgttagtgc taaaagccga gaaactctat cggactgggt tagtccttgt 1980  
 gagaagcttg gtattgctgc tgaacatggc ttttttctga ggtattcaac caaaactttt 2040  
 ttttttctag cattaccttt atatcttata actcaagctc catctaacta ctacacaggc 2100  
 taa 2103

<210> 786

<211> 700

<212> PRT

<213> Arabidopsis thaliana

<400> 786

Met Val Ser Arg Ser Tyr Ser Asn Leu Leu Glu Leu Ala Ser Gly Asp  
1 5 10 15

Ser Pro Thr Phe Gly Arg Met Asn Arg Gln Ile Pro Arg Ile Met Ala  
20 25 30

Val Ala Gly Ile Met Ser Asn Ile Asp Asn Asp Ser Lys Asp Thr Asp  
35 40 45

Leu Ser Pro Lys Asp Arg Ile Ile Ile Val Ala Asn Glu Leu Pro Ile  
50 55 60

Arg Ala Gln Arg Arg Val Asp Gly Asn Gly Ser Gly Ser Ser Ser Ser  
65 70 75 80

Ser Thr Cys Cys Ser Lys Gly Trp Asn Phe Ser Trp Asp Glu Asn Ser  
85 90 95

Leu Leu Leu Gln Leu Lys Asp Gly Leu Gly Asp Glu Ala Ile Glu Val  
100 105 110

Ile Tyr Val Gly Cys Leu Lys Glu Glu Ile Pro Leu Asn Glu Gln Glu  
115 120 125

Glu Val Tyr Gln Ile Leu Leu Glu Ser Phe Lys Cys Val Pro Thr Phe  
130 135 140

Leu Pro Leu Asp Leu Tyr Thr Arg Tyr Tyr His Gly Phe Cys Lys Gln  
145 150 155 160



Gln Leu Trp Pro Leu Phe His Tyr Met Leu Pro Leu Ser Pro Asp Leu  
 165 170 175  
 Gly Gly Arg Phe Asp Arg Thr Leu Trp Gln Ala Tyr Val Ser Val Asn  
 180 185 190  
 Lys Ile Phe Ala Asp Arg Ile Met Glu Val Ile Asn Pro Glu Asp Asp  
 195 200 205  
 Phe Val Trp Ile His Asp Tyr His Leu Met Val Leu Pro Thr Phe Leu  
 210 215 220  
 Arg Lys Arg Phe Asn Arg Val Lys Leu Gly Phe Phe Leu His Ser Pro  
 225 230 235 240  
 Phe Pro Ser Ser Glu Ile Tyr Lys Thr Leu Pro Ile Arg Glu Glu Leu  
 245 250 255  
 Leu Arg Ala Leu Leu Asn Ser Asp Leu Ile Gly Phe His Thr Phe Asp  
 260 265 270  
 Tyr Ala Arg His Phe Leu Ser Cys Cys Ser Arg Met Leu Gly Leu Thr  
 275 280 285  
 Tyr Glu Ser Lys Arg Gly Tyr Ile Gly Leu Glu Tyr Tyr Gly Arg Thr  
 290 295 300  
 Val Ser Ile Lys Ile Leu Pro Val Gly Ile His Met Gly Gln Leu Gln  
 305 310 315 320  
 Ser Val Leu Ser Leu Pro Glu Thr Glu Arg Lys Val Gly Glu Leu Ile  
 325 330 335  
 Glu Arg Tyr Gly Arg Lys Gly Arg Thr Met Leu Leu Gly Val Asp Asp  
 340 345 350  
 Met Asp Ile Phe Lys Gly Ile Thr Leu Lys Leu Leu Ala Met Glu Gln  
 355 360 365  
 Leu Leu Met Gln His Pro Glu Trp Gln Gly Lys Val Val Leu Val Gln  
 370 375 380  
 Ile Ala Asn Pro Ala Arg Gly Lys Gly Lys Asp Val Lys Glu Met Gln  
 385 390 395 400  
 Ala Glu Thr Tyr Ser Thr Val Lys Arg Ile Asn Glu Thr Phe Gly Arg  
 405 410 415

047-E2F-PCT.ST25.txt

Pro Gly Tyr Asp Pro Ile Val Leu Ile Asp Ala Pro Leu Lys Phe Tyr  
420 425 430

Glu Arg Val Ala Tyr Tyr Val Val Ala Glu Cys Cys Leu Val Thr Ala  
435 440 445

Val Arg Asp Gly Met Asn Leu Ile Pro Tyr Glu Tyr Ile Val Ser Arg  
450 455 460

Gln Gly Asn Glu Lys Leu Asp Lys Ile Leu Lys Leu Glu Ala Asn Asn  
465 470 475 480

Arg Asn Lys Lys Ser Met Leu Val Val Ser Glu Phe Ile Gly Cys Ser  
485 490 495

Pro Ser Leu Ser Gly Ala Ile Arg Val Asn Pro Trp Asn Val Asp Ala  
500 505 510

Val Ala Asp Ala Met Asp Ser Ala Leu Glu Val Ala Glu Pro Glu Lys  
515 520 525

Gln Leu Arg His Glu Lys His Tyr Lys Tyr Val Ser Thr His Asp Val  
530 535 540

Gly Tyr Trp Ala Arg Ser Phe Leu Gln Asp Leu Glu Arg Ser Cys Gly  
545 550 555 560

Glu His Gly Arg Arg Arg Cys Trp Gly Ile Gly Phe Gly Leu Ser Phe  
565 570 575

Arg Val Val Ala Leu Asp Gln Ser Phe Arg Lys Leu Ser Met Glu His  
580 585 590

Ile Val Ser Ala Tyr Lys Arg Thr Lys Thr Arg Ala Ile Leu Leu Asp  
595 600 605

Tyr Asp Asp Thr Leu Met Pro Gln Gly Ser Ile Asp Lys Arg Pro Ser  
610 615 620

Ser Lys Ser Ile Asp Ile Leu Asn Thr Leu Cys Arg Asp Lys Gly Asn  
625 630 635 640

Leu Val Phe Ile Val Ser Ala Lys Ser Arg Glu Thr Leu Ser Asp Trp  
645 650 655

Phe Ser Pro Cys Glu Lys Leu Gly Ile Ala Ala Glu His Gly Tyr Phe  
660 665 670

Leu Arg Tyr Ser Thr Lys Thr Phe Tyr Phe Leu Ala Leu Pro Leu Tyr  
675 680 685

Leu Ile Thr Gln Ala Pro Ser Asn Tyr Tyr Thr Gly  
690 695 700

<210> 787

<211> 741

<212> DNA

<213> Arabidopsis thaliana

<400> 787

atggcgaccg gtggtgctgc ggcggatttg gaagatgttc agacggtgga tctcatgtcg	60
gagctcctcc gccgcctcaa gtgttctcag aagcccgaca aacgcctcat cttcattgga	120
cctccagggg cagggaaagg tactcaatct ccagtagtga aggatgagta ttgcttgtgt	180
cacttatcca ctggagacat gttaagagct gctgttgctt ctaagacccc tcttggtgtc	240
aaggctaaag aagctatgga aaaaggagag ctctgtctctg atgatttggt tgttggtata	300
attgatgaag ccatgaacaa gccaaaatgt caaaaaggat ttatccttga tgggttcccc	360
aggactgtta ctcaggcaga gaagctcgat gagatgctta agaggcgagg aactgaaatt	420
gacaaagttc tcaactttgc tattgatgac gcaatcttgg aggaaagaat aaccgggcga	480
tggatccacc catcgagtgg caggagttac cacaccaa attgctcctcc caaaaccct	540
ggagttgatg atattactgg agagcctctg atccaacgta aagatgataa cgctgatgtt	600
ctaaagtcga ggcttgcagc tttccacagt caaactcaac cggtgattga ttactacgca	660
aagaaggccg ttctcacaaa catccaggcc gagaaggctc cccaagaagt tacatcagag	720
gttaaaaaag cattgtcatg a	741

<210> 788

<211> 246

<212> PRT

<213> Arabidopsis thaliana

<400> 788

Met Ala Thr Gly Gly Ala Ala Ala Asp Leu Glu Asp Val Gln Thr Val  
1 5 10 15

047-E2F-PCT.ST25.txt

Asp Leu Met Ser Glu Leu Leu Arg Arg Leu Lys Cys Ser Gln Lys Pro  
 20 25 30  
 Asp Lys Arg Leu Ile Phe Ile Gly Pro Pro Gly Ser Gly Lys Gly Thr  
 35 40 45  
 Gln Ser Pro Val Val Lys Asp Glu Tyr Cys Leu Cys His Leu Ser Thr  
 50 55 60  
 Gly Asp Met Leu Arg Ala Ala Val Ala Ser Lys Thr Pro Leu Gly Val  
 65 70 75 80  
 Lys Ala Lys Glu Ala Met Glu Lys Gly Glu Leu Val Ser Asp Asp Leu  
 85 90 95  
 Val Val Gly Ile Ile Asp Glu Ala Met Asn Lys Pro Lys Cys Gln Lys  
 100 105 110  
 Gly Phe Ile Leu Asp Gly Phe Pro Arg Thr Val Thr Gln Ala Glu Lys  
 115 120 125  
 Leu Asp Glu Met Leu Lys Arg Arg Gly Thr Glu Ile Asp Lys Val Leu  
 130 135 140  
 Asn Phe Ala Ile Asp Asp Ala Ile Leu Glu Glu Arg Ile Thr Gly Arg  
 145 150 155 160  
 Trp Ile His Pro Ser Ser Gly Arg Ser Tyr His Thr Lys Phe Ala Pro  
 165 170 175  
 Pro Lys Thr Pro Gly Val Asp Asp Ile Thr Gly Glu Pro Leu Ile Gln  
 180 185 190  
 Arg Lys Asp Asp Asn Ala Asp Val Leu Lys Ser Arg Leu Ala Ala Phe  
 195 200 205  
 His Ser Gln Thr Gln Pro Val Ile Asp Tyr Tyr Ala Lys Lys Ala Val  
 210 215 220  
 Leu Thr Asn Ile Gln Ala Glu Lys Ala Pro Gln Glu Val Thr Ser Glu  
 225 230 235 240  
 Val Lys Lys Ala Leu Ser  
 245

<210> 789

&lt;211&gt; 1167

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 789

atggcgggta agcagatcgg cggagacgga ggttttaccgg caaatctcgc cggaatgact	60
aaaagtcagc tctatgatat tatgtctcaa atgaagacgt tgattgatca aaaccatcaa	120
caagcgaggg agattctgat tcggaaccct cttttgacga aggctctttt ccaggcacia	180
atcatgctcg gaatggttca gcctcctcaa gtgactccga aagttgagcc acaagctgta	240
caacaacctc aacaatctca tcaatctatc ccgccaaagc caaacgttca agctcatatg	300
tcttctttcc aaggcggttg cagtgtacat gagccagcca atacgatgca gccacaagcc	360
ccgattcgaa aacacccaac accacaacca atgcctatgc ctccaccacc gccttctggt	420
tctgcaaata gtgctcaatc acagcctcgt ttttcgcata cccagcgtca gggacatctg	480
aatcctgctg tcacttctat gtctcatcca cagtcttctc aagttcaaaa cgcgctcct	540
ccggcttccc atcatccaac atcccagcaa cctccttttc atcatcttga tataccagct	600
tcctccactc agttgcaaca acaaccaatg cactctggtg gaggtcctca tgtggcacag	660
caacagtcta gaccatatca tcatcaatat ggacaagctc aaactggtcc aaacactgga	720
tttcagcacc atggcgccacc tactcagcat ctttctcaac ccatgtatca ttcaggcaac	780
agaccccctg cttccggttg acctcaattc ccgcagggac agccacatct gcctagtcag	840
ccaacatatc agggaggagg tcaatatcgt ggagactaca acaataacca attagcaggt	900
ctgatggctc aagacagagg tccttcttgg atggctggcc aatcagagag ctcgaacatt	960
actcatctgc caggcttagg accggtgcct ccaccaagcc aagttgggccc tggaggtggc	1020
ccaccacctc gccctgcacc gatatctgca gagatggaga aggcactact tcaacaagtg	1080
atgagcctta caccagagca gatcaatctg ctgccaccag aacagagaaa ccaagtcctt	1140
cagcttcaac agattctccg acagtga	1167

&lt;210&gt; 790

&lt;211&gt; 388

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 790

Met Ala Gly Lys Gln Ile Gly Gly Asp Gly Gly Leu Pro Ala Asn Leu  
 Page 1239

1 5 15

Ala Gly Met Thr Lys Ser Gln Leu Tyr Asp Ile Met Ser Gln Met Lys  
20 25 30

Thr Leu Ile Asp Gln Asn His Gln Gln Ala Arg Glu Ile Leu Ile Arg  
35 40 45

Asn Pro Leu Leu Thr Lys Ala Leu Phe Gln Ala Gln Ile Met Leu Gly  
50 55 60

Met Val Gln Pro Pro Gln Val Thr Pro Lys Val Glu Pro Gln Ala Val  
65 70 75 80

Gln Gln Pro Gln Gln Ser His Gln Ser Ile Pro Pro Lys Pro Asn Val  
85 90 95

Gln Ala His Met Ser Ser Phe Gln Gly Gly Gly Ser Val His Glu Pro  
100 105 110

Ala Asn Thr Met Gln Pro Gln Ala Pro Ile Arg Lys His Pro Thr Pro  
115 120 125

Gln Pro Met Pro Met Pro Pro Pro Pro Pro Ser Val Ser Ala Asn Ser  
130 135 140

Ala Gln Ser Gln Pro Arg Phe Ser His Pro Gln Arg Gln Gly His Leu  
145 150 155 160

Asn Pro Ala Val Thr Ser Met Ser His Pro Gln Ser Ser Gln Val Gln  
165 170 175

Asn Ala Pro Pro Pro Ala Ser His His Pro Thr Ser Gln Gln Pro Pro  
180 185 190

Phe His His Leu Asp Ile Pro Ala Ser Ser Thr Gln Leu Gln Gln Gln  
195 200 205

Pro Met His Ser Gly Gly Gly Pro His Val Ala Gln Gln Gln Ser Arg  
210 215 220

Pro Tyr His His Gln Tyr Gly Gln Ala Gln Thr Gly Pro Asn Thr Gly  
225 230 235 240

Phe Gln His His Gly Ala Pro Thr Gln His Leu Ser Gln Pro Met Tyr  
245 250 255

His Ser Gly Asn Arg Pro Pro Ala Ser Gly Gly Pro Gln Phe Pro Gln  
 260 265 270

Gly Gln Pro His Leu Pro Ser Gln Pro Thr Tyr Gln Gly Gly Gly Gln  
 275 280 285

Tyr Arg Gly Asp Tyr Asn Asn Asn Gln Leu Ala Gly Leu Met Ala Gln  
 290 295 300

Asp Arg Gly Pro Ser Trp Met Ala Gly Gln Ser Glu Ser Ser Asn Ile  
 305 310 315 320

Thr His Leu Pro Gly Leu Gly Pro Val Pro Pro Pro Ser Gln Val Gly  
 325 330 335

Pro Gly Gly Gly Pro Pro Pro Arg Pro Ala Pro Ile Ser Ala Glu Met  
 340 345 350

Glu Lys Ala Leu Leu Gln Gln Val Met Ser Leu Thr Pro Glu Gln Ile  
 355 360 365

Asn Leu Leu Pro Pro Glu Gln Arg Asn Gln Val Leu Gln Leu Gln Gln  
 370 375 380

Ile Leu Arg Gln  
 385

<210> 791

<211> 1020

<212> DNA

<213> Arabidopsis thaliana

<400> 791

atgtgtagca acaaagcaag tccggtcgtc ggagaagaaa aacagagtac gagatcatcg	60
aagaggatca agaagagaaa aaacagagaa gctaccacca ccatggagga taagtcttct	120
tccaatcttg acgcgctctcg taagatcaga aaaaaacga aaaaacccaa atttctcagt	180
ctcaagctcg agtcaacac ttctcacgag atcaacgaga atcccagaag caagaagagc	240
aagaagaaga acaacaacaa aaaacagagc aagaagaaag aaccggatac gacgccgttt	300
aaggagaaga agagagcaga gactactact aactggggg gaggagagaa agaagaagag	360
caatacgaca ccgttgcagc ttacctcttc aattccgcca ccgacagtac aatttcttcg	420
atccacgatc tcctcccttc ctccgcggcc accgatgtag attgcggcgg agaaaggaat	480

047-E2F-PCT.ST25.txt

aatctttctc cgtatgatcg tcaagaccac ggatcgctcg cgtcttcctt tctaaggacg 540  
 gcgatgagga aaggagcgag cgaggaggag gagacgacgg aggagcgggtg ggtgagttat 600  
 tcagagggttg tggaggaagt gatgagtcgg agcgggactc cacgttggtg cggcggaggc 660  
 gatggaaacg atggccggcc ttcgttggct ctgaagcttg attatgagca gatcatggag 720  
 gcttggtcgg ataaaggtac gctttatgtc gacggagaac cgccgcagac agtgccggac 780  
 ttgcatgctt ccgctgatgg gtttaatgac ggcggagagg cggggaattt atgggcagtg 840  
 ccggagatgg aaacgacgga gaggttatgg agagggcata gagaagccag cttgctccgg 900  
 tataaagaga aacggcaaaa ccgtcttttc tctaagcgga ttcgatatca agttcgtaaa 960  
 ctcaatgccg agaaacgtcc tcgtgttaaa ggccggtttg taaaagaga ggattcataa 1020

<210> 792

<211> 339

<212> PRT

<213> Arabidopsis thaliana

<400> 792

Met Cys Ser Asn Lys Ala Ser Pro Val Val Gly Glu Glu Lys Gln Ser  
 1 5 10 15

Thr Arg Ser Ser Lys Arg Ile Lys Lys Arg Lys Asn Arg Glu Ala Thr  
 20 25 30

Thr Thr Met Glu Asp Lys Ser Ser Ser Asn Leu Asp Ala Ser Arg Lys  
 35 40 45

Ile Arg Thr Lys Thr Lys Lys Pro Lys Phe Leu Ser Leu Lys Leu Glu  
 50 55 60

Leu Asn Thr Ser His Glu Ile Asn Glu Asn Pro Arg Ser Lys Lys Ser  
 65 70 75 80

Lys Lys Lys Asn Asn Asn Lys Lys Gln Ser Lys Lys Lys Glu Pro Asp  
 85 90 95

Thr Thr Pro Phe Lys Glu Lys Lys Arg Ala Glu Thr Thr Thr Thr Leu  
 100 105 110

Gly Gly Gly Glu Lys Glu Glu Glu Gln Tyr Asp Thr Val Ala Ala Tyr  
 115 120 125



Leu Phe Asn Ser Ala Thr Asp Ser Thr Ile Ser Ser Ile His Asp Leu  
 130 135 140

Leu Pro Ser Ser Ala Ala Thr Asp Val Asp Cys Gly Gly Glu Arg Asn  
 145 150 155 160

Asn Leu Ser Pro Tyr Asp Arg Gln Asp His Gly Ser Ser Ser Ser Ser  
 165 170 175

Leu Leu Arg Thr Ala Met Arg Lys Gly Ala Ser Glu Glu Glu Glu Thr  
 180 185 190

Thr Glu Glu Arg Trp Val Ser Tyr Ser Glu Val Val Glu Glu Val Met  
 195 200 205

Ser Arg Ser Gly Thr Pro Arg Cys Cys Gly Gly Gly Asp Gly Asn Asp  
 210 215 220

Gly Arg Pro Ser Leu Ala Leu Lys Leu Asp Tyr Glu Gln Ile Met Glu  
 225 230 235 240

Ala Trp Ser Asp Lys Gly Thr Leu Tyr Val Asp Gly Glu Pro Pro Gln  
 245 250 255

Thr Val Pro Asp Leu His Ala Ser Ala Asp Gly Phe Asn Asp Gly Gly  
 260 265 270

Glu Ala Gly Asn Leu Trp Ala Val Pro Glu Met Glu Thr Thr Glu Arg  
 275 280 285

Leu Trp Arg Gly His Arg Glu Ala Ser Leu Leu Arg Tyr Lys Glu Lys  
 290 295 300

Arg Gln Asn Arg Leu Phe Ser Lys Arg Ile Arg Tyr Gln Val Arg Lys  
 305 310 315 320

Leu Asn Ala Glu Lys Arg Pro Arg Val Lys Gly Arg Phe Val Lys Arg  
 325 330 335

Glu Asp Ser

<210> 793

<211> 1293

<212> DNA

<213> Arabidopsis thaliana

&lt;400&gt; 793

```

atgatcaccg atcttccaaa ggatttgata gaagaaatcc tttcaagggg ttccatgaca      60
tctatgagag ttgtgcgatt aacttgcaaa agttggaata ctttatccaa tagtgagagc     120
tttaagaaga tgcacattgg taaagttaca tcaacgagag aaggagaatc taggggtgatc     180
atgttgatag attacaatct ttttttgatg agcgcgtgtcc tcatggatga cgttgatcca     240
tctatagagt ttaaaggtaa acttagttgt cttaaaggaac aagtcaagat atctcaagtc     300
tttcaactgtg aggggtttatt gttatgcatc ttgaaagacg atactaggat tgttgtttgg     360
aatccgtata ggcaggaaac aagggtggatc atacctagat attctcaccg tccatacgta     420
atgaacaata tcagatatgc tcttggatac gagaataata aatctgggtcg tagccttaaa     480
ttattgaggt ttatagatta ttgctacacc gaaaagcaca tttgttggca tgaaatctac     540
gattttgact ctgattttatg gacaactctt gatgtcactc cacattggta tatattgtct     600
aattgggtctt gtgtccaagg cgtctctctc aaaggggaaca cttactgggtg tgctagagaa     660
gaaaactcag atggtttacaa tcatataatc tgttttgatt ttacaagaga gagatttggt     720
ccgcttctgc ctctaccggt taacgttata gataatgaat atgaatatgt gacttcatct     780
tgtgttagag aagggaagat tgcggcttta tttcagcaca acgattcata tccatatgag     840
cttgagatat ggattacgac taagattgag gcggaaatgg tgtcgtggaa caagttcttg     900
agaattgaca ttgaacctaa caataacata atggttccat ttatatatgg gggtttcttc     960
attgacgagg agaagaagaa agtcgccttg gggtttgatg aagagttcgg tcgcaaaaca    1020
tttaacatta ttggagagga tggatatttt agagaattcg atcgcataac atttaacatt    1080
attgaagagg ctggagaacg tgcaggcgta aactgtgggt catatgtgtg ctcttatggt    1140
ccaagtttgg tccgaattaa gaaacctgca caaggcaaaa ggaaaagaca aagcagttta    1200
gaaaagcttc gatttgatca aaacacgtgg atatttgaca gcatttatca agccactgcc    1260
agtcaaatac gtaggaggag gccaacaaga tga                                     1293

```

&lt;210&gt; 794

&lt;211&gt; 430

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 794

```

Met Ile Thr Asp Leu Pro Lys Asp Leu Ile Glu Glu Ile Leu Ser Arg
1           5           10           15

```

047-E2F-PCT.ST25.txt

Val Ser Met Thr Ser Met Arg Val Val Arg Leu Thr Cys Lys Ser Trp  
20 25 30

Asn Thr Leu Ser Asn Ser Glu Ser Phe Lys Lys Met His Ile Gly Lys  
35 40 45

Val Thr Ser Thr Arg Glu Gly Glu Ser Arg Val Ile Met Leu Ile Asp  
50 55 60

Tyr Asn Leu Phe Leu Met Ser Ala Val Leu Met Asp Asp Val Asp Pro  
65 70 75 80

Ser Ile Glu Phe Lys Gly Lys Leu Ser Cys Leu Lys Glu Gln Val Lys  
85 90 95

Ile Ser Gln Val Phe His Cys Glu Gly Leu Leu Leu Cys Ile Leu Lys  
100 105 110

Asp Asp Thr Arg Ile Val Val Trp Asn Pro Tyr Arg Gln Glu Thr Arg  
115 120 125

Trp Ile Ile Pro Arg Tyr Ser His Arg Pro Tyr Val Met Asn Asn Ile  
130 135 140

Arg Tyr Ala Leu Gly Tyr Glu Asn Asn Lys Ser Gly Arg Ser Leu Lys  
145 150 155 160

Leu Leu Arg Phe Ile Asp Tyr Cys Tyr Thr Glu Lys His Ile Cys Trp  
165 170 175

His Glu Ile Tyr Asp Phe Asp Ser Asp Leu Trp Thr Thr Leu Asp Val  
180 185 190

Thr Pro His Trp Tyr Ile Leu Ser Asn Trp Ser Cys Val Gln Gly Val  
195 200 205

Ser Leu Lys Gly Asn Thr Tyr Trp Cys Ala Arg Glu Glu Asn Ser Asp  
210 215 220

Gly Tyr Asn His Ile Ile Cys Phe Asp Phe Thr Arg Glu Arg Phe Gly  
225 230 235 240

Pro Leu Leu Pro Leu Pro Val Asn Val Ile Asp Asn Glu Tyr Glu Tyr  
245 250 255

Val Thr Ser Ser Cys Val Arg Glu Gly Lys Ile Ala Ala Leu Phe Gln  
Page 1245

260

265

270

His Asn Asp Ser Tyr Pro Tyr Glu Leu Glu Ile Trp Ile Thr Thr Lys  
 275 280 285

Ile Glu Ala Glu Met Val Ser Trp Asn Lys Phe Leu Arg Ile Asp Ile  
 290 295 300

Glu Pro Asn Asn Asn Ile Met Val Pro Phe Ile Tyr Gly Gly Phe Phe  
 305 310 315 320

Ile Asp Glu Glu Lys Lys Lys Val Ala Leu Gly Phe Asp Glu Glu Phe  
 325 330 335

Gly Arg Lys Thr Phe Asn Ile Ile Gly Glu Asp Gly Tyr Phe Arg Glu  
 340 345 350

Phe Asp Arg Ile Thr Phe Asn Ile Ile Glu Glu Ala Gly Glu Arg Ala  
 355 360 365

Gly Val Asn Cys Gly Ser Tyr Val Cys Ser Tyr Val Pro Ser Leu Val  
 370 375 380

Arg Ile Lys Lys Pro Ala Gln Gly Lys Arg Lys Arg Gln Ser Ser Leu  
 385 390 395 400

Glu Lys Leu Arg Phe Asp Gln Asn Thr Trp Ile Phe Asp Ser Ile Tyr  
 405 410 415

Gln Ala Thr Ala Ser Gln Ile Arg Arg Arg Arg Pro Thr Arg  
 420 425 430

&lt;210&gt; 795

&lt;211&gt; 1506

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 795

atgtcgattc ttctgtatctt cttctttctc cccgttatctt tatcgttaat attcatgaag 60  
 aaattcaaag actcgaaacg aaatcttcct ccgagcccac cgaagctacc aattatcgga 120  
 aacttacacc agcttcgagg attgtttcat agatgtcttc atgatctctc caagaaacac 180  
 ggtccggtgt tacttctccg tctaggtttt atcgatatgg ttgtgatctc atcaaaagaa 240  
 gcagcggaag aagttctcaa agtacatgac cttgagtgtt gtactagacc taagaccaac 300

047-E2F-PCT.ST25.txt

```

gcctcatcaa aattctcgcg tgatggtaaa gacatcgctt ttgcgccata cggggaggtt 360
tcgagagagt tgcggaagct ttccttaatc aactttttca gcacgcaaaa ggttcgatct 420
tttaggtaca tcagagagga agaaaatgat ttgatggtca agaaactaaa ggaatcagct 480
aagaagaaga atacagtgga tttagagcaa acacttttct atctagttgg gagtatcata 540
ttcagggcta cctttgggca gcgttttagac cagaacaagc atgtcaataa ggaaaagatc 600
gaagaactca tgtttgaggt ccagaaagtt gggctctctaa gcagctctga ttttttcctt 660
gctggtgtgg gatggtttat ggactttgtg tcaggacgac ataagacact tcacaaagtt 720
ttcgtcgagg ttgatacttt gctaaatcat gtaattgatg gtcacttgaa gaatcctgaa 780
gacaaaacaa atcaagatcg ccctgatatc atcgactcga tcttagagac tatttataaa 840
caagaacaag atgaatcttt caaactcacc attgatcatc tcaaaggaat tatccaaaat 900
atatatcttg ctggagtaga cacaagtgcc atcaccatga tttgggcaat ggcagagctt 960
gttaagaacc cacgggtaat gaagaaagct caagaagaga tccgaacatg cattggaatc 1020
aaacagaagg agagaatcga agaagaagat gtcgataagc ttcagtactt gaagcttgtg 1080
atcaaagaaa ccttaagact acaccaccca gcacctcttt tacttccaag agagacaatg 1140
gctgatatca agattcaagg ctacgacatt cctcggaaaa ccattctttt ggttaatgca 1200
tggtcgatag gacgaaaccc tgaactctgg gaaaaccctg aggaatttaa cccggagaga 1260
tttatcgatt gtcctatgga ttacaaagga aatagttttg agatgttacc atttggttct 1320
ggtcggaaga tatgtccagg gatagctttt ggaatagcga ccgttgaact gggactattg 1380
aacttgcttt actactttga ttggagattg gctgaggagg ataaagatat tgacatggaa 1440
gaggctggtg atgccacaat tgtaagaaa gttcctcttg aacttgtccc aattattcat 1500
cattga 1506

```

<210> 796

<211> 501

<212> PRT

<213> Arabidopsis thaliana

<400> 796

Met Ser Ile Leu Leu Tyr Phe Phe Phe Leu Pro Val Ile Leu Ser Leu  
1 5 10 15

Ile Phe Met Lys Lys Phe Lys Asp Ser Lys Arg Asn Leu Pro Pro Ser  
20 25 30

047-E2F-PCT.ST25.txt

Pro Pro Lys Leu Pro Ile Ile Gly Asn Leu His Gln Leu Arg Gly Leu  
 35 40 45  
 Phe His Arg Cys Leu His Asp Leu Ser Lys Lys His Gly Pro Val Leu  
 50 55 60  
 Leu Leu Arg Leu Gly Phe Ile Asp Met Val Val Ile Ser Ser Lys Glu  
 65 70 75 80  
 Ala Ala Glu Glu Val Leu Lys Val His Asp Leu Glu Cys Cys Thr Arg  
 85 90 95  
 Pro Lys Thr Asn Ala Ser Ser Lys Phe Ser Arg Asp Gly Lys Asp Ile  
 100 105 110  
 Ala Phe Ala Pro Tyr Gly Glu Val Ser Arg Glu Leu Arg Lys Leu Ser  
 115 120 125  
 Leu Ile Asn Phe Phe Ser Thr Gln Lys Val Arg Ser Phe Arg Tyr Ile  
 130 135 140  
 Arg Glu Glu Glu Asn Asp Leu Met Val Lys Lys Leu Lys Glu Ser Ala  
 145 150 155 160  
 Lys Lys Lys Asn Thr Val Asp Leu Ser Gln Thr Leu Phe Tyr Leu Val  
 165 170 175  
 Gly Ser Ile Ile Phe Arg Ala Thr Phe Gly Gln Arg Leu Asp Gln Asn  
 180 185 190  
 Lys His Val Asn Lys Glu Lys Ile Glu Glu Leu Met Phe Glu Val Gln  
 195 200 205  
 Lys Val Gly Ser Leu Ser Ser Ser Asp Ile Phe Pro Ala Gly Val Gly  
 210 215 220  
 Trp Phe Met Asp Phe Val Ser Gly Arg His Lys Thr Leu His Lys Val  
 225 230 235 240  
 Phe Val Glu Val Asp Thr Leu Leu Asn His Val Ile Asp Gly His Leu  
 245 250 255  
 Lys Asn Pro Glu Asp Lys Thr Asn Gln Asp Arg Pro Asp Ile Ile Asp  
 260 265 270  
 Ser Ile Leu Glu Thr Ile Tyr Lys Gln Glu Gln Asp Glu Ser Phe Lys  
 275 280 285

047-E2F-PCT.ST25.txt

Leu Thr Ile Asp His Leu Lys Gly Ile Ile Gln Asn Ile Tyr Leu Ala  
 290 295 300  
 Gly Val Asp Thr Ser Ala Ile Thr Met Ile Trp Ala Met Ala Glu Leu  
 305 310 315 320  
 Val Lys Asn Pro Arg Val Met Lys Lys Ala Gln Glu Glu Ile Arg Thr  
 325 330 335  
 Cys Ile Gly Ile Lys Gln Lys Glu Arg Ile Glu Glu Glu Asp Val Asp  
 340 345 350  
 Lys Leu Gln Tyr Leu Lys Leu Val Ile Lys Glu Thr Leu Arg Leu His  
 355 360 365  
 Pro Pro Ala Pro Leu Leu Leu Pro Arg Glu Thr Met Ala Asp Ile Lys  
 370 375 380  
 Ile Gln Gly Tyr Asp Ile Pro Arg Lys Thr Ile Leu Leu Val Asn Ala  
 385 390 395 400  
 Trp Ser Ile Gly Arg Asn Pro Glu Leu Trp Glu Asn Pro Glu Glu Phe  
 405 410 415  
 Asn Pro Glu Arg Phe Ile Asp Cys Pro Met Asp Tyr Lys Gly Asn Ser  
 420 425 430  
 Phe Glu Met Leu Pro Phe Gly Ser Gly Arg Lys Ile Cys Pro Gly Ile  
 435 440 445  
 Ala Phe Gly Ile Ala Thr Val Glu Leu Gly Leu Leu Asn Leu Leu Tyr  
 450 455 460  
 Tyr Phe Asp Trp Arg Leu Ala Glu Glu Asp Lys Asp Ile Asp Met Glu  
 465 470 475 480  
 Glu Ala Gly Asp Ala Thr Ile Val Lys Lys Val Pro Leu Glu Leu Val  
 485 490 495  
 Pro Ile Ile His His  
 500

<210> 797

<211> 3504

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 797

atggctacct catcctcggg ggtcagcagt gtacctcagc agcaccaagt gttcctcaat	60
ttccgtgggg acgaacttcg taataatttc gtcagccatc tggataaggc cttagaggg	120
aaacagatca atgtcttcat agatgaggct gtggaaaaag gtgaaaatct agataacctt	180
ttcaaggaga tcgaaaaatc tagaatcgcg ctggctatca tttcccaaaa gtacacagag	240
tcaaaatggt gcttgaacga gctgggttaa atgaaagaac tcgagggcaa actcgtgacg	300
attcccatct tctacaatgt ggaacctgct acgggttaggt atcagaagga agcgtttggt	360
gctgcgctca caaaaacgca ggaaaatgat agtgatggcc agatgaagaa atggaaagag	420
gctttgacgt atgttagtct cctggtgggc ttcccgttta acagtaaaag caaggagaag	480
gagaccacgc tcatcgataa aatcgctgac gccgttttgc aaaagctgag taaaatatcg	540
tcggaagaaa gcacaagtgg atcagtggat caaggctggg gagaagaagt agaagaagca	600
aaggctgata agatttccgg gctcaaccag cgcttaaagg aactggaaga aaaggtagcc	660
attacgggtg acaagagaga cgagactcgt attgtcgaag ttgttgggat gcctggcatt	720
ggtaaattcca ctctcttgaa ggccttctat gagacatgga aaaccagggt cttgagcagc	780
gccttactcc aaaatataag cgaacttgta aaagcaatgg gattgggacg cttgactggg	840
atgctcttga aggagttgct cccagatgaa aacatagacg aggagacata cgaaccatac	900
aaggagaaac tacttaaaaa cacagttttc attgttctag atggcataag tgacgagaca	960
catatacaaa aacttcttaa ggatcatcga aaatgggcta agaaaggaag caagattgtg	1020
attgcaagac ggcgagtac tcgtgatctg cttcatgagg attcaatggt ccgttatact	1080
tattttgtac cgctgttgag ccatcgagat ggggttaaatac acttttgtca ctatgcgttc	1140
cgtcattttg cggcccacca aaacaacaag gaagctttca tgaaggagtc aaaagagttt	1200
gtgcgttacg cgagaggcca cccactaatt ctcaagctat tgggtgaaga gcttcgtgag	1260
aaaagcctct cttactggga agagaaacta aaatcactcc caaaaagtct cagccaaaat	1320
attcgagacc gtgtcttgca ggtaacttat gatgaactga gtcaagtga aaaggatgcg	1380
tttcttgaca tagcttgttt cagatcccat gatttggttt atgtaaagag cttactggat	1440
tcattctggtc ccgccttttc taaagcgaca gttacaatag acgctctcaa agacatgttc	1500
atgatttaca tttctgatag tcgagtggag atgcatgatc ttttgtatac gtttgccatg	1560
gaacttggtc cagaagccag ggatgacgat ggaagaggga gacaccggat atggcatcat	1620
cacaaccaag ataataaagg caggctcaat aggctgctaa aaagaccagg aggcagcacc	1680
agtgtgagaa gttttttcct cgatatgtat gtcatagaaga cggacgtgac cttaggcact	1740



## 047-E2F-PCT.ST25.txt

gattacctca	agaacatgcg	aaatctccgg	tacctcaagt	tttacagttc	tcattgtcct	1800
caggaatgta	cgcctaagga	aaacatacac	atccctggag	aacttgagct	tccacttgaa	1860
gaggtccgat	gtttgcattg	gctaaatttc	cccaaagatg	aacttccaca	agatttcac	1920
cccaagaatc	tcgtagatct	taagctccct	tacagtaaga	ttagacagat	ttggagagaa	1980
gagaaggatg	caccaaaact	aaggtgggtc	gatctcaatc	actcaagtaa	gttggaatac	2040
ttgtcagggc	tatcacaggc	tctaaatctt	gaaagattga	accttgaagg	ttgcacagca	2100
ctgaaaacgt	tgcttctggg	tccggaaaat	atggcaagtc	ttgttttcct	gaatttgaaa	2160
gggtgcacgg	gtcttgagtc	tcttcccaag	attaatttga	gatctctgaa	gactctcatc	2220
ctcagcaact	gttcaaactt	ggaggagt	ttgggtgattt	cagaaacttt	atatacgcta	2280
tatttgatg	gcaactgcaat	aaaaacactt	cctcaagaca	tggtaaagct	aacaagcctc	2340
gtcaaattat	acatgaaaga	ctgagagatg	ctcgtaagc	ttcccgaaga	atttgacaag	2400
ctgaaagt	tgcaagaact	agtatgctct	ggttgtaaaa	gactcagtag	tctccagat	2460
gtgatgaaga	acatgcaatg	cttgcagatt	ttactgcttg	atggaacagc	aataacaaag	2520
attcctcata	tatcctcact	tgagcgtcta	tgcttaagca	gaaacgagaa	gatcagttgt	2580
ctttcgaatg	atattcgtct	gctttctcaa	ctgaaatggc	tggaacttgaa	gtactgtacg	2640
aaacttgtgt	ctattccaga	gcttccaaca	aatcttcagt	gcttagatgc	aaacggatgt	2700
gaatcattaa	caacagttgc	gaatccactg	gctactcatt	tgccaacgga	gcagattcat	2760
tccacattca	ttttcacaaa	ctgagacaaa	ttagaccgta	ctgcaaagga	gggttttggt	2820
ccagaggctt	tgttcagcac	ttgcttccct	gggtgtgaag	taccttcacg	gttttgatc	2880
gaagcagttg	gatccgtctt	aaagctcaac	ctgctccac	attggaacga	aaataggttt	2940
gtcggaatag	ctttatgtgc	tggtgtggga	tccttaccaa	attgccaaga	acaaaccaac	3000
tcttgttcag	tgacatgcac	gtttaacata	gcaagtaaag	attccaagaa	aggggatcct	3060
tacaaaatct	cctttgatcg	actggttggg	cggttgaaca	aacatggcaa	caaactagac	3120
aagaaaggca	acaaactaaa	gaagacggaa	tcagatcatg	tctttatctg	ctataccaga	3180
tgctcaaaca	gcataaaatg	tcttcaagac	cagcactcag	gtacatgtac	tccaaccgaa	3240
gctttccttg	aatttggtgt	gacagataag	gaatctcgac	tcgaggtgct	caagtgtggg	3300
ttaagattgg	tatatgcac	tgatgaaccc	cagaagacaa	actcagatat	ggatctttca	3360
ttatcatcat	ctgattcaac	tccgacaagg	aacggcagtt	ccaacactac	tacatctagt	3420
ggaagtgtat	ctaccaatac	cattagagaa	gaagattcca	atatcttaca	tgaagcacia	3480
tctcaaaatg	ggagaggact	ttga				3504

&lt;211&gt; 1167

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 798

Met Ala Thr Ser Ser Ser Val Val Ser Ser Val Pro Gln Gln His Gln  
 1 5 10 15

Val Phe Leu Asn Phe Arg Gly Asp Glu Leu Arg Asn Asn Phe Val Ser  
 20 25 30

His Leu Asp Lys Ala Leu Arg Gly Lys Gln Ile Asn Val Phe Ile Asp  
 35 40 45

Glu Ala Val Glu Lys Gly Glu Asn Leu Asp Asn Leu Phe Lys Glu Ile  
 50 55 60

Glu Lys Ser Arg Ile Ala Leu Ala Ile Ile Ser Gln Lys Tyr Thr Glu  
 65 70 75 80

Ser Lys Trp Cys Leu Asn Glu Leu Val Lys Met Lys Glu Leu Glu Gly  
 85 90 95

Lys Leu Val Thr Ile Pro Ile Phe Tyr Asn Val Glu Pro Ala Thr Val  
 100 105 110

Arg Tyr Gln Lys Glu Ala Phe Gly Ala Ala Leu Thr Lys Thr Gln Glu  
 115 120 125

Asn Asp Ser Asp Gly Gln Met Lys Lys Trp Lys Glu Ala Leu Thr Tyr  
 130 135 140

Val Ser Leu Leu Val Gly Phe Pro Phe Asn Ser Lys Ser Lys Glu Lys  
 145 150 155 160

Glu Thr Thr Leu Ile Asp Lys Ile Val Asp Ala Val Leu Gln Lys Leu  
 165 170 175

Ser Lys Ile Ser Ser Glu Glu Ser Thr Ser Gly Ser Val Asp Gln Gly  
 180 185 190

Arg Gly Glu Glu Val Glu Glu Ala Lys Ala Asp Lys Ile Ser Gly Leu  
 195 200 205

Asn Gln Arg Leu Lys Glu Leu Glu Glu Lys Val Ala Ile Thr Gly Asp  
 210 215 220  
 Lys Arg Asp Glu Thr Arg Ile Val Glu Val Val Gly Met Pro Gly Ile  
 225 230 235 240  
 Gly Lys Ser Thr Leu Leu Lys Ala Phe Tyr Glu Thr Trp Lys Thr Arg  
 245 250 255  
 Phe Leu Ser Ser Ala Leu Leu Gln Asn Ile Ser Glu Leu Val Lys Ala  
 260 265 270  
 Met Gly Leu Gly Arg Leu Thr Gly Met Leu Leu Lys Glu Leu Leu Pro  
 275 280 285  
 Asp Glu Asn Ile Asp Glu Glu Thr Tyr Glu Pro Tyr Lys Glu Lys Leu  
 290 295 300  
 Leu Lys Asn Thr Val Phe Ile Val Leu Asp Gly Ile Ser Asp Glu Thr  
 305 310 315 320  
 His Ile Gln Lys Leu Leu Lys Asp His Arg Lys Trp Ala Lys Lys Gly  
 325 330 335  
 Ser Lys Ile Val Ile Ala Arg Arg Ala Val Thr Arg Asp Leu Leu His  
 340 345 350  
 Glu Asp Ser Met Val Arg Tyr Thr Tyr Phe Val Pro Leu Leu Ser His  
 355 360 365  
 Arg Asp Gly Leu Asn His Phe Cys His Tyr Ala Phe Arg His Phe Ala  
 370 375 380  
 Ala His Gln Asn Asn Lys Glu Ala Phe Met Lys Glu Ser Lys Glu Phe  
 385 390 395 400  
 Val Arg Tyr Ala Arg Gly His Pro Leu Ile Leu Lys Leu Leu Gly Glu  
 405 410 415  
 Glu Leu Arg Glu Lys Ser Leu Ser Tyr Trp Glu Glu Lys Leu Lys Ser  
 420 425 430  
 Leu Pro Lys Ser Leu Ser Gln Asn Ile Arg Asp Arg Val Leu Gln Val  
 435 440 445  
 Thr Tyr Asp Glu Leu Ser Gln Val Gln Lys Asp Ala Phe Leu Asp Ile  
 450 455 460

## 047-E2F-PCT.ST25.txt

Ala Cys Phe Arg Ser His Asp Leu Val Tyr Val Lys Ser Leu Leu Asp  
 465 470 475 480  
 Ser Ser Gly Pro Ala Phe Ser Lys Ala Thr Val Thr Ile Asp Ala Leu  
 485 490 495  
 Lys Asp Met Phe Met Ile Tyr Ile Ser Asp Ser Arg Val Glu Met His  
 500 505 510  
 Asp Leu Leu Tyr Thr Phe Ala Met Glu Leu Gly Pro Glu Ala Arg Asp  
 515 520 525  
 Asp Asp Gly Arg Gly Arg His Arg Ile Trp His His His Asn Gln Asp  
 530 535 540  
 Asn Lys Gly Arg Leu Asn Arg Leu Leu Lys Arg Pro Gly Gly Ser Thr  
 545 550 555 560  
 Ser Val Arg Ser Phe Phe Leu Asp Met Tyr Val Met Lys Thr Asp Val  
 565 570 575  
 Thr Leu Gly Thr Asp Tyr Leu Lys Asn Met Arg Asn Leu Arg Tyr Leu  
 580 585 590  
 Lys Phe Tyr Ser Ser His Cys Pro Gln Glu Cys Thr Pro Lys Glu Asn  
 595 600 605  
 Ile His Ile Pro Gly Glu Leu Glu Leu Pro Leu Glu Glu Val Arg Cys  
 610 615 620  
 Leu His Trp Leu Asn Phe Pro Lys Asp Glu Leu Pro Gln Asp Phe Ile  
 625 630 635 640  
 Pro Lys Asn Leu Val Asp Leu Lys Leu Pro Tyr Ser Lys Ile Arg Gln  
 645 650 655  
 Ile Trp Arg Glu Glu Lys Asp Ala Pro Lys Leu Arg Trp Val Asp Leu  
 660 665 670  
 Asn His Ser Ser Lys Leu Glu Asn Leu Ser Gly Leu Ser Gln Ala Leu  
 675 680 685  
 Asn Leu Glu Arg Leu Asn Leu Glu Gly Cys Thr Ala Leu Lys Thr Leu  
 690 695 700  
 Leu Leu Gly Pro Glu Asn Met Ala Ser Leu Val Phe Leu Asn Leu Lys  
 705 710 715 720

047-E2F-PCT.ST25.txt

Gly Cys Thr Gly Leu Glu Ser Leu Pro Lys Ile Asn Leu Arg Ser Leu  
725 730 735

Lys Thr Leu Ile Leu Ser Asn Cys Ser Asn Leu Glu Glu Phe Trp Val  
740 745 750

Ile Ser Glu Thr Leu Tyr Thr Leu Tyr Leu Asp Gly Thr Ala Ile Lys  
755 760 765

Thr Leu Pro Gln Asp Met Val Lys Leu Thr Ser Leu Val Lys Leu Tyr  
770 775 780

Met Lys Asp Cys Glu Met Leu Val Lys Leu Pro Glu Glu Phe Asp Lys  
785 790 795 800

Leu Lys Val Leu Gln Glu Leu Val Cys Ser Gly Cys Lys Arg Leu Ser  
805 810 815

Ser Leu Pro Asp Val Met Lys Asn Met Gln Cys Leu Gln Ile Leu Leu  
820 825 830

Leu Asp Gly Thr Ala Ile Thr Lys Ile Pro His Ile Ser Ser Leu Glu  
835 840 845

Arg Leu Cys Leu Ser Arg Asn Glu Lys Ile Ser Cys Leu Ser Asn Asp  
850 855 860

Ile Arg Leu Leu Ser Gln Leu Lys Trp Leu Asp Leu Lys Tyr Cys Thr  
865 870 875 880

Lys Leu Val Ser Ile Pro Glu Leu Pro Thr Asn Leu Gln Cys Leu Asp  
885 890 895

Ala Asn Gly Cys Glu Ser Leu Thr Thr Val Ala Asn Pro Leu Ala Thr  
900 905 910

His Leu Pro Thr Glu Gln Ile His Ser Thr Phe Ile Phe Thr Asn Cys  
915 920 925

Asp Lys Leu Asp Arg Thr Ala Lys Glu Gly Phe Val Pro Glu Ala Leu  
930 935 940

Phe Ser Thr Cys Phe Pro Gly Cys Glu Val Pro Ser Trp Phe Cys His  
945 950 955 960

Glu Ala Val Gly Ser Val Leu Lys Leu Asn Leu Leu Pro His Trp Asn

965

975

Glu Asn Arg Phe Val Gly Ile Ala Leu Cys Ala Val Val Gly Ser Leu  
980 985 990

Pro Asn Cys Gln Glu Gln Thr Asn Ser Cys Ser Val Thr Cys Thr Phe  
995 1000 1005

Asn Ile Ala Ser Lys Asp Ser Lys Lys Gly Asp Pro Tyr Lys Ile  
1010 1015 1020

Ser Phe Asp Arg Leu Val Gly Arg Trp Asn Lys His Gly Asn Lys  
1025 1030 1035

Leu Asp Lys Lys Gly Asn Lys Leu Lys Lys Thr Glu Ser Asp His  
1040 1045 1050

Val Phe Ile Cys Tyr Thr Arg Cys Ser Asn Ser Ile Lys Cys Leu  
1055 1060 1065

Gln Asp Gln His Ser Gly Thr Cys Thr Pro Thr Glu Ala Phe Leu  
1070 1075 1080

Glu Phe Gly Val Thr Asp Lys Glu Ser Arg Leu Glu Val Leu Lys  
1085 1090 1095

Cys Gly Leu Arg Leu Val Tyr Ala Ser Asp Glu Pro Gln Lys Thr  
1100 1105 1110

Asn Ser Asp Met Asp Leu Ser Leu Ser Ser Ser Asp Ser Thr Pro  
1115 1120 1125

Thr Arg Asn Gly Ser Ser Asn Thr Thr Thr Ser Ser Gly Ser Val  
1130 1135 1140

Ser Thr Asn Thr Ile Arg Glu Glu Asp Ser Asn Ile Leu His Glu  
1145 1150 1155

Ala Gln Ser Gln Asn Gly Arg Gly Leu  
1160 1165

<210> 799

<211> 654

<212> DNA

<213> Arabidopsis thaliana

```

<400> 799
atggatcaac aaggacaatc atcagctatg aactatgggtt caaaccata tcaaaccaac      60
gccatgacca ctacaccaac cggttcagac catccagctt accatcagat ccaccagcaa      120
caacaacaac agctcactca acagcttcaa tctttctggg agactcaatt caaagagatt      180
gagaaaacca ctgattttcaa gaaccatagc cttccattgg caagaatcaa gaaaatcatg      240
aaagctgatg aagatgtgcg tatgatctcg gccgaggcgc ctggttggtt cgccagggcc      300
tgcgagatgt ttattctgga gcttacgtta aggtcttgga accatactga ggagaacaag      360
agaaggacgt tgcagaagaa tgatatcgcg gctgcggtga ctagaactga tttttttgat      420
tttcttggtg atattgttcc tcgggaggat cttcgtgatg aagtcttggg tgggtgttgg      480
gctgaagctg ctacagctgc gggttatccg tatggatact tgcctcctgg aacagctcca      540
attgggaacc cgggaatggt tatgggtaac cggggcgcgt atccgccgaa cccgtatatg      600
ggtcagccaa tgtggcaaca accaggacct gagcagcagg atcctgacaa ttag          654

```

<210> 800

<211> 217

<212> PRT

<213> Arabidopsis thaliana

<400> 800

```

Met Asp Gln Gln Gly Gln Ser Ser Ala Met Asn Tyr Gly Ser Asn Pro
1          5          10
Tyr Gln Thr Asn Ala Met Thr Thr Thr Pro Thr Gly Ser Asp His Pro
          20          25          30
Ala Tyr His Gln Ile His Gln Gln Gln Gln Gln Leu Thr Gln Gln
          35          40          45
Leu Gln Ser Phe Trp Glu Thr Gln Phe Lys Glu Ile Glu Lys Thr Thr
          50          55          60
Asp Phe Lys Asn His Ser Leu Pro Leu Ala Arg Ile Lys Lys Ile Met
65          70          75          80
Lys Ala Asp Glu Asp Val Arg Met Ile Ser Ala Glu Ala Pro Val Val
          85          90          95
Phe Ala Arg Ala Cys Glu Met Phe Ile Leu Glu Leu Thr Leu Arg Ser

```

100

105

110

Trp Asn His Thr Glu Glu Asn Lys Arg Arg Thr Leu Gln Lys Asn Asp  
 115 120 125

Ile Ala Ala Ala Val Thr Arg Thr Asp Ile Phe Asp Phe Leu Val Asp  
 130 135 140

Ile Val Pro Arg Glu Asp Leu Arg Asp Glu Val Leu Gly Gly Val Gly  
 145 150 155 160

Ala Glu Ala Ala Thr Ala Ala Gly Tyr Pro Tyr Gly Tyr Leu Pro Pro  
 165 170 175

Gly Thr Ala Pro Ile Gly Asn Pro Gly Met Val Met Gly Asn Pro Gly  
 180 185 190

Ala Tyr Pro Pro Asn Pro Tyr Met Gly Gln Pro Met Trp Gln Gln Pro  
 195 200 205

Gly Pro Glu Gln Gln Asp Pro Asp Asn  
 210 215

&lt;210&gt; 801

&lt;211&gt; 1389

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 801

atggagaaag cgatcgagag acaacgcgtt cttcttgagc atctccgacc ttcttcttct 60  
 tcttcgcaca attacgaggc ttctctatct gcttctgctt gcttggtggt ggacagtgtc 120  
 gcatatcaga ggacctctct ctatggagat gatgttgtca ttgtcgcggc acataggact 180  
 ccactatgca agtccaaacg tggcaatttc aaggatacat atcccgatga tttgctcgca 240  
 cctgttttga gggcattgat agagaagacg aatctaaacc caagtgaagt aggtgacatt 300  
 gttgtgggta ctgttttggc acctggatct cagagagcca gtgaatgcag gatggctgctg 360  
 ttctatgctg gtttccctga aaccgtggct gtcagaactg tgaatagaca gtgctcatct 420  
 gggcttcagg ctgttgctga tgtagccgct gccattaaag cgggatttta tgacattggt 480  
 atcggggctg gtttgagtc catgactacc aatccaatgg catgggaagg gtcagtcaac 540  
 ccagcgggtga agaagtttgc acaagcgcag aattgtcttc ttcctatggg tgttacgtca 600  
 gaaaatgtag cacaacgctt tgggtgtctca aggcaggagc aagatcaagc tgctgttgac 660



047-E2F-PCT.ST25.txt

```

tcgcacagaa aggcagctgc tgctactgct gctggtaaata tcaaggatga gatcattcct 720
gttaagacca agcttggtga cccgaagact ggtgatgaga aaccattac agtttctggt 780
gatgatggta tccgaccaac cacaactcct gcttctcttg ggaagctgaa gccagtgttt 840
aagaaggatg gcaccactac tgctggaaat tccagccaag taagtgatgg tgcaggagcg 900
gttctcctaa tgaagagaag tggtgcaatg caaaaaggac ttcccgttct tggtgtattc 960
aggacatttg ctgcagttgg tggtgaccct gcaatcatgg gtatcgggtcc agcagttgcc 1020
attcctgctg cagttaaggc ggctgggtta gaacttgatg acatcgactt gtttgagatc 1080
aatgaggcat ttgcatctca gtttggttat tgccgtaaca aattgggact tgaccagag 1140
aaaatcaatg tcaacggagg tgcaatggcc ataggccatc ctttgggctg tacaggagcg 1200
cgttgtgttg ctacattggt gcacgagatg aaacgccgtg gtaaagactg ccgttttgga 1260
gtagtgtcaa tgtgcattgg gacgggggatg ggtgcagcag ctgtgtttga gagaggagat 1320
ggagttgatg agcttcgcaa cgcaaggaaa gttgaagcgc aagggtcttt gtccaaggac 1380
gctcgctag 1389

```

<210> 802

<211> 462

<212> PRT

<213> Arabidopsis thaliana

<400> 802

Met Glu Lys Ala Ile Glu Arg Gln Arg Val Leu Leu Glu His Leu Arg  
1 5 10 15

Pro Ser Ser Ser Ser Ser His Asn Tyr Glu Ala Ser Leu Ser Ala Ser  
20 25 30

Ala Cys Leu Ala Gly Asp Ser Ala Ala Tyr Gln Arg Thr Ser Leu Tyr  
35 40 45

Gly Asp Asp Val Val Ile Val Ala Ala His Arg Thr Pro Leu Cys Lys  
50 55 60

Ser Lys Arg Gly Asn Phe Lys Asp Thr Tyr Pro Asp Asp Leu Leu Ala  
65 70 75 80

Pro Val Leu Arg Ala Leu Ile Glu Lys Thr Asn Leu Asn Pro Ser Glu  
85 90 95

047-E2F-PCT.ST25.txt

Val Gly Asp Ile Val Val Gly Thr Val Leu Ala Pro Gly Ser Gln Arg  
100 105 110

Ala Ser Glu Cys Arg Met Ala Ala Phe Tyr Ala Gly Phe Pro Glu Thr  
115 120 125

Val Ala Val Arg Thr Val Asn Arg Gln Cys Ser Ser Gly Leu Gln Ala  
130 135 140

Val Ala Asp Val Ala Ala Ala Ile Lys Ala Gly Phe Tyr Asp Ile Gly  
145 150 155 160

Ile Gly Ala Gly Leu Glu Ser Met Thr Thr Asn Pro Met Ala Trp Glu  
165 170 175

Gly Ser Val Asn Pro Ala Val Lys Lys Phe Ala Gln Ala Gln Asn Cys  
180 185 190

Leu Leu Pro Met Gly Val Thr Ser Glu Asn Val Ala Gln Arg Phe Gly  
195 200 205

Val Ser Arg Gln Glu Gln Asp Gln Ala Ala Val Asp Ser His Arg Lys  
210 215 220

Ala Ala Ala Ala Thr Ala Ala Gly Lys Phe Lys Asp Glu Ile Ile Pro  
225 230 235 240

Val Lys Thr Lys Leu Val Asp Pro Lys Thr Gly Asp Glu Lys Pro Ile  
245 250 255

Thr Val Ser Val Asp Asp Gly Ile Arg Pro Thr Thr Thr Leu Ala Ser  
260 265 270

Leu Gly Lys Leu Lys Pro Val Phe Lys Lys Asp Gly Thr Thr Thr Ala  
275 280 285

Gly Asn Ser Ser Gln Val Ser Asp Gly Ala Gly Ala Val Leu Leu Met  
290 295 300

Lys Arg Ser Val Ala Met Gln Lys Gly Leu Pro Val Leu Gly Val Phe  
305 310 315 320

Arg Thr Phe Ala Ala Val Gly Val Asp Pro Ala Ile Met Gly Ile Gly  
325 330 335

Pro Ala Val Ala Ile Pro Ala Ala Val Lys Ala Ala Gly Leu Glu Leu  
340 345 350

047-E2F-PCT.ST25.txt

Asp Asp Ile Asp Leu Phe Glu Ile Asn Glu Ala Phe Ala Ser Gln Phe  
355 360 365

Val Tyr Cys Arg Asn Lys Leu Gly Leu Asp Pro Glu Lys Ile Asn Val  
370 375 380

Asn Gly Gly Ala Met Ala Ile Gly His Pro Leu Gly Ala Thr Gly Ala  
385 390 395 400

Arg Cys Val Ala Thr Leu Leu His Glu Met Lys Arg Arg Gly Lys Asp  
405 410 415

Cys Arg Phe Gly Val Val Ser Met Cys Ile Gly Thr Gly Met Gly Ala  
420 425 430

Ala Ala Val Phe Glu Arg Gly Asp Gly Val Asp Glu Leu Arg Asn Ala  
435 440 445

Arg Lys Val Glu Ala Gln Gly Leu Leu Ser Lys Asp Ala Arg  
450 455 460

<210> 803

<211> 2109

<212> DNA

<213> Arabidopsis thaliana

<400> 803

atgggggctc ttgctcaagt tggtccgtgg ataccgaag acgacctgct gctaaagaat	60
gctgtcgagg ctggtgcttc tttggaatcg cttgctaaag gtgctgtgca gttttctaga	120
agattttcta ttagagaatt gcaagatcga tggcatgcac tgctttatga tccagtagtt	180
tctgtagagg cggcttttcg gatggctgag cttgaacgta ctaaccctaa ttttcctact	240
aagtttggtg gaactggata ttcaaaagaa aacaaaagtt catctaggaa gaggaatgct	300
gaaaggctca gaagtactta tcattccttg cggaagaaat ttaggactga gccattcaat	360
tccttgatc taggtttcct cgttccacca aatgatagcc atttcatgga taatggtgat	420
gcaacacatc ttggtcttga ggactctcac atggatatta tccacaacgc gtttccagaa	480
atcttggtg aaggtggttg cgtgacaact catgttctgc cagaagataa ttacaggga	540
gacattcctt acgtagaagg agaaaatctc acattcactg aacacgcagg tctatcagta	600
tgtgatgtgg ttcatacaaga ttccgagcag aaactagaga atactgctca cgaggcaaaa	660

## 047-E2F-PCT.ST25.txt

aacacaatgg ctagcactga tttcctggca cagctttcaa cttctctttt cgaagaagac 720  
 atggaaccgt tcatggaagt agatggcaaa gaagttgaca agtcatatta tgatgggtctt 780  
 agctcactgt tgggtgaactc tacaaatgat acaaaccgag aggccttttcc taaccccacc 840  
 gagcaagaac cttccattgc accaactcat ccaggagagg caaccctgga tgatcatgtg 900  
 atgcttgagc tagatggtac aatcgcttta gatcctcatc ctgagattgt tgggggtgta 960  
 atctgctgtt tattaacga agaggatcct gatattccgt gtaatgatga ctttttctg 1020  
 tccaacaact cccgtccgat gtcagtttct tcttttagccc ggcggaactt taaggatacc 1080  
 aatagtccaa taactacatg tgtaagagac gtctccgcca gtaaggaaaa aagtgaggga 1140  
 tattcactcc aggcctcaaaa gaaaaaacca ggacgtttac aggggtctac tcaaggaaag 1200  
 ccagagatgg gccaaccaag taaaggtagc aaattcaggg catcgactag tactgagtta 1260  
 aagaatactg tagctcctgg tggttcttcc tctgcacagg cttgctctaa tactctactt 1320  
 tctactggta ccggtgcaaa agatggaaaag aaagaaactg ctactggaac actctttgtc 1380  
 ggatctgatg gccatggcaa ccaccagag aaggatagtg aaaattgtaa agagaaaaat 1440  
 gttgtaccac ctgttaatga atcgccacat gctaaagata ctgatgatgg cttgatagag 1500  
 attacagtcc ctgagctgga gatcacccgt gcagaagcag aagcagaagc agaagcgcac 1560  
 gtttgtgaga gtgatgagga cttacccaat tattctgaca ttgaggctat gatacttgac 1620  
 atggacttgg aacctgatga tcaagataat tttgatctcg aagtctccaa gtatcagagc 1680  
 caagacatga aaagaacaat cataagactt gagcaggctg ctattcata tatgcaaaga 1740  
 gccattgctt cccgtgggtg attcgctgtt ttatatggca gatattcaaa acactatatc 1800  
 aagaagcctg aggttttggg gggtagatca acagaagacc tcgctgtgga cattgatttg 1860  
 ggaagagaaa agcggggtag caaaatatct cgacgacagg cgatcatacg gctgggtgat 1920  
 gacggttcgt ttcataataa aaacctgggg aagtattcaa tctcagtaaa tgagaaggaa 1980  
 gtagatcctg gacagagttt aatcctcaaa tccgattgtc tagttgagat acggggaatg 2040  
 ctttttatat ttgaaacaaa ccaaagttgc atgcaagagt acctgaagag aagagggaaa 2100  
 gtgaactga 2109

&lt;210&gt; 804

&lt;211&gt; 702

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 804

Met Gly Ala Leu Ala Gln Val Val Pro Trp Ile Pro Glu Asp Asp Leu  
 1 5 10 15  
 Leu Leu Lys Asn Ala Val Glu Ala Gly Ala Ser Leu Glu Ser Leu Ala  
 20 25 30  
 Lys Gly Ala Val Gln Phe Ser Arg Arg Phe Ser Ile Arg Glu Leu Gln  
 35 40 45  
 Asp Arg Trp His Ala Leu Leu Tyr Asp Pro Val Val Ser Val Glu Ala  
 50 55 60  
 Ala Phe Arg Met Ala Glu Leu Glu Arg Thr Asn Pro Asn Phe Pro Thr  
 65 70 75 80  
 Lys Phe Gly Arg Thr Gly Tyr Ser Lys Glu Asn Lys Ser Ser Ser Arg  
 85 90 95  
 Lys Arg Asn Ala Glu Arg Leu Arg Ser Thr Tyr His Ser Leu Arg Lys  
 100 105 110  
 Lys Phe Arg Thr Glu Pro Phe Asn Ser Leu Asp Leu Gly Phe Leu Val  
 115 120 125  
 Pro Pro Asn Asp Ser His Phe Met Asp Asn Gly Asp Ala Thr His Leu  
 130 135 140  
 Gly Leu Glu Asp Ser His Met Asp Ile Ile His Asn Ala Phe Pro Glu  
 145 150 155 160  
 Ile Leu Ala Glu Gly Gly Cys Val Thr Thr His Val Leu Pro Glu Asp  
 165 170 175  
 Asn Leu Gln Gly Asp Ile Pro Tyr Val Glu Gly Glu Asn Leu Thr Phe  
 180 185 190  
 Thr Glu His Ala Gly Leu Ser Val Cys Asp Val Val His Gln Asp Ser  
 195 200 205  
 Glu Gln Lys Leu Glu Asn Thr Ala His Glu Ala Lys Asn Thr Met Ala  
 210 215 220  
 Ser Thr Asp Phe Leu Ala Gln Leu Ser Thr Ser Leu Phe Glu Glu Asp  
 225 230 235 240  
 Met Glu Pro Phe Met Glu Val Asp Gly Lys Glu Val Asp Lys Ser Tyr  
 245 250 255

## 047-E2F-PCT.ST25.txt

Tyr Asp Gly Leu Ser Ser Leu Leu Val Asn Ser Thr Asn Asp Thr Asn  
 260 265 270  
 Arg Glu Ala Phe Pro Asn Pro Thr Glu Gln Glu Pro Ser Ile Ala Pro  
 275 280 285  
 Thr His Pro Gly Glu Ala Thr Leu Asp Asp His Val Met Leu Glu Leu  
 290 295 300  
 Asp Gly Thr Ile Ala Leu Asp Pro His Pro Glu Ile Val Gly Gly Val  
 305 310 315 320  
 Ile Cys Cys Leu Leu Asn Glu Glu Asp Pro Asp Ile Pro Cys Asn Asp  
 325 330 335  
 Asp Ile Phe Leu Ser Asn Asn Ser Arg Pro Met Ser Val Ser Ser Leu  
 340 345 350  
 Ala Arg Arg Asn Phe Lys Asp Thr Asn Ser Pro Ile Thr Thr Cys Val  
 355 360 365  
 Arg Asp Val Ser Ala Ser Lys Glu Lys Ser Glu Gly Tyr Ser Leu Gln  
 370 375 380  
 Ala Gln Lys Lys Lys Pro Gly Arg Leu Gln Gly Ser Thr Gln Gly Lys  
 385 390 395 400  
 Pro Glu Met Gly Gln Pro Ser Lys Gly Ser Lys Phe Arg Ala Ser Thr  
 405 410 415  
 Ser Thr Glu Leu Lys Asn Thr Val Ala Pro Gly Gly Ser Ser Ser Ala  
 420 425 430  
 Gln Ala Cys Ser Asn Thr Leu Leu Ser Thr Gly Thr Gly Ala Lys Asp  
 435 440 445  
 Gly Lys Lys Glu Thr Ala Thr Gly Thr Leu Phe Val Gly Ser Asp Gly  
 450 455 460  
 His Gly Asn His Pro Glu Lys Asp Ser Glu Asn Cys Lys Glu Lys Asn  
 465 470 475 480  
 Val Val Pro Pro Val Asn Glu Ser Pro His Ala Lys Asp Thr Asp Asp  
 485 490 495  
 Gly Leu Ile Glu Ile Thr Val Pro Glu Leu Glu Ile Thr Arg Ala Glu  
 500 505 510

047-E2F-PCT.ST25.txt

Ala Glu Ala Glu Ala Glu Ala His Val Cys Glu Ser Asp Glu Asp Leu  
515 520 525

Pro Asn Tyr Ser Asp Ile Glu Ala Met Ile Leu Asp Met Asp Leu Glu  
530 535 540

Pro Asp Asp Gln Asp Asn Phe Asp Leu Glu Val Ser Lys Tyr Gln Ser  
545 550 555 560

Gln Asp Met Lys Arg Thr Ile Ile Arg Leu Glu Gln Ala Ala His Ser  
565 570 575

Tyr Met Gln Arg Ala Ile Ala Ser Arg Gly Ala Phe Ala Val Leu Tyr  
580 585 590

Gly Arg Tyr Ser Lys His Tyr Ile Lys Lys Pro Glu Val Leu Val Gly  
595 600 605

Arg Ser Thr Glu Asp Leu Ala Val Asp Ile Asp Leu Gly Arg Glu Lys  
610 615 620

Arg Gly Ser Lys Ile Ser Arg Arg Gln Ala Ile Ile Arg Leu Gly Asp  
625 630 635 640

Asp Gly Ser Phe His Ile Lys Asn Leu Gly Lys Tyr Ser Ile Ser Val  
645 650 655

Asn Glu Lys Glu Val Asp Pro Gly Gln Ser Leu Ile Leu Lys Ser Asp  
660 665 670

Cys Leu Val Glu Ile Arg Gly Met Pro Phe Ile Phe Glu Thr Asn Gln  
675 680 685

Ser Cys Met Gln Glu Tyr Leu Lys Arg Arg Gly Lys Val Asn  
690 695 700

<210> 805

<211> 2667

<212> DNA

<213> Arabidopsis thaliana

<400> 805

atgaggactt tttacccttc tgattcttgt aaagaatcac aactcgattc cttgaatcca 60

cagtcatggc	ttcaagttga	gagaggggaag	ctatcttcct	ctgcttcttc	atctgctcca	120
ctgtgtagag	aatcatttat	caaagttccc	gagcctcaga	tactgccgca	ttataagcct	180
ctcgactatg	tagaagttct	agctcagatt	catgaagaac	tcgacacttg	ccctttgcag	240
gagagatcga	ttctgtattd	gttgcagtat	caagtgttta	gaggtcttgg	agagacaaaa	300
cttagacgga	gaagccttca	atcagcttgg	caagaggcta	ctactgtcca	tgagaaagtt	360
gtgtttggat	cttggttgag	gtatgagaaa	caaggagaag	aagttatcac	agatttgctt	420
tcctcttggtg	gtaaatattc	tgaagaattd	gtgccactag	atattgcatc	ctatttccca	480
gctactactg	cttcttcccc	tgaggcagca	tctgtgaaga	cgaaccgcag	tgtatctaaa	540
aatgttgtgt	ttaagatagg	agaagagaag	atagcttgcc	aaaggcggaa	aattgcgagt	600
ctttcagctc	catttcatgc	tatgctttat	ggtaatttca	cggaatcgct	tcttgatgag	660
atagatatgt	cagaaaacca	tgtatcctca	tcagctatgc	gggttggttag	agatttcagc	720
gttgtttggtg	tactaatcgg	agttttccaag	aaccttcttt	tggaagtttt	agttttcgca	780
aacaagtttt	gctgcgagcg	acttaaagat	gcatgcgata	gagaattggc	atctttgatt	840
tcttctatgg	aatgtgccat	tgagcttatg	gactttgcac	ttgaagagaa	ttccccatc	900
ctagcttcat	cgtgtctgca	agtttttctt	tatgagatgc	ctgatagttt	gaatgatgag	960
cgtgttggtg	aggttttgac	tcgagttaat	agatctcaag	tctcaaccat	ggcaggaaaa	1020
gctccattct	ccttatattc	ttgtttaagt	gaagtctcga	tgtgtataga	tcctcggctt	1080
gacagaacac	tcggtttctt	ggagaaatta	gttgactttg	cagaaaatga	ccggcaacaa	1140
gtattggggg	tccatcgggt	aggttggtatg	aggctattga	ggaaagaata	ccgggagggt	1200
gaagaagctt	ttgaaacagc	ttttaactta	ggccatgtgt	attccgctac	tggttttagca	1260
agactaggat	acatccaagg	gcatcggctt	tgggcttatg	agaagctaag	ctcggtaatc	1320
tcctctgttt	cgccgcctct	cgggtggatg	tatcaggaaa	ggtctttcta	ttgtgagggt	1380
gacaagaaat	tggaagatct	cgagaaggca	accgaattgg	atccgacttt	gacatatcct	1440
tacatgtata	gagctgtcac	acgaatgtcg	aaacaaaatg	ctaaggctgc	tcttgaagaa	1500
atcaatcggg	tcttgggggt	taaacttgct	ttagaatgct	tagaaattcg	gttttgtctt	1560
tatcttggtg	tggaatgact	tgaagcggct	cttcgtgata	ttcaggctgc	tcttacgctg	1620
tgctctgatt	atagaatggt	cgatgggaaa	gtagctggga	ggcagctcca	gacgcttggt	1680
tatgagcatg	tcgagaattg	gacaaccgca	gattgttgga	tgagctata	tgagaaatgg	1740
tctaattgtg	atgatatagg	ttctctttct	gtaatctatc	agatgctcga	atccgatgct	1800
tgcaaagggtg	ttctctactt	caggcaatct	ttgcttctcc	taagggttgaa	ttgtccagaa	1860
gcagcgatgc	gcagtttaca	gttagcccg	gagcatgcct	caagtgacca	cgagcgtcta	1920
gtttacgaag	gatggatctt	gtatgataca	ggtcactgcg	aagaagggt	tcaaaagggt	1980



047-E2F-PCT.ST25.txt

aaggaatcca ttggaataaa gagatcattt gaagcttatt tcctccaagc ttatgcctta 2040  
gcagaatcta gccttgatcc atcgagttct tctactgttg tttcacttct tgaagatgct 2100  
cttaaagtcc cctctgatag gttgcgcaaa ggtcaggctc tgaacaatct cgggagtgtc 2160  
tatgtcgatt gcgagaagct agatttagct gcggtattgct atataaacgc tctcaaggta 2220  
agacacacgc gtgcacacca aggtctagct cgtgtccatt tccttagaaa cgacaaagct 2280  
gcagcctacg aagaaatgac cagactaatc gaaaaggctc aaaacaatgc atccgcctac 2340  
gagaaaagat ctgagtattg tgatcgtgaa ctcgccaaat ctgatcttga aatggtcacc 2400  
cggtttagacc ctctccgggt ttatccttac cgatatcgcg ccgcagtgtt gatggatagt 2460  
cggaagaga gagaggctat cacagagtta tcccagacta tcgcctttaa agcagatctt 2520  
catcttcttc acttacgagc ggctttccac gagcatatcg gtgatgtcac gagtgcgttg 2580  
cgggactgtc gtgcagcgct ctcggtcgac cccaaccatc aggagatgct cgaactccat 2640  
agccgtgtta atagccatga accttga 2667

<210> 806

<211> 888

<212> PRT

<213> Arabidopsis thaliana

<400> 806

Met Arg Thr Phe Tyr Pro Ser Asp Ser Cys Lys Glu Ser Gln Leu Asp  
1 5 10 15

Ser Leu Asn Pro Gln Ser Trp Leu Gln Val Glu Arg Gly Lys Leu Ser  
20 25 30

Ser Ser Ala Ser Ser Ser Ala Pro Leu Cys Arg Glu Ser Phe Ile Lys  
35 40 45

Val Pro Glu Pro Gln Ile Leu Pro His Tyr Lys Pro Leu Asp Tyr Val  
50 55 60

Glu Val Leu Ala Gln Ile His Glu Glu Leu Asp Thr Cys Pro Leu Gln  
65 70 75 80

Glu Arg Ser Ile Leu Tyr Leu Leu Gln Tyr Gln Val Phe Arg Gly Leu  
85 90 95

Gly Glu Thr Lys Leu Arg Arg Arg Ser Leu Gln Ser Ala Trp Gln Glu

100  
 105  
 110  
 Ala Thr Thr Val His Glu Lys Val Val Phe Gly Ser Trp Leu Arg Tyr  
 115 120 125  
 Glu Lys Gln Gly Glu Glu Val Ile Thr Asp Leu Leu Ser Ser Cys Gly  
 130 135 140  
 Lys Tyr Ser Glu Glu Phe Val Pro Leu Asp Ile Ala Ser Tyr Phe Pro  
 145 150 155 160  
 Ala Thr Thr Ala Ser Ser Pro Glu Ala Ala Ser Val Lys Thr Asn Arg  
 165 170 175  
 Ser Val Ser Lys Asn Val Val Phe Lys Ile Gly Glu Glu Lys Ile Ala  
 180 185 190  
 Cys Gln Arg Arg Lys Ile Ala Ser Leu Ser Ala Pro Phe His Ala Met  
 195 200 205  
 Leu Tyr Gly Asn Phe Thr Glu Ser Leu Leu Asp Glu Ile Asp Met Ser  
 210 215 220  
 Glu Asn His Val Ser Ser Ser Ala Met Arg Val Val Arg Asp Phe Ser  
 225 230 235 240  
 Val Val Gly Val Leu Ile Gly Val Ser Lys Asn Leu Leu Leu Glu Val  
 245 250 255  
 Leu Val Phe Ala Asn Lys Phe Cys Cys Glu Arg Leu Lys Asp Ala Cys  
 260 265 270  
 Asp Arg Glu Leu Ala Ser Leu Ile Ser Ser Met Glu Cys Ala Ile Glu  
 275 280 285  
 Leu Met Asp Phe Ala Leu Glu Glu Asn Ser Pro Ile Leu Ala Ser Ser  
 290 295 300  
 Cys Leu Gln Val Phe Leu Tyr Glu Met Pro Asp Ser Leu Asn Asp Glu  
 305 310 315 320  
 Arg Val Val Glu Val Leu Thr Arg Val Asn Arg Ser Gln Val Ser Thr  
 325 330 335  
 Met Ala Gly Lys Ala Pro Phe Ser Leu Tyr Ser Cys Leu Ser Glu Val  
 340 345 350

Ser Met Cys Ile Asp Pro Arg Ser Asp Arg Thr Leu Gly Phe Leu Glu  
 355 360 365  
 Lys Leu Val Asp Phe Ala Glu Asn Asp Arg Gln Gln Val Leu Gly Phe  
 370 375 380  
 His Arg Leu Gly Cys Met Arg Leu Leu Arg Lys Glu Tyr Arg Glu Ala  
 385 390 395 400  
 Glu Glu Ala Phe Glu Thr Ala Phe Asn Leu Gly His Val Tyr Ser Ala  
 405 410 415  
 Thr Gly Leu Ala Arg Leu Gly Tyr Ile Gln Gly His Arg Leu Trp Ala  
 420 425 430  
 Tyr Glu Lys Leu Ser Ser Val Ile Ser Ser Val Ser Pro Pro Leu Gly  
 435 440 445  
 Trp Met Tyr Gln Glu Arg Ser Phe Tyr Cys Glu Gly Asp Lys Lys Leu  
 450 455 460  
 Glu Asp Leu Glu Lys Ala Thr Glu Leu Asp Pro Thr Leu Thr Tyr Pro  
 465 470 475 480  
 Tyr Met Tyr Arg Ala Val Thr Arg Met Ser Lys Gln Asn Ala Lys Ala  
 485 490 495  
 Ala Leu Glu Glu Ile Asn Arg Ile Leu Gly Phe Lys Leu Ala Leu Glu  
 500 505 510  
 Cys Leu Glu Ile Arg Phe Cys Leu Tyr Leu Gly Met Asp Asp Tyr Glu  
 515 520 525  
 Ala Ala Leu Arg Asp Ile Gln Ala Ala Leu Thr Leu Cys Pro Asp Tyr  
 530 535 540  
 Arg Met Phe Asp Gly Lys Val Ala Gly Arg Gln Leu Gln Thr Leu Val  
 545 550 555 560  
 Tyr Glu His Val Glu Asn Trp Thr Thr Ala Asp Cys Trp Met Gln Leu  
 565 570 575  
 Tyr Glu Lys Trp Ser Asn Val Asp Asp Ile Gly Ser Leu Ser Val Ile  
 580 585 590  
 Tyr Gln Met Leu Glu Ser Asp Ala Cys Lys Gly Val Leu Tyr Phe Arg  
 595 600 605

047-E2F-PCT.ST25.txt

Gln Ser Leu Leu Leu Leu Arg Leu Asn Cys Pro Glu Ala Ala Met Arg  
610 615 620

Ser Leu Gln Leu Ala Arg Glu His Ala Ser Ser Asp His Glu Arg Leu  
625 630 635 640

Val Tyr Glu Gly Trp Ile Leu Tyr Asp Thr Gly His Cys Glu Glu Gly  
645 650 655

Leu Gln Lys Ala Lys Glu Ser Ile Gly Ile Lys Arg Ser Phe Glu Ala  
660 665 670

Tyr Phe Leu Gln Ala Tyr Ala Leu Ala Glu Ser Ser Leu Asp Pro Ser  
675 680 685

Ser Ser Ser Thr Val Val Ser Leu Leu Glu Asp Ala Leu Lys Cys Pro  
690 695 700

Ser Asp Arg Leu Arg Lys Gly Gln Ala Leu Asn Asn Leu Gly Ser Val  
705 710 715 720

Tyr Val Asp Cys Glu Lys Leu Asp Leu Ala Ala Asp Cys Tyr Ile Asn  
725 730 735

Ala Leu Lys Val Arg His Thr Arg Ala His Gln Gly Leu Ala Arg Val  
740 745 750

His Phe Leu Arg Asn Asp Lys Ala Ala Ala Tyr Glu Glu Met Thr Arg  
755 760 765

Leu Ile Glu Lys Ala Gln Asn Asn Ala Ser Ala Tyr Glu Lys Arg Ser  
770 775 780

Glu Tyr Cys Asp Arg Glu Leu Ala Lys Ser Asp Leu Glu Met Val Thr  
785 790 795 800

Arg Leu Asp Pro Leu Arg Val Tyr Pro Tyr Arg Tyr Arg Ala Ala Val  
805 810 815

Leu Met Asp Ser Arg Lys Glu Arg Glu Ala Ile Thr Glu Leu Ser Arg  
820 825 830

Ala Ile Ala Phe Lys Ala Asp Leu His Leu Leu His Leu Arg Ala Ala  
835 840 845

Phe His Glu His Ile Gly Asp Val Thr Ser Ala Leu Arg Asp Cys Arg  
850 855 860

Ala Ala Leu Ser Val Asp Pro Asn His Gln Glu Met Leu Glu Leu His  
 865 870 875 880

Ser Arg Val Asn Ser His Glu Pro  
 885

<210> 807

<211> 1701

<212> DNA

<213> *Arabidopsis thaliana*

<400> 807

atgaatatga gtagatttagg ttgggatgat gaagataaat cggtaggttag tgctgtttta	60
gggcatttag cttctgattt tcttcgagca aactctaatt cgaatcagaa tctctttctt	120
gttatgggaa ctgatgatac tctgaataag aagctctcta gtctcgttga ttggccaaac	180
tcggagaatt tcagctggaa ctacgctatt ttctggcaac aaaccatgtc tagatccgga	240
caacaagtct taggttgggg agatgggtgt tgtcagagac ctaatgagga agaggaatca	300
aaagttgtta ggtcttataa ttttaacaac atgggggcag aggaagagac atggcaagat	360
atgaggaaga gagtggttga gaagcttcat aggttgtttg gtggatctga tgaagacaat	420
tatgctttga gcttagagaa agttactgct actgagattt tcttcttagc ttccatgtat	480
ttcttcttca atcacggtga aggcggtcct gggaggtgtt attcttcagg gaaacatgtg	540
tggtctctctg atgcagttaa ctctgagtct gactattgtt tcaggtcttt tatggcgaaa	600
tctgcgggaa tcagaacgat cgttatgggt cctactgatg ctggtgttct tgagcttggt	660
tctgttttgt ctttgcctga aaacattggc ttggttaagt ctgttcaagc tttgttcatg	720
aggagagtta cgcaaccagt aatggtgact tcaaacta acatgactgg agggattcac	780
aagcttttctg ggcaggattt gagtggagct cacgcgtatc ctaagaagct cgaagtgaga	840
agaaacttgg atgagagatt cactcctcaa agttgggaag gctataataa caataaaggt	900
ccaacatttg gttacacacc tcagagggat gatgtgaaag tgctagagaa tgtgaatatg	960
gttgtagata ataacaatta caagacgcag attgagtttg cgggatcatc agttgctgct	1020
tcttcgaatc catctacaaa cactcagcaa gaaaaatcag aatcttgtac agagaaaaga	1080
ccagtgaagt tgttagcagg agcaggaata gtttctgttg ttgatgagaa gagaccgaga	1140
aagagaggga gaaagcctgc aaacggaaga gaagagccat tgaacctgtt ggaagctgag	1200
aggcagagac gcgagaagct taaccaaaga ttctacgctt tacgatcagt tgttccaaac	1260

047-E2F-PCT.ST25.txt

atttctaaaa tggacaaggc ttctctactt ggagacgcaa tttcttacat caaagagctt 1320  
 caagagaaag tcaagataat ggaagatgaa agagtaggaa cagataagag cttatcagaa 1380  
 tcaaacacaa taacagtaga agaaagtcca gaagttgaca ttcaagctat gaatgaagag 1440  
 gttgttgtaa gagtaatctc gcctttggat tcacatccag cttcaagaat catacaagca 1500  
 atgagaaaact caaatgttag tctaattggag gctaagttat cattagctga agacacaatg 1560  
 tttcacactt ttgtgataaa gtctaacaac gggtcggatc cattgacgaa agagaagctt 1620  
 atagcagcgt ttaccgccga gaccagctcg acgcaaccgc cattgccttc ttctagttca 1680  
 caggtctctg gtgatata a 1701

<210> 808

<211> 566

<212> PRT

<213> Arabidopsis thaliana

<400> 808

Met Asn Met Ser Asp Leu Gly Trp Asp Asp Glu Asp Lys Ser Val Val  
 1 5 10 15  
 Ser Ala Val Leu Gly His Leu Ala Ser Asp Phe Leu Arg Ala Asn Ser  
 20 25 30  
 Asn Ser Asn Gln Asn Leu Phe Leu Val Met Gly Thr Asp Asp Thr Leu  
 35 40 45  
 Asn Lys Lys Leu Ser Ser Leu Val Asp Trp Pro Asn Ser Glu Asn Phe  
 50 55 60  
 Ser Trp Asn Tyr Ala Ile Phe Trp Gln Gln Thr Met Ser Arg Ser Gly  
 65 70 75 80  
 Gln Gln Val Leu Gly Trp Gly Asp Gly Cys Cys Arg Glu Pro Asn Glu  
 85 90 95  
 Glu Glu Glu Ser Lys Val Val Arg Ser Tyr Asn Phe Asn Asn Met Gly  
 100 105 110  
 Ala Glu Glu Glu Thr Trp Gln Asp Met Arg Lys Arg Val Leu Gln Lys  
 115 120 125  
 Leu His Arg Leu Phe Gly Gly Ser Asp Glu Asp Asn Tyr Ala Leu Ser  
 130 135 140

047-E2F-PCT.ST25.txt

Leu Glu Lys Val Thr Ala Thr Glu Ile Phe Phe Leu Ala Ser Met Tyr  
 145 150 155 160  
 Phe Phe Phe Asn His Gly Glu Gly Gly Pro Gly Arg Cys Tyr Ser Ser  
 165 170 175  
 Gly Lys His Val Trp Leu Ser Asp Ala Val Asn Ser Glu Ser Asp Tyr  
 180 185 190  
 Cys Phe Arg Ser Phe Met Ala Lys Ser Ala Gly Ile Arg Thr Ile Val  
 195 200 205  
 Met Val Pro Thr Asp Ala Gly Val Leu Glu Leu Gly Ser Val Trp Ser  
 210 215 220  
 Leu Pro Glu Asn Ile Gly Leu Val Lys Ser Val Gln Ala Leu Phe Met  
 225 230 235 240  
 Arg Arg Val Thr Gln Pro Val Met Val Thr Ser Asn Thr Asn Met Thr  
 245 250 255  
 Gly Gly Ile His Lys Leu Phe Gly Gln Asp Leu Ser Gly Ala His Ala  
 260 265 270  
 Tyr Pro Lys Lys Leu Glu Val Arg Arg Asn Leu Asp Glu Arg Phe Thr  
 275 280 285  
 Pro Gln Ser Trp Glu Gly Tyr Asn Asn Asn Lys Gly Pro Thr Phe Gly  
 290 295 300  
 Tyr Thr Pro Gln Arg Asp Asp Val Lys Val Leu Glu Asn Val Asn Met  
 305 310 315 320  
 Val Val Asp Asn Asn Asn Tyr Lys Thr Gln Ile Glu Phe Ala Gly Ser  
 325 330 335  
 Ser Val Ala Ala Ser Ser Asn Pro Ser Thr Asn Thr Gln Gln Glu Lys  
 340 345 350  
 Ser Glu Ser Cys Thr Glu Lys Arg Pro Val Ser Leu Leu Ala Gly Ala  
 355 360 365  
 Gly Ile Val Ser Val Val Asp Glu Lys Arg Pro Arg Lys Arg Gly Arg  
 370 375 380  
 Lys Pro Ala Asn Gly Arg Glu Glu Pro Leu Asn His Val Glu Ala Glu

385                      390                      395                      400  
 Arg Gln Arg Arg Glu Lys Leu Asn Gln Arg Phe Tyr Ala Leu Arg Ser  
                                  405                                   410                                   415  
 Val Val Pro Asn Ile Ser Lys Met Asp Lys Ala Ser Leu Leu Gly Asp  
                                  420                                   425                                   430  
 Ala Ile Ser Tyr Ile Lys Glu Leu Gln Glu Lys Val Lys Ile Met Glu  
                                  435                                   440                                   445  
 Asp Glu Arg Val Gly Thr Asp Lys Ser Leu Ser Glu Ser Asn Thr Ile  
                                  450                                   455                                   460  
 Thr Val Glu Glu Ser Pro Glu Val Asp Ile Gln Ala Met Asn Glu Glu  
                                  465                                   470                                   475                                   480  
 Val Val Val Arg Val Ile Ser Pro Leu Asp Ser His Pro Ala Ser Arg  
                                  485                                   490                                   495  
 Ile Ile Gln Ala Met Arg Asn Ser Asn Val Ser Leu Met Glu Ala Lys  
                                  500                                   505                                   510  
 Leu Ser Leu Ala Glu Asp Thr Met Phe His Thr Phe Val Ile Lys Ser  
                                  515                                   520                                   525  
 Asn Asn Gly Ser Asp Pro Leu Thr Lys Glu Lys Leu Ile Ala Ala Phe  
                                  530                                   535                                   540  
 Tyr Pro Glu Thr Ser Ser Thr Gln Pro Pro Leu Pro Ser Ser Ser Ser  
                                  545                                   550                                   555                                   560  
 Gln Val Ser Gly Asp Ile  
                                  565

<210> 809

<211> 738

<212> DNA

<213> Arabidopsis thaliana

<400> 809

atgtctgaag atccggagta ccgttgcttc attggtgggc ttgcttggac aacgtctgat      60  
 cgtggtctca gagatgcctt tgagaagtat ggtcacctcg ttgaggccaa ggtggttctt      120  
 gacaagtttt ctggtcgctc ccgtgggtttt ggattcatca ctttcgatga gaaaaaagct      180



047-E2F-PCT.ST25.txt

atggatgaag ctattgcagc aatgaatgga atggatttgg atgggcgaac tatcactgtt 240  
gataaagctc agcctcatca ggggtggtgca ggcagagata atgatggtga ccgtgggtcga 300  
gaccgtggat atgatcgtga tcgcagtcgt ccctctggtg ggcgaggtgg tggagattgc 360  
tttaaagtgt gcaagcctgg acattttgca agagagtgtc cttctgaaag tagtagagat 420  
gggtggtggaa ggttcagctc aaaggatgat aggtacagtt cgaaggacga taggtatggt 480  
gcaaaagatg ataggtatgg tgcaaaggag gataggtatg gtgcaaagga tgataggtac 540  
agctccaagg atgataggta cagctccaag gatgataggt atggtagtag ggatggtgga 600  
ggtagtcgct atggacctga tcgcagtggg gaacgcgctg gaggacgcag ccgggatggt 660  
ggcagccgtg gagctccagg aggtgagagg cacagtcgtg ctccatatga ccgccccaga 720  
gctggtggtt tccactag 738

<210> 810

<211> 245

<212> PRT

<213> Arabidopsis thaliana

<400> 810

Met Ser Glu Asp Pro Glu Tyr Arg Cys Phe Ile Gly Gly Leu Ala Trp  
1 5 10 15

Thr Thr Ser Asp Arg Gly Leu Arg Asp Ala Phe Glu Lys Tyr Gly His  
20 25 30

Leu Val Glu Ala Lys Val Val Leu Asp Lys Phe Ser Gly Arg Ser Arg  
35 40 45

Gly Phe Gly Phe Ile Thr Phe Asp Glu Lys Lys Ala Met Asp Glu Ala  
50 55 60

Ile Ala Ala Met Asn Gly Met Asp Leu Asp Gly Arg Thr Ile Thr Val  
65 70 75 80

Asp Lys Ala Gln Pro His Gln Gly Gly Ala Gly Arg Asp Asn Asp Gly  
85 90 95

Asp Arg Gly Arg Asp Arg Gly Tyr Asp Arg Asp Arg Ser Arg Pro Ser  
100 105 110

Gly Gly Arg Gly Gly Gly Asp Cys Phe Lys Cys Gly Lys Pro Gly His  
Page 1275

115

120

125

Phe Ala Arg Glu Cys Pro Ser Glu Ser Ser Arg Asp Gly Gly Gly Arg  
 130 135 140

Phe Ser Ser Lys Asp Asp Arg Tyr Ser Ser Lys Asp Asp Arg Tyr Gly  
 145 150 155 160

Ala Lys Asp Asp Arg Tyr Gly Ala Lys Glu Asp Arg Tyr Gly Ala Lys  
 165 170 175

Asp Asp Arg Tyr Ser Ser Lys Asp Asp Arg Tyr Ser Ser Lys Asp Asp  
 180 185 190

Arg Tyr Gly Ser Arg Asp Gly Gly Gly Ser Arg Tyr Gly Pro Asp Arg  
 195 200 205

Ser Gly Glu Arg Ala Gly Gly Arg Ser Arg Asp Gly Gly Ser Arg Gly  
 210 215 220

Ala Pro Gly Gly Glu Arg His Ser Arg Ala Pro Tyr Asp Arg Pro Arg  
 225 230 235 240

Ala Gly Gly Phe His  
 245

&lt;210&gt; 811

&lt;211&gt; 942

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 811

```

atggaaccgc agagttttga caagagtgtt gctctgtttg gagattcgaa gctggtcaat      60
gacagttcctt cgattcagct gactgactca gtgaatcgga ccgagggacg agtctttttac      120
aagaaaccca tcaatctatt ccaaggtaaa gagaggaact ccgttatattt ctcgacttac      180
ttctcgttttt cgatgcccaa tgagattggt gatgtcttgg cttttgtaat gggtccaagt      240
actttggatc ttagtctgtt tggttaagaaa gattacagtt cctctgcttt agggtttcta      300
ttagagtatg caaagaacga gacagttggt gcttttgagt ttgatatctc caagagagga      360
aaccgtgcaa gagtcttaat tggtagacct gagtctgccaa aaattagaaa cctttcgttt      420
gtgggtgact tgatgatgga tgatggaggg attttgagct gtatgattga ttatgaggca      480
agttctaaga gaatgagggt tcgtttcaga aaacgtgggt cgataaagat gtttgatccg      540

```

047-E2F-PCT.ST25.txt

ttctttctctt tctcggtaga cttggagaag ctttggaag gtggtgaagt catggtgggt 600  
 ttaagctctg ctaatgggaa ctcttccaag ccacattttc tccattcatg gagctttgaa 660  
 atatggcatc ttgatccgat atgggtgcaa ccagcgccat taggaccaa tgaaggtttg 720  
 aagccggacg tttccacgga aatggaagag ggccgagaaa atagtgaagt tatatggaga 780  
 atgcttggtg ctctggtctt ggctgcagta tgtggagccg taggggcaat gtcagctatg 840  
 tatctttgga ctatttgag tgttaggcgg tcaatggccg tggttccaga ggaatgtgca 900  
 gtgagcattg tggtcgttgc agttaagat ggcaagaagt aa 942

<210> 812

<211> 313

<212> PRT

<213> Arabidopsis thaliana

<400> 812

Met Glu Pro Gln Ser Phe Asp Lys Ser Val Ala Leu Phe Gly Asp Ser  
 1 5 10 15

Lys Leu Val Asn Asp Ser Ser Ser Ile Gln Leu Thr Asp Ser Val Asn  
 20 25 30

Arg Thr Glu Gly Arg Val Phe Tyr Lys Lys Pro Ile Asn Leu Phe Gln  
 35 40 45

Gly Lys Glu Arg Asn Ser Val Ile Phe Ser Thr Tyr Phe Ser Phe Ser  
 50 55 60

Met Pro Asn Glu Ile Gly Asp Val Leu Ala Phe Val Met Val Pro Ser  
 65 70 75 80

Thr Leu Asp Leu Ser Leu Phe Gly Lys Lys Asp Tyr Ser Ser Ser Ala  
 85 90 95

Leu Gly Phe Leu Leu Glu Tyr Ala Lys Asn Glu Thr Val Val Ala Phe  
 100 105 110

Glu Phe Asp Ile Ser Lys Arg Gly Asn Arg Ala Arg Val Leu Ile Gly  
 115 120 125

Arg Pro Glu Ser Ala Lys Ile Arg Asn Leu Ser Phe Val Gly Asp Leu  
 130 135 140

047-E2F-PCT.ST25.txt

Met Met Asp Asp Gly Gly Ile Leu Ser Cys Met Ile Asp Tyr Glu Ala  
145 150 155 160

Ser Ser Lys Arg Met Arg Val Arg Phe Arg Lys Arg Gly Ser Ile Lys  
165 170 175

Met Phe Asp Pro Phe Phe Ser Phe Ser Val Asp Leu Glu Lys Leu Trp  
180 185 190

Lys Gly Gly Glu Val Met Val Gly Leu Ser Ser Ala Asn Gly Asn Ser  
195 200 205

Ser Lys Pro His Phe Leu His Ser Trp Ser Phe Glu Ile Trp His Leu  
210 215 220

Asp Pro Ile Trp Val Gln Pro Ala Pro Leu Gly Pro Asn Glu Gly Leu  
225 230 235 240

Lys Pro Asp Val Ser Thr Glu Met Glu Glu Gly Arg Glu Asn Ser Glu  
245 250 255

Cys Ile Trp Arg Met Leu Gly Ala Leu Val Leu Ala Ala Val Cys Gly  
260 265 270

Ala Val Gly Ala Met Ser Ala Met Tyr Leu Trp Thr Ile Cys Ser Val  
275 280 285

Arg Arg Ser Met Ala Val Val Pro Glu Glu Cys Ala Val Ser Ile Val  
290 295 300

Val Val Ala Val Lys Asp Gly Lys Lys  
305 310

<210> 813

<211> 876

<212> DNA

<213> Arabidopsis thaliana

<400> 813

atgggtcgaa tcttgaaccg taccgtgtta atgactcttc tagtcgtaac aatggccgga	60
acagcattct ccggtagctt caacgaagag tttgacttaa cttgggggtga acacagaggc	120
aaaatcttca gtggaggaaa aatgttgtca ctctcactag accgggtttc cgggtcgggt	180
tttaaatacca agaaagaata tttgttcgga agaatcgaca tgcagcttaa actcgtcgcc	240

047-E2F-PCT.ST25.txt

ggtaactccg ctggaaccgt cactgcctac tacttgtcat cggaaggacc aacacacgac 300  
gagatagact ttgagtttct tggtaatgaa acaggggaagc cttatgttct tcacactaat 360  
gtatttgctc aaggcaaagg aaacagagaa caacagtttt atctctgggt tgatccaacc 420  
aagaacttcc acacttattc tcttgtctgg agaccacaac acatcatatt tatggttagat 480  
aatgtttcaa tcagagtatt caacaatgca gagcaacttg gtgtttccatt tcccaagaac 540  
caaccaatga agatatactc gagtttatgg aatgcagatg attgggctac aagaggtggt 600  
ttggttaaga cagattggtc taaagctcct ttcacagctt actacagagg ctttaacgct 660  
gcagcttgta ctgtttcttc agggctcatct ttctgtgatc ctaagtttaa gagttctttt 720  
actaatggtg aatctcaagt ggctaattgag cttaatgctt atggggagaag aagattaaga 780  
tgggttcaga agtattttat gatttatgat tattgttctg atttaaaaag gtttcctcaa 840  
ggattccac cagagtgtag gaagtctaga gtctaa 876

<210> 814

<211> 291

<212> PRT

<213> Arabidopsis thaliana

<400> 814

Met Gly Arg Ile Leu Asn Arg Thr Val Leu Met Thr Leu Leu Val Val  
1 5 10 15

Thr Met Ala Gly Thr Ala Phe Ser Gly Ser Phe Asn Glu Glu Phe Asp  
20 25 30

Leu Thr Trp Gly Glu His Arg Gly Lys Ile Phe Ser Gly Gly Lys Met  
35 40 45

Leu Ser Leu Ser Leu Asp Arg Val Ser Gly Ser Gly Phe Lys Ser Lys  
50 55 60

Lys Glu Tyr Leu Phe Gly Arg Ile Asp Met Gln Leu Lys Leu Val Ala  
65 70 75 80

Gly Asn Ser Ala Gly Thr Val Thr Ala Tyr Tyr Leu Ser Ser Glu Gly  
85 90 95

Pro Thr His Asp Glu Ile Asp Phe Glu Phe Leu Gly Asn Glu Thr Gly  
100 105 110

047-E2F-PCT.ST25.txt

Lys Pro Tyr Val Leu His Thr Asn Val Phe Ala Gln Gly Lys Gly Asn  
115 120 125

Arg Glu Gln Gln Phe Tyr Leu Trp Phe Asp Pro Thr Lys Asn Phe His  
130 135 140

Thr Tyr Ser Leu Val Trp Arg Pro Gln His Ile Ile Phe Met Val Asp  
145 150 155 160

Asn Val Pro Ile Arg Val Phe Asn Asn Ala Glu Gln Leu Gly Val Pro  
165 170 175

Phe Pro Lys Asn Gln Pro Met Lys Ile Tyr Ser Ser Leu Trp Asn Ala  
180 185 190

Asp Asp Trp Ala Thr Arg Gly Gly Leu Val Lys Thr Asp Trp Ser Lys  
195 200 205

Ala Pro Phe Thr Ala Tyr Tyr Arg Gly Phe Asn Ala Ala Ala Cys Thr  
210 215 220

Val Ser Ser Gly Ser Ser Phe Cys Asp Pro Lys Phe Lys Ser Ser Phe  
225 230 235 240

Thr Asn Gly Glu Ser Gln Val Ala Asn Glu Leu Asn Ala Tyr Gly Arg  
245 250 255

Arg Arg Leu Arg Trp Val Gln Lys Tyr Phe Met Ile Tyr Asp Tyr Cys  
260 265 270

Ser Asp Leu Lys Arg Phe Pro Gln Gly Phe Pro Pro Glu Cys Arg Lys  
275 280 285

Ser Arg Val  
290

<210> 815

<211> 1116

<212> DNA

<213> Arabidopsis thaliana

<400> 815

atggagaaac agtacctcac tttcatttct ttttgtttct ccatcaccat ttgtgggttc 60

ctcatagttt cttggctggc aagaagcata atccgtaatg ggattagaac attaacatgg 120

047-E2F-PCT.ST25.txt

```

agaaaggaaa cgaagaggaa gaaaaagaat caagaagatg aaaacaaaat gtctctcctg 180
gatttgccgg acttaacctt agactgcata ttagagaagc tctcaccatc agagctctgt 240
gcaatgacta gtgtttgctc cgagctaaga gataagtgtg taagcgatca tctatgggag 300
aagcatatgg agacaaaatg ggggaagattg atgggtgatg cagcgattca agagtggaaa 360
tctcacgttg ctacgataat gagatgtctc acaagtagta gtagtagtag tagaaagagt 420
aaaccaaact ggagttcgag gtttgttgcg aatttgaaac cttttgcatg gttaagttca 480
aaccatggtt gtgaaaacag aggatcatca tcatatttgg cacctataga ttctgtgatg 540
tatttggtact cgaatcttga aaatggcaag ttttggttcc ctgctcaagt ctacaatcgc 600
gagaacggac atgttggatt catgatgtct tgttacgatg ctaagatcag atacgatttc 660
aagactgata catttcaagc tagatactcg gcacatggcc ggcgagcggc ggaggaaaag 720
gtgacgtggc agaggctgag accgtctcaa gacgacacaa agtcacgtga tctgcacgtg 780
tcagattgtt tgcacggact tcgacctggt gaccatttcg agatccaatg gcgacgaacc 840
aaagagttcc cttatggttg gtggttcgga atcgttggtc atctacaaaa ctgcgacggc 900
gtacaaaatt gtcgttgcca ctctgacgag aatgtggtga tggagttcag acaattcaga 960
ccggaatcac cgtggagaag aacggtgata aagaggaaaag accaccgtga gacgggaaat 1020
gaagaaaacg gtttctacgg cggagtaaag aaattgggta cggaggaaga gatttctacg 1080
tggaagcaat tgtggccatc acaagccttg gagtag 1116

```

<210> 816

<211> 371

<212> PRT

<213> Arabidopsis thaliana

<400> 816

Met Glu Lys Gln Tyr Leu Thr Phe Ile Ser Phe Cys Phe Ser Ile Thr  
1 5 10 15

Ile Cys Gly Phe Leu Ile Val Ser Trp Leu Ala Arg Ser Ile Ile Arg  
20 25 30

Asn Gly Ile Arg Thr Leu Thr Trp Arg Lys Glu Thr Lys Arg Lys Lys  
35 40 45

Lys Asn Gln Glu Asp Glu Asn Lys Met Ser Leu Leu Asp Leu Pro Asp  
50 55 60

047-E2F-PCT.ST25.txt

Leu Thr Leu Asp Cys Ile Leu Glu Lys Leu Ser Pro Ser Glu Leu Cys  
 65 70 75 80  
 Ala Met Thr Ser Val Cys Ser Glu Leu Arg Asp Lys Cys Val Ser Asp  
 85 90 95  
 His Leu Trp Glu Lys His Met Glu Thr Lys Trp Gly Arg Leu Met Gly  
 100 105 110  
 Asp Ala Ala Ile Gln Glu Trp Lys Ser His Val Ala Thr Ile Met Arg  
 115 120 125  
 Cys Leu Thr Ser Ser Ser Ser Ser Ser Arg Lys Ser Lys Pro Asn Trp  
 130 135 140  
 Ser Ser Arg Phe Val Ala Asn Leu Lys Pro Phe Ala Trp Leu Ser Ser  
 145 150 155 160  
 Asn His Gly Cys Glu Asn Arg Gly Ser Ser Ser Tyr Leu Ala Pro Ile  
 165 170 175  
 Asp Ser Val Met Tyr Trp Tyr Ser Asn Leu Glu Asn Gly Lys Phe Trp  
 180 185 190  
 Phe Pro Ala Gln Val Tyr Asn Arg Glu Asn Gly His Val Gly Phe Met  
 195 200 205  
 Met Ser Cys Tyr Asp Ala Lys Ile Arg Tyr Asp Phe Lys Thr Asp Thr  
 210 215 220  
 Phe Gln Ala Arg Tyr Ser Ala His Gly Arg Arg Ala Ala Glu Glu Lys  
 225 230 235 240  
 Val Thr Trp Gln Arg Leu Arg Pro Ser Gln Asp Asp Thr Lys Ser Arg  
 245 250 255  
 Asp Leu His Val Ser Asp Cys Leu His Gly Leu Arg Pro Gly Asp His  
 260 265 270  
 Phe Glu Ile Gln Trp Arg Arg Thr Lys Glu Phe Pro Tyr Gly Trp Trp  
 275 280 285  
 Phe Gly Ile Val Gly His Leu Gln Asn Cys Asp Gly Val Gln Asn Cys  
 290 295 300  
 Arg Cys Asp Ser Asp Glu Asn Val Val Met Glu Phe Arg Gln Phe Arg  
 305 310 315 320



047-E2F-PCT.ST25.txt

Pro Glu Ser Pro Trp Arg Arg Thr Val Ile Lys Arg Lys Asp His Arg  
325 330 335

Glu Thr Gly Asn Glu Glu Asn Gly Phe Tyr Gly Gly Val Lys Lys Leu  
340 345 350

Gly Thr Glu Glu Glu Ile Ser Thr Trp Lys Gln Leu Trp Pro Ser Gln  
355 360 365

Ala Leu Glu  
370

<210> 817

<211> 1698

<212> DNA

<213> Arabidopsis thaliana

<400> 817

atggcggagg tgcacatctc acactcgaag aagaagaagc aagacaaaac ggagaacgat	60
gccgccgaca ccggagacta catgatcaag ccacagagtt tccctccagc catcgacact	120
tctcagtggc ccctcctcct caagaactac gaccgcctca acgtccgtac cggtcactac	180
actccaatca ggcgccgtca ctctcctctg aaacgtcctc ttcaagagta tatcagggtac	240
ggtgtcatca atctcgataa acccgcgaa ccttcttctc acgaggctcg tgcttggatt	300
aagcgtatcc tccgtgttga gaaaaccggt cacagtggta ctcttgacct aaaagtcact	360
ggaaacctca ttgtctgtat tgaccgagcc acacggcttg tgaaatcgca gcaagggtcg	420
ggtaaagagt acgtttgtgt tgctcggctt cactcagctg tccctgatgt tgctaaagta	480
gctagagctc ttgaatcgct cactggagct gtgtttcaga ggcctccttt gatctctgct	540
gttaaaagac agcttaggat taggacaatc tatgaaagca agctgcttga gtatgatgct	600
gataggcatt tgggtgtttt ctgggtttct tgtgaggcgg gtacttacat taggactatg	660
tgtgttcact tgggtttact tcttgggggt ggtgggcata tgcaggagct taggaggggt	720
aggtctggga ttttgggtga gaataataac atggttacta tgcattgatgt gatggatgcc	780
caatttgtgt atgacaactc cagagatgag tcttatctta ggagggtgat tatgcctctt	840
gagatgatat tgacgagtta caagagactt gttgtcaagg attctgctgt gaatgctatc	900
tgttatggtg ctaagttgat gattcctggg ttgttgagat tcgagaatga cattgatggt	960
ggtactgaag tcgttcttat gactaccaag ggtgaggcga ttgccgttgg gattgctgag	1020

atgacaacat ctgtgatggc tactttgtgat catgggtgtgg tagctaagat caagcgtgtg 1080  
 gtgatggata gagataccta cccgaggaag tggggattgg gaccaagggc ttctatgaag 1140  
 aagaagctta ttgctgatgg gaaattggat aagcatggga agcctaata gaagactccg 1200  
 gttgagtga gcaggaatgt ggttttgcct accggtggag atgctataat tgctggtgct 1260  
 gctgctgctc ctgaggagat aaaggctgac gctgagaatg gagaagcagg ggaagcgcgt 1320  
 aagcgtaagc atgatgatag cagtgatagc cctgctcctg taacaaccaa gaaatctaaa 1380  
 accaaagaag ttgaaggaga agaggctgaa gagaagggtga agtcttctaa gaagaagaag 1440  
 aagaaggata aggaagagga gaaagaagag gaagccgggt ctgagaagaa ggaaaagaag 1500  
 aagaagaaag ataagaagga ggagggttata gaagaggtag cttcaccaaa gtctgagaag 1560  
 aagaagaaaa agaagagcaa agacaccgaa gctgctgttg acgcagaaga tgaatcagca 1620  
 gcagagaaga gtgagaagaa aaagaaaaag aaggataaga agaagaagaa caaagacagt 1680  
 gaggatgatg aggaatga 1698

<210> 818

<211> 565

<212> PRT

<213> Arabidopsis thaliana

<400> 818

Met Ala Glu Val Asp Ile Ser His Ser Lys Lys Lys Lys Gln Asp Lys  
1 5 10 15

Thr Glu Asn Asp Ala Ala Asp Thr Gly Asp Tyr Met Ile Lys Pro Gln  
20 25 30

Ser Phe Thr Pro Ala Ile Asp Thr Ser Gln Trp Pro Ile Leu Leu Lys  
35 40 45

Asn Tyr Asp Arg Leu Asn Val Arg Thr Gly His Tyr Thr Pro Ile Ser  
50 55 60

Ala Gly His Ser Pro Leu Lys Arg Pro Leu Gln Glu Tyr Ile Arg Tyr  
65 70 75 80

Gly Val Ile Asn Leu Asp Lys Pro Ala Asn Pro Ser Ser His Glu Val  
85 90 95

Val Ala Trp Ile Lys Arg Ile Leu Arg Val Glu Lys Thr Gly His Ser  
100 105 110

047-E2F-PCT.ST25.txt

Gly Thr Leu Asp Pro Lys Val Thr Gly Asn Leu Ile Val Cys Ile Asp  
 115 120 125  
 Arg Ala Thr Arg Leu Val Lys Ser Gln Gln Gly Ala Gly Lys Glu Tyr  
 130 135 140  
 Val Cys Val Ala Arg Leu His Ser Ala Val Pro Asp Val Ala Lys Val  
 145 150 155 160  
 Ala Arg Ala Leu Glu Ser Leu Thr Gly Ala Val Phe Gln Arg Pro Pro  
 165 170 175  
 Leu Ile Ser Ala Val Lys Arg Gln Leu Arg Ile Arg Thr Ile Tyr Glu  
 180 185 190  
 Ser Lys Leu Leu Glu Tyr Asp Ala Asp Arg His Leu Val Val Phe Trp  
 195 200 205  
 Val Ser Cys Glu Ala Gly Thr Tyr Ile Arg Thr Met Cys Val His Leu  
 210 215 220  
 Gly Leu Leu Leu Gly Val Gly Gly His Met Gln Glu Leu Arg Arg Val  
 225 230 235 240  
 Arg Ser Gly Ile Leu Gly Glu Asn Asn Asn Met Val Thr Met His Asp  
 245 250 255  
 Val Met Asp Ala Gln Phe Val Tyr Asp Asn Ser Arg Asp Glu Ser Tyr  
 260 265 270  
 Leu Arg Arg Val Ile Met Pro Leu Glu Met Ile Leu Thr Ser Tyr Lys  
 275 280 285  
 Arg Leu Val Val Lys Asp Ser Ala Val Asn Ala Ile Cys Tyr Gly Ala  
 290 295 300  
 Lys Leu Met Ile Pro Gly Leu Leu Arg Phe Glu Asn Asp Ile Asp Val  
 305 310 315 320  
 Gly Thr Glu Val Val Leu Met Thr Thr Lys Gly Glu Ala Ile Ala Val  
 325 330 335  
 Gly Ile Ala Glu Met Thr Thr Ser Val Met Ala Thr Cys Asp His Gly  
 340 345 350  
 Val Val Ala Lys Ile Lys Arg Val Val Met Asp Arg Asp Thr Tyr Pro  
 Page 1285

355

360

365

Arg Lys Trp Gly Leu Gly Pro Arg Ala Ser Met Lys Lys Lys Leu Ile  
 370 375 380

Ala Asp Gly Lys Leu Asp Lys His Gly Lys Pro Asn Glu Lys Thr Pro  
 385 390 395 400

Val Glu Trp Ser Arg Asn Val Val Leu Pro Thr Gly Gly Asp Ala Ile  
 405 410 415

Ile Ala Gly Ala Ala Ala Ala Pro Glu Glu Ile Lys Ala Asp Ala Glu  
 420 425 430

Asn Gly Glu Ala Gly Glu Ala Arg Lys Arg Lys His Asp Asp Ser Ser  
 435 440 445

Asp Ser Pro Ala Pro Val Thr Thr Lys Lys Ser Lys Thr Lys Glu Val  
 450 455 460

Glu Gly Glu Glu Ala Glu Glu Lys Val Lys Ser Ser Lys Lys Lys Lys  
 465 470 475 480

Lys Lys Asp Lys Glu Glu Glu Lys Glu Glu Glu Ala Gly Ser Glu Lys  
 485 490 495

Lys Glu Lys Lys Lys Lys Lys Asp Lys Lys Glu Glu Val Ile Glu Glu  
 500 505 510

Val Ala Ser Pro Lys Ser Glu Lys Lys Lys Lys Lys Lys Ser Lys Asp  
 515 520 525

Thr Glu Ala Ala Val Asp Ala Glu Asp Glu Ser Ala Ala Glu Lys Ser  
 530 535 540

Glu Lys Lys Lys Lys Lys Lys Asp Lys Lys Lys Lys Asn Lys Asp Ser  
 545 550 555 560

Glu Asp Asp Glu Glu  
 565

<210> 819

<211> 1887

<212> DNA

<213> Arabidopsis thaliana

```

<400> 819
atgtctcaga tcttttagttt tgccggtgaa aatgattttt accgtcgtgg cgcaatatac 60
ccaaacccaa aggatgctag tcttttgtaa tcgcttggtg gtttcgctga tgtttatttc 120
cctccaagca agagatcacg tgttgttgca cctacgatct tcagtgcctt cgagaaaaag 180
ccagtttcca ttgatgtgct accagatgag tgtctttttg agatcttttag gcgtttgtct 240
ggaccacaag agaggagtgc ttgcgctttt gtctccaaac agtggccttac gcttgtaagt 300
agcatccgtc aaaaggagat tgatgttcct tccaagataa ctgaagatgg tgatgattgt 360
gaagggtggt tgtctaggag cttagatggg aagaaggcaa cagatgttag attggcagca 420
attgctgttg gaactgctgg tcgtggggga cttggaaaat tgtcgattcg aggtagcaac 480
tctgctaaag tttcagatct tggctctcgg tctattggtc gtagctgccc ttctctcggg 540
tctctttcac tgtggaacgt ttctaccatt actgacaatg gacttttgga gattgctgag 600
ggttgtgctc aacttgagaa gcttgagctg aaccgctgct ctacaatcac tgacaagggt 660
ttggtagcta ttgctaagag ctgccccaac ttgactgagc tgacattgga ggcttggtca 720
agaattggag atgaggggtt gctagccatt gcaagatcct gctccaagct gaagtcagtc 780
tcgatcaaga actgtcctct tgctcaggat caaggaatcg cctctctact gtctaaccac 840
acctgttcct tggcaaaact taagcttcag atgctgaatg tctactgatgt gtctcttgct 900
gttgtgggtc attacggctt gtcgatcact gatcttgtgc tcgctggatt atcacacgtg 960
agcgagaagg gattctgggt catgggaaat ggtgtcgggc tgcaaaaatt aaactctctg 1020
accatcacag cctgccaaag agtgactgac atggggcttg aatctgttgg aaagggtgc 1080
ccgaacatga aaaaggcgat catcagtaaa tcccctttgt tatctgacaa cgggttggtc 1140
tcttttgcaa aagcttcttt atcacttgag agtcttcagc ttgaagaatg ccacagggtt 1200
acccaatttg ggttttttg ttccttttg aactgtggtg aaaagttgaa ggctttctct 1260
ctggtgaact gtttgagtat tagagatctc accacaggat tgcctgcttc atctcattgc 1320
agcgctctgc gctctttgtc tattcgtaac tgccctggct ttggtgatgc aaatcttgca 1380
gccatcggga agttgtgccc tcagctcgag gatattgatc tgtgtgggct caaggggata 1440
acagagtctg gtttcctaca tctgattcag agctctcttg tgaagatcaa cttcagtggt 1500
tgttccaatt tgactgatag agtgatctct gccatcactg ctcgtaacgg gtggactctt 1560
gaagtcttaa acatcgatgg atgttccaat atcactgacg ccagcctggc ctccattgca 1620
gcaaactgcc agattctcag tgatttggt atttcgaaat gcgcaatctc agattcaggg 1680
attcaagcat tggcctctc tgataagctc aaactgcaga tcctatcagt tgcaggttgc 1740
tctatggtta cagacaagag cttgccagcc atcgctgggt tgggttcac tctattggga 1800

```

ttaaacctcc aacagtgtcg atccatttcc aattccactg tcgacttctt agtcgagcgt 1860  
 ctttacaaat gtgacatcct ctctga 1887

<210> 820

<211> 628

<212> PRT

<213> Arabidopsis thaliana

<400> 820

Met Ser Gln Ile Phe Ser Phe Ala Gly Glu Asn Asp Phe Tyr Arg Arg  
 1 5 10 15

Gly Ala Ile Tyr Pro Asn Pro Lys Asp Ala Ser Leu Leu Leu Ser Leu  
 20 25 30

Gly Ser Phe Ala Asp Val Tyr Phe Pro Pro Ser Lys Arg Ser Arg Val  
 35 40 45

Val Ala Pro Thr Ile Phe Ser Ala Phe Glu Lys Lys Pro Val Ser Ile  
 50 55 60

Asp Val Leu Pro Asp Glu Cys Leu Phe Glu Ile Phe Arg Arg Leu Ser  
 65 70 75 80

Gly Pro Gln Glu Arg Ser Ala Cys Ala Phe Val Ser Lys Gln Trp Leu  
 85 90 95

Thr Leu Val Ser Ser Ile Arg Gln Lys Glu Ile Asp Val Pro Ser Lys  
 100 105 110

Ile Thr Glu Asp Gly Asp Asp Cys Glu Gly Cys Leu Ser Arg Ser Leu  
 115 120 125

Asp Gly Lys Lys Ala Thr Asp Val Arg Leu Ala Ala Ile Ala Val Gly  
 130 135 140

Thr Ala Gly Arg Gly Gly Leu Gly Lys Leu Ser Ile Arg Gly Ser Asn  
 145 150 155 160

Ser Ala Lys Val Ser Asp Leu Gly Leu Arg Ser Ile Gly Arg Ser Cys  
 165 170 175

Pro Ser Leu Gly Ser Leu Ser Leu Trp Asn Val Ser Thr Ile Thr Asp  
 180 185 190

047-E2F-PCT.ST25.txt

Asn Gly Leu Leu Glu Ile Ala Glu Gly Cys Ala Gln Leu Glu Lys Leu  
 195 200 205  
 Glu Leu Asn Arg Cys Ser Thr Ile Thr Asp Lys Gly Leu Val Ala Ile  
 210 215 220  
 Ala Lys Ser Cys Pro Asn Leu Thr Glu Leu Thr Leu Glu Ala Cys Ser  
 225 230 235 240  
 Arg Ile Gly Asp Glu Gly Leu Leu Ala Ile Ala Arg Ser Cys Ser Lys  
 245 250 255  
 Leu Lys Ser Val Ser Ile Lys Asn Cys Pro Leu Val Arg Asp Gln Gly  
 260 265 270  
 Ile Ala Ser Leu Leu Ser Asn Thr Thr Cys Ser Leu Ala Lys Leu Lys  
 275 280 285  
 Leu Gln Met Leu Asn Val Thr Asp Val Ser Leu Ala Val Val Gly His  
 290 295 300  
 Tyr Gly Leu Ser Ile Thr Asp Leu Val Leu Ala Gly Leu Ser His Val  
 305 310 315 320  
 Ser Glu Lys Gly Phe Trp Val Met Gly Asn Gly Val Gly Leu Gln Lys  
 325 330 335  
 Leu Asn Ser Leu Thr Ile Thr Ala Cys Gln Gly Val Thr Asp Met Gly  
 340 345 350  
 Leu Glu Ser Val Gly Lys Gly Cys Pro Asn Met Lys Lys Ala Ile Ile  
 355 360 365  
 Ser Lys Ser Pro Leu Leu Ser Asp Asn Gly Leu Val Ser Phe Ala Lys  
 370 375 380  
 Ala Ser Leu Ser Leu Glu Ser Leu Gln Leu Glu Glu Cys His Arg Val  
 385 390 395 400  
 Thr Gln Phe Gly Phe Phe Gly Ser Leu Leu Asn Cys Gly Glu Lys Leu  
 405 410 415  
 Lys Ala Phe Ser Leu Val Asn Cys Leu Ser Ile Arg Asp Leu Thr Thr  
 420 425 430  
 Gly Leu Pro Ala Ser Ser His Cys Ser Ala Leu Arg Ser Leu Ser Ile

435

440

445

Arg Asn Cys Pro Gly Phe Gly Asp Ala Asn Leu Ala Ala Ile Gly Lys  
 450 455 460

Leu Cys Pro Gln Leu Glu Asp Ile Asp Leu Cys Gly Leu Lys Gly Ile  
 465 470 475 480

Thr Glu Ser Gly Phe Leu His Leu Ile Gln Ser Ser Leu Val Lys Ile  
 485 490 495

Asn Phe Ser Gly Cys Ser Asn Leu Thr Asp Arg Val Ile Ser Ala Ile  
 500 505 510

Thr Ala Arg Asn Gly Trp Thr Leu Glu Val Leu Asn Ile Asp Gly Cys  
 515 520 525

Ser Asn Ile Thr Asp Ala Ser Leu Val Ser Ile Ala Ala Asn Cys Gln  
 530 535 540

Ile Leu Ser Asp Leu Asp Ile Ser Lys Cys Ala Ile Ser Asp Ser Gly  
 545 550 555 560

Ile Gln Ala Leu Ala Ser Ser Asp Lys Leu Lys Leu Gln Ile Leu Ser  
 565 570 575

Val Ala Gly Cys Ser Met Val Thr Asp Lys Ser Leu Pro Ala Ile Val  
 580 585 590

Gly Leu Gly Ser Thr Leu Leu Gly Leu Asn Leu Gln Gln Cys Arg Ser  
 595 600 605

Ile Ser Asn Ser Thr Val Asp Phe Leu Val Glu Arg Leu Tyr Lys Cys  
 610 615 620

Asp Ile Leu Ser  
 625

<210> 821

<211> 1005

<212> DNA

<213> Arabidopsis thaliana

<400> 821

atggcagctg ctatgaattt gtacacttgt agcagatcgt ttcaagactc tgggtggtgaa

60



047-E2F-PCT.ST25.txt

```
ctcatggacg cgcttgtagc ttttatcaaa agcgtttccg attctccttc ttctttcttct 120
gcagcgtctg cgtctgcgtt tcttcacccc tctgcgtttt ctctccctcc tctccccggt 180
tattacccgg attcaacggt cttgacccaa ccggtttcat acgggtcgga tcttcaacaa 240
accgggtcat taatcggact caacaacctc tcttcttctc agatccacca gatccagtct 300
cagatccatc atcctcttcc tccgacgcat cacaacaaca acaactcttt ctcgaatctt 360
ctcagcccaa agccgttact gatgaagcaa tctggagtcg ctggatcttg tttcgcttac 420
ggttcaggtg ttccttcgaa gccgacgaag ctttacagag gtgtgaggca acgtcactgg 480
ggaaaatggg tggctgagat ccgtttgccg agaaatcgga ctggtctctg gcttgggact 540
tttgacacgg cggaggaagc tgcgttgcc tatgataagg cggcgtacaa gctgcgcggc 600
gatttcgccc ggcttaactt ccctaacctc cgtcataacg gatctcacat cggaggcgat 660
ttcgggtgaat ataaacctct tcactcctca gtcgacgcta agcttgaagc tatttgtaaa 720
agcatggcgg agactcagaa acaggacaaa tcgacgaaat catcgaagaa acgtgagaag 780
aaggtttcgt cgccagatct atcggagaaa gtgaaggcgg aggagaattc ggtttcgatc 840
gggtgatctc caccggtgac ggagtttgaa gagtccaccg ctggatcttc gccgttgctg 900
gacttgacgt tcgctgaccc ggaggagccg ccgcagtgga acgagacgtt ctcgttggag 960
aagtatccgt cgtacgagat cgattgggat tcgattctag cttag 1005
```

<210> 822

<211> 334

<212> PRT

<213> Arabidopsis thaliana

<400> 822

Met Ala Ala Ala Met Asn Leu Tyr Thr Cys Ser Arg Ser Phe Gln Asp  
1 5 10 15

Ser Gly Gly Glu Leu Met Asp Ala Leu Val Pro Phe Ile Lys Ser Val  
20 25 30

Ser Asp Ser Pro Ser Ser Ser Ser Ala Ala Ser Ala Ser Ala Phe Leu  
35 40 45

His Pro Ser Ala Phe Ser Leu Pro Pro Leu Pro Gly Tyr Tyr Pro Asp  
50 55 60

Ser Thr Phe Leu Thr Gln Pro Phe Ser Tyr Gly Ser Asp Leu Gln Gln  
Page 1291

65					70												80
Thr	Gly	Ser	Leu	Ile 85	Gly	Leu	Asn	Asn	Leu 90	Ser	Ser	Ser	Gln	Ile 95	His		
Gln	Ile	Gln	Ser 100	Gln	Ile	His	His	Pro 105	Leu	Pro	Pro	Thr	His 110	His	Asn		
Asn	Asn	Asn 115	Ser	Phe	Ser	Asn	Leu 120	Leu	Ser	Pro	Lys	Pro 125	Leu	Leu	Met		
Lys	Gln 130	Ser	Gly	Val	Ala	Gly 135	Ser	Cys	Phe	Ala	Tyr 140	Gly	Ser	Gly	Val		
Pro 145	Ser	Lys	Pro	Thr	Lys 150	Leu	Tyr	Arg	Gly	Val 155	Arg	Gln	Arg	His	Trp 160		
Gly	Lys	Trp	Val	Ala 165	Glu	Ile	Arg	Leu	Pro 170	Arg	Asn	Arg	Thr	Arg 175	Leu		
Trp	Leu	Gly	Thr 180	Phe	Asp	Thr	Ala	Glu 185	Glu	Ala	Ala	Leu	Ala 190	Tyr	Asp		
Lys	Ala	Ala 195	Tyr	Lys	Leu	Arg	Gly 200	Asp	Phe	Ala	Arg	Leu 205	Asn	Phe	Pro		
Asn	Leu 210	Arg	His	Asn	Gly	Ser 215	His	Ile	Gly	Gly	Asp 220	Phe	Gly	Glu	Tyr		
Lys 225	Pro	Leu	His	Ser	Ser 230	Val	Asp	Ala	Lys	Leu 235	Glu	Ala	Ile	Cys	Lys 240		
Ser	Met	Ala	Glu	Thr 245	Gln	Lys	Gln	Asp	Lys 250	Ser	Thr	Lys	Ser	Ser 255	Lys		
Lys	Arg	Glu	Lys 260	Lys	Val	Ser	Ser	Pro 265	Asp	Leu	Ser	Glu	Lys 270	Val	Lys		
Ala	Glu	Glu 275	Asn	Ser	Val	Ser	Ile 280	Gly	Gly	Ser	Pro	Pro 285	Val	Thr	Glu		
Phe	Glu 290	Glu	Ser	Thr	Ala	Gly 295	Ser	Ser	Pro	Leu	Ser 300	Asp	Leu	Thr	Phe		
Ala 305	Asp	Pro	Glu	Glu	Pro 310	Pro	Gln	Trp	Asn	Glu 315	Thr	Phe	Ser	Leu	Glu 320		

Lys Tyr Pro Ser Tyr Glu Ile Asp Trp Asp Ser Ile Leu Ala  
 325 330

<210> 823

<211> 1395

<212> DNA

<213> *Arabidopsis thaliana*

<400> 823

```

atggagacaa ctacaactcc tctgctcccc ggtgatcgca gcagatgcgg gtggctccgt      60
cgccgtctcc gcctcaaaaa ccctctttct tctgaactct ccggcgctgt cggatgatctc      120
ggcaccttca tccccatcgt ccttacctta actctagtct ccaatcttga tctctccacc      180
actctcatct tcaactggtt ctacaacatc gccaccggtc tcctctttga catccctatg      240
cccgtccagc ccatgaaatc catcgccgct gtcgctgtct ccgaatcccc gcacttaact      300
ccttctcaga ttgccgccgc tggatgatcc actgccgcca cgctcctcct ccttggcgcc      360
accggagcta tgtctttcct ctacaacatc atccctctcc cagttgtacg cggcgctccag      420
ctttctcaag gtcttcagtt cgccttcacc gccatcaaat acgtcagggt taattacgat      480
actgccactc tcaaaccctc ttcttctcct cgtatttggc ttggcctcga cggccttatt      540
ttggctctag ctgctctgct cttcatcatt ttgtccaccg gctctggcaa cgacagagaa      600
gctgaagatg gagatctcgc cgagacttcc agcaacgaaa gccagtctcg ccggaggaga      660
ctgcgtcttc tgtcttcgat tccatctgcy ctgatcgtgt tcgcactcgg gttagtgtct      720
tgtttcatac gtgatccatc ctttttcaaa gaccttaaat tcgggtccctc gaagttccac      780
attctgagaa tcagttggga tgattggaaa atcgggtttc tgagggcggc gattcctcag      840
attccactct ctgtactgaa ctcatgtatc gcagtttgta aattatccaa tgacttggtt      900
gacaaggaac tctctgcgac tacagtctcc atcagcggtt gggatgatgaa cttaataggg      960
tgctgggttg gcgctatgcc cgtctgtcac ggtgctggtg ggtagctgg tcagtatcgg      1020
tttggggcaa ggagtggatt atccgttatt tttctcgaa tcgggaaact gattgtgggt      1080
ctggtgtttg gaaactcctt tgtaaggatt ctgagtcagt ttccgattgg aattttaggg      1140
gttctgttgc tattcgcggt aatcgaactg gcaatggctt ccaaagacat gaactccaaa      1200
gaagattcct tcatcatgct ggtctgcgcc gctgtgtcga tgactggctc gactgccgcc      1260
ttaggatttg gttgtggagt tggtctttac ttgttactga agctaagaac gtttagactgt      1320
tcttcagtaa ctctgttttc ccggtcaagt gatgagtcgc aggtcgattc cgaagccgct      1380
cctcgtgatg tctaa

```

&lt;210&gt; 824

&lt;211&gt; 464

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 824

Met Glu Thr Thr Thr Thr Pro Leu Leu Pro Gly Asp Arg Ser Arg Cys  
 1 5 10 15

Gly Trp Leu Arg Arg Arg Leu Arg Leu Lys Asn Pro Leu Ser Ser Glu  
 20 25 30

Leu Ser Gly Ala Val Gly Asp Leu Gly Thr Phe Ile Pro Ile Val Leu  
 35 40 45

Thr Leu Thr Leu Val Ser Asn Leu Asp Leu Ser Thr Thr Leu Ile Phe  
 50 55 60

Thr Gly Phe Tyr Asn Ile Ala Thr Gly Leu Leu Phe Asp Ile Pro Met  
 65 70 75 80

Pro Val Gln Pro Met Lys Ser Ile Ala Ala Val Ala Val Ser Glu Ser  
 85 90 95

Pro His Leu Thr Pro Ser Gln Ile Ala Ala Ala Gly Ala Ser Thr Ala  
 100 105 110

Ala Thr Leu Leu Leu Leu Gly Ala Thr Gly Ala Met Ser Phe Leu Tyr  
 115 120 125

Asn Ile Ile Pro Leu Pro Val Val Arg Gly Val Gln Leu Ser Gln Gly  
 130 135 140

Leu Gln Phe Ala Phe Thr Ala Ile Lys Tyr Val Arg Phe Asn Tyr Asp  
 145 150 155 160

Thr Ala Thr Leu Lys Pro Ser Ser Ser Pro Arg Ile Trp Leu Gly Leu  
 165 170 175

Asp Gly Leu Ile Leu Ala Leu Ala Ala Leu Leu Phe Ile Ile Leu Ser  
 180 185 190

Thr Gly Ser Gly Asn Asp Arg Glu Ala Glu Asp Gly Asp Leu Ala Glu  
 195 200 205

047-E2F-PCT.ST25.txt

Thr Ser Ser Asn Glu Ser Gln Ser Arg Arg Arg Arg Leu Arg Leu Leu  
 210 215 220  
 Ser Ser Ile Pro Ser Ala Leu Ile Val Phe Ala Leu Gly Leu Val Leu  
 225 230 235 240  
 Cys Phe Ile Arg Asp Pro Ser Ile Phe Lys Asp Leu Lys Phe Gly Pro  
 245 250 255  
 Ser Lys Phe His Ile Leu Arg Ile Ser Trp Asp Asp Trp Lys Ile Gly  
 260 265 270  
 Phe Leu Arg Ala Ala Ile Pro Gln Ile Pro Leu Ser Val Leu Asn Ser  
 275 280 285  
 Val Ile Ala Val Cys Lys Leu Ser Asn Asp Leu Phe Asp Lys Glu Leu  
 290 295 300  
 Ser Ala Thr Thr Val Ser Ile Ser Val Gly Val Met Asn Leu Ile Gly  
 305 310 315 320  
 Cys Trp Phe Gly Ala Met Pro Val Cys His Gly Ala Gly Gly Leu Ala  
 325 330 335  
 Gly Gln Tyr Arg Phe Gly Ala Arg Ser Gly Leu Ser Val Ile Phe Leu  
 340 345 350  
 Gly Ile Gly Lys Leu Ile Val Gly Leu Val Phe Gly Asn Ser Phe Val  
 355 360 365  
 Arg Ile Leu Ser Gln Phe Pro Ile Gly Ile Leu Gly Val Leu Leu Leu  
 370 375 380  
 Phe Ala Gly Ile Glu Leu Ala Met Ala Ser Lys Asp Met Asn Ser Lys  
 385 390 395 400  
 Glu Asp Ser Phe Ile Met Leu Val Cys Ala Ala Val Ser Met Thr Gly  
 405 410 415  
 Ser Ser Ala Ala Leu Gly Phe Gly Cys Gly Val Val Leu Tyr Leu Leu  
 420 425 430  
 Leu Lys Leu Arg Thr Leu Asp Cys Ser Ser Val Thr Leu Phe Ser Arg  
 435 440 445

Ser Ser Asp Glu Ser Gln Val Asp Ser Glu Ala Ala Pro Arg Asp Val  
 Page 1295

450

455

<210> 825

<211> 1152

<212> DNA

<213> Arabidopsis thaliana

<400> 825

atgggcttac tctgcagtag aagtcgacat catactgaag atactgatga gaatacacag	60
gctgctgaaa tcgaaagacg gatagagcaa gaagcaaagg ctgaaaagca ttttcggaag	120
cttttgctac ttggtgctgg ggaatctgga aaatctacaa tttttaagca gataaaactt	180
ctattccaaa cgggatttga tgaaggagaa ctaaagagct atgttccagt cattcatgcc	240
aatgtctatc agactataaa attattgcat gatggaacaa aggagtttgc tcaaaatgaa	300
acagattctg ctaaatatat gttatcttct gaaagtattg caattgggga gaaactatct	360
gagattggtg gtaggttaga ctatccacgt cttaccaagg acatcgctga gggaatagaa	420
acactatgga aggatcctgc aattcaggaa acttgtgctc gtggtaatga gcttcagggt	480
cctgattgta cgaaatatct gatggagaac ttgaagagac tatcagatat aaattatatt	540
ccaactaagg aggatgtact ttatgcaaga gttcgcacaa ctggtgtcgt ggaaatacag	600
ttcagccctg tgggagagaa taaaaaaagt ggtgaagtgt accgattgtt tgacgtgggt	660
ggacagagaa atgagaggag gaaatggatt catctgtttg aagggtgaac agctgtgata	720
ttttgtgctg ccatcagcga gtacgaccaa acgctctttg aggacgagca gaaaaacagg	780
atgatggaga ccaaggaatt attcgactgg gtcctgaaac aaccctgttt tgagaaaaca	840
tccttcatgc tgttcttgaa caagttcgac atatttgaga agaaagttct tgacgttccg	900
ttgaacgttt gcgagtgggt cagagattac caaccagttt caagtgggaa acaagagatt	960
gagcatgcat acgagtttgt gaagaagaag tttgaggagt tatattacca gaacacggcg	1020
ccggatagag tggacagggt attcaaaatc tacaggacga cggctttgga ccagaagctt	1080
gtaaagaaaa cgttcaagct cgtagatgag aactaagaa ggagaaatth actggaggct	1140
ggccttttat ga	1152

<210> 826

<211> 383

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 826

```

Met Gly Leu Leu Cys Ser Arg Ser Arg His His Thr Glu Asp Thr Asp
 1      5      10      15
Glu Asn Thr Gln Ala Ala Glu Ile Glu Arg Arg Ile Glu Gln Glu Ala
 20      25      30
Lys Ala Glu Lys His Ile Arg Lys Leu Leu Leu Leu Gly Ala Gly Glu
 35      40      45
Ser Gly Lys Ser Thr Ile Phe Lys Gln Ile Lys Leu Leu Phe Gln Thr
 50      55      60
Gly Phe Asp Glu Gly Glu Leu Lys Ser Tyr Val Pro Val Ile His Ala
 65      70      75      80
Asn Val Tyr Gln Thr Ile Lys Leu Leu His Asp Gly Thr Lys Glu Phe
 85      90      95
Ala Gln Asn Glu Thr Asp Ser Ala Lys Tyr Met Leu Ser Ser Glu Ser
100      105      110
Ile Ala Ile Gly Glu Lys Leu Ser Glu Ile Gly Gly Arg Leu Asp Tyr
115      120      125
Pro Arg Leu Thr Lys Asp Ile Ala Glu Gly Ile Glu Thr Leu Trp Lys
130      135      140
Asp Pro Ala Ile Gln Glu Thr Cys Ala Arg Gly Asn Glu Leu Gln Val
145      150      155      160
Pro Asp Cys Thr Lys Tyr Leu Met Glu Asn Leu Lys Arg Leu Ser Asp
165      170      175
Ile Asn Tyr Ile Pro Thr Lys Glu Asp Val Leu Tyr Ala Arg Val Arg
180      185      190
Thr Thr Gly Val Val Glu Ile Gln Phe Ser Pro Val Gly Glu Asn Lys
195      200      205
Lys Ser Gly Glu Val Tyr Arg Leu Phe Asp Val Gly Gly Gln Arg Asn
210      215      220
Glu Arg Arg Lys Trp Ile His Leu Phe Glu Gly Val Thr Ala Val Ile
225      230      235      240

```

047-E2F-PCT.ST25.txt

Phe Cys Ala Ala Ile Ser Glu Tyr Asp Gln Thr Leu Phe Glu Asp Glu  
245 250 255

Gln Lys Asn Arg Met Met Glu Thr Lys Glu Leu Phe Asp Trp Val Leu  
260 265 270

Lys Gln Pro Cys Phe Glu Lys Thr Ser Phe Met Leu Phe Leu Asn Lys  
275 280 285

Phe Asp Ile Phe Glu Lys Lys Val Leu Asp Val Pro Leu Asn Val Cys  
290 295 300

Glu Trp Phe Arg Asp Tyr Gln Pro Val Ser Ser Gly Lys Gln Glu Ile  
305 310 315 320

Glu His Ala Tyr Glu Phe Val Lys Lys Lys Phe Glu Glu Leu Tyr Tyr  
325 330 335

Gln Asn Thr Ala Pro Asp Arg Val Asp Arg Val Phe Lys Ile Tyr Arg  
340 345 350

Thr Thr Ala Leu Asp Gln Lys Leu Val Lys Lys Thr Phe Lys Leu Val  
355 360 365

Asp Glu Thr Leu Arg Arg Arg Asn Leu Leu Glu Ala Gly Leu Leu  
370 375 380

<210> 827

<211> 1206

<212> DNA

<213> Arabidopsis thaliana

<400> 827

atggcccttc aagctgcttc tttggtctcc tctgctttct ctgttcgcaa agatgcgaag	60
ttgaatgctt cttcatcatc tttcaaggac tcgagtcctt ttggtgcctc cattaccgac	120
caaatcaaat ccgaacatgg atcttcctcg ttaagattca agagagaaca gagcttaagg	180
aatctagcaa ttcgagccca aaccgctgcg acttcaagcc ctacagttac aaaatccgtg	240
gacggcaaga aaacgttgag gaaaggaaat gtggtggtca ctggagcctc gtctgggtta	300
ggtctagcca cggctaaagc tctagctgag acagggaaat ggaacgtgat aatggcgtgc	360
agagacttcc ttaaagccga gagagctgct aaatccgtag ggatgcctaa agacagctac	420
acagtgatgc atttagactt agcctcgttg gacagcgtga gacagtttgt tgataatttc	480



047-E2F-PCT.ST25.txt

```

aggagaacag agacgcctct cgatgttttg gtctgcaatg ctgcggttta tttcccgaca 540
gctaaagagc ctacttacag tgctgaaggg tttgagctta gtgttgcgac gaaccatttg 600
ggacattttc ttctcgcaag gttgttgctt gatgacttga agaaatctga ttacccttca 660
aagcgtctca tcatcgtcgg atccattacc gggaacacga atacattggc gggtaatgta 720
ccaccgaagg cgaatctcgg tgatttgagg ggttttagccg gcggattaaa cggtttaaac 780
agctcagcta tgattgatgg aggagatttc gacggtgcaa aggcttaca agacagtaaa 840
gtctgcaata tgttgacaat gcaagagttt cacaggcggt tccatgaaga aactggagtc 900
actttcgctt cgctttaccc cggttgcatt gcctccacag gtttattccg agagcacatt 960
cctctcttcc gtgccctctt ccctcccttt cagaagtaca tactaaagg atatgtctcc 1020
gaaacagagt caggcaaaag acttgctcag gtggtgagtg atccaagctt gacgaaatca 1080
gggggtttatt ggagctggaa caatgcttcg gcttcttttg agaaccagtt atcagaagaa 1140
gcaagtgacg ttgagaaggc tcgtaaagtg tgggagatca gtgagaagct cgtgggcttg 1200
gcctaa 1206

```

<210> 828

<211> 401

<212> PRT

<213> Arabidopsis thaliana

<400> 828

Met Ala Leu Gln Ala Ala Ser Leu Val Ser Ser Ala Phe Ser Val Arg  
1 5 10 15

Lys Asp Ala Lys Leu Asn Ala Ser Ser Ser Phe Lys Asp Ser Ser  
20 25 30

Leu Phe Gly Ala Ser Ile Thr Asp Gln Ile Lys Ser Glu His Gly Ser  
35 40 45

Ser Ser Leu Arg Phe Lys Arg Glu Gln Ser Leu Arg Asn Leu Ala Ile  
50 55 60

Arg Ala Gln Thr Ala Ala Thr Ser Ser Pro Thr Val Thr Lys Ser Val  
65 70 75 80

Asp Gly Lys Lys Thr Leu Arg Lys Gly Asn Val Val Val Thr Gly Ala  
85 90 95

047-E2F-PCT.ST25.txt

Ser Ser Gly Leu Gly Leu Ala Thr Ala Lys Ala Leu Ala Glu Thr Gly  
100 105 110

Lys Trp Asn Val Ile Met Ala Cys Arg Asp Phe Leu Lys Ala Glu Arg  
115 120 125

Ala Ala Lys Ser Val Gly Met Pro Lys Asp Ser Tyr Thr Val Met His  
130 135 140

Leu Asp Leu Ala Ser Leu Asp Ser Val Arg Gln Phe Val Asp Asn Phe  
145 150 155 160

Arg Arg Thr Glu Thr Pro Leu Asp Val Leu Val Cys Asn Ala Ala Val  
165 170 175

Tyr Phe Pro Thr Ala Lys Glu Pro Thr Tyr Ser Ala Glu Gly Phe Glu  
180 185 190

Leu Ser Val Ala Thr Asn His Leu Gly His Phe Leu Leu Ala Arg Leu  
195 200 205

Leu Leu Asp Asp Leu Lys Lys Ser Asp Tyr Pro Ser Lys Arg Leu Ile  
210 215 220

Ile Val Gly Ser Ile Thr Gly Asn Thr Asn Thr Leu Ala Gly Asn Val  
225 230 235 240

Pro Pro Lys Ala Asn Leu Gly Asp Leu Arg Gly Leu Ala Gly Gly Leu  
245 250 255

Asn Gly Leu Asn Ser Ser Ala Met Ile Asp Gly Gly Asp Phe Asp Gly  
260 265 270

Ala Lys Ala Tyr Lys Asp Ser Lys Val Cys Asn Met Leu Thr Met Gln  
275 280 285

Glu Phe His Arg Arg Phe His Glu Glu Thr Gly Val Thr Phe Ala Ser  
290 295 300

Leu Tyr Pro Gly Cys Ile Ala Ser Thr Gly Leu Phe Arg Glu His Ile  
305 310 315 320

Pro Leu Phe Arg Ala Leu Phe Pro Pro Phe Gln Lys Tyr Ile Thr Lys  
325 330 335

Gly Tyr Val Ser Glu Thr Glu Ser Gly Lys Arg Leu Ala Gln Val Val  
340 345 350

Ser Asp Pro Ser Leu Thr Lys Ser Gly Val Tyr Trp Ser Trp Asn Asn  
 355 360 365

Ala Ser Ala Ser Phe Glu Asn Gln Leu Ser Glu Glu Ala Ser Asp Val  
 370 375 380

Glu Lys Ala Arg Lys Val Trp Glu Ile Ser Glu Lys Leu Val Gly Leu  
 385 390 395 400

Ala

<210> 829

<211> 1419

<212> DNA

<213> Arabidopsis thaliana

<400> 829

atgaacgtga tgcgtcgtct caagagcatt gcttcgggtc ggacctccat ttcttcggat	60
cctggtgggg actatgcgtt gaagagagct aagctggatc aagagaacga caacttgtgt	120
gttgatccaa tgcaggttga ccaaaatagt tcttgttttg agatgaaagc tgacgttttg	180
tcacaagaaa gtgttgcttg aacgtcaaat gtgcctgctg tatcggaaaa acccgtggat	240
gatacagcttc ccgatgttat gatcgaaatg aagattagag acgagcgaaa tgccaaccgc	300
gaggataagg atatggaaac aactgttgta aacggcagtg ggaccgaaac gggacaagtt	360
attacgacga cagttggggg tagagatgga aagccaaagc agactatctc atacatggcc	420
cagcgagtgg ttggaaccgg ctcatcggga gtagtggtcc aggccaagtg cctggaaacg	480
ggtgaacaag ttgcaattaa gaaggttctg caggataaaa gatacaagaa cagagaactt	540
cagatcatgc gtttgcaaga ccatcccaac gttgtgcggc tgaggcattc tttcttttca	600
acaactgaca aggatgagct gtatctcaac cttgtccttg agtatgttcc cgaaactgta	660
tacagagcat cgaagcacta taccaaaatg aatcagcata tgccaattat ctttgttcag	720
ctctatactt atcagatttg ccgtgcgctg aactacttac atcgcgtggg tgggggtgtgt	780
caccgtgaca ttaagccaca aaatctactg gttaatcccc aaactcatca attaaaaata	840
tgcgattttg gaagcgcaaa gatgttggtta cccgggtgaac ctaacatatc ctatatatgc	900
tcccgggtact acagggcccc agaacttata tttggggcga cagagtatac caatgccatt	960
gacatgtggg ccggcggttg tgtcatggca gagctttttac ttggtcaacc actgtttccc	1020

```

ggggaaagtg gcattgatca gctggtggag ataatcaaga ttcttgggac gcctacaaga 1080
gaagaaatac ggtgtatgaa tccgaattac acagagttca agtttcctca aatcaaagct 1140
caccctgggc acaagatttt ccacaagcga atgccacctg aagcagtaga cctcgtctca 1200
agactccttc agtactcacc aaaccttcgt tgcactgcat tggaagcttg tgcacacccc 1260
ttctttgatg acttacggga tccaaatggt tcaactgccaa atggaagagc actgcctcca 1320
ttgtttaact tcaactgccca agaacttgcg ggtgcatcaa cagagctgcg acagcgtcta 1380
attccagcac attgccaggg aacgggaagt agctcttag 1419

```

&lt;210&gt; 830

&lt;211&gt; 472

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 830

```

Met Asn Val Met Arg Arg Leu Lys Ser Ile Ala Ser Gly Arg Thr Ser
1      5      10     15

```

```

Ile Ser Ser Asp Pro Gly Gly Asp Tyr Ala Leu Lys Arg Ala Lys Leu
20     25     30

```

```

Asp Gln Glu Asn Asp Asn Leu Cys Val Asp Pro Met Gln Val Asp Gln
35     40     45

```

```

Asn Ser Ser Cys Phe Glu Met Lys Ala Asp Val Leu Ser Gln Glu Ser
50     55     60

```

```

Val Ala Gly Thr Ser Asn Val Pro Ala Val Ser Glu Lys Pro Val Asp
65     70     75     80

```

```

Asp Gln Leu Pro Asp Val Met Ile Glu Met Lys Ile Arg Asp Glu Arg
85     90     95

```

```

Asn Ala Asn Arg Glu Asp Lys Asp Met Glu Thr Thr Val Val Asn Gly
100    105    110

```

```

Ser Gly Thr Glu Thr Gly Gln Val Ile Thr Thr Thr Val Gly Gly Arg
115    120    125

```

```

Asp Gly Lys Pro Lys Gln Thr Ile Ser Tyr Met Ala Gln Arg Val Val
130    135    140

```

Gly Thr Gly Ser Phe Gly Val Val Phe Gln Ala Lys Cys Leu Glu Thr  
 145 150 155 160  
 Gly Glu Gln Val Ala Ile Lys Lys Val Leu Gln Asp Lys Arg Tyr Lys  
 165 170 175  
 Asn Arg Glu Leu Gln Ile Met Arg Leu Gln Asp His Pro Asn Val Val  
 180 185 190  
 Arg Leu Arg His Ser Phe Phe Ser Thr Thr Asp Lys Asp Glu Leu Tyr  
 195 200 205  
 Leu Asn Leu Val Leu Glu Tyr Val Pro Glu Thr Val Tyr Arg Ala Ser  
 210 215 220  
 Lys His Tyr Thr Lys Met Asn Gln His Met Pro Ile Ile Phe Val Gln  
 225 230 235 240  
 Leu Tyr Thr Tyr Gln Ile Cys Arg Ala Leu Asn Tyr Leu His Arg Val  
 245 250 255  
 Val Gly Val Cys His Arg Asp Ile Lys Pro Gln Asn Leu Leu Val Asn  
 260 265 270  
 Pro Gln Thr His Gln Leu Lys Ile Cys Asp Phe Gly Ser Ala Lys Met  
 275 280 285  
 Leu Val Pro Gly Glu Pro Asn Ile Ser Tyr Ile Cys Ser Arg Tyr Tyr  
 290 295 300  
 Arg Ala Pro Glu Leu Ile Phe Gly Ala Thr Glu Tyr Thr Asn Ala Ile  
 305 310 315 320  
 Asp Met Trp Ser Gly Gly Cys Val Met Ala Glu Leu Leu Leu Gly Gln  
 325 330 335  
 Pro Leu Phe Pro Gly Glu Ser Gly Ile Asp Gln Leu Val Glu Ile Ile  
 340 345 350  
 Lys Ile Leu Gly Thr Pro Thr Arg Glu Glu Ile Arg Cys Met Asn Pro  
 355 360 365  
 Asn Tyr Thr Glu Phe Lys Phe Pro Gln Ile Lys Ala His Pro Trp His  
 370 375 380  
 Lys Ile Phe His Lys Arg Met Pro Pro Glu Ala Val Asp Leu Val Ser  
 385 390 395 400

047-E2F-PCT.ST25.txt

Arg Leu Leu Gln Tyr Ser Pro Asn Leu Arg Cys Thr Ala Leu Glu Ala  
405 410 415

Cys Ala His Pro Phe Phe Asp Asp Leu Arg Asp Pro Asn Val Ser Leu  
420 425 430

Pro Asn Gly Arg Ala Leu Pro Pro Leu Phe Asn Phe Thr Ala Gln Glu  
435 440 445

Leu Ala Gly Ala Ser Thr Glu Leu Arg Gln Arg Leu Ile Pro Ala His  
450 455 460

Cys Gln Gly Thr Gly Ser Ser Ser  
465 470

<210> 831

<211> 1473

<212> DNA

<213> Arabidopsis thaliana

<400> 831

atggggtttcg attctgttaa agttatggag aattggcaat ccaagacatc taatgagaat	60
gagaagaaga agaagaagcg gaggaggaag aagaacaaca atgtcagaaa cagtgaacat	120
tatgaagaag aagcaaattg gtgttgggtc aaatttaggt atatagtctg ttgcgcttct	180
tcaacatcag acgttgagac ctctctcact ctctctacta gcaactgtggg aagtcagtcc	240
gcaattgtgc aatcaaattga ccaaccgggt ggcccagttc cttctactac tacaactagc	300
aatgcagaaa gctctttgtc cactcctatc ataagtgaag aacttaacat ctattctcac	360
cttaagaagt tttctttcat tgatctcaag ttggctacta gaaatttcag acctgaaagc	420
cttctcggag aaggtggctt tgggtgtgtc ttcaaaggct gggtcgagga gaacggaact	480
gctcctgtta agcctggcac tggccttact gttgccgtca aaaccttaaa tcctgatggc	540
cttcagggtc ataaagagtg gcttgctgag attaattatc ttggtaattc tctccatccc	600
aatcttgtta aactgggtggg ttattgtatc gaagatgatc aaaggctgct tgtatatgag	660
tttatgcctc gaggaagttt ggagaatcac cttttcagaa ggtccttgcc tcttccatgg	720
tcaattcgga tgaagattgc attaggtgct gcaaagggtc tcagtttcct tcacgaagaa	780
gctttaaagc cggtcattta tcgagatttc aaaacctcaa atattttact ggatggggag	840
tacaatgcta aattatcaga ttttgggctt gccaaagatg ctctgatga aggcaaaact	900
catgtgtcta ctcgagtcac gggcacttat gggttacgtg cccccgagta tgtaatgacc	960

047-E2F-PCT.ST25.txt

```

ggtcacttga catcaaaaag cgacgtttac agtttcggtg tggttcttct cgaaatgctg 1020
actggtagaa gatcaatgga caaaaatcga ccaaacggtg aacacaacct cgttgaatgg 1080
gcgagaccgc atctcctgga caaaagaaga ttctaccggt tacttgatcc gaggctggag 1140
ggtcatttct cagttaaagg agcacaaaaa gtgactcagc ttgcagcaca atgccttagc 1200
cgtgactcca aaataagacc caaaatgagt gaagtgggtg aagtacttaa gcctctccca 1260
cacctcaagg acatggctag cgcttcttac tacttccaga caatgcaagc tgaacgtttg 1320
aaagctgggt ctggttctgg ttctggtcgt ggattcgggt caagaaacgg gcaaccagtg 1380
tttcggacat tgtctagtcc tcatgggtcaa gctggttcgt cgccttatcg tcatcagatt 1440
ccgtctccta agcctaaagg tgcaactact tag 1473

```

<210> 832

<211> 490

<212> PRT

<213> Arabidopsis thaliana

<400> 832

```

Met Gly Phe Asp Ser Val Lys Val Met Glu Asn Trp Gln Ser Lys Thr
1          5          10
Ser Asn Glu Asn Glu Lys Lys Lys Lys Lys Arg Arg Arg Lys Lys Asn
20          25          30
Asn Asn Val Arg Asn Ser Glu His Tyr Glu Glu Glu Ala Asn Gly Cys
35          40          45
Trp Val Lys Phe Arg Tyr Ile Val Cys Cys Ala Ser Ser Thr Ser Asp
50          55          60
Val Glu Thr Ser Leu Thr Leu Ser Thr Ser Thr Val Gly Ser Gln Ser
65          70          75          80
Ala Ile Val Gln Ser Asn Asp Gln Pro Val Gly Pro Val Ser Ser Thr
85          90          95
Thr Thr Thr Ser Asn Ala Glu Ser Ser Leu Ser Thr Pro Ile Ile Ser
100         105         110
Glu Glu Leu Asn Ile Tyr Ser His Leu Lys Lys Phe Ser Phe Ile Asp
115         120         125

```

## 047-E2F-PCT.ST25.txt

Leu Lys Leu Ala Thr Arg Asn Phe Arg Pro Glu Ser Leu Leu Gly Glu  
 130 135 140  
 Gly Gly Phe Gly Cys Val Phe Lys Gly Trp Val Glu Glu Asn Gly Thr  
 145 150 155 160  
 Ala Pro Val Lys Pro Gly Thr Gly Leu Thr Val Ala Val Lys Thr Leu  
 165 170 175  
 Asn Pro Asp Gly Leu Gln Gly His Lys Glu Trp Leu Ala Glu Ile Asn  
 180 185 190  
 Tyr Leu Gly Asn Leu Leu His Pro Asn Leu Val Lys Leu Val Gly Tyr  
 195 200 205  
 Cys Ile Glu Asp Asp Gln Arg Leu Leu Val Tyr Glu Phe Met Pro Arg  
 210 215 220  
 Gly Ser Leu Glu Asn His Leu Phe Arg Arg Ser Leu Pro Leu Pro Trp  
 225 230 235 240  
 Ser Ile Arg Met Lys Ile Ala Leu Gly Ala Ala Lys Gly Leu Ser Phe  
 245 250 255  
 Leu His Glu Glu Ala Leu Lys Pro Val Ile Tyr Arg Asp Phe Lys Thr  
 260 265 270  
 Ser Asn Ile Leu Leu Asp Gly Glu Tyr Asn Ala Lys Leu Ser Asp Phe  
 275 280 285  
 Gly Leu Ala Lys Asp Ala Pro Asp Glu Gly Lys Thr His Val Ser Thr  
 290 295 300  
 Arg Val Met Gly Thr Tyr Gly Tyr Ala Ala Pro Glu Tyr Val Met Thr  
 305 310 315 320  
 Gly His Leu Thr Ser Lys Ser Asp Val Tyr Ser Phe Gly Val Val Leu  
 325 330 335  
 Leu Glu Met Leu Thr Gly Arg Arg Ser Met Asp Lys Asn Arg Pro Asn  
 340 345 350  
 Gly Glu His Asn Leu Val Glu Trp Ala Arg Pro His Leu Leu Asp Lys  
 355 360 365  
 Arg Arg Phe Tyr Arg Leu Leu Asp Pro Arg Leu Glu Gly His Phe Ser  
 370 375 380



047-E2F-PCT.ST25.txt

Val Lys Gly Ala Gln Lys Val Thr Gln Leu Ala Ala Gln Cys Leu Ser  
385 390 395 400

Arg Asp Ser Lys Ile Arg Pro Lys Met Ser Glu Val Val Glu Val Leu  
405 410 415

Lys Pro Leu Pro His Leu Lys Asp Met Ala Ser Ala Ser Tyr Tyr Phe  
420 425 430

Gln Thr Met Gln Ala Glu Arg Leu Lys Ala Gly Ser Gly Ser Gly Ser  
435 440 445

Gly Arg Gly Phe Gly Ser Arg Asn Gly Gln Pro Val Phe Arg Thr Leu  
450 455 460

Ser Ser Pro His Gly Gln Ala Gly Ser Ser Pro Tyr Arg His Gln Ile  
465 470 475 480

Pro Ser Pro Lys Pro Lys Gly Ala Thr Thr  
485 490

<210> 833

<211> 738

<212> DNA

<213> Arabidopsis thaliana

<400> 833

atggcaaaag tttcgtttaa ggattctctg aaagctcttg aagctgatat tcaacacgct	60
aacactgtag ctttagatta tcctcgggag aaggatggag cgcgtgttca aatgaggcta	120
tcgtacactc cagctgctca gtttttactt tttcttgtag aatggactga ttgccatctt	180
gctggtacac tcggtctgct cagagttctg atttacctga cctatgcgga tgggaaaacc	240
acaatgtcgg tttatgagag aaaaacaagt attaaagatt tctatgctgt gatatttccg	300
tcgtttgttac aactagaaag aggtatcaca gacctggatg atcgtaaaca gaaagaagtc	360
tgcaaaatac ggtacagaaa taaagatgag actgaaaagg tcaagctctc ggagattgac	420
atcgagagag aagaagaatg cgggatttgt atggagatga acaacatggt ggttctccct	480
aattgtacgc attctttatg catcaagtgt taccgcgatt ggcacgggag gtcagaatca	540
tgcccttttt gccgagacag tcttaagaga gtaaactcag gggacttatg gatgttaatg	600
gagaaatccg atacggttaa tatgtataca attgagcggg agaataagaa gaggttggtt	660

gtgtatatag agaagctacc tctagtgggt ccagatcaag tgtttgcttc ttctccttat 720  
gattgccatg tcaagtaa 738

<210> 834

<211> 245

<212> PRT

<213> Arabidopsis thaliana

<400> 834

Met Ala Lys Val Ser Phe Lys Asp Ser Leu Lys Ala Leu Glu Ala Asp  
1 5 10 15

Ile Gln His Ala Asn Thr Val Ala Leu Asp Tyr Pro Arg Glu Lys Asp  
20 25 30

Gly Ala Arg Val Gln Met Arg Leu Ser Tyr Thr Pro Ala Ala Gln Phe  
35 40 45

Leu Leu Phe Leu Val Gln Trp Thr Asp Cys His Leu Ala Gly Thr Leu  
50 55 60

Gly Leu Leu Arg Val Leu Ile Tyr Met Thr Tyr Ala Asp Gly Lys Thr  
65 70 75 80

Thr Met Ser Val Tyr Glu Arg Lys Thr Ser Ile Lys Asp Phe Tyr Ala  
85 90 95

Val Ile Phe Pro Ser Leu Leu Gln Leu Glu Arg Gly Ile Thr Asp Leu  
100 105 110

Asp Asp Arg Lys Gln Lys Glu Val Cys Lys Ile Arg Tyr Arg Asn Lys  
115 120 125

Asp Glu Thr Glu Lys Val Lys Leu Ser Glu Ile Asp Ile Glu Arg Glu  
130 135 140

Glu Glu Cys Gly Ile Cys Met Glu Met Asn Asn Met Val Val Leu Pro  
145 150 155 160

Asn Cys Thr His Ser Leu Cys Ile Lys Cys Tyr Arg Asp Trp His Gly  
165 170 175

Arg Ser Glu Ser Cys Pro Phe Cys Arg Asp Ser Leu Lys Arg Val Asn  
180 185 190

047-E2F-PCT.ST25.txt

Ser Gly Asp Leu Trp Met Leu Met Glu Lys Ser Asp Thr Val Asn Met  
195 200 205

Tyr Thr Ile Glu Arg Glu Asn Lys Lys Arg Leu Phe Val Tyr Ile Glu  
210 215 220

Lys Leu Pro Leu Val Val Pro Asp Gln Val Phe Ala Ser Ser Pro Tyr  
225 230 235 240

Asp Cys His Val Lys  
245

<210> 835

<211> 1299

<212> DNA

<213> Arabidopsis thaliana

<400> 835

atggattcag atgcatggga aattatccat atacctgaaa agccttcatt gtcacctgac	60
catcagccca ctgtgaaggt atatgctagc ctaatcaaac ccagatttgc caatacgata	120
gtgaggcatt tatgtaagat tgctcctcta gaagatcttc gtcattgttaa aagggtgaag	180
aagaagattc tgccagattg cggtgaaact cagttgactg tcatcttatg tctagcacct	240
gagcacaacg atcagttgag tgacatgcca cctgatgtgc agagactcgt tgatccctat	300
gagttgagtc cttttattac acaagtaggt tttttttctc ttatctcacc actatttgct	360
tcaagggttt ttgattcatt tagcttccaa gtatgcaa atgctgcggt atccaaagaa	420
gagtgggaag aacaaacaat atatgtcttt gtttatagtgc caacagtcaa tgatttttta	480
ctttttgcat ttggcaatga tagcaatata gatggcatcg gtgggttcag cgaggaggaa	540
acacaatcaa tctgcaagtt catgagagtt gttattgata tggcagtatc tggtcataca	600
ccacttgatga atgctgcagt gatagttgat ccttcagtta ggcgaataat agctagtga	660
actgatcaag tatatgcac atctgtctct cgtgacatga ctagcgcaga gaccaggccc	720
ttcgaggaaa caggggaaat atgtttaaat gacacacttg aaaaacagaa tggttcattg	780
tctgtctttt cttgtctgaa tccctggcaa tggagtttgc agccgcatga cactgaaaat	840
tgtagccagt ggcacacctc taggcattgt tccatggttg ccattgaatc ctcttctgcc	900
agagatagaa atctgtttcc caatccatcc aagatttttg atcaggatca tgttccgccc	960
tcaaatacag atttctccggc taaaaagcag aaaacaagca gtcagagtcc agacgtccaa	1020

aatgacagca gagaagagac tgtttagagat ccttcaatgg aaaggccgta cctctgcact 1080  
 ggttatgaca ttttcctcct gttggagcct tgtacaatgt gtgctatggc gcttgtgcat 1140  
 caaagaataa aacggatttt ctatgctttt ccaaacacca cggcaggtgg tctcgggagt 1200  
 gttcatagac ttcaagggga aaagagtttg aaccatcatt atgcagtgtt tagagttttg 1260  
 ctgcctgatg acgcacttag acaaatgacc acggtctaa 1299

<210> 836

<211> 432

<212> PRT

<213> Arabidopsis thaliana

<400> 836

Met Asp Ser Asp Ala Trp Glu Ile Ile His Ile Pro Glu Lys Pro Ser  
 1 5 10 15  
 Leu Ser Pro Asp His Gln Pro Thr Val Lys Val Tyr Ala Ser Leu Ile  
 20 25 30  
 Lys Pro Arg Phe Ala Asn Thr Ile Val Arg His Leu Cys Lys Ile Ala  
 35 40 45  
 Pro Leu Glu Asp Leu Arg His Val Lys Arg Val Lys Lys Lys Ile Leu  
 50 55 60  
 Pro Asp Cys Gly Glu Thr Gln Leu Thr Val Ile Leu Cys Leu Ala Pro  
 65 70 75 80  
 Glu His Asn Asp Gln Leu Ser Asp Met Pro Pro Asp Val Gln Arg Leu  
 85 90 95  
 Val Asp Pro Tyr Glu Leu Ser Pro Phe Ile Thr Gln Val Gly Tyr Phe  
 100 105 110  
 Ser Leu Ile Ser Pro Leu Phe Ala Ser Arg Val Phe Asp Ser Phe Ser  
 115 120 125  
 Phe Gln Val Cys Lys Tyr Ala Ala Val Ser Lys Glu Glu Trp Glu Glu  
 130 135 140  
 Gln Thr Ile Tyr Val Phe Val Tyr Ser Ala Thr Val Asn Asp Phe Leu  
 145 150 155 160

Leu Phe Ala Phe Gly Asn Asp Ser Asn Ile Asp Gly Ile Gly Gly Phe  
 165 170 175  
 Ser Glu Glu Glu Thr Gln Ser Ile Cys Lys Phe Met Arg Val Val Ile  
 180 185 190  
 Asp Met Ala Val Ser Gly His Thr Pro Leu Val Asn Ala Ala Val Ile  
 195 200 205  
 Val Asp Pro Ser Val Arg Arg Ile Ile Ala Ser Glu Thr Asp Gln Val  
 210 215 220  
 Tyr Ala Ser Ser Ala Pro Arg Asp Met Thr Ser Ala Glu Thr Arg Pro  
 225 230 235 240  
 Phe Glu Glu Thr Gly Glu Ile Cys Leu Asn Asp Thr Leu Glu Lys Gln  
 245 250 255  
 Asn Gly Ser Leu Ser Ala Leu Ser Cys Leu Asn Pro Trp Gln Trp Ser  
 260 265 270  
 Leu Gln Pro His Asp Thr Glu Asn Cys Ser Gln Trp His Pro Leu Arg  
 275 280 285  
 His Ala Ser Met Val Ala Ile Glu Ser Ser Ser Ala Arg Asp Arg Asn  
 290 295 300  
 Leu Phe Pro Asn Pro Ser Lys Ile Phe Asp Gln Asp His Val Pro Pro  
 305 310 315 320  
 Ser Asn Thr Asp Ser Pro Ala Lys Lys Gln Lys Thr Ser Ser Gln Ser  
 325 330 335  
 Pro Asp Val Gln Asn Asp Ser Arg Glu Glu Thr Val Arg Asp Pro Ser  
 340 345 350  
 Met Glu Arg Pro Tyr Leu Cys Thr Gly Tyr Asp Ile Phe Leu Leu Leu  
 355 360 365  
 Glu Pro Cys Thr Met Cys Ala Met Ala Leu Val His Gln Arg Ile Lys  
 370 375 380  
 Arg Ile Phe Tyr Ala Phe Pro Asn Thr Thr Ala Gly Gly Leu Gly Ser  
 385 390 395 400  
 Val His Arg Leu Gln Gly Glu Lys Ser Leu Asn His His Tyr Ala Val  
 405 410 415

047-E2F-PCT.ST25.txt

Phe Arg Val Leu Leu Pro Asp Asp Ala Leu Arg Gln Met Thr Thr Val  
420 425 430

<210> 837

<211> 774

<212> DNA

<213> Arabidopsis thaliana

<400> 837

atggacgaaa ccaacggacg aagagaaact cacgatttca tgaacgtcaa cgttgaatcc	60
ttctctcagc ttcctttcat ccgccgtact cctcccaaag aaaaagccgc cattattcgt	120
ctcttcggcc aagagctcgt cggtgataac tccgacaact tatccgcaga accttctgat	180
catcaaacca ctaccaagaa cgatgagagc tctgagaata tcaaggacaa agacaaagaa	240
aaagataagg acaaagacaa agataacaac aacaacagga gattcgagtg tcactactgc	300
ttcagaaact tcccaacttc tcaagcccta ggtggacatc aaaacgctca caaacgtgaa	360
cgtcaacacg ccaaacgcgg ttccatgaca tcataccttc atcatcatca gcctcatgac	420
cctcaccaca tctacggctt cctcaacaac caccaccacc gtcactatcc gtcttggacg	480
acggaagcta gatcatacta cggcggaggg ggacatcaaa cgccgtcgta ctactcaagg	540
aatactcttg ctctctcttc ttctaaccba cggacaatca acggaagtcc tttagggttg	600
tggcgtgtac cgccttccac gtcaacaaat actattcaag gcgtttactc atcttcacca	660
gcttcagcgt ttaggtcgca tgagcaagag actaataagg agcctaataa ctggccgtac	720
agattgatga aaccaaatgt gcaagatcat gtgagtctcg atcttcatct ctga	774

<210> 838

<211> 257

<212> PRT

<213> Arabidopsis thaliana

<400> 838

Met Asp Glu Thr Asn Gly Arg Arg Glu Thr His Asp Phe Met Asn Val  
1 5 10 15

Asn Val Glu Ser Phe Ser Gln Leu Pro Phe Ile Arg Arg Thr Pro Pro  
20 25 30

Lys Glu Lys Ala Ala Ile Ile Arg Leu Phe Gly Gln Glu Leu Val Gly  
 35 40 45  
 Asp Asn Ser Asp Asn Leu Ser Ala Glu Pro Ser Asp His Gln Thr Thr  
 50 55 60  
 Thr Lys Asn Asp Glu Ser Ser Glu Asn Ile Lys Asp Lys Asp Lys Glu  
 65 70 75 80  
 Lys Asp Lys Asp Lys Asp Lys Asp Asn Asn Asn Arg Arg Phe Glu  
 85 90 95  
 Cys His Tyr Cys Phe Arg Asn Phe Pro Thr Ser Gln Ala Leu Gly Gly  
 100 105 110  
 His Gln Asn Ala His Lys Arg Glu Arg Gln His Ala Lys Arg Gly Ser  
 115 120 125  
 Met Thr Ser Tyr Leu His His His Gln Pro His Asp Pro His His Ile  
 130 135 140  
 Tyr Gly Phe Leu Asn Asn His His His Arg His Tyr Pro Ser Trp Thr  
 145 150 155 160  
 Thr Glu Ala Arg Ser Tyr Tyr Gly Gly Gly Gly His Gln Thr Pro Ser  
 165 170 175  
 Tyr Tyr Ser Arg Asn Thr Leu Ala Pro Pro Ser Ser Asn Pro Pro Thr  
 180 185 190  
 Ile Asn Gly Ser Pro Leu Gly Leu Trp Arg Val Pro Pro Ser Thr Ser  
 195 200 205  
 Thr Asn Thr Ile Gln Gly Val Tyr Ser Ser Ser Pro Ala Ser Ala Phe  
 210 215 220  
 Arg Ser His Glu Gln Glu Thr Asn Lys Glu Pro Asn Asn Trp Pro Tyr  
 225 230 235 240  
 Arg Leu Met Lys Pro Asn Val Gln Asp His Val Ser Leu Asp Leu His  
 245 250 255  
 Leu

&lt;210&gt; 839

&lt;211&gt; 1134

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 839

```

atgtctgtct ccgagctcaa agaacgccac gccgtcgcta cggagaccgt taataacctc      60
cgtgaccagc ttagacagag acgcctccag ctctcgata ccgatgtggc gaggtattca      120
gcggcgcaag gacgtactcg ggtgagcttc ggagcaacgg atctggtttg ttgtcgtact      180
cttcagggac acaccgaaa ggtttattca ttagattgga caccggagag gaaccggatt      240
gtcagtgcac ctcaagatgg gagattaatc gtgtggaatg ctctaacgag tcagaaaact      300
catgctatta aactcccttg tgcattgggt atgacatgtg ctttctctcc aaatgggtcag      360
tcggttcgct gtggtggatt agacagtgtg tgttctatct ttagccttag ctcaacggcg      420
gacaaggatg gaactgtacc ggtttcaaga atgctcactg gtcacagggg atatgtttcg      480
tgctgtcagt atgtcccaa tgaggatgcc caccttatca ccagttcagg tgatcaaact      540
tgtatcttat gggatgtaac tactggcttc aaaacttctg tttttggcgg tgaatttcag      600
tctggacata ctgctgatgt actaagcgtc tcaatcagtg gatcaaacc aaactggttt      660
atatctgggt catgcgattc cacagcacgg ttgtgggaca ctctgtctgc aagccgagca      720
gtgcgtacct ttcattgtca cgaggagat gttaatacgg tcaagttctt tccggatggg      780
tatagatttg ggactggatc agacgatgga acatgcaggc tgtatgacat aaggactggg      840
caccaactcc aggtctatca gccacatggg gatggtgaga acggacctgt cacctccatt      900
gcattctctg tgtcagggag acttcttttc gctggctatg cgagcaacaa cacttgctac      960
gtttgggata ccctcttggg agaggttgta ttggatttgg gattacagca ggattcacac     1020
aggaatagaa taagctgttt ggggttgta gcagatggaa gtgccttggtg tacaggaagt     1080
tgggattcaa atctaaagat atgggcgttt ggaggacaca ggagagtgat ttga           1134

```

&lt;210&gt; 840

&lt;211&gt; 377

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 840

```

Met Ser Val Ser Glu Leu Lys Glu Arg His Ala Val Ala Thr Glu Thr
1           5           10           15

```



Val Asn Asn Leu Arg Asp Gln Leu Arg Gln Arg Arg Leu Gln Leu Leu  
 20 25 30  
 Asp Thr Asp Val Ala Arg Tyr Ser Ala Ala Gln Gly Arg Thr Arg Val  
 35 40 45  
 Ser Phe Gly Ala Thr Asp Leu Val Cys Cys Arg Thr Leu Gln Gly His  
 50 55 60  
 Thr Gly Lys Val Tyr Ser Leu Asp Trp Thr Pro Glu Arg Asn Arg Ile  
 65 70 75 80  
 Val Ser Ala Ser Gln Asp Gly Arg Leu Ile Val Trp Asn Ala Leu Thr  
 85 90 95  
 Ser Gln Lys Thr His Ala Ile Lys Leu Pro Cys Ala Trp Val Met Thr  
 100 105 110  
 Cys Ala Phe Ser Pro Asn Gly Gln Ser Val Ala Cys Gly Gly Leu Asp  
 115 120 125  
 Ser Val Cys Ser Ile Phe Ser Leu Ser Ser Thr Ala Asp Lys Asp Gly  
 130 135 140  
 Thr Val Pro Val Ser Arg Met Leu Thr Gly His Arg Gly Tyr Val Ser  
 145 150 155 160  
 Cys Cys Gln Tyr Val Pro Asn Glu Asp Ala His Leu Ile Thr Ser Ser  
 165 170 175  
 Gly Asp Gln Thr Cys Ile Leu Trp Asp Val Thr Thr Gly Leu Lys Thr  
 180 185 190  
 Ser Val Phe Gly Gly Glu Phe Gln Ser Gly His Thr Ala Asp Val Leu  
 195 200 205  
 Ser Val Ser Ile Ser Gly Ser Asn Pro Asn Trp Phe Ile Ser Gly Ser  
 210 215 220  
 Cys Asp Ser Thr Ala Arg Leu Trp Asp Thr Arg Ala Ala Ser Arg Ala  
 225 230 235 240  
 Val Arg Thr Phe His Gly His Glu Gly Asp Val Asn Thr Val Lys Phe  
 245 250 255  
 Phe Pro Asp Gly Tyr Arg Phe Gly Thr Gly Ser Asp Asp Gly Thr Cys  
 260 265 270

047-E2F-PCT.ST25.txt

Arg Leu Tyr Asp Ile Arg Thr Gly His Gln Leu Gln Val Tyr Gln Pro  
275 280 285

His Gly Asp Gly Glu Asn Gly Pro Val Thr Ser Ile Ala Phe Ser Val  
290 295 300

Ser Gly Arg Leu Leu Phe Ala Gly Tyr Ala Ser Asn Asn Thr Cys Tyr  
305 310 315 320

Val Trp Asp Thr Leu Leu Gly Glu Val Val Leu Asp Leu Gly Leu Gln  
325 330 335

Gln Asp Ser His Arg Asn Arg Ile Ser Cys Leu Gly Leu Ser Ala Asp  
340 345 350

Gly Ser Ala Leu Cys Thr Gly Ser Trp Asp Ser Asn Leu Lys Ile Trp  
355 360 365

Ala Phe Gly Gly His Arg Arg Val Ile  
370 375

<210> 841

<211> 2052

<212> DNA

<213> Arabidopsis thaliana

<400> 841

atgttaaacg gctggagaag agctttttgc acttccattc ccaaagaaac taaccaaacc	60
gacgtcgacg acgacggact cgttggtctc cgccacaaat caacctctcg attcggcttt	120
ttctcaactc cttctacgcc tcgttctgat tccggcaccg gaacttacag cctccgttgc	180
aggacttcaa cagccaccgc cgtctccact acttcatctc ttcccggaac tccaaagctt	240
aagtgcaaaa ccaccaccac cggagaaaca actcccagaa acagaagcct tgtctctctt	300
ttaacacctt cttcttcttc tatttctccg gcgagcttca ctctcctcaa atccaaactc	360
cgattcaagc agagtagcag taacaaatgt ggaatctggt tacagagtgt gaaatcaggt	420
caaggtacgg cgattttcac ggcggagtgt tctcacacgt ttcattttcc ttgcgtaacc	480
tcacgcgccg ccgcgaatca taaccgtctt gcttcttgtc cggtttgcgg atcctcgctt	540
ttgcctgaga ttcgaaatta cgctaaaccg gaatctcaaa tcaaaccgga aattaaaaac	600
aagtcgttga gagttttaca cgatgacgaa gctttgattt catctccgat atctcccgcc	660
ggatttcaca caatacttga atcagatgag aacgaagact gcgaggagtt tacaggattt	720

047-E2F-PCT.ST25.txt

```
tccgttaata ctccgtcacc tttaacggcg aaattgttaa cggatcgaaa cgtggacgtt 780
aagctctctc cggaatcggc tatcgttgcg tcgggtaaag gctacgagac ttactccgtc 840
gtcatgaagg tgaaatcgcc accgtttccg acggcgcggtg gatttgcgcg tagagtgccg 900
gtggatttgg ttgctgtttt agacgtaagc gggagaaatt ccggtgggaa attggagatg 960
ttgaaacaaa cgatgaggat tgtgcttttcg aatctccggg agatggatcg tttatcgatt 1020
attgcgtttt cgtccagctc gaaacggtta tcgccgttac ggaggatgac ggcgaacggg 1080
aggagatcgg cgcaagaat cgtagatata atcaccgttc ctggttctgt ctccggcgtc 1140
ggaattgatt tctccggtga agggatgagt gtgaacgacg cgttgaagaa agcggttaag 1200
gtgttagacg atcgccggca gaaaaaccct ttcaccgccg tgttcgtttt aacggaccgt 1260
caagcccatc aagtggccca attagcccat tcgagaatcc ctatacacac catatggctt 1320
agccacgcga ttcccgaaga cgcgtttgcg aggaccatca acggttattt gagtttgctg 1380
gttcaggatc tcggtttaca gtcgggata gtttccgggt tgggtcaagg agagataact 1440
tctgtttact ctctttccg tgcaccgct tggcttgga ccggttcaat ccggttaggt 1500
gatatgtatg cggaggaaga aagagcgttg ctggttgaaa tcaaatacc ggtaacaat 1560
tccttaaccg gtagtagatc tcacaaaatc atgaccgtta gatctcgta cgtggatcca 1620
acaactcagg aattaagaaa ccccgaagat cgcgcgcttt taatacctac tcctctaact 1680
gtccgatcat catcaaatac caacatctca cggctcagaa acctccacgt cagcactcga 1740
gccgtcgcg agtctcgcg gctaatagag cgtaaccatt actccggagc tcatagattg 1800
ctgacgtcag ctagagcatt gcttgtgcag cacggttga gctcgagcga tgcgtgtata 1860
cgtggactgg acgcagagat agctgatctt aatagtgtga aaggaagaca cgtggcggca 1920
tcagagagtt tggagtcgct tactccgacg tcggcttgga aagcggcgga gaggttggt 1980
aaagtggcga tggtagaggaa acatatgaac agagtcagtg acttgcattg tttcgaaaac 2040
gctagatttt ag 2052
```

<210> 842

<211> 683

<212> PRT

<213> Arabidopsis thaliana

<400> 842

Met Leu Asn Gly Trp Arg Arg Ala Phe Cys Thr Ser Ile Pro Lys Glu  
1 5 10 15

047-E2F-PCT.ST25.txt

Thr Asn Gln Asn Asp Val Asp Asp Asp Gly Leu Val Gly Leu Arg His  
 20 25 30  
 Lys Ser Thr Ser Arg Phe Gly Phe Phe Ser Thr Pro Ser Thr Pro Arg  
 35 40 45  
 Ser Asp Ser Gly Thr Gly Thr Tyr Ser Leu Arg Cys Arg Thr Ser Thr  
 50 55 60  
 Ala Thr Ala Val Ser Thr Thr Ser Ser Leu Pro Gly Thr Pro Lys Leu  
 65 70 75 80  
 Lys Cys Lys Thr Thr Thr Thr Gly Glu Thr Thr Pro Arg Asn Arg Ser  
 85 90 95  
 Leu Val Ser Leu Leu Thr Pro Ser Ser Ser Ser Ile Ser Pro Ala Ser  
 100 105 110  
 Phe Thr Leu Leu Lys Ser Lys Leu Arg Phe Lys Gln Ser Ser Ser Asn  
 115 120 125  
 Lys Cys Gly Ile Cys Leu Gln Ser Val Lys Ser Gly Gln Gly Thr Ala  
 130 135 140  
 Ile Phe Thr Ala Glu Cys Ser His Thr Phe His Phe Pro Cys Val Thr  
 145 150 155 160  
 Ser Arg Ala Ala Ala Asn His Asn Arg Leu Ala Ser Cys Pro Val Cys  
 165 170 175  
 Gly Ser Ser Leu Leu Pro Glu Ile Arg Asn Tyr Ala Lys Pro Glu Ser  
 180 185 190  
 Gln Ile Lys Pro Glu Ile Lys Asn Lys Ser Leu Arg Val Tyr Asn Asp  
 195 200 205  
 Asp Glu Ala Leu Ile Ser Ser Pro Ile Ser Pro Ala Gly Phe His Thr  
 210 215 220  
 Ile Leu Glu Ser Asp Glu Asn Glu Asp Cys Glu Glu Phe Thr Gly Phe  
 225 230 235 240  
 Ser Val Asn Thr Pro Ser Pro Leu Thr Ala Lys Leu Leu Thr Asp Arg  
 245 250 255  
 Asn Val Asp Val Lys Leu Ser Pro Glu Ser Ala Ile Val Ala Ser Gly  
 260 265 270

047-E2F-PCT.ST25.txt

Lys Gly Tyr Glu Thr Tyr Ser Val Val Met Lys Val Lys Ser Pro Pro  
 275 280 285  
 Phe Pro Thr Ala Arg Gly Phe Ala Arg Arg Val Pro Val Asp Leu Val  
 290 295 300  
 Ala Val Leu Asp Val Ser Gly Arg Asn Ser Gly Gly Lys Leu Glu Met  
 305 310 315 320  
 Leu Lys Gln Thr Met Arg Ile Val Leu Ser Asn Leu Arg Glu Met Asp  
 325 330 335  
 Arg Leu Ser Ile Ile Ala Phe Ser Ser Ser Lys Arg Leu Ser Pro  
 340 345 350  
 Leu Arg Arg Met Thr Ala Asn Gly Arg Arg Ser Ala Arg Arg Ile Val  
 355 360 365  
 Asp Ile Ile Thr Val Pro Gly Ser Val Ser Gly Val Gly Ile Asp Phe  
 370 375 380  
 Ser Gly Glu Gly Met Ser Val Asn Asp Ala Leu Lys Lys Ala Val Lys  
 385 390 395 400  
 Val Leu Asp Asp Arg Arg Gln Lys Asn Pro Phe Thr Ala Val Phe Val  
 405 410 415  
 Leu Thr Asp Arg Gln Ala His Gln Val Ala Gln Leu Ala His Ser Arg  
 420 425 430  
 Ile Pro Ile His Thr Ile Trp Leu Ser His Ala Ile Pro Glu Asp Ala  
 435 440 445  
 Phe Ala Arg Thr Ile Asn Gly Tyr Leu Ser Leu Ser Val Gln Asp Leu  
 450 455 460  
 Gly Leu Gln Leu Gly Ile Val Ser Gly Leu Gly Gln Gly Glu Ile Thr  
 465 470 475 480  
 Ser Val Tyr Ser Leu Ser Gly Arg Pro Ala Trp Leu Gly Thr Gly Ser  
 485 490 495  
 Ile Arg Leu Gly Asp Met Tyr Ala Glu Glu Glu Arg Ala Leu Leu Val  
 500 505 510

515

520

525

Lys Ile Met Thr Val Arg Ser Arg Tyr Val Asp Pro Thr Thr Gln Glu  
 530 535 540

Leu Arg Asn Pro Glu Asp Arg Ala Leu Leu Ile Pro Thr Pro Leu Thr  
 545 550 555 560

Val Arg Ser Ser Ser Asn Pro Asn Ile Ser Arg Leu Arg Asn Leu His  
 565 570 575

Val Ser Thr Arg Ala Val Ala Glu Ser Arg Arg Leu Ile Glu Arg Asn  
 580 585 590

His Tyr Ser Gly Ala His Arg Leu Leu Thr Ser Ala Arg Ala Leu Leu  
 595 600 605

Val Gln His Gly Leu Ser Ser Ser Asp Ala Cys Ile Arg Gly Leu Asp  
 610 615 620

Ala Glu Ile Ala Asp Leu Asn Ser Val Lys Gly Arg His Val Ala Ala  
 625 630 635 640

Ser Glu Ser Leu Glu Ser Leu Thr Pro Thr Ser Ala Trp Lys Ala Ala  
 645 650 655

Glu Arg Leu Ala Lys Val Ala Met Val Arg Lys His Met Asn Arg Val  
 660 665 670

Ser Asp Leu His Gly Phe Glu Asn Ala Arg Phe  
 675 680

&lt;210&gt; 843

&lt;211&gt; 1068

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 843

atgggattcg gcttagagag tatcaaatca atctccggcg gatggggcgc ggcggcgcgt 60

tcctgtgacg cttgtaaatc agttaccgcc gccgtgttct gtcgagttga ctcagctttc 120

ttatgcatag catgtgacac aagaatccat tccttcactc gccacgagcg cgtgtggggtt 180

tgtgaagttt gtgaacaagc tcccgccgcc gtcacttgca aagccgacgc cgccgctctt 240

tgcgtcagtt gtgatgccga tatttactct gctaatctc tcgctagccg tcacgaacgt 300

047-E2F-PCT.ST25.txt

```

gtccccgtcg aaacttttctt cgactcagcc gaaaccgccg tcgccaaaat ctcagcttct 360
tcgacttttg gtatccttgg ctcatccacc accgttgatt taaccgctgt tccggttatg 420
gctgatgatk tcggttttatg tccgtgggta cttcctaata atttcaacga accgggctaaa 480
atcgaaatcg gaactgaaaa catgaaaggt tcttctgact ttatgttttc tgatttcgat 540
cggcttattg atttcgagtt tccgaattcg ttcaatcatc atcaaaacaa cgccggagga 600
gatagtcttg ttccggttca gacgaaaaca gagcctctcc cgtttaactaa caatgatcat 660
tgcttcgata ttgatttctg cagatcaaag ctctctgctt tcacttacct ttctcaatca 720
gtcagccaca gtgttttcgac ttcttctatt gaatacgggt tagttcctga cggaaacaca 780
aacaactctg ttaaccggag cacgatcact agctcgacga ctgggtgggtga tcatcaagcg 840
agctctatgg atagagaagc tagggttttg aggtacagag agaagagaaa gaacaggaaa 900
tttgagaaga cgattcggtta cgcttcgagg aaagcttatg cagagtcacg gccaaggatc 960
aaaggccggt ttgcgaaaag aacagagaca gaaaacgacg acattttcct tagtcatggt 1020
tatgcttcag cagcacacgc acagtacggt gtcgtaccaa cgttctga 1068

```

<210> 844

<211> 355

<212> PRT

<213> Arabidopsis thaliana

<400> 844

Met Gly Phe Gly Leu Glu Ser Ile Lys Ser Ile Ser Gly Gly Trp Gly  
1 5 10 15

Ala Ala Ala Arg Ser Cys Asp Ala Cys Lys Ser Val Thr Ala Ala Val  
20 25 30

Phe Cys Arg Val Asp Ser Ala Phe Leu Cys Ile Ala Cys Asp Thr Arg  
35 40 45

Ile His Ser Phe Thr Arg His Glu Arg Val Trp Val Cys Glu Val Cys  
50 55 60

Glu Gln Ala Pro Ala Ala Val Thr Cys Lys Ala Asp Ala Ala Ala Leu  
65 70 75 80

Cys Val Ser Cys Asp Ala Asp Ile His Ser Ala Asn Pro Leu Ala Ser  
85 90 95

047-E2F-PCT.ST25.txt

Arg His Glu Arg Val Pro Val Glu Thr Phe Phe Asp Ser Ala Glu Thr  
100 105 110

Ala Val Ala Lys Ile Ser Ala Ser Ser Thr Phe Gly Ile Leu Gly Ser  
115 120 125

Ser Thr Thr Val Asp Leu Thr Ala Val Pro Val Met Ala Asp Asp Leu  
130 135 140

Gly Leu Cys Pro Trp Leu Leu Pro Asn Asp Phe Asn Glu Pro Ala Lys  
145 150 155 160

Ile Glu Ile Gly Thr Glu Asn Met Lys Gly Ser Ser Asp Phe Met Phe  
165 170 175

Ser Asp Phe Asp Arg Leu Ile Asp Phe Glu Phe Pro Asn Ser Phe Asn  
180 185 190

His His Gln Asn Asn Ala Gly Gly Asp Ser Leu Val Pro Val Gln Thr  
195 200 205

Lys Thr Glu Pro Leu Pro Leu Thr Asn Asn Asp His Cys Phe Asp Ile  
210 215 220

Asp Phe Cys Arg Ser Lys Leu Ser Ala Phe Thr Tyr Pro Ser Gln Ser  
225 230 235 240

Val Ser His Ser Val Ser Thr Ser Ser Ile Glu Tyr Gly Val Val Pro  
245 250 255

Asp Gly Asn Thr Asn Asn Ser Val Asn Arg Ser Thr Ile Thr Ser Ser  
260 265 270

Thr Thr Gly Gly Asp His Gln Ala Ser Ser Met Asp Arg Glu Ala Arg  
275 280 285

Val Leu Arg Tyr Arg Glu Lys Arg Lys Asn Arg Lys Phe Glu Lys Thr  
290 295 300

Ile Arg Tyr Ala Ser Arg Lys Ala Tyr Ala Glu Ser Arg Pro Arg Ile  
305 310 315 320

Lys Gly Arg Phe Ala Lys Arg Thr Glu Thr Glu Asn Asp Asp Ile Phe  
325 330 335

Leu Ser His Val Tyr Ala Ser Ala Ala His Ala Gln Tyr Gly Val Val  
340 345 350



Pro Thr Phe  
355

<210> 845

<211> 708

<212> DNA

<213> *Arabidopsis thaliana*

<400> 845

```

atgaggagag ttttcggcgc gaaaaagaac acagagcctc ctccgtccat tcaggatgcc      60
tctgatcgga taaataaaag aggagattcg gtagaagata agataaagaa gcttgatggt      120
gagctctgca aatacaaaga acagctcaaa aagaccagac ctggtcctgc tcaagaagct      180
gtcaaagctc gtgctatgcg agttctcaag cagaagaaaa tgtatgaagg acaacgcgac      240
atgctctata atcagacatt caatctcgat caagtttcat tcgccgctga aggactcaaa      300
gatgctcaac aaactatgac agcactaaaa tctgcgaaca aggagttgaa aggaatgatg      360
aaaaccgtca agattcaaga tattgataat ttacaagacg agatgatgga tctgatggat      420
gttagttctg aaattcaaga atcacttggg aggagctaca atattcctga tggccttgac      480
gaggatgacc tcatgggaga gcttgatgct cttgaagctg acatgggaaa cgagaccgaa      540
gcagatggaa tgccttctta tctccaacct gatacagaaa ctgattacga tagcgagctt      600
aacttgccctg cagcaccaac aggacacaat ggagctccac atggaagagc tcaggctgag      660
gacgaatttg gattaccagc agtgccacga gcttctctcc ggggttaa      708

```

<210> 846

<211> 235

<212> PRT

<213> *Arabidopsis thaliana*

<400> 846

Met Arg Arg Val Phe Gly Ala Lys Lys Asn Thr Glu Pro Pro Pro Ser  
1 5 10 15

Ile Gln Asp Ala Ser Asp Arg Ile Asn Lys Arg Gly Asp Ser Val Glu  
20 25 30

Asp Lys Ile Lys Lys Leu Asp Val Glu Leu Cys Lys Tyr Lys Glu Gln  
Page 1323

35

40

45

Leu Lys Lys Thr Arg Pro Gly Pro Ala Gln Glu Ala Val Lys Ala Arg  
 50 55 60  
 Ala Met Arg Val Leu Lys Gln Lys Lys Met Tyr Glu Gly Gln Arg Asp  
 65 70 75 80  
 Met Leu Tyr Asn Gln Thr Phe Asn Leu Asp Gln Val Ser Phe Ala Ala  
 85 90 95  
 Glu Gly Leu Lys Asp Ala Gln Gln Thr Met Thr Ala Leu Lys Ser Ala  
 100 105 110  
 Asn Lys Glu Leu Lys Gly Met Met Lys Thr Val Lys Ile Gln Asp Ile  
 115 120 125  
 Asp Asn Leu Gln Asp Glu Met Met Asp Leu Met Asp Val Ser Ser Glu  
 130 135 140  
 Ile Gln Glu Ser Leu Gly Arg Ser Tyr Asn Ile Pro Asp Gly Leu Asp  
 145 150 155 160  
 Glu Asp Asp Leu Met Gly Glu Leu Asp Ala Leu Glu Ala Asp Met Gly  
 165 170 175  
 Asn Glu Thr Glu Ala Asp Gly Met Pro Ser Tyr Leu Gln Pro Asp Thr  
 180 185 190  
 Glu Thr Asp Tyr Asp Ser Glu Leu Asn Leu Pro Ala Ala Pro Thr Gly  
 195 200 205  
 His Asn Gly Ala Pro His Gly Arg Ala Gln Ala Glu Asp Glu Phe Gly  
 210 215 220  
 Leu Pro Ala Val Pro Arg Ala Ser Leu Arg Gly  
 225 230 235

&lt;210&gt; 847

&lt;211&gt; 2115

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 847

atggagtcta ctgctaacgc actcgtcgtc aaggtgagct atggaggtgt gcttaggcgt

60

## 047-E2F-PCT.ST25.txt

ttcaggggtgc	ctgttaaagc	taatggacag	cttgatcttg	aaatggctgg	tcttaaggaa	120
aagatcgctg	ctctctttta	cctctctgcg	gatgctgaat	tgagtctgac	ttactctgat	180
gaggatgggg	atgtggttgc	ccttgttgat	gacaacgatc	tctttgatgt	tactaatcag	240
cgtcttaagt	tcttaaagat	caatgtgaac	gctggcgtgt	ccactaactc	tgctgctcca	300
gagagtagtg	ggagttccac	acctgcgggt	atgcctaacc	cggtttccaa	aatccagaag	360
ggtataaatg	atgttctgat	ggctgtacct	aacccgatgc	gtgataccat	atcaaagggtg	420
tacatggacc	ttgcatccaa	ggcctcaact	tctagtcctg	tagttggtga	gatgcttgat	480
tgcatttcca	agctagggca	gctctcaatt	cctcaggaaa	gtagtccttg	ctcacctggt	540
accaagcctg	gttcttcagg	tgcttccctg	agcaggggatg	ttccttccgc	tggtggaaaag	600
aaggatatct	ctgagaggac	ccagaccgga	aggaaacctg	ttaatctgaa	tgaaccact	660
ggcgctcatt	caaagacttc	tggtcatgta	ccaaactcgt	ctggactggg	tgctaatttc	720
aacgagtgtc	ccttttagtg	cagtaccatg	aattactcct	gtccaaatcc	agttaacctc	780
aacaagcatc	ctcgctgtgt	ttgtcattcc	aaaaagagca	ccaatggtga	ttactggact	840
tcattgggtg	tattccataa	gggcatccgt	tgtgacggat	gtggagttct	tccaattact	900
gggcctagat	ttaagtcgaa	agttaaagaa	gactatgatc	tgtgcaccat	ctgctattcg	960
gtgatgggta	acgaggggga	ttacacaaga	atggataagc	ctgtatccgt	tcaacatctg	1020
catcctttta	gaggaccgtt	tacccaattt	cctaatacct	ggttgagcca	ccctgtgcca	1080
cgagcaacca	atggaggtgc	acctctcagg	tgtactcgcc	ctaaactaga	cagtcggttt	1140
gtccttgatg	tgaatgtaat	tgatggaacc	gttgttgctc	catccgcccc	atttactaag	1200
atttgaaaaa	tgaggaacag	tggttcgctg	gtgtggccac	agggcacaca	gattgtctgg	1260
atcggtgggg	acaggttctg	caactccttg	tcagttgatt	tacagattcc	aaaggagggt	1320
gtgcctatct	atagtgaact	tgacgtcaaa	gttgattttg	ttgcaccaga	gttacctggt	1380
cgatacattt	cttattggag	gatggctacc	tctgacggtg	ctaagtttgg	gcaacgtggt	1440
tgggtgttga	tacatgttga	tgcatctctg	aagaattctg	ttgtgaatga	gtttcatgga	1500
ctgaacctta	atgcctcccc	ctcccttgat	gagaattttc	caagcgaatt	tctagggatt	1560
atgaattatg	agtcagctca	acctggcagc	tccagtgtca	atcctgggac	cgtgaaagggt	1620
actgatctag	agggcgaagt	tggtgaaaca	caggccgtgg	aaaaagaaaa	ccttttggtt	1680
ggtgaagctc	atcctgctat	ccctcacggg	cattctcctt	catcttcatc	ttcttcattt	1740
aacatggtcg	acttcccaag	catgcctgct	gttgagggtct	tgtctggtgg	ttcttcattt	1800
actacaaaag	acgtgccagt	tcctcttcag	gaggatatag	aaaagaatga	cgtggagata	1860
accatgctca	aggagctcga	ggaaatgggt	ttcaaggaga	tagatttgaa	caaggagatc	1920

ttgagggata acgagtacaa cctggagcag tctgttgatg ctctttgtgg agtttagcgag 1980  
 tgggatccaa tcctagagga gcttcaggag atgggcttct gtgatgatgt gacgaacaag 2040  
 agactgctga agaagaacaa tggaagcatc aaaggcgtgg taatggatct cctcacaggg 2100  
 gagaaggagg cttga 2115

<210> 848

<211> 704

<212> PRT

<213> Arabidopsis thaliana

<400> 848

Met Glu Ser Thr Ala Asn Ala Leu Val Val Lys Val Ser Tyr Gly Gly  
 1 5 10 15  
 Val Leu Arg Arg Phe Arg Val Pro Val Lys Ala Asn Gly Gln Leu Asp  
 20 25 30  
 Leu Glu Met Ala Gly Leu Lys Glu Lys Ile Ala Ala Leu Phe Asn Leu  
 35 40 45  
 Ser Ala Asp Ala Glu Leu Ser Leu Thr Tyr Ser Asp Glu Asp Gly Asp  
 50 55 60  
 Val Val Ala Leu Val Asp Asp Asn Asp Leu Phe Asp Val Thr Asn Gln  
 65 70 75 80  
 Arg Leu Lys Phe Leu Lys Ile Asn Val Asn Ala Gly Val Ser Thr Asn  
 85 90 95  
 Ser Ala Ala Pro Glu Ser Ser Gly Ser Ser Thr Pro Ala Gly Met Pro  
 100 105 110  
 Asn Pro Val Ser Lys Ile Gln Lys Gly Ile Asn Asp Val Leu Met Ala  
 115 120 125  
 Val Pro Asn Pro Met Arg Asp Thr Ile Ser Lys Val Tyr Met Asp Leu  
 130 135 140  
 Ala Ser Lys Ala Ser Thr Ser Ser Pro Val Val Gly Glu Met Leu Asp  
 145 150 155 160  
 Cys Ile Ser Lys Leu Gly Gln Leu Ser Ile Pro Gln Glu Ser Ser Pro  
 165 170 175

047-E2F-PCT.ST25.txt

Cys Ser Pro Val Thr Lys Pro Gly Ser Ser Gly Ala Ser Leu Ser Arg  
 180 185 190  
 Asp Val Pro Ser Ala Gly Gly Lys Lys Asp Ile Ser Glu Arg Thr Gln  
 195 200 205  
 Thr Gly Arg Lys Pro Val Asn Leu Asn Glu Pro Thr Gly Ala His Ser  
 210 215 220  
 Lys Thr Ser Gly His Val Pro Asn Ser Ser Gly Leu Gly Ala Asn Phe  
 225 230 235 240  
 Asn Glu Cys Pro Phe Ser Gly Ser Thr Met Asn Tyr Ser Cys Pro Asn  
 245 250 255  
 Pro Val Asn Leu Asn Lys His Pro Arg Arg Val Cys His Ser Lys Lys  
 260 265 270  
 Ser Thr Asn Gly Asp Tyr Trp Thr Ser Leu Gly Val Phe His Lys Gly  
 275 280 285  
 Ile Arg Cys Asp Gly Cys Gly Val Leu Pro Ile Thr Gly Pro Arg Phe  
 290 295 300  
 Lys Ser Lys Val Lys Glu Asp Tyr Asp Leu Cys Thr Ile Cys Tyr Ser  
 305 310 315 320  
 Val Met Gly Asn Glu Gly Asp Tyr Thr Arg Met Asp Lys Pro Val Ser  
 325 330 335  
 Val Gln His Leu His Pro Phe Arg Gly Pro Phe Thr Gln Phe Pro Asn  
 340 345 350  
 Pro Trp Leu Ser His Pro Val Pro Arg Ala Thr Asn Gly Gly Ala Pro  
 355 360 365  
 Leu Arg Cys Thr Arg Pro Lys Leu Asp Ser Arg Phe Val Leu Asp Val  
 370 375 380  
 Asn Val Ile Asp Gly Thr Val Val Ala Pro Ser Ala Pro Phe Thr Lys  
 385 390 395 400  
 Ile Trp Lys Met Arg Asn Ser Gly Ser Leu Val Trp Pro Gln Gly Thr  
 405 410 415  
 Gln Ile Val Trp Ile Gly Gly Asp Arg Phe Cys Asn Ser Leu Ser Val  
 Page 1327

```

420                                     425                                     430
Asp Leu Gln Ile Pro Lys Glu Gly Val Pro Ile Tyr Ser Glu Leu Asp
435                                     440                                     445

Val Lys Val Asp Phe Val Ala Pro Glu Leu Pro Gly Arg Tyr Ile Ser
450                                     455                                     460

Tyr Trp Arg Met Ala Thr Ser Asp Gly Ala Lys Phe Gly Gln Arg Val
465                                     470                                     475

Trp Val Leu Ile His Val Asp Ala Ser Leu Lys Asn Ser Val Val Asn
485                                     490                                     495

Glu Phe His Gly Leu Asn Leu Asn Ala Ser Pro Ser Leu Asp Glu Asn
500                                     505                                     510

Phe Pro Ser Glu Phe Leu Gly Ile Met Asn Tyr Glu Ser Ala Gln Pro
515                                     520                                     525

Gly Ser Ser Ser Val Asn Pro Gly Thr Val Lys Gly Thr Asp Leu Glu
530                                     535                                     540

Gly Glu Val Gly Glu Thr Gln Ala Val Glu Lys Glu Asn Leu Leu Val
545                                     550                                     555                                     560

Gly Glu Ala His Pro Ala Ile Pro His Gly His Ser Pro Ser Ser Ser
565                                     570                                     575

Ser Ser Ser Phe Asn Met Val Asp Phe Pro Ser Met Pro Ala Val Glu
580                                     585                                     590

Val Leu Ser Gly Gly Ser Ser Ser Thr Thr Lys Asp Val Pro Val Pro
595                                     600                                     605

Leu Gln Glu Asp Ile Glu Lys Asn Asp Val Glu Ile Thr Met Leu Lys
610                                     615                                     620

Glu Leu Glu Glu Met Gly Phe Lys Glu Ile Asp Leu Asn Lys Glu Ile
625                                     630                                     635                                     640

Leu Arg Asp Asn Glu Tyr Asn Leu Glu Gln Ser Val Asp Ala Leu Cys
645                                     650                                     655

Gly Val Ser Glu Trp Asp Pro Ile Leu Glu Glu Leu Gln Glu Met Gly
660                                     665                                     670

```

Phe Cys Asp Asp Val Thr Asn Lys Arg Leu Leu Lys Lys Asn Asn Gly  
 675 680 685

Ser Ile Lys Gly Val Val Met Asp Leu Leu Thr Gly Glu Lys Glu Ala  
 690 695 700

<210> 849

<211> 1461

<212> DNA

<213> Arabidopsis thaliana

<400> 849

```

atggcaccgc tgaggggat tcttggttg caaagggcag tgtccatttg gaaggaaagt      60
aacagactga ctccagcttt gagatcattc agcactcaag ctgcatccac ttccaccact      120
ccacagcctc ctccacctcc tccgcctccg gaaaagactc atttcggttg tctcaaggat      180
gaagatcgga tttttactaa tctctatggt ctgcatgacc catttctcaa aggcgcgatg      240
aagagaggtg attggcatag gaccaaagat ttggtgctca aggggtactga ttggattgtc      300
aatgaaatga agaaatcttg acttcgtgga cgtggtggtg ctgggtttccc ttctggtctt      360
aagtggtcct ttatgcctaa agtttctgat ggccgtccct cctatttggt tgtcaatgct      420
gatgagagtg agcctggaac ttgtaaagat agggagatca tgcgtcatga ccctcacaaa      480
ttgttggaag ggtgtttgat tgctggtggt ggaatgagag ctagtgctgc gtatatattac      540
atcaggggtg aatatgtgaa tgagcgtttg aatctagaga aggctagaag agaagcgtat      600
gcagctggtc tcttggggaa gaatgcatgt ggttctggtt atgattttga agtttatatc      660
cactttggtg ctggtgctga catttgtggt gaagagactg cgcttcttga aagccttgaa      720
gggaagcaag gaaaacctag gttgaagcct ccgttccctg ctaatgctgg ttatatggt      780
tgtcccacaa ctgttaccaa tgtggaaaca gtggctgttt cgcctaccat ttaaggcgt      840
ggacctgagt ggttttctag tttcggtagg aagaataacg ctgggacaaa gctcttttgt      900
atatcaggcc atgtaaacaa gccatgcacg gtggaagagg agatgagtat acctctcaag      960
gaactgattg agaggcattg tggaggtggt aggggtggat gggacaatct acttgctatc     1020
atccctggtg gttcatctgt tcctctgata cctaagaaca tttgcgagga tgtgctgatg     1080
gatttcgatg cgctcaaggc tgtccaatca gggttaggaa ctgcagcagt cattgtgatg     1140
gataaatcaa ccgatgttgt ggatgcaatt gcaaggctct cttacttcta caagcatgaa     1200
agctgtgggc agtgcactcc ttgcagagag ggaacagggt ggctttggat gatcatggag     1260
agaatgaaag ttggcaatgc aaagctggaa gagattgata tgctgcagga ggtaacccaa     1320

```

cagatcgaag gacacacaat ctgtgcattg ggtgatgcag ctgcatggcc tgtgcaaggt 1380  
 ctgataagac acttttaggcc agagctcgag agaaggatca gggaacgcgc tgaaagggag 1440  
 ttgctacagg ctgctgctta a 1461

<210> 850

<211> 486

<212> PRT

<213> Arabidopsis thaliana

<400> 850

Met Ala Pro Val Arg Gly Ile Leu Gly Leu Gln Arg Ala Val Ser Ile  
 1 5 10 15  
 Trp Lys Glu Ser Asn Arg Leu Thr Pro Ala Leu Arg Ser Phe Ser Thr  
 20 25 30  
 Gln Ala Ala Ser Thr Ser Thr Thr Pro Gln Pro Pro Pro Pro Pro Pro  
 35 40 45  
 Pro Pro Glu Lys Thr His Phe Gly Gly Leu Lys Asp Glu Asp Arg Ile  
 50 55 60  
 Phe Thr Asn Leu Tyr Gly Leu His Asp Pro Phe Leu Lys Gly Ala Met  
 65 70 75 80  
 Lys Arg Gly Asp Trp His Arg Thr Lys Asp Leu Val Leu Lys Gly Thr  
 85 90 95  
 Asp Trp Ile Val Asn Glu Met Lys Lys Ser Gly Leu Arg Gly Arg Gly  
 100 105 110  
 Gly Ala Gly Phe Pro Ser Gly Leu Lys Trp Ser Phe Met Pro Lys Val  
 115 120 125  
 Ser Asp Gly Arg Pro Ser Tyr Leu Val Val Asn Ala Asp Glu Ser Glu  
 130 135 140  
 Pro Gly Thr Cys Lys Asp Arg Glu Ile Met Arg His Asp Pro His Lys  
 145 150 155 160  
 Leu Leu Glu Gly Cys Leu Ile Ala Gly Val Gly Met Arg Ala Ser Ala  
 165 170 175



Ala Tyr Ile Tyr Ile Arg Gly Glu Tyr Val Asn Glu Arg Leu Asn Leu  
 180 185 190  
 Glu Lys Ala Arg Arg Glu Ala Tyr Ala Ala Gly Leu Leu Gly Lys Asn  
 195 200 205  
 Ala Cys Gly Ser Gly Tyr Asp Phe Glu Val Tyr Ile His Phe Gly Ala  
 210 215 220  
 Gly Ala Tyr Ile Cys Gly Glu Glu Thr Ala Leu Leu Glu Ser Leu Glu  
 225 230 235 240  
 Gly Lys Gln Gly Lys Pro Arg Leu Lys Pro Pro Phe Pro Ala Asn Ala  
 245 250 255  
 Gly Leu Tyr Gly Cys Pro Thr Thr Val Thr Asn Val Glu Thr Val Ala  
 260 265 270  
 Val Ser Pro Thr Ile Leu Arg Arg Gly Pro Glu Trp Phe Ser Ser Phe  
 275 280 285  
 Gly Arg Lys Asn Asn Ala Gly Thr Lys Leu Phe Cys Ile Ser Gly His  
 290 295 300  
 Val Asn Lys Pro Cys Thr Val Glu Glu Glu Met Ser Ile Pro Leu Lys  
 305 310 315 320  
 Glu Leu Ile Glu Arg His Cys Gly Gly Val Arg Gly Gly Trp Asp Asn  
 325 330 335  
 Leu Leu Ala Ile Ile Pro Gly Gly Ser Ser Val Pro Leu Ile Pro Lys  
 340 345 350  
 Asn Ile Cys Glu Asp Val Leu Met Asp Phe Asp Ala Leu Lys Ala Val  
 355 360 365  
 Gln Ser Gly Leu Gly Thr Ala Ala Val Ile Val Met Asp Lys Ser Thr  
 370 375 380  
 Asp Val Val Asp Ala Ile Ala Arg Leu Ser Tyr Phe Tyr Lys His Glu  
 385 390 395 400  
 Ser Cys Gly Gln Cys Thr Pro Cys Arg Glu Gly Thr Gly Trp Leu Trp  
 405 410 415  
 Met Ile Met Glu Arg Met Lys Val Gly Asn Ala Lys Leu Glu Glu Ile  
 420 425 430

047-E2F-PCT.ST25.txt

Asp Met Leu Gln Glu Val Thr Lys Gln Ile Glu Gly His Thr Ile Cys  
 435 440 445

Ala Leu Gly Asp Ala Ala Ala Trp Pro Val Gln Gly Leu Ile Arg His  
 450 455 460

Phe Arg Pro Glu Leu Glu Arg Arg Ile Arg Glu Arg Ala Glu Arg Glu  
 465 470 475 480

Leu Leu Gln Ala Ala Ala  
 485

<210> 851

<211> 582

<212> DNA

<213> Arabidopsis thaliana

<400> 851

atgagggttcc ggtacgcaat ggtttggttcg tcgaatcaga accggagcat ggaagctcac	60
gctcttctta agagacaagg actcgacgtt gcttcgtacg ggactgggtc acatgtaaaa	120
ctacctggac catctctgag agagccaaac gtttacgact ttggaactcc ttacaagcag	180
atgttcgatg agctcaggcg caaagatcct gaactataca agcggaatgg tattttgcag	240
atgattaaga ggaattttatc cgtgaaactt gctcctcaaa gatggcaaga taatgctggt	300
gatggtgtgt ttgatgtggt tatgactttt gaagaaaagg ttttcgattc agtccttgaa	360
gatctcaaca acagagaaca atcacttacg aaaacaatac ttgtgatgaa cttggagggtt	420
aaagataacc acgaagaagc agctataggt ggccgacttg ccttggaact ctgtcaagag	480
attgaaggga atgaaacatg ggaagatacg atcgatgaca ttgttgcggg ttttgaaaaa	540
caacacaggc ggaaactggt ctacagcatc tcattctact ga	582

<210> 852

<211> 193

<212> PRT

<213> Arabidopsis thaliana

<400> 852

Met Arg Phe Arg Tyr Ala Met Val Cys Ser Ser Asn Gln Asn Arg Ser  
 1 5 10 15

047-E2F-PCT.ST25.txt

Met Glu Ala His Ala Leu Leu Lys Arg Gln Gly Leu Asp Val Ala Ser  
20 25 30

Tyr Gly Thr Gly Ser His Val Lys Leu Pro Gly Pro Ser Leu Arg Glu  
35 40 45

Pro Asn Val Tyr Asp Phe Gly Thr Pro Tyr Lys Gln Met Phe Asp Glu  
50 55 60

Leu Arg Arg Lys Asp Pro Glu Leu Tyr Lys Arg Asn Gly Ile Leu Gln  
65 70 75 80

Met Ile Lys Arg Asn Leu Ser Val Lys Leu Ala Pro Gln Arg Trp Gln  
85 90 95

Asp Asn Ala Gly Asp Gly Val Phe Asp Val Val Met Thr Phe Glu Glu  
100 105 110

Lys Val Phe Asp Ser Val Leu Glu Asp Leu Asn Asn Arg Glu Gln Ser  
115 120 125

Leu Thr Lys Thr Ile Leu Val Met Asn Leu Glu Val Lys Asp Asn His  
130 135 140

Glu Glu Ala Ala Ile Gly Gly Arg Leu Ala Leu Glu Leu Cys Gln Glu  
145 150 155 160

Ile Glu Gly Asn Glu Thr Trp Glu Asp Thr Ile Asp Asp Ile Val Ala  
165 170 175

Gly Phe Glu Lys Gln His Arg Arg Lys Leu Val Tyr Ser Ile Ser Phe  
180 185 190

Tyr

<210> 853

<211> 1545

<212> DNA

<213> Arabidopsis thaliana

<400> 853

atggccggag ggttcgtcag tcaaacgccg ggtgttcgga actacaatta caaactgaca

60

047-E2F-PCT.ST25.txt

ccgaaagtgt ttgtgacatg tttcatcggg gcttttggtg gtctcatctt cggatacgat	120
ctcgggatct caggaggggt aacctcaatg gagccattct tggaagagtt cttcccttac	180
gtctacaaga agatgaagag cgcacatgag aacgagtact gtcgatttga tagtcagctt	240
ctcactctct tcacttcgtc tctctatgtg gcggttttgg tgtcttctct ctttgcctcc	300
accattacta gagttttcgg aaggaaatgg tcgatgtttc tcggtgggtt caccttcttc	360
atcggttctg ctttcaacgg ctttgcccaa aacatcgcta tgcttctcat tggtcgtatc	420
ctacttggtt tcggagtcgg attcgccaat caatctgtac cggtttattt atcagaaatg	480
gctcctccga atctaagagg agctttcaac aacgggtttc aagtagcgat tatctttggt	540
attgtgggtg caacgatcat caattacttc accgcacaga tgaaaggaaa catcggatgg	600
agaatctctc tcggattagc ttgtgtccct gcagtgatga tcatgatcgg agctctgatc	660
cttcccgaca ctcccaactc tctcatcgaa cgtggctaca ccgaagaggc caaggaaatg	720
cttcagtcca tccgaggaac caatgaagtc gatgaagagt ttcaagatct cattgatgca	780
agtgaggagt ccaagcaagt gaaacaccca tggaagaaca tcatgcttcc tcgttacaga	840
ccacaattga tcatgacttg cttcattcct ttctttcaac aacttaccgg aatcaatgtc	900
attaccttct acgccccggg tttgttccaa accctcgggt tcggtagcaa agcttccctc	960
ctatcagcta tggtaacggg tatcatcgag ctcttggtga ccttcgtctc tgtttttaca	1020
gtggataggt ttggaagaag aatcttggtc ctccaaggag gtatccagat gcttgtctct	1080
cagatcgcta ttggagccat gattggagtc aaatttgagg tggctggaac aggaaacata	1140
gggaaaagtg atgccaatct aatcgtggca ctgatctgca tctatgtagc gggtttcgcc	1200
tggatcatggg gaccgttggg atggttgggt cctagtgaga tatctccact agagatccga	1260
tcagcagctc aagccataaa cgtttcgggtc aacatgttct tcacattcct tgtggctcag	1320
ctcttctca ctatgctttg tcacatgaaa ttcggactat tcttcttctt cgccttcttt	1380
gttgtcataa tgacaatatt catctacttg atgttgcttg agacaaagaa tgtgccaatc	1440
gaagagatga acagagtgtg gaaggcacat tggttctggg gaaagtttat tcctgatgaa	1500
gctgtcaata tgggtgctgc tgagatgcaa cagaagtccg tatga	1545

<210> 854

<211> 514

<212> PRT

<213> *Arabidopsis thaliana*

<400> 854

Met Ala Gly Gly Phe Val Ser Gln Thr Pro Gly Val Arg Asn Tyr Asn  
 1 5 10 15  
 Tyr Lys Leu Thr Pro Lys Val Phe Val Thr Cys Phe Ile Gly Ala Phe  
 20 25 30  
 Gly Gly Leu Ile Phe Gly Tyr Asp Leu Gly Ile Ser Gly Gly Val Thr  
 35 40 45  
 Ser Met Glu Pro Phe Leu Glu Glu Phe Phe Pro Tyr Val Tyr Lys Lys  
 50 55 60  
 Met Lys Ser Ala His Glu Asn Glu Tyr Cys Arg Phe Asp Ser Gln Leu  
 65 70 75 80  
 Leu Thr Leu Phe Thr Ser Ser Leu Tyr Val Ala Ala Leu Val Ser Ser  
 85 90 95  
 Leu Phe Ala Ser Thr Ile Thr Arg Val Phe Gly Arg Lys Trp Ser Met  
 100 105 110  
 Phe Leu Gly Gly Phe Thr Phe Phe Ile Gly Ser Ala Phe Asn Gly Phe  
 115 120 125  
 Ala Gln Asn Ile Ala Met Leu Leu Ile Gly Arg Ile Leu Leu Gly Phe  
 130 135 140  
 Gly Val Gly Phe Ala Asn Gln Ser Val Pro Val Tyr Leu Ser Glu Met  
 145 150 155 160  
 Ala Pro Pro Asn Leu Arg Gly Ala Phe Asn Asn Gly Phe Gln Val Ala  
 165 170 175  
 Ile Ile Phe Gly Ile Val Val Ala Thr Ile Ile Asn Tyr Phe Thr Ala  
 180 185 190  
 Gln Met Lys Gly Asn Ile Gly Trp Arg Ile Ser Leu Gly Leu Ala Cys  
 195 200 205  
 Val Pro Ala Val Met Ile Met Ile Gly Ala Leu Ile Leu Pro Asp Thr  
 210 215 220  
 Pro Asn Ser Leu Ile Glu Arg Gly Tyr Thr Glu Glu Ala Lys Glu Met  
 225 230 235 240  
 Leu Gln Ser Ile Arg Gly Thr Asn Glu Val Asp Glu Glu Phe Gln Asp  
 245 250 255

047-E2F-PCT.ST25.txt

Leu Ile Asp Ala Ser Glu Glu Ser Lys Gln Val Lys His Pro Trp Lys  
 260 265 270  
 Asn Ile Met Leu Pro Arg Tyr Arg Pro Gln Leu Ile Met Thr Cys Phe  
 275 280 285  
 Ile Pro Phe Phe Gln Gln Leu Thr Gly Ile Asn Val Ile Thr Phe Tyr  
 290 295 300  
 Ala Pro Val Leu Phe Gln Thr Leu Gly Phe Gly Ser Lys Ala Ser Leu  
 305 310 315 320  
 Leu Ser Ala Met Val Thr Gly Ile Ile Glu Leu Leu Cys Thr Phe Val  
 325 330 335  
 Ser Val Phe Thr Val Asp Arg Phe Gly Arg Arg Ile Leu Phe Leu Gln  
 340 345 350  
 Gly Gly Ile Gln Met Leu Val Ser Gln Ile Ala Ile Gly Ala Met Ile  
 355 360 365  
 Gly Val Lys Phe Gly Val Ala Gly Thr Gly Asn Ile Gly Lys Ser Asp  
 370 375 380  
 Ala Asn Leu Ile Val Ala Leu Ile Cys Ile Tyr Val Ala Gly Phe Ala  
 385 390 395 400  
 Trp Ser Trp Gly Pro Leu Gly Trp Leu Val Pro Ser Glu Ile Ser Pro  
 405 410 415  
 Leu Glu Ile Arg Ser Ala Ala Gln Ala Ile Asn Val Ser Val Asn Met  
 420 425 430  
 Phe Phe Thr Phe Leu Val Ala Gln Leu Phe Leu Thr Met Leu Cys His  
 435 440 445  
 Met Lys Phe Gly Leu Phe Phe Phe Phe Ala Phe Phe Val Val Ile Met  
 450 455 460  
 Thr Ile Phe Ile Tyr Leu Met Leu Pro Glu Thr Lys Asn Val Pro Ile  
 465 470 475 480  
 Glu Glu Met Asn Arg Val Trp Lys Ala His Trp Phe Trp Gly Lys Phe  
 485 490 495  
 Ile Pro Asp Glu Ala Val Asn Met Gly Ala Ala Glu Met Gln Gln Lys  
 500 505 510

Ser Val

&lt;210&gt; 855

&lt;211&gt; 1071

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 855

```

atggagttgg atcttacacc taagttgccc aagaaggttt acggaggaga tggatggatct 60
tactctgcct ggtgcccaga ggagttgccg atgctcaaac agggtaacat tggagccgct 120
aagcttgctc ttgagaagaa tggcttcgct gtccctcggt actctgattc ctctaaggtc 180
gcttatgttc ttcaaggatc tggaactgct ggaattgttc tcccagagaa ggaggagaag 240
gtgatcgcaa tcaagcaagg tgattcgatt gctcttcctt ttggtgtggt cacatggtgg 300
ttcaacaacg aggatcctga gcttggttatc ctcttccttg gtgaaaccca caagggtcac 360
aaagcagggc agttcactga gttctatctt actggcacia acggtatctt cactgggtttc 420
tccactgagt ttgttggcag agcctgggac cttgatgaga acaccgtgaa gaaacttggt 480
ggttctcaaa ccggtaatgg cattgtgaag cttgatgcgg gctttaagat gccacagccc 540
aaggaggaga accgtgctgg gtttgtcttg aactgttttg aggctcctct tgatgtagac 600
atcaaggatg gaggcagggt cgttgtcttg aacaccaaga accttccttt ggttggagag 660
gttggctttg gagctgatct tgttcggatc gatgcacact ccatgtgttc gcctgggtttc 720
tcttgtgact ctgctcttca ggtgacttac attgtgggtg gaagtggaag agtccagggtg 780
gttgggtggt atgggaaaag agttcttgag acccatatca aagctgggtc tctcttcatt 840
gttccaaggt tctttgtggt ttctaagatt gctgatgctg atggcatgtc ttggttctcc 900
attgtcacca ctctgatcc gatcttcaca ctttggccg ggaatacatc ggtgtggaag 960
tctttgtccc ctgaggtttt gcaggcagcg ttttaaggtg ctccggaggt ggagaagtcc 1020
ttccgatcca cgaggacttc atcagccatt ttcttccttc cttccaactg a 1071

```

&lt;210&gt; 856

&lt;211&gt; 356

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 856

```

Met Glu Leu Asp Leu Thr Pro Lys Leu Pro Lys Lys Val Tyr Gly Gly
 1      5      10      15
Asp Gly Gly Ser Tyr Ser Ala Trp Cys Pro Glu Glu Leu Pro Met Leu
 20      25      30
Lys Gln Gly Asn Ile Gly Ala Ala Lys Leu Ala Leu Glu Lys Asn Gly
 35      40      45
Phe Ala Val Pro Arg Tyr Ser Asp Ser Ser Lys Val Ala Tyr Val Leu
 50      55      60
Gln Gly Ser Gly Thr Ala Gly Ile Val Leu Pro Glu Lys Glu Glu Lys
 65      70      75      80
Val Ile Ala Ile Lys Gln Gly Asp Ser Ile Ala Leu Pro Phe Gly Val
 85      90      95
Val Thr Trp Trp Phe Asn Asn Glu Asp Pro Glu Leu Val Ile Leu Phe
100      105      110
Leu Gly Glu Thr His Lys Gly His Lys Ala Gly Gln Phe Thr Glu Phe
115      120      125
Tyr Leu Thr Gly Thr Asn Gly Ile Phe Thr Gly Phe Ser Thr Glu Phe
130      135      140
Val Gly Arg Ala Trp Asp Leu Asp Glu Asn Thr Val Lys Lys Leu Val
145      150      155      160
Gly Ser Gln Thr Gly Asn Gly Ile Val Lys Leu Asp Ala Gly Phe Lys
165      170      175
Met Pro Gln Pro Lys Glu Glu Asn Arg Ala Gly Phe Val Leu Asn Cys
180      185      190
Leu Glu Ala Pro Leu Asp Val Asp Ile Lys Asp Gly Gly Arg Val Val
195      200      205
Val Leu Asn Thr Lys Asn Leu Pro Leu Val Gly Glu Val Gly Phe Gly
210      215      220
Ala Asp Leu Val Arg Ile Asp Ala His Ser Met Cys Ser Pro Gly Phe
225      230      235      240

```



Ser Cys Asp Ser Ala Leu Gln Val Thr Tyr Ile Val Gly Gly Ser Gly  
245 250 255

Arg Val Gln Val Val Gly Gly Asp Gly Lys Arg Val Leu Glu Thr His  
260 265 270

Ile Lys Ala Gly Ser Leu Phe Ile Val Pro Arg Phe Phe Val Val Ser  
275 280 285

Lys Ile Ala Asp Ala Asp Gly Met Ser Trp Phe Ser Ile Val Thr Thr  
290 295 300

Pro Asp Pro Ile Phe Thr His Leu Ala Gly Asn Thr Ser Val Trp Lys  
305 310 315 320

Ser Leu Ser Pro Glu Val Leu Gln Ala Ala Phe Lys Val Ala Pro Glu  
325 330 335

Val Glu Lys Ser Phe Arg Ser Thr Arg Thr Ser Ser Ala Ile Phe Phe  
340 345 350

Pro Pro Ser Asn  
355

<210> 857

<211> 2430

<212> DNA

<213> Arabidopsis thaliana

<400> 857

atgtctaccc cagctgaatc ttcagactcg aaatcgaaga aagatttcag tactgctatt	60
ctcgagagga agaagtctcc gaaccgtctc gtcgtcgatg aggctatcaa cgatgataac	120
tccgtcgtct ctcttcaccc tgcaaccatg gagaagcttc agctcttccg tggatgatacc	180
attctcatca agggtaagaa gaggaaggac actgtctgca ttgctcttgc tgatgagaca	240
tgtgaggagc caaagatcag aatgaataaa gtagtcagat ctaacttgag ggtagactg	300
ggagatgtta tatctgttca ccaatgccca gacgtcaagt acggaagcg tgttcacatc	360
ctgcctgttg atgatactgt tgaaggagtg actggaaacc tatttgatgc ttacctgaaa	420
ccttatttcc ttgaggcata ccgtccagtg aggaagggtg atctcttcct agtcagagga	480
ggaatgagga gtgtggagtt caaagttata gagacagatc ctgctgagta ctgcgtgggtt	540
gctccagaca cagagatctt ctgtgagggt gagcctgtga agagagagga tgaagaaagg	600

ctagatgatg taggttatga tgatgttggt ggtgtcagga aacagatggc tcagattagg	660
gaacttggtg aacttccctt gaggcattca cagctattca agtcgattgg tgttaagcca	720
ccgaagggaa ttcttcttta tggaccacct ggggtctggaa agactttgat cgctcgtgct	780
gtggctaata aaacgggtgc ctttttcttc tgtatcaacg gacctgagat catgtccaaa	840
ttggctggtg agagtgagag caacctcagg aaagcattcg aggaggctga gaaaaatgcg	900
ccttcaatca tattcattga tgagatcgac tctattgcac cgaaaagaga gaagactaat	960
ggagagggtg agaggaggat tgtctctcag ctcccttacgc taatggatgg actgaaatct	1020
cgtgctcatg ttatcgtcat gggagcaacc aatcgcccca acagtatcga cccagctttg	1080
agaaggtttg gaagatttga caggagatc gatattggag ttcctgacga aattggacgt	1140
cttgaagtcc tgaggatcca tacaagaac atgaagctgg ctgaagatgt ggatctcgaa	1200
aggatctcaa aggacacaca cggttacgtc ggtgctgac ttgcagcttt gtgcacagag	1260
gccgccctgc aatgcatcag ggagaagatg gatgtgattg atctggaaga tgactccata	1320
gacgctgaaa tcctcaattc catggcagtc actaatgaac atttccacac tgctctcggg	1380
aacagcaacc catctgcact tcgtgaaact gttgtggagg ttcccaacgt ctcttggaat	1440
gatattggag gtcttgagaa tgtcaagaga gagctccagg agactgttca ataccagtc	1500
gagcaccag agaagtttga gaaattcggg atgtctccat caaaggaggt ccttttctac	1560
ggtcctcctg gatgtgggaa aacccttttg gccaaagcta ttgccaacga gtgccaagct	1620
aatttcatca gtgtcaaggg tcccgagctt ctgacaatgt ggtttgagaga gagtgaagca	1680
aatgttcgtg aaatcttcga caaggccgt caatccgtc catgtgttct tttctttgat	1740
gagctcgact ccattgcaac tcagagagga ggtggaagtg gtggcgatgg aggtggtgct	1800
gcggacagag tcttgaacca gcttttgact gagatggacg gaatgaatgc caagaaaacc	1860
gtcttcatca tcggagctac caacagacct gacattatcg attcagctct tctccgtcct	1920
ggaaggcttg accagctcat ttacattcca ctaccagatg aggattcccg tctcaatatc	1980
ttcaaggccg ccttgaggaa atctcctatt gctaaagatg tagacatcgg tgcacttgct	2040
aaatacactc agggtttcag tgggtgctgat atcactgaga tttgccagag agcttgcaag	2100
tacgccatca gagaaaacat tgagaaggac attgaaaagg agaagaggag gagcgagaac	2160
ccagaggcaa tggaggaaga tggagtggat gaagtatcag agatcaaagc tgcacacttt	2220
gaggagtcga tgaagtatgc gcgtaggagt gtgagtgatg cagacatcag gaagtaccaa	2280
gcctttgctc agacgttgca gcagtctaga gggttcgggt ctgagttcag gttcgagaat	2340
tctgctgggt caggtgccac cactggagtc gcagatccgt ttgccacgtc tgcagccgct	2400
gctggggacg atgatgatct ctacaattag	2430

&lt;210&gt; 858

&lt;211&gt; 809

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 858

Met Ser Thr Pro Ala Glu Ser Ser Asp Ser Lys Ser Lys Lys Asp Phe  
 1 5 10 15

Ser Thr Ala Ile Leu Glu Arg Lys Lys Ser Pro Asn Arg Leu Val Val  
 20 25 30

Asp Glu Ala Ile Asn Asp Asp Asn Ser Val Val Ser Leu His Pro Ala  
 35 40 45

Thr Met Glu Lys Leu Gln Leu Phe Arg Gly Asp Thr Ile Leu Ile Lys  
 50 55 60

Gly Lys Lys Arg Lys Asp Thr Val Cys Ile Ala Leu Ala Asp Glu Thr  
 65 70 75 80

Cys Glu Glu Pro Lys Ile Arg Met Asn Lys Val Val Arg Ser Asn Leu  
 85 90 95

Arg Val Arg Leu Gly Asp Val Ile Ser Val His Gln Cys Pro Asp Val  
 100 105 110

Lys Tyr Gly Lys Arg Val His Ile Leu Pro Val Asp Asp Thr Val Glu  
 115 120 125

Gly Val Thr Gly Asn Leu Phe Asp Ala Tyr Leu Lys Pro Tyr Phe Leu  
 130 135 140

Glu Ala Tyr Arg Pro Val Arg Lys Gly Asp Leu Phe Leu Val Arg Gly  
 145 150 155 160

Gly Met Arg Ser Val Glu Phe Lys Val Ile Glu Thr Asp Pro Ala Glu  
 165 170 175

Tyr Cys Val Val Ala Pro Asp Thr Glu Ile Phe Cys Glu Gly Glu Pro  
 180 185 190

Val Lys Arg Glu Asp Glu Glu Arg Leu Asp Asp Val Gly Tyr Asp Asp  
 195 200 205

047-E2F-PCT.ST25.txt

Val Gly Gly Val Arg Lys Gln Met Ala Gln Ile Arg Glu Leu Val Glu  
 210 215 220  
 Leu Pro Leu Arg His Pro Gln Leu Phe Lys Ser Ile Gly Val Lys Pro  
 225 230 235 240  
 Pro Lys Gly Ile Leu Leu Tyr Gly Pro Pro Gly Ser Gly Lys Thr Leu  
 245 250 255  
 Ile Ala Arg Ala Val Ala Asn Glu Thr Gly Ala Phe Phe Phe Cys Ile  
 260 265 270  
 Asn Gly Pro Glu Ile Met Ser Lys Leu Ala Gly Glu Ser Glu Ser Asn  
 275 280 285  
 Leu Arg Lys Ala Phe Glu Glu Ala Glu Lys Asn Ala Pro Ser Ile Ile  
 290 295 300  
 Phe Ile Asp Glu Ile Asp Ser Ile Ala Pro Lys Arg Glu Lys Thr Asn  
 305 310 315 320  
 Gly Glu Val Glu Arg Arg Ile Val Ser Gln Leu Leu Thr Leu Met Asp  
 325 330 335  
 Gly Leu Lys Ser Arg Ala His Val Ile Val Met Gly Ala Thr Asn Arg  
 340 345 350  
 Pro Asn Ser Ile Asp Pro Ala Leu Arg Arg Phe Gly Arg Phe Asp Arg  
 355 360 365  
 Glu Ile Asp Ile Gly Val Pro Asp Glu Ile Gly Arg Leu Glu Val Leu  
 370 375 380  
 Arg Ile His Thr Lys Asn Met Lys Leu Ala Glu Asp Val Asp Leu Glu  
 385 390 395 400  
 Arg Ile Ser Lys Asp Thr His Gly Tyr Val Gly Ala Asp Leu Ala Ala  
 405 410 415  
 Leu Cys Thr Glu Ala Ala Leu Gln Cys Ile Arg Glu Lys Met Asp Val  
 420 425 430  
 Ile Asp Leu Glu Asp Asp Ser Ile Asp Ala Glu Ile Leu Asn Ser Met  
 435 440 445  
 Ala Val Thr Asn Glu His Phe His Thr Ala Leu Gly Asn Ser Asn Pro  
 450 455 460

047-E2F-PCT.ST25.txt

Ser Ala Leu Arg Glu Thr Val Val Glu Val Pro Asn Val Ser Trp Asn  
465 470 475 480

Asp Ile Gly Gly Leu Glu Asn Val Lys Arg Glu Leu Gln Glu Thr Val  
485 490 495

Gln Tyr Pro Val Glu His Pro Glu Lys Phe Glu Lys Phe Gly Met Ser  
500 505 510

Pro Ser Lys Gly Val Leu Phe Tyr Gly Pro Pro Gly Cys Gly Lys Thr  
515 520 525

Leu Leu Ala Lys Ala Ile Ala Asn Glu Cys Gln Ala Asn Phe Ile Ser  
530 535 540

Val Lys Gly Pro Glu Leu Leu Thr Met Trp Phe Gly Glu Ser Glu Ala  
545 550 555 560

Asn Val Arg Glu Ile Phe Asp Lys Ala Arg Gln Ser Ala Pro Cys Val  
565 570 575

Leu Phe Phe Asp Glu Leu Asp Ser Ile Ala Thr Gln Arg Gly Gly Gly  
580 585 590

Ser Gly Gly Asp Gly Gly Gly Ala Ala Asp Arg Val Leu Asn Gln Leu  
595 600 605

Leu Thr Glu Met Asp Gly Met Asn Ala Lys Lys Thr Val Phe Ile Ile  
610 615 620

Gly Ala Thr Asn Arg Pro Asp Ile Ile Asp Ser Ala Leu Leu Arg Pro  
625 630 635 640

Gly Arg Leu Asp Gln Leu Ile Tyr Ile Pro Leu Pro Asp Glu Asp Ser  
645 650 655

Arg Leu Asn Ile Phe Lys Ala Ala Leu Arg Lys Ser Pro Ile Ala Lys  
660 665 670

Asp Val Asp Ile Gly Ala Leu Ala Lys Tyr Thr Gln Gly Phe Ser Gly  
675 680 685

Ala Asp Ile Thr Glu Ile Cys Gln Arg Ala Cys Lys Tyr Ala Ile Arg  
690 695 700

Glu Asn Ile Glu Lys Asp Ile Glu Lys Glu Lys Arg Arg Ser Glu Asn

705                      710                      715                      720  
 Pro Glu Ala Met Glu Glu Asp Gly Val Asp Glu Val Ser Glu Ile Lys  
                               725                                730                                735  
 Ala Ala His Phe Glu Glu Ser Met Lys Tyr Ala Arg Arg Ser Val Ser  
                               740                                745                                750  
 Asp Ala Asp Ile Arg Lys Tyr Gln Ala Phe Ala Gln Thr Leu Gln Gln  
                               755                                760                                765  
 Ser Arg Gly Phe Gly Ser Glu Phe Arg Phe Glu Asn Ser Ala Gly Ser  
                               770                                775                                780  
 Gly Ala Thr Thr Gly Val Ala Asp Pro Phe Ala Thr Ser Ala Ala Ala  
                               785                                790                                795                                800  
 Ala Gly Asp Asp Asp Asp Leu Tyr Asn  
                               805

<210> 859

<211> 1461

<212> DNA

<213> Arabidopsis thaliana

<400> 859

```

atggcgtag catcaaccac gttgccgacg aagtccggat tatctctttg gtgtccgtct      60
tctccgtctc tcgctcgccg atttcccgtc cgtttttctc cgatcggttc tagaatcgct      120
tccagaagcc tcgtcactgc ttcgttcgct aacgagaatc gcgagtttgt gattgttggt      180
ggaggaaatg ctgctggtta tgctgctaga acttttgttg aaaatggaat ggctgatggt      240
cggctatgca ttgtgaccaa agaggcttac gcaccttatg agagaccggc tttgacaaaa      300
gcttacttgt tcccaccaga gaagaagcca gctcgtttac caggatttca tacttgcggt      360
ggaggtggtg gagaaaggca aacaccagat tgggtataagg agaaaggaat tgaggtaata      420
tatgaagatc cagtggctgg agctgatttt gaaaagcaaa cactcaccac agacgcaggg      480
aagcagttaa aatatggatc tctaattatc gctacagggg gtacagcctc aaggttccca      540
gataaaatcg gtgggcactt gccagggggt cactatatctc gggagggttg agatgctgat      600
tctactgatag catctctggg aaaggcaaag aaaattgtca ttgttggttg tggctacatc      660
ggcatggagg ttgctgctgc agctgttgcg tggaatctag atacaacgat tgtattccct      720
gaagatcagc ttttgcaaag attgttcact ccatcgcttg ctcagaaata tgaagaactg      780

```

047-E2F-PCT.ST25.txt

taccgtcaaa atggtgttaa gtttgtcaag ggcgcttcca taaataactt ggaagcaggt 840  
tcggatgggc gtgtatcagc tgtaaagctt gctgatgggt ctacaattga ggcagacacg 900  
gttgtaattg gaattggagc taagcctgct attggcccct ttgaaacttt ggccatgaac 960  
aaatcaattg gaggaattca ggtcgatggc ttgttcagga caagtacccc tggaattttt 1020  
gctattggag atgtcgcagc cttccctttg aagatatatg ataggatgac tcgagttgaa 1080  
catgttgatc acgcccgcgc ctctgcacaa cactgtgtga aatcactact cacggcacac 1140  
actgacacgt acgattatct tccatatttc tactcaagag tattcgagta tgaaggaagc 1200  
ccaagaaaag tgtggtggca gtttttcgga gataatgtgg gagaaacagt ggaggttggg 1260  
aactttgacc cgaaaatcgc taccttctgg attgaatctg gcaggttgaa aggtgttcta 1320  
gtagaaagcg gatcgctga ggagttccag cttctaccaa agctagcaag aagccaacca 1380  
cttgctgata aggctaaact cgcaagcgca tcttcagtcg aagaagctct cgagattgct 1440  
caagccgctc tacagagtta g 1461

<210> 860

<211> 486

<212> PRT

<213> Arabidopsis thaliana

<400> 860

Met Ala Leu Ala Ser Thr Thr Leu Pro Thr Lys Ser Gly Leu Ser Leu  
1 5 10 15

Trp Cys Pro Ser Ser Pro Ser Leu Ala Arg Arg Phe Pro Ala Arg Phe  
20 25 30

Ser Pro Ile Gly Ser Arg Ile Ala Ser Arg Ser Leu Val Thr Ala Ser  
35 40 45

Phe Ala Asn Glu Asn Arg Glu Phe Val Ile Val Gly Gly Gly Asn Ala  
50 55 60

Ala Gly Tyr Ala Ala Arg Thr Phe Val Glu Asn Gly Met Ala Asp Gly  
65 70 75 80

Arg Leu Cys Ile Val Thr Lys Glu Ala Tyr Ala Pro Tyr Glu Arg Pro  
85 90 95

Ala Leu Thr Lys Ala Tyr Leu Phe Pro Pro Glu Lys Lys Pro Ala Arg  
Page 1345

100  
 105  
 110  
 Leu Pro Gly Phe His Thr Cys Val Gly Gly Gly Gly Glu Arg Gln Thr  
 115 120 125  
 Pro Asp Trp Tyr Lys Glu Lys Gly Ile Glu Val Ile Tyr Glu Asp Pro  
 130 135 140  
 Val Ala Gly Ala Asp Phe Glu Lys Gln Thr Leu Thr Thr Asp Ala Gly  
 145 150 155 160  
 Lys Gln Leu Lys Tyr Gly Ser Leu Ile Ile Ala Thr Gly Cys Thr Ala  
 165 170 175  
 Ser Arg Phe Pro Asp Lys Ile Gly Gly His Leu Pro Gly Val His Tyr  
 180 185 190  
 Ile Arg Glu Val Ala Asp Ala Asp Ser Leu Ile Ala Ser Leu Gly Lys  
 195 200 205  
 Ala Lys Lys Ile Val Ile Val Gly Gly Gly Tyr Ile Gly Met Glu Val  
 210 215 220  
 Ala Ala Ala Ala Val Ala Trp Asn Leu Asp Thr Thr Ile Val Phe Pro  
 225 230 235 240  
 Glu Asp Gln Leu Leu Gln Arg Leu Phe Thr Pro Ser Leu Ala Gln Lys  
 245 250 255  
 Tyr Glu Glu Leu Tyr Arg Gln Asn Gly Val Lys Phe Val Lys Gly Ala  
 260 265 270  
 Ser Ile Asn Asn Leu Glu Ala Gly Ser Asp Gly Arg Val Ser Ala Val  
 275 280 285  
 Lys Leu Ala Asp Gly Ser Thr Ile Glu Ala Asp Thr Val Val Ile Gly  
 290 295 300  
 Ile Gly Ala Lys Pro Ala Ile Gly Pro Phe Glu Thr Leu Ala Met Asn  
 305 310 315 320  
 Lys Ser Ile Gly Gly Ile Gln Val Asp Gly Leu Phe Arg Thr Ser Thr  
 325 330 335  
 Pro Gly Ile Phe Ala Ile Gly Asp Val Ala Ala Phe Pro Leu Lys Ile  
 340 345 350



Tyr Asp Arg Met Thr Arg Val Glu His Val Asp His Ala Arg Arg Ser  
 355 360 365

Ala Gln His Cys Val Lys Ser Leu Leu Thr Ala His Thr Asp Thr Tyr  
 370 375 380

Asp Tyr Leu Pro Tyr Phe Tyr Ser Arg Val Phe Glu Tyr Glu Gly Ser  
 385 390 395 400

Pro Arg Lys Val Trp Trp Gln Phe Phe Gly Asp Asn Val Gly Glu Thr  
 405 410 415

Val Glu Val Gly Asn Phe Asp Pro Lys Ile Ala Thr Phe Trp Ile Glu  
 420 425 430

Ser Gly Arg Leu Lys Gly Val Leu Val Glu Ser Gly Ser Pro Glu Glu  
 435 440 445

Phe Gln Leu Leu Pro Lys Leu Ala Arg Ser Gln Pro Leu Val Asp Lys  
 450 455 460

Ala Lys Leu Ala Ser Ala Ser Ser Val Glu Glu Ala Leu Glu Ile Ala  
 465 470 475 480

Gln Ala Ala Leu Gln Ser  
 485

<210> 861

<211> 2322

<212> DNA

<213> Arabidopsis thaliana

<400> 861

atgcagagac cacctcctga agatttctcc ttgaaggaga cgagacctca tctaggtgga	60
ggaaaactct ctggagataa gcttaccagt acttatgacc ttgttgagca aatgcagtat	120
ctctatgttc gtgtggttaa ggcaaaggag ttacctggca aggatatgac tggtagttgt	180
gacccttatg ttgaggttaa gcttggaac tacaaaggca ccactaggca tttcgagaag	240
aaatctaadc ctgagtggaa ccaagttttc gccttttcta aagataggat tcaagcttct	300
ttccttgaag ctactgtcaa ggacaaggat tttgtcaaag atgatttgat tggtcggggt	360
gtctttgatt tgaatgaggt acctaagaga gttcctcctg atagtccttt ggctccgcaa	420
tggtataggc tcgaggatag gaaaggtgat aaagtcaagg gagagcttat gttggctggt	480

tggttttgga	ctcaagctga	tgaagctttc	cctgaagctt	ggcactctga	tgctgcaact	540
gttagtgga	ctgatgctct	tgccaacatc	cgttccaagg	tttatctttc	tcctaagctt	600
tggtacctca	gggttaatgt	aattgaagct	caagatttga	taccaactga	taagcaaaga	660
tatcccagg	tttatgtgaa	ggctatagtg	ggaaaccagg	cgttgaggac	tagagtatcg	720
cagagcagga	ctattaatcc	catgtggaat	gaggatttga	tgtttgctgc	agcagagcca	780
tttgaggaac	ctttgatcct	cagcgtggaa	gatagagttg	ctccaaacaa	agatgaagtc	840
ttggggagat	gtgcatccc	gttgacagt	ttggacagaa	gatttgacca	taaaccggtg	900
aacagcaggt	ggtacaatct	cgagaagcat	attatggctg	atggagagaa	gaaggagacc	960
aaattcgcta	gcaggattca	catgagaata	tgtttggaag	gagggtatca	cgttctcgat	1020
gagtctacgc	attacagcag	tgatcttaga	ccaacagcga	agcaactatg	gaagcctaata	1080
atcgggtgtac	tggagttggg	gatactgaat	gctacaggtc	tgatgcctat	gaaaacccaaa	1140
gacggccggg	gaaccacaga	tgcatattgt	gtggcgaagt	acggacagaa	atggattcga	1200
actcggacaa	tcattgacag	ctttacacca	agatggaatg	agcaatatac	ttgggaggtt	1260
tttgatccgt	gcaccgttgt	tactgttgga	gtttttgata	actgccatct	ccatggaggt	1320
gagaagattg	gaggagcaaa	agattcaaga	atcgggaagg	taagaatcag	gctttctact	1380
ctcgagactg	atcgagttta	tacacattca	taccctcttt	tggtgctcca	tcctaacgga	1440
gtcaagaaaa	tgggagaaat	tcacttagct	gtgagattca	cttgctcttc	attgctcaac	1500
atgatgtata	tgtactcaca	gcctctctta	ccgaagatgc	attatatcca	tccactgacg	1560
gttagccagc	ttgataactt	gaggcatcaa	gcgactcaga	ttgtatcgat	gaggctgacc	1620
cgagcagaac	cacctctaag	gaaagaagta	gttgagtata	tgcttgatgt	gggttctcac	1680
atgtggagta	tgcggagaag	caaagcaaac	tttttcagga	ttatgggagt	tttgagtggg	1740
ttaatcgag	taggaaaatg	gtttgaacaa	atctgcaact	ggaagaatcc	aatcacaaca	1800
gtcttgatcc	atctcttggt	catcatcctt	gtgctctatc	ccgaactaat	cttgcccacc	1860
atcttctctt	acctcttctt	catcgggtatc	tggtactacc	gttggagacc	gaggcatcct	1920
cctcacatgg	acacacgtct	ctctcacgct	gactcagccc	accccgacga	gctagatgaa	1980
gagttcgaca	cttttcctac	ttcccagaca	tctgacatag	tcaggatgag	gtatgacagg	2040
ttgaggagta	ttgctggtag	gattcagaca	gtggtagggtg	atctagcaac	tcaaggagaa	2100
aggcttcagt	ctctgctaag	ctggcgtgat	ccgcgtgcaa	cagcgtctct	cgtcttggtc	2160
tgcttgattg	ccgcagtcac	tctctatgtg	acacctttcc	aggttgtggc	tctttgtatt	2220
ggaatctatg	ctctgagaca	tccgaggttc	agatacaaac	taccatccgt	tcctctcaat	2280
ttcttcagaa	ggcttcctgc	aagaactgat	tgcatgctct	ga		2322

&lt;210&gt; 862

&lt;211&gt; 773

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 862

Met Gln Arg Pro Pro Pro Glu Asp Phe Ser Leu Lys Glu Thr Arg Pro  
 1 5 10 15

His Leu Gly Gly Gly Lys Leu Ser Gly Asp Lys Leu Thr Ser Thr Tyr  
 20 25 30

Asp Leu Val Glu Gln Met Gln Tyr Leu Tyr Val Arg Val Val Lys Ala  
 35 40 45

Lys Glu Leu Pro Gly Lys Asp Met Thr Gly Ser Cys Asp Pro Tyr Val  
 50 55 60

Glu Val Lys Leu Gly Asn Tyr Lys Gly Thr Thr Arg His Phe Glu Lys  
 65 70 75 80

Lys Ser Asn Pro Glu Trp Asn Gln Val Phe Ala Phe Ser Lys Asp Arg  
 85 90 95

Ile Gln Ala Ser Phe Leu Glu Ala Thr Val Lys Asp Lys Asp Phe Val  
 100 105 110

Lys Asp Asp Leu Ile Gly Arg Val Val Phe Asp Leu Asn Glu Val Pro  
 115 120 125

Lys Arg Val Pro Pro Asp Ser Pro Leu Ala Pro Gln Trp Tyr Arg Leu  
 130 135 140

Glu Asp Arg Lys Gly Asp Lys Val Lys Gly Glu Leu Met Leu Ala Val  
 145 150 155 160

Trp Phe Gly Thr Gln Ala Asp Glu Ala Phe Pro Glu Ala Trp His Ser  
 165 170 175

Asp Ala Ala Thr Val Ser Gly Thr Asp Ala Leu Ala Asn Ile Arg Ser  
 180 185 190

Lys Val Tyr Leu Ser Pro Lys Leu Trp Tyr Leu Arg Val Asn Val Ile  
 195 200 205

047-E2F-PCT.ST25.txt

Glu Ala Gln Asp Leu Ile Pro Thr Asp Lys Gln Arg Tyr Pro Glu Val  
 210 215 220  
 Tyr Val Lys Ala Ile Val Gly Asn Gln Ala Leu Arg Thr Arg Val Ser  
 225 230 235 240  
 Gln Ser Arg Thr Ile Asn Pro Met Trp Asn Glu Asp Leu Met Phe Val  
 245 250 255  
 Ala Ala Glu Pro Phe Glu Glu Pro Leu Ile Leu Ser Val Glu Asp Arg  
 260 265 270  
 Val Ala Pro Asn Lys Asp Glu Val Leu Gly Arg Cys Ala Ile Pro Leu  
 275 280 285  
 Gln Tyr Leu Asp Arg Arg Phe Asp His Lys Pro Val Asn Ser Arg Trp  
 290 295 300  
 Tyr Asn Leu Glu Lys His Ile Met Val Asp Gly Glu Lys Lys Glu Thr  
 305 310 315 320  
 Lys Phe Ala Ser Arg Ile His Met Arg Ile Cys Leu Glu Gly Gly Tyr  
 325 330 335  
 His Val Leu Asp Glu Ser Thr His Tyr Ser Ser Asp Leu Arg Pro Thr  
 340 345 350  
 Ala Lys Gln Leu Trp Lys Pro Asn Ile Gly Val Leu Glu Leu Gly Ile  
 355 360 365  
 Leu Asn Ala Thr Gly Leu Met Pro Met Lys Thr Lys Asp Gly Arg Gly  
 370 375 380  
 Thr Thr Asp Ala Tyr Cys Val Ala Lys Tyr Gly Gln Lys Trp Ile Arg  
 385 390 395 400  
 Thr Arg Thr Ile Ile Asp Ser Phe Thr Pro Arg Trp Asn Glu Gln Tyr  
 405 410 415  
 Thr Trp Glu Val Phe Asp Pro Cys Thr Val Val Thr Val Gly Val Phe  
 420 425 430  
 Asp Asn Cys His Leu His Gly Gly Glu Lys Ile Gly Gly Ala Lys Asp  
 435 440 445  
 Ser Arg Ile Gly Lys Val Arg Ile Arg Leu Ser Thr Leu Glu Thr Asp  
 450 455 460

047-E2F-PCT.ST25.txt

Arg Val Tyr Thr His Ser Tyr Pro Leu Leu Val Leu His Pro Asn Gly  
465 470 475 480

Val Lys Lys Met Gly Glu Ile His Leu Ala Val Arg Phe Thr Cys Ser  
485 490 495

Ser Leu Leu Asn Met Met Tyr Met Tyr Ser Gln Pro Leu Leu Pro Lys  
500 505 510

Met His Tyr Ile His Pro Leu Thr Val Ser Gln Leu Asp Asn Leu Arg  
515 520 525

His Gln Ala Thr Gln Ile Val Ser Met Arg Leu Thr Arg Ala Glu Pro  
530 535 540

Pro Leu Arg Lys Glu Val Val Glu Tyr Met Leu Asp Val Gly Ser His  
545 550 555 560

Met Trp Ser Met Arg Arg Ser Lys Ala Asn Phe Phe Arg Ile Met Gly  
565 570 575

Val Leu Ser Gly Leu Ile Ala Val Gly Lys Trp Phe Glu Gln Ile Cys  
580 585 590

Asn Trp Lys Asn Pro Ile Thr Thr Val Leu Ile His Leu Leu Phe Ile  
595 600 605

Ile Leu Val Leu Tyr Pro Glu Leu Ile Leu Pro Thr Ile Phe Leu Tyr  
610 615 620

Leu Phe Leu Ile Gly Ile Trp Tyr Tyr Arg Trp Arg Pro Arg His Pro  
625 630 635 640

Pro His Met Asp Thr Arg Leu Ser His Ala Asp Ser Ala His Pro Asp  
645 650 655

Glu Leu Asp Glu Glu Phe Asp Thr Phe Pro Thr Ser Arg Pro Ser Asp  
660 665 670

Ile Val Arg Met Arg Tyr Asp Arg Leu Arg Ser Ile Ala Gly Arg Ile  
675 680 685

Gln Thr Val Val Gly Asp Leu Ala Thr Gln Gly Glu Arg Leu Gln Ser  
690 695 700

Leu Leu Ser Trp Arg Asp Pro Arg Ala Thr Ala Leu Phe Val Leu Phe  
Page 1351

705 710 720

Cys Leu Ile Ala Ala Val Ile Leu Tyr Val Thr Pro Phe Gln Val Val  
725 730 735

Ala Leu Cys Ile Gly Ile Tyr Ala Leu Arg His Pro Arg Phe Arg Tyr  
740 745 750

Lys Leu Pro Ser Val Pro Leu Asn Phe Phe Arg Arg Leu Pro Ala Arg  
755 760 765

Thr Asp Cys Met Leu  
770

<210> 863

<211> 660

<212> DNA

<213> Arabidopsis thaliana

<400> 863

atggctgcta attcgataat ggcttcctcc aaacccttaa tctccctgtc atccaaccaa	60
caaccaaacc gagtccaaat tcccaaattc gccaaacttc cccaaattcc caaatccctc	120
acttcctcca ccgatctccg tagcaaagca ctatcactct cctccgccac cgccaaatcc	180
ttagcttttaa tcgccgcttt cgctcctccg tcgatggcgg aggcgatgga gaaagcacag	240
ctcttcgatt tcaatctcac gcttcctgatc atcgttgttg agtttctctt cttgatgttc	300
gctctcgaca aggtctatta ctctccgctt ggtaacttca tggatcaaag agacgcttcc	360
atcaaagaga agctcgcgag tgtaaggac acttcgactg aagtaaagga gctcgatgag	420
caagccgccg ccgtgatgag agcagctagg gctgagatcg ccgccgcgct taacaagatg	480
aagaaggaga ctcaggttga agtcgaggag aagctagcgg agggaaggaa gaaggtggag	540
gaagagctaa aagaagcttt ggcgagcttg gagagtcaga aagaagaaac cattaaagct	600
ttggattctc agattgctgc tcttagtgaa gacattgtca agaaggttct tccttcttaa	660

<210> 864

<211> 219

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 864

```

Met Ala Ala Asn Ser Ile Met Ala Ser Ser Lys Pro Leu Ile Ser Leu
1      5      10      15

Ser Ser Asn Gln Gln Pro Asn Arg Val Gln Ile Pro Lys Phe Ala Lys
20      25      30

Leu Pro Gln Ile Pro Lys Ser Leu Thr Ser Ser Thr Asp Leu Arg Ser
35      40      45

Lys Ala Leu Ser Leu Ser Ser Ala Thr Ala Lys Ser Leu Ala Leu Ile
50      55      60

Ala Ala Phe Ala Pro Pro Ser Met Ala Glu Ala Met Glu Lys Ala Gln
65      70      75      80

Leu Phe Asp Phe Asn Leu Thr Leu Pro Ile Ile Val Val Glu Phe Leu
85      90      95

Phe Leu Met Phe Ala Leu Asp Lys Val Tyr Tyr Ser Pro Leu Gly Asn
100     105     110

Phe Met Asp Gln Arg Asp Ala Ser Ile Lys Glu Lys Leu Ala Ser Val
115     120     125

Lys Asp Thr Ser Thr Glu Val Lys Glu Leu Asp Glu Gln Ala Ala Ala
130     135     140

Val Met Arg Ala Ala Arg Ala Glu Ile Ala Ala Ala Leu Asn Lys Met
145     150     155     160

Lys Lys Glu Thr Gln Val Glu Val Glu Glu Lys Leu Ala Glu Gly Arg
165     170     175

Lys Lys Val Glu Glu Glu Leu Lys Glu Ala Leu Ala Ser Leu Glu Ser
180     185     190

Gln Lys Glu Glu Thr Ile Lys Ala Leu Asp Ser Gln Ile Ala Ala Leu
195     200     205

Ser Glu Asp Ile Val Lys Lys Val Leu Pro Ser
210     215

```

&lt;210&gt; 865

&lt;211&gt; 1740

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 865

```

atggaatctc caatattcat tctcatcaca ctatcattct ttcttcaatc agttcttgct      60
tcttttcaaa ctctatcaaa ctcttcaaca atctgcaaaa cgacgccgga tccaaagtat      120
tgcaaataccg tttttccaca tagccaaggc aatgttcaac aatacggctg tttctctatc      180
cgcaaatacgc tatcgcaatc gcgaaaattht attcgcaccg tcgatagata tatcaaacgc      240
aacgctcatt tatctcaacc tgccgttatc agagctctcc aagattgccg ttttctcgcc      300
ggcttaacaa tggattacct cttaacgtcg ttcgaaaccg ttaacgacac gtcagcaaaa      360
acctctttca aaccgctgtc gtttcccaaa gccgacgaca tccaaacgct tctttccgcg      420
gcgctgacta atgagcagac gtgtcttgaa ggacttacca cggccgcttc ttattccgcc      480
acgtggactg taagaaccgg cgctcgcttg cctctcgtca atgacacgaa gctcttgggc      540
gtctcactcg ctctcttcac caaaggttgg gttccaaaga agaagaaacg ggccgggttt      600
gcttgggccc aaccgagatc cggttcatcg acccacacta aaccattccg tctgttccgt      660
aacggagctc taccgttaaa gatgacagag aaaacaaaag cggtttacga gtcactcagc      720
agaagaaaac tcgccgacgg tgacagtaac ggtgatggag acgacggaag catggttctg      780
ataagcgata tcgttaccgt gagccaagac ggaacaggaa atttcaccaa catcacggca      840
gctgtagcgg cggcgccgaa caacaccgac ggaagcgccg gtttcttttt gatctatgtg      900
acggcgggaa tctacgaaga gtatatctca atcgcgaaaga acaaaaggta catgatgatg      960
ataggtgacg ggattaatca gacggtggtc accggaataa gaagcgtcgt cgacggttgg      1020
actactttca attccgccac atttgctgtg acagcaccga actttgttgc ggtgaacata      1080
acgttccgga acacggccgg accggagaag caccaggctg ttgcgttacg gagcggcgca      1140
gatttctcaa tcttctatag ttgtagtttc gaggccttatc aagatacact ctacacacat      1200
tctctaagac agttttatag agaatgcgat gtctatggaa cggtcgattt tatatttgga      1260
aacgcggcag ttgtgtttca aaactgtaat ttatacccga ggaaaccgat gccaaatcag      1320
ttcaatgcta tcaccgcca aggccggtct gatccgaacc agaacactgg tacatcaatc      1380
caaaactgta cgattaagcc ggcggatgat cttgtttcga gtaactatac agttaaaacg      1440
tatttgggtc gaccgtggaa agagtattca aggacggttt acatgcaatc gtacattgat      1500
ggtttcgttg aaccggttgg ttggagagaa tggaacggtg attttgcgtt aagtacattg      1560
tactatgcag agtataacaa taccggaccg ggctcaacaa ctacaaaccg ggttacatgg      1620
cctggttacc acgtgattaa ttccactgat gcagctaatt tcacggtcac tggtttattt      1680
atcgaagctg attggatttg gaagacagga gtgccttaca ccagcggctt aatttcatag      1740

```



&lt;210&gt; 866

&lt;211&gt; 579

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 866

Met Glu Ser Pro Ile Phe Ile Leu Ile Thr Leu Ser Phe Phe Leu Gln  
 1 5 10 15

Ser Val Leu Ala Ser Ser Gln Thr Leu Ser Asn Ser Ser Thr Ile Cys  
 20 25 30

Lys Thr Thr Pro Asp Pro Lys Tyr Cys Lys Ser Val Phe Pro His Ser  
 35 40 45

Gln Gly Asn Val Gln Gln Tyr Gly Cys Phe Ser Ile Arg Lys Ser Leu  
 50 55 60

Ser Gln Ser Arg Lys Phe Ile Arg Thr Val Asp Arg Tyr Ile Lys Arg  
 65 70 75 80

Asn Ala His Leu Ser Gln Pro Ala Val Ile Arg Ala Leu Gln Asp Cys  
 85 90 95

Arg Phe Leu Ala Gly Leu Thr Met Asp Tyr Leu Leu Thr Ser Phe Glu  
 100 105 110

Thr Val Asn Asp Thr Ser Ala Lys Thr Ser Phe Lys Pro Leu Ser Phe  
 115 120 125

Pro Lys Ala Asp Asp Ile Gln Thr Leu Leu Ser Ala Ala Leu Thr Asn  
 130 135 140

Glu Gln Thr Cys Leu Glu Gly Leu Thr Thr Ala Ala Ser Tyr Ser Ala  
 145 150 155 160

Thr Trp Thr Val Arg Thr Gly Val Ala Leu Pro Leu Val Asn Asp Thr  
 165 170 175

Lys Leu Leu Gly Val Ser Leu Ala Leu Phe Thr Lys Gly Trp Val Pro  
 180 185 190

Lys Lys Lys Lys Arg Ala Gly Phe Ala Trp Ala Gln Pro Arg Ser Gly  
 Page 1355

195

200

205

Ser Ser Thr His Thr Lys Pro Phe Arg Leu Phe Arg Asn Gly Ala Leu  
 210 215 220  
 Pro Leu Lys Met Thr Glu Lys Thr Lys Ala Val Tyr Glu Ser Leu Ser  
 225 230 235 240  
 Arg Arg Lys Leu Ala Asp Gly Asp Ser Asn Gly Asp Gly Asp Asp Gly  
 245 250 255  
 Ser Met Val Leu Ile Ser Asp Ile Val Thr Val Ser Gln Asp Gly Thr  
 260 265 270  
 Gly Asn Phe Thr Asn Ile Thr Ala Ala Val Ala Ala Ala Pro Asn Asn  
 275 280 285  
 Thr Asp Gly Ser Ala Gly Phe Phe Leu Ile Tyr Val Thr Ala Gly Ile  
 290 295 300  
 Tyr Glu Glu Tyr Ile Ser Ile Ala Lys Asn Lys Arg Tyr Met Met Met  
 305 310 315 320  
 Ile Gly Asp Gly Ile Asn Gln Thr Val Val Thr Gly Asn Arg Ser Val  
 325 330 335  
 Val Asp Gly Trp Thr Thr Phe Asn Ser Ala Thr Phe Ala Val Thr Ala  
 340 345 350  
 Pro Asn Phe Val Ala Val Asn Ile Thr Phe Arg Asn Thr Ala Gly Pro  
 355 360 365  
 Glu Lys His Gln Ala Val Ala Leu Arg Ser Gly Ala Asp Phe Ser Ile  
 370 375 380  
 Phe Tyr Ser Cys Ser Phe Glu Ala Tyr Gln Asp Thr Leu Tyr Thr His  
 385 390 395 400  
 Ser Leu Arg Gln Phe Tyr Arg Glu Cys Asp Val Tyr Gly Thr Val Asp  
 405 410 415  
 Phe Ile Phe Gly Asn Ala Ala Val Val Phe Gln Asn Cys Asn Leu Tyr  
 420 425 430  
 Pro Arg Lys Pro Met Pro Asn Gln Phe Asn Ala Ile Thr Ala Gln Gly  
 435 440 445

Arg Ser Asp Pro Asn Gln Asn Thr Gly Thr Ser Ile Gln Asn Cys Thr  
 450 455 460

Ile Lys Pro Ala Asp Asp Leu Val Ser Ser Asn Tyr Thr Val Lys Thr  
 465 470 475 480

Tyr Leu Gly Arg Pro Trp Lys Glu Tyr Ser Arg Thr Val Tyr Met Gln  
 485 490 495

Ser Tyr Ile Asp Gly Phe Val Glu Pro Val Gly Trp Arg Glu Trp Asn  
 500 505 510

Gly Asp Phe Ala Leu Ser Thr Leu Tyr Tyr Ala Glu Tyr Asn Asn Thr  
 515 520 525

Gly Pro Gly Ser Asn Thr Thr Asn Arg Val Thr Trp Pro Gly Tyr His  
 530 535 540

Val Ile Asn Ser Thr Asp Ala Ala Asn Phe Thr Val Thr Gly Leu Phe  
 545 550 555 560

Ile Glu Ala Asp Trp Ile Trp Lys Thr Gly Val Pro Tyr Thr Ser Gly  
 565 570 575

Leu Ile Ser

<210> 867

<211> 651

<212> DNA

<213> Arabidopsis thaliana

<400> 867

atgaagctcg cgcctagcct caaccgcctc agccccaac gtctcttccg taccaaatca	60
aaagcttccg tctccagatc tgagccttct tccttcagct ccaatgcttc ttcctcttcc	120
tctgatggat cttacggtaa cctcaaaca ggtccaaccg cgactccgat cagtgttctc	180
cctcaaaact ccggcgatctt ttacactgag cttgttcaag cttttaaact gatcgatcgt	240
gatgacgacg gtgtttgtttc cagaggagat ctcgcggcgt tgattagcag gttaagtcac	300
gaaccaccga gtcaagaaga ggtgagtttg atgctaagag aagtagacgg cggagacggt	360
ggttgtatca gccttgaaga tcttgctagc cgtgtcgtcg gtacttccgg tgaaggctct	420
gttgagacgg aggagctgag agaggtgttc gagatttttg acgtggatcg taacggaaaa	480

atatacggcgg aggagttaca cagagttttt ggagtgatcg gagatgaacg gtgcacgtta 540  
gaagagtgta tgcgtatgat agcgacgggt gatggaaacg gtgacggttt tgtttgcttc 600  
gatgactttt gccgcatgat ggttccagcg atgaatgatc atcatcatta g 651

<210> 868

<211> 216

<212> PRT

<213> Arabidopsis thaliana

<400> 868

Met Lys Leu Ala Ala Ser Leu Asn Arg Leu Ser Pro Lys Arg Leu Phe  
1 5 10 15  
Arg Thr Lys Ser Lys Ala Ser Val Ser Arg Ser Glu Pro Ser Ser Phe  
20 25 30  
Ser Ser Asn Ala Ser Ser Ser Ser Ser Asp Gly Ser Tyr Gly Asn Leu  
35 40 45  
Lys Gln Gly Pro Thr Ala Thr Pro Ile Ser Val Leu Pro Gln Asn Ser  
50 55 60  
Gly Asp Phe Tyr Thr Glu Leu Val Gln Ala Phe Lys Leu Ile Asp Arg  
65 70 75 80  
Asp Asp Asp Gly Val Val Ser Arg Gly Asp Leu Ala Ala Leu Ile Ser  
85 90 95  
Arg Leu Ser His Glu Pro Pro Ser Gln Glu Glu Val Ser Leu Met Leu  
100 105 110  
Arg Glu Val Asp Gly Gly Asp Gly Gly Cys Ile Ser Leu Glu Asp Leu  
115 120 125  
Ala Ser Arg Val Ala Gly Thr Ser Gly Glu Gly Ser Val Glu Thr Glu  
130 135 140  
Glu Leu Arg Glu Val Phe Glu Ile Phe Asp Val Asp Arg Asn Gly Lys  
145 150 155 160  
Ile Ser Ala Glu Glu Leu His Arg Val Phe Gly Val Ile Gly Asp Glu  
165 170 175

Arg Cys Thr Leu Glu Glu Cys Met Arg Met Ile Ala Thr Val Asp Gly  
180 185 190

Asn Gly Asp Gly Phe Val Cys Phe Asp Asp Phe Cys Arg Met Met Val  
195 200 205

Pro Ala Met Asn Asp His His His  
210 215

<210> 869

<211> 519

<212> DNA

<213> Arabidopsis thaliana

<400> 869

atggcgagat tcacggtgct gattacggcg gttgtgctag cttttctaataat ggcggcgccg	60
atgccaggag tgacggccaa gaagtataca gtcggcgaga acaagttttg gaacccaac	120
attaactaca ccatctgggc tcagggcaag cttttctacc tcggagactg gctctatttc	180
gtgttcgaca gaaaccagca caatattctt gaagtgaaca agactgacta tgaaggatgt	240
atcgccgacc acccaatacg caactggaca cgtggagctg ggagagacat tgtcactctc	300
aaccagacca agcattacta ctttctcgac ggaaaggggtg gatgttacgg tggcatgaag	360
ctatctgtta aagtagagaa gcttcctcct ccacaaaat ctgcacctgt caagaacatt	420
ggatcggttt caatggtcac aggtctcgct caattcatga ttccggtatc tctattcgct	480
ttccctgcaa tgtgggatgt gatctcaagg atgtggtag	519

<210> 870

<211> 172

<212> PRT

<213> Arabidopsis thaliana

<400> 870

Met Ala Arg Phe Thr Val Leu Ile Thr Ala Val Val Leu Ala Phe Leu  
1 5 10 15

Met Ala Ala Pro Met Pro Gly Val Thr Ala Lys Lys Tyr Thr Val Gly  
20 25 30

Glu Asn Lys Phe Trp Asn Pro Asn Ile Asn Tyr Thr Ile Trp Ala Gln  
Page 1359

35

40

45

Gly Lys His Phe Tyr Leu Gly Asp Trp Leu Tyr Phe Val Phe Asp Arg  
 50 55 60  
 Asn Gln His Asn Ile Leu Glu Val Asn Lys Thr Asp Tyr Glu Gly Cys  
 65 70 75 80  
 Ile Ala Asp His Pro Ile Arg Asn Trp Thr Arg Gly Ala Gly Arg Asp  
 85 90 95  
 Ile Val Thr Leu Asn Gln Thr Lys His Tyr Tyr Leu Leu Asp Gly Lys  
 100 105 110  
 Gly Gly Cys Tyr Gly Gly Met Lys Leu Ser Val Lys Val Glu Lys Leu  
 115 120 125  
 Pro Pro Pro Pro Lys Ser Ala Pro Val Lys Asn Ile Gly Ser Val Ser  
 130 135 140  
 Met Val Thr Gly Leu Ala Gln Phe Met Ile Pro Val Ser Leu Phe Ala  
 145 150 155 160  
 Phe Pro Ala Met Trp Asp Val Ile Ser Arg Met Trp  
 165 170

&lt;210&gt; 871

&lt;211&gt; 648

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 871

atgggtgttga caatctatgc tcctttattc gcttcttcaa agagagctgt tgtgacattg 60  
 gtggagaagg gagtatcatt cgaaactgtc aatgtcgatc tcatgaaagg agaacagaga 120  
 cagcctgagt atctcgcat tcagcctttc ggtaaaatcc cagtcctcgt cgacggagac 180  
 tacaaaatct tcgagtcgcg tgcgatcatg aggtatatag cagagaagta tagatcacia 240  
 ggacctgatc ttttggggaa gactattgaa gagagaggac aagtagagca atggtttagac 300  
 gttgaggcta caagttacca tccaccacta ttggctttta cgctcaacat tgtctttgca 360  
 ccacttatgg gtttccctgc tgatgagaaa gttattaagg agagtgaaga gaagcttgca 420  
 gaagtgcctg atgtctatga agctcagctt tctaagaacg aatacttggc tgggtgatttt 480  
 gtgagtctag ctgatttggc tcaccttcct ttcaccgagt atcttgttgg tcctattggg 540

aaggctcatt tgatcaaaga taggaagcat gtttagcgctt ggtgggataa gattagtagc 600  
 cgtgctgcgt ggaaggaggt ttccgctaag tactcactac ctgttttaa 648

<210> 872

<211> 215

<212> PRT

<213> Arabidopsis thaliana

<400> 872

Met Val Leu Thr Ile Tyr Ala Pro Leu Phe Ala Ser Ser Lys Arg Ala  
 1 5 10 15

Val Val Thr Leu Val Glu Lys Gly Val Ser Phe Glu Thr Val Asn Val  
 20 25 30

Asp Leu Met Lys Gly Glu Gln Arg Gln Pro Glu Tyr Leu Ala Ile Gln  
 35 40 45

Pro Phe Gly Lys Ile Pro Val Leu Val Asp Gly Asp Tyr Lys Ile Phe  
 50 55 60

Glu Ser Arg Ala Ile Met Arg Tyr Ile Ala Glu Lys Tyr Arg Ser Gln  
 65 70 75 80

Gly Pro Asp Leu Leu Gly Lys Thr Ile Glu Glu Arg Gly Gln Val Glu  
 85 90 95

Gln Trp Leu Asp Val Glu Ala Thr Ser Tyr His Pro Pro Leu Leu Ala  
 100 105 110

Leu Thr Leu Asn Ile Val Phe Ala Pro Leu Met Gly Phe Pro Ala Asp  
 115 120 125

Glu Lys Val Ile Lys Glu Ser Glu Glu Lys Leu Ala Glu Val Leu Asp  
 130 135 140

Val Tyr Glu Ala Gln Leu Ser Lys Asn Glu Tyr Leu Ala Gly Asp Phe  
 145 150 155 160

Val Ser Leu Ala Asp Leu Ala His Leu Pro Phe Thr Glu Tyr Leu Val  
 165 170 175

Gly Pro Ile Gly Lys Ala His Leu Ile Lys Asp Arg Lys His Val Ser  
 Page 1361

180

047-E2F-PCT.ST25.txt

185

190

Ala Trp Trp Asp Lys Ile Ser Ser Arg Ala Ala Trp Lys Glu Val Ser  
 195 200 205

Ala Lys Tyr Ser Leu Pro Val  
 210 215

&lt;210&gt; 873

&lt;211&gt; 1410

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 873

atggccatga aagctcccga tcccggcgga tctggggaaa ttctcccgag cactccctct	60
ctttccgaaa ctacgtctgg aggcgccgca gcagcttcta agtcgggtca attgccgtct	120
tcttcttccg atatcgataa tattcacgta cctagctact ccagttgggtt ttcattggacc	180
gacattaacg attgcgaggt ccggctactg ccggaatttt tcgattcgag atcttcatcc	240
aaaaacccta agttttatct ctacttgagg aactcgatta ttaagcagta cagagacgac	300
catcctcgga agattagttt cactgacgtt cggagaactc tcgtcagtga tgttgtctct	360
attcgtcgcy tctttgattt cctcgattca tggggactta tcaactataa tagctccgcc	420
tctgctaagc cgctcaagtg ggaagaaaaa gaggccggaa aatccgccgg agatgctgct	480
tctgagccag ccacaactgt caaagaaact gccaaagaaa actgcaatgg ctgcaaagca	540
atgtgcagca tagcttggtt cgctgtgat aagtatgact tgacattgtg tgcgaggtgc	600
tatgttcgta gtaattatcg tgttggtatt aactcctcgg agtttaaacy agttgagatt	660
agtgaggagt caaagccaga gtggtctgat aaggaaattc tgctgctgct ggaagctggt	720
atgcactatg gagatgattg gaagaagggt gcacgcgatg ttattggtag aacggagaag	780
gattgtgttt ctcatgttgt caagcttccg tttggggaac agtttgtaaa agagtctgac	840
tctgaggatg gtttagagat gtttgatcag atcaaggact ctgatattcc tgaatctgaa	900
ggaatagata aagacgggtt ttctcccaac aagcggatca aattaacacc tcttgcatat	960
gcaagcaacc caataatggc tcaggctgct tttctttcag ctttggtctg cacaatgtt	1020
gcagaagcag cagctcgagc ggcagtgaga gctttatctg atgtagacta cgaggctgac	1080
aaaaacgcca gtagagaccc aaatcgacaa gatgccaatg ctgcatcgag tgggtgaaacc	1140
actagaaacy aatctgaaag agcttgggca gatgcaaagt ctttaattga gaaggaagag	1200
catgaggtag aaggagcaat caaagagact gttgaagtgt agatgaagaa gatccgagat	1260



047-E2F-PCT.ST25.txt

aggattgttc atttcgagaa attggatttg gaaatggaga gaagccggaa acaattggag 1320  
gaggtgagga atctgctttt cgttgatcaa ttaaacattt tcttccacac cagaaaagcc 1380  
cggaactg aagatagaat agagtgttag 1410

<210> 874

<211> 469

<212> PRT

<213> Arabidopsis thaliana

<400> 874

Met Ala Met Lys Ala Pro Asp Pro Gly Gly Ser Gly Glu Ile Leu Pro  
1 5 10 15  
Ser Thr Pro Ser Leu Ser Glu Thr Thr Ser Gly Gly Ala Ala Ala Ala  
20 25 30  
Ser Lys Ser Ala Gln Leu Pro Ser Ser Ser Ser Asp Ile Asp Asn Ile  
35 40 45  
His Val Pro Ser Tyr Ser Ser Trp Phe Ser Trp Thr Asp Ile Asn Asp  
50 55 60  
Cys Glu Val Arg Ser Leu Pro Glu Phe Phe Asp Ser Arg Ser Ser Ser  
65 70 75 80  
Lys Asn Pro Lys Phe Tyr Leu Tyr Leu Arg Asn Ser Ile Ile Lys Gln  
85 90 95  
Tyr Arg Asp Asp His Pro Arg Lys Ile Ser Phe Thr Asp Val Arg Arg  
100 105 110  
Thr Leu Val Ser Asp Val Val Ser Ile Arg Arg Val Phe Asp Phe Leu  
115 120 125  
Asp Ser Trp Gly Leu Ile Asn Tyr Asn Ser Ser Ala Ser Ala Lys Pro  
130 135 140  
Leu Lys Trp Glu Glu Lys Glu Ala Gly Lys Ser Ala Gly Asp Ala Ala  
145 150 155 160  
Ser Glu Pro Ala Thr Thr Val Lys Glu Thr Ala Lys Arg Asn Cys Asn  
165 170 175

047-E2F-PCT.ST25.txt

Gly Cys Lys Ala Ile Cys Ser Ile Ala Cys Phe Ala Cys Asp Lys Tyr  
 180 185 190  
 Asp Leu Thr Leu Cys Ala Arg Cys Tyr Val Arg Ser Asn Tyr Arg Val  
 195 200 205  
 Gly Ile Asn Ser Ser Glu Phe Lys Arg Val Glu Ile Ser Glu Glu Ser  
 210 215 220  
 Lys Pro Glu Trp Ser Asp Lys Glu Ile Leu Leu Leu Glu Ala Val  
 225 230 235 240  
 Met His Tyr Gly Asp Asp Trp Lys Lys Val Ala Ser His Val Ile Gly  
 245 250 255  
 Arg Thr Glu Lys Asp Cys Val Ser Gln Phe Val Lys Leu Pro Phe Gly  
 260 265 270  
 Glu Gln Phe Val Lys Glu Ser Asp Ser Glu Asp Gly Leu Glu Met Phe  
 275 280 285  
 Asp Gln Ile Lys Asp Ser Asp Ile Pro Glu Ser Glu Gly Ile Asp Lys  
 290 295 300  
 Asp Gly Ser Ser Pro Asn Lys Arg Ile Lys Leu Thr Pro Leu Ala Asp  
 305 310 315 320  
 Ala Ser Asn Pro Ile Met Ala Gln Ala Ala Phe Leu Ser Ala Leu Ala  
 325 330 335  
 Gly Thr Asn Val Ala Glu Ala Ala Ala Arg Ala Ala Val Arg Ala Leu  
 340 345 350  
 Ser Asp Val Asp Tyr Glu Ala Asp Lys Asn Ala Ser Arg Asp Pro Asn  
 355 360 365  
 Arg Gln Asp Ala Asn Ala Ala Ser Ser Gly Glu Thr Thr Arg Asn Glu  
 370 375 380  
 Ser Glu Arg Ala Trp Ala Asp Ala Lys Ser Leu Ile Glu Lys Glu Glu  
 385 390 395 400  
 His Glu Val Glu Gly Ala Ile Lys Glu Thr Val Glu Val Glu Met Lys  
 405 410 415  
 Lys Ile Arg Asp Arg Ile Val His Phe Glu Lys Leu Asp Leu Glu Met  
 420 425 430

Glu Arg Ser Arg Lys Gln Leu Glu Glu Val Arg Asn Leu Leu Phe Val  
 435 440 445

Asp Gln Leu Asn Ile Phe Phe His Thr Arg Lys Ala Arg Lys Thr Glu  
 450 455 460

Asp Arg Ile Glu Cys  
 465

<210> 875

<211> 1092

<212> DNA

<213> Arabidopsis thaliana

<400> 875

atgaagaaag gtggattcag caataatctc aagctcgcaa ttcctgttgc tggcgagcaa	60
tccatcacca aattcctgac tcaaagcggg acgtttaagg atggagatct acgtgttaac	120
aaggatggag ttcgaatcat ttctcaattg gagcctgaag tcctgtctcc aattaagcca	180
gctgatgatc agctgagctt gtcggatttg gatatggtta aagtcattgg caaaggaagt	240
agtgggtgttg ttcagctggg tcaacacaaa tggactggcc aatttttcgc cttgaagggtc	300
attcaactaa atattgatga agcaattcgc aaggcaattg cacaagagct caaaataaat	360
caatcgtcac agtgtccaaa tcttggttacc tcgtaccagt ctttttatga caatggcgca	420
atctcactaa tcttgaggta catggacgga ggatctctag cagactttct caagtcagtt	480
aaagccatcc ctgactccta tctttctgcc atcttttagac aagtgcctca aggattaatc	540
tatcttcatc acgataggca tatcatccat cgtgacttga aaccatccaa tctgttgatc	600
aaccacagag gagaagtcaa aataactgac tttggtgtga gtaccgttat gacaaacacc	660
gcaggtttag caaacacatt tgtgggggact tacaattata tgtctccaga gagaatcggt	720
ggaaacaagt acggaaataa aagtgatata tggagcttgg gtttagtagt actcgaatgt	780
gcaacaggaa agttccctta tgcacctccg aatcaagagg aaacatggac cagtgttttc	840
gagttgatgg aagccattgt tgaccaaccg ccaccgctc ttccttcagg aaatttctcc	900
cctgagttat cttcattcat ctccacatgt ttgcagaagg atccaaacag tcgaagctct	960
gcaaaggaac tgatggaaca tcctttcttg aacaaatacg actactcggg gatcaatctc	1020
gcgtcctact tcacagatgc aggatcgcca cttgcaacac ttgggaacct gtctggtacg	1080
ttctccgtgt aa	1092

&lt;210&gt; 876

&lt;211&gt; 363

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 876

Met Lys Lys Gly Gly Phe Ser Asn Asn Leu Lys Leu Ala Ile Pro Val  
 1 5 10 15

Ala Gly Glu Gln Ser Ile Thr Lys Phe Leu Thr Gln Ser Gly Thr Phe  
 20 25 30

Lys Asp Gly Asp Leu Arg Val Asn Lys Asp Gly Val Arg Ile Ile Ser  
 35 40 45

Gln Leu Glu Pro Glu Val Leu Ser Pro Ile Lys Pro Ala Asp Asp Gln  
 50 55 60

Leu Ser Leu Ser Asp Leu Asp Met Val Lys Val Ile Gly Lys Gly Ser  
 65 70 75 80

Ser Gly Val Val Gln Leu Val Gln His Lys Trp Thr Gly Gln Phe Phe  
 85 90 95

Ala Leu Lys Val Ile Gln Leu Asn Ile Asp Glu Ala Ile Arg Lys Ala  
 100 105 110

Ile Ala Gln Glu Leu Lys Ile Asn Gln Ser Ser Gln Cys Pro Asn Leu  
 115 120 125

Val Thr Ser Tyr Gln Ser Phe Tyr Asp Asn Gly Ala Ile Ser Leu Ile  
 130 135 140

Leu Glu Tyr Met Asp Gly Gly Ser Leu Ala Asp Phe Leu Lys Ser Val  
 145 150 155 160

Lys Ala Ile Pro Asp Ser Tyr Leu Ser Ala Ile Phe Arg Gln Val Leu  
 165 170 175

Gln Gly Leu Ile Tyr Leu His His Asp Arg His Ile Ile His Arg Asp  
 180 185 190

Leu Lys Pro Ser Asn Leu Leu Ile Asn His Arg Gly Glu Val Lys Ile  
 195 200 205

047-E2F-PCT.ST25.txt

Thr Asp Phe Gly Val Ser Thr Val Met Thr Asn Thr Ala Gly Leu Ala  
 210 215 220

Asn Thr Phe Val Gly Thr Tyr Asn Tyr Met Ser Pro Glu Arg Ile Val  
 225 230 235 240

Gly Asn Lys Tyr Gly Asn Lys Ser Asp Ile Trp Ser Leu Gly Leu Val  
 245 250 255

Val Leu Glu Cys Ala Thr Gly Lys Phe Pro Tyr Ala Pro Pro Asn Gln  
 260 265 270

Glu Glu Thr Trp Thr Ser Val Phe Glu Leu Met Glu Ala Ile Val Asp  
 275 280 285

Gln Pro Pro Pro Ala Leu Pro Ser Gly Asn Phe Ser Pro Glu Leu Ser  
 290 295 300

Ser Phe Ile Ser Thr Cys Leu Gln Lys Asp Pro Asn Ser Arg Ser Ser  
 305 310 315 320

Ala Lys Glu Leu Met Glu His Pro Phe Leu Asn Lys Tyr Asp Tyr Ser  
 325 330 335

Gly Ile Asn Leu Ala Ser Tyr Phe Thr Asp Ala Gly Ser Pro Leu Ala  
 340 345 350

Thr Leu Gly Asn Leu Ser Gly Thr Phe Ser Val  
 355 360

<210> 877

<211> 1458

<212> DNA

<213> Arabidopsis thaliana

<400> 877

atggcggttgc tgcgtcgagaa gacctcaagt ggccgtgaat acaagggtcaa agacatgtct	60
caagccgatt tcggtcgtct cgaactcgag ctcgccgaag ttgagatgcc tggactcatg	120
gcttgtcgtc cgaattcgg accttctcag ccattcaaag gcgctagaat caccggatct	180
cttcacatga ccatccaaac cgccgtactc atcgaaaccc taactgctct cggtgctgaa	240
gtcagatggg gttcctgcaa catcttttcc actcaagacc acgccgccgc agccatcgct	300

047-E2F-PCT.ST25.txt

```

cgtgactccg ccgctgtttt cgcctggaaa ggtgagactc ttcaggagta ctggtggtgt 360
accgagcgtg ctctagattg ggggccaggt ggtggtcctg atctgattgt tgatgatggt 420
ggtgacgcta ctcttttgat tcatgagggt gttaaagctg aggagatctt tgagaagact 480
ggtcaagttc ctgatacctac ttctactgat aaccctgagt ttcagatcgt gttgtctatt 540
atcaaggaag gtcttcaagt tgatcctaag aagtaccaca agatgaagga gagacttggt 600
ggtgtctctg aggaaactac cactgggtgtt aagaggcttt accagatgca gcaaaatgga 660
actcttttgt tccctgccat taacgttaac gactctgtca ccaagagcaa gttcgacaac 720
ttgtatggtt gccgtcactc actccctgat ggtctcatga gggccactga tgtcatgac 780
gctggaaagg ttgctgttat ctgtggatat ggtgatgttg gaaagggttg tgctgctgcc 840
atgaagactg ctggtgctag agtcattgtg actgagattg atcccatctg tgcccttcaa 900
gctttgatgg aaggacttca ggttcttacc cttgaggatg ttgtctcaga agctgatatc 960
tttgtcacca ccaccggtaa caaagacatc atcatggctg accacatgag gaagatgaag 1020
aacaacgcta ttgtgtgcaa cattgggtcac ttgacaatg agattgacat gcttggactt 1080
gagacttacc ctggtgtgaa gcgtatcacc atcaagccac agactgacag gtgggtgttc 1140
ccagagacca aggctggaat cattgtcttg gctgagggtc gtctgatgaa cttgggttgt 1200
gccactggtc acccaagttt cgtgatgtct tgctctttca ccaaccaggt gattgcccag 1260
ctcgagctct ggaacgagaa agcaagcgga aagtacgaga agaaggtgta cgttcttccc 1320
aagcatttgg atgagaaggt tgcattactt cacttgggca agcttggagc caggcttaca 1380
aagctgtcaa aggaccaatc tgactacgtc agcattccaa ttgagggacc atacaagcct 1440
cctcactaca ggtactga 1458

```

<210> 878

<211> 485

<212> PRT

<213> Arabidopsis thaliana

<400> 878

```

Met Ala Leu Leu Val Glu Lys Thr Ser Ser Gly Arg Glu Tyr Lys Val
1          5          10          15

Lys Asp Met Ser Gln Ala Asp Phe Gly Arg Leu Glu Leu Glu Leu Ala
          20          25          30

Glu Val Glu Met Pro Gly Leu Met Ala Cys Arg Thr Glu Phe Gly Pro
          35          40          45

```

047-E2F-PCT.ST25.txt

Ser Gln Pro Phe Lys Gly Ala Arg Ile Thr Gly Ser Leu His Met Thr  
50 55 60

Ile Gln Thr Ala Val Leu Ile Glu Thr Leu Thr Ala Leu Gly Ala Glu  
65 70 75 80

Val Arg Trp Cys Ser Cys Asn Ile Phe Ser Thr Gln Asp His Ala Ala  
85 90 95

Ala Ala Ile Ala Arg Asp Ser Ala Ala Val Phe Ala Trp Lys Gly Glu  
100 105 110

Thr Leu Gln Glu Tyr Trp Trp Cys Thr Glu Arg Ala Leu Asp Trp Gly  
115 120 125

Pro Gly Gly Gly Pro Asp Leu Ile Val Asp Asp Gly Gly Asp Ala Thr  
130 135 140

Leu Leu Ile His Glu Gly Val Lys Ala Glu Glu Ile Phe Glu Lys Thr  
145 150 155 160

Gly Gln Val Pro Asp Pro Thr Ser Thr Asp Asn Pro Glu Phe Gln Ile  
165 170 175

Val Leu Ser Ile Ile Lys Glu Gly Leu Gln Val Asp Pro Lys Lys Tyr  
180 185 190

His Lys Met Lys Glu Arg Leu Val Gly Val Ser Glu Glu Thr Thr Thr  
195 200 205

Gly Val Lys Arg Leu Tyr Gln Met Gln Gln Asn Gly Thr Leu Leu Phe  
210 215 220

Pro Ala Ile Asn Val Asn Asp Ser Val Thr Lys Ser Lys Phe Asp Asn  
225 230 235 240

Leu Tyr Gly Cys Arg His Ser Leu Pro Asp Gly Leu Met Arg Ala Thr  
245 250 255

Asp Val Met Ile Ala Gly Lys Val Ala Val Ile Cys Gly Tyr Gly Asp  
260 265 270

Val Gly Lys Gly Cys Ala Ala Ala Met Lys Thr Ala Gly Ala Arg Val  
275 280 285

Ile Val Thr Glu Ile Asp Pro Ile Cys Ala Leu Gln Ala Leu Met Glu

290

295

Gly Leu Gln Val Leu Thr Leu Glu Asp Val Val Ser Glu Ala Asp Ile  
305 310 315 320

Phe Val Thr Thr Thr Gly Asn Lys Asp Ile Ile Met Val Asp His Met  
325 330 335

Arg Lys Met Lys Asn Asn Ala Ile Val Cys Asn Ile Gly His Phe Asp  
340 345 350

Asn Glu Ile Asp Met Leu Gly Leu Glu Thr Tyr Pro Gly Val Lys Arg  
355 360 365

Ile Thr Ile Lys Pro Gln Thr Asp Arg Trp Val Phe Pro Glu Thr Lys  
370 375 380

Ala Gly Ile Ile Val Leu Ala Glu Gly Arg Leu Met Asn Leu Gly Cys  
385 390 395 400

Ala Thr Gly His Pro Ser Phe Val Met Ser Cys Ser Phe Thr Asn Gln  
405 410 415

Val Ile Ala Gln Leu Glu Leu Trp Asn Glu Lys Ala Ser Gly Lys Tyr  
420 425 430

Glu Lys Lys Val Tyr Val Leu Pro Lys His Leu Asp Glu Lys Val Ala  
435 440 445

Leu Leu His Leu Gly Lys Leu Gly Ala Arg Leu Thr Lys Leu Ser Lys  
450 455 460

Asp Gln Ser Asp Tyr Val Ser Ile Pro Ile Glu Gly Pro Tyr Lys Pro  
465 470 475 480

Pro His Tyr Arg Tyr  
485

<210> 879

<211> 291

<212> DNA

<213> Arabidopsis thaliana

<400> 879

atggcggaac caaagacaaa agttgcagaa atcaggggaat ggatcatcga acataagctt  
Page 1370



047-E2F-PCT.ST25.txt

cgtaccgttg gttgcttatg gctaagtggg atctctgggt caattgctta taattgggtct 120  
 aaacctgcca tgaaaaccag tgtcagaatc atccacgcta gggtgcatgc tcaggcgctg 180  
 acattagccg ctctggctgg agcagctgca gtggagtact atgacacaa atctggagcc 240  
 actgatcgaa tcccgaatt tctgaagcct gataacttaa ataaggacta g 291

<210> 880

<211> 96

<212> PRT

<213> Arabidopsis thaliana

<400> 880

Met Ala Glu Pro Lys Thr Lys Val Ala Glu Ile Arg Glu Trp Ile Ile  
 1 5 10 15

Glu His Lys Leu Arg Thr Val Gly Cys Leu Trp Leu Ser Gly Ile Ser  
 20 25 30

Gly Ser Ile Ala Tyr Asn Trp Ser Lys Pro Ala Met Lys Thr Ser Val  
 35 40 45

Arg Ile Ile His Ala Arg Leu His Ala Gln Ala Leu Thr Leu Ala Ala  
 50 55 60

Leu Ala Gly Ala Ala Ala Val Glu Tyr Tyr Asp His Lys Ser Gly Ala  
 65 70 75 80

Thr Asp Arg Ile Pro Lys Phe Leu Lys Pro Asp Asn Leu Asn Lys Asp  
 85 90 95

<210> 881

<211> 1122

<212> DNA

<213> Arabidopsis thaliana

<400> 881

atgcaaaagg tcttcttggc catggatact tgtgctctag taatccatca gtctctgtct 60  
 cgcatacaac tttctcctcc caaatcttct tcttcttctt cttctgcttt ctcccctgaa 120  
 tccttaccga tcagacggat cgagctgtgt ttccgaggag ctatatgtgc cgccgtacaa 180

047-E2F-PCT.ST25.txt

agaaactacg aagaaacgac ctcctccgtg gaagaggcag aggaagatga tgagtcatca 240  
 tcatcgtacg gagaagtga caagatcatt ggaagccgaa cggcggggga aggagccatg 300  
 gagtacctta tcgagtggaa ggacggccat tctccgtcgt gggttccatc gagctacatc 360  
 gcagcagacg tagtgctgga gtacgagaca ccctggtgga cggcagctag aaaagccgac 420  
 gagcaggccc tgtcacagct cctggaggac cgagacgtcg atgccgtgga cgaaaacggc 480  
 cggacggctc tgcttttcgt ggcagggtctg gggtcggaca agtgcgtaag gcttctggcg 540  
 gaggctggag ccgatctcga ccaccgagac atgaggggag gcttgacggc gctgcacatg 600  
 gcggctgggtt acgtgaggcc ggaggtggtg gaggcgctgg tggagctggg agctgatatt 660  
 gaagtggaag acgagagagg gttaacggcg ttggaactag cgaggagat tctgaagacg 720  
 acgccgaagg ggaatccgat gcagttcggg aggagaattg ggtagagaa agtgatcaat 780  
 gtcctggaag gacaagtgtt cgagtacgcc gaggtggatg agatcgtaga gaaacgaggg 840  
 aaaggcaaag acgttgaata tctggtcaga tgggaaggacg gtggagattg cgagtgggtg 900  
 aaaggtgtac acgtggcgga agatgtggct aaggactacg aggatgggct ggagtacgct 960  
 gtagcggaga gtgtgatcgg gaagaggggtg ggagacgatg ggaagaccat cgagtatctt 1020  
 gtcaaagtga ctgatatgtc tgatgccact tgggagcctc aggacaatgt cgactctact 1080  
 cttgttctac tctaccaaca acaacaacca atgaatgaat ga 1122

<210> 882

<211> 373

<212> PRT

<213> Arabidopsis thaliana

<400> 882

Met Gln Lys Val Phe Leu Ala Met Asp Thr Cys Ala Leu Val Ile His  
 1 5 10 15  
 Gln Ser Leu Ser Arg Ile Lys Leu Ser Pro Pro Lys Ser Ser Ser  
 20 25 30  
 Ser Ser Ser Ala Phe Ser Pro Glu Ser Leu Pro Ile Arg Arg Ile Glu  
 35 40 45  
 Leu Cys Phe Arg Gly Ala Ile Cys Ala Ala Val Gln Arg Asn Tyr Glu  
 50 55 60  
 Glu Thr Thr Ser Ser Val Glu Glu Ala Glu Glu Asp Asp Glu Ser Ser  
 65 70 75 80

047-E2F-PCT.ST25.txt

Ser Ser Tyr Gly Glu Val Asn Lys Ile Ile Gly Ser Arg Thr Ala Gly  
85 90 95

Glu Gly Ala Met Glu Tyr Leu Ile Glu Trp Lys Asp Gly His Ser Pro  
100 105 110

Ser Trp Val Pro Ser Ser Tyr Ile Ala Ala Asp Val Val Ser Glu Tyr  
115 120 125

Glu Thr Pro Trp Trp Thr Ala Ala Arg Lys Ala Asp Glu Gln Ala Leu  
130 135 140

Ser Gln Leu Leu Glu Asp Arg Asp Val Asp Ala Val Asp Glu Asn Gly  
145 150 155 160

Arg Thr Ala Leu Leu Phe Val Ala Gly Leu Gly Ser Asp Lys Cys Val  
165 170 175

Arg Leu Leu Ala Glu Ala Gly Ala Asp Leu Asp His Arg Asp Met Arg  
180 185 190

Gly Gly Leu Thr Ala Leu His Met Ala Ala Gly Tyr Val Arg Pro Glu  
195 200 205

Val Val Glu Ala Leu Val Glu Leu Gly Ala Asp Ile Glu Val Glu Asp  
210 215 220

Glu Arg Gly Leu Thr Ala Leu Glu Leu Ala Arg Glu Ile Leu Lys Thr  
225 230 235 240

Thr Pro Lys Gly Asn Pro Met Gln Phe Gly Arg Arg Ile Gly Leu Glu  
245 250 255

Lys Val Ile Asn Val Leu Glu Gly Gln Val Phe Glu Tyr Ala Glu Val  
260 265 270

Asp Glu Ile Val Glu Lys Arg Gly Lys Gly Lys Asp Val Glu Tyr Leu  
275 280 285

Val Arg Trp Lys Asp Gly Gly Asp Cys Glu Trp Val Lys Gly Val His  
290 295 300

Val Ala Glu Asp Val Ala Lys Asp Tyr Glu Asp Gly Leu Glu Tyr Ala  
305 310 315 320

Val Ala Glu Ser Val Ile Gly Lys Arg Val Gly Asp Asp Gly Lys Thr  
Page 1373

325

335

Ile Glu Tyr Leu Val Lys Trp Thr Asp Met Ser Asp Ala Thr Trp Glu  
340 345 350

Pro Gln Asp Asn Val Asp Ser Thr Leu Val Leu Leu Tyr Gln Gln Gln  
355 360 365

Gln Pro Met Asn Glu  
370

<210> 883

<211> 1125

<212> DNA

<213> Arabidopsis thaliana

<400> 883

atgggtcttg aagttgggtc cttatgcttc aaacttaaag acggaggctt gacatcaaga	60
accaacagtt tcaagagaga cgatactaat aggcaccaga attctcctaa gactactatg	120
gagcggctcg tgagtttcaa cagctgggag gttcctaaag agaccaagac tgattcagat	180
tttgaggtct tggagacaaa gaagtcaacg cctaacactt tgaatggaag aaactgtgag	240
agaatccaaa tcaagaaacc tacagttact ccaccagagc catttggtgtt cttctctcct	300
agacctgtca ccgagcttga tgcagctgca actacgttac aaaagggtgta caagagttac	360
aggaccagaa ggaacttagc agattgtgcg gtcgttggtt aggagctctg gtggaggact	420
ttggaagggtg cagctttgga tttgagctct gtgtctttct ttggagaaga aaaacatgag	480
accgctgttt cgaaatgggc acgagctaga aaacgagctg ctaagggttg gaaaggctta	540
tctaaagatg aaaaggctca gaaattagct cttcagcatt ggcttgaagc tgtaagtccc	600
cataacctaa atatctttgt aacttcatat caaagacaag taccctactt gacatccaaa	660
gctatcattg aatatactct aatgatccat ctcttgaaat tacagattga cccacgtcat	720
cgttacggcc acaacttgca cttctattat gatgtctggt cagcgagcaa gagcacacaa	780
ccattctttt actggttgga tataggagac ggcaaagatg taaatcttga gaaacaccct	840
agaagtgttc tgcaaaaaca atgcatcaga tacttaggac cgatggagag agaagcatat	900
gaagtgatag tagaagatgg gagactaatg tataaacagg gcatgactct gatcaattca	960
acagaggaag ccaagtcgat ttttgtactt agtactacta gaaacttata cgtagggatt	1020
aaaaagaaag gtctttttcca gactctagt ttcttatctg gaggtgccac aaccgcagca	1080
ggaagggttag tcgcccgcga tgggatcctt gaggtacttg aataa	1125

&lt;210&gt; 884

&lt;211&gt; 374

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 884

Met Gly Leu Glu Val Gly Ser Leu Cys Phe Lys Leu Lys Asp Gly Gly  
 1 5 10 15

Leu Thr Ser Arg Thr Asn Ser Phe Lys Arg Asp Asp Thr Asn Arg His  
 20 25 30

Gln Asn Ser Pro Lys Ser Thr Met Glu Arg Ser Leu Ser Phe Asn Ser  
 35 40 45

Trp Glu Val Pro Lys Glu Thr Lys Thr Asp Ser Asp Phe Glu Val Leu  
 50 55 60

Glu Thr Lys Lys Ser Thr Pro Asn Thr Leu Asn Gly Arg Asn Cys Glu  
 65 70 75 80

Arg Ile Gln Ile Lys Lys Pro Thr Val Thr Pro Pro Glu Pro Phe Val  
 85 90 95

Phe Phe Ser Pro Arg Pro Val Thr Glu Leu Asp Ala Ala Ala Thr Thr  
 100 105 110

Leu Gln Lys Val Tyr Lys Ser Tyr Arg Thr Arg Arg Asn Leu Ala Asp  
 115 120 125

Cys Ala Val Val Val Glu Glu Leu Trp Trp Arg Thr Leu Glu Gly Ala  
 130 135 140

Ala Leu Asp Leu Ser Ser Val Ser Phe Phe Gly Glu Glu Lys His Glu  
 145 150 155 160

Thr Ala Val Ser Lys Trp Ala Arg Ala Arg Lys Arg Ala Ala Lys Val  
 165 170 175

Gly Lys Gly Leu Ser Lys Asp Glu Lys Ala Gln Lys Leu Ala Leu Gln  
 180 185 190

His Trp Leu Glu Ala Val Ser Pro His Asn Leu Asn Ile Phe Val Thr  
 Page 1375

195

200

205

Ser Tyr Gln Arg Gln Val Pro Tyr Leu Thr Ser Lys Ala Ile Ile Glu  
 210 215 220  
 Tyr Thr Leu Met Ile His Leu Leu Lys Leu Gln Ile Asp Pro Arg His  
 225 230 235 240  
 Arg Tyr Gly His Asn Leu His Phe Tyr Tyr Asp Val Trp Ser Ala Ser  
 245 250 255  
 Lys Ser Thr Gln Pro Phe Phe Tyr Trp Leu Asp Ile Gly Asp Gly Lys  
 260 265 270  
 Asp Val Asn Leu Glu Lys His Pro Arg Ser Val Leu Gln Lys Gln Cys  
 275 280 285  
 Ile Arg Tyr Leu Gly Pro Met Glu Arg Glu Ala Tyr Glu Val Ile Val  
 290 295 300  
 Glu Asp Gly Arg Leu Met Tyr Lys Gln Gly Met Thr Leu Ile Asn Ser  
 305 310 315 320  
 Thr Glu Glu Ala Lys Ser Ile Phe Val Leu Ser Thr Thr Arg Asn Leu  
 325 330 335  
 Tyr Val Gly Ile Lys Lys Lys Gly Leu Phe Gln His Ser Ser Phe Leu  
 340 345 350  
 Ser Gly Gly Ala Thr Thr Ala Ala Gly Arg Leu Val Ala Arg Asp Gly  
 355 360 365  
 Ile Leu Glu Val Leu Glu  
 370

&lt;210&gt; 885

&lt;211&gt; 564

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 885

atggcgtcga cgactctctc aatcgcaaca acaatccggt cctcttctcc tctcacttcc 60  
 gcttccactc atcacttcct ttccaaaccc accgcaatcg aattcccatt tcgtctcagc 120  
 tcttcttcta gccaccgtgc aatcaacctc cgtcctatct ccgccgtcga agctccggag 180

047-E2F-PCT.ST25.txt

```

aaaatcgaga aaatcggatc cgaaatctcc tccttaaccc tcgaagaagc tcgtatcctc 240
gtcgactatc tccaagacaa attcgggtgtc tccccactct ccttagcccc cgcagcagcg 300
gccgttgcag ctccagccga cgggtggcgcg gcggtctgtag tggaggagca aacagagttc 360
gatgtggtta tcaatgaagt tccgagtagt tctcgtattg cagtaattaa agctgttagg 420
gctttgacta gcttggcggt gaaggaagct aaggagctaa tcgaaggatt accaaagaag 480
tttaaagaag gtatcactaa agatgaagct gaagaagcta agaagactct tgaagaagct 540
ggtgctaaag tctccattgc ttaa 564

```

<210> 886

<211> 187

<212> PRT

<213> Arabidopsis thaliana

<400> 886

```

Met Ala Ser Thr Thr Leu Ser Ile Ala Thr Thr Ile Arg Ser Ser Ser
1          5          10          15

```

```

Pro Leu Thr Ser Ala Ser Thr His His Phe Leu Ser Lys Pro Thr Ala
          20          25          30

```

```

Ile Glu Phe Pro Phe Arg Leu Ser Ser Ser Ser His Arg Ala Ile
          35          40          45

```

```

Asn Leu Arg Pro Ile Ser Ala Val Glu Ala Pro Glu Lys Ile Glu Lys
          50          55          60

```

```

Ile Gly Ser Glu Ile Ser Ser Leu Thr Leu Glu Glu Ala Arg Ile Leu
65          70          75          80

```

```

Val Asp Tyr Leu Gln Asp Lys Phe Gly Val Ser Pro Leu Ser Leu Ala
          85          90          95

```

```

Pro Ala Ala Ala Ala Val Ala Ala Pro Ala Asp Gly Gly Ala Ala Ala
          100          105          110

```

```

Val Val Glu Glu Gln Thr Glu Phe Asp Val Val Ile Asn Glu Val Pro
          115          120          125

```

```

Ser Ser Ser Arg Ile Ala Val Ile Lys Ala Val Arg Ala Leu Thr Ser
          130          135          140

```

047-E2F-PCT.ST25.txt

Leu Ala Leu Lys Glu Ala Lys Glu Leu Ile Glu Gly Leu Pro Lys Lys  
145 150 155 160

Phe Lys Glu Gly Ile Thr Lys Asp Glu Ala Glu Gly Ala Lys Lys Thr  
165 170 175

Leu Glu Glu Ala Gly Ala Lys Val Ser Ile Ala  
180 185

<210> 887

<211> 1200

<212> DNA

<213> Arabidopsis thaliana

<400> 887

atgaccgacg tcatgaatc cgttagacgc cgtacagccg ccgtttccga gtaccggaaa	60
aagctcctcc aacataagga actcgaatcc cgtgttcgaa cagctaggga gaacttaaga	120
ggagctaaaa aggaattcaa caaaaccgag gatgatctca agtctcttca aagtgttggg	180
cagattattg gagaagtgct tcgaccctg gataatgaaa gattgattgt gaaagcgagc	240
agtggtcac gttatgtggt gggttgccga agcaaagtgg ataaggaaaa gctaacctcc	300
ggaactcgag ttgttctcga tatgacaaca ctaacaatta tgcgagccct tccccgagaa	360
gttgatcctg ttgtttataa catgcttcat gaagaccctg gcaacattag ctactccgct	420
gtcggagggg taggtgatca gatcagagaa ctcagggaat ctattgagct ccctctcatg	480
aatcctgagc ttttcctcag agtagggatc aaacctccaa aggggtgtcct tctgtatgga	540
cctccaggta ctggaaaaac tctactagcc agggctattg ccagcaacat cgatgctaac	600
ttcttgaagg ttgtatccag tgcaatcata gacaagtaca ttggagaaag tgctaggctg	660
attcgggaga tgtttaacta tgcccgtgaa catcagcctt gtatcatatt catggatgaa	720
atcgatgcta ttggtgggcg tcgttttagt gagggaaacta gtgctgatcg tgaaattcaa	780
agaacgctta tggagttact caaccagctt gatggggttg acaacctcgg aaagggtgaaa	840
atgataatgg ccacaaacag gcctgatgtg cttgatcctg cgcttctccg tccgggaagg	900
ttagatagaa agattgagat ccctttgcc aacgagcagt caagaatgga tattcttaag	960
atccatgcag ctggtatcgc caaacatggt gaaatcgatt acgaggctat tgtcaaactt	1020
gcagagggat tcaatggtgc tgatctgcgt aacatatgca cggaagctgg aatgtttgca	1080
atccgagcag agcgggatta tgtgatccat gaagatttca tgaaggcggg gagaaagctg	1140
agtgaggcca agaaactgga gtccagttcg cactataacg ctgatttttg aaaagagtga	1200



&lt;210&gt; 888

&lt;211&gt; 399

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 888

Met Thr Asp Val Asp Glu Ser Val Arg Arg Arg Thr Ala Ala Val Ser  
 1 5 10 15

Glu Tyr Arg Lys Lys Leu Leu Gln His Lys Glu Leu Glu Ser Arg Val  
 20 25 30

Arg Thr Ala Arg Glu Asn Leu Arg Gly Ala Lys Lys Glu Phe Asn Lys  
 35 40 45

Thr Glu Asp Asp Leu Lys Ser Leu Gln Ser Val Gly Gln Ile Ile Gly  
 50 55 60

Glu Val Leu Arg Pro Leu Asp Asn Glu Arg Leu Ile Val Lys Ala Ser  
 65 70 75 80

Ser Gly Pro Arg Tyr Val Val Gly Cys Arg Ser Lys Val Asp Lys Glu  
 85 90 95

Lys Leu Thr Ser Gly Thr Arg Val Val Leu Asp Met Thr Thr Leu Thr  
 100 105 110

Ile Met Arg Ala Leu Pro Arg Glu Val Asp Pro Val Val Tyr Asn Met  
 115 120 125

Leu His Glu Asp Pro Gly Asn Ile Ser Tyr Ser Ala Val Gly Gly Leu  
 130 135 140

Gly Asp Gln Ile Arg Glu Leu Arg Glu Ser Ile Glu Leu Pro Leu Met  
 145 150 155 160

Asn Pro Glu Leu Phe Leu Arg Val Gly Ile Lys Pro Pro Lys Gly Val  
 165 170 175

Leu Leu Tyr Gly Pro Pro Gly Thr Gly Lys Thr Leu Leu Ala Arg Ala  
 180 185 190

Ile Ala Ser Asn Ile Asp Ala Asn Phe Leu Lys Val Val Ser Ser Ala  
 Page 1379

195

200

205

Ile Ile Asp Lys Tyr Ile Gly Glu Ser Ala Arg Leu Ile Arg Glu Met  
 210 215 220  
 Phe Asn Tyr Ala Arg Glu His Gln Pro Cys Ile Ile Phe Met Asp Glu  
 225 230 235 240  
 Ile Asp Ala Ile Gly Gly Arg Arg Phe Ser Glu Gly Thr Ser Ala Asp  
 245 250 255  
 Arg Glu Ile Gln Arg Thr Leu Met Glu Leu Leu Asn Gln Leu Asp Gly  
 260 265 270  
 Phe Asp Asn Leu Gly Lys Val Lys Met Ile Met Ala Thr Asn Arg Pro  
 275 280 285  
 Asp Val Leu Asp Pro Ala Leu Leu Arg Pro Gly Arg Leu Asp Arg Lys  
 290 295 300  
 Ile Glu Ile Pro Leu Pro Asn Glu Gln Ser Arg Met Asp Ile Leu Lys  
 305 310 315 320  
 Ile His Ala Ala Gly Ile Ala Lys His Gly Glu Ile Asp Tyr Glu Ala  
 325 330 335  
 Ile Val Lys Leu Ala Glu Gly Phe Asn Gly Ala Asp Leu Arg Asn Ile  
 340 345 350  
 Cys Thr Glu Ala Gly Met Phe Ala Ile Arg Ala Glu Arg Asp Tyr Val  
 355 360 365  
 Ile His Glu Asp Phe Met Lys Ala Val Arg Lys Leu Ser Glu Ala Lys  
 370 375 380  
 Lys Leu Glu Ser Ser Ser His Tyr Asn Ala Asp Phe Gly Lys Glu  
 385 390 395

&lt;210&gt; 889

&lt;211&gt; 1086

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 889

atgggagggg tgacgtcatc ggtggcggcg aagtttgcct tcttcccgcc gagtccaccg

60

047-E2F-PCT.ST25.txt

tcttacaagg tgggtgaccga cgagctcacc ggactgttgc ttctcagccc tttccccac 120  
 cgcgaaaacg tagaaatcgt aaagcttcgg accaggagag gcacagagat cgtgggcatg 180  
 tacgtgaggc atccgatggc tacctccacg ctctctact cccatggcaa cgccgccgat 240  
 ctgggacaga tgtatgagct cttcattgag cttagcatcc atctcaaggt taatcttatg 300  
 ggatacgatt actccgggta tggacaatct actggaaagc cgagttagca taacacgtat 360  
 gctgatatcg aagctgttta taagtgtctt gaagaaacct ttggctctaa gcaggaaggt 420  
 gtcacacctt acggccaatc tgtaggcagc ggacctacgt tagatcttgc ttcccggttg 480  
 cctcaactta gagccgtcgt cttcacagc cccattctct ccggtttaag agttatgtat 540  
 tccgtcaaga aaacctactg gttcgacatc tacaagaata tcgacaaaat cccatatgtc 600  
 gattgcccgg ttctcatcat tcatggaact tcggatgagg tagtggattg ttctcatggg 660  
 aaacaactat ggggaactctg caaagacaag tacgagccgc tctgggtgaa aggagggaac 720  
 cactgtgatc ttgaactacta ccctgaatac attagacacc tcaagaagtt catagcaaca 780  
 gtagagagat taccatgtcc gaggatgagc agcgaccaat cagagagagt gagagatgcg 840  
 ccccgagga gaagtatgga caggagagtg aagccgaggc agagcacaga gcgtagagag 900  
 aaagagaagc caccaaagag tcagtcgaag atgagtagca gcagcagcaa gctcaagatc 960  
 tcgtttgatc aacttgatcg ctgcggagg agcgttgact gccatgaaa gactcggaag 1020  
 agcgttgacc agattgagag ggggaggaag agtgtggata ggttggatag agttcgctcc 1080  
 gagtaa 1086

<210> 890

<211> 361

<212> PRT

<213> Arabidopsis thaliana

<400> 890

Met Gly Gly Val Thr Ser Ser Val Ala Ala Lys Phe Ala Phe Phe Pro  
 1 5 10 15

Pro Ser Pro Pro Ser Tyr Lys Val Val Thr Asp Glu Leu Thr Gly Leu  
 20 25 30

Leu Leu Leu Ser Pro Phe Pro His Arg Glu Asn Val Glu Ile Val Lys  
 35 40 45

Leu Arg Thr Arg Arg Gly Thr Glu Ile Val Gly Met Tyr Val Arg His  
 Page 1381

50

55

Pro Met Ala Thr Ser Thr Leu Leu Tyr Ser His Gly Asn Ala Ala Asp  
65 70 75 80

Leu Gly Gln Met Tyr Glu Leu Phe Ile Glu Leu Ser Ile His Leu Lys  
85 90 95

Val Asn Leu Met Gly Tyr Asp Tyr Ser Gly Tyr Gly Gln Ser Thr Gly  
100 105 110

Lys Pro Ser Glu His Asn Thr Tyr Ala Asp Ile Glu Ala Val Tyr Lys  
115 120 125

Cys Leu Glu Glu Thr Phe Gly Ser Lys Gln Glu Gly Val Ile Leu Tyr  
130 135 140

Gly Gln Ser Val Gly Ser Gly Pro Thr Leu Asp Leu Ala Ser Arg Leu  
145 150 155 160

Pro Gln Leu Arg Ala Val Val Leu His Ser Pro Ile Leu Ser Gly Leu  
165 170 175

Arg Val Met Tyr Ser Val Lys Lys Thr Tyr Trp Phe Asp Ile Tyr Lys  
180 185 190

Asn Ile Asp Lys Ile Pro Tyr Val Asp Cys Pro Val Leu Ile Ile His  
195 200 205

Gly Thr Ser Asp Glu Val Val Asp Cys Ser His Gly Lys Gln Leu Trp  
210 215 220

Glu Leu Cys Lys Asp Lys Tyr Glu Pro Leu Trp Val Lys Gly Gly Asn  
225 230 235 240

His Cys Asp Leu Glu His Tyr Pro Glu Tyr Ile Arg His Leu Lys Lys  
245 250 255

Phe Ile Ala Thr Val Glu Arg Leu Pro Cys Pro Arg Met Ser Ser Asp  
260 265 270

Gln Ser Glu Arg Val Arg Asp Ala Pro Pro Arg Arg Ser Met Asp Arg  
275 280 285

Arg Val Lys Pro Arg Gln Ser Thr Glu Arg Arg Glu Lys Glu Lys Pro  
290 295 300

Pro Lys Ser Gln Ser Lys Met Ser Ser Ser Ser Ser Lys Leu Lys Ile  
 305 310 315 320

Ser Phe Asp Gln Leu Asp Arg Ser Arg Arg Ser Val Asp Cys His Glu  
 325 330 335

Lys Thr Arg Lys Ser Val Asp Gln Ile Glu Arg Gly Arg Lys Ser Val  
 340 345 350

Asp Arg Leu Asp Arg Val Arg Ser Glu  
 355 360

<210> 891

<211> 1899

<212> DNA

<213> Arabidopsis thaliana

<400> 891

atggttgctt ttttatcagc ttggccttgg gaaaactttg gcaatctcaa gtatcttctc	60
tacgctccat tagctgcaca agtagtgtac tcgtgggtct atgaagaaga tatctcaaag	120
gttcttttgt gtattcatat tctcataatc tgcggtctca aagcatttgt tcatgaacta	180
tgagagcgttt tcaacaacat gcttttcgtg actcgtactc taaggattaa ccctaaaggg	240
atcgacttta aacagattga tcacgaatgg cactgggaca attacataat cctacaagca	300
ataatagtga gcctgatctg ttacatgtca ccaccattga tgatgatgat aaacagtctt	360
cctctgtgga acacgaaagg actcatcgca ttaattgtgc tacatgtgac tttctcagag	420
cctttatact actttctgca cagatctttc catcgtaaca actacttctt cacacattac	480
cactctttcc accactcatc tcctgttcca catcccatga ctgctggaaa cgcaacgtta	540
ttggaaaaca ttatcctctg tgtcgtagct ggtgttccat tgattggatg ttgcttggtt	600
gggtgttgat cattaagtgc gatctacggg tacgctgtta tgtttgattt catgaggtgt	660
ttaggacatt gtaacgttga gatattctct cacaagctgt tcgagattct tccagtctta	720
cgatatctca tctatactcc aacgtaccat agtctgcac atcaagaaat ggggaccaac	780
ttttgtctat ttatgcctct ctttgatgtt ttgggcgata cacaaaaccc aaactcatgg	840
gaactccaaa agaagattcg tttgagtga ggggaacgga agagagtgcc ggagtttgtg	900
ttcttagctc acggagttga tgtaatgtcg gcgatgcatg caccgttcgt gttcagatct	960
tttgcttcaa tgccatatac cacaaggata ttcttgctac cgatgtggcc attcacgttc	1020
tgtgttatgt tgggcatgtg ggcttggtca aagacttttc ttttcagctt ctataccctc	1080

047-E2F-PCT.ST25.txt

aggaacaatc tttgtcagac ttggggcggtt cctagattcg gattccaata cttcttaccg 1140  
 tttgctacaa aaggaattaa tgatcaaatt gaggctgcga ttcttagagc tgataagatt 1200  
 ggtgttaaag ttataagctt ggctgctctc aacaagaacg aagctctaaa tgggtggtgga 1260  
 acactgtttg tcaacaagca tcctgacctt agagttcgtg tggttcatgg gaacacttta 1320  
 actgcagcag tgattctcta tgaaattcca aaagatgtga atgagggtttt cttgactgga 1380  
 gccacttcta agctgggaag agctattgct ctttaccttt gtcgccgtgg agtgagagtt 1440  
 ctcatgttga cattgtctat ggaaagggtt caaaagattc agaaagaggc tcctgttgag 1500  
 ttccagaaca accttgtaac agtgaccaa tacaatgctg ctcaacactg caagacttgg 1560  
 atcgtttgaa aatggttaac accaagagag cagagctggg ctctgcagg gacgcatttc 1620  
 catcagtttg tgggtgccacc aatccttaag tttagaagga actgcactta cgggtgatcta 1680  
 gcagctatga agctccctaa agatgttgaa ggactcggaa cttgcgagta cacgatggag 1740  
 agaggggtgg tacatgcgtg ccatgcagga ggagtgggtt atatgcttga gggttggaag 1800  
 catcatgagg ttggagccat tgatgttgac cgtatcgatt tgggtgtggga agcagccatg 1860  
 aagtatggtc ttagtgctgt ttcttcactc acaaattga 1899

<210> 892

<211> 632

<212> PRT

<213> Arabidopsis thaliana

<400> 892

Met Val Ala Phe Leu Ser Ala Trp Pro Trp Glu Asn Phe Gly Asn Leu  
 1 5 10 15

Lys Tyr Leu Leu Tyr Ala Pro Leu Ala Ala Gln Val Val Tyr Ser Trp  
 20 25 30

Val Tyr Glu Glu Asp Ile Ser Lys Val Leu Trp Cys Ile His Ile Leu  
 35 40 45

Ile Ile Cys Gly Leu Lys Ala Leu Val His Glu Leu Trp Ser Val Phe  
 50 55 60

Asn Asn Met Leu Phe Val Thr Arg Thr Leu Arg Ile Asn Pro Lys Gly  
 65 70 75 80

Ile Asp Phe Lys Gln Ile Asp His Glu Trp His Trp Asp Asn Tyr Ile  
 85 90 95

047-E2F-PCT.ST25.txt

Ile Leu Gln Ala Ile Ile Val Ser Leu Ile Cys Tyr Met Ser Pro Pro  
100 105 110

Leu Met Met Met Ile Asn Ser Leu Pro Leu Trp Asn Thr Lys Gly Leu  
115 120 125

Ile Ala Leu Ile Val Leu His Val Thr Phe Ser Glu Pro Leu Tyr Tyr  
130 135 140

Phe Leu His Arg Ser Phe His Arg Asn Asn Tyr Phe Phe Thr His Tyr  
145 150 155 160

His Ser Phe His His Ser Ser Pro Val Pro His Pro Met Thr Ala Gly  
165 170 175

Asn Ala Thr Leu Leu Glu Asn Ile Ile Leu Cys Val Val Ala Gly Val  
180 185 190

Pro Leu Ile Gly Cys Cys Leu Phe Gly Val Gly Ser Leu Ser Ala Ile  
195 200 205

Tyr Gly Tyr Ala Val Met Phe Asp Phe Met Arg Cys Leu Gly His Cys  
210 215 220

Asn Val Glu Ile Phe Ser His Lys Leu Phe Glu Ile Leu Pro Val Leu  
225 230 235 240

Arg Tyr Leu Ile Tyr Thr Pro Thr Tyr His Ser Leu His His Gln Glu  
245 250 255

Met Gly Thr Asn Phe Cys Leu Phe Met Pro Leu Phe Asp Val Leu Gly  
260 265 270

Asp Thr Gln Asn Pro Asn Ser Trp Glu Leu Gln Lys Lys Ile Arg Leu  
275 280 285

Ser Ala Gly Glu Arg Lys Arg Val Pro Glu Phe Val Phe Leu Ala His  
290 295 300

Gly Val Asp Val Met Ser Ala Met His Ala Pro Phe Val Phe Arg Ser  
305 310 315 320

Phe Ala Ser Met Pro Tyr Thr Thr Arg Ile Phe Leu Leu Pro Met Trp  
325 330 335

Pro Phe Thr Phe Cys Val Met Leu Gly Met Trp Ala Trp Ser Lys Thr  
Page 1385

340  
 345  
 350  
 Phe Leu Phe Ser Phe Tyr Thr Leu Arg Asn Asn Leu Cys Gln Thr Trp  
 355 360 365  
 Gly Val Pro Arg Phe Gly Phe Gln Tyr Phe Leu Pro Phe Ala Thr Lys  
 370 375 380  
 Gly Ile Asn Asp Gln Ile Glu Ala Ala Ile Leu Arg Ala Asp Lys Ile  
 385 390 395 400  
 Gly Val Lys Val Ile Ser Leu Ala Ala Leu Asn Lys Asn Glu Ala Leu  
 405 410 415  
 Asn Gly Gly Gly Thr Leu Phe Val Asn Lys His Pro Asp Leu Arg Val  
 420 425 430  
 Arg Val Val His Gly Asn Thr Leu Thr Ala Ala Val Ile Leu Tyr Glu  
 435 440 445  
 Ile Pro Lys Asp Val Asn Glu Val Phe Leu Thr Gly Ala Thr Ser Lys  
 450 455 460  
 Leu Gly Arg Ala Ile Ala Leu Tyr Leu Cys Arg Arg Gly Val Arg Val  
 465 470 475 480  
 Leu Met Leu Thr Leu Ser Met Glu Arg Phe Gln Lys Ile Gln Lys Glu  
 485 490 495  
 Ala Pro Val Glu Phe Gln Asn Asn Leu Val Gln Val Thr Lys Tyr Asn  
 500 505 510  
 Ala Ala Gln His Cys Lys Thr Trp Ile Val Gly Lys Trp Leu Thr Pro  
 515 520 525  
 Arg Glu Gln Ser Trp Ala Pro Ala Gly Thr His Phe His Gln Phe Val  
 530 535 540  
 Val Pro Pro Ile Leu Lys Phe Arg Arg Asn Cys Thr Tyr Gly Asp Leu  
 545 550 555 560  
 Ala Ala Met Lys Leu Pro Lys Asp Val Glu Gly Leu Gly Thr Cys Glu  
 565 570 575  
 Tyr Thr Met Glu Arg Gly Val Val His Ala Cys His Ala Gly Gly Val  
 580 585 590



Val His Met Leu Glu Gly Trp Lys His His Glu Val Gly Ala Ile Asp  
 595 600 605

Val Asp Arg Ile Asp Leu Val Trp Glu Ala Ala Met Lys Tyr Gly Leu  
 610 615 620

Ser Ala Val Ser Ser Leu Thr Asn  
 625 630

<210> 893

<211> 732

<212> DNA

<213> Arabidopsis thaliana

<400> 893

atgatcggcc aacttatgaa cctcaaggcc acggagctct gtctcggcct ccccggcggc	60
gctgaagcag ttgagagtcc tgccaaatcg gcggtgggaa gcaagagagg cttctccgaa	120
accgttgatc tcatgctcaa tcttcaatct aacaaagaag gctccgttga tctcaaaaac	180
gtttctgctg ttcccaagga gaagactacc cttaaagatc cttctaagcc tcctgctaaa	240
gcacaagtgg tgggatggcc acctgtgagg aactacagga agaacatgat gactcagcag	300
aagaccagta gtggtgcgga ggaggccagc agtgagaagg ccgggaactt tgggtggagga	360
gcagccggag ccggcttggt gaagggtctcc atggacggtg ctccatatct gaggaaagtt	420
gacctcaaga tgtacaaaag ctaccaggat ctttctgatg cattggccaa aatgttcagc	480
tcctttacta tgggaaacta tggagcacia ggaatgatag atttcatgaa cgagagcaag	540
ctaataatc tgctgaatag ctctgagtat gtgccaagct acgaggacaa agatggtgac	600
tggatgctcg ttggcgatgt cccatgggaa atgtttgtcg agtcttgcaa acgtttgcgc	660
attatgaagg gatctgaagc agttggactt gctccgagag caatggagaa gtactgcaag	720
aacagatcctt ga	732

<210> 894

<211> 243

<212> PRT

<213> Arabidopsis thaliana

<400> 894

Met Ile Gly Gln Leu Met Asn Leu Lys Ala Thr Glu Leu Cys Leu Gly  
 Page 1387

1 5 15

Leu Pro Gly Gly Ala Glu Ala Val Glu Ser Pro Ala Lys Ser Ala Val  
20 25 30

Gly Ser Lys Arg Gly Phe Ser Glu Thr Val Asp Leu Met Leu Asn Leu  
35 40 45

Gln Ser Asn Lys Glu Gly Ser Val Asp Leu Lys Asn Val Ser Ala Val  
50 55 60

Pro Lys Glu Lys Thr Thr Leu Lys Asp Pro Ser Lys Pro Pro Ala Lys  
65 70 75 80

Ala Gln Val Val Gly Trp Pro Pro Val Arg Asn Tyr Arg Lys Asn Met  
85 90 95

Met Thr Gln Gln Lys Thr Ser Ser Gly Ala Glu Glu Ala Ser Ser Glu  
100 105 110

Lys Ala Gly Asn Phe Gly Gly Gly Ala Ala Gly Ala Gly Leu Val Lys  
115 120 125

Val Ser Met Asp Gly Ala Pro Tyr Leu Arg Lys Val Asp Leu Lys Met  
130 135 140

Tyr Lys Ser Tyr Gln Asp Leu Ser Asp Ala Leu Ala Lys Met Phe Ser  
145 150 155 160

Ser Phe Thr Met Gly Asn Tyr Gly Ala Gln Gly Met Ile Asp Phe Met  
165 170 175

Asn Glu Ser Lys Leu Met Asn Leu Leu Asn Ser Ser Glu Tyr Val Pro  
180 185 190

Ser Tyr Glu Asp Lys Asp Gly Asp Trp Met Leu Val Gly Asp Val Pro  
195 200 205

Trp Glu Met Phe Val Glu Ser Cys Lys Arg Leu Arg Ile Met Lys Gly  
210 215 220

Ser Glu Ala Val Gly Leu Ala Pro Arg Ala Met Glu Lys Tyr Cys Lys  
225 230 235 240

Asn Arg Ser

&lt;210&gt; 895

&lt;211&gt; 453

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 895

```

atggcgccga aagcagagaa gaagcccgtc gagaagaaac cagcttccga gaagccggtg      60
gaggagaaat caaaagccga gaaagctccg gcgagagaaga aaccaaaggc cggaaagaag      120
ctcccgaagg aagctggtgc cggaggcgac aagaagaaaa agatgaagaa gaagagtgtc      180
gagacttaca agatctacat cttcaaggtg ctttaagcaag ttcattccga tatcggaatc      240
tccagcaaag cgatggggat catgaacagt ttcattaacg atatcttcga gaagcttgct      300
caagaggcgt cgaagcttgc gaggtacaat aagaaacctt cgatcacttc tcgggagatt      360
cagactgctg tgagattggt gcttcctgga gagttggcga agcatgccgt ttctgagggg      420
actaaagccg tcacgaaatt caccagctct tga                                     453

```

&lt;210&gt; 896

&lt;211&gt; 150

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 896

```

Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Glu Lys Lys Pro Ala Ser
1          5          10          15

Glu Lys Pro Val Glu Glu Lys Ser Lys Ala Glu Lys Ala Pro Ala Glu
20        25        30

Lys Lys Pro Lys Ala Gly Lys Lys Leu Pro Lys Glu Ala Gly Ala Gly
35        40        45

Gly Asp Lys Lys Lys Lys Met Lys Lys Lys Ser Val Glu Thr Tyr Lys
50        55        60

Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro Asp Ile Gly Ile
65        70        75        80

Ser Ser Lys Ala Met Gly Ile Met Asn Ser Phe Ile Asn Asp Ile Phe
85        90        95

```

047-E2F-PCT.ST25.txt

Glu Lys Leu Ala Gln Glu Ala Ser Lys Leu Ala Arg Tyr Asn Lys Lys  
 100 105 110

Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ala Val Arg Leu Val Leu  
 115 120 125

Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr Lys Ala Val  
 130 135 140

Thr Lys Phe Thr Ser Ser  
 145 150

<210> 897

<211> 3267

<212> DNA

<213> Arabidopsis thaliana

<400> 897

atggccacaa cagaagatac tccagcttct gctgggtccaa gatatgctcc agaggaccca	60
actcttcccc aaccatggaa gggacttatt gatggaagca caggaattct ctattactgg	120
aatcctgaaa ccaatgtcac tcagtatgaa agaccttctg cgcctcctcc ccactctgcc	180
acaacaccga agctagctca gattcctgta ccctcttcag gacaaggcca ccaagctcag	240
catgaacaag caaaaccagt tggatcatgtg tctcagcagc atgggtttcca acaacagcca	300
cagcaatttc catcccaaca tgtaagaccc caaatgatgc agcagcatcc ggcccagcaa	360
atgcctcaac aatcaggcca acagtttccc caacaacaga gccaatcgat ggtgccgcac	420
ccacatgggc atccttctgt acagacttat cagccaacga cgcagcagca gcagcaaggg	480
atgcagaatc agcattcaca aatgcctcag cagctgagcc atcagtatgc tcattcacia	540
caacattaca tgggttttctg gcctcacatg caaacgcaag gacttcaaaa ttcacatcag	600
acacctcagg gtggtcccca tggtcagcag tttccgagcc agcaagagta caactcattg	660
gctccgaaga gggaggggga tgagttccat gggggtaaga aaactgggtt ttctcaaccc	720
catttaccaa attctgaacg ttcaccatct caaaataccc actttgaagc caatgcagca	780
tcacaaaaga cgaatgcaaa cttggctatg gctcagaaat gcaatggacc tcaagcaaat	840
gctgcagtca cacagtttca acagccaggg gcgaacctaa ttcaccagca acttggacct	900
agggcgccaa atcaaatgga ccagacaatg ttgcaccaga agtctcacgt tccccctttc	960
caatcaaata atacttatga gaataatcta caatctaggc ctggtaatga ctcgtacgtt	1020
aacatgagaa tggaagtgcc gggttaggggt gcccaaccac ttcacacctg agcaatgcct	1080

aaggatataa ggataagtgg tgggccacca acaaatgctg atccccccat ggggcaaaca 1140  
gggcatggaa catatggaca cgctgggtcca gcttttccaa ataaatcctt ggtgcggcct 1200  
cattttgtca catctcctga tgttccccat ctctctcccg ttgaaatata ccgaaaacaa 1260  
catgaagtca caacaactgg cgagaacatt ccagcaccat acatcacatt tgaatctagt 1320  
ggtctcccac ctgaaatcct tagagagttg ctttctgctg gatttccatc gccaacaccg 1380  
atccaggccc aaacatggcc aattgctctg caaagcaggg atatagttgc aattgcaaaa 1440  
actggttctg gtaaaacatt gggatacttg atccctgcct tcattcttct aaggcactgt 1500  
cgtaacgact cccgcaatgg ccccacagtt ttgatcctag ctctactctg ggagctagcc 1560  
acacaaatac aagacgaagc actaaggttt ggacggtctt ccaggatatc atgcacttgt 1620  
ttgtatggtg gagctccaaa gggctctcaa ttgaaagagt tggaacgagg agctgatatt 1680  
gtggtggcaa ctcttgggcg tctaaatgat atactggaga tgaagatgat tgatttccag 1740  
caggtttccc ttcttgtgct tgacgaggca gaccgaatgc ttgacatggg ttttgaaccc 1800  
caaatccgta agattgtgaa tgaaatacct cctcggagac agactcttat gtacacagcc 1860  
acttggccaa aagaagtaag aaaaattgca agcgatcttc ttgtgaaccc tgtccaagtt 1920  
aacataggca gggtagatga gttggctgct aacaaagcaa taacgcagta tgttgaagta 1980  
gtcccacaaa tggagaaaga gagacgtttg gagcaaatcc ttaggtcaca agaacgaggt 2040  
tcaaaagtta taatatattt ctccacgaag aggccttctg accatcttgc acgtagtgtc 2100  
ggacgtcatt ttggcgctgt tgtgatccat ggagacaaga ctcaagggtga gagagattgg 2160  
gtgcttaacc agttccgaag cggaaggtct tgtgtactga tagctactga cgttgctgcc 2220  
cggggactcg acataaaaga catacgagtt gtgatcaact acgattttcc aactggagtt 2280  
gaagactatg tccaccgtat tgggagaacc ggtcgagctg gtgcaactgg agttgcattc 2340  
actttcttta cagagcaaga ttggaaatac gcacctgatt tgatcaaagt cctggaagga 2400  
gcgaaccagc aagtaccgcc tcaagtaaga gatattgcaa tgcgtggtgg tgggtggtgg 2460  
ggtcccgggt atagccagga tcgaagaggt atgggttaacc gggttgactc tggcggtgg 2520  
ggtaccggtt gggattcttg tgggtgggtt ggtgggcgtg gtggtgggtt tagtggccgt 2580  
gaggggtgggt ttggaggccg tgaggggtgga tttggggggc gtgaggggtg atttggaggc 2640  
cgtgggggaa gatttggaat gagagatgac tcatttgagc gtggcgggaa tcgtggtcgg 2700  
ggttttactg gtcctgatgc tggatcatat aatgtgggtg gtagaggcgg atttggtcgg 2760  
tttggaata ataataatat ggagagccga ggctttggtc gtggtagtgg tagaggcttt 2820  
ggtcgtggtg ttggacggtt tgacaacaga agaggtagaa gtcgcagcag aagtcctgat 2880  
ttggttcggc cacggcgccg tagctcgagc tatagccgga gtcgaagccg gagcgggagc 2940

tatagtcgta gccgtagccg tagcaggagc tggtcacgtt caaggagtcg cagccctaga 3000  
catagccgtg accgaggtgg tcataacagg agcagaagct atagccgtag tcctagtccg 3060  
gtttatgaaa gacgagatag agcgccacgt gtttctgggt ttgatattaa accaccagtt 3120  
gaatctgtag tgaacctgga catgaatgcc gcggcagcga ttgaaaacgt ggttcctaca 3180  
tccttgtctg agagacaagg gaatgggggt gttgaatcgg aggtagaagc ggcttttagta 3240  
cgaccagtgg ttgatgaaga accctaa 3267

<210> 898

<211> 1088

<212> PRT

<213> Arabidopsis thaliana

<400> 898

Met Ala Thr Thr Glu Asp Thr Pro Ala Ser Ala Gly Pro Arg Tyr Ala  
1 5 10 15

Pro Glu Asp Pro Thr Leu Pro Gln Pro Trp Lys Gly Leu Ile Asp Gly  
20 25 30

Ser Thr Gly Ile Leu Tyr Tyr Trp Asn Pro Glu Thr Asn Val Thr Gln  
35 40 45

Tyr Glu Arg Pro Ser Ala Pro Pro Pro His Ser Ala Thr Thr Pro Lys  
50 55 60

Leu Ala Gln Ile Pro Val Pro Ser Ser Gly Gln Gly His Gln Ala Gln  
65 70 75 80

His Glu Gln Ala Lys Pro Val Gly His Val Ser Gln Gln His Gly Phe  
85 90 95

Gln Gln Gln Pro Gln Gln Phe Pro Ser Gln His Val Arg Pro Gln Met  
100 105 110

Met Gln Gln His Pro Ala Gln Gln Met Pro Gln Gln Ser Gly Gln Gln  
115 120 125

Phe Pro Gln Gln Gln Ser Gln Ser Met Val Pro His Pro His Gly His  
130 135 140

Pro Ser Val Gln Thr Tyr Gln Pro Thr Thr Gln Gln Gln Gln Gly  
145 150 155 160

047-E2F-PCT.ST25.txt

Met Gln Asn Gln His Ser Gln Met Pro Gln Gln Leu Ser His Gln Tyr  
165 170 175

Ala His Ser Gln Gln His Tyr Met Gly Phe Arg Pro His Met Gln Thr  
180 185 190

Gln Gly Leu Gln Asn Ser His Gln Thr Pro Gln Gly Gly Pro His Gly  
195 200 205

Gln Gln Phe Pro Ser Gln Gln Glu Tyr Asn Ser Leu Ala Pro Lys Arg  
210 215 220

Glu Gly Asp Glu Phe His Gly Gly Lys Lys Thr Gly Phe Ser Gln Pro  
225 230 235 240

His Leu Pro Asn Ser Glu Arg Ser Pro Ser Gln Asn Thr His Phe Glu  
245 250 255

Ala Asn Ala Ala Ser Gln Lys Thr Asn Ala Asn Leu Ala Met Ala Gln  
260 265 270

Lys Cys Asn Gly Pro Gln Ala Asn Ala Ala Val Thr Gln Phe Gln Gln  
275 280 285

Pro Gly Ala Asn Leu Ile His Gln Gln Leu Gly Pro Arg Ala Pro Asn  
290 295 300

Gln Met Asp Gln Thr Met Leu His Gln Lys Ser His Val Ser Pro Phe  
305 310 315 320

Gln Ser Asn Asn Thr Tyr Glu Asn Asn Leu Gln Ser Arg Pro Gly Asn  
325 330 335

Asp Ser Tyr Val Asn Met Arg Met Glu Val Pro Val Arg Gly Ala Gln  
340 345 350

Pro Leu His Pro Ala Ala Met Pro Lys Asp Ile Arg Ile Ser Gly Gly  
355 360 365

Pro Pro Thr Asn Ala Asp Pro Ala Met Gly Gln Thr Gly His Gly Thr  
370 375 380

Tyr Gly His Ala Gly Pro Ala Phe Pro Asn Lys Ser Leu Val Arg Pro  
385 390 395 400

405

415

Tyr Arg Lys Gln His Glu Val Thr Thr Thr Gly Glu Asn Ile Pro Ala  
420 425 430

Pro Tyr Ile Thr Phe Glu Ser Ser Gly Leu Pro Pro Glu Ile Leu Arg  
435 440 445

Glu Leu Leu Ser Ala Gly Phe Pro Ser Pro Thr Pro Ile Gln Ala Gln  
450 455 460

Thr Trp Pro Ile Ala Leu Gln Ser Arg Asp Ile Val Ala Ile Ala Lys  
465 470 475 480

Thr Gly Ser Gly Lys Thr Leu Gly Tyr Leu Ile Pro Ala Phe Ile Leu  
485 490 495

Leu Arg His Cys Arg Asn Asp Ser Arg Asn Gly Pro Thr Val Leu Ile  
500 505 510

Leu Ala Pro Thr Arg Glu Leu Ala Thr Gln Ile Gln Asp Glu Ala Leu  
515 520 525

Arg Phe Gly Arg Ser Ser Arg Ile Ser Cys Thr Cys Leu Tyr Gly Gly  
530 535 540

Ala Pro Lys Gly Pro Gln Leu Lys Glu Leu Glu Arg Gly Ala Asp Ile  
545 550 555 560

Val Val Ala Thr Pro Gly Arg Leu Asn Asp Ile Leu Glu Met Lys Met  
565 570 575

Ile Asp Phe Gln Gln Val Ser Leu Leu Val Leu Asp Glu Ala Asp Arg  
580 585 590

Met Leu Asp Met Gly Phe Glu Pro Gln Ile Arg Lys Ile Val Asn Glu  
595 600 605

Ile Pro Pro Arg Arg Gln Thr Leu Met Tyr Thr Ala Thr Trp Pro Lys  
610 615 620

Glu Val Arg Lys Ile Ala Ser Asp Leu Leu Val Asn Pro Val Gln Val  
625 630 635 640

Asn Ile Gly Arg Val Asp Glu Leu Ala Ala Asn Lys Ala Ile Thr Gln  
645 650 655



047-E2F-PCT.ST25.txt

Tyr	Val	Glu	Val	Val	Pro	Gln	Met	Glu	Lys	Glu	Arg	Arg	Leu	Glu	Gln
		660						665					670		
Ile	Leu	Arg	Ser	Gln	Glu	Arg	Gly	Ser	Lys	Val	Ile	Ile	Phe	Cys	Ser
		675					680					685			
Thr	Lys	Arg	Leu	Cys	Asp	His	Leu	Ala	Arg	Ser	Val	Gly	Arg	His	Phe
	690					695					700				
Gly	Ala	Val	Val	Ile	His	Gly	Asp	Lys	Thr	Gln	Gly	Glu	Arg	Asp	Trp
705					710					715					720
Val	Leu	Asn	Gln	Phe	Arg	Ser	Gly	Lys	Ser	Cys	Val	Leu	Ile	Ala	Thr
			725						730					735	
Asp	Val	Ala	Ala	Arg	Gly	Leu	Asp	Ile	Lys	Asp	Ile	Arg	Val	Val	Ile
		740						745					750		
Asn	Tyr	Asp	Phe	Pro	Thr	Gly	Val	Glu	Asp	Tyr	Val	His	Arg	Ile	Gly
		755					760					765			
Arg	Thr	Gly	Arg	Ala	Gly	Ala	Thr	Gly	Val	Ala	Phe	Thr	Phe	Phe	Thr
	770					775					780				
Glu	Gln	Asp	Trp	Lys	Tyr	Ala	Pro	Asp	Leu	Ile	Lys	Val	Leu	Glu	Gly
785					790					795					800
Ala	Asn	Gln	Gln	Val	Pro	Pro	Gln	Val	Arg	Asp	Ile	Ala	Met	Arg	Gly
			805						810					815	
Gly	Gly	Gly	Gly	Gly	Pro	Gly	Tyr	Ser	Gln	Asp	Arg	Arg	Gly	Met	Val
			820					825					830		
Asn	Arg	Phe	Asp	Ser	Gly	Gly	Gly	Gly	Thr	Arg	Trp	Asp	Ser	Gly	Gly
		835					840					845			
Gly	Phe	Gly	Gly	Arg	Gly	Gly	Gly	Phe	Ser	Gly	Arg	Glu	Gly	Gly	Phe
	850					855					860				
Gly	Gly	Arg	Glu	Gly	Gly	Phe	Gly	Gly	Arg	Glu	Gly	Gly	Phe	Gly	Gly
865					870					875					880
Arg	Gly	Gly	Arg	Phe	Gly	Met	Arg	Asp	Asp	Ser	Phe	Gly	Arg	Gly	Gly
				885					890					895	
Asn	Arg	Gly	Arg	Gly	Phe	Thr	Gly	Pro	Asp	Ala	Gly	His	Met	Asn	Val
			900					905					910		

047-E2F-PCT.ST25.txt

Gly Gly Arg Gly Gly Phe Gly Arg Phe Gly Asn Asn Asn Asn Met Glu  
915 920 925

Ser Arg Gly Phe Gly Arg Gly Ser Gly Arg Gly Phe Gly Arg Gly Val  
930 935 940

Gly Arg Phe Asp Asn Arg Arg Gly Arg Ser Arg Ser Arg Ser Pro Asp  
945 950 955 960

Leu Val Arg Pro Arg Arg Arg Ser Ser Ser Tyr Ser Arg Ser Arg Ser  
965 970 975

Arg Ser Gly Ser Tyr Ser Arg Ser Arg Ser Arg Ser Arg Ser Trp Ser  
980 985 990

Arg Ser Arg Ser Arg Ser Pro Arg His Ser Arg Asp Arg Gly Gly His  
995 1000 1005

Asn Arg Ser Arg Ser Tyr Ser Arg Ser Pro Ser Pro Val Tyr Glu  
1010 1015 1020

Arg Arg Asp Arg Ala Pro Arg Val Ser Gly Phe Asp Ile Lys Pro  
1025 1030 1035

Pro Val Glu Ser Val Val Asn Leu Asp Met Asn Ala Ala Ala Ala  
1040 1045 1050

Ile Glu Asn Val Val Pro Thr Ser Leu Ser Glu Arg Gln Gly Asn  
1055 1060 1065

Gly Val Val Glu Ser Glu Val Glu Ala Ala Leu Val Arg Pro Val  
1070 1075 1080

Val Asp Glu Glu Pro  
1085

<210> 899

<211> 681

<212> DNA

<213> Arabidopsis thaliana

<400> 899

atgtctgatg tcccttcttg ttctagcggg aatgatacaa acaacaatga ttcgagtaac 60

ttcgaatgta acatctgctt agacttgggt caagatccta ttgtcactct ctgtgggtcac 120

047-E2F-PCT.ST25.txt

```

ttgtttctggtt ggccttggtt atacaaatgg ctccatctcc attctcaatc taaggactgt 180
cctgttttgca aagccgtgat cgaagaagac agattgggtt ctttgtacgg tagaggtaaa 240
tcgtctgctg accctcggtc caagtccatt ccgggtctcg aagtgcctaa ccgtccatcg 300
ggacagagac ccgaaactgc acaacctcct gatcctaacc atggttttgc tcatcatcat 360
gggttttgag ggttcatggg aggttttgct gctccgatgg cgagtgcgcg gttcgggaat 420
gttacattgt ctgcagcgtt tggcgggttg attccttctt tgttcaacct ccatttccat 480
ggtttccctg atgcagccat gtatggagct gctgcttctg gcggcttccc tcacggtttc 540
tcgaatccgt ttcattggagg acactcgc atgcatagtt accagcggca cacgggtcga 600
caaggacaac aagaccatca cttgaggata ttgttactca ttgttttcgt cgttggttg 660
ttttctctct tcttgagcta g 681

```

<210> 900

<211> 226

<212> PRT

<213> Arabidopsis thaliana

<400> 900

Met Ser Asp Val Pro Ser Cys Ser Ser Gly Asn Asp Thr Asn Asn Asn  
1 5 10 15

Asp Ser Ser Asn Phe Glu Cys Asn Ile Cys Leu Asp Leu Ala Gln Asp  
20 25 30

Pro Ile Val Thr Leu Cys Gly His Leu Phe Cys Trp Pro Cys Leu Tyr  
35 40 45

Lys Trp Leu His Leu His Ser Gln Ser Lys Asp Cys Pro Val Cys Lys  
50 55 60

Ala Val Ile Glu Glu Asp Arg Leu Val Pro Leu Tyr Gly Arg Gly Lys  
65 70 75 80

Ser Ser Ala Asp Pro Arg Ser Lys Ser Ile Pro Gly Leu Glu Val Pro  
85 90 95

Asn Arg Pro Ser Gly Gln Arg Pro Glu Thr Ala Gln Pro Pro Asp Pro  
100 105 110

Asn His Gly Phe Ala His His His Gly Phe Gly Gly Phe Met Gly Gly

115

120

125

Phe Ala Ala Pro Met Ala Ser Ala Arg Phe Gly Asn Val Thr Leu Ser  
 130 135 140

Ala Ala Phe Gly Gly Leu Ile Pro Ser Leu Phe Asn Leu His Phe His  
 145 150 155 160

Gly Phe Pro Asp Ala Ala Met Tyr Gly Ala Ala Ala Ser Gly Gly Phe  
 165 170 175

Pro His Gly Phe Ser Asn Pro Phe His Gly Gly His Ser His Met His  
 180 185 190

Ser Tyr Gln Arg His Thr Gly Arg Gln Gly Gln Gln Asp His His Leu  
 195 200 205

Arg Ile Leu Leu Leu Ile Val Phe Val Val Val Val Phe Ser Leu Phe  
 210 215 220

Leu Ser  
 225

&lt;210&gt; 901

&lt;211&gt; 228

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 901

atgtcagggtg cgcttgcatg gcagggtcaaa aaactgatcc tcaataaaaa aaagattttg 60

tggggttttgg agaggaggtc gcacgggtta ttattttttc ccgggatctc ttctcctctg 120

tgtgtgtcgt cttgcctctg ctctatctct ctccctgctc tttcacattt catatctttc 180

ttaaatgctc atatacactc aaaaaccgat cataagcaga gtttgtaa 228

&lt;210&gt; 902

&lt;211&gt; 75

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 902

Met Ser Gly Ala Leu Ala Trp Gln Val Lys Lys Leu Ile Leu Asn Lys  
 1 5 10 15

Lys Lys Ile Leu Trp Val Leu Glu Arg Arg Ser His Gly Leu Leu Phe  
 20 25 30

Phe Pro Gly Ile Ser Ser Pro Leu Cys Val Ser Ser Cys Leu Cys Ser  
 35 40 45

Ile Ser Leu Pro Ala Leu Ser His Phe Ile Ser Phe Leu Asn Ala His  
 50 55 60

Ile His Ser Lys Thr Asp His Lys Gln Ser Leu  
 65 70 75

<210> 903

<211> 606

<212> DNA

<213> Arabidopsis thaliana

<400> 903

atggcggttt cagtttcaat cctcaccgtc gtcactgtc ttcacctct tgctttcgtc	60
ttcgccttcg gtgccgagcg tcgccgtagc accgctgtgc cggttccgga tcagtacgat	120
gagaagacta tttgtaagta cggaactgag gcgtcgacag tgtacggtat gtcggcgttt	180
gggttgcttc ttgttagcca agcggtggtt aacgggtgta ctaagtgtct ctgttttgga	240
aagggtcttg ttactggtag ttcttacact gtctgggcta ttgtcttctt cgttgtttct	300
tgggtaagct ttttaggagc tgaggcgtgc ttgttgggtg gatcagcgag gaacgcgtac	360
cactactaaa gtgaaggcat ttacaaagg aaagagcttt cgtgtgccgt cttaccggtt	420
ggagtctttg ctgctggagc tgctttcact ctcatgtctt tgattgcaac cattctttac	480
tacttggttc attctaaggc tgatactggc ggatgggaga agcatcagaa cgatggcatt	540
aacattggta tgaccactcc ttcagatgct ccaaagcaac aaaacaccga gtttaacaag	600
gtctaa	606

<210> 904

<211> 201

<212> PRT

<213> Arabidopsis thaliana

047-E2F-PCT.ST25.txt

<400> 904

```

Met Ala Val Ser Val Ser Ile Leu Thr Val Val Thr Ala Leu His Leu
1      5      10
Leu Ala Phe Val Phe Ala Phe Gly Ala Glu Arg Arg Arg Ser Thr Ala
20     25     30
Val Pro Val Pro Asp Gln Tyr Asp Glu Lys Thr Ile Cys Lys Tyr Gly
35     40     45
Thr Glu Ala Ser Thr Val Tyr Gly Met Ser Ala Phe Gly Leu Leu Leu
50     55     60
Val Ser Gln Ala Val Val Asn Gly Val Thr Lys Cys Leu Cys Phe Gly
65     70     75     80
Lys Gly Leu Val Thr Gly Thr Ser Tyr Thr Val Trp Ala Ile Val Phe
85     90     95
Phe Val Val Ser Trp Val Ser Phe Leu Gly Ala Glu Ala Cys Leu Leu
100    105    110
Gly Gly Ser Ala Arg Asn Ala Tyr His Thr Lys Ser Glu Gly Ile Tyr
115    120    125
Lys Gly Lys Glu Leu Ser Cys Ala Val Leu Pro Val Gly Val Phe Ala
130    135    140
Ala Gly Ala Ala Phe Thr Leu Met Ser Leu Ile Ala Thr Ile Leu Tyr
145    150    155    160
Tyr Leu Ala His Ser Lys Ala Asp Thr Gly Gly Trp Glu Lys His Gln
165    170    175
Asn Asp Gly Ile Asn Ile Gly Met Thr Thr Pro Ser Asp Ala Pro Lys
180    185    190
Gln Gln Asn Thr Glu Phe Asn Lys Val
195    200

```

<210> 905

<211> 1263

<212> DNA

<213> Arabidopsis thaliana

```

<400> 905
atgttagctc tgtctccggc gacaagagat ggttgcgacg gagcgtcaga gtttcttgat    60
acgtcgtgtg gattcacgat tataaaccgc gaggaggagg aggagtttcc ggatttcgct    120
gaccacggtg atcttcttga catcattgac ttcgacgata tattcgggtgt ggccggagat    180
gtgcttcctg acttgagat cgaccctgag atcttatccg gggatttctc caatcacatg    240
aacgcttctt caacgattac tacgacgtcg gataagactg atagtcaagg ggagactact    300
aagggtagtt cggggaaagg tgaagaagtc gtaagcaaaa gagacgatgt tgcggcggag    360
acggtgactt atgacggtga cagtgaccgg aaaaggaagt attcctcttc agcttcttcc    420
aagaacaatc ggatcagtaa caacgaaggg aagagaaagg tgaagggtgga ttggacacca    480
gagctacaca ggagattcgt ggaggcagtg gaacagttag gagtggacaa agctgttcct    540
tctcgaattc tggagcttat gggagtccat tgtctcactc gtcacaacgt tgctagtcac    600
ctccaaaaat ataggtctca tcggaacat ttgctagctc gtgaggccga agcggctaata    660
tggacacgca aaaggcatat ctatggagta gacaccggtg ctaatcttaa tggtcggact    720
aaaaatggat ggcttgcacc ggcaccact ctcgggtttc caccaccacc acccggtggct    780
gttgcaccgc cacctgtcca ccaccatcat tttaggcccc tgcattgtgtg gggacatccc    840
acggttgatc agtccattat gccgcatgtg tggcccaaac acttacctcc gccttctacc    900
gccatgccta atccgccgtt ttgggtctcc gattctccct attggcatcc aatgcataac    960
gggacgactc cgtattttacc gaccgtagct acgagattta gagcaccgcc agttgccgga   1020
atcccgcatg ctctgccgcc gcatcacacg atgtacaaac caaatcttgg atttggtggt   1080
gctcgtcctc cggtagactt acatccgtca aaagagagcg tggatgcagc cataggagat   1140
gtattgacga ggccatggct gccacttccg ttgggattaa atccgccggc tgttgacggt   1200
gttatgacag agcttcaccg tcacggtgtc tctgaggttc ctccgaccgc gtcttgtgcc   1260
tga                                                                    1263

```

<210> 906

<211> 420

<212> PRT

<213> *Arabidopsis thaliana*

<400> 906

```

Met Leu Ala Leu Ser Pro Ala Thr Arg Asp Gly Cys Asp Gly Ala Ser
1          5          10          15

```

047-E2F-PCT.ST25.txt

Glu Phe Leu Asp Thr Ser Cys Gly Phe Thr Ile Ile Asn Pro Glu Glu  
 20 25 30  
 Glu Glu Glu Phe Pro Asp Phe Ala Asp His Gly Asp Leu Leu Asp Ile  
 35 40 45  
 Ile Asp Phe Asp Asp Ile Phe Gly Val Ala Gly Asp Val Leu Pro Asp  
 50 55 60  
 Leu Glu Ile Asp Pro Glu Ile Leu Ser Gly Asp Phe Ser Asn His Met  
 65 70 75 80  
 Asn Ala Ser Ser Thr Ile Thr Thr Thr Ser Asp Lys Thr Asp Ser Gln  
 85 90 95  
 Gly Glu Thr Thr Lys Gly Ser Ser Gly Lys Gly Glu Glu Val Val Ser  
 100 105 110  
 Lys Arg Asp Asp Val Ala Ala Glu Thr Val Thr Tyr Asp Gly Asp Ser  
 115 120 125  
 Asp Arg Lys Arg Lys Tyr Ser Ser Ser Ala Ser Ser Lys Asn Asn Arg  
 130 135 140  
 Ile Ser Asn Asn Glu Gly Lys Arg Lys Val Lys Val Asp Trp Thr Pro  
 145 150 155 160  
 Glu Leu His Arg Arg Phe Val Glu Ala Val Glu Gln Leu Gly Val Asp  
 165 170 175  
 Lys Ala Val Pro Ser Arg Ile Leu Glu Leu Met Gly Val His Cys Leu  
 180 185 190  
 Thr Arg His Asn Val Ala Ser His Leu Gln Lys Tyr Arg Ser His Arg  
 195 200 205  
 Lys His Leu Leu Ala Arg Glu Ala Glu Ala Ala Asn Trp Thr Arg Lys  
 210 215 220  
 Arg His Ile Tyr Gly Val Asp Thr Gly Ala Asn Leu Asn Gly Arg Thr  
 225 230 235 240  
 Lys Asn Gly Trp Leu Ala Pro Ala Pro Thr Leu Gly Phe Pro Pro Pro  
 245 250 255  
 Pro Pro Val Ala Val Ala Pro Pro Pro Val His His His His Phe Arg  
 260 265 270



047-E2F-PCT.ST25.txt

Pro Leu His Val Trp Gly His Pro Thr Val Asp Gln Ser Ile Met Pro  
275 280 285

His Val Trp Pro Lys His Leu Pro Pro Pro Ser Thr Ala Met Pro Asn  
290 295 300

Pro Pro Phe Trp Val Ser Asp Ser Pro Tyr Trp His Pro Met His Asn  
305 310 315 320

Gly Thr Thr Pro Tyr Leu Pro Thr Val Ala Thr Arg Phe Arg Ala Pro  
325 330 335

Pro Val Ala Gly Ile Pro His Ala Leu Pro Pro His His Thr Met Tyr  
340 345 350

Lys Pro Asn Leu Gly Phe Gly Gly Ala Arg Pro Pro Val Asp Leu His  
355 360 365

Pro Ser Lys Glu Ser Val Asp Ala Ala Ile Gly Asp Val Leu Thr Arg  
370 375 380

Pro Trp Leu Pro Leu Pro Leu Gly Leu Asn Pro Pro Ala Val Asp Gly  
385 390 395 400

Val Met Thr Glu Leu His Arg His Gly Val Ser Glu Val Pro Pro Thr  
405 410 415

Ala Ser Cys Ala  
420

<210> 907

<211> 1020

<212> DNA

<213> Arabidopsis thaliana

<400> 907

atggcgccag ttcttcagag ctcacagcca tgggttgaga aataccggcc gaagcaggtt	60
aaggacgtgg ctcaccagga agaggtgggt cgtgtcctca ccaacactct ccagactgct	120
gactgcccgc acatgctctt ctatggacca ccaggcactg gaaaaaccac tactgctctt	180
gccatcgctc accagctctt tggacctgaa ctatacaagt ctaggggtgtt ggagcttaat	240
gcaagtgatg acagaggtat taatgttggt cggactaaga tcaaggattt tgctgctggt	300

047-E2F-PCT.ST25.txt

gctgttgggt ctaatcatcg tcaaagtggg tatccttgcc catcgtttaa gatcatcatc 360  
ctagatgagg ctgattcgat gacagaagat gctcagaatg ccttgaggcg cacaatggaa 420  
acttactcca aagtcaccag attctttttc atatgtaatt acatcagcag gatcatagag 480  
ccccttgctt ccaggtgtgc gaagttcagg tttaaaccac tttccgaaga agtcatgagt 540  
aaccgtatat tgcataattg taatgaagaa ggtctcagcc ttgatggaga ggctctttca 600  
actttgagct ccataatcaca aggtgatctc cgtagggcca tcacatatct gcagagtgct 660  
actcggttgt ttggatcaac aataacttct acagatttac tcaatgtgtc tggggtagtt 720  
cctctagagg tagtcaataa actttttact gcatgcaaaa gtggtgattt cgatattgca 780  
aacaaggaag tggataacat agttgcagaa ggatattctg catctcaaat catcaatcag 840  
ctattcgata tagttgcgga ggctgacagt gacataacag acatgcaaaa ggctaagatc 900  
tgcaaagtgt tagctgaaac tgataagcga cttgtagacg gggcggatga gtacttgacg 960  
cttctggatg tggcaagcag tacaatttgt gccctctcag aaatggctca agacttctaa 1020

<210> 908

<211> 339

<212> PRT

<213> Arabidopsis thaliana

<400> 908

Met Ala Pro Val Leu Gln Ser Ser Gln Pro Trp Val Glu Lys Tyr Arg  
1 5 10 15

Pro Lys Gln Val Lys Asp Val Ala His Gln Glu Glu Val Val Arg Val  
20 25 30

Leu Thr Asn Thr Leu Gln Thr Ala Asp Cys Pro His Met Leu Phe Tyr  
35 40 45

Gly Pro Pro Gly Thr Gly Lys Thr Thr Thr Ala Leu Ala Ile Ala His  
50 55 60

Gln Leu Phe Gly Pro Glu Leu Tyr Lys Ser Arg Val Leu Glu Leu Asn  
65 70 75 80

Ala Ser Asp Asp Arg Gly Ile Asn Val Val Arg Thr Lys Ile Lys Asp  
85 90 95

Phe Ala Ala Val Ala Val Gly Ser Asn His Arg Gln Ser Gly Tyr Pro  
100 105 110

047-E2F-PCT.ST25.txt

Cys Pro Ser Phe Lys Ile Ile Ile Leu Asp Glu Ala Asp Ser Met Thr  
 115 120 125  
 Glu Asp Ala Gln Asn Ala Leu Arg Arg Thr Met Glu Thr Tyr Ser Lys  
 130 135 140  
 Val Thr Arg Phe Phe Phe Ile Cys Asn Tyr Ile Ser Arg Ile Ile Glu  
 145 150 155 160  
 Pro Leu Ala Ser Arg Cys Ala Lys Phe Arg Phe Lys Pro Leu Ser Glu  
 165 170 175  
 Glu Val Met Ser Asn Arg Ile Leu His Ile Cys Asn Glu Glu Gly Leu  
 180 185 190  
 Ser Leu Asp Gly Glu Ala Leu Ser Thr Leu Ser Ser Ile Ser Gln Gly  
 195 200 205  
 Asp Leu Arg Arg Ala Ile Thr Tyr Leu Gln Ser Ala Thr Arg Leu Phe  
 210 215 220  
 Gly Ser Thr Ile Thr Ser Thr Asp Leu Leu Asn Val Ser Gly Val Val  
 225 230 235 240  
 Pro Leu Glu Val Val Asn Lys Leu Phe Thr Ala Cys Lys Ser Gly Asp  
 245 250 255  
 Phe Asp Ile Ala Asn Lys Glu Val Asp Asn Ile Val Ala Glu Gly Tyr  
 260 265 270  
 Pro Ala Ser Gln Ile Ile Asn Gln Leu Phe Asp Ile Val Ala Glu Ala  
 275 280 285  
 Asp Ser Asp Ile Thr Asp Met Gln Lys Ala Lys Ile Cys Lys Cys Leu  
 290 295 300  
 Ala Glu Thr Asp Lys Arg Leu Val Asp Gly Ala Asp Glu Tyr Leu Gln  
 305 310 315 320  
 Leu Leu Asp Val Ala Ser Ser Thr Ile Cys Ala Leu Ser Glu Met Ala  
 325 330 335  
 Gln Asp Phe

<210> 909

&lt;211&gt; 852

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 909

```

atggcagagc atttagcttc aatctttggt actgaaaagg atagagtgaa ttgtccgttt      60
tactttaaga ttggtgcttg tcgtcacggt gaccggtgct cacggcttca taaccgtccc      120
accatctcgc cgacgcttct cctctcgaac atgtaccaga gacctgacat gataactcca      180
ggtgtggatc ctcagggaca gccgttagac ccgagtaaga tccaagacca ctttgaggat      240
ttctacgaag atattttcga agaactcaac aagtttggtg aagtggagag tctcaatggt      300
tgtgacaatc ttgctgatca tatgattggg aatgtgtatg ttctgtttta ggaggaggat      360
cacgcagctg ctgcgttgca ggctttgcag gggagatttt attccggtcg tcctatcatt      420
gctgatttct ctcctgtgac ggattttagg gaagctactt gtaggcagta tgaagaaaac      480
agctgtaacc gtggtgggta ctgtaatttc atgcatgtga agcagatttc gagggagctt      540
aggaggaaat tgtttgggag gtatcgtcgt tcataccgtc ggggaagcag aagtcgaagc      600
aggagtataa gccctcgacg taagagagag cattcgcgag agcgagagag aggggacggt      660
agggaccgtg accggcatgg aaatgggaaa aggagcagtg atagatcaga gaggcgatgat      720
cgggatggtg gtggaaggag gagacatgga agcccgaaac ggagcagaag cccacgaaat      780
gtgagagaag gaagcgagga aaggagggcg agaattgagc aatggaaccg agaacgtgat      840
gagggagttt aa                                                                852

```

&lt;210&gt; 910

&lt;211&gt; 283

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 910

```

Met Ala Glu His Leu Ala Ser Ile Phe Gly Thr Glu Lys Asp Arg Val
1           5           10           15

Asn Cys Pro Phe Tyr Phe Lys Ile Gly Ala Cys Arg His Gly Asp Arg
          20           25           30

Cys Ser Arg Leu His Asn Arg Pro Thr Ile Ser Pro Thr Leu Leu Leu
          35           40           45

```

047-E2F-PCT.ST25.txt

Ser Asn Met Tyr Gln Arg Pro Asp Met Ile Thr Pro Gly Val Asp Pro  
50 55 60

Gln Gly Gln Pro Leu Asp Pro Ser Lys Ile Gln Asp His Phe Glu Asp  
65 70 75 80

Phe Tyr Glu Asp Ile Phe Glu Glu Leu Asn Lys Phe Gly Glu Val Glu  
85 90 95

Ser Leu Asn Val Cys Asp Asn Leu Ala Asp His Met Ile Gly Asn Val  
100 105 110

Tyr Val Leu Phe Lys Glu Glu Asp His Ala Ala Ala Ala Leu Gln Ala  
115 120 125

Leu Gln Gly Arg Phe Tyr Ser Gly Arg Pro Ile Ile Ala Asp Phe Ser  
130 135 140

Pro Val Thr Asp Phe Arg Glu Ala Thr Cys Arg Gln Tyr Glu Glu Asn  
145 150 155 160

Ser Cys Asn Arg Gly Gly Tyr Cys Asn Phe Met His Val Lys Gln Ile  
165 170 175

Ser Arg Glu Leu Arg Arg Lys Leu Phe Gly Arg Tyr Arg Arg Ser Tyr  
180 185 190

Arg Arg Gly Ser Arg Ser Arg Ser Arg Ser Ile Ser Pro Arg Arg Lys  
195 200 205

Arg Glu His Ser Arg Glu Arg Glu Arg Gly Asp Val Arg Asp Arg Asp  
210 215 220

Arg His Gly Asn Gly Lys Arg Ser Ser Asp Arg Ser Glu Arg His Asp  
225 230 235 240

Arg Asp Gly Gly Gly Arg Arg Arg His Gly Ser Pro Lys Arg Ser Arg  
245 250 255

Ser Pro Arg Asn Val Arg Glu Gly Ser Glu Glu Arg Arg Ala Arg Ile  
260 265 270

Glu Gln Trp Asn Arg Glu Arg Asp Glu Gly Val  
275 280

<210> 911

&lt;211&gt; 1065

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 911

```

atgtttgtggg tgcacaagta caggccgaaa tctctcgaca aggtcatagt tcatgaagat    60
atcgcccaaa aactcaagaa attggtttcc gagcaagatt gtccacattt gctcttttat    120
gggccgtcag gttcttggtaa gaaaacccta attatggctc ttctcaagca gatatatggg    180
gccagtgcag agaaggtgaa agtggagaac agggcatgga aagttgatgc tgggagtaga    240
actattgatc tggagctcac tacattatca agcaccaatc atgtggaact tactccaagt    300
gatgcaggct ttcaggacag atatattggt caggagataa ttaaagaaat ggccaagaac    360
agaccaattg acacgaaagg aaagaaggga tataaggtgt tggattataa tgaggttgac    420
aagctctcac gagaagctca acattctctg cggagaacaa tggagaaata cagctcatct    480
tgccgtctca tcttatgctg caacagctct tcgaagggtta ccgaagccat taagtctcgt    540
tgtctcaatg tgcgcataaa tgcaccttcg caggaagaga tagtgaaagt gttggagttc    600
gttgcaaaga aagaaagtct gcaactgccc cagggttttg ctgctcgtat tgctgaaaaa    660
tcaaatcgca gtctaagaag agctattttg tcaactgaaa cttgtcgtgt ccaaaactat    720
ccgttcacag gtaaccaagt gatattctcc atggattggg aagagtatgt tgctgaaata    780
gcaactgaca tgatgaaaga acaaagccct aaaaagttat ttcagggtgcg tggaaagggtg    840
tacgaattac tagttaattg tattccacca gaagtcattc taaagagact cttcatgaa    900
ttgctgaaga aactggactc agagctaaag cttgaagtct gccactgggc tgcatattat    960
gaacatcgga tgcgattagg tcagaaagcc atatttcaca tagaagcatt tgtggccaag   1020
tttatgagca tatacaaaaa cttcctcatt tcaacgtttg ggtag                               1065

```

&lt;210&gt; 912

&lt;211&gt; 354

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 912

```

Met Leu Trp Val Asp Lys Tyr Arg Pro Lys Ser Leu Asp Lys Val Ile
1          5          10          15

```

Val His Glu Asp Ile Ala Gln Lys Leu Lys Lys Leu Val Ser Glu Gln  
 20 25 30  
 Asp Cys Pro His Leu Leu Phe Tyr Gly Pro Ser Gly Ser Gly Lys Lys  
 35 40 45  
 Thr Leu Ile Met Ala Leu Leu Lys Gln Ile Tyr Gly Ala Ser Ala Glu  
 50 55 60  
 Lys Val Lys Val Glu Asn Arg Ala Trp Lys Val Asp Ala Gly Ser Arg  
 65 70 75 80  
 Thr Ile Asp Leu Glu Leu Thr Thr Leu Ser Ser Thr Asn His Val Glu  
 85 90 95  
 Leu Thr Pro Ser Asp Ala Gly Phe Gln Asp Arg Tyr Ile Val Gln Glu  
 100 105 110  
 Ile Ile Lys Glu Met Ala Lys Asn Arg Pro Ile Asp Thr Lys Gly Lys  
 115 120 125  
 Lys Gly Tyr Lys Val Leu Val Leu Asn Glu Val Asp Lys Leu Ser Arg  
 130 135 140  
 Glu Ala Gln His Ser Leu Arg Arg Thr Met Glu Lys Tyr Ser Ser Ser  
 145 150 155 160  
 Cys Arg Leu Ile Leu Cys Cys Asn Ser Ser Ser Lys Val Thr Glu Ala  
 165 170 175  
 Ile Lys Ser Arg Cys Leu Asn Val Arg Ile Asn Ala Pro Ser Gln Glu  
 180 185 190  
 Glu Ile Val Lys Val Leu Glu Phe Val Ala Lys Lys Glu Ser Leu Gln  
 195 200 205  
 Leu Pro Gln Gly Phe Ala Ala Arg Ile Ala Glu Lys Ser Asn Arg Ser  
 210 215 220  
 Leu Arg Arg Ala Ile Leu Ser Leu Glu Thr Cys Arg Val Gln Asn Tyr  
 225 230 235 240  
 Pro Phe Thr Gly Asn Gln Val Ile Ser Pro Met Asp Trp Glu Glu Tyr  
 245 250 255  
 Val Ala Glu Ile Ala Thr Asp Met Met Lys Glu Gln Ser Pro Lys Lys  
 260 265 270

047-E2F-PCT.ST25.txt

Leu Phe Gln Val Arg Gly Lys Val Tyr Glu Leu Leu Val Asn Cys Ile  
275 280 285

Pro Pro Glu Val Ile Leu Lys Arg Leu Leu His Glu Leu Leu Lys Lys  
290 295 300

Leu Asp Ser Glu Leu Lys Leu Glu Val Cys His Trp Ala Ala Tyr Tyr  
305 310 315 320

Glu His Arg Met Arg Leu Gly Gln Lys Ala Ile Phe His Ile Glu Ala  
325 330 335

Phe Val Ala Lys Phe Met Ser Ile Tyr Lys Asn Phe Leu Ile Ser Thr  
340 345 350

Phe Gly

<210> 913

<211> 1128

<212> DNA

<213> Arabidopsis thaliana

<400> 913

atggcggcgt	tgatggagtc	agtcgtcggc	cgagctctaa	aattctcatc	gacggcgaat	60
ttcaggtcaa	tccgacgcgg	cgaaacacca	acactctgta	tcaaatcatt	ctccaccatt	120
atgtcaccac	cgtcaaaagc	catcgtctac	gaagaacacg	gctctcccga	ttccgtcacc	180
agattggtga	atctcccgcc	ggtggaagtg	aaagaaaacg	acgttttgtgt	taaaatgatc	240
gccgctccga	tcaaccctc	cgatatcaat	cgaattgaag	gtgtgtatcc	ggtgaggcca	300
ccggtaccag	cggttggtgg	ttatgaaggt	gttggtgaag	tttatgcagt	tggctccaat	360
gttaatgggt	tttctcctgg	tgattgggtc	attccatctc	caccttcttc	agggacttgg	420
cagacttatg	ttgtgaagga	agagagtgtg	tggcacaaaa	tcgataaaga	gtgtccaatg	480
gagtatgcag	cgacgattac	tgtaaatcca	ttgacggcct	tgaggatgct	tgaggacttt	540
gtgaacttga	attctgggga	ttctgttgta	cagaatggtg	caacaagtat	tgtgggtcag	600
tgtgtcattc	agttggcaag	actccgtggc	atcagtacca	tcaaccttat	tcgtgacagg	660
gctgggtcgg	atgaagcaag	agagcagctg	aaagctctag	gtgcagatga	agtcttttca	720
gagagtcaac	tgaatgtaaa	gaatgtgaaa	agtcttttgg	gtaacttacc	tgaaccagct	780
ctgggattca	actgtgttgg	tggcaatgct	gcctctcttg	tcctcaaata	tctcagggaa	840



047-E2F-PCT.ST25.txt

ggaggaacca tggtaacata tgggtgggatg tctaagaagc caatcactgt gtcaacaaca 900  
tctttcatct ttaaggattt ggccttaaga ggattttggc tgcagagttg gttgagtatg 960  
ggtaaagtaa aagaatgcag agagatgata gactatctcc tcgggcttgc acgagacggg 1020  
aagctaaaat acgaaacgga attggttccc ttcgaagagt tccctgttgc tctcgataaa 1080  
gctctcggga agctaggaag gcaacctaaa caagtcatca cattctga 1128

<210> 914

<211> 375

<212> PRT

<213> Arabidopsis thaliana

<400> 914

Met Ala Ala Leu Met Glu Ser Val Val Gly Arg Ala Leu Lys Phe Ser  
1 5 10 15

Ser Thr Ala Asn Phe Arg Ser Ile Arg Arg Gly Glu Thr Pro Thr Leu  
20 25 30

Cys Ile Lys Ser Phe Ser Thr Ile Met Ser Pro Pro Ser Lys Ala Ile  
35 40 45

Val Tyr Glu Glu His Gly Ser Pro Asp Ser Val Thr Arg Leu Val Asn  
50 55 60

Leu Pro Pro Val Glu Val Lys Glu Asn Asp Val Cys Val Lys Met Ile  
65 70 75 80

Ala Ala Pro Ile Asn Pro Ser Asp Ile Asn Arg Ile Glu Gly Val Tyr  
85 90 95

Pro Val Arg Pro Pro Val Pro Ala Val Gly Gly Tyr Glu Gly Val Gly  
100 105 110

Glu Val Tyr Ala Val Gly Ser Asn Val Asn Gly Phe Ser Pro Gly Asp  
115 120 125

Trp Val Ile Pro Ser Pro Pro Ser Ser Gly Thr Trp Gln Thr Tyr Val  
130 135 140

Val Lys Glu Glu Ser Val Trp His Lys Ile Asp Lys Glu Cys Pro Met  
145 150 155 160

047-E2F-PCT.ST25.txt

Glu Tyr Ala Ala Thr Ile Thr Val Asn Pro Leu Thr Ala Leu Arg Met  
 165 170 175  
 Leu Glu Asp Phe Val Asn Leu Asn Ser Gly Asp Ser Val Val Gln Asn  
 180 185 190  
 Gly Ala Thr Ser Ile Val Gly Gln Cys Val Ile Gln Leu Ala Arg Leu  
 195 200 205  
 Arg Gly Ile Ser Thr Ile Asn Leu Ile Arg Asp Arg Ala Gly Ser Asp  
 210 215 220  
 Glu Ala Arg Glu Gln Leu Lys Ala Leu Gly Ala Asp Glu Val Phe Ser  
 225 230 235 240  
 Glu Ser Gln Leu Asn Val Lys Asn Val Lys Ser Leu Leu Gly Asn Leu  
 245 250 255  
 Pro Glu Pro Ala Leu Gly Phe Asn Cys Val Gly Gly Asn Ala Ala Ser  
 260 265 270  
 Leu Val Leu Lys Tyr Leu Arg Glu Gly Gly Thr Met Val Thr Tyr Gly  
 275 280 285  
 Gly Met Ser Lys Lys Pro Ile Thr Val Ser Thr Thr Ser Phe Ile Phe  
 290 295 300  
 Lys Asp Leu Ala Leu Arg Gly Phe Trp Leu Gln Ser Trp Leu Ser Met  
 305 310 315 320  
 Gly Lys Val Lys Glu Cys Arg Glu Met Ile Asp Tyr Leu Leu Gly Leu  
 325 330 335  
 Ala Arg Asp Gly Lys Leu Lys Tyr Glu Thr Glu Leu Val Pro Phe Glu  
 340 345 350  
 Glu Phe Pro Val Ala Leu Asp Lys Ala Leu Gly Lys Leu Gly Arg Gln  
 355 360 365  
 Pro Lys Gln Val Ile Thr Phe  
 370 375

<210> 915

<211> 1182

<212> DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 915

```

atgtcgtcgc gtttttcttt gacggtggtg tgtttgattg ctctgttacc gtttgttggt 60
ggtatacggg tgattccggc gaggatcacg agtgctcggg atggcggcgg cggaggagggt 120
aataatgggt ttagtaaaact tgggtccgttt atggaagctc cggagtatag aaacggcaag 180
gagtgtgtat cttcatcagt gaacagagag aacttcgtgt cgtcttcttc tagttctaata 240
gatccttcgc ttgttcacat cgctatgact ttggactcag agtatctccg tggatcaatc 300
gcagccgttc attctgttct tcgccacgcg tcttgtccag agaacgtctt cttccatttc 360
atcgttgctg agtttgactc tgcgagtcct cgtgttctga gtcaactcgt gaggtcgact 420
tttccttcgt tgaactttaa agtctacatt tttagggaag atacggtgat caatctcata 480
tcttcttcga ttagactagc tttggagaat ccgttgaact atgctcggaa ctatctcgga 540
gatattcttg atcgaagtgt tgaacgagtc atttatcttg actcggatgt tataactgtg 600
gatgatatca caaagctttg gaacacgggt ttgaccgggt cacgagtcac cggagctccg 660
gagtattgtc acgcgaactt cactcagtat ttcacttccg ggttctgggt agaccgggt 720
ttaccgggtc taatctcggg tcaaaagcct tgctatttca acacaggagt gatggtgatg 780
gatcttggtt gatggagaga aggaattac agagagaagt tagagcaatg gatgcaattg 840
cagaagaaga tgagaatcta cgatcttggg tcattaccac cgtttctttt ggtgtttgcg 900
ggtaatgttg aagctattga tcatagatgg aaccaacatg gtttaggagg agacaatata 960
cgaggaagtt gtcggtcatt gcacctggt cctgtgagct tgttgattg gagtggtaaa 1020
ggtaagccat gggtttagact tgatgagaag aggccttgct cgttggatca tctttgggag 1080
ccatatgatt tgtataagca taagattgag agagctaaag atcagtcctt gcttggggtt 1140
gcttctctgt cggagttgac tgatgattca agcttcttgt ga 1182

```

&lt;210&gt; 916

&lt;211&gt; 393

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 916

```

Met Ser Ser Arg Phe Ser Leu Thr Val Val Cys Leu Ile Ala Leu Leu
1          5          10          15

```

```

Pro Phe Val Val Gly Ile Arg Leu Ile Pro Ala Arg Ile Thr Ser Val
Page 1413

```

Gly Asp Gly Gly Gly Gly Gly Gly Asn Asn Gly Phe Ser Lys Leu Gly  
 35 40 45  
 Pro Phe Met Glu Ala Pro Glu Tyr Arg Asn Gly Lys Glu Cys Val Ser  
 50 55 60  
 Ser Ser Val Asn Arg Glu Asn Phe Val Ser Ser Ser Ser Ser Ser Asn  
 65 70 75 80  
 Asp Pro Ser Leu Val His Ile Ala Met Thr Leu Asp Ser Glu Tyr Leu  
 85 90 95  
 Arg Gly Ser Ile Ala Ala Val His Ser Val Leu Arg His Ala Ser Cys  
 100 105 110  
 Pro Glu Asn Val Phe Phe His Phe Ile Ala Ala Glu Phe Asp Ser Ala  
 115 120 125  
 Ser Pro Arg Val Leu Ser Gln Leu Val Arg Ser Thr Phe Pro Ser Leu  
 130 135 140  
 Asn Phe Lys Val Tyr Ile Phe Arg Glu Asp Thr Val Ile Asn Leu Ile  
 145 150 155 160  
 Ser Ser Ser Ile Arg Leu Ala Leu Glu Asn Pro Leu Asn Tyr Ala Arg  
 165 170 175  
 Asn Tyr Leu Gly Asp Ile Leu Asp Arg Ser Val Glu Arg Val Ile Tyr  
 180 185 190  
 Leu Asp Ser Asp Val Ile Thr Val Asp Asp Ile Thr Lys Leu Trp Asn  
 195 200 205  
 Thr Val Leu Thr Gly Ser Arg Val Ile Gly Ala Pro Glu Tyr Cys His  
 210 215 220  
 Ala Asn Phe Thr Gln Tyr Phe Thr Ser Gly Phe Trp Ser Asp Pro Ala  
 225 230 235 240  
 Leu Pro Gly Leu Ile Ser Gly Gln Lys Pro Cys Tyr Phe Asn Thr Gly  
 245 250 255  
 Val Met Val Met Asp Leu Val Arg Trp Arg Glu Gly Asn Tyr Arg Glu  
 260 265 270

Lys Leu Glu Gln Trp Met Gln Leu Gln Lys Lys Met Arg Ile Tyr Asp  
 275 280 285

Leu Gly Ser Leu Pro Pro Phe Leu Leu Val Phe Ala Gly Asn Val Glu  
 290 295 300

Ala Ile Asp His Arg Trp Asn Gln His Gly Leu Gly Gly Asp Asn Ile  
 305 310 315 320

Arg Gly Ser Cys Arg Ser Leu His Pro Gly Pro Val Ser Leu Leu His  
 325 330 335

Trp Ser Gly Lys Gly Lys Pro Trp Val Arg Leu Asp Glu Lys Arg Pro  
 340 345 350

Cys Pro Leu Asp His Leu Trp Glu Pro Tyr Asp Leu Tyr Lys His Lys  
 355 360 365

Ile Glu Arg Ala Lys Asp Gln Ser Leu Leu Gly Phe Ala Ser Leu Ser  
 370 375 380

Glu Leu Thr Asp Asp Ser Ser Phe Leu  
 385 390

<210> 917

<211> 453

<212> DNA

<213> Arabidopsis thaliana

<400> 917

atggagtcac	cacaagcaac	gacgaagcca	acgagaggag	caggaggaag	gaaaggtgga	60
gataggaaga	agagtgttag	taaatctgtt	aaagctggtc	ttcaatttcc	cgttggtcgt	120
atcgctcggt	acttgaagaa	aggctcggtac	gctctccgat	acggttccgg	tgctccggtt	180
tacctcgccg	ccgttctcga	atacctagcc	gccgaggtac	ttgagctagc	tggaacgca	240
gcgagagata	ataagaagaa	caggataaac	cctagggcatc	tatgttttagc	gataaggaac	300
gatgaggaat	tggggagatt	gcttcatgga	gttactattg	ctagtgggtgg	tggtcttcca	360
aacattaatc	cagttcttct	tcctaagaaa	tcaacagctt	cttcttctca	agcggagaaa	420
gcttctgcta	ccaaatctcc	taagaaggct	tga			453

<210> 918

<211> 150

<212> PRT

<213> Arabidopsis thaliana

<400> 918

```

Met Glu Ser Ser Gln Ala Thr Thr Lys Pro Thr Arg Gly Ala Gly Gly
 1      5      10      15
Arg Lys Gly Gly Asp Arg Lys Lys Ser Val Ser Lys Ser Val Lys Ala
 20      25      30
Gly Leu Gln Phe Pro Val Gly Arg Ile Ala Arg Tyr Leu Lys Lys Gly
 35      40      45
Arg Tyr Ala Leu Arg Tyr Gly Ser Gly Ala Pro Val Tyr Leu Ala Ala
 50      55      60
Val Leu Glu Tyr Leu Ala Ala Glu Val Leu Glu Leu Ala Gly Asn Ala
 65      70      75      80
Ala Arg Asp Asn Lys Lys Asn Arg Ile Asn Pro Arg His Leu Cys Leu
 85      90      95
Ala Ile Arg Asn Asp Glu Glu Leu Gly Arg Leu Leu His Gly Val Thr
100      105      110
Ile Ala Ser Gly Gly Val Leu Pro Asn Ile Asn Pro Val Leu Leu Pro
115      120      125
Lys Lys Ser Thr Ala Ser Ser Ser Gln Ala Glu Lys Ala Ser Ala Thr
130      135      140
Lys Ser Pro Lys Lys Ala
145      150

```

<210> 919

<211> 1929

<212> DNA

<213> Arabidopsis thaliana

<400> 919

```

atgcctaatt tctcagttaa cgttccccaa ctctcatctc ttacagtac aaaaacgccc 60
aaagtgagaa tgaatctatg tgccgatcag gtgttcgata aaaagcttct gtggagagat 120

```

## 047-E2F-PCT.ST25.txt

atgtcaacga	agatgaaatt	tccttctttt	tctgctgctg	aattacctga	tttgaggaaa	180
agtaacaaga	ggaggggatc	tcttaggatg	atcaagtgca	gagccgccgg	agctgacggt	240
ggacgcgtgg	ctgttgggga	tgatgtgttt	tcggttacta	cttcttctaa	gtatgaagtt	300
gactatctgg	gtcaaagtac	taaggagat	ttgaatctca	agcttgaccc	tcttcagtca	360
tttgagatg	ggcaggctac	attggagggt	cccattgagg	aggtagcgag	aacagaggct	420
caagcggctg	aaaatttgat	tagagagttg	ggtatccaag	gccctttctc	tgcacagcac	480
tctcctcggg	gtatatattt	tagtcgtaca	ttgaatcttc	ggtccattag	tgcaattgga	540
tatgatattg	attacacttt	gatgcactac	aatgtcatgg	cttgggaagg	aaaggcttat	600
gactattgca	tgaaaaatct	aaagagcatg	ggtttccctg	ttgatggact	tgcttttgat	660
ccggaactgg	ttatcagggg	tctcatgatt	gacaaagaga	aaggtaattt	agttaaggcc	720
gatagatttg	ggtatgtgaa	gagagccatg	cacggtacaa	agatgttatc	aaataaagct	780
gtcagtgaga	tctatggaag	ggagttagtt	gacctgcgga	accagagtcg	atgggagttt	840
ctcaatacat	ttttttcagt	ttcagaggct	ctggcttatg	cacagatggg	tgatagattg	900
gatgatggat	ttatttcggc	agatcttggc	actcttgatt	ataaaggact	gtataaggct	960
gttgcaaaag	ctctcttcag	agcacatggt	gaaggacaac	ttaagagtga	gataatgtcc	1020
aagccggaac	tatttgtcga	gccagacca	gaactacctt	tagctctttt	agatcaaaag	1080
gaggctggta	agaagctctt	gcttatcaca	aactcggatt	atcactacac	agacaaaatg	1140
atgaagcatt	catttaacaa	attccttccc	aatgacatgg	actggcgaga	tctttttgac	1200
atggtgatag	tttctgctg	gaaaccagag	ttcttccaga	tgctgcaccc	tctatatgag	1260
gttgtgactg	gagaggggtt	gatgcgtcca	tgcttcaagg	ctgaaacagg	aggtttgtac	1320
tcaggaggaa	gtgctcaa	gatagagagt	tcactcaacg	ttcatggaga	tgagattttg	1380
tatgttggtg	accacatcta	cactgatgtc	agcgtatcca	aagtccatct	cagggtggcg	1440
actgcgtga	tttgccgtga	actggaagaa	gagtatatgg	ctctaattgg	cagtcgtggg	1500
caccgagaag	agctaataga	gcttataaat	caaaaagagg	ttgttgggga	tctctttaac	1560
caacttcggc	ttgctcttca	aagacgaagc	aaaggccgtc	ctgctcagac	tctcgtgct	1620
accaacttgg	atgatcaaga	actgacagag	accatgcaaa	agcttcttat	tgtaatgcaa	1680
agactagatg	acaagattgg	tctaattgctg	gaaacagatg	gagagctctt	taacaaaagg	1740
tggggcttcc	tctcacgcgc	gggtttgtgg	gataaaagcc	acttgatgag	acaaatcgaa	1800
aagtatgcgg	atatatacac	atcaagagtc	tccaacttcc	tcaactacac	acccttcatg	1860
tatttccgct	cacaagagca	gtcactggct	cacgattctc	cgcttccaga	tgcggtata	1920
gaaaactag						1929

&lt;210&gt; 920

&lt;211&gt; 642

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 920

Met Pro Asn Phe Ser Val Asn Val Pro Gln Leu Ser Ser Leu Tyr Ser  
 1 5 10 15

Thr Lys Thr Pro Lys Val Arg Met Asn Leu Cys Ala Asp Gln Val Phe  
 20 25 30

Asp Lys Lys Leu Leu Trp Arg Asp Met Ser Thr Lys Met Lys Phe Pro  
 35 40 45

Ser Phe Ser Ala Ala Glu Leu Pro Asp Leu Arg Lys Ser Asn Lys Arg  
 50 55 60

Arg Gly Ser Leu Arg Met Ile Lys Cys Arg Ala Ala Gly Ala Asp Gly  
 65 70 75 80

Gly Arg Val Ala Val Gly Asp Asp Val Phe Ser Val Thr Thr Ser Ser  
 85 90 95

Lys Tyr Glu Val Asp Tyr Leu Gly Gln Ser Thr Lys Gly Asp Leu Asn  
 100 105 110

Leu Lys Leu Asp Pro Leu Gln Ser Phe Gly Asp Gly Gln Ala Thr Leu  
 115 120 125

Glu Gly Pro Ile Glu Glu Val Ala Arg Thr Glu Ala Gln Ala Ala Glu  
 130 135 140

Asn Leu Ile Arg Glu Leu Gly Ile Gln Gly Pro Phe Ser Ala Gln His  
 145 150 155 160

Ser Pro Arg Gly Ile Phe Cys Ser Arg Thr Leu Asn Leu Arg Ser Ile  
 165 170 175

Ser Ala Ile Gly Tyr Asp Met Asp Tyr Thr Leu Met His Tyr Asn Val  
 180 185 190

Met Ala Trp Glu Gly Lys Ala Tyr Asp Tyr Cys Met Glu Asn Leu Lys  
 195 200 205



047-E2F-PCT.ST25.txt

Ser Met Gly Phe Pro Val Asp Gly Leu Ala Phe Asp Pro Glu Leu Val  
210 215 220

Ile Arg Gly Leu Met Ile Asp Lys Glu Lys Gly Asn Leu Val Lys Ala  
225 230 235 240

Asp Arg Phe Gly Tyr Val Lys Arg Ala Met His Gly Thr Lys Met Leu  
245 250 255

Ser Asn Lys Ala Val Ser Glu Ile Tyr Gly Arg Glu Leu Val Asp Leu  
260 265 270

Arg Asn Gln Ser Arg Trp Glu Phe Leu Asn Thr Phe Phe Ser Val Ser  
275 280 285

Glu Ala Leu Ala Tyr Ala Gln Met Val Asp Arg Leu Asp Asp Gly Phe  
290 295 300

Ile Ser Ala Asp Leu Gly Thr Leu Asp Tyr Lys Gly Leu Tyr Lys Ala  
305 310 315 320

Val Ala Lys Ala Leu Phe Arg Ala His Val Glu Gly Gln Leu Lys Ser  
325 330 335

Glu Ile Met Ser Lys Pro Glu Leu Phe Val Glu Pro Asp Pro Glu Leu  
340 345 350

Pro Leu Ala Leu Leu Asp Gln Lys Glu Ala Gly Lys Lys Leu Leu Leu  
355 360 365

Ile Thr Asn Ser Asp Tyr His Tyr Thr Asp Lys Met Met Lys His Ser  
370 375 380

Phe Asn Lys Phe Leu Pro Asn Asp Met Asp Trp Arg Asp Leu Phe Asp  
385 390 395 400

Met Val Ile Val Ser Ala Arg Lys Pro Glu Phe Phe Gln Met Ser His  
405 410 415

Pro Leu Tyr Glu Val Val Thr Gly Glu Gly Leu Met Arg Pro Cys Phe  
420 425 430

Lys Ala Glu Thr Gly Gly Leu Tyr Ser Gly Gly Ser Ala Gln Met Ile  
435 440 445

Glu Ser Ser Leu Asn Val His Gly Asp Glu Ile Leu Tyr Val Gly Asp

450

455

His Ile Tyr Thr Asp Val Ser Val Ser Lys Val His Leu Arg Trp Arg  
465 470 475 480

Thr Ala Leu Ile Cys Arg Glu Leu Glu Glu Tyr Met Ala Leu Ile  
485 490 495

Gly Ser Arg Gly His Arg Glu Glu Leu Ile Glu Leu Ile Asn Gln Lys  
500 505 510

Glu Val Val Gly Asp Leu Phe Asn Gln Leu Arg Leu Ala Leu Gln Arg  
515 520 525

Arg Ser Lys Gly Arg Pro Ala Gln Thr Leu Ala Ala Thr Asn Leu Asp  
530 535 540

Asp Gln Glu Leu Thr Glu Thr Met Gln Lys Leu Leu Ile Val Met Gln  
545 550 555 560

Arg Leu Asp Asp Lys Ile Gly Leu Met Leu Glu Thr Asp Gly Glu Leu  
565 570 575

Phe Asn Lys Arg Trp Gly Phe Leu Ser Arg Ala Gly Leu Trp Asp Lys  
580 585 590

Ser His Leu Met Arg Gln Ile Glu Lys Tyr Ala Asp Ile Tyr Thr Ser  
595 600 605

Arg Val Ser Asn Phe Leu Asn Tyr Thr Pro Phe Met Tyr Phe Arg Ser  
610 615 620

Gln Glu Gln Ser Leu Ala His Asp Ser Pro Leu Pro Asp Ala Gly Ile  
625 630 635 640

Glu Asn

<210> 921

<211> 393

<212> DNA

<213> Arabidopsis thaliana

<400> 921

atgtcaggcc aatattcttt gaagagtgac atttacagtt ttggagtagt gatgcttgaa

60

047-E2F-PCT.ST25.txt

```

cttttaactg ggagaaaacc atttgacagc acaaggtcaa gatctgagca gtcactgggt 120
cgatggggcga caccacaact tcacgacatt gatgcttttag ccaaaatggg tgatccagct 180
cttaaagggc tttatcctgt caaatccctt tctcgatttg cagatgttat cgctctctgt 240
gtccagccgg agccggagtt tagaccacca atgtctgaag ttgtgcaggc tctagttgtg 300
ttagtgcaga gagctaacat gagcaagaga actgtcggag ttgatccatc gcaacgtgct 360
ggtagtgccg acacgaccag tgattacatg taa 393

```

<210> 922

<211> 130

<212> PRT

<213> Arabidopsis thaliana

<400> 922

Met Ser Gly Gln Tyr Ser Leu Lys Ser Asp Ile Tyr Ser Phe Gly Val  
1 5 10 15

Val Met Leu Glu Leu Leu Thr Gly Arg Lys Pro Phe Asp Ser Thr Arg  
20 25 30

Ser Arg Ser Glu Gln Ser Leu Val Arg Trp Ala Thr Pro Gln Leu His  
35 40 45

Asp Ile Asp Ala Leu Ala Lys Met Val Asp Pro Ala Leu Lys Gly Leu  
50 55 60

Tyr Pro Val Lys Ser Leu Ser Arg Phe Ala Asp Val Ile Ala Leu Cys  
65 70 75 80

Val Gln Pro Glu Pro Glu Phe Arg Pro Pro Met Ser Glu Val Val Gln  
85 90 95

Ala Leu Val Val Leu Val Gln Arg Ala Asn Met Ser Lys Arg Thr Val  
100 105 110

Gly Val Asp Pro Ser Gln Arg Ala Gly Ser Ala Asp Thr Thr Ser Asp  
115 120 125

Tyr Met  
130

<210> 923

&lt;211&gt; 732

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 923

```

atgaagcgtg attatgcctt tgttgaattt agtgatcctc gtgatgctga tgacgcaaga      60
tattacttgg atggacggga tttcgatgga agtcgcatca ctgtggaggc atcaagaggg    120
gctcctcgtg gttcgcggga caatggtagc agaggccac ctcttggttc tggtcgctgt    180
tttaattgtg gtgtcgatgg ccaactgggccc cgagactgca cagcaggaga ctggaagaat    240
aaatgttacc gctgtggtga aagaggacac attgagagaa actgcaaaaa cagtcctagt    300
ccaaagaagg ccaggcaggg tggaagctat tccaggtcac cagtcaaadc ccgctcccct    360
cgtcgccgaa ggagcccaag ccgtagccgt agttacagtc gaggtcgcag ctacagtcga    420
tcgcgatccc cagtgagaag agagaaaagc gtggaggaca gatcacgcag tcctaaggca    480
atggagcgat ctgtatctcc caaaggtagg gaccaaagcc tgagtccaga ccgaaaagtg    540
atagatgcaa gcccaaagcg tggatcagac tatgatggta gcccaaaga gaatggtaat    600
ggcaggaact ctgcgagtc cattgttgga ggtggtgaaa gtcctgttgg acttaatggt    660
caagacagga gcccgattga tgatgaggct gagcttagcc gtccttcccc taaaggcagt    720
gagtcacctt ga                                                         732

```

&lt;210&gt; 924

&lt;211&gt; 243

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 924

```

Met Lys Arg Asp Tyr Ala Phe Val Glu Phe Ser Asp Pro Arg Asp Ala
1          5          10          15
Asp Asp Ala Arg Tyr Tyr Leu Asp Gly Arg Asp Phe Asp Gly Ser Arg
20          25          30
Ile Thr Val Glu Ala Ser Arg Gly Ala Pro Arg Gly Ser Arg Asp Asn
35          40          45
Gly Ser Arg Gly Pro Pro Pro Gly Ser Gly Arg Cys Phe Asn Cys Gly
50          55          60

```

047-E2F-PCT.ST25.txt

Val Asp Gly His Trp Ala Arg Asp Cys Thr Ala Gly Asp Trp Lys Asn  
65 70 75 80

Lys Cys Tyr Arg Cys Gly Glu Arg Gly His Ile Glu Arg Asn Cys Lys  
85 90 95

Asn Ser Pro Ser Pro Lys Lys Ala Arg Gln Gly Gly Ser Tyr Ser Arg  
100 105 110

Ser Pro Val Lys Ser Arg Ser Pro Arg Arg Arg Arg Ser Pro Ser Arg  
115 120 125

Ser Arg Ser Tyr Ser Arg Gly Arg Ser Tyr Ser Arg Ser Arg Ser Pro  
130 135 140

Val Arg Arg Glu Lys Ser Val Glu Asp Arg Ser Arg Ser Pro Lys Ala  
145 150 155 160

Met Glu Arg Ser Val Ser Pro Lys Gly Arg Asp Gln Ser Leu Ser Pro  
165 170 175

Asp Arg Lys Val Ile Asp Ala Ser Pro Lys Arg Gly Ser Asp Tyr Asp  
180 185 190

Gly Ser Pro Lys Glu Asn Gly Asn Gly Arg Asn Ser Ala Ser Pro Ile  
195 200 205

Val Gly Gly Gly Glu Ser Pro Val Gly Leu Asn Gly Gln Asp Arg Ser  
210 215 220

Pro Ile Asp Asp Glu Ala Glu Leu Ser Arg Pro Ser Pro Lys Gly Ser  
225 230 235 240

Glu Ser Pro

<210> 925

<211> 993

<212> DNA

<213> Arabidopsis thaliana

<400> 925

atggcttctt ctttagctca atctagaatc tcgaatctcc agaatcatct ttcacctctt

60

047-E2F-PCT.ST25.txt

```

gaagcaaaca acaagctcag gagtctgggc aagatttctc cccaagtatc tgaagccttg 120
tctaattggac gtgctgttgt cgctcttgag tcaaccatta tctcccatgg gatgccttac 180
cctcaaaatc tgcaaacagc aaaagaggtg gagtcaattg tgagagaaaa tggagcaatc 240
cctgcaacaa ttgctatcct taatggagta ccttgcatag gtctgagcga ggaagaacta 300
gaacgtcttg catctctcgg aaaaagtgtc caaaagacag cggaaggga catagcaaatt 360
gttggtggcta caagaggaaa cgggtgcaact acagtctctg caacgttggtt tttcgcttca 420
atggttggca tccaagtttt tgtgacgggc gggataggtg gtgtccatag acatgccaac 480
cattcgatgg acatatcatc tgatcttact gcacttgga ggactccaat agcagtgata 540
tcagcaggcg ttaaataaat acttgatatt ccaaagactc ttgaatattt ggaaactcaa 600
gaagtgtatg ttgctgcata caagagcgat gagtttccag cttttttcac agaaaaaagt 660
ggctgtaagg caccttcccg tgtaaatagc cctgaagact gtgctagagt aatagatgca 720
aacatgaagc taaaccgtca ggcggggatt ctatttgcca ttccaattcc gaaacaccat 780
tcagccgctg gaaatcttat cgaatcagca acacagcgtg ctcttacaga agcaagggaa 840
caaacgtta ctggaaatgc agaaactcca ttcttacttg cacgggtaaa tgagttaacc 900
ggaggcacat cacttgcagc aaacattgcg cttgtgaaaa acaatgccct tatcggttct 960
cagattgcag tagccctttc tcagctgatg tga 993

```

<210> 926

<211> 330

<212> PRT

<213> Arabidopsis thaliana

<400> 926

```

Met Ala Ser Ser Leu Ala Gln Ser Arg Ile Ser Asn Leu Gln Asn His
1           5           10          15
Leu Ser Pro Leu Glu Ala Asn Asn Lys Leu Arg Ser Leu Val Lys Ile
20          25          30
Ser Pro Gln Val Ser Glu Ala Leu Ser Asn Gly Arg Ala Val Val Ala
35          40          45
Leu Glu Ser Thr Ile Ile Ser His Gly Met Pro Tyr Pro Gln Asn Leu
50          55          60
Gln Thr Ala Lys Glu Val Glu Ser Ile Val Arg Glu Asn Gly Ala Ile
65          70          75          80

```

047-E2F-PCT.ST25.txt

Pro Ala Thr Ile Ala Ile Leu Asn Gly Val Pro Cys Ile Gly Leu Ser  
85 90 95

Glu Glu Glu Leu Glu Arg Leu Ala Ser Leu Gly Lys Ser Val Gln Lys  
100 105 110

Thr Ala Gly Arg Asp Ile Ala Asn Val Val Ala Thr Arg Gly Asn Gly  
115 120 125

Ala Thr Thr Val Ser Ala Thr Leu Phe Phe Ala Ser Met Val Gly Ile  
130 135 140

Gln Val Phe Val Thr Gly Gly Ile Gly Gly Val His Arg His Ala Asn  
145 150 155 160

His Ser Met Asp Ile Ser Ser Asp Leu Thr Ala Leu Gly Arg Thr Pro  
165 170 175

Ile Ala Val Ile Ser Ala Gly Val Lys Ser Ile Leu Asp Ile Pro Lys  
180 185 190

Thr Leu Glu Tyr Leu Glu Thr Gln Glu Val Tyr Val Ala Ala Tyr Lys  
195 200 205

Ser Asp Glu Phe Pro Ala Phe Phe Thr Glu Lys Ser Gly Cys Lys Ala  
210 215 220

Pro Ser Arg Val Asn Ser Pro Glu Asp Cys Ala Arg Val Ile Asp Ala  
225 230 235 240

Asn Met Lys Leu Asn Arg Gln Ala Gly Ile Leu Phe Ala Ile Pro Ile  
245 250 255

Pro Lys His His Ser Ala Ala Gly Asn Leu Ile Glu Ser Ala Thr Gln  
260 265 270

Arg Ala Leu Thr Glu Ala Arg Glu Gln Asn Val Thr Gly Asn Ala Glu  
275 280 285

Thr Pro Phe Leu Leu Ala Arg Val Asn Glu Leu Thr Gly Gly Thr Ser  
290 295 300

Leu Ala Ala Asn Ile Ala Leu Val Lys Asn Asn Ala Leu Ile Gly Ser  
305 310 315 320

Gln Ile Ala Val Ala Leu Ser Gln Leu Met

325

<210> 927

<211> 636

<212> DNA

<213> Arabidopsis thaliana

<400> 927

```
atggcttcaa attcagcact tctcatgaaa acaatcttcc tcgtactcat ttttgtctct 60
tttgcaatct ctccagcaac ttcaactgcg ccggaagaat gtggaagcga gtcagcgaac 120
ccgtgcgtca acaaagctaa agctttgcct ctcaaagtca tagcaatctt cgtaatcctc 180
attgcaagca tgattggtgt tggagctcct ctcttttagcc gtaacgtttc gttcctccaa 240
ccagacggaa acatcttcac tatcattaag tgtttcgcct ccgggatcat ccttggaacc 300
ggtttttatgc acgttttacc tgattctttc gaaatgttgt catctatatg tcttgaagag 360
aaccctgtggc ataaatttcc tttctccgga tttctcgcta tgttatcggg tctaactact 420
ctagccattg actccatggc cacgagccta tacaccagca agaacgcagt tggatatcatg 480
cccatgggtc atgggtcatgg tcacggcccc gcaaattgatg ttaccttacc aataaaaagaa 540
gatgattcgt caaatgcaca gctcttgcca taccgagtca ttgccatggt tcgtacgcac 600
atatatacat accgaatatc attgtatttt aaatga 636
```

<210> 928

<211> 211

<212> PRT

<213> Arabidopsis thaliana

<400> 928

```
Met Ala Ser Asn Ser Ala Leu Leu Met Lys Thr Ile Phe Leu Val Leu
1          5          10          15

Ile Phe Val Ser Phe Ala Ile Ser Pro Ala Thr Ser Thr Ala Pro Glu
20          25          30

Glu Cys Gly Ser Glu Ser Ala Asn Pro Cys Val Asn Lys Ala Lys Ala
35          40          45

Leu Pro Leu Lys Val Ile Ala Ile Phe Val Ile Leu Ile Ala Ser Met
50          55          60
```



047-E2F-PCT.ST25.txt

Ile Gly Val Gly Ala Pro Leu Phe Ser Arg Asn Val Ser Phe Leu Gln  
65 70 75 80

Pro Asp Gly Asn Ile Phe Thr Ile Ile Lys Cys Phe Ala Ser Gly Ile  
85 90 95

Ile Leu Gly Thr Gly Phe Met His Val Leu Pro Asp Ser Phe Glu Met  
100 105 110

Leu Ser Ser Ile Cys Leu Glu Glu Asn Pro Trp His Lys Phe Pro Phe  
115 120 125

Ser Gly Phe Leu Ala Met Leu Ser Gly Leu Ile Thr Leu Ala Ile Asp  
130 135 140

Ser Met Ala Thr Ser Leu Tyr Thr Ser Lys Asn Ala Val Gly Ile Met  
145 150 155 160

Pro His Gly His Gly His Gly His Gly Pro Ala Asn Asp Val Thr Leu  
165 170 175

Pro Ile Lys Glu Asp Asp Ser Ser Asn Ala Gln Leu Leu Arg Tyr Arg  
180 185 190

Val Ile Ala Met Val Arg Thr His Ile Tyr Thr Tyr Arg Ile Ser Leu  
195 200 205

Tyr Phe Lys  
210

<210> 929

<211> 1131

<212> DNA

<213> Arabidopsis thaliana

<400> 929

atgacgaaga aactcaatcc actggaagat ccaccaacgg caacttcaag cgacgaagat	60
gacgtcgaga cttccgaagc tggtgaagct tcagacgatt cctcttcatt tgaagaagac	120
gtaccaatca aaattcgaat caaatccct tccgccacaa ccgccgccgc tcctccagct	180
aaatccaccg ccgtctccac cgccgctgat tcagattctg gatccgagac tgaaacagat	240
tcggattctg aatcaacaaa tccaccgaat tctggatctg ggaagacaat cgctttaaac	300

047-E2F-PCT.ST25.txt

acagtgaatc taaagaagaa agaggatcca acgtcgtcgt cagctacttt agctttaccg 360  
 gcgatgaaat caggaacaaa acggccagcg agtgaagctg ctgctacgac ttcaacgaaa 420  
 cgagtgaaga aagatgaaga gagtgtgaag aaaccaggag gttttcaaag actatggagt 480  
 gaagaagacg aaatcttagt gttacaagga atgattgatt tcaaagctga tacagggaag 540  
 tctccttatg tagatactaa tgcgttttac gatttcttga agaaatcgat tagctttgag 600  
 gtttagtaaga atcaattcat ggataagatt aggagtttaa ggaagaagta tattggtaaa 660  
 gaaggaagga acgaacctag ttttgtgaaa gctcatgata agaaagcttt tgaattgtct 720  
 aagtttattt ggggacctaa aggaatagct cttgattcta atgttaagtc gaacggtgta 780  
 tcgaaaaaga gtgtggcgaa gaagaagatt gattctgtta agcaagagtt ggtgtttgcc 840  
 ggtggttctt caactaatgg taaaaaagtt gaagaagatg gtggtgatga tggatgtgat 900  
 tggtttgata actcgtctct tgttaggatg attgctagtt tgggtgttga tgagtattat 960  
 gtgaagcagc aatggagttt ggtttcggtt gagagtaaga agattgttga agagaagtat 1020  
 aagttgttgc aagctaagga gttggaattt gtgttggaaga agactaagtt tttgaatgag 1080  
 gttgcttcta tgttcgttga agcttctaag aacaagccat tagatacata g 1131

<210> 930

<211> 376

<212> PRT

<213> Arabidopsis thaliana

<400> 930

Met Thr Lys Lys Leu Asn Pro Leu Glu Asp Pro Pro Thr Ala Thr Ser  
 1 5 10 15

Ser Asp Glu Asp Asp Val Glu Thr Ser Glu Ala Gly Glu Ala Ser Asp  
 20 25 30

Asp Ser Ser Ser Glu Glu Asp Val Pro Ile Lys Ile Arg Ile Lys  
 35 40 45

Ser Pro Ser Ala Thr Thr Ala Ala Ala Pro Pro Ala Lys Ser Thr Ala  
 50 55 60

Val Ser Thr Ala Ala Asp Ser Asp Ser Gly Ser Glu Thr Glu Thr Asp  
 65 70 75 80

Ser Asp Ser Glu Ser Thr Asn Pro Pro Asn Ser Gly Ser Gly Lys Thr  
 85 90 95

047-E2F-PCT.ST25.txt

Ile Ala Leu Asn Thr Val Asn Leu Lys Lys Lys Glu Asp Pro Thr Ser  
100 105 110

Ser Ser Ala Thr Leu Ala Leu Pro Ala Met Lys Ser Gly Thr Lys Arg  
115 120 125

Pro Ala Ser Glu Ala Ala Ala Thr Thr Ser Thr Lys Arg Val Lys Lys  
130 135 140

Asp Glu Glu Ser Val Lys Lys Pro Gly Gly Phe Gln Arg Leu Trp Ser  
145 150 155 160

Glu Glu Asp Glu Ile Leu Val Leu Gln Gly Met Ile Asp Phe Lys Ala  
165 170 175

Asp Thr Gly Lys Ser Pro Tyr Val Asp Thr Asn Ala Phe Tyr Asp Phe  
180 185 190

Leu Lys Lys Ser Ile Ser Phe Glu Val Ser Lys Asn Gln Phe Met Asp  
195 200 205

Lys Ile Arg Ser Leu Arg Lys Lys Tyr Ile Gly Lys Glu Gly Arg Asn  
210 215 220

Glu Pro Ser Phe Val Lys Ala His Asp Lys Lys Ala Phe Glu Leu Ser  
225 230 235 240

Lys Phe Ile Trp Gly Pro Lys Gly Ile Ala Leu Asp Ser Asn Val Lys  
245 250 255

Ser Asn Gly Val Ser Lys Lys Ser Val Ala Lys Lys Lys Ile Asp Ser  
260 265 270

Val Lys Gln Glu Leu Val Phe Ala Gly Gly Ser Ser Thr Asn Gly Lys  
275 280 285

Lys Val Glu Glu Asp Gly Gly Asp Asp Gly Cys Asp Trp Phe Asp Asn  
290 295 300

Ser Ser Leu Val Arg Met Ile Ala Ser Leu Gly Val Asp Glu Tyr Tyr  
305 310 315 320

Val Lys Gln Gln Trp Ser Leu Val Ser Val Glu Ser Lys Lys Ile Val  
325 330 335

Glu Glu Lys Tyr Lys Leu Leu Gln Ala Lys Glu Leu Glu Phe Val Leu

340

047-E2F-PCT.ST25.txt  
345 350

Glu Lys Thr Lys Phe Leu Asn Glu Val Ala Ser Met Phe Val Glu Ala  
355 360 365

Ser Lys Asn Lys Pro Leu Asp Thr  
370 375

&lt;210&gt; 931

&lt;211&gt; 1581

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 931

```

atggcggttt atcctaacgt taatggcgat aagaagcact ggtggttcac tcacagaaag      60
cttgttgata agtatataaa ggatgcaaca actttaatgg caagtgagga ggcaaacgac      120
gtcgcttcag ctcttcattt actagacgca gccttatcta tctccccgcg tttggaaact      180
gcgttagagc tcaaggctag atctctcctc ttcctccgtc gtttcaagga tgtcgccgat      240
atgcttcagg attatatccc cagtcttaaa ctcgacgacg aaggatccgc ttctttctcaa      300
ggctcttctt cctccgacgg tatcaacctt ctctccgacg cctcttcccc tggctccttt      360
aaatgcttct ctgtttccga cttgaagaag aaagtcatgg caggcatttg taaaaaatgc      420
gacaaagaag ggcaatggag gtatgtggtg ttgggtcaag cttgttgcca tctaggacta      480
atggaggatg ccatggttct cctacaaacc ggtaaacgcc tcgcctccgc cgagttccgt      540
cgccggagta tttgctggtc cgacgatagc ttcctttctc tctccgaatc ctctctgct      600
tcttctccac cacccgagag cgagaacttc acccatctcc tcgctcacat caagcttctt      660
ctccgtcgtc gcgccgctgc aatcgccgct ctcgacgctg gactgttctc cgagtcgatc      720
cgtcacttct ccaagatcgt cgatggccgt cgccctgcgc ctcaaggatt cctcgccgaa      780
tgctacatgc atcgagccgc cgcttataga tccgccggtg gaatcgcgga agcgatcgcc      840
gattgcaata aaaccctagc tcttgaacct tcgtgtatcc aggcgttaga aaccagagcc      900
gcgcttctag aaacggtcag gtgttttcca gattcgcttc acgatctaga acacttgaag      960
cttctctaca acaccatttt acgcgatcgg aagcttccgg gtccggtgtg gaagcggcac     1020
aacgtgaaat acagagagat tcctgggaaa ttgtgcgttt tgacaacgaa aacgcagaaa     1080
cttaagcaga aaatcgcaaa cggagaaaact gggaatgtcg attattacgg cttgatcgga     1140
gtcagacgcg gatgcaccag atcggagctc gatcgagctc atctattgct atgtctcaga     1200
tacaaacccg atagagcctc ttctttcatc gaacggtgcg agttcaccga tcaaaacgac     1260

```

047-E2F-PCT.ST25.txt

gtcgattcgg ttagagatcg agccaaaatg tcgtctctgt tgctttaccg tttgattcag 1320  
aaaggataca ccgccgtgac agcgatcata gccgaggagc agaggaagaa cgccattgct 1380  
cacgctcaaa agattgaaga acgcaaaccg gttgaaaaat ccggttctat taagagaacc 1440  
ggaaacgctg aaacgaaacc ggtaaattcc aatgcgtacc aaggagtatt ctgtagagat 1500  
ctcgtgctgg ttgggaatct actaaccagg gctggtttca accatccaat cccgggttaa 1560  
tacgaagcgc tcacctgcta a 1581

<210> 932

<211> 526

<212> PRT

<213> Arabidopsis thaliana

<400> 932

Met Ala Val Tyr Pro Asn Val Asn Gly Asp Lys Lys His Trp Trp Phe  
1 5 10 15

Thr His Arg Lys Leu Val Asp Lys Tyr Ile Lys Asp Ala Thr Thr Leu  
20 25 30

Met Ala Ser Glu Glu Ala Asn Asp Val Ala Ser Ala Leu His Leu Leu  
35 40 45

Asp Ala Ala Leu Ser Ile Ser Pro Arg Leu Glu Thr Ala Leu Glu Leu  
50 55 60

Lys Ala Arg Ser Leu Leu Phe Leu Arg Arg Phe Lys Asp Val Ala Asp  
65 70 75 80

Met Leu Gln Asp Tyr Ile Pro Ser Leu Lys Leu Asp Asp Glu Gly Ser  
85 90 95

Ala Ser Ser Gln Gly Ser Ser Ser Ser Asp Gly Ile Asn Leu Leu Ser  
100 105 110

Asp Ala Ser Ser Pro Gly Ser Phe Lys Cys Phe Ser Val Ser Asp Leu  
115 120 125

Lys Lys Lys Val Met Ala Gly Ile Cys Lys Lys Cys Asp Lys Glu Gly  
130 135 140

Gln Trp Arg Tyr Val Val Leu Gly Gln Ala Cys Cys His Leu Gly Leu  
Page 1431

145                      150                      155                      160  
 Met Glu Asp Ala Met Val Leu Leu Gln Thr Gly Lys Arg Leu Ala Ser  
                                  165                                   170                                   175  
 Ala Glu Phe Arg Arg Arg Ser Ile Cys Trp Ser Asp Asp Ser Phe Leu  
                                  180                                   185                                   190  
 Leu Leu Ser Glu Ser Ser Ser Ala Ser Ser Pro Pro Pro Glu Ser Glu  
                                  195                                   200                                   205  
 Asn Phe Thr His Leu Leu Ala His Ile Lys Leu Leu Leu Arg Arg Arg  
                                  210                                   215                                   220  
 Ala Ala Ala Ile Ala Ala Leu Asp Ala Gly Leu Phe Ser Glu Ser Ile  
                                  225                                   230                                   235                                   240  
 Arg His Phe Ser Lys Ile Val Asp Gly Arg Arg Pro Ala Pro Gln Gly  
                                  245                                   250                                   255  
 Phe Leu Ala Glu Cys Tyr Met His Arg Ala Ala Ala Tyr Arg Ser Ala  
                                  260                                   265                                   270  
 Gly Arg Ile Ala Glu Ala Ile Ala Asp Cys Asn Lys Thr Leu Ala Leu  
                                  275                                   280                                   285  
 Glu Pro Ser Cys Ile Gln Ala Leu Glu Thr Arg Ala Ala Leu Leu Glu  
                                  290                                   295                                   300  
 Thr Val Arg Cys Phe Pro Asp Ser Leu His Asp Leu Glu His Leu Lys  
                                  305                                   310                                   315                                   320  
 Leu Leu Tyr Asn Thr Ile Leu Arg Asp Arg Lys Leu Pro Gly Pro Val  
                                  325                                   330                                   335  
 Trp Lys Arg His Asn Val Lys Tyr Arg Glu Ile Pro Gly Lys Leu Cys  
                                  340                                   345                                   350  
 Val Leu Thr Thr Lys Thr Gln Lys Leu Lys Gln Lys Ile Ala Asn Gly  
                                  355                                   360                                   365  
 Glu Thr Gly Asn Val Asp Tyr Tyr Gly Leu Ile Gly Val Arg Arg Gly  
                                  370                                   375                                   380  
 Cys Thr Arg Ser Glu Leu Asp Arg Ala His Leu Leu Leu Cys Leu Arg  
                                  385                                   390                                   395                                   400

Tyr Lys Pro Asp Arg Ala Ser Ser Phe Ile Glu Arg Cys Glu Phe Thr  
 405 410 415

Asp Gln Asn Asp Val Asp Ser Val Arg Asp Arg Ala Lys Met Ser Ser  
 420 425 430

Leu Leu Leu Tyr Arg Leu Ile Gln Lys Gly Tyr Thr Ala Val Thr Ala  
 435 440 445

Ile Ile Ala Glu Glu Gln Arg Lys Asn Ala Ile Ala His Ala Gln Lys  
 450 455 460

Ile Glu Glu Arg Lys Pro Val Glu Lys Ser Gly Ser Ile Lys Arg Thr  
 465 470 475 480

Gly Asn Ala Glu Thr Lys Pro Val Asn Ser Asn Ala Tyr Gln Gly Val  
 485 490 495

Phe Cys Arg Asp Leu Ala Ala Val Gly Asn Leu Leu Thr Arg Ala Gly  
 500 505 510

Phe Asn His Pro Ile Pro Val Lys Tyr Glu Ala Leu Thr Cys  
 515 520 525

<210> 933

<211> 201

<212> DNA

<213> Arabidopsis thaliana

<400> 933

atgtcagaga ccaacaagaa tgccttccaa gccggtcagg ccgctggcaa agctgaggag 60

aagagcaatg ttctgctgga caaggccaag gatgctgctg ctgcagctgg agcttccgcg 120

caacaggcgg gaaagagtat atcggatgcg gcagtgggag gtgttaactt cgtgaaggac 180

aagaccggcc tgaacaagta g 201

<210> 934

<211> 66

<212> PRT

<213> Arabidopsis thaliana

<400> 934

047-E2F-PCT.ST25.txt

Met Ser Glu Thr Asn Lys Asn Ala Phe Gln Ala Gly Gln Ala Ala Gly  
1 5 10 15

Lys Ala Glu Glu Lys Ser Asn Val Leu Leu Asp Lys Ala Lys Asp Ala  
20 25 30

Ala Ala Ala Ala Gly Ala Ser Ala Gln Gln Ala Gly Lys Ser Ile Ser  
35 40 45

Asp Ala Ala Val Gly Gly Val Asn Phe Val Lys Asp Lys Thr Gly Leu  
50 55 60

Asn Lys  
65

<210> 935

<211> 345

<212> DNA

<213> Arabidopsis thaliana

<400> 935

atggcgctcgt ttgatgaagc accaccagga aacgcccaagg ccggtgagaa gatcttcagg	60
accaagtgtg ctcagtgtca caccgtcgaa gcaggcgccg gtcacaaaca aggaccaat	120
ctaaacgggtc tatttggaag acaatctggt acaactgctg gttactctta ctctgctgct	180
aacaagaaca aagctgtgga atgggaagag aaggccttgt acgattactt gctcaacccc	240
aagaagtaca taccaggtac caagatggtg ttccctgggc taaagaagcc gcaagaccgt	300
gctgatctca tcgcctactt gaaggaatct actgcgccta agtga	345

<210> 936

<211> 114

<212> PRT

<213> Arabidopsis thaliana

<400> 936

Met Ala Ser Phe Asp Glu Ala Pro Pro Gly Asn Ala Lys Ala Gly Glu  
1 5 10 15

Lys Ile Phe Arg Thr Lys Cys Ala Gln Cys His Thr Val Glu Ala Gly  
20 25 30



Ala Gly His Lys Gln Gly Pro Asn Leu Asn Gly Leu Phe Gly Arg Gln  
           35                          40                          45

Ser Gly Thr Thr Ala Gly Tyr Ser Tyr Ser Ala Ala Asn Lys Asn Lys  
       50                          55                          60

Ala Val Glu Trp Glu Glu Lys Ala Leu Tyr Asp Tyr Leu Leu Asn Pro  
   65                          70                          75                          80

Lys Lys Tyr Ile Pro Gly Thr Lys Met Val Phe Pro Gly Leu Lys Lys  
                           85                          90                          95

Pro Gln Asp Arg Ala Asp Leu Ile Ala Tyr Leu Lys Glu Ser Thr Ala  
                           100                          105                          110

Pro Lys

<210> 937

<211> 1479

<212> DNA

<213> Arabidopsis thaliana

<400> 937

atggcgtggt cgtcggaac gccgtcgtat tgcggctgga atgagcgaca tgtgaagaac	60
acgaaagaaa agatggaggt tcattattat ctcgagagga aagatggaat tgcagatcta	120
gctgttattg ggaggttgaa gaattctaaa cgcattgtctt ttagatacgc tttgaagaag	180
aatcgctctg tcttgaaaaa gcttaattct aaagatgatg ttgcgctttg gctcgattct	240
attgtttctg gtgagatacc tcatgtagca gatgtaccag ctactgttat gactgaaaaa	300
gatgctggag ggttcaatat gagcactttt atgaatagga aatttcagga gcctattcag	360
cagatcaaaa cgttctcttg gatgggtttt tcttggactt gcaggaaacg gcgtaagcat	420
tatcagtctt atctccggaa tgggtgtcaga atatctgtga atgattttgt gtatgtttta	480
gcggagcaac ataagagact tgttgcatat atagaagacc tttatgagga ttctaaaggc	540
aagaagatgg ttgtggtacg atggtttcac aaaactgagg aggttggttc tgttttatct	600
gatgatgata atgacagaga gatatttttt tctcttaatc ggcaagatat cagtattgag	660
tgcatagatt acttggttac tgtccttagt cctcagcatt atgagaaatt tcttaagggtg	720
ccgatgcatg ttcagacagt agctttcttc tgccagaaat tatatggaga tgatggttta	780

047-E2F-PCT.ST25.txt

aagccgtatg acattacaca actagaaggt tactggagac aagaaatgct tagatacttg 840  
aatgtatcta ttttaaaatc atttgaaggt gctcaagccc ctggtactga cccaggatta 900  
aaagctccat tgggttggtg tggtgggatt agatcaagga aaagacgccg tcctagtcct 960  
gttggtactt tgaatgtatc atacgcaggt gacatgaaag gtgactgcaa atctagtcca 1020  
gattctgttt tggctgttac agatgcttct atattcaagg gtgacgaaga tggttcttcc 1080  
catcacatta aaaagggttc acttattgaa gttctttctg aagatagtgg catcagaggt 1140  
tggttggttta aggctctggt attaaagaaa cacaaagata aggttaaggt ccagtaccaa 1200  
gatattcagg atgcagacga tgaatctaaa aagctagagg aatggatttt gacatctcgg 1260  
gttgctgctg gtgatcatct gggggatctt agaatcaaag gacggaaagt agtaagacca 1320  
atgctgaagc ccagcaaaga aaatgatgta tgtgtcatcg gggttggtat gcctgtggat 1380  
gtgtggtggt gtgatggatg gtgggaaggg atcgtggtgc aggaagtttc tgaagagaaa 1440  
tttgaagttt acttgccagg tgagttaaga cacctctga 1479

<210> 938

<211> 492

<212> PRT

<213> Arabidopsis thaliana

<400> 938

Met Ala Trp Ser Ser Glu Thr Pro Ser Tyr Cys Gly Trp Asn Glu Arg  
1 5 10 15

His Val Lys Asn Thr Lys Glu Lys Met Glu Val His Tyr Tyr Leu Glu  
20 25 30

Arg Lys Asp Gly Ile Ala Asp Leu Ala Val Ile Gly Arg Leu Lys Asn  
35 40 45

Ser Lys Arg Met Ser Phe Arg Tyr Ala Leu Lys Lys Asn Arg Ser Val  
50 55 60

Leu Lys Lys Leu Asn Ser Lys Asp Asp Val Ala Leu Trp Leu Asp Ser  
65 70 75 80

Ile Val Ser Gly Glu Ile Pro His Val Ala Asp Val Pro Ala Thr Val  
85 90 95

Met Thr Glu Lys Asp Ala Gly Gly Phe Asn Met Ser Thr Phe Met Asn  
100 105 110

047-E2F-PCT.ST25.txt

Arg Lys Phe Gln Glu Pro Ile Gln Gln Ile Lys Thr Phe Ser Trp Met  
115 120 125

Gly Phe Ser Trp Thr Cys Arg Lys Arg Arg Lys His Tyr Gln Ser Tyr  
130 135 140

Leu Arg Asn Gly Val Arg Ile Ser Val Asn Asp Phe Val Tyr Val Leu  
145 150 155 160

Ala Glu Gln His Lys Arg Leu Val Ala Tyr Ile Glu Asp Leu Tyr Glu  
165 170 175

Asp Ser Lys Gly Lys Lys Met Val Val Val Arg Trp Phe His Lys Thr  
180 185 190

Glu Glu Val Gly Ser Val Leu Ser Asp Asp Asp Asn Asp Arg Glu Ile  
195 200 205

Phe Phe Ser Leu Asn Arg Gln Asp Ile Ser Ile Glu Cys Ile Asp Tyr  
210 215 220

Leu Ala Thr Val Leu Ser Pro Gln His Tyr Glu Lys Phe Leu Lys Val  
225 230 235 240

Pro Met His Val Gln Thr Val Ala Phe Phe Cys Gln Lys Leu Tyr Gly  
245 250 255

Asp Asp Gly Leu Lys Pro Tyr Asp Ile Thr Gln Leu Glu Gly Tyr Trp  
260 265 270

Arg Gln Glu Met Leu Arg Tyr Leu Asn Val Ser Ile Leu Lys Ser Phe  
275 280 285

Glu Gly Ala Gln Ala Pro Gly Thr Asp Pro Gly Leu Lys Ala Pro Leu  
290 295 300

Val Gly Cys Val Gly Ile Arg Ser Arg Lys Arg Arg Arg Pro Ser Pro  
305 310 315 320

Val Gly Thr Leu Asn Val Ser Tyr Ala Gly Asp Met Lys Gly Asp Cys  
325 330 335

Lys Ser Ser Pro Asp Ser Val Leu Ala Val Thr Asp Ala Ser Ile Phe  
340 345 350

Lys Gly Asp Glu Asp Gly Ser Ser His His Ile Lys Lys Gly Ser Leu

355

360

365

Ile Glu Val Leu Ser Glu Asp Ser Gly Ile Arg Gly Cys Trp Phe Lys  
 370 375 380  
 Ala Leu Val Leu Lys Lys His Lys Asp Lys Val Lys Val Gln Tyr Gln  
 385 390 395 400  
 Asp Ile Gln Asp Ala Asp Asp Glu Ser Lys Lys Leu Glu Glu Trp Ile  
 405 410 415  
 Leu Thr Ser Arg Val Ala Ala Gly Asp His Leu Gly Asp Leu Arg Ile  
 420 425 430  
 Lys Gly Arg Lys Val Val Arg Pro Met Leu Lys Pro Ser Lys Glu Asn  
 435 440 445  
 Asp Val Cys Val Ile Gly Val Gly Met Pro Val Asp Val Trp Trp Cys  
 450 455 460  
 Asp Gly Trp Trp Glu Gly Ile Val Val Gln Glu Val Ser Glu Glu Lys  
 465 470 475 480  
 Phe Glu Val Tyr Leu Pro Gly Glu Leu Arg His Leu  
 485 490

&lt;210&gt; 939

&lt;211&gt; 3444

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 939

```

atggatagaa acagaccacc acatccgttc cagcaacatg ctatggaacc tggatatgtg      60
aatgactctg tcccacaagg atttacgcct gatcaaacgg gtctctcgaa tgcaaattgtc      120
cgacctaatc ctgcagatgt taagccgggg cttcattact ccatacaaac aggagaggaa      180
ttttctcttg agtttctgcg tgatcgtgtc atttctcaaa ggtctgcaaa tcccattgca      240
gctggagata tcaattatcc cacaggttat aacgggcacg caggggtctga atttggttca      300
gatgtttcca ggatgagcat ggtgggaaat ggcacagggc agtatgagag aacaaacccc      360
ccggttcacg agtttgaaa taaactcggg catatccatt cagcaccaga agcttcatta      420
tgtcaagata gaagtttagg aaatttccat ggatatgcat cttcttcagc ctcaggtagt      480
ttaacagcaa aggttaaagt cttttgtagc tttggtggga aaatacttcc acgtccaggt      540

```

## 047-E2F-PCT.ST25.txt

gattcaaagc	ttagatatgt	tggaggtgaa	acacacatta	tttccataag	aaaggacatt	600	
tcttggcagg	agctcaggca	aaaagttctt	gaaatctact	atcggactca	tgttgtcaag	660	
tatcaacttc	ctggtgaaga	tcttgatgcc	ttggtgtctg	tatcatgtga	cgaagatcta	720	
ctgaatatga	tggaggagta	taatgagatg	gaaaaccgtg	ggggttcgca	aaagcttaga	780	
atgtttctgt	tctctgtgag	tgattttggat	ggtgctcttt	tggggggttaa	caaaagtgat	840	
gttgactctg	agttccagta	tgttgtagct	gtaaatgaca	tggaccttgg	atcaagaagc	900	
aactcaacc	ttaatggact	ggacagctct	tctgcaaaca	atttagctga	gctggatgtc	960	
aggaacaccg	agggaaatcaa	tggtgttggc	ccttcgcagt	taacagggat	agattttcaa	1020	
caatcctcta	tgcagtattc	tgagtctgct	ccaccaacct	cctttgctca	gtatcctcaa	1080	
tctatcccac	acaatggtgc	atttcagttt	cagcaagctg	ttccccaaa	tgctactctt	1140	
cagtatgccc	cgtccaatcc	accaagttcg	tctgtccact	atcctcaatc	tattctacca	1200	
aattccactc	tccagtatcc	acaatcgatc	tcattccagct	cgtatggatt	ataccacaaa	1260	
tattatggag	aaaccgagca	atttccaatg	cagtatcatg	atcacaattc	ttctaattac	1320	
tctattccca	tacctttccc	agggcagcca	taccctcacc	ctggcatcac	acagcaaaac	1380	
gcacctgttc	aggtagagga	gccaaacata	aaacctgaga	cgaaagttcg	tgattatgtg	1440	
gagcctgaaa	atcgtcatat	tctggcaact	aatcaccaga	atccccctca	agctgatgat	1500	
actgaggtta	agaatcgga	gccatcagtt	gcaacaactg	taccagcca	ggatgctgca	1560	
catatgtttg	ccccagaag	agacacacgg	cagaacactc	ctgtgaagcc	ttctacttac	1620	
cgtgatgctg	ttataactga	gcaggtccca	gtatccggtg	aagatgatca	gctttcaaca	1680	
tcaagtggta	cctgtggtct	tgttcatacc	gactctgagt	cgaatcta	tgatcttgat	1740	
tatccagaac	ctttacagcc	caccgggaga	gtatatcggt	cggagaggat	acctcgtgaa	1800	
cagttagaaa	tgctaaatcg	cttgtccaag	tctgatgact	cacttggttc	tcagttctta	1860	
atgtctcatc	cacaagctag	cactggacag	caagaaccag	caaaagaagc	agcagggtata	1920	
tcacatgaag	attcacatat	tgtaa	aatgat	gtggaaaaca	tctctggaaa	tgtagtggca	1980
tcaaatgaaa	ccttggaaca	aagaacggtc	tctggtggag	gtattgagac	ggaagctcgt	2040	
aacttgagcc	atgtagacac	agaaaggagt	catgatatcc	ctgaaaagca	aacttcttca	2100	
ggtgttctta	ttgatataca	tgacaggttc	cctcaggact	tcctttctga	aatattcgca	2160	
aaggcactct	ctgatgatat	gccgtcaggt	gccaatccat	atcagcatga	tggagctggt	2220	
gttagcttga	atgtagagaa	tcatgatcct	aaaaattggt	cttattttcg	gaatctggcc	2280	
gatgaacagt	ttagcgatag	ggatgttgct	tatattgacc	gaacccttgg	ctttccatct	2340	
gacatggaag	atggtggaga	aattgccaga	ttgcatcagg	ttgctccgtt	gacagaaaac	2400	

cgtgtggatc ctcagatgaa ggtcacagag agtgaggaat ttgatgctat ggttgagaat 2460  
 ttaaggacct cagactgtga acaagaggat gaaaagtcag aaacaaggaa cgctggactt 2520  
 cccccagttg gcccgctctt ggcagattac gacacgagtg gcttgcagat cattatgaat 2580  
 gacgatctcg aggagctaaa ggagcttggg tctggcacat tcggtacagt gtatcatggt 2640  
 aaatggagag gatcagatgt tgccatcaaa aggataaaga agagttgctt tgctggccga 2700  
 tcatctgagc aagaaagatt aactgggtgaa ttctgggggag aagctgaaat tctttcaaag 2760  
 cttcatcatc caaatgtggg tgcattttat ggtgttgtaa aagatggacc tgggtgaaca 2820  
 ttggctactg taacagagta catggttgat ggttctctga gacatgttct agtcaggaaa 2880  
 gatagacacc tggatcgctg taagagacta atcattgccg tggatgctgc ctttggaatg 2940  
 gaatacttgc acgcaaaaaa cattgttcac ttcgatttga aatgtgacaa tttacttgtg 3000  
 aacctcaaag atccttctcg cccaatctgc aagggttggtg atttcggttt gtcgaaaatc 3060  
 aaaagaaata cattgggtatc tgggtggtgta cgcggaacct taccatggat ggcaccagag 3120  
 cttctcaatg gtagcagcag caaagtttca gagaaggctg atgtcttctc ttttggtata 3180  
 gtcttgtggg agattctaac cggcgaggaa ccatatgcta atatgacta cggtgctata 3240  
 ataggtggga tagtgaacaa cacactgagg cgcaccatac cgagctactg tgactcggac 3300  
 tggcgaatat taatggagga gtgttgggag cctaaccxaa cagcaaggcc atccttcacg 3360  
 gagatagctg gtcggttacg tgttatgtca actgcagcta cttcgaacca atccaaacca 3420  
 ccagctcaca aggccttcaaa gtga 3444

<210> 940

<211> 1147

<212> PRT

<213> Arabidopsis thaliana

<400> 940

Met Asp Arg Asn Arg Pro Pro His Pro Phe Gln Gln His Ala Met Glu  
 1 5 10 15

Pro Gly Tyr Val Asn Asp Ser Val Pro Gln Gly Phe Thr Pro Asp Gln  
 20 25 30

Thr Gly Leu Ser Asn Ala Asn Val Arg Pro Asn Pro Ala Asp Val Lys  
 35 40 45

Pro Gly Leu His Tyr Ser Ile Gln Thr Gly Glu Glu Phe Ser Leu Glu  
 50 55 60

047-E2F-PCT.ST25.txt

Phe Leu Arg Asp Arg Val Ile Ser Gln Arg Ser Ala Asn Pro Ile Ala  
 65 70 75 80  
 Ala Gly Asp Ile Asn Tyr Pro Thr Gly Tyr Asn Gly His Ala Gly Ser  
 85 90 95  
 Glu Phe Gly Ser Asp Val Ser Arg Met Ser Met Val Gly Asn Gly Ile  
 100 105 110  
 Arg Gln Tyr Glu Arg Thr Asn Pro Pro Val His Glu Phe Gly Asn Lys  
 115 120 125  
 Leu Gly His Ile His Ser Ala Pro Glu Ala Ser Leu Cys Gln Asp Arg  
 130 135 140  
 Ser Leu Gly Asn Phe His Gly Tyr Ala Ser Ser Ser Ala Ser Gly Ser  
 145 150 155 160  
 Leu Thr Ala Lys Val Lys Val Leu Cys Ser Phe Gly Gly Lys Ile Leu  
 165 170 175  
 Pro Arg Pro Gly Asp Ser Lys Leu Arg Tyr Val Gly Gly Glu Thr His  
 180 185 190  
 Ile Ile Ser Ile Arg Lys Asp Ile Ser Trp Gln Glu Leu Arg Gln Lys  
 195 200 205  
 Val Leu Glu Ile Tyr Tyr Arg Thr His Val Val Lys Tyr Gln Leu Pro  
 210 215 220  
 Gly Glu Asp Leu Asp Ala Leu Val Ser Val Ser Cys Asp Glu Asp Leu  
 225 230 235 240  
 Leu Asn Met Met Glu Glu Tyr Asn Glu Met Glu Asn Arg Gly Gly Ser  
 245 250 255  
 Gln Lys Leu Arg Met Phe Leu Phe Ser Val Ser Asp Leu Asp Gly Ala  
 260 265 270  
 Leu Leu Gly Val Asn Lys Ser Asp Val Asp Ser Glu Phe Gln Tyr Val  
 275 280 285  
 Val Ala Val Asn Asp Met Asp Leu Gly Ser Arg Ser Asn Ser Thr Leu  
 290 295 300  
 Asn Gly Leu Asp Ser Ser Ser Ala Asn Asn Leu Ala Glu Leu Asp Val

305 310 320  
 Arg Asn Thr Glu Gly Ile Asn Gly Val Gly Pro Ser Gln Leu Thr Gly  
 325 330 335  
 Ile Asp Phe Gln Gln Ser Ser Met Gln Tyr Ser Glu Ser Ala Pro Pro  
 340 345 350  
 Thr Ser Phe Ala Gln Tyr Pro Gln Ser Ile Pro His Asn Gly Ala Phe  
 355 360 365  
 Gln Phe Gln Gln Ala Val Pro Pro Asn Ala Thr Leu Gln Tyr Ala Pro  
 370 375 380  
 Ser Asn Pro Pro Ser Ser Ser Val His Tyr Pro Gln Ser Ile Leu Pro  
 385 390 395 400  
 Asn Ser Thr Leu Gln Tyr Pro Gln Ser Ile Ser Ser Ser Ser Tyr Gly  
 405 410 415  
 Leu Tyr Pro Gln Tyr Tyr Gly Glu Thr Glu Gln Phe Pro Met Gln Tyr  
 420 425 430  
 His Asp His Asn Ser Ser Asn Tyr Ser Ile Pro Ile Pro Phe Pro Gly  
 435 440 445  
 Gln Pro Tyr Pro His Pro Gly Ile Thr Gln Gln Asn Ala Pro Val Gln  
 450 455 460  
 Val Glu Glu Pro Asn Ile Lys Pro Glu Thr Lys Val Arg Asp Tyr Val  
 465 470 475 480  
 Glu Pro Glu Asn Arg His Ile Leu Ala Thr Asn His Gln Asn Pro Pro  
 485 490 495  
 Gln Ala Asp Asp Thr Glu Val Lys Asn Arg Glu Pro Ser Val Ala Thr  
 500 505 510  
 Thr Val Pro Ser Gln Asp Ala Ala His Met Leu Pro Pro Arg Arg Asp  
 515 520 525  
 Thr Arg Gln Asn Thr Pro Val Lys Pro Ser Thr Tyr Arg Asp Ala Val  
 530 535 540  
 Ile Thr Glu Gln Val Pro Val Ser Gly Glu Asp Asp Gln Leu Ser Thr  
 545 550 555 560



Ser Ser Gly Thr Cys Gly Leu Val His Thr Asp Ser Glu Ser Asn Leu  
 565 570 575  
 Ile Asp Leu Asp Tyr Pro Glu Pro Leu Gln Pro Thr Arg Arg Val Tyr  
 580 585 590  
 Arg Ser Glu Arg Ile Pro Arg Glu Gln Leu Glu Met Leu Asn Arg Leu  
 595 600 605  
 Ser Lys Ser Asp Asp Ser Leu Gly Ser Gln Phe Leu Met Ser His Pro  
 610 615 620  
 Gln Ala Ser Thr Gly Gln Gln Glu Pro Ala Lys Glu Ala Ala Gly Ile  
 625 630 635 640  
 Ser His Glu Asp Ser His Ile Val Asn Asp Val Glu Asn Ile Ser Gly  
 645 650 655  
 Asn Val Val Ala Ser Asn Glu Thr Leu Asp Lys Arg Thr Val Ser Gly  
 660 665 670  
 Gly Gly Ile Glu Thr Glu Ala Arg Asn Leu Ser His Val Asp Thr Glu  
 675 680 685  
 Arg Ser His Asp Ile Pro Glu Lys Gln Thr Ser Ser Gly Val Leu Ile  
 690 695 700  
 Asp Ile Asn Asp Arg Phe Pro Gln Asp Phe Leu Ser Glu Ile Phe Ala  
 705 710 715 720  
 Lys Ala Leu Ser Asp Asp Met Pro Ser Gly Ala Asn Pro Tyr Gln His  
 725 730 735  
 Asp Gly Ala Gly Val Ser Leu Asn Val Glu Asn His Asp Pro Lys Asn  
 740 745 750  
 Trp Ser Tyr Phe Arg Asn Leu Ala Asp Glu Gln Phe Ser Asp Arg Asp  
 755 760 765  
 Val Ala Tyr Ile Asp Arg Thr Pro Gly Phe Pro Ser Asp Met Glu Asp  
 770 775 780  
 Gly Gly Glu Ile Ala Arg Leu His Gln Val Ala Pro Leu Thr Glu Asn  
 785 790 795 800  
 Arg Val Asp Pro Gln Met Lys Val Thr Glu Ser Glu Glu Phe Asp Ala  
 805 810 815

047-E2F-PCT.ST25.txt

Met Val Glu Asn Leu Arg Thr Ser Asp Cys Glu Gln Glu Asp Glu Lys  
820 825 830

Ser Glu Thr Arg Asn Ala Gly Leu Pro Pro Val Gly Pro Ser Leu Ala  
835 840 845

Asp Tyr Asp Thr Ser Gly Leu Gln Ile Ile Met Asn Asp Asp Leu Glu  
850 855 860

Glu Leu Lys Glu Leu Gly Ser Gly Thr Phe Gly Thr Val Tyr His Gly  
865 870 875 880

Lys Trp Arg Gly Ser Asp Val Ala Ile Lys Arg Ile Lys Lys Ser Cys  
885 890 895

Phe Ala Gly Arg Ser Ser Glu Gln Glu Arg Leu Thr Gly Glu Phe Trp  
900 905 910

Gly Glu Ala Glu Ile Leu Ser Lys Leu His His Pro Asn Val Val Ala  
915 920 925

Phe Tyr Gly Val Val Lys Asp Gly Pro Gly Ala Thr Leu Ala Thr Val  
930 935 940

Thr Glu Tyr Met Val Asp Gly Ser Leu Arg His Val Leu Val Arg Lys  
945 950 955 960

Asp Arg His Leu Asp Arg Arg Lys Arg Leu Ile Ile Ala Met Asp Ala  
965 970 975

Ala Phe Gly Met Glu Tyr Leu His Ala Lys Asn Ile Val His Phe Asp  
980 985 990

Leu Lys Cys Asp Asn Leu Leu Val Asn Leu Lys Asp Pro Ser Arg Pro  
995 1000 1005

Ile Cys Lys Val Gly Asp Phe Gly Leu Ser Lys Ile Lys Arg Asn  
1010 1015 1020

Thr Leu Val Ser Gly Gly Val Arg Gly Thr Leu Pro Trp Met Ala  
1025 1030 1035

Pro Glu Leu Leu Asn Gly Ser Ser Ser Lys Val Ser Glu Lys Val  
1040 1045 1050

Asp Val Phe Ser Phe Gly Ile Val Leu Trp Glu Ile Leu Thr Gly  
1055 1060 1065

047-E2F-PCT.ST25.txt

Glu Glu Pro Tyr Ala Asn Met His Tyr Gly Ala Ile Ile Gly Gly  
1070 1075 1080

Ile Val Asn Asn Thr Leu Arg Pro Thr Ile Pro Ser Tyr Cys Asp  
1085 1090 1095

Ser Asp Trp Arg Ile Leu Met Glu Glu Cys Trp Ala Pro Asn Pro  
1100 1105 1110

Thr Ala Arg Pro Ser Phe Thr Glu Ile Ala Gly Arg Leu Arg Val  
1115 1120 1125

Met Ser Thr Ala Ala Thr Ser Asn Gln Ser Lys Pro Pro Ala His  
1130 1135 1140

Lys Ala Ser Lys  
1145

<210> 941

<211> 1899

<212> DNA

<213> Arabidopsis thaliana

<400> 941

atggcggacg aatctcaata ctcatcggat acttactcca acaaacgcaa atacgaagaa	60
ccaaccgctc ctctccatc aactcgcaga cctaccggct tctcttctgg tccgatccca	120
tctgcttcag ttgatccac cgcacctacc ggtcttccac cttcttctta caacagcggt	180
cctcctccga tggatgaaat ccagattgct aaacaaaaag cacaagaaat cgctgctcgt	240
cttcttaata gcgctgatgc taaacgtcct cgtgttgaca atggtgcttc ttatgattat	300
ggtgacaaca aaggatttag ctcatatccc tctgagggta agcagatgtc agggacgggt	360
ccgtcttcga taccggtttc gtatggtagc tttcaaggaa ctactaagaa gattgatatt	420
ccgaatatga gagttggtgt tatcattggt aaaggtggag agactattaa gtatcttcag	480
cttcagtctg gagctaagat tcaggttact agagatatgg atgcagaccc taattgtgct	540
actaggactg ttgacctaac tggtaccct gatcagatct caaaggctga acagttgatc	600
actgacgtcc ttcaagaggc tgaggcaggc aatacagctg gttcagggtgg aggaggcggc	660
cgtaggatgg gtggacaagc aggggctgat caatttggtta tgaaaattcc gaataacaag	720
gttggtttga taattggtaa aggaggtgaa acaatcaaat ctatgcaagc taagactgga	780

gctagaattc aggttattcc tttaattttg ccccttgag acccaacgcc agaacggact 840  
 ttgcagattg atgggataac cgaacagatt gaacatgcta aacaattagt taatgaaatc 900  
 atcagtggcg agaaccgtat gagaaactca gcaatgggtg gaggttatcc acaacaaggt 960  
 ggttatcaag cccgcccacc ctcaagctgg gcaccacctg gtggtccgcc agcacaacct 1020  
 ggttatgggtg gttacatgca accaggagca tatccaggtc cacctcagta tggatcaatca 1080  
 ccttacggaa gttaccctca acaaaactta gctggttact atgatcagtc ctctgtgcca 1140  
 ccatcccagc agagcgcgca aggtgagtat gattattacg gtcagcaaca gtctcagcaa 1200  
 ccaagcagtg gtggtagctc agccccacca acagatacca cagggtacaa ttactaccag 1260  
 catgcttctg gttatggcca agctggctcag ggataaccagc aagatgggta tggagcttac 1320  
 aatgcctcgc agcaatcggg atatgggtcaa gctgctgggt atgatcaaca ggggtggttac 1380  
 ggcagcacca ctaatccaag tcaagaggaa gatgcatctc aagccgctcc accatcgtca 1440  
 gctcagctctg gacaggctgg gtatgggtaca actgggtcaac agccgcctgc tcaaggtagt 1500  
 actggtcagg cagggtatgg agctcctcca acttctcagg ctggttacag cagccagcca 1560  
 gcagcagctt acaattcttg gtatggagca ccaccacctg cttcaaagcc accgacttat 1620  
 ggccagagcc agcagctctc aggtgctcct gggagctatg gtagtcagtc tgggtatgcc 1680  
 caaccagcag cttcagggtg tggacaacct ccagcgtatg ggtatgggtca agcgccacag 1740  
 ggatatgggt cttatggagg atacacacaa cctgctgctg gtggagggtta ctcttcagac 1800  
 gggctctgctg gagccactgc tgggtgggtgg ggtgggtacac cagcttcaca gagtgctgct 1860  
 ccacctgctg gaccgccccaa agcatccccg aaaagttga 1899

<210> 942

<211> 632

<212> PRT

<213> Arabidopsis thaliana

<400> 942

Met Ala Asp Glu Ser Gln Tyr Ser Ser Asp Thr Tyr Ser Asn Lys Arg  
 1 5 10 15

Lys Tyr Glu Glu Pro Thr Ala Pro Pro Pro Ser Thr Arg Arg Pro Thr  
 20 25 30

Gly Phe Ser Ser Gly Pro Ile Pro Ser Ala Ser Val Asp Pro Thr Ala  
 35 40 45

## 047-E2F-PCT.ST25.txt

Pro Thr Gly Leu Pro Pro Ser Ser Tyr Asn Ser Val Pro Pro Pro Met  
 50 55 60  
 Asp Glu Ile Gln Ile Ala Lys Gln Lys Ala Gln Glu Ile Ala Ala Arg  
 65 70 75 80  
 Leu Leu Asn Ser Ala Asp Ala Lys Arg Pro Arg Val Asp Asn Gly Ala  
 85 90 95  
 Ser Tyr Asp Tyr Gly Asp Asn Lys Gly Phe Ser Ser Tyr Pro Ser Glu  
 100 105 110  
 Gly Lys Gln Met Ser Gly Thr Val Pro Ser Ser Ile Pro Val Ser Tyr  
 115 120 125  
 Gly Ser Phe Gln Gly Thr Thr Lys Lys Ile Asp Ile Pro Asn Met Arg  
 130 135 140  
 Val Gly Val Ile Ile Gly Lys Gly Gly Glu Thr Ile Lys Tyr Leu Gln  
 145 150 155 160  
 Leu Gln Ser Gly Ala Lys Ile Gln Val Thr Arg Asp Met Asp Ala Asp  
 165 170 175  
 Pro Asn Cys Ala Thr Arg Thr Val Asp Leu Thr Gly Thr Pro Asp Gln  
 180 185 190  
 Ile Ser Lys Ala Glu Gln Leu Ile Thr Asp Val Leu Gln Glu Ala Glu  
 195 200 205  
 Ala Gly Asn Thr Ala Gly Ser Gly Gly Gly Gly Gly Arg Arg Met Gly  
 210 215 220  
 Gly Gln Ala Gly Ala Asp Gln Phe Val Met Lys Ile Pro Asn Asn Lys  
 225 230 235 240  
 Val Gly Leu Ile Ile Gly Lys Gly Gly Glu Thr Ile Lys Ser Met Gln  
 245 250 255  
 Ala Lys Thr Gly Ala Arg Ile Gln Val Ile Pro Leu His Leu Pro Pro  
 260 265 270  
 Gly Asp Pro Thr Pro Glu Arg Thr Leu Gln Ile Asp Gly Ile Thr Glu  
 275 280 285  
 Gln Ile Glu His Ala Lys Gln Leu Val Asn Glu Ile Ile Ser Gly Glu  
 290 295 300

047-E2F-PCT.ST25.txt

Asn Arg Met Arg Asn Ser Ala Met Gly Gly Gly Tyr Pro Gln Gln Gly  
 305 310 315 320  
 Gly Tyr Gln Ala Arg Pro Pro Ser Ser Trp Ala Pro Pro Gly Gly Pro  
 325 330 335  
 Pro Ala Gln Pro Gly Tyr Gly Gly Tyr Met Gln Pro Gly Ala Tyr Pro  
 340 345 350  
 Gly Pro Pro Gln Tyr Gly Gln Ser Pro Tyr Gly Ser Tyr Pro Gln Gln  
 355 360 365  
 Thr Ser Ala Gly Tyr Tyr Asp Gln Ser Ser Val Pro Pro Ser Gln Gln  
 370 375 380  
 Ser Ala Gln Gly Glu Tyr Asp Tyr Tyr Gly Gln Gln Gln Ser Gln Gln  
 385 390 395 400  
 Pro Ser Ser Gly Gly Ser Ser Ala Pro Pro Thr Asp Thr Thr Gly Tyr  
 405 410 415  
 Asn Tyr Tyr Gln His Ala Ser Gly Tyr Gly Gln Ala Gly Gln Gly Tyr  
 420 425 430  
 Gln Gln Asp Gly Tyr Gly Ala Tyr Asn Ala Ser Gln Gln Ser Gly Tyr  
 435 440 445  
 Gly Gln Ala Ala Gly Tyr Asp Gln Gln Gly Gly Tyr Gly Ser Thr Thr  
 450 455 460  
 Asn Pro Ser Gln Glu Glu Asp Ala Ser Gln Ala Ala Pro Pro Ser Ser  
 465 470 475 480  
 Ala Gln Ser Gly Gln Ala Gly Tyr Gly Thr Thr Gly Gln Gln Pro Pro  
 485 490 495  
 Ala Gln Gly Ser Thr Gly Gln Ala Gly Tyr Gly Ala Pro Pro Thr Ser  
 500 505 510  
 Gln Ala Gly Tyr Ser Ser Gln Pro Ala Ala Ala Tyr Asn Ser Gly Tyr  
 515 520 525  
 Gly Ala Pro Pro Pro Ala Ser Lys Pro Pro Thr Tyr Gly Gln Ser Gln  
 530 535 540  
 Gln Ser Pro Gly Ala Pro Gly Ser Tyr Gly Ser Gln Ser Gly Tyr Ala  
 545 550 555 560

Gln Pro Ala Ala Ser Gly Tyr Gly Gln Pro Pro Ala Tyr Gly Tyr Gly  
565 570 575

Gln Ala Pro Gln Gly Tyr Gly Ser Tyr Gly Gly Tyr Thr Gln Pro Ala  
580 585 590

Ala Gly Gly Gly Tyr Ser Ser Asp Gly Ser Ala Gly Ala Thr Ala Gly  
595 600 605

Gly Gly Gly Gly Thr Pro Ala Ser Gln Ser Ala Ala Pro Pro Ala Gly  
610 615 620

Pro Pro Lys Ala Ser Pro Lys Ser  
625 630

<210> 943

<211> 1143

<212> DNA

<213> *Arabidopsis thaliana*

<400> 943

atgacgttcc gaagtttact ccaggaaatg cggctctaggc cacaccgtgt agttcacgcc	60
gccgcctcaa ccgctaata tag ttcagaccct ttcagctggt cggagctccc ggaggagctg	120
cttagagaaa tcctgattag ggttgagact gttgacggcg gcgattggcc gtcgcggcga	180
aacgtggtgg cttgtgccgg cgtttgtcgt agctggagga ttctcaccaa ggagattgta	240
gctgttcctg aattctcctc taaattgact ttccctatct ccctcaagca gtctgggtcca	300
agagattctc tagttcaatg ctttataaaa cgtaatcgaa atactcaatc gtatcatctc	360
tatctcggat taactacctc tttagcggat aacgggaagt ttcttcttgc tgcttctaag	420
ctgaagcgcg caacttgcac tgattacatc atctctttgc gttcagacga tatctcaaag	480
agaagcaacg cgtatcttgg gagaatgaga tcgaacttcc ttggaacaaa attcacggtc	540
tttgatggta gtcagaccgg agcagcgaag atgcagaaga gccgctcttc taatttcatc	600
aaagtttcac ctagagttcc tcagggaagt taccatctcg ctacatttc atacgagtta	660
aacgtcttag gctctcgggg accgagaaga atgcgttgca tcatggatac aatacctatg	720
agcatcgtgg agtcgcgagg agtagtagct tcaacatcca taagctcttt ttccagtcgg	780
tcatcaccag tcttttaggtc tcaactcaaaa ccattgcgca gtaatagtgc atcatgtagc	840
gactcaggca acaacctggg agatccacca ttggtgctga gcaacaaagc tccacggtgg	900

```

catgagcagt tacgttgctg gtgcttaaat ttccatggtc gagtcacagt ggcttcggtt    960
aagaactttc agcttggtgc agtttagtgac tgtgaagcag ggcagacatc tgagaggatc    1020
atactccagt ttgggaaagt tgggaaggac atgtttacca tggattatgg atatccgatt    1080
tctgcgtttc aagcgtttgc tatctgcctg agcagttttg aaaccagaat tgcctgtgaa    1140
taa                                                                    1143

```

&lt;210&gt; 944

&lt;211&gt; 380

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 944

```

Met Thr Phe Arg Ser Leu Leu Gln Glu Met Arg Ser Arg Pro His Arg
1      5      10
Val Val His Ala Ala Ala Ser Thr Ala Asn Ser Ser Asp Pro Phe Ser
20     25     30
Trp Ser Glu Leu Pro Glu Glu Leu Leu Arg Glu Ile Leu Ile Arg Val
35     40     45
Glu Thr Val Asp Gly Gly Asp Trp Pro Ser Arg Arg Asn Val Val Ala
50     55     60
Cys Ala Gly Val Cys Arg Ser Trp Arg Ile Leu Thr Lys Glu Ile Val
65     70     75     80
Ala Val Pro Glu Phe Ser Ser Lys Leu Thr Phe Pro Ile Ser Leu Lys
85     90     95
Gln Ser Gly Pro Arg Asp Ser Leu Val Gln Cys Phe Ile Lys Arg Asn
100    105    110
Arg Asn Thr Gln Ser Tyr His Leu Tyr Leu Gly Leu Thr Thr Ser Leu
115    120    125
Thr Asp Asn Gly Lys Phe Leu Leu Ala Ala Ser Lys Leu Lys Arg Ala
130    135    140
Thr Cys Thr Asp Tyr Ile Ile Ser Leu Arg Ser Asp Asp Ile Ser Lys
145    150    155    160

```



Arg Ser Asn Ala Tyr Leu Gly Arg Met Arg Ser Asn Phe Leu Gly Thr  
 165 170 175

Lys Phe Thr Val Phe Asp Gly Ser Gln Thr Gly Ala Ala Lys Met Gln  
 180 185 190

Lys Ser Arg Ser Ser Asn Phe Ile Lys Val Ser Pro Arg Val Pro Gln  
 195 200 205

Gly Ser Tyr Pro Ile Ala His Ile Ser Tyr Glu Leu Asn Val Leu Gly  
 210 215 220

Ser Arg Gly Pro Arg Arg Met Arg Cys Ile Met Asp Thr Ile Pro Met  
 225 230 235 240

Ser Ile Val Glu Ser Arg Gly Val Val Ala Ser Thr Ser Ile Ser Ser  
 245 250 255

Phe Ser Ser Arg Ser Ser Pro Val Phe Arg Ser His Ser Lys Pro Leu  
 260 265 270

Arg Ser Asn Ser Ala Ser Cys Ser Asp Ser Gly Asn Asn Leu Gly Asp  
 275 280 285

Pro Pro Leu Val Leu Ser Asn Lys Ala Pro Arg Trp His Glu Gln Leu  
 290 295 300

Arg Cys Trp Cys Leu Asn Phe His Gly Arg Val Thr Val Ala Ser Val  
 305 310 315 320

Lys Asn Phe Gln Leu Val Ala Val Ser Asp Cys Glu Ala Gly Gln Thr  
 325 330 335

Ser Glu Arg Ile Ile Leu Gln Phe Gly Lys Val Gly Lys Asp Met Phe  
 340 345 350

Thr Met Asp Tyr Gly Tyr Pro Ile Ser Ala Phe Gln Ala Phe Ala Ile  
 355 360 365

Cys Leu Ser Ser Phe Glu Thr Arg Ile Ala Cys Glu  
 370 375 380

<210> 945

<211> 942

<212> DNA

<213> Arabidopsis thaliana

```

<400> 945
atgaattcaa acattttccc accatcgaaa caacaaaacg agcttaataa tataacaaca 60
tcctttctcaa atctccaatc tcaatgctcc aattttactcc tcaacgtttc acaaaccctt 120
aatcctctct tcaacgccaa cacgaacaac aacaaacctt atatattctc tgctctcaat 180
tcgttttcgtg atcaagctaa gcaagcttta gattctagaa tctctcgatt caattctggt 240
aaggcacctg tctgggcgag aattttctgac gacggtggtg gtgcgagggc tcaggtgacg 300
gttccgattc gcggaagcgg gaaaggatta tctgctgatg ctattgagga gagattggcg 360
ggagttcctg tttagcgtt gagtaattcg aatgaggagt ttgtgttggt ttcagggact 420
tcctctggga aatctctggg ttgtgtgttt tgtaaagagg aagatgcaga gactcttctt 480
aaagagatga agagtatgga tcctcgtatg aggaaagaag gttcaaaagt tgttgctctt 540
gctcttagca aggtgttcca gttaaaagtt aatggtgtgg catttaggtt gattcctgag 600
tctactcaag tgaaaaatgc cttgaaggaa aggaaaacag ctggtatcga tgatgatgac 660
ttccatggtg ttccggtttt ccagtcaaag agcttgattc tacgaagtga aaacatgagt 720
tatcgccctg ttttcttttag aaaggaggac ttggaaaaat ctctaatacg agcgtccagc 780
caacagaacc gacttaacc tgccttgaaa ccaggcgata ttcagggttc agttttcgaa 840
gatattgtca agggaatgag ggaaagcacg acgtcaaact gggacgacat tgtgtttata 900
ccgcctgggt ttgagggttc aactgagcaa acacaggagt aa 942

```

<210> 946

<211> 313

<212> PRT

<213> Arabidopsis thaliana

<400> 946

Met Asn Ser Asn Ile Phe Pro Pro Ser Lys Gln Gln Asn Glu Leu Asn  
1 5 10 15

Asn Ile Gln Gln Ser Phe Ser Asn Leu Gln Ser Gln Cys Ser Asn Leu  
20 25 30

Leu Leu Asn Val Ser Gln Thr Leu Asn Pro Leu Phe Asn Ala Asn Thr  
35 40 45

Asn Asn Asn Lys Pro Asn Ile Phe Ser Ala Leu Asn Ser Phe Arg Asp  
50 55 60

047-E2F-PCT.ST25.txt

Gln Ala Lys Gln Ala Leu Asp Ser Arg Ile Ser Arg Phe Asn Ser Gly  
 65 70 75 80  
 Lys Ala Pro Val Trp Ala Arg Ile Ser Asp Asp Gly Gly Gly Ala Arg  
 85 90 95  
 Ala Gln Val Thr Val Pro Ile Arg Gly Ser Gly Lys Gly Leu Ser Ala  
 100 105 110  
 Asp Ala Ile Glu Glu Arg Leu Ala Gly Val Pro Val Tyr Ala Leu Ser  
 115 120 125  
 Asn Ser Asn Glu Glu Phe Val Leu Val Ser Gly Thr Ser Ser Gly Lys  
 130 135 140  
 Ser Leu Gly Leu Leu Phe Cys Lys Glu Glu Asp Ala Glu Thr Leu Leu  
 145 150 155 160  
 Lys Glu Met Lys Ser Met Asp Pro Arg Met Arg Lys Glu Gly Ser Lys  
 165 170 175  
 Val Val Ala Leu Ala Leu Ser Lys Val Phe Gln Leu Lys Val Asn Gly  
 180 185 190  
 Val Ala Phe Arg Leu Ile Pro Glu Ser Thr Gln Val Lys Asn Ala Leu  
 195 200 205  
 Lys Glu Arg Lys Thr Ala Gly Ile Asp Asp Asp Asp Phe His Gly Val  
 210 215 220  
 Pro Val Phe Gln Ser Lys Ser Leu Ile Leu Arg Ser Glu Asn Met Ser  
 225 230 235 240  
 Tyr Arg Pro Val Phe Phe Arg Lys Glu Asp Leu Glu Lys Ser Leu Ile  
 245 250 255  
 Arg Ala Ser Ser Gln Gln Asn Arg Leu Asn Pro Ala Leu Lys Pro Gly  
 260 265 270  
 Asp Ile Gln Val Ala Val Phe Glu Asp Ile Val Lys Gly Met Arg Glu  
 275 280 285  
 Ser Thr Thr Ser Asn Trp Asp Asp Ile Val Phe Ile Pro Pro Gly Phe  
 290 295 300  
 Glu Val Ser Thr Glu Gln Thr Gln Glu

305

310

&lt;210&gt; 947

&lt;211&gt; 624

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 947

```

atggtggagt ctctgttccc gagcatcgaa aacacaggtg aatcgtctcg aagaaagaag      60
ccgaggatat cagagacggc ggaggcggag atagaggcac gacgtgtcaa cgaagaaagc      120
ttgaagagat ggaaaacgaa tcgtgtgcaa cagatctacg cttgtaagct cgtcgaagct      180
ttacgccgag ttcgtcagag atcttccacc accagcaaca acgagaccga taaactcgtc      240
tccggcgcgg cgaggggagat acgtgatacg gcggatcgag ttctagctgc gtccgctcgt      300
ggtagcactc ggtggagcag agcgatttta gcgagtcgcy tccgagcgaa gctgaagaaa      360
catagaaagg cgaaaaagtc aacgggaaat tgtaaatcga gaaaaggtct cacggagacg      420
aatcggatta agttaccggc ggttgagaga aaactgaaga ttcttggccg tttggttcct      480
ggttgccgga aagtctctgt accgaatctt ttagatgaag cgaccgatta catcgcagcg      540
ttagagatgc aggttcgagc catggaggct ctcgccgaac ttttaaccgc agccgcacca      600
cggacgacgt tgaccggaac ttaa                                     624

```

&lt;210&gt; 948

&lt;211&gt; 207

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 948

```

Met Val Glu Ser Leu Phe Pro Ser Ile Glu Asn Thr Gly Glu Ser Ser
1           5           10           15

Arg Arg Lys Lys Pro Arg Ile Ser Glu Thr Ala Glu Ala Glu Ile Glu
20        25        30

Ala Arg Arg Val Asn Glu Glu Ser Leu Lys Arg Trp Lys Thr Asn Arg
35        40        45

Val Gln Gln Ile Tyr Ala Cys Lys Leu Val Glu Ala Leu Arg Arg Val
50        55        60

```

047-E2F-PCT.ST25.txt

Arg Gln Arg Ser Ser Thr Thr Ser Asn Asn Glu Thr Asp Lys Leu Val  
65 70 75 80

Ser Gly Ala Ala Arg Glu Ile Arg Asp Thr Ala Asp Arg Val Leu Ala  
85 90 95

Ala Ser Ala Arg Gly Thr Thr Arg Trp Ser Arg Ala Ile Leu Ala Ser  
100 105 110

Arg Val Arg Ala Lys Leu Lys Lys His Arg Lys Ala Lys Lys Ser Thr  
115 120 125

Gly Asn Cys Lys Ser Arg Lys Gly Leu Thr Glu Thr Asn Arg Ile Lys  
130 135 140

Leu Pro Ala Val Glu Arg Lys Leu Lys Ile Leu Gly Arg Leu Val Pro  
145 150 155 160

Gly Cys Arg Lys Val Ser Val Pro Asn Leu Leu Asp Glu Ala Thr Asp  
165 170 175

Tyr Ile Ala Ala Leu Glu Met Gln Val Arg Ala Met Glu Ala Leu Ala  
180 185 190

Glu Leu Leu Thr Ala Ala Ala Pro Arg Thr Thr Leu Thr Gly Thr  
195 200 205

<210> 949

<211> 531

<212> DNA

<213> Arabidopsis thaliana

<400> 949

atgtcttctc atactgcaac taagtatgat gttttcctaa gtttcagagg gcatgacact	60
cgccacaact tcatcagttt tctctacaaa gaactggttc gaaggagcat tcgaaccttc	120
aaagacgaca aagagctgga gaatggccag aggttttcgc cggagctcaa aagccccatc	180
gaggtgtcaa gattcgccgt cgttgttgtc tcagagaact atgctgcgtc ttcttggtgt	240
ctcgatgagc tcgtaacgat catggatttc gaaaaaagg gttccatcac cgtgatgccc	300
atcttctacg gcgtggaacc gaatcatgtg aggtggcaga ccggagtact cgctgaacag	360
tttaagaaac atgcgagtag agaagatcct gagaaagttc ttaaatggag gcaagcattg	420

accaattttg cgcaactctc cggcgattgt tcaggtgatg atgactcgaa gctggtggac 480  
 aaaattgcta acgagatatc aaacaagaag acgatttatg caacaatatg a 531

<210> 950

<211> 176

<212> PRT

<213> *Arabidopsis thaliana*

<400> 950

Met Ser Ser His Thr Ala Thr Lys Tyr Asp Val Phe Leu Ser Phe Arg  
 1 5 10 15

Gly His Asp Thr Arg His Asn Phe Ile Ser Phe Leu Tyr Lys Glu Leu  
 20 25 30

Val Arg Arg Ser Ile Arg Thr Phe Lys Asp Asp Lys Glu Leu Glu Asn  
 35 40 45

Gly Gln Arg Phe Ser Pro Glu Leu Lys Ser Pro Ile Glu Val Ser Arg  
 50 55 60

Phe Ala Val Val Val Val Ser Glu Asn Tyr Ala Ala Ser Ser Trp Cys  
 65 70 75 80

Leu Asp Glu Leu Val Thr Ile Met Asp Phe Glu Lys Lys Gly Ser Ile  
 85 90 95

Thr Val Met Pro Ile Phe Tyr Gly Val Glu Pro Asn His Val Arg Trp  
 100 105 110

Gln Thr Gly Val Leu Ala Glu Gln Phe Lys Lys His Ala Ser Arg Glu  
 115 120 125

Asp Pro Glu Lys Val Leu Lys Trp Arg Gln Ala Leu Thr Asn Phe Ala  
 130 135 140

Gln Leu Ser Gly Asp Cys Ser Gly Asp Asp Asp Ser Lys Leu Val Asp  
 145 150 155 160

Lys Ile Ala Asn Glu Ile Ser Asn Lys Lys Thr Ile Tyr Ala Thr Ile  
 165 170 175

<210> 951

&lt;211&gt; 1407

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 951

```

atgttggtac agagaagagt aatgagttgg agaagagtct ggaagtcggt tcaagcggct    60
tctgcgcatt gtttactctt ctcttccacg cttcttctcg ctttgaagct tgatcatggt    120
gtttctcatt catggtgggt tgtatttgca cccttggtgt tgtttcatgc tgtgattgct    180
cgtggtagat tttcattgcc tgctccatca atgcctcatg atcgacattg ggctcctttt    240
cactcggtta tggcaacacc acttcttggt gcttttgaga tccttctctg tgtacatctt    300
gaagataaat atgttggtga cttaaagatt gtctttctac cgttgcttgc atttgaggta    360
gcaattttga tagataatgt cagaatgtgc aggacgctca tgcctggaga tgaagaaact    420
atgagtgatg aagccatatg ggaaacactt cctcatttct gggtttccat atctatgggt    480
ttcttcattg ccgcaacaac cttcactctt cttaaattat gtggtgacgt agctgcgttg    540
ggatgggtggg acttatttat aaacttcgga atagcagagt gctttgcggt tcttgtctgt    600
acaaagtgga gcaatcagtc aattcatagg tattcacata taccggaacc tagctcatct    660
tcaatggtag taagatatct ggattggaac agaggtctag tagtaaccgc tgacgacgag    720
catcagcaaa gcaacagaat atgtggtctc caagatatgt gtggacatgt tatgaaaatt    780
ccattttgtga cttttcaaat catccttttc atgcgcttag agggaaacgcc agcttctgcc    840
aaaaacattc cgattttagt tctgtttgta cctctttttc tgttacaagg agctggggta    900
ctttttgcta tgtatagatt ggttgagaaa tcagtcttat taataaatag tggtagtggt    960
tcttatggaa gatattttac cgcaacatca tcagctcgtg aattcctggg attctttcaa   1020
catggtgcaa gattacttgg ctggtggtct atcgatgaag gaagtcggga agaacaagca   1080
aggctctact ctggagaagc tactggatac aacaccttct caccagaggt tgtgaagaaa   1140
atgccaaagt ctgatcttgt tgaagagata tggagacttc aagctgcatt gagtgagcaa   1200
acagatatca ccagttatag ccagcaagag tacgaaaggc ttcaaaacga gaagattctt   1260
tgtagagttt gctttgaaga tccgatcaac gtggttctac tcccatgtag acatcacgtc   1320
ctctgcagta catgctgcga gaaatgcaag aaatgtccga tttgtcgtgt cctgatcgag   1380
gagcgtatgc ctgtatacga tgtgtag                                     1407

```

&lt;210&gt; 952

&lt;211&gt; 468

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 952

```

Met Leu Val Gln Arg Arg Val Met Ser Trp Arg Arg Val Trp Lys Ser
 1      5      10      15

Phe Gln Ala Ala Ser Ala His Cys Leu Leu Phe Ser Phe Thr Leu Leu
 20      25      30

Leu Ala Leu Lys Leu Asp His Val Val Ser His Ser Trp Trp Phe Val
 35      40      45

Phe Ala Pro Leu Trp Leu Phe His Ala Val Ile Ala Arg Gly Arg Phe
 50      55      60

Ser Leu Pro Ala Pro Ser Met Pro His Asp Arg His Trp Ala Pro Phe
 65      70      75      80

His Ser Val Met Ala Thr Pro Leu Leu Val Ala Phe Glu Ile Leu Leu
 85      90      95

Cys Val His Leu Glu Asp Lys Tyr Val Val Asp Leu Lys Ile Val Phe
100      105      110

Leu Pro Leu Leu Ala Phe Glu Val Ala Ile Leu Ile Asp Asn Val Arg
115      120      125

Met Cys Arg Thr Leu Met Pro Gly Asp Glu Glu Thr Met Ser Asp Glu
130      135      140

Ala Ile Trp Glu Thr Leu Pro His Phe Trp Val Ser Ile Ser Met Val
145      150      155      160

Phe Phe Ile Ala Ala Thr Thr Phe Thr Leu Leu Lys Leu Cys Gly Asp
165      170      175

Val Ala Ala Leu Gly Trp Trp Asp Leu Phe Ile Asn Phe Gly Ile Ala
180      185      190

Glu Cys Phe Ala Phe Leu Val Cys Thr Lys Trp Ser Asn Gln Ser Ile
195      200      205

His Arg Tyr Ser His Ile Pro Glu Pro Ser Ser Ser Ser Met Val Val
210      215      220

```



047-E2F-PCT.ST25.txt

Arg Tyr Leu Asp Trp Asn Arg Gly Leu Val Val Thr Ala Asp Asp Glu  
 225 230 235 240  
 His Gln Gln Ser Asn Arg Ile Cys Gly Leu Gln Asp Ile Gly Gly His  
 245 250 255  
 Val Met Lys Ile Pro Phe Val Thr Phe Gln Ile Ile Leu Phe Met Arg  
 260 265 270  
 Leu Glu Gly Thr Pro Ala Ser Ala Lys Asn Ile Pro Ile Leu Val Leu  
 275 280 285  
 Phe Val Pro Leu Phe Leu Leu Gln Gly Ala Gly Val Leu Phe Ala Met  
 290 295 300  
 Tyr Arg Leu Val Glu Lys Ser Val Leu Leu Ile Asn Ser Gly Ser Gly  
 305 310 315 320  
 Ser Tyr Gly Arg Tyr Phe Thr Ala Thr Ser Ser Ala Arg Glu Phe Leu  
 325 330 335  
 Gly Phe Phe Gln His Gly Ala Arg Leu Leu Gly Trp Trp Ser Ile Asp  
 340 345 350  
 Glu Gly Ser Arg Glu Glu Gln Ala Arg Leu Tyr Ser Gly Glu Ala Thr  
 355 360 365  
 Gly Tyr Asn Thr Phe Ser Pro Glu Val Val Lys Lys Met Pro Lys Ser  
 370 375 380  
 Asp Leu Val Glu Glu Ile Trp Arg Leu Gln Ala Ala Leu Ser Glu Gln  
 385 390 395 400  
 Thr Asp Ile Thr Ser Tyr Ser Gln Gln Glu Tyr Glu Arg Leu Gln Asn  
 405 410 415  
 Glu Lys Ile Leu Cys Arg Val Cys Phe Glu Asp Pro Ile Asn Val Val  
 420 425 430  
 Leu Leu Pro Cys Arg His His Val Leu Cys Ser Thr Cys Cys Glu Lys  
 435 440 445  
 Cys Lys Lys Cys Pro Ile Cys Arg Val Leu Ile Glu Glu Arg Met Pro  
 450 455 460  
 Val Tyr Asp Val  
 465

&lt;210&gt; 953

&lt;211&gt; 504

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 953

```

atggcagaag acaagatctt aaagaagact ccggcggcga agaagccgcg aaaaccgaaa      60
accaccactc atcctccata ctttcagatg ataaaagagg ctttgatggt cctgaaagag      120
aagaacggat caagccctta tgctatagct aagaagatag aggagaaaca caagtcttta      180
cttccagaga gtttccgtaa aacactttct ctacagctta aaaactctgt tgctaaaggt      240
aagctcgtga agatcagagc ctcttacaag ctctcagata ccaccaagat gataacgagg      300
cagcaggaca agaagaataa gaagaatatg aagcaagaag ataaagagat caciaagagg      360
actaggtctt cttcgacaag gcctaagaag actgtgtctg tgaacaaaca agaaaagaag      420
aggaaagtga agaaggcgag acagcctaag tctatcaaat cttcagttgg taagaagaag      480
gccatgaaag cttccgctgc ttga                                     504

```

&lt;210&gt; 954

&lt;211&gt; 167

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 954

```

Met Ala Glu Asp Lys Ile Leu Lys Lys Thr Pro Ala Ala Lys Lys Pro
1          5          10          15
Arg Lys Pro Lys Thr Thr Thr His Pro Pro Tyr Phe Gln Met Ile Lys
20          25          30
Glu Ala Leu Met Val Leu Lys Glu Lys Asn Gly Ser Ser Pro Tyr Ala
35          40          45
Ile Ala Lys Lys Ile Glu Glu Lys His Lys Ser Leu Leu Pro Glu Ser
50          55          60
Phe Arg Lys Thr Leu Ser Leu Gln Leu Lys Asn Ser Val Ala Lys Gly
65          70          75          80

```

Lys Leu Val Lys Ile Arg Ala Ser Tyr Lys Leu Ser Asp Thr Thr Lys  
85 90 95

Met Ile Thr Arg Gln Gln Asp Lys Lys Asn Lys Lys Asn Met Lys Gln  
100 105 110

Glu Asp Lys Glu Ile Thr Lys Arg Thr Arg Ser Ser Ser Thr Arg Pro  
115 120 125

Lys Lys Thr Val Ser Val Asn Lys Gln Glu Lys Lys Arg Lys Val Lys  
130 135 140

Lys Ala Arg Gln Pro Lys Ser Ile Lys Ser Ser Val Gly Lys Lys Lys  
145 150 155 160

Ala Met Lys Ala Ser Ala Ala  
165

<210> 955

<211> 1077

<212> DNA

<213> Arabidopsis thaliana

<400> 955

atggtgatga gaagtgtgga tctacgatca gataccgtta ctagaccgac agatgcatg	60
cgagaagcaa tgtgtaacgc agaggtggat gatgacgtcc tcggatatga cccaacggct	120
agacgtcttg aagaggagat ggctaagatg atgggggaaag aggctgctct gttcgtgcc	180
tccgggacaa tggggaatct gatcagcgtg atggttcact gcgacgtgag aggcagcgag	240
gtgattcttg gcgacaattg tcacatccat gtttacgaga atggagggat atcgactatc	300
gggggagtgc atcctaagac agtcaagaat gaagaagacg ggaccatgga cttggaggcc	360
attgaagcag ctattagaga tcctaaagga agcacgtttt atccatcaac aagggttgatt	420
tgcttgagga acacacatgc caactctggt gggagatggt tgagcgtgga atacactgag	480
aaagttggag agattgcaa gagacatggc gtgaagctcc atatcgacgg agcccgtctt	540
ttcaatgctt ccattgcact tggagttcca gtccataagc ttgttaaggc tgcggactcc	600
gttcaggtgt gtctctctaa aggtcttgga gctccggtag gatctgtaat cgttggttcg	660
caaagcttca tagagaaggc gaaaacgggtt aggaaaacat taggtggagg aatgagacaa	720
ataggtgttc tgtgcgcagc cgctttggtc gcactccaag aaaacctccc aaagctacaa	780
catgaccaca agaaggctaa gttgttagct gaagggttga atcaaatgaa agggattaga	840

gtaaattgttg cagccgtgga gaccaacatg attttcatgg atatggagga tggttcaaga 900  
 cttacggctg agaaactgcg gaagaatcta gaggagaatg gcattctcct tatccgggga 960  
 aactcatccc ggatcagaat agttatacac caccagataa caacaagtga tgtgcattac 1020  
 acattgtctt gctttcagca agcaatgcta acgatgcagg aaccaagccg aacctaa 1077

<210> 956

<211> 358

<212> PRT

<213> Arabidopsis thaliana

<400> 956

Met Val Met Arg Ser Val Asp Leu Arg Ser Asp Thr Val Thr Arg Pro  
 1 5 10 15  
 Thr Asp Ala Met Arg Glu Ala Met Cys Asn Ala Glu Val Asp Asp Asp  
 20 25 30  
 Val Leu Gly Tyr Asp Pro Thr Ala Arg Arg Leu Glu Glu Glu Met Ala  
 35 40 45  
 Lys Met Met Gly Lys Glu Ala Ala Leu Phe Val Pro Ser Gly Thr Met  
 50 55 60  
 Gly Asn Leu Ile Ser Val Met Val His Cys Asp Val Arg Gly Ser Glu  
 65 70 75 80  
 Val Ile Leu Gly Asp Asn Cys His Ile His Val Tyr Glu Asn Gly Gly  
 85 90 95  
 Ile Ser Thr Ile Gly Gly Val His Pro Lys Thr Val Lys Asn Glu Glu  
 100 105 110  
 Asp Gly Thr Met Asp Leu Glu Ala Ile Glu Ala Ala Ile Arg Asp Pro  
 115 120 125  
 Lys Gly Ser Thr Phe Tyr Pro Ser Thr Arg Leu Ile Cys Leu Glu Asn  
 130 135 140  
 Thr His Ala Asn Ser Gly Gly Arg Cys Leu Ser Val Glu Tyr Thr Glu  
 145 150 155 160  
 Lys Val Gly Glu Ile Ala Lys Arg His Gly Val Lys Leu His Ile Asp  
 165 170 175

047-E2F-PCT.ST25.txt

Gly Ala Arg Leu Phe Asn Ala Ser Ile Ala Leu Gly Val Pro Val His  
180 185 190

Lys Leu Val Lys Ala Ala Asp Ser Val Gln Val Cys Leu Ser Lys Gly  
195 200 205

Leu Gly Ala Pro Val Gly Ser Val Ile Val Gly Ser Gln Ser Phe Ile  
210 215 220

Glu Lys Ala Lys Thr Val Arg Lys Thr Leu Gly Gly Gly Met Arg Gln  
225 230 235 240

Ile Gly Val Leu Cys Ala Ala Ala Leu Val Ala Leu Gln Glu Asn Leu  
245 250 255

Pro Lys Leu Gln His Asp His Lys Lys Ala Lys Leu Leu Ala Glu Gly  
260 265 270

Leu Asn Gln Met Lys Gly Ile Arg Val Asn Val Ala Ala Val Glu Thr  
275 280 285

Asn Met Ile Phe Met Asp Met Glu Asp Gly Ser Arg Leu Thr Ala Glu  
290 295 300

Lys Leu Arg Lys Asn Leu Glu Glu Asn Gly Ile Leu Leu Ile Arg Gly  
305 310 315 320

Asn Ser Ser Arg Ile Arg Ile Val Ile His His Gln Ile Thr Thr Ser  
325 330 335

Asp Val His Tyr Thr Leu Ser Cys Phe Gln Gln Ala Met Leu Thr Met  
340 345 350

Gln Glu Pro Ser Arg Thr  
355

<210> 957

<211> 1233

<212> DNA

<213> Arabidopsis thaliana

<400> 957

atgatttgcg ctgcgattgc ggcgttaaac gaaccggatg gttcgagcaa gatggcaatt

60

047-E2F-PCT.ST25.txt

tcgagataca	tcgagagatg	ttacaccggt	ttaacttctg	ctcatgctgc	tttgttgact	120
caccatctca	agactttgaa	gaccagtggt	gttctttcta	tggttaagaa	atcttacaaa	180
attgctgggt	cttctactcc	tcctgctagt	gtagctgttg	ctgctgctgc	cgccgctcaa	240
ggctctgatg	ttcccagatc	tgagattctc	cattcaagta	acaacgatcc	catggcttct	300
ggctctgctt	ctcagcctct	gaaacgaggt	cgtggctgctc	ctcctaagcc	taaacctgaa	360
tctcaaccac	aaccactaca	gcaacttcca	ccgaccaatc	aagtccaggc	taacggacag	420
ccaatctggg	aacagcagca	agttcaatca	cctgttccgg	ttccgactcc	ggttacagag	480
tcggcgaaga	gaggacctgg	tcgtccaagg	aagaacggtt	ctgctgctcc	tgctactgca	540
ccaatcgttc	aagcttcggt	tatggctgga	attatgaaac	gtagaggtag	accaccgggt	600
cgctcgagctg	ctgggagaca	gaggaagccc	aaatccgttt	cttctactgc	ctctgtgtat	660
ccttatgttg	ctaattggtgc	tagacgcaga	ggaaggccta	ggagagttgt	tgaccctagc	720
agtattgtta	gtgttgctcc	agtaggtggt	gaaaatgtgg	cagcggttgc	gccagggatg	780
aagcgtggac	gtggacgacc	acctaagatt	ggtggtgtta	tcagtaggct	tattatgaag	840
cctaagagag	gacgaggacg	tcctgtaggt	agaccagaa	agattggaac	atcagtcacg	900
actgggacac	aagattctgg	agaactcaag	aagaagtttg	atatttttca	agagaaagtg	960
aaagaaattg	tgaaggtggt	gaaggatgga	gttacaagtg	agaatcaagc	agtgggtgcaa	1020
gccataaaag	atctggaagc	actaacagtg	acggagaccg	ttgagccaca	agttatggaa	1080
gaagtgcagc	cagaggagac	tgacgacca	cagactgaag	ctcaacaaac	tgaagctgct	1140
gagacacaag	gaggacaaga	agaaggacaa	gaaagagaag	gagaaacaca	gaccagaca	1200
gaagcagagg	caatgcaaga	agctctgttc	tga			1233

<210> 958

<211> 410

<212> PRT

<213> Arabidopsis thaliana

<400> 958

Met	Ile	Cys	Ala	Ala	Ile	Ala	Ala	Leu	Asn	Glu	Pro	Asp	Gly	Ser	Ser
1			5					10						15	

Lys	Met	Ala	Ile	Ser	Arg	Tyr	Ile	Glu	Arg	Cys	Tyr	Thr	Gly	Leu	Thr
			20					25					30		

Ser	Ala	His	Ala	Ala	Leu	Leu	Thr	His	His	Leu	Lys	Thr	Leu	Lys	Thr
		35					40					45			

047-E2F-PCT.ST25.txt

Ser Gly Val Leu Ser Met Val Lys Lys Ser Tyr Lys Ile Ala Gly Ser  
50 55 60

Ser Thr Pro Pro Ala Ser Val Ala Val Ala Ala Ala Ala Ala Gln  
65 70 75 80

Gly Leu Asp Val Pro Arg Ser Glu Ile Leu His Ser Ser Asn Asn Asp  
85 90 95

Pro Met Ala Ser Gly Ser Ala Ser Gln Pro Leu Lys Arg Gly Arg Gly  
100 105 110

Arg Pro Pro Lys Pro Lys Pro Glu Ser Gln Pro Gln Pro Leu Gln Gln  
115 120 125

Leu Pro Pro Thr Asn Gln Val Gln Ala Asn Gly Gln Pro Ile Trp Glu  
130 135 140

Gln Gln Gln Val Gln Ser Pro Val Pro Val Pro Thr Pro Val Thr Glu  
145 150 155 160

Ser Ala Lys Arg Gly Pro Gly Arg Pro Arg Lys Asn Gly Ser Ala Ala  
165 170 175

Pro Ala Thr Ala Pro Ile Val Gln Ala Ser Val Met Ala Gly Ile Met  
180 185 190

Lys Arg Arg Gly Arg Pro Pro Gly Arg Arg Ala Ala Gly Arg Gln Arg  
195 200 205

Lys Pro Lys Ser Val Ser Ser Thr Ala Ser Val Tyr Pro Tyr Val Ala  
210 215 220

Asn Gly Ala Arg Arg Arg Gly Arg Pro Arg Arg Val Val Asp Pro Ser  
225 230 235 240

Ser Ile Val Ser Val Ala Pro Val Gly Gly Glu Asn Val Ala Ala Val  
245 250 255

Ala Pro Gly Met Lys Arg Gly Arg Gly Arg Pro Pro Lys Ile Gly Gly  
260 265 270

Val Ile Ser Arg Leu Ile Met Lys Pro Lys Arg Gly Arg Gly Arg Pro  
275 280 285

Val Gly Arg Pro Arg Lys Ile Gly Thr Ser Val Thr Thr Gly Thr Gln

290

295

Asp Ser Gly Glu Leu Lys Lys Lys Phe Asp Ile Phe Gln Glu Lys Val  
305 310 315 320

Lys Glu Ile Val Lys Val Leu Lys Asp Gly Val Thr Ser Glu Asn Gln  
325 330 335

Ala Val Val Gln Ala Ile Lys Asp Leu Glu Ala Leu Thr Val Thr Glu  
340 345 350

Thr Val Glu Pro Gln Val Met Glu Glu Val Gln Pro Glu Glu Thr Ala  
355 360 365

Ala Pro Gln Thr Glu Ala Gln Gln Thr Glu Ala Ala Glu Thr Gln Gly  
370 375 380

Gly Gln Glu Glu Gly Gln Glu Arg Glu Gly Glu Thr Gln Thr Gln Thr  
385 390 395 400

Glu Ala Glu Ala Met Gln Glu Ala Leu Phe  
405 410

<210> 959

<211> 2373

<212> DNA

<213> Arabidopsis thaliana

<400> 959

atgacggaat ctatctggtt aaacgatcaa tcttctcctc ggtcgatgat accttcagca	60
aaaccagtgg ctaatgtcca tcgccagagg tgtaggagtg tcttcaagtt actagtccag	120
agggaaattt caccaaacac aaagtttggt ccaagaaaac ggtgggggtga aagccgatgt	180
gatgctgatt cgtcgtgtgg aaccactagc gaaccagtga gagagcaggg acttaatctt	240
atttcttggg ttgaggcaga gtcattgcag ctttatctg ctaaatactg tcctcttgta	300
cctcctccaa ggtcaacgat tgcagcagct tttagttcag atggaagaac tcttgcttct	360
acacatggtg accacactgt aaaaattatt gattgtgaga caggaaaatg cttaaaaata	420
ttgactggcc atcgaaggac accctgggtg gtcagatttc acccgcgcca ctcagaaata	480
gttgctagtg gaagtttaga tcatgaggtg cgcttatgga atgcaaaaac tggggagtggt	540
atcagaactc atgatttcta tcgacctatt gcttccattg ctttccacgc tggaggtgaa	600
ttacttgctg ttgcatctgg tcataagttg cacatatggc attataataa gggaggggat	660



047-E2F-PCT.ST25.txt

gactcggcac	cagcaattgt	gttgaagaca	aggcgggtccc	tgagagctgt	acactttcat	720
ccacatgggg	ttcctcttct	cttgactgct	gaggtgactg	acattgattc	atcagattcc	780
gcaatgacaa	gatcaacatc	tccaggttat	ttgcgatatc	cgccccctgc	tattttcttc	840
accaacacac	aaagtggcag	tcgtaccagt	ttggcagccg	aactgccact	tgtgccatta	900
ccgtattttgc	tcttgccttc	atattctgcg	gatgatccaa	gaatactata	ttctagtggg	960
actactgggtc	caaggaatgc	acaaacaagg	tttcagagta	atcaaagttc	tgtagaacat	1020
ggcagcagaa	caatttcgcc	ttctcctctt	cccatggcta	cgtctgctga	tctttctggg	1080
tcctatcatg	tcccagacaa	ctctgctagt	aatacatttg	ctaccaagc	aggagctaga	1140
aattctacta	ctgcagttga	tgccatggat	gtagatgaag	ctcaacctgt	tggaagaaat	1200
agagttccca	gtcaagtttc	aagtcaacca	gatttactgg	agtttggaca	acttcagcag	1260
ttatttcact	ttagagacag	aggttcctgg	gagctacctt	ttctacaagg	gtgggttgatg	1320
gctcaaagcc	aagctgggtgc	taattcagtg	gctcttccta	ctggtagtag	tggtcacgtc	1380
aactcaactc	cttatatggg	ttcttcttca	gcattctcatt	catccacagc	cagtctagag	1440
gctggagtag	cgtcattaga	aattcctggg	gggtgttaact	tatatggggg	ttctgcaaga	1500
gggtgactccc	gggaccgaat	tctacagtcc	cgcttcgcag	gatctgggtt	agcagaaggt	1560
cgttcctctc	gtaacactca	acatgaagga	gctgatgctc	aacctgtggg	aaacagaatc	1620
ccttctgaac	tggctagtgc	aattgctgct	gcagagttgc	cttgtactgt	caaactgaga	1680
gtgtgggtcac	atgacatcaa	agacccatgt	tcaatactga	agtctgacaa	atgtcgatta	1740
acaatacatc	atgctgttct	ttgcagtgag	atgggagccc	atctttctcc	atgtgggaga	1800
tatttagcag	cctgtgttgc	atgcgttatt	cctcatgctg	agacagatcc	aagtttgcag	1860
acactgggtcc	aacaagactc	agggtcttgc	acttccccta	ctcgacatcc	tgtcacagca	1920
catcaagtca	tgtatgaact	tcgtgtgtat	tctctggaaa	aagaatcatt	tggttcggta	1980
cttgtgtccc	gggcaattag	ggctgcacat	tgcttaacct	ctatccagtt	ctcaccaacc	2040
tccgagcaca	ttctgcttgc	atatgggtcgt	cgtcatgggt	ctcttttgaa	gagcattgtg	2100
agtgatggag	aaacaacatc	acattttttc	acagttttgg	agatttacag	agtttcagat	2160
atggaactgg	tgagagtact	tccaagctca	gaggatgaag	ttaatgttgc	ttgctttcat	2220
ccttctcctg	ggggaggtct	tgtctatgga	acaaaggagg	gaaaactaag	gatcttccgg	2280
tacaacacag	ctgctgcgtc	caatctcact	gcaccaaata	gctctcccga	tgagaacttg	2340
gccgaggtgc	agacctatgc	gttagaatgc	tag			2373

<210> 960

<211> 790

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 960

Met Thr Glu Ser Ile Trp Leu Asn Asp Gln Ser Ser Pro Arg Ser Met  
 1 5 10 15

Ile Pro Ser Ala Lys Pro Val Ala Asn Val His Arg Gln Arg Cys Arg  
 20 25 30

Ser Val Phe Lys Leu Leu Val Gln Arg Glu Ile Ser Pro Asn Thr Lys  
 35 40 45

Phe Val Pro Arg Lys Arg Trp Gly Glu Ser Arg Cys Asp Ala Asp Ser  
 50 55 60

Ser Cys Gly Thr Thr Ser Glu Pro Val Arg Glu Gln Gly Leu Asn Leu  
 65 70 75 80

Ile Ser Trp Val Glu Ala Glu Ser Leu Gln His Leu Ser Ala Lys Tyr  
 85 90 95

Cys Pro Leu Val Pro Pro Pro Arg Ser Thr Ile Ala Ala Ala Phe Ser  
 100 105 110

Ser Asp Gly Arg Thr Leu Ala Ser Thr His Gly Asp His Thr Val Lys  
 115 120 125

Ile Ile Asp Cys Glu Thr Gly Lys Cys Leu Lys Ile Leu Thr Gly His  
 130 135 140

Arg Arg Thr Pro Trp Val Val Arg Phe His Pro Arg His Ser Glu Ile  
 145 150 155 160

Val Ala Ser Gly Ser Leu Asp His Glu Val Arg Leu Trp Asn Ala Lys  
 165 170 175

Thr Gly Glu Cys Ile Arg Thr His Asp Phe Tyr Arg Pro Ile Ala Ser  
 180 185 190

Ile Ala Phe His Ala Gly Gly Glu Leu Leu Ala Val Ala Ser Gly His  
 195 200 205

Lys Leu His Ile Trp His Tyr Asn Lys Gly Gly Asp Asp Ser Ala Pro  
 210 215 220

047-E2F-PCT.ST25.txt

Ala Ile Val Leu Lys Thr Arg Arg Ser Leu Arg Ala Val His Phe His  
225 230 235 240

Pro His Gly Val Pro Leu Leu Leu Thr Ala Glu Val Thr Asp Ile Asp  
245 250 255

Ser Ser Asp Ser Ala Met Thr Arg Ser Thr Ser Pro Gly Tyr Leu Arg  
260 265 270

Tyr Pro Pro Pro Ala Ile Phe Phe Thr Asn Thr Gln Ser Gly Ser Arg  
275 280 285

Thr Ser Leu Ala Ala Glu Leu Pro Leu Val Pro Leu Pro Tyr Leu Leu  
290 295 300

Leu Pro Ser Tyr Ser Ala Asp Asp Pro Arg Ile Leu Tyr Ser Ser Gly  
305 310 315 320

Thr Thr Gly Pro Arg Asn Ala Gln Thr Arg Phe Gln Ser Asn Gln Ser  
325 330 335

Ser Val Glu His Gly Ser Arg Thr Ile Ser Pro Ser Pro Leu Pro Met  
340 345 350

Ala Thr Ser Ala Asp Leu Ser Gly Ser Tyr His Val Pro Asp Asn Ser  
355 360 365

Ala Ser Asn Thr Phe Ala Thr Gln Ala Gly Ala Arg Asn Ser Thr Thr  
370 375 380

Ala Val Asp Ala Met Asp Val Asp Glu Ala Gln Pro Val Gly Arg Asn  
385 390 395 400

Arg Val Pro Ser Gln Val Ser Ser Gln Pro Asp Leu Leu Glu Phe Gly  
405 410 415

Gln Leu Gln Gln Leu Phe His Phe Arg Asp Arg Gly Ser Trp Glu Leu  
420 425 430

Pro Phe Leu Gln Gly Trp Leu Met Ala Gln Ser Gln Ala Gly Ala Asn  
435 440 445

Ser Val Ala Leu Pro Thr Gly Ser Ser Gly His Val Asn Ser Thr Pro  
450 455 460

Tyr Met Gly Ser Ser Ser Ala Ser His Ser Ser Thr Ala Ser Leu Glu

465                      470                      475                      480  
 Ala Gly Val Ala Ser Leu Glu Ile Pro Gly Gly Val Asn Leu Tyr Gly  
                                  485                      490  
 Val Ser Ala Arg Gly Asp Ser Arg Asp Arg Ile Leu Gln Ser Arg Phe  
                                  500                      505                      510  
 Ala Gly Ser Gly Leu Ala Glu Gly Arg Ser Ser Arg Asn Thr Gln His  
                                  515                      520                      525  
 Glu Gly Ala Asp Ala Gln Pro Val Val Asn Arg Ile Pro Ser Glu Leu  
                                  530                      535                      540  
 Ala Ser Ser Ile Ala Ala Ala Glu Leu Pro Cys Thr Val Lys Leu Arg  
                                  545                      550                      555                      560  
 Val Trp Ser His Asp Ile Lys Asp Pro Cys Ser Ile Leu Lys Ser Asp  
                                  565                      570                      575  
 Lys Cys Arg Leu Thr Ile His His Ala Val Leu Cys Ser Glu Met Gly  
                                  580                      585                      590  
 Ala His Phe Ser Pro Cys Gly Arg Tyr Leu Ala Ala Cys Val Ala Cys  
                                  595                      600                      605  
 Val Ile Pro His Ala Glu Thr Asp Pro Ser Leu Gln Thr Leu Val Gln  
                                  610                      615                      620  
 Gln Asp Ser Gly Leu Ala Thr Ser Pro Thr Arg His Pro Val Thr Ala  
                                  625                      630                      635                      640  
 His Gln Val Met Tyr Glu Leu Arg Val Tyr Ser Leu Glu Lys Glu Ser  
                                  645                      650                      655  
 Phe Gly Ser Val Leu Val Ser Arg Ala Ile Arg Ala Ala His Cys Leu  
                                  660                      665                      670  
 Thr Ser Ile Gln Phe Ser Pro Thr Ser Glu His Ile Leu Leu Ala Tyr  
                                  675                      680                      685  
 Gly Arg Arg His Gly Ser Leu Leu Lys Ser Ile Val Ser Asp Gly Glu  
                                  690                      695                      700  
 Thr Thr Ser His Phe Phe Thr Val Leu Glu Ile Tyr Arg Val Ser Asp  
                                  705                      710                      715                      720

Met Glu Leu Val Arg Val Leu Pro Ser Ser Glu Asp Glu Val Asn Val  
 725 730 735

Ala Cys Phe His Pro Ser Pro Gly Gly Gly Leu Val Tyr Gly Thr Lys  
 740 745 750

Glu Gly Lys Leu Arg Ile Phe Arg Tyr Asn Thr Ala Ala Ala Ser Asn  
 755 760 765

Leu Thr Ala Pro Asn Ser Ser Pro Asp Glu Asn Leu Ala Glu Val Gln  
 770 775 780

Thr Tyr Ala Leu Glu Cys  
 785 790

<210> 961

<211> 630

<212> DNA

<213> Arabidopsis thaliana

<400> 961

atggagaatg ggaaaagaga cagacaagac atggaagtga ataccacacc gaggaagcct	60
cgtgtactac tcgctgcaag tggaagcgtc gctgctatca aattcggcaa tctctgccat	120
tgcttcaccg aatgggcaga agtcagagcc gtcgttacga aatcatctct acatttcctc	180
gataaactct ctctcccaca agaagtgact ctgtatactg atgaagatga atggtctagc	240
tggaacaaga tcggtgatcc tgtccttcac atcgagctta gacgttgggc tgatgtttta	300
gtcattgctc ctttgtctgc taacacctta ggcaagattg ctggtgggct ttgtgataat	360
cttctgactt gcattatacg agcttgggac tataccaaac cactgtttgt tgctccagct	420
atgaatactt tgatgtggaa caatcctttc actgaaaggc atcttttgtc tcttgatgaa	480
ctgggaatca cacttattcc tcctatcaag aagagacttg cctgtggaga ctacggtaat	540
ggagctatgg ctgagccctc tcttatctat tccactgtca gactcttctg ggagtctcag	600
gctcatcagc aaaccggtgg aactagttaa	630

<210> 962

<211> 209

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 962

Met Glu Asn Gly Lys Arg Asp Arg Gln Asp Met Glu Val Asn Thr Thr  
 1 5 10 15

Pro Arg Lys Pro Arg Val Leu Leu Ala Ala Ser Gly Ser Val Ala Ala  
 20 25 30

Ile Lys Phe Gly Asn Leu Cys His Cys Phe Thr Glu Trp Ala Glu Val  
 35 40 45

Arg Ala Val Val Thr Lys Ser Ser Leu His Phe Leu Asp Lys Leu Ser  
 50 55 60

Leu Pro Gln Glu Val Thr Leu Tyr Thr Asp Glu Asp Glu Trp Ser Ser  
 65 70 75 80

Trp Asn Lys Ile Gly Asp Pro Val Leu His Ile Glu Leu Arg Arg Trp  
 85 90 95

Ala Asp Val Leu Val Ile Ala Pro Leu Ser Ala Asn Thr Leu Gly Lys  
 100 105 110

Ile Ala Gly Gly Leu Cys Asp Asn Leu Leu Thr Cys Ile Ile Arg Ala  
 115 120 125

Trp Asp Tyr Thr Lys Pro Leu Phe Val Ala Pro Ala Met Asn Thr Leu  
 130 135 140

Met Trp Asn Asn Pro Phe Thr Glu Arg His Leu Leu Ser Leu Asp Glu  
 145 150 155 160

Leu Gly Ile Thr Leu Ile Pro Pro Ile Lys Lys Arg Leu Ala Cys Gly  
 165 170 175

Asp Tyr Gly Asn Gly Ala Met Ala Glu Pro Ser Leu Ile Tyr Ser Thr  
 180 185 190

Val Arg Leu Phe Trp Glu Ser Gln Ala His Gln Gln Thr Gly Gly Thr  
 195 200 205

Ser

&lt;210&gt; 963

&lt;211&gt; 918

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 963

```

atggcttcta attaccgttt tgccatcttc ctcactctct ttttcgccac cgctggtttc      60
tccgccgccg cgttggtcga ggagcagccg cttgttatga aataccacaa cggagttctg      120
ttgaaaggta acatcacagt caatctcgta tggtagcgga aattcacacc gatccaacgg      180
tccgtaatcg tcgatttcac ccaactcgta aactccaaag acgttgcata ttccgccgca      240
gttccttccg ttgcttcgtg gtggaagacg acggagaaat acaaagggtg ctcttcaaca      300
ctcgtcgtcg ggaacagct tctactcgag aactatcctc tcggaaaatc tctcaaaaat      360
ccttacctcc gtgctttatc caccaaactt aacggcggtc tccgttccat aaccgtcgtt      420
ctaacggcga aagatgttac cgtcgaaaga ttctgtatga gccggtgcgg gactcacgga      480
tcctccggtt cgaatccccg tcgcgcagct aacggcgcgg cttacgtatg ggtcgggaac      540
tccgagacgc agtgccctgg atattgcgcg tggccgtttc accagccgat ttacggacca      600
caaacgccgc cgttagtagc gcctaacggt gacgttggag ttgacggaat gattataaac      660
cttgccacac ttctagctaa caccgtgacg aatccgttta ataacggata ttaccaaggc      720
ccaccaactg caccgcttga agctgtgtct gcttgtcctg gtatattcgg gtcaggttct      780
tatccggggt acgcggggtc ggtacttgtt gacaaaacaa ccgggtctag ttacaacgct      840
cgtggactcg ccggtaggaa atatctattg ccggcgatgt gggatccgca gagttcgacg      900
tgcaagactc tggtttga                                     918

```

&lt;210&gt; 964

&lt;211&gt; 305

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 964

```

Met Ala Ser Asn Tyr Arg Phe Ala Ile Phe Leu Thr Leu Phe Phe Ala
1           5           10          15
Thr Ala Gly Phe Ser Ala Ala Ala Leu Val Glu Glu Gln Pro Leu Val
          20          25          30
Met Lys Tyr His Asn Gly Val Leu Leu Lys Gly Asn Ile Thr Val Asn
          35          40          45

```

047-E2F-PCT.ST25.txt

Leu Val Trp Tyr Gly Lys Phe Thr Pro Ile Gln Arg Ser Val Ile Val  
 50 55 60  
 Asp Phe Ile His Ser Leu Asn Ser Lys Asp Val Ala Ser Ser Ala Ala  
 65 70 75 80  
 Val Pro Ser Val Ala Ser Trp Trp Lys Thr Thr Glu Lys Tyr Lys Gly  
 85 90 95  
 Gly Ser Ser Thr Leu Val Val Gly Lys Gln Leu Leu Leu Glu Asn Tyr  
 100 105 110  
 Pro Leu Gly Lys Ser Leu Lys Asn Pro Tyr Leu Arg Ala Leu Ser Thr  
 115 120 125  
 Lys Leu Asn Gly Gly Leu Arg Ser Ile Thr Val Val Leu Thr Ala Lys  
 130 135 140  
 Asp Val Thr Val Glu Arg Phe Cys Met Ser Arg Cys Gly Thr His Gly  
 145 150 155 160  
 Ser Ser Gly Ser Asn Pro Arg Arg Ala Ala Asn Gly Ala Ala Tyr Val  
 165 170 175  
 Trp Val Gly Asn Ser Glu Thr Gln Cys Pro Gly Tyr Cys Ala Trp Pro  
 180 185 190  
 Phe His Gln Pro Ile Tyr Gly Pro Gln Thr Pro Pro Leu Val Ala Pro  
 195 200 205  
 Asn Gly Asp Val Gly Val Asp Gly Met Ile Ile Asn Leu Ala Thr Leu  
 210 215 220  
 Leu Ala Asn Thr Val Thr Asn Pro Phe Asn Asn Gly Tyr Tyr Gln Gly  
 225 230 235 240  
 Pro Pro Thr Ala Pro Leu Glu Ala Val Ser Ala Cys Pro Gly Ile Phe  
 245 250 255  
 Gly Ser Gly Ser Tyr Pro Gly Tyr Ala Gly Arg Val Leu Val Asp Lys  
 260 265 270  
 Thr Thr Gly Ser Ser Tyr Asn Ala Arg Gly Leu Ala Gly Arg Lys Tyr  
 275 280 285  
 Leu Leu Pro Ala Met Trp Asp Pro Gln Ser Ser Thr Cys Lys Thr Leu  
 290 295 300



Val  
305

<210> 965

<211> 3438

<212> DNA

<213> *Arabidopsis thaliana*

<400> 965

```

atggcggcat caacttcaac ccgattcctt gttctgctca aagatTTTTc tgccttcaga      60
aagatatcat ggacttgtgc tgcaactaat tttcaccgcc aatctcgttt tttatgccat      120
gttgcgaaag aagacgggtc tcttactctt gcaagccttg atttggggaa caaaccacgg      180
aaatttggga agggtaaggc gatgaagctt gaggggaagt ttgttactga aatgggtcaa      240
ggtaaggtaa gagcggtaaa gaacgataaa atgaaagttg tcaaggaaaa aaagccagct      300
gagatagtgt ctcttttgtt ttctgcaaaa tcctttgagg agcttggcct cccggattcc      360
ttgttagaca gtttggaag agagggtttc tctgtcccaa cagatgtcca atcagcagct      420
gtcccggcaa taatcaaagg tcacgatgca gtgattcagt cttacacagg atctggcaaa      480
acattagctt atctgcttcc aatattgtcc gaaattgggt ctctagcaga aaaatctaga      540
agttcgcaca gtgaaaatga taagaggact gagattcagg caatgatcgt ggctccatca      600
agagaactcg gtatgcagat agtaagagag gtagagaaac tgctcggacc tgttcacctg      660
agaatggttc agcagttggt aggaggtgca aaccgaatga ggcaagaaga ggcccttaag      720
aaaaataaac ctgcaattgt tgttggcact cccgggagaa ttgcagagat aagcaaaggt      780
ggaaaattgc acactcatgg gtgtagattc ttggtgctag acgaagtcga tgagctttta      840
tcgtttaatt tccgagaaga tatccatcga atactagaac atgtaggaaa gagatctggg      900
gctggtccta aaggagaagt cgatgaacgg gctaaccggc agaccattct agtctctgca      960
actgtgccat tctcggttat ccgagcagct aaaagctgga gtcacgagcc ggttcttgtc     1020
caagccaaca aagtcactcc tcttgatacc gttcaaccat ctgcaccggt aatgagcttg     1080
actcccacaa cttctgaagc tgatggccag attcagacta ctattcagag cttacctcca     1140
gctttaaaac actattactg catctcaaag catcaacaca aagtcgacac gttaaggaga     1200
tgcgttcacg ccctcgatgc ccaatcggtt atagctttca tgaaccactc aaggcagctc     1260
aaagatgtgg tctacaaact cgaagctcgt ggtatgaatt cagctgagat gcacggagat     1320
ctcgggaagc tagggagatc aacagttcta aagaagttca agaacgggga aatcaaggta     1380

```

cttgtgacaa	acgagctctc	tgcccggggg	ctggatgttg	cggaatgtga	tctggtggtg	1440
aatcttgagc	ttccaactga	tgcggttcac	tatgctcatc	gagctgggag	aacagggagg	1500
ctgggaagga	aagggacggt	ggtaacagtg	tgcgaggaat	cacaagtgtt	tatagtgaag	1560
aagatggaga	agcagcttgg	tttgcctttc	ttgtattgtg	agtttggtga	tggagagctt	1620
gttgtcactg	aggaagataa	agctattata	agcgatagaa	atctctctta	tagagacaaa	1680
ttgagcagtg	ggcttgtcgg	tattaaggca	gatgatgctg	ttgatctggt	ccgagacatg	1740
attcagtctc	gtcctcttcc	cactgttata	gatttcaata	gattgttttag	tgccattgcc	1800
aaaacgaaac	agtatgagct	agtgttagct	ctctgcaagc	aaatggaatc	gaaggggaatt	1860
gcacatagca	tctacacttt	gagtattatg	atcaattgtt	tctgtcgctg	tcgtaaactt	1920
tcttacgctt	tttctactat	ggggaagatc	atgaaacttg	ggtatgagcc	tgatacagtc	1980
atctttaaca	ctctactcaa	tggtttatgt	ctcgagtgtg	gagtttctga	agctctggaa	2040
ttagttagtc	gaatggtaga	aatgggacat	aaaccctc	tcataacgct	taacactctg	2100
gtcaatggcc	tttgtctcaa	cggtaaagtc	tctgatgctg	tggttttgat	tgatcgaatg	2160
gttgagactg	gctttcaacc	caatgaagta	acttatggac	cggttttaaa	tgtaatgtgt	2220
aagtccggcc	aaactgccct	tgccatggag	ttgctcagaa	agatggaaga	aagaaatatc	2280
aagctcgatg	cagtcaaata	cagtatcatc	attgatggtc	tttgcaaaga	tgggagcctc	2340
gacaatgcat	tcaacctttt	caatgaaatg	gaaatcaaag	ggttcaaagc	tgatattatt	2400
acctacaaca	ctctcattgg	aggcttttgt	aatgctggta	gatgggatga	tggtgccaag	2460
ttattgaggg	atatgatcaa	gaggaaaatc	agccccaacg	ttgtcacatt	cagtgttttg	2520
attgatagtt	ttgtgaaaga	gggaaaacta	cgagaggccg	atcaactgct	caaggagatg	2580
atgcaacgag	gtatagctcc	taatactatt	acataataat	ccttgataga	tgggttttgc	2640
aaggagaacc	gcctagagga	ggccatccag	atggtggatc	tgatgattag	caagggatgc	2700
gacctgata	tcatgacgtt	taatatcctc	ataaatggat	attgtaaggc	taatcggatt	2760
gacgatgggt	tggaactctt	ccgcgaaatg	tctctgagag	gagtgattgc	taatacagtt	2820
acttataaca	ctcttgtcca	agggttttgt	caatcgggaa	aacttgaggt	tgccaaaaaa	2880
ctcttccaag	agatggtttc	tcggcgtggt	cgtcctgata	ttgtgtccta	caaaatattg	2940
ctggatgggt	tgtgtgacaa	tgagaaacta	gagaaagcat	tggaatatatt	tggaaaaata	3000
gagaagagta	agatggagct	tgatattggt	atatatatga	tcattatcca	tgggatgtgc	3060
aatgctagta	aggtggatga	tgcttgggat	ttattctgta	gcctccctct	caaaggagtg	3120
aagcttgatg	ctagggcata	caacataatg	atttcagaat	tatgtaggaa	agactcactg	3180
tctaaagcag	acatactgtt	cagaaaaatg	acagaggaag	gacatgctcc	agatgagttg	3240
acatacaaca	tacttatcag	ggcacatctt	ggtgatgatg	atgcaaccac	agcagctgaa	3300

cttattgaag aaatgaagag tagtgggttc ccagcagatg tttccactgt taagatgggt 3360  
 attaatatgc tttctagtgg tgaattggac aaaagctttc tagatatgct ttctacaact 3420  
 cgggcttcat tgaaatga 3438

<210> 966

<211> 1145

<212> PRT

<213> Arabidopsis thaliana

<400> 966

Met Ala Ala Ser Thr Ser Thr Arg Phe Leu Val Leu Leu Lys Asp Phe  
 1 5 10 15

Ser Ala Phe Arg Lys Ile Ser Trp Thr Cys Ala Ala Thr Asn Phe His  
 20 25 30

Arg Gln Ser Arg Phe Leu Cys His Val Ala Lys Glu Asp Gly Ser Leu  
 35 40 45

Thr Leu Ala Ser Leu Asp Leu Gly Asn Lys Pro Arg Lys Phe Gly Lys  
 50 55 60

Gly Lys Ala Met Lys Leu Glu Gly Ser Phe Val Thr Glu Met Gly Gln  
 65 70 75 80

Gly Lys Val Arg Ala Val Lys Asn Asp Lys Met Lys Val Val Lys Glu  
 85 90 95

Lys Lys Pro Ala Glu Ile Val Ser Pro Leu Phe Ser Ala Lys Ser Phe  
 100 105 110

Glu Glu Leu Gly Leu Pro Asp Ser Leu Leu Asp Ser Leu Glu Arg Glu  
 115 120 125

Gly Phe Ser Val Pro Thr Asp Val Gln Ser Ala Ala Val Pro Ala Ile  
 130 135 140

Ile Lys Gly His Asp Ala Val Ile Gln Ser Tyr Thr Gly Ser Gly Lys  
 145 150 155 160

Thr Leu Ala Tyr Leu Leu Pro Ile Leu Ser Glu Ile Gly Pro Leu Ala  
 165 170 175

047-E2F-PCT.ST25.txt

Glu Lys Ser Arg Ser Ser His Ser Glu Asn Asp Lys Arg Thr Glu Ile  
 180 185 190  
 Gln Ala Met Ile Val Ala Pro Ser Arg Glu Leu Gly Met Gln Ile Val  
 195 200 205  
 Arg Glu Val Glu Lys Leu Leu Gly Pro Val His Arg Arg Met Val Gln  
 210 215 220  
 Gln Leu Val Gly Gly Ala Asn Arg Met Arg Gln Glu Glu Ala Leu Lys  
 225 230 235 240  
 Lys Asn Lys Pro Ala Ile Val Val Gly Thr Pro Gly Arg Ile Ala Glu  
 245 250 255  
 Ile Ser Lys Gly Gly Lys Leu His Thr His Gly Cys Arg Phe Leu Val  
 260 265 270  
 Leu Asp Glu Val Asp Glu Leu Leu Ser Phe Asn Phe Arg Glu Asp Ile  
 275 280 285  
 His Arg Ile Leu Glu His Val Gly Lys Arg Ser Gly Ala Gly Pro Lys  
 290 295 300  
 Gly Glu Val Asp Glu Arg Ala Asn Arg Gln Thr Ile Leu Val Ser Ala  
 305 310 315 320  
 Thr Val Pro Phe Ser Val Ile Arg Ala Ala Lys Ser Trp Ser His Glu  
 325 330 335  
 Pro Val Leu Val Gln Ala Asn Lys Val Thr Pro Leu Asp Thr Val Gln  
 340 345 350  
 Pro Ser Ala Pro Val Met Ser Leu Thr Pro Thr Thr Ser Glu Ala Asp  
 355 360 365  
 Gly Gln Ile Gln Thr Thr Ile Gln Ser Leu Pro Pro Ala Leu Lys His  
 370 375 380  
 Tyr Tyr Cys Ile Ser Lys His Gln His Lys Val Asp Thr Leu Arg Arg  
 385 390 395 400  
 Cys Val His Ala Leu Asp Ala Gln Ser Val Ile Ala Phe Met Asn His  
 405 410 415  
 Ser Arg Gln Leu Lys Asp Val Val Tyr Lys Leu Glu Ala Arg Gly Met  
 420 425 430

047-E2F-PCT.ST25.txt

Asn Ser Ala Glu Met His Gly Asp Leu Gly Lys Leu Gly Arg Ser Thr  
 435 440 445  
 Val Leu Lys Lys Phe Lys Asn Gly Glu Ile Lys Val Leu Val Thr Asn  
 450 455 460  
 Glu Leu Ser Ala Arg Gly Leu Asp Val Ala Glu Cys Asp Leu Val Val  
 465 470 475 480  
 Asn Leu Glu Leu Pro Thr Asp Ala Val His Tyr Ala His Arg Ala Gly  
 485 490 495  
 Arg Thr Gly Arg Leu Gly Arg Lys Gly Thr Val Val Thr Val Cys Glu  
 500 505 510  
 Glu Ser Gln Val Phe Ile Val Lys Lys Met Glu Lys Gln Leu Gly Leu  
 515 520 525  
 Pro Phe Leu Tyr Cys Glu Phe Val Asp Gly Glu Leu Val Val Thr Glu  
 530 535 540  
 Glu Asp Lys Ala Ile Ile Ser Asp Arg Asn Leu Ser Tyr Arg Asp Lys  
 545 550 555 560  
 Leu Ser Ser Gly Leu Val Gly Ile Lys Ala Asp Asp Ala Val Asp Leu  
 565 570 575  
 Phe Arg Asp Met Ile Gln Ser Arg Pro Leu Pro Thr Val Ile Asp Phe  
 580 585 590  
 Asn Arg Leu Phe Ser Ala Ile Ala Lys Thr Lys Gln Tyr Glu Leu Val  
 595 600 605  
 Leu Ala Leu Cys Lys Gln Met Glu Ser Lys Gly Ile Ala His Ser Ile  
 610 615 620  
 Tyr Thr Leu Ser Ile Met Ile Asn Cys Phe Cys Arg Cys Arg Lys Leu  
 625 630 635 640  
 Ser Tyr Ala Phe Ser Thr Met Gly Lys Ile Met Lys Leu Gly Tyr Glu  
 645 650 655  
 Pro Asp Thr Val Ile Phe Asn Thr Leu Leu Asn Gly Leu Cys Leu Glu  
 660 665 670  
 Cys Arg Val Ser Glu Ala Leu Glu Leu Val Asp Arg Met Val Glu Met

675

680

685

Gly His Lys Pro Thr Leu Ile Thr Leu Asn Thr Leu Val Asn Gly Leu  
 690 695 700  
 Cys Leu Asn Gly Lys Val Ser Asp Ala Val Val Leu Ile Asp Arg Met  
 705 710 715 720  
 Val Glu Thr Gly Phe Gln Pro Asn Glu Val Thr Tyr Gly Pro Val Leu  
 725 730 735  
 Asn Val Met Cys Lys Ser Gly Gln Thr Ala Leu Ala Met Glu Leu Leu  
 740 745 750  
 Arg Lys Met Glu Glu Arg Asn Ile Lys Leu Asp Ala Val Lys Tyr Ser  
 755 760 765  
 Ile Ile Ile Asp Gly Leu Cys Lys Asp Gly Ser Leu Asp Asn Ala Phe  
 770 775 780  
 Asn Leu Phe Asn Glu Met Glu Ile Lys Gly Phe Lys Ala Asp Ile Ile  
 785 790 795 800  
 Thr Tyr Asn Thr Leu Ile Gly Gly Phe Cys Asn Ala Gly Arg Trp Asp  
 805 810 815  
 Asp Gly Ala Lys Leu Leu Arg Asp Met Ile Lys Arg Lys Ile Ser Pro  
 820 825 830  
 Asn Val Val Thr Phe Ser Val Leu Ile Asp Ser Phe Val Lys Glu Gly  
 835 840 845  
 Lys Leu Arg Glu Ala Asp Gln Leu Leu Lys Glu Met Met Gln Arg Gly  
 850 855 860  
 Ile Ala Pro Asn Thr Ile Thr Tyr Asn Ser Leu Ile Asp Gly Phe Cys  
 865 870 875 880  
 Lys Glu Asn Arg Leu Glu Glu Ala Ile Gln Met Val Asp Leu Met Ile  
 885 890 895  
 Ser Lys Gly Cys Asp Pro Asp Ile Met Thr Phe Asn Ile Leu Ile Asn  
 900 905 910  
 Gly Tyr Cys Lys Ala Asn Arg Ile Asp Asp Gly Leu Glu Leu Phe Arg  
 915 920 925

047-E2F-PCT.ST25.txt

Glu Met Ser Leu Arg Gly Val Ile Ala Asn Thr Val Thr Tyr Asn Thr  
930 935 940

Leu Val Gln Gly Phe Cys Gln Ser Gly Lys Leu Glu Val Ala Lys Lys  
945 950 955 960

Leu Phe Gln Glu Met Val Ser Arg Arg Val Arg Pro Asp Ile Val Ser  
965 970 975

Tyr Lys Ile Leu Leu Asp Gly Leu Cys Asp Asn Gly Glu Leu Glu Lys  
980 985 990

Ala Leu Glu Ile Phe Gly Lys Ile Glu Lys Ser Lys Met Glu Leu Asp  
995 1000 1005

Ile Gly Ile Tyr Met Ile Ile Ile His Gly Met Cys Asn Ala Ser  
1010 1015 1020

Lys Val Asp Asp Ala Trp Asp Leu Phe Cys Ser Leu Pro Leu Lys  
1025 1030 1035

Gly Val Lys Leu Asp Ala Arg Ala Tyr Asn Ile Met Ile Ser Glu  
1040 1045 1050

Leu Cys Arg Lys Asp Ser Leu Ser Lys Ala Asp Ile Leu Phe Arg  
1055 1060 1065

Lys Met Thr Glu Glu Gly His Ala Pro Asp Glu Leu Thr Tyr Asn  
1070 1075 1080

Ile Leu Ile Arg Ala His Leu Gly Asp Asp Asp Ala Thr Thr Ala  
1085 1090 1095

Ala Glu Leu Ile Glu Glu Met Lys Ser Ser Gly Phe Pro Ala Asp  
1100 1105 1110

Val Ser Thr Val Lys Met Val Ile Asn Met Leu Ser Ser Gly Glu  
1115 1120 1125

Leu Asp Lys Ser Phe Leu Asp Met Leu Ser Thr Thr Arg Ala Ser  
1130 1135 1140

Leu Lys  
1145

<210> 967

<211> 1041

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 967

```

atgacggact cttacggcgc cgtctccgtc gacgttggaa caatctatct tgggtggcaag      60
gagcatcgtg ttaaaactgc tagtggtggt gtgtctgtca ttgtctatgg agacagagaa      120
aagccagcat tgattactta tcctgattta gccctaaacc atatgtcatg cttccaaggg      180
ttattcttct gtcctgaagc agcttcattg ctgcttcata acttctgcat ttaccatata      240
agtccacctg ggcattgagtt aggagctgct ccaatttgct ctaatgattc agtcccttct      300
gctgaaaact tggcagatca gatccttgaa gttctcaact ttttcggcct tgggtgtgtg      360
atgtgtatgg gagtgactgc aggtgcttat atcctcacct tattcgcgat gaaacataga      420
gaacgggttc ttggtttgat tcttgctca ccgttatgca aggcgccgct ttggtctgaa      480
tggtttttaca acaaggttat cacaaacttg ttatattatt acggaatgtg tggagtggta      540
aaggaatfff tgcttcagag atatfffagt aaggaagtcc gtggtaacgt tgagattcca      600
gagtcagata tagcacaagc ttgcagaaga ctgcttgatg aaagacaagg cataaacgft      660
ttgctgatttc ttgacgccat tgaccggaga cctgacatct caagtggatt gaagaaacta      720
aaatgcagga cacttatctt catcggagat caatctcctt tctactcaga agctgttcac      780
atggcagcaa ctttggatag aggatactgt gctttggttg aggttcaggc ttgtggttca      840
atggtaacag aggagcaacc acatgcaatg ttgatcccaa tggaatattt cttgatgggt      900
tacggattat acagaccatc tcttttctcc gagagcccta gaagtccact tagcccttct      960
tgtatttcac ctgagcttct ctctcctgaa agcatgggat taaagcttaa gcctatcaaa     1020
accagaatff cggcggctta a                                     1041

```

&lt;210&gt; 968

&lt;211&gt; 346

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 968

```

Met Thr Asp Ser Tyr Gly Ala Val Ser Val Asp Val Gly Thr Ile Tyr
1      5      10      15

```

```

Leu Gly Gly Lys Glu His Arg Val Lys Thr Ala Ser Gly Val Val Ser
20      25      30

```



047-E2F-PCT.ST25.txt

Val Ile Val Tyr Gly Asp Arg Glu Lys Pro Ala Leu Ile Thr Tyr Pro  
35 40 45

Asp Leu Ala Leu Asn His Met Ser Cys Phe Gln Gly Leu Phe Phe Cys  
50 55 60

Pro Glu Ala Ala Ser Leu Leu Leu His Asn Phe Cys Ile Tyr His Ile  
65 70 75 80

Ser Pro Pro Gly His Glu Leu Gly Ala Ala Pro Ile Cys Pro Asn Asp  
85 90 95

Ser Val Pro Ser Ala Glu Asn Leu Ala Asp Gln Ile Leu Glu Val Leu  
100 105 110

Asn Phe Phe Gly Leu Gly Val Val Met Cys Met Gly Val Thr Ala Gly  
115 120 125

Ala Tyr Ile Leu Thr Leu Phe Ala Met Lys His Arg Glu Arg Val Leu  
130 135 140

Gly Leu Ile Leu Val Ser Pro Leu Cys Lys Ala Pro Ser Trp Ser Glu  
145 150 155 160

Trp Phe Tyr Asn Lys Val Ile Thr Asn Leu Leu Tyr Tyr Tyr Gly Met  
165 170 175

Cys Gly Val Val Lys Glu Phe Leu Leu Gln Arg Tyr Phe Ser Lys Glu  
180 185 190

Val Arg Gly Asn Val Glu Ile Pro Glu Ser Asp Ile Ala Gln Ala Cys  
195 200 205

Arg Arg Leu Leu Asp Glu Arg Gln Gly Ile Asn Val Leu Arg Phe Leu  
210 215 220

Asp Ala Ile Asp Arg Arg Pro Asp Ile Ser Ser Gly Leu Lys Lys Leu  
225 230 235 240

Lys Cys Arg Thr Leu Ile Phe Ile Gly Asp Gln Ser Pro Phe Tyr Ser  
245 250 255

Glu Ala Val His Met Ala Ala Thr Leu Asp Arg Gly Tyr Cys Ala Leu  
260 265 270

Val Glu Val Gln Ala Cys Gly Ser Met Val Thr Glu Glu Gln Pro His

275 047-E2F-PCT.ST25.txt 280 285

Ala Met Leu Ile Pro Met Glu Tyr Phe Leu Met Gly Tyr Gly Leu Tyr  
290 295 300

Arg Pro Ser Leu Phe Ser Glu Ser Pro Arg Ser Pro Leu Ser Pro Ser  
305 310 315 320

Cys Ile Ser Pro Glu Leu Leu Ser Pro Glu Ser Met Gly Leu Lys Leu  
325 330 335

Lys Pro Ile Lys Thr Arg Ile Ser Ala Ala  
340 345

<210> 969

<211> 354

<212> DNA

<213> Arabidopsis thaliana

<400> 969

atgatgatga agtcgttgat ctgtctctct ctcacacctcc tcccacttgt ctccgctcgtg	60
gaagggtctcg gtggtggtgg tgggtcttggt agccggaagc cgatcaagaa tgtatctgat	120
ccggatgttg ttgcggtcgc caagtatgcc atcgaggaac ataacaagga gtcgaaggag	180
aagttggttt tcgtcaaggt tgtggaggga acgacgcaag tgggtctccgg taaaagtac	240
gatctgaaaa ttgcggcgaa ggatggtggt ggtaagatca agaactatga ggctgttggt	300
gttgaaaagc tttggcttca ttctaagagc cttgagtctt tcaaggcgtt atag	354

<210> 970

<211> 117

<212> PRT

<213> Arabidopsis thaliana

<400> 970

Met Met Met Lys Ser Leu Ile Cys Leu Ser Leu Ile Leu Leu Pro Leu  
1 5 10 15

Val Ser Val Val Glu Gly Leu Gly Gly Gly Gly Gly Leu Gly Ser Arg  
20 25 30

Lys Pro Ile Lys Asn Val Ser Asp Pro Asp Val Val Ala Val Ala Lys  
 35 40 45

Tyr Ala Ile Glu Glu His Asn Lys Glu Ser Lys Glu Lys Leu Val Phe  
 50 55 60

Val Lys Val Val Glu Gly Thr Thr Gln Val Val Ser Gly Thr Lys Tyr  
 65 70 75 80

Asp Leu Lys Ile Ala Ala Lys Asp Gly Gly Gly Lys Ile Lys Asn Tyr  
 85 90 95

Glu Ala Val Val Val Glu Lys Leu Trp Leu His Ser Lys Ser Leu Glu  
 100 105 110

Ser Phe Lys Ala Leu  
 115

<210> 971

<211> 750

<212> DNA

<213> Arabidopsis thaliana

<400> 971

atgagtagca ttggaactgg gtacgatctc tccgtcacca ctttctctcc cgatggccgt	60
gttttccaga tcgagtacgc cgctaaagct gtcgacaaca gtgggactgt tgttggaatc	120
aagtgcaaag atgggattgt tatgggagtt gagaaactta ttgcatcaaa gatgatgcta	180
ccaggttcca acaggagaat ccattctgtt catcgtcatg ctggcatggc tgttgctggg	240
cttgcagctg atgggaggca aattgttgcg cgtgctaagt ctgaagcacg aagctatgag	300
agtgtttatg gcgatgctgt acctgtgaag gaactttctg agcgtgttgc aagttatgta	360
catctgtgta ccctgtattg gtggctcagg ccttttggct gtggggttat tcttggaggt	420
tatgatagag atggacctca attgtacatg attgaaccat caggcatatc atatagatac	480
tttggtgcfg ccattggcaa aggaaagcaa gctgccaaaa cggaaattga gaaattaaat	540
ttatctgaga tgacatgcaa agaaggcggt atcgaggtgg cgaaaatcat ctacaagcta	600
cacgatgaag ccaaggacaa ggcttttgaa ttggagatga gctggatatg cgaggagtca	660
aaacgagagc atcagaaggt ccctgatgat cttctggaag aagcaaagac ggcagctaaa	720
actgcgctcg aggagatgga tgctgactaa	750

<210> 972

&lt;211&gt; 249

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 972

Met Ser Ser Ile Gly Thr Gly Tyr Asp Leu Ser Val Thr Thr Phe Ser  
1 5 10 15

Pro Asp Gly Arg Val Phe Gln Ile Glu Tyr Ala Ala Lys Ala Val Asp  
20 25 30

Asn Ser Gly Thr Val Val Gly Ile Lys Cys Lys Asp Gly Ile Val Met  
35 40 45

Gly Val Glu Lys Leu Ile Ala Ser Lys Met Met Leu Pro Gly Ser Asn  
50 55 60

Arg Arg Ile His Ser Val His Arg His Ala Gly Met Ala Val Ala Gly  
65 70 75 80

Leu Ala Ala Asp Gly Arg Gln Ile Val Ala Arg Ala Lys Ser Glu Ala  
85 90 95

Arg Ser Tyr Glu Ser Val Tyr Gly Asp Ala Val Pro Val Lys Glu Leu  
100 105 110

Ser Glu Arg Val Ala Ser Tyr Val His Leu Cys Thr Leu Tyr Trp Trp  
115 120 125

Leu Arg Pro Phe Gly Cys Gly Val Ile Leu Gly Gly Tyr Asp Arg Asp  
130 135 140

Gly Pro Gln Leu Tyr Met Ile Glu Pro Ser Gly Ile Ser Tyr Arg Tyr  
145 150 155 160

Phe Gly Ala Ala Ile Gly Lys Gly Lys Gln Ala Ala Lys Thr Glu Ile  
165 170 175

Glu Lys Leu Asn Leu Ser Glu Met Thr Cys Lys Glu Gly Val Ile Glu  
180 185 190

Val Ala Lys Ile Ile Tyr Lys Leu His Asp Glu Ala Lys Asp Lys Ala  
195 200 205

Phe Glu Leu Glu Met Ser Trp Ile Cys Glu Glu Ser Lys Arg Glu His  
 210 215 220

Gln Lys Val Pro Asp Asp Leu Leu Glu Glu Ala Lys Thr Ala Ala Lys  
 225 230 235 240

Thr Ala Leu Glu Glu Met Asp Ala Asp  
 245

<210> 973

<211> 1170

<212> DNA

<213> Arabidopsis thaliana

<400> 973

atggcggata acaccgataa tcggagatcc ttatggggag ttccggagaa gcttcagctt	60
cacatagcga tgctgacgtt gcaattcggg tacgccggat tccacgtggg gtctcgagct	120
gctcttaaca tgggaatcag caaactcgtc ttccctgttt atcgtaacat catcgccttg	180
cttcttctcc ttcccttcgc ttacttcctt gaaaagaagg agagaccagc gattactctc	240
aactttctca tccagttctt ctttttggca ctcataggaa taacagcgaa ccaaggattt	300
tacttggttg gactggacaa cacttcacca acatttgctt cctccatgca aaactctggt	360
cccgccatta cttttctcat ggctgctctt ctccaggattg agaaagtaag aataaacaga	420
agagacggta tctccaaaat cttaggaaca gctctttgtg tcgccggagc ttccgtcatc	480
accctctata aagggtccaac catctacact ccggctagcc acctccacgc tcacttactc	540
accacaaact ccgccgtctt agcgccgcta ggaaacgccg cgcctaaaaa ctggaccctt	600
ggttgcatct acctaatcgg tcaactgtctc tcgtgggtcag gctggcttgt tttccaagct	660
ccggttctta agtcttatcc agcgaggctc tcggttacgt cttacacttg tttcttcgga	720
atcattcagt tcttgatcat tgctgctttc tgtgaaagag attctcaggc ttgggttttt	780
cactccggtt gggagctttt caccatcctc tacgccggaa tcgtagcgtc tggaatcgcg	840
tttgcggttc agatttggtg tattgacaga ggggggtccag tcttcggtgc tgtttaccag	900
cctgttcaga ctcttgctgt tgcgatcatg gcttctattg cgttaggcga agaattttat	960
ttgggcggga ttattggagc ggtcttgatc atagcgggac tttacttcgt attgtacggg	1020
aagagcgaag agaggaaatt tgcagcgctt gagaaggcag cgatccagtc ctccgaggag	1080
catggtattg aacgtgcacc tgtttctcgc aactccatca agtcgtccat cacaacacca	1140
ctactccatc agtcaacgga caatgtttga	1170

&lt;210&gt; 974

&lt;211&gt; 389

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 974

Met Ala Asp Asn Thr Asp Asn Arg Arg Ser Leu Trp Gly Val Pro Glu  
 1 5 10 15

Lys Leu Gln Leu His Ile Ala Met Leu Thr Leu Gln Phe Gly Tyr Ala  
 20 25 30

Gly Phe His Val Val Ser Arg Ala Ala Leu Asn Met Gly Ile Ser Lys  
 35 40 45

Leu Val Phe Pro Val Tyr Arg Asn Ile Ile Ala Leu Leu Leu Leu Leu  
 50 55 60

Pro Phe Ala Tyr Phe Leu Glu Lys Lys Glu Arg Pro Ala Ile Thr Leu  
 65 70 75 80

Asn Phe Leu Ile Gln Phe Phe Phe Leu Ala Leu Ile Gly Ile Thr Ala  
 85 90 95

Asn Gln Gly Phe Tyr Leu Leu Gly Leu Asp Asn Thr Ser Pro Thr Phe  
 100 105 110

Ala Ser Ser Met Gln Asn Ser Val Pro Ala Ile Thr Phe Leu Met Ala  
 115 120 125

Ala Leu Leu Arg Ile Glu Lys Val Arg Ile Asn Arg Arg Asp Gly Ile  
 130 135 140

Ser Lys Ile Leu Gly Thr Ala Leu Cys Val Ala Gly Ala Ser Val Ile  
 145 150 155 160

Thr Leu Tyr Lys Gly Pro Thr Ile Tyr Thr Pro Ala Ser His Leu His  
 165 170 175

Ala His Leu Leu Thr Thr Asn Ser Ala Val Leu Ala Pro Leu Gly Asn  
 180 185 190

Ala Ala Pro Lys Asn Trp Thr Leu Gly Cys Ile Tyr Leu Ile Gly His  
 195 200 205

047-E2F-PCT.ST25.txt

Cys Leu Ser Trp Ser Gly Trp Leu Val Phe Gln Ala Pro Val Leu Lys  
210 215 220

Ser Tyr Pro Ala Arg Leu Ser Val Thr Ser Tyr Thr Cys Phe Phe Gly  
225 230 235 240

Ile Ile Gln Phe Leu Ile Ile Ala Ala Phe Cys Glu Arg Asp Ser Gln  
245 250 255

Ala Trp Val Phe His Ser Gly Trp Glu Leu Phe Thr Ile Leu Tyr Ala  
260 265 270

Gly Ile Val Ala Ser Gly Ile Ala Phe Ala Val Gln Ile Trp Cys Ile  
275 280 285

Asp Arg Gly Gly Pro Val Phe Val Ala Val Tyr Gln Pro Val Gln Thr  
290 295 300

Leu Val Val Ala Ile Met Ala Ser Ile Ala Leu Gly Glu Glu Phe Tyr  
305 310 315 320

Leu Gly Gly Ile Ile Gly Ala Val Leu Ile Ile Ala Gly Leu Tyr Phe  
325 330 335

Val Leu Tyr Gly Lys Ser Glu Glu Arg Lys Phe Ala Ala Leu Glu Lys  
340 345 350

Ala Ala Ile Gln Ser Ser Ala Glu His Gly Ile Glu Arg Ala Pro Val  
355 360 365

Ser Arg Asn Ser Ile Lys Ser Ser Ile Thr Thr Pro Leu Leu His Gln  
370 375 380

Ser Thr Asp Asn Val  
385

<210> 975

<211> 1092

<212> DNA

<213> Arabidopsis thaliana

<400> 975

atgtcttctg ctactgcgac ttataactac gatgtttttc tgagtttcag aggacccgac

60

047-E2F-PCT.ST25.txt

actcgccgca agttcatcag ctttctctac aaagaacttg ttggaaggga cattcgaacc 120  
 tttaaagacg acaaagagct agagaatggc cagatgattt ctccggagct catactcgcc 180  
 atcgaggatt cgagatttgc cgtcgttggt gtctccgtga actacgctgc gtcttcttgg 240  
 tgtctcgatg agctcgtaaa gatcatggat atccagaaga acaagggttc catcaccgtg 300  
 atgcctatct tctacggcgt gaatccgtgt catttgagga ggcaaatcgg agatgtcgct 360  
 gaacagttta agaagcacga ggcaagagaa aaagatcttg agaaagtgt taaatggagg 420  
 caagcgttgg cgcgtttggc agatatctcc ggcgattggt caggggaaga tgactcgaag 480  
 ctggtggacg taatcgctga caagatatca aaagagctga tgatagttac aagaataagc 540  
 aatgggagga acctagttgg gattgataaa cacatgaacg aacttaaccg attgatggat 600  
 ttgaattcca acaaaggtaa gagaatggtt gggatttggg caagaggagg aagttgtaga 660  
 tcggctctag ctaaatatgt ttatcagaca tcctgtcaac actttgatag ccattgtttt 720  
 cttggaaacg tgaaacggat ttgtcagggt aactactttg aaagccatct acacaaagag 780  
 tttctggata atattcaagg agaaaactct agcaaacaaa gtctcaagaa gcaaaagggt 840  
 ctgcttgtgg cagacgacgt cgataagctt gaacagttag atgctcttgc aggggatttc 900  
 agcggttttg gtccggggag tgttggtatc atcactacaa aagataagca gttgttgatt 960  
 tcttatggta tacagcttgt ctacgaagct gagtttttga cattccagaa attttgtcgt 1020  
 agcttccgat cattggcctt taaaaagaga gacgacattt ctgctgcgtt cgagtgggct 1080  
 ttgtatatat aa 1092

<210> 976

<211> 363

<212> PRT

<213> Arabidopsis thaliana

<400> 976

Met Ser Ser Ala Thr Ala Thr Tyr Asn Tyr Asp Val Phe Leu Ser Phe  
 1 5 10 15

Arg Gly Pro Asp Thr Arg Arg Lys Phe Ile Ser Phe Leu Tyr Lys Glu  
 20 25 30

Leu Val Gly Arg Asp Ile Arg Thr Phe Lys Asp Asp Lys Glu Leu Glu  
 35 40 45

Asn Gly Gln Met Ile Ser Pro Glu Leu Ile Leu Ala Ile Glu Asp Ser  
 50 55 60



047-E2F-PCT.ST25.txt

Arg Phe Ala Val Val Val Val Ser Val Asn Tyr Ala Ala Ser Ser Trp  
65 70 75 80

Cys Leu Asp Glu Leu Val Lys Ile Met Asp Ile Gln Lys Asn Lys Gly  
85 90 95

Ser Ile Thr Val Met Pro Ile Phe Tyr Gly Val Asn Pro Cys His Leu  
100 105 110

Arg Arg Gln Ile Gly Asp Val Ala Glu Gln Phe Lys Lys His Glu Ala  
115 120 125

Arg Glu Lys Asp Leu Glu Lys Val Leu Lys Trp Arg Gln Ala Leu Ala  
130 135 140

Ala Leu Ala Asp Ile Ser Gly Asp Cys Ser Gly Glu Asp Asp Ser Lys  
145 150 155 160

Leu Val Asp Val Ile Ala Asp Lys Ile Ser Lys Glu Leu Met Ile Val  
165 170 175

Thr Arg Ile Ser Asn Gly Arg Asn Leu Val Gly Ile Asp Lys His Met  
180 185 190

Asn Glu Leu Asn Arg Leu Met Asp Leu Asn Ser Asn Lys Gly Lys Arg  
195 200 205

Met Val Gly Ile Trp Ala Arg Gly Gly Ser Cys Arg Ser Ala Leu Ala  
210 215 220

Lys Tyr Val Tyr Gln Thr Ser Cys Gln His Phe Asp Ser His Cys Phe  
225 230 235 240

Leu Gly Asn Val Lys Arg Ile Cys Gln Gly Asn Tyr Phe Glu Ser His  
245 250 255

Leu His Lys Glu Phe Leu Asp Asn Ile Gln Gly Glu Asn Ser Ser Lys  
260 265 270

Gln Ser Leu Lys Lys Gln Lys Val Leu Leu Val Ala Asp Asp Val Asp  
275 280 285

Lys Leu Glu Gln Leu Asp Ala Leu Ala Gly Asp Phe Ser Gly Phe Gly  
290 295 300

Pro Gly Ser Val Val Ile Ile Thr Thr Lys Asp Lys Gln Leu Leu Ile

305                      310                      315                      320  
 Ser Tyr Gly Ile Gln Leu Val Tyr Glu Ala Glu Phe Leu Thr Phe Gln  
                          325                      330                      335  
 Lys Phe Cys Arg Ser Phe Arg Ser Leu Ala Phe Lys Lys Arg Asp Asp  
                          340                      345                      350  
 Ile Ser Ala Ala Phe Glu Trp Ala Leu Tyr Ile  
                          355                      360

<210> 977

<211> 1209

<212> DNA

<213> Arabidopsis thaliana

<400> 977

```

atggataggc ctagacaaaa tgatcatttg ggtgtgaata ggattgggaa aaatatcaga      60
aagagtcctc ttcatacaatc gacttttcgct gccagtacta gcaacgggtgc cgctccaagg      120
cttcaaacac agcctcaggt ttataacata agcaagaacg actttagaag tattgttcag      180
cagctaacgg gttctccatc acgtgaaagc cttcctcggc ctcttcagaa caactcgcta      240
aggcctcaga atacacgggt gcagcggatc agaccatccc ccttaacgca gttaaaccgg      300
cctgcgggttc ctctcccttc catggctccg ccacagtctc atcctcagtt tgctagacag      360
cctccacacc agccaccttt ccacaaaacc acacaacaac caatgatggg tcacagggac      420
cagttttggt ctaatacagc tgagtctccc gtctcagagt atatgcgtta tcttcaaagt      480
tcacttgtag attcaggacc caatgctaac caaatgcagc cagggtcatga gcagcggcct      540
tatatcccag gtcatagagc acggccatat gtgccaggta atgagcagca gccatatatg      600
ccaggtaatg agcagcggcc atatatccca ggtcatgagc agcggtcata tatgccagct      660
caatctcagt ctcagtctca acctcaacct caacctcaac ctcaagcaaca tatgatgcct      720
ggaccgcaac ctgcaatgaa catgcagggc cctcttcaac ctaaccagta tctaccacca      780
cccgggttag ttcttagccc agtgcctcat aatcttctct ctctcgggtt caatgctcct      840
gtacctgtga cgcctactca gccctctccc atgttcagtc agatgtatgg tggatttcct      900
tctcctcgat ataacggttt tggaccactg cagtcaccta catcccaatt tcttcaacca      960
tctcctaccg gttacccgaa tatgtttctt ccgagatcgc cttaccatt gctgtcacca     1020
ggagttcagt atcctcaacc acttacccca aacttctcat tttcacaat tgctcaacaa     1080
ggaagtcttg gaccgggtgc aggtccaagt caaggtcctc ctacgcctcc tccttctcca     1140

```

047-E2F-PCT.ST25.txt

gggctcatgt tcccgttatc tccatccggg ttcttcccca tgccaagtcc aagatggaat 1200  
gattactag 1209

<210> 978

<211> 402

<212> PRT

<213> Arabidopsis thaliana

<400> 978

Met Asp Arg Pro Arg Gln Asn Asp His Leu Gly Val Asn Arg Ile Gly  
1 5 10 15

Lys Asn Ile Arg Lys Ser Pro Leu His Gln Ser Thr Phe Ala Ala Ser  
20 25 30

Thr Ser Asn Gly Ala Ala Pro Arg Leu Gln Thr Gln Pro Gln Val Tyr  
35 40 45

Asn Ile Ser Lys Asn Asp Phe Arg Ser Ile Val Gln Gln Leu Thr Gly  
50 55 60

Ser Pro Ser Arg Glu Ser Leu Pro Arg Pro Pro Gln Asn Asn Ser Leu  
65 70 75 80

Arg Pro Gln Asn Thr Arg Leu Gln Arg Ile Arg Pro Ser Pro Leu Thr  
85 90 95

Gln Leu Asn Arg Pro Ala Val Pro Leu Pro Ser Met Ala Pro Pro Gln  
100 105 110

Ser His Pro Gln Phe Ala Arg Gln Pro Pro His Gln Pro Pro Phe Pro  
115 120 125

Gln Thr Thr Gln Gln Pro Met Met Gly His Arg Asp Gln Phe Trp Ser  
130 135 140

Asn Thr Ala Glu Ser Pro Val Ser Glu Tyr Met Arg Tyr Leu Gln Ser  
145 150 155 160

Ser Leu Gly Asp Ser Gly Pro Asn Ala Asn Gln Met Gln Pro Gly His  
165 170 175

Glu Gln Arg Pro Tyr Ile Pro Gly His Glu Gln Arg Pro Tyr Val Pro  
Page 1493

180

185

190

Gly Asn Glu Gln Gln Pro Tyr Met Pro Gly Asn Glu Gln Arg Pro Tyr  
 195 200 205  
 Ile Pro Gly His Glu Gln Arg Ser Tyr Met Pro Ala Gln Ser Gln Ser  
 210 215 220  
 Gln Ser Gln Pro Gln Pro Gln Pro Gln Pro Gln Gln His Met Met Pro  
 225 230 235 240  
 Gly Pro Gln Pro Arg Met Asn Met Gln Gly Pro Leu Gln Pro Asn Gln  
 245 250 255  
 Tyr Leu Pro Pro Gly Leu Val Pro Ser Pro Val Pro His Asn Leu  
 260 265 270  
 Pro Ser Pro Arg Phe Asn Ala Pro Val Pro Val Thr Pro Thr Gln Pro  
 275 280 285  
 Ser Pro Met Phe Ser Gln Met Tyr Gly Gly Phe Pro Ser Pro Arg Tyr  
 290 295 300  
 Asn Gly Phe Gly Pro Leu Gln Ser Pro Thr Ser Gln Phe Leu Gln Pro  
 305 310 315 320  
 Ser Pro Thr Gly Tyr Pro Asn Met Phe Ser Pro Arg Ser Pro Tyr Pro  
 325 330 335  
 Leu Leu Ser Pro Gly Val Gln Tyr Pro Gln Pro Leu Thr Pro Asn Phe  
 340 345 350  
 Ser Phe Ser Gln Ile Ala Gln Gln Gly Ser Leu Gly Pro Gly Ala Gly  
 355 360 365  
 Pro Ser Gln Gly Pro Pro Gln Pro Pro Pro Ser Pro Gly Leu Met Phe  
 370 375 380  
 Pro Leu Ser Pro Ser Gly Phe Phe Pro Met Pro Ser Pro Arg Trp Asn  
 385 390 395 400

Asp Tyr

&lt;210&gt; 979

&lt;211&gt; 1983

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 979

```

atggaggaag agaaagcttc tgctgcacag agcttaatcg atgtagttaa cgagattgct      60
gcgatttctg attatcgtat aacagtgaag aagctttgtt ataatctagc gaggagatta    120
aagctgcttg ttcctatgtt tgaggaaatt agagaaagta acgaaccgat cagcgaagat    180
acgttgaaga ctttgatgaa tttgaaggaa gctatgtgtt cagcgaagga ttatctcaaa    240
ttttgtagcc aaggagcaa gatttatctg gtgatggaga gggaacaagt gacaagtaaa    300
ttgatggagg tgtctgttaa gttagaacaa tctttaagcc agattccata tgaagaactc    360
gatatatcgg atgaagttag agaacagggt gagctgggtc ttagtcagtt tcggcgagct    420
aaaggaagag tagatgtatc agatgatgag ctatatgaag atcttcagtc gctttgcaac    480
aaaagtagtg atgtagatgc ttatcagcct gtgctagagc gggttgcgaa gaagttacat    540
ttgatggaga ttcctgacct agctcaagaa tcagtggctc tgcataaat ggttgcttca    600
agcgggtggag atgttgggtga aaatatggag gagatggcaa tggattataa gatgattaag    660
gattttgtgc agacggagga tgataatggc gaggagcaga aagtaggagt taactctaga    720
agcaatggac agacttctac ggcagcgagt cagaagatac ctgtgattcc tgatgatttt    780
cgctgtccga tttcgctgga aatgatgaga gatccagtta ttgtttcatc agggcagaca    840
tacgaacgca catgtattga gaaatggata gaagggtggac actcgacatg tccaaaaaca    900
cagcaggcgc taacaagcac aaccctcaca ccaaactatg ttctccgtag tctcatagct    960
cagtggtgcg aggccaacga tattgagcct ccaaagcctc cgagcagttt aagaccaga   1020
aaagtatcgt ctttctcatc tcccgcagaa gcgaacaaga ttgaagatct tatgtggaga   1080
cttgcgtagc gaaaccccga ggaccaacga tctgcagctg gggaaatccg ctttcttgca   1140
aaacgaaatg cagacaaccg cgtggccata gccgaagctg gagccatacc tcttctcgta   1200
ggtctcctct caactcctga ttctcgtatt caagaacatt cggtaacagc tcttctaaac   1260
ctctccatat gtgagaacaa caaaggagcc attgtttcag ctggagctat tcctggtata   1320
gttcaagtgc ttaagaaagg aagcatggag gccagagaga atgcggcggc tacacttttc   1380
agtctatcag tgatcgatga aaataaagtg actatcggtg ccttaggagc aattccgcca   1440
ctcgttgtat tacttaatga aggtacacaa agaggcaaga aagatgctgc tactgcactc   1500
tttaacctct gtatatacca aggaacaaa ggaaaagcta tacgtgcagg agtgattccc   1560
acgttgacta gactcttgac agagcccgga agcggaatgg tcgatgaggc actcgcgatt   1620
ttggcgattc tctctagcca ccccgaaagg aaagcaatca taggatcctc tgatgcagtc   1680

```

ccaagtttgg ttgagtttat cagaactggc tcgcctagaa acagagaaaa cgcagctgct 1740  
gttctagtcc acctctgttc tggagaccca caacatcttg tcgaagcgca gaaactcggc 1800  
cttatgggtc cattgataga tttagctgga aatgggacgg atagagggaa acgaaaagca 1860  
gcgcagttgc ttgaacgcat cagccgtctc gctgaacagc agaaggaaac ggctgtgtca 1920  
caaccggaag aagaagctga accaacacat ccagaatcca ccacagaagc tgcagatact 1980  
taa 1983

<210> 980

<211> 660

<212> PRT

<213> Arabidopsis thaliana

<400> 980

Met Glu Glu Glu Lys Ala Ser Ala Ala Gln Ser Leu Ile Asp Val Val  
1 5 10 15

Asn Glu Ile Ala Ala Ile Ser Asp Tyr Arg Ile Thr Val Lys Lys Leu  
20 25 30

Cys Tyr Asn Leu Ala Arg Arg Leu Lys Leu Leu Val Pro Met Phe Glu  
35 40 45

Glu Ile Arg Glu Ser Asn Glu Pro Ile Ser Glu Asp Thr Leu Lys Thr  
50 55 60

Leu Met Asn Leu Lys Glu Ala Met Cys Ser Ala Lys Asp Tyr Leu Lys  
65 70 75 80

Phe Cys Ser Gln Gly Ser Lys Ile Tyr Leu Val Met Glu Arg Glu Gln  
85 90 95

Val Thr Ser Lys Leu Met Glu Val Ser Val Lys Leu Glu Gln Ser Leu  
100 105 110

Ser Gln Ile Pro Tyr Glu Glu Leu Asp Ile Ser Asp Glu Val Arg Glu  
115 120 125

Gln Val Glu Leu Val Leu Ser Gln Phe Arg Arg Ala Lys Gly Arg Val  
130 135 140

Asp Val Ser Asp Asp Glu Leu Tyr Glu Asp Leu Gln Ser Leu Cys Asn  
145 150 155 160

047-E2F-PCT.ST25.txt

Lys Ser Ser Asp Val Asp Ala Tyr Gln Pro Val Leu Glu Arg Val Ala  
 165 170 175  
 Lys Lys Leu His Leu Met Glu Ile Pro Asp Leu Ala Gln Glu Ser Val  
 180 185 190  
 Ala Leu His Glu Met Val Ala Ser Ser Gly Gly Asp Val Gly Glu Asn  
 195 200 205  
 Ile Glu Glu Met Ala Met Val Leu Lys Met Ile Lys Asp Phe Val Gln  
 210 215 220  
 Thr Glu Asp Asp Asn Gly Glu Glu Gln Lys Val Gly Val Asn Ser Arg  
 225 230 235 240  
 Ser Asn Gly Gln Thr Ser Thr Ala Ala Ser Gln Lys Ile Pro Val Ile  
 245 250 255  
 Pro Asp Asp Phe Arg Cys Pro Ile Ser Leu Glu Met Met Arg Asp Pro  
 260 265 270  
 Val Ile Val Ser Ser Gly Gln Thr Tyr Glu Arg Thr Cys Ile Glu Lys  
 275 280 285  
 Trp Ile Glu Gly Gly His Ser Thr Cys Pro Lys Thr Gln Gln Ala Leu  
 290 295 300  
 Thr Ser Thr Thr Leu Thr Pro Asn Tyr Val Leu Arg Ser Leu Ile Ala  
 305 310 315 320  
 Gln Trp Cys Glu Ala Asn Asp Ile Glu Pro Pro Lys Pro Pro Ser Ser  
 325 330 335  
 Leu Arg Pro Arg Lys Val Ser Ser Phe Ser Ser Pro Ala Glu Ala Asn  
 340 345 350  
 Lys Ile Glu Asp Leu Met Trp Arg Leu Ala Tyr Gly Asn Pro Glu Asp  
 355 360 365  
 Gln Arg Ser Ala Ala Gly Glu Ile Arg Leu Leu Ala Lys Arg Asn Ala  
 370 375 380  
 Asp Asn Arg Val Ala Ile Ala Glu Ala Gly Ala Ile Pro Leu Leu Val  
 385 390 395 400  
 Gly Leu Leu Ser Thr Pro Asp Ser Arg Ile Gln Glu His Ser Val Thr  
 Page 1497

Ala Leu Leu Asn Leu Ser Ile Cys Glu Asn Asn Lys Gly Ala Ile Val  
420 425 430

Ser Ala Gly Ala Ile Pro Gly Ile Val Gln Val Leu Lys Lys Gly Ser  
435 440 445

Met Glu Ala Arg Glu Asn Ala Ala Ala Thr Leu Phe Ser Leu Ser Val  
450 455 460

Ile Asp Glu Asn Lys Val Thr Ile Gly Ala Leu Gly Ala Ile Pro Pro  
465 470 475 480

Leu Val Val Leu Leu Asn Glu Gly Thr Gln Arg Gly Lys Lys Asp Ala  
485 490 495

Ala Thr Ala Leu Phe Asn Leu Cys Ile Tyr Gln Gly Asn Lys Gly Lys  
500 505 510

Ala Ile Arg Ala Gly Val Ile Pro Thr Leu Thr Arg Leu Leu Thr Glu  
515 520 525

Pro Gly Ser Gly Met Val Asp Glu Ala Leu Ala Ile Leu Ala Ile Leu  
530 535 540

Ser Ser His Pro Glu Gly Lys Ala Ile Ile Gly Ser Ser Asp Ala Val  
545 550 555 560

Pro Ser Leu Val Glu Phe Ile Arg Thr Gly Ser Pro Arg Asn Arg Glu  
565 570 575

Asn Ala Ala Ala Val Leu Val His Leu Cys Ser Gly Asp Pro Gln His  
580 585 590

Leu Val Glu Ala Gln Lys Leu Gly Leu Met Gly Pro Leu Ile Asp Leu  
595 600 605

Ala Gly Asn Gly Thr Asp Arg Gly Lys Arg Lys Ala Ala Gln Leu Leu  
610 615 620

Glu Arg Ile Ser Arg Leu Ala Glu Gln Gln Lys Glu Thr Ala Val Ser  
625 630 635 640

Gln Pro Glu Glu Glu Ala Glu Pro Thr His Pro Glu Ser Thr Thr Glu  
645 650 655



Ala Ala Asp Thr  
660

<210> 981

<211> 1119

<212> DNA

<213> *Arabidopsis thaliana*

<400> 981

```

atggtgacag gttgtgttga tcttcatcaa tctttcaaat ctgcagattc atcttctgtg      60
ccaattcctc ctctctttcc atcaaaatct gatggactca agaaaaaact tgggcatagc      120
agcgtttcga cagccacaag agatatgtgg gatcgtcttt tcaatgacgg atacaaagct      180
gatgtagtca tctatacaga taatggcagt atcatctatg ctcatgccaa catccttgga      240
actgcttcca ctgtgatcaa aggcattgtt aagcaagcca agagacatgg caagtggcat      300
acaatatcaa tccgaggtgt ccctcatgat gctgtgcgag tttttatccg tttcctctac      360
tcttcttgct atgagaaaga agaaatgaac gagtttatca tgcatttgct acttctgtca      420
cacgcgtacg tggttcctca gctgaaacgg gtctgtgaat ggcattctaga acatggtttg      480
cttaccactg agaatgtggt tgatgtgttc cagcttgccg tgctgtgtga tttccctcgg      540
cttagcctca tatctcaccg tatgatcatg aaacacttta acgaactctc tgcgacagaa      600
gcatggacag ctatgaagaa aagccatccc tttcttgaga aagaagttag agactcagta      660
atcatcgaag caaatacgcg gaaagagagg atgagaaaac gcaatgatca gaggatatat      720
tcgcagctat acgaagcaat ggaagcactt gttcatatat gcagagatgg atgtaaaaca      780
atagggccac acgataaaga tttcaaaccg aaccatgcaa cgtgtaacta tgaagcttgc      840
aagggattag aatcactgat ccggcatttc gcaggctgta agctaagagt tccaggaggt      900
tgcgtgcatt gcaagagaat gtggcaactc cttgaactgc attcacgtgt ttgcgcaggt      960
tctgatcaat gtcgagtccc tctatgcaga aaccttaagg agaagatgga gaaacagagc     1020
aagaaagatg agtcgagatg gaaacttctg gtgaagaatg tattggggag taagaaaatc     1080
ggaggctctc ctttcttttt accggtgaca aactgttaa                                1119

```

<210> 982

<211> 372

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 982

Met Val Thr Gly Cys Val Asp Leu His Gln Ser Phe Lys Ser Ala Asp  
 1 5 10 15  
 Ser Ser Ser Val Pro Ile Pro Pro Pro Leu Pro Ser Lys Ser Asp Gly  
 20 25 30  
 Leu Lys Lys Lys Leu Gly His Ser Ser Val Ser Thr Ala Thr Arg Asp  
 35 40 45  
 Met Trp Asp Arg Leu Phe Asn Asp Gly Tyr Lys Ala Asp Val Val Ile  
 50 55 60  
 Tyr Thr Asp Asn Gly Ser Ile Ile Tyr Ala His Ala Asn Ile Leu Gly  
 65 70 75 80  
 Thr Ala Ser Thr Val Ile Lys Gly Met Leu Lys Gln Ala Lys Arg His  
 85 90 95  
 Gly Lys Trp His Thr Ile Ser Ile Arg Gly Val Pro His Asp Ala Val  
 100 105 110  
 Arg Val Phe Ile Arg Phe Leu Tyr Ser Ser Cys Tyr Glu Lys Glu Glu  
 115 120 125  
 Met Asn Glu Phe Ile Met His Leu Leu Leu Leu Ser His Ala Tyr Val  
 130 135 140  
 Val Pro Gln Leu Lys Arg Val Cys Glu Trp His Leu Glu His Gly Leu  
 145 150 155 160  
 Leu Thr Thr Glu Asn Val Val Asp Val Phe Gln Leu Ala Leu Leu Cys  
 165 170 175  
 Asp Phe Pro Arg Leu Ser Leu Ile Ser His Arg Met Ile Met Lys His  
 180 185 190  
 Phe Asn Glu Leu Ser Ala Thr Glu Ala Trp Thr Ala Met Lys Lys Ser  
 195 200 205  
 His Pro Phe Leu Glu Lys Glu Val Arg Asp Ser Val Ile Ile Glu Ala  
 210 215 220  
 Asn Thr Arg Lys Glu Arg Met Arg Lys Arg Asn Asp Gln Arg Ile Tyr  
 225 230 235 240

Ser Gln Leu Tyr Glu Ala Met Glu Ala Leu Val His Ile Cys Arg Asp  
 245 250 255

Gly Cys Lys Thr Ile Gly Pro His Asp Lys Asp Phe Lys Pro Asn His  
 260 265 270

Ala Thr Cys Asn Tyr Glu Ala Cys Lys Gly Leu Glu Ser Leu Ile Arg  
 275 280 285

His Phe Ala Gly Cys Lys Leu Arg Val Pro Gly Gly Cys Val His Cys  
 290 295 300

Lys Arg Met Trp Gln Leu Leu Glu Leu His Ser Arg Val Cys Ala Gly  
 305 310 315 320

Ser Asp Gln Cys Arg Val Pro Leu Cys Arg Asn Leu Lys Glu Lys Met  
 325 330 335

Glu Lys Gln Ser Lys Lys Asp Glu Ser Arg Trp Lys Leu Leu Val Lys  
 340 345 350

Asn Val Leu Gly Ser Lys Lys Ile Gly Gly Ser Pro Phe Phe Leu Pro  
 355 360 365

Val Thr Asn Cys  
 370

<210> 983

<211> 3255

<212> DNA

<213> Arabidopsis thaliana

<400> 983

atggcatcgg aatcgaaaag ctacgctagg agagatcgtc ttcttgagat tgaggccact	60
gttcgaaagt ggtgggaaga cgaggatgta ttcagagccg aatcttgatga gaatcttcca	120
aaaccaggag aaaagttttt ctcaaccttc cctttcccgt atatgaatgg ttatctacac	180
attgggcatg ccttttcatt gtccaagggtt gattttgctt ctgcttacca taggctaaga	240
ggagctaatt tgcttcttcc atttggtttc cattgtactg gtatgccaat taaggcttct	300
gcggataagc ttcgtcgtga gattgaacag tttggtaacc ctctgtgtt tactgctgaa	360
gacaccacca aagttcctga agttcaggag gagagcagtg atactatagc tttaccgatt	420
ccgggtcagt tcaagggaag gaagtctaag gttgctgcc aagctggtgg acagggttat	480

cagtgggaga	ttatgcgag	ttttggtctt	actgacagtg	agattgcaaa	tttccgagag	540
ccttctgaat	ggttgtatta	ctttccccct	ttggctgttg	aagatctaag	ggcatatgga	600
ttgggttggtg	attggagacg	ctcgtttggtg	accactgatg	ttaatccctt	tttcgatgcc	660
tttgtgaggt	ggcagatgag	gaagttgaaa	tctatgggaa	agattgttaa	agaccgcagg	720
tacactatat	tctcaccttt	agatggccag	ccttgtgctg	atcacgaccg	tgctactggg	780
gaaggtgttc	agcctcaaga	gtatacactc	ataaagatgg	aagtagtcaa	gccattccct	840
ctgaaactgg	gtcctttgga	aggcaagaga	gtgttttttg	ctgcagctac	tttgaggcct	900
gagaccatgt	atggacaaac	aaacgcatgg	gtactacctg	atgggaaata	tggagcttat	960
gaaatcagcg	aaactgaggt	cttcacacct	actgagagag	ctgcgctcaa	ccttgcgtac	1020
cagaactttt	cgaagaacct	tcaggagcct	tcctgcttgg	ttgagttgac	cgggtatgat	1080
ctgattggac	tccctttgag	gtctcctctg	tcagtcaacg	agatcatcta	tgctctgccc	1140
atgttgacca	ttctgaccaa	caaaggtact	ggcattgtca	ccagtgtgcc	tagtgatgct	1200
cctgatgatt	acatggcttt	acaagattta	atcaaaaagc	ctgctcttca	agataagtat	1260
ggtgtgaaaa	cggaatggtt	gcccactgaa	atcataccga	tcatcaacat	tccggaattt	1320
ggggataaag	ctgctgaaaa	ggtctgcttg	gatctgaaaa	ttaaaagcca	aaacgataag	1380
gaaaagcttg	cagaggctaa	gaggttgact	tacctgaaag	gatttaccga	aggaaccatg	1440
cttatttgag	agtttttttg	taggaaagtt	caagaaatta	agcccattat	caagacaaag	1500
ctcatagaga	ctggcgaggc	aatcatatac	agtgaaccgc	agaagccggt	gatgtcaaga	1560
tcgggtgatg	aatgtgttgt	ggctcttaca	gatcagtggg	acataacata	cggcgaatca	1620
gaatggcgga	aaattgctga	ggaatgccta	tcaaagatga	atctctactc	tgatgaaaca	1680
agggatggct	ttgagcacac	tttgagctgg	ctcaatcagt	gggcttgctc	acgatctttt	1740
ggtttaggaa	ctcgtattcc	ctgggatgaa	cagttcctag	tggaatcctt	atctgattca	1800
tctctttata	tggcctatta	cacagttgcc	catatctttc	acgatggaga	catgtataaa	1860
ggtagcaagt	ctctgatccg	ccctcagcag	atgaatgatg	aagtttgga	gtatctcttc	1920
tgtgatggcc	cgtaccctaa	atcatctgat	attccatcag	ctgtcttaag	tgagatgaag	1980
caggaatttg	actactggta	cccgtagat	cttcgagttt	caggaaagga	tcttattcag	2040
aatcatttga	catttttcat	ctacaaccac	actgcactaa	tggcgaatcg	taactggcca	2100
cgtgggatca	gatgtaatgg	tcatatcatg	ctgaattctg	aaaagatgtc	aaagtctact	2160
ggaaatttca	gaaccctgcg	ccagtctatt	gaagaattct	ctgccactgg	tacaaggttt	2220
tgtttggtg	atgctggtga	tggtgttgat	gatgcaaat	ttgcatttga	aactgcaaat	2280
gctgcaattt	tgcggttgac	aaaagagctc	acatggatgg	aagaagttct	ggatgtcgaa	2340
tcctctttta	gaacgggacc	tccatctaca	tatgctgata	aagtgtttga	aaatgacatg	2400

047-E2F-PCT.ST25.txt

```

aacattgctc tcagattgac tgaaagagcg tacaaagatt gtctgttttag ggaggcactt 2460
aaaaatgggt tttagacttt acaagctgct cgggatgagt atagactctc ttgtggaact 2520
ggaggcatgc accatgactt gctactgaaa tttatggatg tgcaaacacg cctcattgta 2580
ccaatctgtc cccattttgc agattatggt tggaggaaag ttttgaataa ggaaggttgt 2640
gtgctcacag caggctggcc accatcaaatt gagccagatt tgggtgctcaa gaggcgaaac 2700
aaatattttgc aagattctat tgtgttaatg agaaagcttc ttcaaaaaca actctcaggt 2760
tccaagaagg gtgctaagaa aggtgctcaa gtaacagctg tgccagaggg gaagctaaaa 2820
ggcctagtat atgtgaatga gcaatttgat ggatggagag ctactgcct gcggattctg 2880
caaagtagat ttgaccagca aacctgtagt ttcccccccg atacagagat gcttgcagaa 2940
ctaagtgcaa cattgttgca ggagggaaaa aacttgaaag ccattcaaaa ggtttgcatg 3000
cctttcctta aattcaagaa ggacgaggca atatctattg gactcaggc tctgaacttg 3060
aggttacctt ttggagagat cgaagtcctt cagagtaaca aggacttgat caggcggaac 3120
cttggctctg aagaggttga aatatattct gcaagtgacc ctgatgatgt ttcaatagct 3180
gggtccacatg cttcgtgct gacgcagaat cctccatctc caggcagccc aactgccatc 3240
tttgtgacca ggtaa 3255

```

<210> 984

<211> 1084

<212> PRT

<213> Arabidopsis thaliana

<400> 984

```

Met Ala Ser Glu Ser Lys Ser Tyr Ala Arg Arg Asp Arg Leu Leu Glu
1          5          10          15

```

```

Ile Glu Ala Thr Val Arg Lys Trp Trp Glu Asp Glu Asp Val Phe Arg
          20          25          30

```

```

Ala Glu Ser Cys Glu Asn Leu Pro Lys Pro Gly Glu Lys Phe Phe Ser
          35          40          45

```

```

Thr Phe Pro Phe Pro Tyr Met Asn Gly Tyr Leu His Ile Gly His Ala
          50          55          60

```

```

Phe Ser Leu Ser Lys Val Asp Phe Ala Ser Ala Tyr His Arg Leu Arg
65          70          75          80

```

047-E2F-PCT.ST25.txt

Gly Ala Asn Val Leu Leu Pro Phe Gly Phe His Cys Thr Gly Met Pro  
 85 90 95  
 Ile Lys Ala Ser Ala Asp Lys Leu Arg Arg Glu Ile Glu Gln Phe Gly  
 100 105 110  
 Asn Pro Pro Val Phe Thr Ala Glu Asp Thr Thr Lys Val Pro Glu Val  
 115 120 125  
 Gln Glu Glu Ser Ser Asp Thr Ile Ala Leu Pro Ile Pro Gly Gln Phe  
 130 135 140  
 Lys Gly Lys Lys Ser Lys Val Ala Ala Lys Ala Gly Gly Gln Val Tyr  
 145 150 155 160  
 Gln Trp Glu Ile Met Arg Ser Phe Gly Leu Thr Asp Ser Glu Ile Ala  
 165 170 175  
 Asn Phe Arg Glu Pro Ser Glu Trp Leu Tyr Tyr Phe Pro Pro Leu Ala  
 180 185 190  
 Val Glu Asp Leu Arg Ala Tyr Gly Leu Gly Cys Asp Trp Arg Arg Ser  
 195 200 205  
 Phe Val Thr Thr Asp Val Asn Pro Phe Phe Asp Ala Phe Val Arg Trp  
 210 215 220  
 Gln Met Arg Lys Leu Lys Ser Met Gly Lys Ile Val Lys Asp Arg Arg  
 225 230 235 240  
 Tyr Thr Ile Phe Ser Pro Leu Asp Gly Gln Pro Cys Ala Asp His Asp  
 245 250 255  
 Arg Ala Thr Gly Glu Gly Val Gln Pro Gln Glu Tyr Thr Leu Ile Lys  
 260 265 270  
 Met Glu Val Val Lys Pro Phe Pro Leu Lys Leu Gly Pro Leu Glu Gly  
 275 280 285  
 Lys Arg Val Phe Leu Ala Ala Ala Thr Leu Arg Pro Glu Thr Met Tyr  
 290 295 300  
 Gly Gln Thr Asn Ala Trp Val Leu Pro Asp Gly Lys Tyr Gly Ala Tyr  
 305 310 315 320  
 Glu Ile Ser Glu Thr Glu Val Phe Ile Leu Thr Glu Arg Ala Ala Leu  
 325 330 335

047-E2F-PCT.ST25.txt

Asn Leu Ala Tyr Gln Asn Phe Ser Lys Asn Pro Gln Glu Pro Ser Cys  
 340 345 350  
 Leu Val Glu Leu Thr Gly Tyr Asp Leu Ile Gly Leu Pro Leu Arg Ser  
 355 360 365  
 Pro Leu Ser Val Asn Glu Ile Ile Tyr Ala Leu Pro Met Leu Thr Ile  
 370 375 380  
 Leu Thr Asn Lys Gly Thr Gly Ile Val Thr Ser Val Pro Ser Asp Ala  
 385 390 395 400  
 Pro Asp Asp Tyr Met Ala Leu Gln Asp Leu Ile Lys Lys Pro Ala Leu  
 405 410 415  
 Gln Asp Lys Tyr Gly Val Lys Thr Glu Trp Leu Pro Thr Glu Ile Ile  
 420 425 430  
 Pro Ile Ile Asn Ile Pro Glu Phe Gly Asp Lys Ala Ala Glu Lys Val  
 435 440 445  
 Cys Leu Asp Leu Lys Ile Lys Ser Gln Asn Asp Lys Glu Lys Leu Ala  
 450 455 460  
 Glu Ala Lys Arg Leu Thr Tyr Leu Lys Gly Phe Thr Glu Gly Thr Met  
 465 470 475 480  
 Leu Ile Gly Glu Phe Phe Gly Arg Lys Val Gln Glu Ile Lys Pro Ile  
 485 490 495  
 Ile Lys Thr Lys Leu Ile Glu Thr Gly Glu Ala Ile Ile Tyr Ser Glu  
 500 505 510  
 Pro Glu Lys Pro Val Met Ser Arg Ser Gly Asp Glu Cys Val Val Ala  
 515 520 525  
 Leu Thr Asp Gln Trp Tyr Ile Thr Tyr Gly Glu Ser Glu Trp Arg Lys  
 530 535 540  
 Ile Ala Glu Glu Cys Leu Ser Lys Met Asn Leu Tyr Ser Asp Glu Thr  
 545 550 555 560  
 Arg His Gly Phe Glu His Thr Leu Ser Trp Leu Asn Gln Trp Ala Cys  
 565 570 575  
 Ser Arg Ser Phe Gly Leu Gly Thr Arg Ile Pro Trp Asp Glu Gln Phe  
 Page 1505

580

585

590

Leu Val Glu Ser Leu Ser Asp Ser Ser Leu Tyr Met Ala Tyr Tyr Thr  
 595 600 605  
 Val Ala His Ile Phe His Asp Gly Asp Met Tyr Lys Gly Ser Lys Ser  
 610 615 620  
 Leu Ile Arg Pro Gln Gln Met Asn Asp Glu Val Trp Glu Tyr Leu Phe  
 625 630 635 640  
 Cys Asp Gly Pro Tyr Pro Lys Ser Ser Asp Ile Pro Ser Ala Val Leu  
 645 650 655  
 Ser Glu Met Lys Gln Glu Phe Asp Tyr Trp Tyr Pro Leu Asp Leu Arg  
 660 665 670  
 Val Ser Gly Lys Asp Leu Ile Gln Asn His Leu Thr Phe Phe Ile Tyr  
 675 680 685  
 Asn His Thr Ala Leu Met Ala Asn Arg Asn Trp Pro Arg Gly Ile Arg  
 690 695 700  
 Cys Asn Gly His Ile Met Leu Asn Ser Glu Lys Met Ser Lys Ser Thr  
 705 710 715 720  
 Gly Asn Phe Arg Thr Leu Arg Gln Ser Ile Glu Glu Phe Ser Ala Thr  
 725 730 735  
 Gly Thr Arg Phe Cys Leu Ala Asp Ala Gly Asp Gly Val Asp Asp Ala  
 740 745 750  
 Asn Phe Ala Phe Glu Thr Ala Asn Ala Ala Ile Leu Arg Leu Thr Lys  
 755 760 765  
 Glu Leu Thr Trp Met Glu Glu Val Leu Asp Val Glu Ser Ser Leu Arg  
 770 775 780  
 Thr Gly Pro Pro Ser Thr Tyr Ala Asp Lys Val Phe Glu Asn Asp Met  
 785 790 795 800  
 Asn Ile Ala Leu Arg Leu Thr Glu Arg Ala Tyr Lys Asp Cys Leu Phe  
 805 810 815  
 Arg Glu Ala Leu Lys Asn Gly Phe Tyr Asp Leu Gln Ala Ala Arg Asp  
 820 825 830



Glu Tyr Arg Leu Ser Cys Gly Thr Gly Gly Met His His Asp Leu Leu  
 835 840 845

Leu Lys Phe Met Asp Val Gln Thr Arg Leu Ile Val Pro Ile Cys Pro  
 850 855 860

His Phe Ala Asp Tyr Val Trp Arg Lys Val Leu Asn Lys Glu Gly Cys  
 865 870 875 880

Val Leu Thr Ala Gly Trp Pro Pro Ser Asn Glu Pro Asp Leu Val Leu  
 885 890 895

Lys Ser Ala Asn Lys Tyr Leu Gln Asp Ser Ile Val Leu Met Arg Lys  
 900 905 910

Leu Leu Gln Lys Gln Leu Ser Gly Ser Lys Lys Gly Ala Lys Lys Gly  
 915 920 925

Ala Gln Val Thr Ala Val Pro Glu Gly Lys Leu Lys Gly Leu Val Tyr  
 930 935 940

Val Asn Glu Gln Phe Asp Gly Trp Arg Ala His Cys Leu Arg Ile Leu  
 945 950 955 960

Gln Ser Arg Phe Asp Gln Gln Thr Cys Ser Phe Pro Pro Asp Thr Glu  
 965 970 975

Met Leu Ala Glu Leu Ser Ala Thr Leu Leu Gln Glu Gly Lys Asn Leu  
 980 985 990

Lys Ala Ile Gln Lys Val Cys Met Pro Phe Leu Lys Phe Lys Lys Asp  
 995 1000 1005

Glu Ala Ile Ser Ile Gly Thr Gln Ala Leu Asn Leu Arg Leu Pro  
 1010 1015 1020

Phe Gly Glu Ile Glu Val Leu Gln Ser Asn Lys Asp Leu Ile Arg  
 1025 1030 1035

Arg Gln Leu Gly Leu Glu Glu Val Glu Ile Tyr Ser Ala Ser Asp  
 1040 1045 1050

Pro Asp Asp Val Ser Ile Ala Gly Pro His Ala Ser Leu Leu Thr  
 1055 1060 1065

Gln Asn Pro Pro Ser Pro Gly Ser Pro Thr Ala Ile Phe Val Thr  
 1070 1075 1080

Arg

&lt;210&gt; 985

&lt;211&gt; 1470

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 985

```

atgggatctc agatcattca taactcacia aaaccacatg tagtttgtgt tccatatccg      60
gctcaaggcc acatcaaccc tatgatgaga gtggctaaac tcctccacgc cagaggcttc      120
tacgtcacct tcgtcaacac cgtctacaac cacaatcggt tccttcgttc tcgtgggtcc      180
aatgccctag atggacttcc ttcgttccga tttagagcca ttgctgacgg tctaccagag      240
acagacatgg atgccacgca ggacatcaca gctctttgcg agtccaccat gaagaactgt      300
ctcgtccgt tcagagagct tctccagcgg atcaacgctg gagataatgt tcctccggtg      360
agctgtattg tatctgacgg ttgtatgagc ttactctttg atgttgcgga ggagcttgga      420
gtcccggagg ttcttttttg gacaaccagt ggctgtgctg tcctggctta tctacacttt      480
tatctcttca tcgagaaggg cttatgtccg ctaaaagatg agagttactt gacgaaggag      540
tacttagaag acacggttat agattttata ccaaccatga agaattgtgaa actaaaggat      600
attcctagct tcatacgtac cactaatcct gatgatgtta tgattagttt cgccctccgc      660
gagaccgagc gagccaaacg tgcttctgct atcattctaa acacatttga tgaccttgag      720
catgatgttg ttcattgctat gcaatctatc ttacctccgg ttatttcagt tggaccgctt      780
catctcttag caaacgggga gattgaagaa ggtagtgaga ttggaatgat gagttcgaat      840
ttatggaaag aggagatgga gtgtttggat tggcttgata ctaagactca aaatagtgtc      900
atztatatca actttgggag cataacgggt ttgagtgtga agcagcttgt ggagtttgct      960
tggggttttg cgggaagtgg gaaagagttt ttatgggtga tccggccaga tttagtagcg     1020
ggagaggagg ctatggttcc gccggacttt ttaatggaga ctaaagaccg cagtatgcta     1080
gcgagttggt gtcctcaaga gaaagtactt tctcatcctg ctattggagg gtttttgacg     1140
cattgcgggt ggaactcgat attggaaagt ctttcgtgtg gagttccgat ggtgtgttgg     1200
ccattttttg ctgaccagca aatgaattgt aagttttgtt gtgacgagtg ggatgttggg     1260
attgagatag gtggagatgt gaagagagag gaagttgagg cgggtggttag agagctcatg     1320
gatggagaga agggaaagaa aatgagagaa aaggcggtag agtggcagcg cttagccgag     1380
aaagcgacgg aacataaact tggttcttcc gttatgaatt ttgagacggt tgttagcaag     1440

```

tttcttttgg gacaaaaatc acaggattaa

1470

&lt;210&gt; 986

&lt;211&gt; 489

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 986

Met Gly Ser Gln Ile Ile His Asn Ser Gln Lys Pro His Val Val Cys  
 1 5 10 15

Val Pro Tyr Pro Ala Gln Gly His Ile Asn Pro Met Met Arg Val Ala  
 20 25 30

Lys Leu Leu His Ala Arg Gly Phe Tyr Val Thr Phe Val Asn Thr Val  
 35 40 45

Tyr Asn His Asn Arg Phe Leu Arg Ser Arg Gly Ser Asn Ala Leu Asp  
 50 55 60

Gly Leu Pro Ser Phe Arg Phe Glu Ser Ile Ala Asp Gly Leu Pro Glu  
 65 70 75 80

Thr Asp Met Asp Ala Thr Gln Asp Ile Thr Ala Leu Cys Glu Ser Thr  
 85 90 95

Met Lys Asn Cys Leu Ala Pro Phe Arg Glu Leu Leu Gln Arg Ile Asn  
 100 105 110

Ala Gly Asp Asn Val Pro Pro Val Ser Cys Ile Val Ser Asp Gly Cys  
 115 120 125

Met Ser Phe Thr Leu Asp Val Ala Glu Glu Leu Gly Val Pro Glu Val  
 130 135 140

Leu Phe Trp Thr Thr Ser Gly Cys Ala Phe Leu Ala Tyr Leu His Phe  
 145 150 155 160

Tyr Leu Phe Ile Glu Lys Gly Leu Cys Pro Leu Lys Asp Glu Ser Tyr  
 165 170 175

Leu Thr Lys Glu Tyr Leu Glu Asp Thr Val Ile Asp Phe Ile Pro Thr  
 180 185 190

047-E2F-PCT.ST25.txt

Met Lys Asn Val Lys Leu Lys Asp Ile Pro Ser Phe Ile Arg Thr Thr  
195 200 205

Asn Pro Asp Asp Val Met Ile Ser Phe Ala Leu Arg Glu Thr Glu Arg  
210 215 220

Ala Lys Arg Ala Ser Ala Ile Ile Leu Asn Thr Phe Asp Asp Leu Glu  
225 230 235 240

His Asp Val Val His Ala Met Gln Ser Ile Leu Pro Pro Val Tyr Ser  
245 250 255

Val Gly Pro Leu His Leu Leu Ala Asn Arg Glu Ile Glu Glu Gly Ser  
260 265 270

Glu Ile Gly Met Met Ser Ser Asn Leu Trp Lys Glu Glu Met Glu Cys  
275 280 285

Leu Asp Trp Leu Asp Thr Lys Thr Gln Asn Ser Val Ile Tyr Ile Asn  
290 295 300

Phe Gly Ser Ile Thr Val Leu Ser Val Lys Gln Leu Val Glu Phe Ala  
305 310 315 320

Trp Gly Leu Ala Gly Ser Gly Lys Glu Phe Leu Trp Val Ile Arg Pro  
325 330 335

Asp Leu Val Ala Gly Glu Glu Ala Met Val Pro Pro Asp Phe Leu Met  
340 345 350

Glu Thr Lys Asp Arg Ser Met Leu Ala Ser Trp Cys Pro Gln Glu Lys  
355 360 365

Val Leu Ser His Pro Ala Ile Gly Gly Phe Leu Thr His Cys Gly Trp  
370 375 380

Asn Ser Ile Leu Glu Ser Leu Ser Cys Gly Val Pro Met Val Cys Trp  
385 390 395 400

Pro Phe Phe Ala Asp Gln Gln Met Asn Cys Lys Phe Cys Cys Asp Glu  
405 410 415

Trp Asp Val Gly Ile Glu Ile Gly Gly Asp Val Lys Arg Glu Glu Val  
420 425 430

Glu Ala Val Val Arg Glu Leu Met Asp Gly Glu Lys Gly Lys Lys Met  
435 440 445

Arg Glu Lys Ala Val Glu Trp Gln Arg Leu Ala Glu Lys Ala Thr Glu  
 450 455 460

His Lys Leu Gly Ser Ser Val Met Asn Phe Glu Thr Val Val Ser Lys  
 465 470 475 480

Phe Leu Leu Gly Gln Lys Ser Gln Asp  
 485

<210> 987

<211> 1020

<212> DNA

<213> Arabidopsis thaliana

<400> 987  
 atgacagatg gtgcaagtcc aggggttcat atgatgatgc aactttctcat aacttcagag 60  
 aaagatggaa tcctttgtcc ttttcctcag tatccattgt actcagcttc aattgccctt 120  
 cacggtggaa ctttggttcc atactacctt gatgaagcat caggatgggg tcttgaaata 180  
 tctgagctga agaaacaact tgaagatgct aggtcaaagg gcatcactgt gagagctttg 240  
 gctgtcatta accctggaaa cccgacaggg caggttcttt cggaagaaaa ccagcgtgac 300  
 gttgttaagt tctgcaagca agagggttta gttcttttag cagacgaggt ttatcaagag 360  
 aatgtctatg tccctgacaa aaagttccat tccttcaaga aagtagcccg ctctatgggc 420  
 tacggtgaga aggatcttgc cttagtctct ttccaatctg tctccaaagg gtactatgga 480  
 gagtgtggga aaagaggttg ttacatggag gttactggat tcacttctga tgtaagagag 540  
 cagatataca aaatggcttc tgtgaatctt tgttccaaca tctctggtca aattcttgct 600  
 agcctcatca tgagcccacc caagcctggt gacgactcct atgaatcata catagcagag 660  
 aaggatggaa ttctctcatc tttggcaaga cgtgcaaaga ctcttgaaga ggctctgaac 720  
 aagctagagg gagttacatg caatagagca gaaggagcta tgtatctatt cccttgccct 780  
 caccttcac aaaaggcaat tgcagctgct gaggcggaaa agacagcacc agacaatttc 840  
 tactgcaaac gccttctaaa agctactgga atagtcgttg tccctgggtc tggctttaga 900  
 caggtagctg gaacatggca tttcaggtgc actatacttc cccaagagga taagattcca 960  
 gcgattgttg atcgtctaac tgcgttcac cagagcttca tggacgagtt ccgcgactaa 1020

<210> 988

<211> 339

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 988

Met Thr Asp Gly Ala Ser Pro Gly Val His Met Met Met Gln Leu Leu  
 1 5 10 15

Ile Thr Ser Glu Lys Asp Gly Ile Leu Cys Pro Ile Pro Gln Tyr Pro  
 20 25 30

Leu Tyr Ser Ala Ser Ile Ala Leu His Gly Gly Thr Leu Val Pro Tyr  
 35 40 45

Tyr Leu Asp Glu Ala Ser Gly Trp Gly Leu Glu Ile Ser Glu Leu Lys  
 50 55 60

Lys Gln Leu Glu Asp Ala Arg Ser Lys Gly Ile Thr Val Arg Ala Leu  
 65 70 75 80

Ala Val Ile Asn Pro Gly Asn Pro Thr Gly Gln Val Leu Ser Glu Glu  
 85 90 95

Asn Gln Arg Asp Val Val Lys Phe Cys Lys Gln Glu Gly Leu Val Leu  
 100 105 110

Leu Ala Asp Glu Val Tyr Gln Glu Asn Val Tyr Val Pro Asp Lys Lys  
 115 120 125

Phe His Ser Phe Lys Lys Val Ala Arg Ser Met Gly Tyr Gly Glu Lys  
 130 135 140

Asp Leu Ala Leu Val Ser Phe Gln Ser Val Ser Lys Gly Tyr Tyr Gly  
 145 150 155 160

Glu Cys Gly Lys Arg Gly Gly Tyr Met Glu Val Thr Gly Phe Thr Ser  
 165 170 175

Asp Val Arg Glu Gln Ile Tyr Lys Met Ala Ser Val Asn Leu Cys Ser  
 180 185 190

Asn Ile Ser Gly Gln Ile Leu Ala Ser Leu Ile Met Ser Pro Pro Lys  
 195 200 205

Pro Gly Asp Asp Ser Tyr Glu Ser Tyr Ile Ala Glu Lys Asp Gly Ile  
 210 215 220

047-E2F-PCT.ST25.txt

Leu Ser Ser Leu Ala Arg Arg Ala Lys Thr Leu Glu Glu Ala Leu Asn  
 225 230 235 240  
 Lys Leu Glu Gly Val Thr Cys Asn Arg Ala Glu Gly Ala Met Tyr Leu  
 245 250 255  
 Phe Pro Cys Leu His Leu Pro Gln Lys Ala Ile Ala Ala Ala Glu Ala  
 260 265 270  
 Glu Lys Thr Ala Pro Asp Asn Phe Tyr Cys Lys Arg Leu Leu Lys Ala  
 275 280 285  
 Thr Gly Ile Val Val Val Pro Gly Ser Gly Phe Arg Gln Val Pro Gly  
 290 295 300  
 Thr Trp His Phe Arg Cys Thr Ile Leu Pro Gln Glu Asp Lys Ile Pro  
 305 310 315 320  
 Ala Ile Val Asp Arg Leu Thr Ala Phe His Gln Ser Phe Met Asp Glu  
 325 330 335

Phe Arg Asp

<210> 989

<211> 1260

<212> DNA

<213> Arabidopsis thaliana

<400> 989

atggcgggccg taggagtaga ttcgagggcgt cctgagacag cgatggagga aacctgtaac	60
gtgaaaggag cggcgggcgaa acaaggggaa gggcttaagc agtactatct ccagcacatc	120
catgagctcc agcgccagct tcgacagaag actaataacc tcaatcgctt tgaagctcaa	180
aggaatgaac tcaattctcg agtgagaatg ctcagagaag agttacagct ccttcaagaa	240
cctgggtcct atgtgggaga agtggtaaaa gttatgggaa agaacaaggt cttggttaag	300
gttcatccag aggggaagta tggtgttgat attgacaaaa gtatagacat tacgaaaatc	360
actccatcaa cgagagttgc tcttcgtaat gatagctatg ttctccacct ggttctgcc	420
agtaaagtag atcccttggt taaccttatg aaagttgaga aggttccaga ctccacctat	480
gacatgattg gtggtcttga ccagcagatt aaggaaataa aggaggtcat tgagctgcc	540

047-E2F-PCT.ST25.txt

atcaagcatc ctgaattggt tgagtctctt ggaattgcgc agccaaaggg tgtgttggtta 600  
 tacgggtccac ctggaactgg gaagacacta ttggctcggg ctgttgacaca tcacactgac 660  
 tgtacttttca taagagtttc tggttccgag cttgtccaga aatacattgg agaaggttct 720  
 agaatggtca gagaactttt tgtgatggca agggagcatg caccatcaat catcttcatg 780  
 gatgaaatcg atagtattgg gtctgctcgt atggaatctg gaagtggaaa tgggtgacagt 840  
 gaggtgcaac ggaccatgct cgagcttctc aatcaacttg acggttttga agcgtcaaac 900  
 aaaatcaagg ttttgatggc tacaaatcgt attgatattc tggatcaagc tcttctcagg 960  
 cctggaagaa ttgataggaa aattgaattt cctaataccta atgaagagtc acgttttgac 1020  
 atcttgaaga ttcactcgag gaaaatgaat ttgatgcgtg gaatcgatct gaaaaagatt 1080  
 gcagagaaga tgaatggcgc ttcaggtgct gagctgaagg ctgtgtgcac ggaggcggga 1140  
 atgtttgctc tgcgtgagag gagagtacac gtgacacaag aagactttga gatggcggtg 1200  
 gccaaaggtaa tgaagaaaga cacggagaag aacatgtctc tgcgtaagct gtggaagtag 1260

<210> 990

<211> 419

<212> PRT

<213> Arabidopsis thaliana

<400> 990

Met Ala Ala Val Gly Val Asp Ser Arg Arg Pro Glu Thr Ala Met Glu  
 1 5 10 15

Glu Thr Cys Asn Val Lys Gly Ala Ala Ala Lys Gln Gly Glu Gly Leu  
 20 25 30

Lys Gln Tyr Tyr Leu Gln His Ile His Glu Leu Gln Arg Gln Leu Arg  
 35 40 45

Gln Lys Thr Asn Asn Leu Asn Arg Leu Glu Ala Gln Arg Asn Glu Leu  
 50 55 60

Asn Ser Arg Val Arg Met Leu Arg Glu Glu Leu Gln Leu Leu Gln Glu  
 65 70 75 80

Pro Gly Ser Tyr Val Gly Glu Val Val Lys Val Met Gly Lys Asn Lys  
 85 90 95

Val Leu Val Lys Val His Pro Glu Gly Lys Tyr Val Val Asp Ile Asp  
 100 105 110



047-E2F-PCT.ST25.txt

Lys Ser Ile Asp Ile Thr Lys Ile Thr Pro Ser Thr Arg Val Ala Leu  
 115 120 125  
 Arg Asn Asp Ser Tyr Val Leu His Leu Val Leu Pro Ser Lys Val Asp  
 130 135 140  
 Pro Leu Val Asn Leu Met Lys Val Glu Lys Val Pro Asp Ser Thr Tyr  
 145 150 155 160  
 Asp Met Ile Gly Gly Leu Asp Gln Gln Ile Lys Glu Ile Lys Glu Val  
 165 170 175  
 Ile Glu Leu Pro Ile Lys His Pro Glu Leu Phe Glu Ser Leu Gly Ile  
 180 185 190  
 Ala Gln Pro Lys Gly Val Leu Leu Tyr Gly Pro Pro Gly Thr Gly Lys  
 195 200 205  
 Thr Leu Leu Ala Arg Ala Val Ala His His Thr Asp Cys Thr Phe Ile  
 210 215 220  
 Arg Val Ser Gly Ser Glu Leu Val Gln Lys Tyr Ile Gly Glu Gly Ser  
 225 230 235 240  
 Arg Met Val Arg Glu Leu Phe Val Met Ala Arg Glu His Ala Pro Ser  
 245 250 255  
 Ile Ile Phe Met Asp Glu Ile Asp Ser Ile Gly Ser Ala Arg Met Glu  
 260 265 270  
 Ser Gly Ser Gly Asn Gly Asp Ser Glu Val Gln Arg Thr Met Leu Glu  
 275 280 285  
 Leu Leu Asn Gln Leu Asp Gly Phe Glu Ala Ser Asn Lys Ile Lys Val  
 290 295 300  
 Leu Met Ala Thr Asn Arg Ile Asp Ile Leu Asp Gln Ala Leu Leu Arg  
 305 310 315 320  
 Pro Gly Arg Ile Asp Arg Lys Ile Glu Phe Pro Asn Pro Asn Glu Glu  
 325 330 335  
 Ser Arg Phe Asp Ile Leu Lys Ile His Ser Arg Lys Met Asn Leu Met  
 340 345 350  
 Arg Gly Ile Asp Leu Lys Lys Ile Ala Glu Lys Met Asn Gly Ala Ser  
 Page 1515

355

360

365

Gly Ala Glu Leu Lys Ala Val Cys Thr Glu Ala Gly Met Phe Ala Leu  
 370 375 380

Arg Glu Arg Arg Val His Val Thr Gln Glu Asp Phe Glu Met Ala Val  
 385 390 395 400

Ala Lys Val Met Lys Lys Asp Thr Glu Lys Asn Met Ser Leu Arg Lys  
 405 410 415

Leu Trp Lys

<210> 991

<211> 1377

<212> DNA

<213> Arabidopsis thaliana

<400> 991

atggagaaag taaagattga agaaattcag tccaccgcta agaaacaacg gattgctact	60
cacacccata tcaaaggcct tggcctcgag ccaactggta tccctataaa attggcagct	120
ggatttggtg gtcaacttga ggctagagag gcagctggtc ttgtagttag catgattaag	180
cagaagaaaa tggcgggcaa ggctcttttg cttgctggac ctcttggaac tgggaaaaca	240
gctttggctc ttggaatctc tcaagagctg ggaagcaagg ttccattctg tccaatggtt	300
ggatctgagg ttactcatc agagggttaag aaaacagagg ttctcatgga gaattttaga	360
cgtgccattg gtctacgtat caaggaaacc aaagaagtct atgaagggga ggtcaccgag	420
ctgtcaccag aagaaactga aagcctcact ggagggttatg gtaaaagcat cagccatggt	480
gtaattacac tcaagacagt caaaggaacc aaacatctga aattggatcc cactatctat	540
gatgccttga ttaaggaaaa ggtagctgta ggagatgtaa tctatatcga agcaaacagt	600
ggagctgtca aacgggtagg tagaagtgat gcttttgcca ctgaatttga tctggaagca	660
gaagaatatg ttccacttcc caaaggagag gtccacaaaa agaaagagat agtgcaggat	720
gtcacactcc aagatctgga tgcagcaaat gctcgacctc aagggtggcca ggatatactt	780
tctttgatgg gccaaatgat gaaaccgcgg aagactgaga tctactgataa gcttcggcaa	840
gaaattaaca aggttgtgaa ccgatataa gatgaaggtg tggcagagct tgttccagga	900
gttctattta ttgatgaggt tcatatgctt gatatggagt gcttctcata cttgaaccgt	960
gctcttgaga gctcattatc tccgatagtg atatttgcaa caaatagagg tgtttgcaac	1020

047-E2F-PCT.ST25.txt

gtaagagggga ctgatatgcc cagcccccat ggagtccta ttgatctatt agatcgattg 1080  
 gttatcatcc ggactcaaat ctatgatccc tctgaaatga tccagattat agccattcgt 1140  
 gcgcaagttg aagaattaac cgtggatgaa gaatgcttgg ttctacttgg ggagattggg 1200  
 caaagaactt cactaaggca cgctgtgcag cttctgtctc ctgccagcat tgtagcgaaa 1260  
 atgaatggcc gtgacaatat ttgcaaggct gatatagagg aagtaacatc actctacttg 1320  
 gatgctaaat cttcagcaaa gcttttgcag gagcaacaag aaaaatacat ctcatga 1377

<210> 992

<211> 458

<212> PRT

<213> Arabidopsis thaliana

<400> 992

Met Glu Lys Val Lys Ile Glu Glu Ile Gln Ser Thr Ala Lys Lys Gln  
 1 5 10 15

Arg Ile Ala Thr His Thr His Ile Lys Gly Leu Gly Leu Glu Pro Thr  
 20 25 30

Gly Ile Pro Ile Lys Leu Ala Ala Gly Phe Val Gly Gln Leu Glu Ala  
 35 40 45

Arg Glu Ala Ala Gly Leu Val Val Asp Met Ile Lys Gln Lys Lys Met  
 50 55 60

Ala Gly Lys Ala Leu Leu Leu Ala Gly Pro Pro Gly Thr Gly Lys Thr  
 65 70 75 80

Ala Leu Ala Leu Gly Ile Ser Gln Glu Leu Gly Ser Lys Val Pro Phe  
 85 90 95

Cys Pro Met Val Gly Ser Glu Val Tyr Ser Ser Glu Val Lys Lys Thr  
 100 105 110

Glu Val Leu Met Glu Asn Phe Arg Arg Ala Ile Gly Leu Arg Ile Lys  
 115 120 125

Glu Thr Lys Glu Val Tyr Glu Gly Glu Val Thr Glu Leu Ser Pro Glu  
 130 135 140

Glu Thr Glu Ser Leu Thr Gly Gly Tyr Gly Lys Ser Ile Ser His Val  
 Page 1517

145                      150                      155                      160  
 Val Ile Thr Leu Lys Thr Val Lys Gly Thr Lys His Leu Lys Leu Asp  
                                  165                      170                      175  
 Pro Thr Ile Tyr Asp Ala Leu Ile Lys Glu Lys Val Ala Val Gly Asp  
                                  180                      185                      190  
 Val Ile Tyr Ile Glu Ala Asn Ser Gly Ala Val Lys Arg Val Gly Arg  
                                  195                      200                      205  
 Ser Asp Ala Phe Ala Thr Glu Phe Asp Leu Glu Ala Glu Glu Tyr Val  
                                  210                      215                      220  
 Pro Leu Pro Lys Gly Glu Val His Lys Lys Lys Glu Ile Val Gln Asp  
                                  225                      230                      235                      240  
 Val Thr Leu Gln Asp Leu Asp Ala Ala Asn Ala Arg Pro Gln Gly Gly  
                                  245                      250                      255  
 Gln Asp Ile Leu Ser Leu Met Gly Gln Met Met Lys Pro Arg Lys Thr  
                                  260                      265                      270  
 Glu Ile Thr Asp Lys Leu Arg Gln Glu Ile Asn Lys Val Val Asn Arg  
                                  275                      280                      285  
 Tyr Ile Asp Glu Gly Val Ala Glu Leu Val Pro Gly Val Leu Phe Ile  
                                  290                      295                      300  
 Asp Glu Val His Met Leu Asp Met Glu Cys Phe Ser Tyr Leu Asn Arg  
                                  305                      310                      315                      320  
 Ala Leu Glu Ser Ser Leu Ser Pro Ile Val Ile Phe Ala Thr Asn Arg  
                                  325                      330                      335  
 Gly Val Cys Asn Val Arg Gly Thr Asp Met Pro Ser Pro His Gly Val  
                                  340                      345                      350  
 Pro Ile Asp Leu Leu Asp Arg Leu Val Ile Ile Arg Thr Gln Ile Tyr  
                                  355                      360                      365  
 Asp Pro Ser Glu Met Ile Gln Ile Ile Ala Ile Arg Ala Gln Val Glu  
                                  370                      375                      380  
 Glu Leu Thr Val Asp Glu Glu Cys Leu Val Leu Leu Gly Glu Ile Gly  
                                  385                      390                      395                      400

Gln Arg Thr Ser Leu Arg His Ala Val Gln Leu Leu Ser Pro Ala Ser  
 405 410 415

Ile Val Ala Lys Met Asn Gly Arg Asp Asn Ile Cys Lys Ala Asp Ile  
 420 425 430

Glu Glu Val Thr Ser Leu Tyr Leu Asp Ala Lys Ser Ser Ala Lys Leu  
 435 440 445

Leu His Glu Gln Gln Glu Lys Tyr Ile Ser  
 450 455

<210> 993

<211> 297

<212> DNA

<213> Arabidopsis thaliana

<400> 993

atggcggcaa ctactggact tgagactctc gtcgatcaga ttatttcggt gattacaaat	60
gacggacgca acattgtggg agttcttaaa ggttttgacc aggctacaaa tataatcctt	120
gatgaatctc atgaacgtgt gttttccaca aaggaaggag tacaacaaca tgtgttgggg	180
ttgtacatca tcagagggga caacataggt gttatcgggg agctggacga ggagcttgat	240
gctagtctgg atttttcgaa gctgagagcc catccgttga aaccgtagt gcattga	297

<210> 994

<211> 98

<212> PRT

<213> Arabidopsis thaliana

<400> 994

Met Ala Ala Thr Thr Gly Leu Glu Thr Leu Val Asp Gln Ile Ile Ser  
 1 5 10 15

Val Ile Thr Asn Asp Gly Arg Asn Ile Val Gly Val Leu Lys Gly Phe  
 20 25 30

Asp Gln Ala Thr Asn Ile Ile Leu Asp Glu Ser His Glu Arg Val Phe  
 35 40 45

Ser Thr Lys Glu Gly Val Gln Gln His Val Leu Gly Leu Tyr Ile Ile  
 Page 1519

50

55

Arg Gly Asp Asn Ile Gly Val Ile Gly Glu Leu Asp Glu Glu Leu Asp  
65 70 75 80

Ala Ser Leu Asp Phe Ser Lys Leu Arg Ala His Pro Leu Lys Pro Val  
85 90 95

Val His

<210> 995

<211> 624

<212> DNA

<213> Arabidopsis thaliana

<400> 995

atgcttgccg ttcaccgtcc ttcttccgcc gtatcagacg gagattccgt tcagattccg 60  
atgatgatcg cgtcgtttca aaaacgtttt ctttctctct caccgcactc cacggccgct 120  
cgttttcaca cacacgaggt tggtcctaata cagtgttgct ccgccgttat tcaagagatc 180  
tccgctccaa tctccaccgt ttggtccgct gtacgccgct ttgataaccc acaagcttac 240  
aaacactttc tcaaaagctg tagcgtcatc ggcggagacg gcgataacgt tggtagcctc 300  
cgtcaagtcc acgtcgtctc tgggtctccc gccgctagct ccaccgagag actcgatatc 360  
ctcgacgacg aacgccacgt catcagcttc agcgttggtg gtggtgacca ccggctctct 420  
aactaccgat ccgtaacgac ctttaccctt tctccgatct ccgggaccgt cgttgtcgag 480  
tcttacgtcg ttgatgttcc tccaggcaac acaaaggaag agacttgatga cttcgttgac 540  
gttatcgtag gatgcaatct tcaatctctt gcgaaaatag ccgagaatac tgcggctgag 600  
agcaagaaga agatgtctct gtga 624

<210> 996

<211> 207

<212> PRT

<213> Arabidopsis thaliana

<400> 996

Met Leu Ala Val His Arg Pro Ser Ser Ala Val Ser Asp Gly Asp Ser  
1 5 10 15

047-E2F-PCT.ST25.txt

Val Gln Ile Pro Met Met Ile Ala Ser Phe Gln Lys Arg Phe Pro Ser  
20 25 30

Leu Ser Arg Asp Ser Thr Ala Ala Arg Phe His Thr His Glu Val Gly  
35 40 45

Pro Asn Gln Cys Cys Ser Ala Val Ile Gln Glu Ile Ser Ala Pro Ile  
50 55 60

Ser Thr Val Trp Ser Val Val Arg Arg Phe Asp Asn Pro Gln Ala Tyr  
65 70 75 80

Lys His Phe Leu Lys Ser Cys Ser Val Ile Gly Gly Asp Gly Asp Asn  
85 90 95

Val Gly Ser Leu Arg Gln Val His Val Val Ser Gly Leu Pro Ala Ala  
100 105 110

Ser Ser Thr Glu Arg Leu Asp Ile Leu Asp Asp Glu Arg His Val Ile  
115 120 125

Ser Phe Ser Val Val Gly Gly Asp His Arg Leu Ser Asn Tyr Arg Ser  
130 135 140

Val Thr Thr Leu His Pro Ser Pro Ile Ser Gly Thr Val Val Val Glu  
145 150 155 160

Ser Tyr Val Val Asp Val Pro Pro Gly Asn Thr Lys Glu Glu Thr Cys  
165 170 175

Asp Phe Val Asp Val Ile Val Arg Cys Asn Leu Gln Ser Leu Ala Lys  
180 185 190

Ile Ala Glu Asn Thr Ala Ala Glu Ser Lys Lys Lys Met Ser Leu  
195 200 205

<210> 997

<211> 969

<212> DNA

<213> Arabidopsis thaliana

<400> 997

atggatgaga ctttacttga cgatataata cgacggcttt tggcgacgaa taatggaagg 60

```

acggtgaagc aagcacagat tactgagacg gagatacgtc agctatgttt agcttcaaaa 120
gagggtttttc tcagtcagcc taatctcctc gagctcgagg ctctatcaa gatttgcgga 180
gatgttcatg gtcagtttcc agacctcttg cggttggttg agtatggtgg ttatccacca 240
gctgcgaact acttgtttct tggggattat gttgatcgtg gtaagcagag catagagacg 300
atatgccttc ttcttgccca taagggtcaaa tacaagttca acttctttct tctcagaggc 360
aatcacgaat gtgcttcaat caaccgtgta tatggattct acgatgaatg caaaagaaga 420
tataatgttc gcttatggaa aacattcacc gagtgcttca actgtctgcc tgtttctgct 480
ctcattgatg ataagatcct ctgcatgcat ggtggactat cgcctgatat taagagctta 540
gatgacatca ggagaattcc tcgtcctatt gacgttcctg atcagggcat tctttgtgat 600
ttgttggtggg ctgacatcga cagagagatt caaggctggg gggagaatga cagagggtgc 660
tcttatacat ttggggctga caaagtagct gagttccttc aaactcatga ccttgatctt 720
atatgccgag ctcatcaggt tgtagaagat ggatacgagt tctttgcaa gagacaacta 780
gtgacaatat tctctgcacc caattactgt ggcgagtttg acaatgctgg tgcattgatg 840
agtgttgatg atagcttaac atgttcattc caaatcctta aggcattctga gaagaaagga 900
agatttgatg tcaacaacaa tgttcctaga ccaggaaccc cacctcataa ggggtgaaaa 960
ggtcgttaa 969

```

&lt;210&gt; 998

&lt;211&gt; 322

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 998

```

Met Asp Glu Thr Leu Leu Asp Asp Ile Ile Arg Arg Leu Leu Ala Thr
1           5           10          15

```

```

Asn Asn Gly Arg Thr Val Lys Gln Ala Gln Ile Thr Glu Thr Glu Ile
20          25          30

```

```

Arg Gln Leu Cys Leu Ala Ser Lys Glu Val Phe Leu Ser Gln Pro Asn
35          40          45

```

```

Leu Leu Glu Leu Glu Ala Pro Ile Lys Ile Cys Gly Asp Val His Gly
50          55          60

```

```

Gln Phe Pro Asp Leu Leu Arg Leu Phe Glu Tyr Gly Gly Tyr Pro Pro
65          70          75          80

```



047-E2F-PCT.ST25.txt

Ala Ala Asn Tyr Leu Phe Leu Gly Asp Tyr Val Asp Arg Gly Lys Gln  
85 90 95

Ser Ile Glu Thr Ile Cys Leu Leu Leu Ala Tyr Lys Val Lys Tyr Lys  
100 105 110

Phe Asn Phe Phe Leu Leu Arg Gly Asn His Glu Cys Ala Ser Ile Asn  
115 120 125

Arg Val Tyr Gly Phe Tyr Asp Glu Cys Lys Arg Arg Tyr Asn Val Arg  
130 135 140

Leu Trp Lys Thr Phe Thr Glu Cys Phe Asn Cys Leu Pro Val Ser Ala  
145 150 155 160

Leu Ile Asp Asp Lys Ile Leu Cys Met His Gly Gly Leu Ser Pro Asp  
165 170 175

Ile Lys Ser Leu Asp Asp Ile Arg Arg Ile Pro Arg Pro Ile Asp Val  
180 185 190

Pro Asp Gln Gly Ile Leu Cys Asp Leu Leu Trp Ala Asp Pro Asp Arg  
195 200 205

Glu Ile Gln Gly Trp Gly Glu Asn Asp Arg Gly Val Ser Tyr Thr Phe  
210 215 220

Gly Ala Asp Lys Val Ala Glu Phe Leu Gln Thr His Asp Leu Asp Leu  
225 230 235 240

Ile Cys Arg Ala His Gln Val Val Glu Asp Gly Tyr Glu Phe Phe Ala  
245 250 255

Lys Arg Gln Leu Val Thr Ile Phe Ser Ala Pro Asn Tyr Cys Gly Glu  
260 265 270

Phe Asp Asn Ala Gly Ala Leu Met Ser Val Asp Asp Ser Leu Thr Cys  
275 280 285

Ser Phe Gln Ile Leu Lys Ala Ser Glu Lys Lys Gly Arg Phe Gly Phe  
290 295 300

Asn Asn Asn Val Pro Arg Pro Gly Thr Pro Pro His Lys Gly Gly Lys  
305 310 315 320

Gly Arg

&lt;210&gt; 999

&lt;211&gt; 3171

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 999

```

atggcggttat ctatgaagcc attcagagcc gatgattccg gtttccagtc aaacaatctt      60
tgggtcggta gcctaacgcc ggagacgaca gagtcagatc tgaccgagtt gtttggaaga      120
tacggcgata ttgatagaat cacggtgtat tcttcacgag gctttgcggt tatatactac      180
agacatgtgg aggaagcagt cgcagccaaa gaggctcttc aaggagcaaa tttgaatgga      240
acgaatgagc tctgcaaaaag aatacatcaa acacatgttt actctcgttt atgcgaagaa      300
ggtttaaatcc gattgtcgtt tatctgcaaa cttgtatccg cgtttagcag tctgatttca      360
ggttcgcttc agatgttaaa tctcacaagc ttgagtatga atgtattgcg tactccactc      420
gaaattcgca atgataagaa attttgaggt ttaaaagttc agtttcctgc aaaaatcaaa      480
ccgcgtaggag aaatttgtct atggcggtac gtagatatca ataactgcat ctgcgaaaca      540
gaaaattctg gcaaccgtat cgtcctaact cctagtatcg ctggcacata tccatatcag      600
tgtgagggag ttttgggctt gttttggctc gatgcttcag gaagacaaat tacgtgggtg      660
ttaaggcggc taactctacc aatcagaaac gctttattcg aagaaccatg tttgttcctc      720
aattcccatc cctacgcaaa accttgtaag agtctatggg tgggtggaat cggccctaatt      780
gtctccaagg atgacctgga ggaagagttc agcaagtttg ggaaaatcga ggattttagg      840
tttctcagag aacgcaagac agctttcatt gattattatg agatggatga tgctttacag      900
gctaagagca tgaatggaag gcctatgggt ggtagctttt tgcgtgttga ttttctccgg      960
tcacaagcgc caaaaaaaga acaatgggct ggctcttacg ataacagaaa tggcaatatg     1020
aatcataaac cgcagtatcc tcaactatat gaagacttta aaggagatgt ccagccaagt     1080
aaggttctgt ggattgggtt ccctcctact gctacacaat gcaatgatga gcaaattctg     1140
cacaatgcga tgatactctt tggtgagatc gagagggtaa aaagttaccc atcaaggaat     1200
tttgcacttg tggagtttag gagcgcgagg gaagctcgcc aatgcaagga aggcctacag     1260
gggagggttat tcaataatcc tagaatcaaa attatgtact caaacgatga gttgcctcct     1320
gagcaagacg atactagttt ttactctggt atgaaacggg caaggacaga tatgttcaat     1380
aatgatcctt catttgtatc ttctcctcat tctactggaa ttcctgggtc tatgaggccc     1440
ctcagaggta caaatgagcg ttcatataat ggtgcagaat acaatgacgt tgttggtaag     1500

```

047-E2F-PCT.ST25.txt

gagccaaact ggaggaggcc atctgcaa at ggaactggaa tactcccatc tccaacagga 1560  
cctggaatcc tcccatctcc tgcacaaggt acgaggcgcc ctatgaggtc aaaccccgat 1620  
tcttggaag gatatgatcc tgctcagttg gtcagagaaa gtaaacgaac cagaagagat 1680  
ggatcagtgg acggttttac tccaatgggt gtcgatgaga ggtcatttgg tcgaggttca 1740  
gttgctgcta gacctatccg tggccccct gattctgatc acatatggag aggaatgatt 1800  
gccaaagggtg gaactcccgt ctgttggtgt cgttggtgtac ctatgggaaa ggggattgaa 1860  
actaaactgc ctgaggctgt caattgttca gcaagaactg atttgaatat gctcgctaaa 1920  
cattacgccg ttgccattgg atgtgagatc gtttttttcg taccagacag ggaagaagat 1980  
tttgctgctt aactgaatt tctccggtac cttagctcaa aagatcgggc ggggtgttgc 2040  
aaattagatg atggtacaac ttatttcttg gtgcctccat cagatttctt aactgatgta 2100  
ctccaagtga cccgtcaaga acggctatat ggtgttgttc tcaagttacc cccgccagcc 2160  
gttcctgtta cagcatcata cagacaagaa tctcagtcca atcctctgca ttatatggat 2220  
caagcccggg attcacctgc caatgctagt cacagtttat atcctcctag ggaaaattac 2280  
attaggggtg caccagaaca ttgacagct gcttcaaaac catctgttag cgagcctctc 2340  
agaataccta ataatgcagc gcctcaagct ggggttagtt taactccgga gcttttagcc 2400  
actctggcat ctatttctcc tgcaacttct caacctgctg cccctgagag tcaccaacct 2460  
atgtcaggac cttcaacagt tgtttccaca gcacatcagt ccaatggact gtacaatgga 2520  
gaagcaccgt ctcaagcttg gaaaagaggt ccacaaacag ttcattgatgc gtcaaatcag 2580  
tcattccaac aatacggaaa tcagtacact ccagctgggc aactacctcc tcctccttcg 2640  
cgttaccctc cagcttcaaa caaccccaac tacactagtg gaatgggtcca tggcaacatg 2700  
caataccaga gccaatctgt taacatgcct cagctgtctc cgttaccaaa tatgcctcat 2760  
aataattatt ccatgtacac tcagggttcg tcaaatcatc ctgtttctca gcccatggtc 2820  
cagcaatacc aaccagaagc gtccatgcc aacaaaaact atgggtccaat tccaagttat 2880  
cagcaagcta attttcatgg cgtaacaaca aatcaggcac agaacttaaa cccttcccaa 2940  
tttcaagctg ccatgcaacc accagcagat aaggcaaatt tagagccaca aaaccaagca 3000  
ctacgattgc agcctatgat ctctggggat ggtcagggtg caacagatgg ggagggtgat 3060  
aagaatcaga gataccagtc aacactacaa ttgacagcaa accttcttct ccagatacag 3120  
cagaaacagc agcaacagtc ttcagggtact ccggctggac aggggccttg a 3171

<210> 1000

<211> 1056

<212> PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1000

```

Met Ala Leu Ser Met Lys Pro Phe Arg Ala Asp Asp Ser Gly Phe Gln
 1      5      10      15

Ser Asn Asn Leu Trp Val Gly Ser Leu Thr Pro Glu Thr Thr Glu Ser
 20      25      30

Asp Leu Thr Glu Leu Phe Gly Arg Tyr Gly Asp Ile Asp Arg Ile Thr
 35      40      45

Val Tyr Ser Ser Arg Gly Phe Ala Phe Ile Tyr Tyr Arg His Val Glu
 50      55      60

Glu Ala Val Ala Ala Lys Glu Ala Leu Gln Gly Ala Asn Leu Asn Gly
 65      70      75      80

Thr Asn Glu Leu Cys Lys Arg Ile His Gln Thr His Val Tyr Ser Arg
 85      90      95

Leu Cys Glu Glu Gly Leu Ile Arg Leu Ser Phe Ile Cys Lys Leu Val
100      105      110

Ser Ala Phe Ser Ser Leu Ile Ser Gly Ser Leu Gln Met Leu Asn Leu
115      120      125

Thr Ser Leu Ser Met Asn Val Leu Arg Thr Pro Leu Glu Ile Arg Asn
130      135      140

Asp Lys Lys Phe Trp Ser Leu Lys Val Gln Phe Pro Ala Lys Ile Lys
145      150      155      160

Pro Arg Gly Glu Ile Cys Leu Trp Arg Tyr Val Asp Ile Asn Asn Cys
165      170      175

Ile Cys Glu Thr Glu Asn Ser Gly Asn Arg Ile Val Leu Thr Pro Ser
180      185      190

Ile Ala Gly Thr Tyr Pro Tyr Gln Cys Glu Gly Val Leu Gly Leu Phe
195      200      205

Trp Leu Asp Ala Ser Gly Arg Gln Ile Thr Trp Leu Leu Arg Arg Leu
210      215      220

```

Thr Leu Pro Ile Arg Asn Ala Leu Phe Glu Glu Pro Cys Leu Phe Leu  
 225 230 235 240  
 Asn Ser His Pro Tyr Ala Lys Pro Cys Lys Ser Leu Trp Val Gly Gly  
 245 250 255  
 Ile Gly Pro Asn Val Ser Lys Asp Asp Leu Glu Glu Glu Phe Ser Lys  
 260 265 270  
 Phe Gly Lys Ile Glu Asp Phe Arg Phe Leu Arg Glu Arg Lys Thr Ala  
 275 280 285  
 Phe Ile Asp Tyr Tyr Glu Met Asp Asp Ala Leu Gln Ala Lys Ser Met  
 290 295 300  
 Asn Gly Lys Pro Met Gly Gly Ser Phe Leu Arg Val Asp Phe Leu Arg  
 305 310 315 320  
 Ser Gln Ala Pro Lys Lys Glu Gln Trp Ala Gly Ser Tyr Asp Asn Arg  
 325 330 335  
 Asn Gly Asn Met Asn His Lys Pro Gln Tyr Pro His Ser Tyr Glu Asp  
 340 345 350  
 Phe Lys Gly Asp Val Gln Pro Ser Lys Val Leu Trp Ile Gly Phe Pro  
 355 360 365  
 Pro Thr Ala Thr Gln Cys Asn Asp Glu Gln Ile Leu His Asn Ala Met  
 370 375 380  
 Ile Leu Phe Gly Glu Ile Glu Arg Val Lys Ser Tyr Pro Ser Arg Asn  
 385 390 395 400  
 Phe Ala Leu Val Glu Phe Arg Ser Ala Glu Glu Ala Arg Gln Cys Lys  
 405 410 415  
 Glu Gly Leu Gln Gly Arg Leu Phe Asn Asn Pro Arg Ile Lys Ile Met  
 420 425 430  
 Tyr Ser Asn Asp Glu Leu Pro Pro Glu Gln Asp Asp Thr Ser Phe Tyr  
 435 440 445  
 Ser Gly Met Lys Arg Ser Arg Thr Asp Met Phe Asn Asn Asp Pro Ser  
 450 455 460  
 Phe Val Ser Ser Pro His Ser Thr Gly Ile Pro Gly Ser Met Arg Pro  
 465 470 475 480

047-E2F-PCT.ST25.txt

Leu Arg Gly Thr Asn Glu Arg Ser Tyr Asn Gly Ala Glu Tyr Asn Asp  
 485 490 495  
 Val Val Gly Lys Glu Pro Asn Trp Arg Arg Pro Ser Ala Asn Gly Thr  
 500 505 510  
 Gly Ile Leu Pro Ser Pro Thr Gly Pro Gly Ile Leu Pro Ser Pro Ala  
 515 520 525  
 Gln Gly Thr Arg Arg Pro Met Arg Ser Asn Pro Asp Ser Trp Glu Gly  
 530 535 540  
 Tyr Asp Pro Ala Gln Leu Val Arg Glu Ser Lys Arg Thr Arg Arg Asp  
 545 550 555 560  
 Gly Ser Val Asp Gly Phe Thr Pro Met Gly Val Asp Glu Arg Ser Phe  
 565 570 575  
 Gly Arg Gly Ser Val Ala Ala Arg Pro Ile Arg Gly Pro Pro Asp Ser  
 580 585 590  
 Asp His Ile Trp Arg Gly Met Ile Ala Lys Gly Gly Thr Pro Val Cys  
 595 600 605  
 Cys Ala Arg Cys Val Pro Met Gly Lys Gly Ile Glu Thr Lys Leu Pro  
 610 615 620  
 Glu Val Val Asn Cys Ser Ala Arg Thr Asp Leu Asn Met Leu Ala Lys  
 625 630 635 640  
 His Tyr Ala Val Ala Ile Gly Cys Glu Ile Val Phe Phe Val Pro Asp  
 645 650 655  
 Arg Glu Glu Asp Phe Ala Ser Tyr Thr Glu Phe Leu Arg Tyr Leu Ser  
 660 665 670  
 Ser Lys Asp Arg Ala Gly Val Ala Lys Leu Asp Asp Gly Thr Thr Leu  
 675 680 685  
 Phe Leu Val Pro Pro Ser Asp Phe Leu Thr Asp Val Leu Gln Val Thr  
 690 695 700  
 Arg Gln Glu Arg Leu Tyr Gly Val Val Leu Lys Leu Pro Pro Pro Ala  
 705 710 715 720  
 Val Pro Val Thr Ala Ser Tyr Arg Gln Glu Ser Gln Ser Asn Pro Leu  
 725 730 735

047-E2F-PCT.ST25.txt

His Tyr Met Asp Gln Ala Arg Asp Ser Pro Ala Asn Ala Ser His Ser  
 740 745 750  
 Leu Tyr Pro Pro Arg Glu Asn Tyr Ile Arg Gly Ala Pro Glu His Leu  
 755 760 765  
 Thr Ala Ala Ser Lys Pro Ser Val Ser Glu Pro Leu Arg Ile Pro Asn  
 770 775 780  
 Asn Ala Ala Pro Gln Ala Gly Val Ser Leu Thr Pro Glu Leu Leu Ala  
 785 790 795 800  
 Thr Leu Ala Ser Ile Leu Pro Ala Thr Ser Gln Pro Ala Ala Pro Glu  
 805 810 815  
 Ser His Gln Pro Met Ser Gly Pro Ser Thr Val Val Ser Thr Ala His  
 820 825 830  
 Gln Ser Asn Gly Leu Tyr Asn Gly Glu Ala Pro Ser Gln Ala Trp Lys  
 835 840 845  
 Arg Gly Pro Gln Thr Val His Asp Ala Ser Asn Gln Ser Phe Gln Gln  
 850 855 860  
 Tyr Gly Asn Gln Tyr Thr Pro Ala Gly Gln Leu Pro Pro Pro Pro Ser  
 865 870 875 880  
 Arg Tyr Pro Pro Ala Ser Asn Asn Pro Asn Tyr Thr Ser Gly Met Val  
 885 890 895  
 His Gly Asn Met Gln Tyr Gln Ser Gln Ser Val Asn Met Pro Gln Leu  
 900 905 910  
 Ser Pro Leu Pro Asn Met Pro His Asn Asn Tyr Ser Met Tyr Thr Gln  
 915 920 925  
 Gly Ser Ser Asn His Pro Val Ser Gln Pro Met Val Gln Gln Tyr Gln  
 930 935 940  
 Pro Glu Ala Ser Met Pro Asn Gln Asn Tyr Gly Pro Ile Pro Ser Tyr  
 945 950 955 960  
 Gln Gln Ala Asn Phe His Gly Val Thr Thr Asn Gln Ala Gln Asn Leu  
 965 970 975

Asn Pro Ser Gln Phe Gln Ala Ala Met Gln Pro Pro Ala Asp Lys Ala  
 Page 1529

980

047-E2F-PCT.ST25.txt

985

990

Asn Leu Glu Pro Gln Asn Gln Ala Leu Arg Leu Gln Pro Met Ile Ser  
 995 1000 1005

Gly Asp Gly Gln Gly Thr Thr Asp Gly Glu Val Asp Lys Asn Gln  
 1010 1015 1020

Arg Tyr Gln Ser Thr Leu Gln Phe Ala Ala Asn Leu Leu Leu Gln  
 1025 1030 1035

Ile Gln Gln Lys Gln Gln Gln Gln Ser Ser Gly Thr Pro Ala Gly  
 1040 1045 1050

Gln Gly Pro  
 1055

&lt;210&gt; 1001

&lt;211&gt; 1209

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1001

```

atggggttctc ttcttcctct tcttggcatc tcagtagtct ccgccatttt ctttctgggtt    60
cttcaacaac cagaacaatc ttcttcagcc attatactga gcttgaagaa acgccatgga    120
agctcctctg gtagtagtgg taaccagtac agttcaagca gaccatcagc tggtttccaa    180
gggaacagga gcacgtgctc tctcttcctc ggcacgtggg ttcgtgataa ctcttatacct    240
ctctataaac cggcggattg tcccggcgctc gttgagcctg agttcgattg tcagatgtac    300
ggtcgtcctg actctgacta cctcaagtat cgatggcaac ctcagaattg caatttacct    360
acgttcaatg gtgctcagtt tctgttgaaa atgaagggca aaaccataat gtttgcggggt    420
gattcattgg ggaagaatca atgggagtct ttgatctgcc ttattgtttc atctgcaccg    480
tccactcgga cagaaatgac cagaggcttg cctctctcca ctttcagatt cttggattat    540
gggataacaa tgtcatttta caaagctccg ttcttgggtg acatagatgc tgttcaaggc    600
aagcgtgtgt tgaagctgga tgagatctct ggtaatgcca atgcttggca tgacgctgat    660
ctcctcatct tcaacactgg tcaactggtg agccacaccg gatctatgca aggatgggac    720
ttgattcaat caggcaattc ttattaccaa gacatggacc gttttgtggc aatggagaaa    780
gcacttcgta cttgggcgta ttgggtcgaa actcacgttg atagatcccg aacacaagtc    840
ttgttcctct ccatttctcc aacacacgac aacccgagtg actgggcggc atcatcgtct    900

```



047-E2F-PCT.ST25.txt

tcaggatcca agaactgcta cggagaaaca gaaccgatca caggaacagc ttatccagtg 960  
agctcctaca cagatcagct aagatcagtg attgttgaag tgcttcacgg gatgcacaat 1020  
ccggcggtttc ttctcgacat aacactcctc tcttccttaa gaaaagacgg tcatccgtca 1080  
gtatacagcg gcctcattag cggttcacia aggtctagac cagaccagtc tgcagattgt 1140  
agccattggg gtttgcctgg ttacctgat acatggaacc agttgttgta tacgcttctc 1200  
atctattag 1209

<210> 1002

<211> 402

<212> PRT

<213> Arabidopsis thaliana

<400> 1002

Met Gly Ser Leu Leu Pro Leu Leu Gly Ile Ser Val Val Ser Ala Ile  
1 5 10 15

Phe Phe Leu Val Leu Gln Gln Pro Glu Gln Ser Ser Ser Ala Ile Ile  
20 25 30

Leu Ser Leu Lys Lys Arg His Gly Ser Ser Ser Gly Ser Ser Gly Asn  
35 40 45

Gln Tyr Ser Ser Ser Arg Pro Ser Ala Gly Phe Gln Gly Asn Arg Ser  
50 55 60

Thr Cys Ser Leu Phe Leu Gly Thr Trp Val Arg Asp Asn Ser Tyr Pro  
65 70 75 80

Leu Tyr Lys Pro Ala Asp Cys Pro Gly Val Val Glu Pro Glu Phe Asp  
85 90 95

Cys Gln Met Tyr Gly Arg Pro Asp Ser Asp Tyr Leu Lys Tyr Arg Trp  
100 105 110

Gln Pro Gln Asn Cys Asn Leu Pro Thr Phe Asn Gly Ala Gln Phe Leu  
115 120 125

Leu Lys Met Lys Gly Lys Thr Ile Met Phe Ala Gly Asp Ser Leu Gly  
130 135 140

Lys Asn Gln Trp Glu Ser Leu Ile Cys Leu Ile Val Ser Ser Ala Pro  
Page 1531

145                      150                      155                      160  
 Ser Thr Arg Thr Glu Met Thr Arg Gly Leu Pro Leu Ser Thr Phe Arg  
                                  165                                   170                                   175  
 Phe Leu Asp Tyr Gly Ile Thr Met Ser Phe Tyr Lys Ala Pro Phe Leu  
                                  180                                   185                                   190  
 Val Asp Ile Asp Ala Val Gln Gly Lys Arg Val Leu Lys Leu Asp Glu  
                                  195                                   200                                   205  
 Ile Ser Gly Asn Ala Asn Ala Trp His Asp Ala Asp Leu Leu Ile Phe  
                                  210                                   215                                   220  
 Asn Thr Gly His Trp Trp Ser His Thr Gly Ser Met Gln Gly Trp Asp  
                                  225                                   230                                   235                                   240  
 Leu Ile Gln Ser Gly Asn Ser Tyr Tyr Gln Asp Met Asp Arg Phe Val  
                                  245                                   250                                   255  
 Ala Met Glu Lys Ala Leu Arg Thr Trp Ala Tyr Trp Val Glu Thr His  
                                  260                                   265                                   270  
 Val Asp Arg Ser Arg Thr Gln Val Leu Phe Leu Ser Ile Ser Pro Thr  
                                  275                                   280                                   285  
 His Asp Asn Pro Ser Asp Trp Ala Ala Ser Ser Ser Ser Gly Ser Lys  
                                  290                                   295                                   300  
 Asn Cys Tyr Gly Glu Thr Glu Pro Ile Thr Gly Thr Ala Tyr Pro Val  
                                  305                                   310                                   315                                   320  
 Ser Ser Tyr Thr Asp Gln Leu Arg Ser Val Ile Val Glu Val Leu His  
                                  325                                   330                                   335  
 Gly Met His Asn Pro Ala Phe Leu Leu Asp Ile Thr Leu Leu Ser Ser  
                                  340                                   345                                   350  
 Leu Arg Lys Asp Gly His Pro Ser Val Tyr Ser Gly Leu Ile Ser Gly  
                                  355                                   360                                   365  
 Ser Gln Arg Ser Arg Pro Asp Gln Ser Ala Asp Cys Ser His Trp Cys  
                                  370                                   375                                   380  
 Leu Pro Gly Leu Pro Asp Thr Trp Asn Gln Leu Leu Tyr Thr Leu Leu  
                                  385                                   390                                   395                                   400

Ile Tyr

&lt;210&gt; 1003

&lt;211&gt; 1686

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1003

```

atgacgaagc tggcggaaaa atcgggaagc agaccaccgt ggggtgggatt agcggcagcc      60
gcatgggttc aggtctcggc gggaagtggg tcgacgttcc cgctttactc ctccgctctc      120
aaatcggttt tgggttttag ccagcagcag gtcacgatcc ttggcgttgc ttgtgatttg      180
ggtgaaaaca tgggtcttct tcctggatac gccagtaaca agcttcctcc atgggtcgatg      240
cttctcatcg gagcttcctc ttgtttcctc ggcttcggcg ttctttgggt ctccgtcagc      300
caaatcgttc ttggcttgcc tttttggctg ctttttgtag ctctagcttt agctaccaat      360
agcaactcgt ggttcgggtac agcatctctt gtcaccaata tgaggaattt tcctatgagc      420
cgaggccctg tggctggact tctcaaagggt tatattggga tcagtgggtgc agcattcact      480
gtcttgttca gcatggtgct tcaccattca gctatggatc tgcttctgtt tcttacggtt      540
ggtattccgg ttatatgctt aactgtgatg tatttcatcc gccctgtat tccggctact      600
ggtgaagacc cttctgagcc catgtatttc gcttttctgc ttgtcactag tatactgttt      660
gctgcttata ttgttgtagc gactgttttg agtgagggtg ttatactgcc cagcatactc      720
aaatatgttc ttgtggctat catggtgtta cttttgttgt cgcctcttgc gggtcccatc      780
aagatgacac ttttccgttc aaatgccaaag agctctccac tgggggtcttc agacaatcta      840
gccaaagagg aaggtactca tgaagaaccg ttgctgacac cttctacctc agcttcaaac      900
cttgggccta tctttgaggg agatgatgag tcggatatgg aaatacttct tgctgaagca      960
gaaggtgccg tgaagaagaa gagaaaaccc aggagaggtg aggatttcaa gtttggccaa     1020
gtttttgtca aggcagattt ctggctcctt tggtttgtct acttcctcgg catgggttca     1080
ggtgttacag tctcgaacaa cttggcacag atcggatttg cttttggtat taaggacaca     1140
acaatactcc tgtgtctttt cagtttcttc aacttcatag gccgtcttgc ttcaggtgcc     1200
atctctgagc actttgtgag gtcaagaacg cttccaagaa cactatggat gggagccgcg     1260
cagctagtta tgggtgttac attcctcctc ttcgccatgg ctatcgacca caccatttac     1320
gttgcgactg ctctaatacg aatatgcatg gggtttcagt tcttatctat cgcaaccatc     1380
tccgagctat ttggtcttag acattttgga atcaacttca acttcatact gctgggaaac     1440

```

ccgcttggtg ccaccatttt ctcggccatt ctcgcaggat acatctatga caaggaggct 1500  
gataagcaag ggaagatgac ctgcattggt ccagattgct tccgagtaac attcttggtt 1560  
ctagccggtg tttgtgggct tggaaccctg ctgagcatta ttttgacagt gagaattcgc 1620  
ccggtttatc aagctctata tgcgtctggc tcattccggt tgcagccgca atcaacgggt 1680  
cattga 1686

<210> 1004

<211> 561

<212> PRT

<213> Arabidopsis thaliana

<400> 1004

Met Thr Lys Leu Ala Glu Lys Ser Gly Ser Arg Pro Pro Trp Val Gly  
1 5 10 15  
Leu Ala Ala Ala Ala Trp Val Gln Val Ser Ala Gly Ser Gly Ser Thr  
20 25 30  
Phe Pro Leu Tyr Ser Ser Ala Leu Lys Ser Val Leu Gly Phe Ser Gln  
35 40 45  
Gln Gln Val Thr Ile Leu Gly Val Ala Cys Asp Leu Gly Glu Asn Met  
50 55 60  
Gly Leu Leu Pro Gly Tyr Ala Ser Asn Lys Leu Pro Pro Trp Ser Met  
65 70 75 80  
Leu Leu Ile Gly Ala Ser Ser Cys Phe Leu Gly Phe Gly Val Leu Trp  
85 90 95  
Leu Ser Val Ser Gln Ile Val Leu Gly Leu Pro Phe Trp Leu Leu Phe  
100 105 110  
Val Ala Leu Ala Leu Ala Thr Asn Ser Asn Ser Trp Phe Gly Thr Ala  
115 120 125  
Ser Leu Val Thr Asn Met Arg Asn Phe Pro Met Ser Arg Gly Pro Val  
130 135 140  
Ala Gly Leu Leu Lys Gly Tyr Ile Gly Ile Ser Gly Ala Ala Phe Thr  
145 150 155 160

Val Leu Phe Ser Met Val Leu His His Ser Ala Met Asp Leu Leu Leu  
 165 170 175  
 Phe Leu Thr Val Gly Ile Pro Val Ile Cys Leu Thr Val Met Tyr Phe  
 180 185 190  
 Ile Arg Pro Cys Ile Pro Ala Thr Gly Glu Asp Pro Ser Glu Pro Met  
 195 200 205  
 Tyr Phe Ala Phe Leu Leu Val Thr Ser Ile Leu Phe Ala Ala Tyr Leu  
 210 215 220  
 Val Val Thr Thr Val Leu Ser Glu Val Phe Ile Leu Pro Ser Ile Leu  
 225 230 235 240  
 Lys Tyr Val Leu Val Ala Ile Met Val Leu Leu Leu Leu Ser Pro Leu  
 245 250 255  
 Ala Val Pro Ile Lys Met Thr Leu Phe Arg Ser Asn Ala Lys Ser Ser  
 260 265 270  
 Pro Leu Gly Ser Ser Asp Asn Leu Ala Lys Glu Glu Gly Thr His Glu  
 275 280 285  
 Glu Pro Leu Leu Thr Pro Ser Thr Ser Ala Ser Asn Leu Gly Pro Ile  
 290 295 300  
 Phe Glu Gly Asp Asp Glu Ser Asp Met Glu Ile Leu Leu Ala Glu Ala  
 305 310 315 320  
 Glu Gly Ala Val Lys Lys Lys Arg Lys Pro Arg Arg Gly Glu Asp Phe  
 325 330 335  
 Lys Phe Gly Gln Val Phe Val Lys Ala Asp Phe Trp Leu Leu Trp Phe  
 340 345 350  
 Val Tyr Phe Leu Gly Met Gly Ser Gly Val Thr Val Ser Asn Asn Leu  
 355 360 365  
 Ala Gln Ile Gly Phe Ala Phe Gly Ile Lys Asp Thr Thr Ile Leu Leu  
 370 375 380  
 Cys Leu Phe Ser Phe Phe Asn Phe Ile Gly Arg Leu Ala Ser Gly Ala  
 385 390 395 400  
 Ile Ser Glu His Phe Val Arg Ser Arg Thr Leu Pro Arg Thr Leu Trp  
 405 410 415

047-E2F-PCT.ST25.txt

Met Gly Ala Ala Gln Leu Val Met Val Phe Thr Phe Leu Leu Phe Ala  
420 425 430

Met Ala Ile Asp His Thr Ile Tyr Val Ala Thr Ala Leu Ile Gly Ile  
435 440 445

Cys Met Gly Phe Gln Phe Leu Ser Ile Ala Thr Ile Ser Glu Leu Phe  
450 455 460

Gly Leu Arg His Phe Gly Ile Asn Phe Asn Phe Ile Leu Leu Gly Asn  
465 470 475 480

Pro Leu Gly Ala Thr Ile Phe Ser Ala Ile Leu Ala Gly Tyr Ile Tyr  
485 490 495

Asp Lys Glu Ala Asp Lys Gln Gly Lys Met Thr Cys Ile Gly Pro Asp  
500 505 510

Cys Phe Arg Val Thr Phe Leu Val Leu Ala Gly Val Cys Gly Leu Gly  
515 520 525

Thr Leu Leu Ser Ile Ile Leu Thr Val Arg Ile Arg Pro Val Tyr Gln  
530 535 540

Ala Leu Tyr Ala Ser Gly Ser Phe Arg Leu Gln Pro Gln Ser Thr Gly  
545 550 555 560

His

<210> 1005  
<211> 507  
<212> DNA  
<213> Arabidopsis thaliana

<400> 1005  
atggagctcc tctctagagc tcttttcttc tttcttctac tctcagttct ttcttctttc 60  
tcttcttcaa gtttcatttc agatgggggtc ttcgaatctc agagtttggt tcttggcaga 120  
aacttgcttc agaccaagaa aacatgtcct gtgaactttg agtttatgaa ctacacgatc 180  
ataaccagca aatgcaaagg tcccaaatac ccaccaaag aatgtttgtgg cgccttcaag 240  
gactttgcgt gtccttacac tgaccagctc aacgacctga gctcggattg tgcaaccact 300  
atgttcagtt acatcaatct ctatggaaaa taccgcctg gacttttcgc taaccagtgc 360

047-E2F-PCT.ST25.txt

aaagaaggta aagaaggctt cgaatgccct gccggatccc agttgcctcc agagacatca 420  
gcagaggttaa acgcagcaac tacctcgtcg tcccgtcttt ggctgaccgt ttccgcggct 480  
cttttggttt ttgttaagtt gttctga 507

<210> 1006

<211> 168

<212> PRT

<213> Arabidopsis thaliana

<400> 1006

Met Glu Leu Leu Ser Arg Ala Leu Phe Phe Phe Leu Leu Leu Ser Val  
1 5 10 15

Leu Ser Ser Phe Ser Ser Ser Ser Phe Ile Ser Asp Gly Val Phe Glu  
20 25 30

Ser Gln Ser Leu Val Leu Gly Arg Asn Leu Leu Gln Thr Lys Lys Thr  
35 40 45

Cys Pro Val Asn Phe Glu Phe Met Asn Tyr Thr Ile Ile Thr Ser Lys  
50 55 60

Cys Lys Gly Pro Lys Tyr Pro Pro Lys Glu Cys Cys Gly Ala Phe Lys  
65 70 75 80

Asp Phe Ala Cys Pro Tyr Thr Asp Gln Leu Asn Asp Leu Ser Ser Asp  
85 90 95

Cys Ala Thr Thr Met Phe Ser Tyr Ile Asn Leu Tyr Gly Lys Tyr Pro  
100 105 110

Pro Gly Leu Phe Ala Asn Gln Cys Lys Glu Gly Lys Glu Gly Leu Glu  
115 120 125

Cys Pro Ala Gly Ser Gln Leu Pro Pro Glu Thr Ser Ala Glu Val Asn  
130 135 140

Ala Ala Thr Thr Ser Ser Ser Arg Leu Trp Leu Thr Val Ser Ala Ala  
145 150 155 160

Leu Leu Val Phe Val Lys Leu Phe  
165

&lt;210&gt; 1007

&lt;211&gt; 1788

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1007

```

atggatttcg cagccaagaa attcatcaac aaccccaacg atgttgtaac tgagttcata    60
gagggctctgg tagaaactta tcctggactc cagtatttgg atggttttcc tgaggttaag    120
gtggtgctac gagctgatgt ctggctgca aaatatgaca aggttgccgt tatctcaggt    180
ggaggcagtg ggcattgagcc agcacatgct ggatacgttg gagaaggaat gctaacagct    240
gctattttgtg gagatgtctt tgcctcccca ccagttgatt ctatccttgc tggaattcga    300
gctgtaactg gtactgaggg atgtctattg attgtcaaga attatacggg tgatcgcttg    360
aactttgggtt tggctgctga acaagcaaaa tctgaagggt acaaagttga gactgtaatt    420
gttgagagagg attgctgttt acccccgcca cgtggcatcg ctggacgcag agggtttagca    480
ggaacagttc ttgtccataa ggttgctggg gcagcagcag ctgctggctt ttctctagaa    540
aaagttgctg ctgaggcaaa atgtgctgca gagatgggtg gtaccatggg tgttgcatga    600
tccgtctgta cacttcctgg acaggttaca tcagatcgct ttggcgacac gaagatggaa    660
ctcgggcttg gaattcatgg agaacctggt gctgctgtgg ttgacgttga acctgtggat    720
gtggtggtgt cccatgttct tcagcaaata cttagtcctg agaccaatta tgttccaatt    780
actcgtggta acagagtggg tctcatgggt aatggtttgg gaggcacacc tttaatggaa    840
cttatgattg ctgctggaaa agcagtcctt aaactgcagt tggaatttgg acttgccgtt    900
gataggggtg atacaggctt ttttatgact tctcttgata tggcaggatt ctcgatttca    960
atcatgaagg ctgaccattc gattttagac cgattggatg ctccaaccaa ggctccaaat   1020
tggccagttg gcaactgatg caaccggcca ccagcgaaga ttctgttcc tgttcctcct   1080
tctcgatcaa taaaaagcat ggagtctcaa agccgacctc tagagctgag taaagaagg   1140
caagttcttg aggcagctat tcaagcagca gcaactgtga tcatcagcct taaggatagt   1200
ttgaatgaat gggatggaaa agtaggcgat ggtgattgtg ggtcaacaat gtacagaggt   1260
gcaacagcta ttctggagga catgaaaaac tattatccac tcaatgatgc tgcggaaaca   1320
gtgaatgaga ttggtctatc aatcaaaaaga gccatggggg gcacaagcgg aataatttac   1380
catctcctct gcaaggcagc atacgcggag ctaaaagcta acgctcagtc agaagtcact   1440
cccaaaaatt ggtctgaagc actcaagtca tcaatcgctt cagtcagcaa atatggtgga   1500
gcaactgcgg gctacagaac gatgctagat gcgctcatcc cagcttcaca agttcttgag   1560

```



047-E2F-PCT.ST25.txt

gagaaactga gcgctggaga ggatccaata tctgctttca ttctatcagg cgaagcggca 1620  
 actgccggag cggaatcaac catacagatg caagcacagg ctgggagatc aagctatgta 1680  
 tctgcagaga atcttgcaac ggttccagat ccaggtgcaa tggcagcagc gggatgggtac 1740  
 aatgcggcag caagagccgt aaaggagcag tatgagggct cgtcatga 1788

<210> 1008

<211> 595

<212> PRT

<213> Arabidopsis thaliana

<400> 1008

Met Asp Phe Ala Ala Lys Lys Phe Ile Asn Asn Pro Asn Asp Val Val  
 1 5 10 15

Thr Glu Phe Ile Glu Gly Leu Val Glu Thr Tyr Pro Gly Leu Gln Tyr  
 20 25 30

Leu Asp Gly Phe Pro Glu Val Lys Val Val Leu Arg Ala Asp Val Ser  
 35 40 45

Ala Ala Lys Tyr Asp Lys Val Ala Val Ile Ser Gly Gly Gly Ser Gly  
 50 55 60

His Glu Pro Ala His Ala Gly Tyr Val Gly Glu Gly Met Leu Thr Ala  
 65 70 75 80

Ala Ile Cys Gly Asp Val Phe Ala Ser Pro Pro Val Asp Ser Ile Leu  
 85 90 95

Ala Gly Ile Arg Ala Val Thr Gly Thr Glu Gly Cys Leu Leu Ile Val  
 100 105 110

Lys Asn Tyr Thr Gly Asp Arg Leu Asn Phe Gly Leu Ala Ala Glu Gln  
 115 120 125

Ala Lys Ser Glu Gly Tyr Lys Val Glu Thr Val Ile Val Gly Glu Asp  
 130 135 140

Cys Ala Leu Pro Pro Pro Arg Gly Ile Ala Gly Arg Arg Gly Leu Ala  
 145 150 155 160

Gly Thr Val Leu Val His Lys Val Ala Gly Ala Ala Ala Ala Ala Gly  
 Page 1539

Leu Ser Leu Glu Lys Val Ala Ala Glu Ala Lys Cys Ala Ser Glu Met  
180 185 190

Val Gly Thr Met Gly Val Ala Leu Ser Val Cys Thr Leu Pro Gly Gln  
195 200 205

Val Thr Ser Asp Arg Leu Gly Ala Gln Lys Met Glu Leu Gly Leu Gly  
210 215 220

Ile His Gly Glu Pro Gly Ala Ala Val Val Asp Val Glu Pro Val Asp  
225 230 235 240

Val Val Val Ser His Val Leu Gln Gln Ile Leu Ser Pro Glu Thr Asn  
245 250 255

Tyr Val Pro Ile Thr Arg Gly Asn Arg Val Val Leu Met Val Asn Gly  
260 265 270

Leu Gly Gly Thr Pro Leu Met Glu Leu Met Ile Ala Ala Gly Lys Ala  
275 280 285

Val Pro Lys Leu Gln Leu Glu Phe Gly Leu Ala Val Asp Arg Val Tyr  
290 295 300

Thr Gly Phe Phe Met Thr Ser Leu Asp Met Ala Gly Phe Ser Ile Ser  
305 310 315 320

Ile Met Lys Ala Asp His Ser Ile Leu Asp Arg Leu Asp Ala Pro Thr  
325 330 335

Lys Ala Pro Asn Trp Pro Val Gly Thr Asp Gly Asn Arg Pro Pro Ala  
340 345 350

Lys Ile Pro Val Pro Val Pro Pro Ser Arg Ser Ile Lys Ser Met Glu  
355 360 365

Ser Gln Ser Arg Pro Leu Glu Leu Ser Lys Glu Gly Gln Val Leu Glu  
370 375 380

Ala Ala Ile Gln Ala Ala Ala Thr Val Ile Ile Ser Leu Lys Asp Ser  
385 390 395 400

Leu Asn Glu Trp Asp Gly Lys Val Gly Asp Gly Asp Cys Gly Ser Thr  
405 410 415

Met Tyr Arg Gly Ala Thr Ala Ile Leu Glu Asp Met Lys Asn Tyr Tyr  
 420 425 430

Pro Leu Asn Asp Ala Ala Glu Thr Val Asn Glu Ile Gly Leu Ser Ile  
 435 440 445

Lys Arg Ala Met Gly Gly Thr Ser Gly Ile Ile Tyr His Leu Leu Cys  
 450 455 460

Lys Ala Ala Tyr Ala Glu Leu Lys Ala Asn Ala Gln Ser Glu Val Thr  
 465 470 475 480

Pro Lys Asn Trp Ser Glu Ala Leu Lys Ser Ser Ile Ala Ser Val Ser  
 485 490 495

Lys Tyr Gly Gly Ala Thr Ala Gly Tyr Arg Thr Met Leu Asp Ala Leu  
 500 505 510

Ile Pro Ala Ser Gln Val Leu Glu Glu Lys Leu Ser Ala Gly Glu Asp  
 515 520 525

Pro Ile Ser Ala Phe Ile Leu Ser Gly Glu Ala Ala Thr Ala Gly Ala  
 530 535 540

Glu Ser Thr Ile Gln Met Gln Ala Gln Ala Gly Arg Ser Ser Tyr Val  
 545 550 555 560

Ser Ala Glu Asn Leu Ala Thr Val Pro Asp Pro Gly Ala Met Ala Ala  
 565 570 575

Ala Gly Trp Tyr Asn Ala Ala Ala Arg Ala Val Lys Glu Gln Tyr Glu  
 580 585 590

Gly Ser Ser  
 595

<210> 1009

<211> 483

<212> DNA

<213> Arabidopsis thaliana

<400> 1009  
 atgacgaagt tcaggaagct tggtcggccg gcgggtcacc gtatgtccat gcttaggact 60  
 atggtttctc agttggtgaa gcacgagcgt attgagacca ctgtcactaa ggctaaagag 120

047-E2F-PCT.ST25.txt

gttcgctcgtc ttgctgataa tatgattcaa ctcggcaaag aggggtcact ctctgctgca 180  
 aggcgagcag ctggttttgt gagaggagat gatgtccttc acaagatttt cacagaactg 240  
 gcacatagat acaaagatag agctggtgga tacacaagac tgctacgtac tcgcatacga 300  
 gttggtgatg ctgctcctat ggcctatatc gagtttattg acagagagaa cgagcttagg 360  
 caatcaaaac cagcaacacc tcaaccaccg caacgagtgc cattggaccc atgggaaaga 420  
 tctcggctca ccaggcagtt cgctccgcct aaggaggaga aaatccctga ttctgagctg 480  
 taa 483

<210> 1010

<211> 160

<212> PRT

<213> Arabidopsis thaliana

<400> 1010

Met Thr Lys Phe Arg Lys Leu Gly Arg Pro Ala Gly His Arg Met Ser  
 1 5 10 15

Met Leu Arg Thr Met Val Ser Gln Leu Val Lys His Glu Arg Ile Glu  
 20 25 30

Thr Thr Val Thr Lys Ala Lys Glu Val Arg Arg Leu Ala Asp Asn Met  
 35 40 45

Ile Gln Leu Gly Lys Glu Gly Ser Leu Ser Ala Ala Arg Arg Ala Ala  
 50 55 60

Gly Phe Val Arg Gly Asp Asp Val Leu His Lys Ile Phe Thr Glu Leu  
 65 70 75 80

Ala His Arg Tyr Lys Asp Arg Ala Gly Gly Tyr Thr Arg Leu Leu Arg  
 85 90 95

Thr Arg Ile Arg Val Gly Asp Ala Ala Pro Met Ala Tyr Ile Glu Phe  
 100 105 110

Ile Asp Arg Glu Asn Glu Leu Arg Gln Ser Lys Pro Ala Thr Pro Gln  
 115 120 125

Pro Pro Gln Arg Val Pro Leu Asp Pro Trp Glu Arg Ser Arg Leu Thr  
 130 135 140

Arg Gln Phe Ala Pro Pro Lys Glu Glu Lys Ile Pro Asp Ser Glu Leu  
 145 150 155 160

<210> 1011

<211> 2973

<212> DNA

<213> *Arabidopsis thaliana*

<400> 1011

```

atgagagctg gtttaagtac gattcaacag actctgacgc cggaggctgc caccgtttta      60
aaccaatcaa tcgccgaagc cgcgcgtcgt aatcacggcc aaaccactcc tctccacgtt      120
gcagccactc ttctagcttc tcctgctggg tttctccgac gagcttgat cccgatctcac      180
cccaattctt ctcattcttt acagtgtcga gccctcgagc tctgcttcag cgtcgcctta      240
gagcgtctcc caacagctac aaccactccg gggaatgatc caccgatctc aaacgcgctt      300
atggcggcgc ttaaacgagc tcaagctcat caacgccgtg gttgtccgga gcaacaacag      360
caaccgttgt tggccgttaa agttgagctt gaacagctca ttatctcgat tttggatgat      420
ccgagtgtta gtcgggttat gagagaagct agcttttcaa gtcccgccgt taaagctaca      480
attgaacagt cgttgaataa ttcggttact ccgacgccga ttcctagtgt ttcttcagtc      540
gggttgaatt ttagaccggg tgggtggagg cccgatgacc ggaattcgta tcttaatcca      600
cggttacaac agaacgcttc gtcggtacaa tcaggggtga gtaagaacga tgatgtggag      660
cgggttatgg atatattggg tcgggcgaag aagaaaaacc cggttttggt tgggtgattcg      720
gagccgggtc gggttattcg tgagatcctt aagaaaattg aagtcggtga agttgggaat      780
ttagcgggtga agaactcaaa ggtggtttct ttagaggaga ttagttccga taaggcttta      840
agaattaagg aattagatgg gttgcttcag acccgattaa agaattcgga tcctattggt      900
ggcggcggag tgatacttga tcttggtgac ttgaaatggc tagtggagca accgagttca      960
acgcaaccgc cggctacggt tgcggtggag attgggagga cggcgggtgg ggagttacgg     1020
aggcttttgg agaagtttga aggaagactc tggtttatag ggacggcgac gtgtgagact     1080
tatttaagat gtcaagttta tcatccatca gtggagactg attgggatct tcaagctgtg     1140
tcggtggcag ctaaagctcc agcgtctggc gttttcccga ggcttgcgaa caatttgaa     1200
tcattcacgc cattgaagag ctttgtgcct gcgaatagga cattgaaatg ttgtccacag     1260
tgtttacaga gttacgagcg agaacttgct gagattgatt cagtgtcttc tccagaggtt     1320
aaatctgaag tagctcagcc taaacagttg ccacagtggc tgttgaaagc taaaccggtt     1380
gatcgtttac cgcaagcaaa gattgaagaa gtgcagaaga aatggaatga tgcattgcgtg     1440

```

cgtcttcatc ctagctttca taacaagaac gagaggattg ttccgatccc ggttcctata 1500  
 acgttgacaa cgagccctta cagtcctaac atgcttcttc gtcagccgtt gcagcctaag 1560  
 ttacagccta atagagagtt gcgtgagagg gtacacttga agcctatgag tcctttggtg 1620  
 gctgagcagg ccaagaagaa gagtcctccc gggagcccgg ttcagaccga tcttggttctt 1680  
 ggacgagcag aggattcgga gaaagcagga gatgtgcaag taagagactt tctcggctgc 1740  
 atatcgtctg aatcagtgcga gaacaataat aacatcagtg ttttgcaaaa ggagaatctt 1800  
 gggaattcgt tagacattga tttgtttaag aagctgttga agggaaatgac cgagaaagtt 1860  
 tggtggcaga atgatgcagc cgctgcggtg gctgcaactg ttagtcagtg caagctcggg 1920  
 aatgggaaac gacgcggtgt tttatcaaag ggagatgtct ggttactttt ttcaggaccg 1980  
 gatagagtgg ggaagagaaa aatggtgtca gctctgtctt ctcttggtga tgggacgaat 2040  
 ccaataatga ttcagctcgg gtcgagacaa gatgctggag atggaaattc tagtttccgt 2100  
 ggtaaaaccg cgttggataa gattgcggaa actgttaaga ggagtccgtt ctctgttatc 2160  
 ttgcttgaag atattgacga agctgatatg ttggtgcgtg gaagcataaa acaggcaatg 2220  
 gatagaggca gaatccgtga ctgcgatggc cgtgagatca gtttaggtaa cgtgatcttt 2280  
 gttatgacag cgagctggca tttcgcaggg acgaaaacat cgttcctaga caatgaagca 2340  
 aaactacgag atttggctag cgaaagctgg cgtttgaggt tgtgcatgcg ggagaaatth 2400  
 gggaaacgac gagcaagttg gctgtgtagc gacgaggaga ggctgacgaa accgaagaaa 2460  
 gaacatggat cgggttttatc tttcgatctg aaccaagccg ctgatacggga tgatggttct 2520  
 cataatacga gcgatctaac aacagataat gatcaagacg agcaaggtht tagtggaag 2580  
 ctgtcactac aatgcgttcc atttgcattc cacgatatgg ttagccgtgt agatgatgcg 2640  
 gtagcgtht c gagcagttga tttcgcagct gtgagacgga gaatcacaga aacattatct 2700  
 gagagattcg aaacgatcat aggcgaatca ctatcagtag aagtcgagga agaggcactt 2760  
 cagagaatct tgagtggagt gtggttaggc caaacagagt tagaggaatg gattgagaaa 2820  
 gcgattgttc cgggtgttag ccaacttaag gctcagatth cgtcttctgg tacttacggt 2880  
 gactgtacgg ttgctcggct cgagctagat gaagattccg gtgaacgaaa cgccggtgat 2940  
 ttactgccga caactattac tttggcagta tga 2973

<210> 1012

<211> 990

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 1012

Met Arg Ala Gly Leu Ser Thr Ile Gln Gln Thr Leu Thr Pro Glu Ala  
 1 5 10 15

Ala Thr Val Leu Asn Gln Ser Ile Ala Glu Ala Ala Arg Arg Asn His  
 20 25 30

Gly Gln Thr Thr Pro Leu His Val Ala Ala Thr Leu Leu Ala Ser Pro  
 35 40 45

Ala Gly Phe Leu Arg Arg Ala Cys Ile Arg Ser His Pro Asn Ser Ser  
 50 55 60

His Pro Leu Gln Cys Arg Ala Leu Glu Leu Cys Phe Ser Val Ala Leu  
 65 70 75 80

Glu Arg Leu Pro Thr Ala Thr Thr Thr Pro Gly Asn Asp Pro Pro Ile  
 85 90 95

Ser Asn Ala Leu Met Ala Ala Leu Lys Arg Ala Gln Ala His Gln Arg  
 100 105 110

Arg Gly Cys Pro Glu Gln Gln Gln Gln Pro Leu Leu Ala Val Lys Val  
 115 120 125

Glu Leu Glu Gln Leu Ile Ile Ser Ile Leu Asp Asp Pro Ser Val Ser  
 130 135 140

Arg Val Met Arg Glu Ala Ser Phe Ser Ser Pro Ala Val Lys Ala Thr  
 145 150 155 160

Ile Glu Gln Ser Leu Asn Asn Ser Val Thr Pro Thr Pro Ile Pro Ser  
 165 170 175

Val Ser Ser Val Gly Leu Asn Phe Arg Pro Gly Gly Gly Gly Pro Met  
 180 185 190

Thr Arg Asn Ser Tyr Leu Asn Pro Arg Leu Gln Gln Asn Ala Ser Ser  
 195 200 205

Val Gln Ser Gly Val Ser Lys Asn Asp Asp Val Glu Arg Val Met Asp  
 210 215 220

Ile Leu Gly Arg Ala Lys Lys Lys Asn Pro Val Leu Val Gly Asp Ser  
 225 230 235 240

Glu Pro Gly Arg Val Ile Arg Glu Ile Leu Lys Lys Ile Glu Val Gly  
 Page 1545

Glu Val Gly Asn Leu Ala Val Lys Asn Ser Lys Val Val Ser Leu Glu  
260 265 270

Glu Ile Ser Ser Asp Lys Ala Leu Arg Ile Lys Glu Leu Asp Gly Leu  
275 280 285

Leu Gln Thr Arg Leu Lys Asn Ser Asp Pro Ile Gly Gly Gly Gly Val  
290 295 300

Ile Leu Asp Leu Gly Asp Leu Lys Trp Leu Val Glu Gln Pro Ser Ser  
305 310 315 320

Thr Gln Pro Pro Ala Thr Val Ala Val Glu Ile Gly Arg Thr Ala Val  
325 330 335

Val Glu Leu Arg Arg Leu Leu Glu Lys Phe Glu Gly Arg Leu Trp Phe  
340 345 350

Ile Gly Thr Ala Thr Cys Glu Thr Tyr Leu Arg Cys Gln Val Tyr His  
355 360 365

Pro Ser Val Glu Thr Asp Trp Asp Leu Gln Ala Val Ser Val Ala Ala  
370 375 380

Lys Ala Pro Ala Ser Gly Val Phe Pro Arg Leu Ala Asn Asn Leu Glu  
385 390 395 400

Ser Phe Thr Pro Leu Lys Ser Phe Val Pro Ala Asn Arg Thr Leu Lys  
405 410 415

Cys Cys Pro Gln Cys Leu Gln Ser Tyr Glu Arg Glu Leu Ala Glu Ile  
420 425 430

Asp Ser Val Ser Ser Pro Glu Val Lys Ser Glu Val Ala Gln Pro Lys  
435 440 445

Gln Leu Pro Gln Trp Leu Leu Lys Ala Lys Pro Val Asp Arg Leu Pro  
450 455 460

Gln Ala Lys Ile Glu Glu Val Gln Lys Lys Trp Asn Asp Ala Cys Val  
465 470 475 480

Arg Leu His Pro Ser Phe His Asn Lys Asn Glu Arg Ile Val Pro Ile  
485 490 495



Pro Val Pro Ile Thr Leu Thr Thr Ser Pro Tyr Ser Pro Asn Met Leu  
 500 505 510  
 Leu Arg Gln Pro Leu Gln Pro Lys Leu Gln Pro Asn Arg Glu Leu Arg  
 515 520 525  
 Glu Arg Val His Leu Lys Pro Met Ser Pro Leu Val Ala Glu Gln Ala  
 530 535 540  
 Lys Lys Lys Ser Pro Pro Gly Ser Pro Val Gln Thr Asp Leu Val Leu  
 545 550 555 560  
 Gly Arg Ala Glu Asp Ser Glu Lys Ala Gly Asp Val Gln Val Arg Asp  
 565 570 575  
 Phe Leu Gly Cys Ile Ser Ser Glu Ser Val Gln Asn Asn Asn Asn Ile  
 580 585 590  
 Ser Val Leu Gln Lys Glu Asn Leu Gly Asn Ser Leu Asp Ile Asp Leu  
 595 600 605  
 Phe Lys Lys Leu Leu Lys Gly Met Thr Glu Lys Val Trp Trp Gln Asn  
 610 615 620  
 Asp Ala Ala Ala Ala Val Ala Ala Thr Val Ser Gln Cys Lys Leu Gly  
 625 630 635 640  
 Asn Gly Lys Arg Arg Gly Val Leu Ser Lys Gly Asp Val Trp Leu Leu  
 645 650 655  
 Phe Ser Gly Pro Asp Arg Val Gly Lys Arg Lys Met Val Ser Ala Leu  
 660 665 670  
 Ser Ser Leu Val Tyr Gly Thr Asn Pro Ile Met Ile Gln Leu Gly Ser  
 675 680 685  
 Arg Gln Asp Ala Gly Asp Gly Asn Ser Ser Phe Arg Gly Lys Thr Ala  
 690 695 700  
 Leu Asp Lys Ile Ala Glu Thr Val Lys Arg Ser Pro Phe Ser Val Ile  
 705 710 715 720  
 Leu Leu Glu Asp Ile Asp Glu Ala Asp Met Leu Val Arg Gly Ser Ile  
 725 730 735  
 Lys Gln Ala Met Asp Arg Gly Arg Ile Arg Asp Ser His Gly Arg Glu  
 740 745 750

047-E2F-PCT.ST25.txt

Ile Ser Leu Gly Asn Val Ile Phe Val Met Thr Ala Ser Trp His Phe  
755 760 765

Ala Gly Thr Lys Thr Ser Phe Leu Asp Asn Glu Ala Lys Leu Arg Asp  
770 775 780

Leu Ala Ser Glu Ser Trp Arg Leu Arg Leu Cys Met Arg Glu Lys Phe  
785 790 795 800

Gly Lys Arg Arg Ala Ser Trp Leu Cys Ser Asp Glu Glu Arg Leu Thr  
805 810 815

Lys Pro Lys Lys Glu His Gly Ser Gly Leu Ser Phe Asp Leu Asn Gln  
820 825 830

Ala Ala Asp Thr Asp Asp Gly Ser His Asn Thr Ser Asp Leu Thr Thr  
835 840 845

Asp Asn Asp Gln Asp Glu Gln Gly Phe Ser Gly Lys Leu Ser Leu Gln  
850 855 860

Cys Val Pro Phe Ala Phe His Asp Met Val Ser Arg Val Asp Asp Ala  
865 870 875 880

Val Ala Phe Arg Ala Val Asp Phe Ala Ala Val Arg Arg Arg Ile Thr  
885 890 895

Glu Thr Leu Ser Glu Arg Phe Glu Thr Ile Ile Gly Glu Ser Leu Ser  
900 905 910

Val Glu Val Glu Glu Glu Ala Leu Gln Arg Ile Leu Ser Gly Val Trp  
915 920 925

Leu Gly Gln Thr Glu Leu Glu Glu Trp Ile Glu Lys Ala Ile Val Pro  
930 935 940

Val Leu Ser Gln Leu Lys Ala Arg Val Ser Ser Ser Gly Thr Tyr Gly  
945 950 955 960

Asp Cys Thr Val Ala Arg Leu Glu Leu Asp Glu Asp Ser Gly Glu Arg  
965 970 975

Asn Ala Gly Asp Leu Leu Pro Thr Thr Ile Thr Leu Ala Val  
980 985 990

<210> 1013

&lt;211&gt; 2181

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1013

```

atggaagggtg ctgctgtggc ggaagggctg tggggattag cggatcacca ccagaagctt    60
ggtgagatcg gaaaaacat aaagtgcctg gaagccatct gccagagtca aatctctttc    120
cttcctcttg ttgaagtcaa gtctcgcttc cgtttggtg ctcttttact ccgttactct    180
cacaatgtca accatgccaa gtcccatctc gagcgctctc ttcttctcct taagtctatt    240
ccttcctcct acgatctcaa atttcagaat tatagcttgc tcagccactg ttatcacctc    300
cttgcttcat tccctcctca acgcaacctt cttgtcaagg ctctcgaact cgcattctct    360
gtccctcagg atatttctgc gtacctctgg tcttgcaatt tcaactctca actcgctaac    420
acgttcatta tccaagccga ttttccttct tctctctccg ctctcgagtc tggttttctc    480
tctgcttcac acatatgttt tcctgagctc cagatgttct tcacagcttc aatgcttcac    540
gttcatatca tgcaatggac tgatgattat tcagtggaaa aagctgtcca gcgatgcgat    600
gagatctggc agaccatttc ttcagacaag actgatcgct gccccggttt gttcttctac    660
aatgagatgt tgcattgttt ctatcgcttc aggtctctgc attataagaa cgctcagcat    720
catgtcgacc gcttggacca ggcaatgaat gctcattcgc ataaaatgca ggagattcag    780
caacttctgg atgagctcag ttcgttaaat cttagtctct cccgttacga ccttcctctc    840
agagaaagat cggccctctc agcaagacaa tctcagcttc aagatcgtgt aaacgcatta    900
tctccatctt ctagcactgt taactctctg gagcccgcat actttggcaa catagatcgt    960
ggatggacag agaagctact gctttcacca tctccaattg atggagaatg gctacaaaaa   1020
agtgccatcg atgctttggt ccatcttatg gttgtcatat cgggacgtcc aaagggactc   1080
tttaaagagt gttcaaaacg tatcgagtct ggactgcaga tcattcaaga tgaactgac   1140
aagcttggaa ttactgacga agttagagag gctgatttgc ggcacacagc tatctggatg   1200
tctagggttt ttcttatgct acagatgcag tttcttgaga atagagtggc tttggaactt   1260
acaaggctctg attatgtcga agctgaagag gctttgggtg atatgaaaaa ttggtttaca   1320
cgattttcaa cgattttaca agcttctgag tgtatgattg agatgctcag ggggcaatat   1380
tctcattctg ttggttgcta cagcgaagct gctttccatt gtattgaagc gaccaagttg   1440
acagagagta tttcaatgca agcttcgtgt caagcttttg cagctgtttc ttaccttact   1500
attggagatg ctgaatcatc atctaaggca cttgatttaa ttggaccact caatggaatg   1560
acgaattcac tatctggtgt tcgagaggaa gctagtattc tctttgctta cggctcttctc   1620

```

047-E2F-PCT.ST25.txt

ttgatgaagc aacgagatct acaggaagca agaaaccgtc ttgccaaggg tttgcagatc 1680  
gctcataatc atatgggtaa cctgcagcta gttgcacagt atttgacact cctgggaaat 1740  
ttagctcttt ccttgcacga caccgtacaa gccagggaga tcctgcgttc ctctcttaca 1800  
cttgcaaaga aactttatga tatcccaact cagctatggg ttctatccat cttcacagct 1860  
ctgtatcagc agttgggtga gaaaggcaac gagatggaga acgaagaatt ccggaagaag 1920  
aaatgggatg agttgcagag tagacttgct gaagcgcgag gatcaattca tcacattgaa 1980  
ctggttgcga aagctaggat agaattgtat cagatcgaca acaatccaca agaacagtca 2040  
ctagtagcat ctgcgcaatc aatgcaaggg aatctggata ttccagagtc tgttggtata 2100  
gaaggtccat cacctgctcc atcatcttca aggctcgttg gtttagacac cgaaaaaga 2160  
tggggaaaac gaaggatgta a 2181

<210> 1014

<211> 726

<212> PRT

<213> Arabidopsis thaliana

<400> 1014

Met Glu Gly Ala Ala Val Ala Glu Gly Leu Trp Gly Leu Ala Asp His  
1 5 10 15

His Gln Lys Leu Gly Glu Ile Gly Lys Thr Ile Lys Cys Leu Glu Ala  
20 25 30

Ile Cys Gln Ser Gln Ile Ser Phe Leu Pro Leu Val Glu Val Lys Ser  
35 40 45

Arg Leu Arg Leu Ala Ala Leu Leu Leu Arg Tyr Ser His Asn Val Asn  
50 55 60

His Ala Lys Ser His Leu Glu Arg Ser Leu Leu Leu Lys Ser Ile  
65 70 75 80

Pro Ser Ser Tyr Asp Leu Lys Phe Gln Asn Tyr Ser Leu Leu Ser His  
85 90 95

Cys Tyr His Leu Leu Ala Ser Phe Pro Pro Gln Arg Asn Leu Leu Val  
100 105 110

Lys Ala Leu Glu Leu Ala Ser Ser Val Pro Gln Asp Ile Ser Ala Tyr  
115 120 125

047-E2F-PCT.ST25.txt

Leu Trp Ser Cys Asn Phe Asn Ser Gln Leu Ala Asn Thr Phe Ile Ile  
 130 135 140  
 Gln Ala Asp Phe Pro Ser Ser Leu Ser Ala Leu Glu Ser Gly Phe Leu  
 145 150 155 160  
 Ser Ala Ser His Ile Cys Phe Pro Glu Leu Gln Met Phe Phe Thr Ala  
 165 170 175  
 Ser Met Leu His Val His Ile Met Gln Trp Thr Asp Asp Tyr Ser Val  
 180 185 190  
 Glu Lys Ala Val Gln Arg Cys Asp Glu Ile Trp Gln Thr Ile Ser Ser  
 195 200 205  
 Asp Lys Thr Asp Arg Cys Pro Gly Leu Phe Phe Tyr Asn Glu Met Leu  
 210 215 220  
 His Val Phe Tyr Arg Leu Arg Leu Cys Asp Tyr Lys Asn Ala Gln His  
 225 230 235 240  
 His Val Asp Arg Leu Asp Gln Ala Met Asn Ala His Ser His Lys Met  
 245 250 255  
 Gln Glu Ile Gln Gln Leu Leu Asp Glu Leu Ser Ser Leu Asn Leu Ser  
 260 265 270  
 Leu Ser Arg Tyr Asp Leu Pro Ser Arg Glu Arg Ser Ala Leu Ser Ala  
 275 280 285  
 Arg Gln Ser Gln Leu Gln Asp Arg Val Asn Ala Leu Ser Pro Ser Ser  
 290 295 300  
 Ser Thr Val Asn Ser Leu Glu Pro Ala Tyr Phe Gly Asn Ile Asp Arg  
 305 310 315 320  
 Gly Trp Thr Glu Lys Leu Leu Leu Ser Pro Ser Pro Ile Asp Gly Glu  
 325 330 335  
 Trp Leu Pro Lys Ser Ala Ile Asp Ala Leu Val His Leu Met Val Val  
 340 345 350  
 Ile Ser Gly Arg Pro Lys Gly Leu Phe Lys Glu Cys Ser Lys Arg Ile  
 355 360 365  
 Glu Ser Gly Leu Gln Ile Ile Gln Asp Glu Leu Ile Lys Leu Gly Ile  
 Page 1551

370

375

Thr Asp Glu Val Arg Glu Ala Asp Leu Arg His Thr Ala Ile Trp Met  
385 390 395 400

Ser Arg Val Phe Leu Met Leu Gln Met Gln Phe Leu Glu Asn Arg Val  
405 410 415

Ala Leu Glu Leu Thr Arg Ser Asp Tyr Val Glu Ala Glu Glu Ala Leu  
420 425 430

Val Asp Met Lys Asn Trp Phe Thr Arg Phe Pro Thr Ile Leu Gln Ala  
435 440 445

Ser Glu Cys Met Ile Glu Met Leu Arg Gly Gln Tyr Ser His Ser Val  
450 455 460

Gly Cys Tyr Ser Glu Ala Ala Phe His Cys Ile Glu Ala Thr Lys Leu  
465 470 475 480

Thr Glu Ser Ile Ser Met Gln Ala Ser Cys Gln Ala Phe Ala Ala Val  
485 490 495

Ser Tyr Leu Thr Ile Gly Asp Ala Glu Ser Ser Ser Lys Ala Leu Asp  
500 505 510

Leu Ile Gly Pro Leu Asn Gly Met Thr Asn Ser Leu Ser Gly Val Arg  
515 520 525

Glu Glu Ala Ser Ile Leu Phe Ala Tyr Gly Leu Leu Leu Met Lys Gln  
530 535 540

Arg Asp Leu Gln Glu Ala Arg Asn Arg Leu Ala Lys Gly Leu Gln Ile  
545 550 555 560

Ala His Asn His Met Gly Asn Leu Gln Leu Val Ala Gln Tyr Leu Thr  
565 570 575

Leu Leu Gly Asn Leu Ala Leu Ser Leu His Asp Thr Val Gln Ala Arg  
580 585 590

Glu Ile Leu Arg Ser Ser Leu Thr Leu Ala Lys Lys Leu Tyr Asp Ile  
595 600 605

Pro Thr Gln Leu Trp Val Leu Ser Ile Phe Thr Ala Leu Tyr Gln Gln  
610 615 620

Leu Gly Glu Lys Gly Asn Glu Met Glu Asn Glu Glu Phe Arg Lys Lys  
 625 630 635 640

Lys Trp Asp Glu Leu Gln Ser Arg Leu Ala Glu Ala Arg Gly Ser Ile  
 645 650 655

His His Ile Glu Leu Val Ala Lys Ala Arg Ile Glu Leu Tyr Gln Ile  
 660 665 670

Asp Asn Asn Pro Gln Glu Gln Ser Leu Val Ala Ser Ala Gln Ser Met  
 675 680 685

Gln Gly Asn Leu Asp Ile Pro Glu Ser Val Gly Ile Glu Gly Pro Ser  
 690 695 700

Pro Ala Pro Ser Ser Ser Arg Leu Val Gly Leu Asp Thr Gly Lys Arg  
 705 710 715 720

Trp Gly Lys Arg Arg Met  
 725

<210> 1015

<211> 261

<212> DNA

<213> Arabidopsis thaliana

<400> 1015

atggcaaaga ccctcaattc catctgcttc accactcttc tgctcgttct cttgttcac	60
tcggctgaga tcccgcacggc tgaggctaata tgtgatacgt atttaggcga agtcacagtg	120
tattacccat gtagggaaag agactgtgaa gcccaatgct atgagcatta cccacactca	180
tgtaaaggag agtgtgagca tcatgaccac gtagtgcac atgacaacga agaagagcat	240
tgccactgct acggtcgttg a	261

<210> 1016

<211> 86

<212> PRT

<213> Arabidopsis thaliana

<400> 1016

Met Ala Lys Thr Leu Asn Ser Ile Cys Phe Thr Thr Leu Leu Leu Val  
 Page 1553

1                      5                      10                      15  
 Leu Leu Phe Ile Ser Ala Glu Ile Pro Thr Ala Glu Ala Asn Cys Asp  
                     20                      25                      30  
 Thr Tyr Leu Gly Glu Val Thr Val Tyr Tyr Pro Cys Arg Glu Arg Asp  
                     35                      40                      45  
 Cys Glu Ala Gln Cys Tyr Glu His Tyr Pro His Ser Cys Lys Gly Glu  
                     50                      55                      60  
 Cys Glu His His Asp His Val Val His His Asp Asn Glu Glu Glu His  
                     65                      70                      75                      80  
 Cys His Cys Tyr Gly Arg  
                     85

<210> 1017

<211> 1836

<212> DNA

<213> Arabidopsis thaliana

<400> 1017  
 atggatgctt cggtggtgag attttcccaa tcgccggcaa gagtgccacc ggaatttgaa 60  
 ccagatatgg agaagattaa acggaggctg ctcaagtacg gtgttgatcc aacccccaaa 120  
 atcctgaaca atctccgaaa gaaagaaatt caaaaacaca accgtagaac caagcgcgaa 180  
 accgagtccg aggcggaggt gtatacggag gcgcagaaac aatcaatgga ggaagaagct 240  
 cgttttcaaa cccttagacg ggaatacaag caattcacga ggtcaatttc tggaaaaagg 300  
 ggcggcgatg ttggtttgat gggtgggaat ccatgggaag gaatcgagag agtgaagctg 360  
 aaggagctcg ttagtggcgt tcggagagaa gaggttagtg ctggtgaatt gaagaaagag 420  
 aatctaaaag agttgaagaa gatacttgag aaggatcttc gttgggttct agacgacgac 480  
 gttgatgtgg aagaatttga tttggacaaa gaatttgatc ctgcgaaacg gtggcgtaac 540  
 gaaggagaag cagtcagagt tctcgttgac agattgagtg gtagagaaat caatgagaag 600  
 cattggaagt ttgtgagaat gatgaatcaa tcagggcttc agttcactga agatcagatg 660  
 cttaagatcg ttgatcgatt gggacgtaaa cagagctgga aacaagcttc agctgttggt 720  
 cattgggtgt attctgataa aaagcgtaaa catcttagga gcagatttgt ttacaccaag 780  
 cttttgtccg ttcttgggtt tgcgaggagg ccacaggaag ctcttcagat attcaatcag 840  
 atgcttggtg atcgccagtt atatcctgat atggcggcgt accactgtat tgctgtaaca 900



047-E2F-PCT.ST25.txt

```

cttgggcaag cgggtttatt gaaggagttg cttaaagtaa tcgagcgtat gaggcagaaa 960
ccgactaaac taactaagaa tttgcggcaa aagaactggg atcctgtgct tgaacctgac 1020
ttggttgtat acaacgctat tcttaacgct tgtgttccaa cactccaatg gaaggctggt 1080
tcatgggtat ttgtagagtt aagaaaaaat ggtttgaggc ctaatggagc tacatatggg 1140
cttgcgatgg aggttatgct ggagtcaggg aagtttgatc gtgttcacga tttttttagg 1200
aagatgaaaa gcagtggcga agctccaaaa gcaatcacat acaaggttct tgtccgagct 1260
ctctggagag aaggcaagat cgaagaagct gttgaagcag tcagagatat ggaacaaaag 1320
ggagttatag gaacgggttc agtttactat gaattggcat gctgtctgtg caacaacggg 1380
cgttggtgcg atgcaatgct cgaagtgggg aggatgaaaa gacttgaaaa ttgcaggccg 1440
ctcgagatta ccttcacagg actcatagcc gcttcattga acggtggtca tgttgatgat 1500
tgcattggcta tattccaata tatgaaagat aaatgtgatc cgaatatagg aactgcgaac 1560
atgatgctta aagtttacgg aaggaatgat atgttttcag aagctaaaga attgtttgaa 1620
gagattgtca gcagaaaaga gactcattta gttccaaacg agtatacata cagcttcatg 1680
cttgaagctt cagctagatc actgcaatgg gaatactttg aacatgtgta tcaaacgatg 1740
gttctttctg gttaccaaat ggatcaaaca aaacatgcat caatgctgat agaagcatca 1800
agagccggga aggtaacaaa tctttgtcta gtttaa 1836

```

<210> 1018

<211> 611

<212> PRT

<213> Arabidopsis thaliana

<400> 1018

Met Asp Ala Ser Val Val Arg Phe Ser Gln Ser Pro Ala Arg Val Pro  
1 5 10 15

Pro Glu Phe Glu Pro Asp Met Glu Lys Ile Lys Arg Arg Leu Leu Lys  
20 25 30

Tyr Gly Val Asp Pro Thr Pro Lys Ile Leu Asn Asn Leu Arg Lys Lys  
35 40 45

Glu Ile Gln Lys His Asn Arg Arg Thr Lys Arg Glu Thr Glu Ser Glu  
50 55 60

Ala Glu Val Tyr Thr Glu Ala Gln Lys Gln Ser Met Glu Glu Glu Ala  
Page 1555

65 70 75 80  
 Arg Phe Gln Thr Leu Arg Arg Glu Tyr Lys Gln Phe Thr Arg Ser Ile  
 85 90 95  
 Ser Gly Lys Arg Gly Gly Asp Val Gly Leu Met Val Gly Asn Pro Trp  
 100 105 110  
 Glu Gly Ile Glu Arg Val Lys Leu Lys Glu Leu Val Ser Gly Val Arg  
 115 120 125  
 Arg Glu Glu Val Ser Ala Gly Glu Leu Lys Lys Glu Asn Leu Lys Glu  
 130 135 140  
 Leu Lys Lys Ile Leu Glu Lys Asp Leu Arg Trp Val Leu Asp Asp Asp  
 145 150 155 160  
 Val Asp Val Glu Glu Phe Asp Leu Asp Lys Glu Phe Asp Pro Ala Lys  
 165 170 175  
 Arg Trp Arg Asn Glu Gly Glu Ala Val Arg Val Leu Val Asp Arg Leu  
 180 185 190  
 Ser Gly Arg Glu Ile Asn Glu Lys His Trp Lys Phe Val Arg Met Met  
 195 200 205  
 Asn Gln Ser Gly Leu Gln Phe Thr Glu Asp Gln Met Leu Lys Ile Val  
 210 215 220  
 Asp Arg Leu Gly Arg Lys Gln Ser Trp Lys Gln Ala Ser Ala Val Val  
 225 230 235 240  
 His Trp Val Tyr Ser Asp Lys Lys Arg Lys His Leu Arg Ser Arg Phe  
 245 250 255  
 Val Tyr Thr Lys Leu Leu Ser Val Leu Gly Phe Ala Arg Arg Pro Gln  
 260 265 270  
 Glu Ala Leu Gln Ile Phe Asn Gln Met Leu Gly Asp Arg Gln Leu Tyr  
 275 280 285  
 Pro Asp Met Ala Ala Tyr His Cys Ile Ala Val Thr Leu Gly Gln Ala  
 290 295 300  
 Gly Leu Leu Lys Glu Leu Leu Lys Val Ile Glu Arg Met Arg Gln Lys  
 305 310 315 320

Pro Thr Lys Leu Thr Lys Asn Leu Arg Gln Lys Asn Trp Asp Pro Val  
 325 330 335  
 Leu Glu Pro Asp Leu Val Val Tyr Asn Ala Ile Leu Asn Ala Cys Val  
 340 345 350  
 Pro Thr Leu Gln Trp Lys Ala Val Ser Trp Val Phe Val Glu Leu Arg  
 355 360 365  
 Lys Asn Gly Leu Arg Pro Asn Gly Ala Thr Tyr Gly Leu Ala Met Glu  
 370 375 380  
 Val Met Leu Glu Ser Gly Lys Phe Asp Arg Val His Asp Phe Phe Arg  
 385 390 395 400  
 Lys Met Lys Ser Ser Gly Glu Ala Pro Lys Ala Ile Thr Tyr Lys Val  
 405 410 415  
 Leu Val Arg Ala Leu Trp Arg Glu Gly Lys Ile Glu Glu Ala Val Glu  
 420 425 430  
 Ala Val Arg Asp Met Glu Gln Lys Gly Val Ile Gly Thr Gly Ser Val  
 435 440 445  
 Tyr Tyr Glu Leu Ala Cys Cys Leu Cys Asn Asn Gly Arg Trp Cys Asp  
 450 455 460  
 Ala Met Leu Glu Val Gly Arg Met Lys Arg Leu Glu Asn Cys Arg Pro  
 465 470 475 480  
 Leu Glu Ile Thr Phe Thr Gly Leu Ile Ala Ala Ser Leu Asn Gly Gly  
 485 490 495  
 His Val Asp Asp Cys Met Ala Ile Phe Gln Tyr Met Lys Asp Lys Cys  
 500 505 510  
 Asp Pro Asn Ile Gly Thr Ala Asn Met Met Leu Lys Val Tyr Gly Arg  
 515 520 525  
 Asn Asp Met Phe Ser Glu Ala Lys Glu Leu Phe Glu Glu Ile Val Ser  
 530 535 540  
 Arg Lys Glu Thr His Leu Val Pro Asn Glu Tyr Thr Tyr Ser Phe Met  
 545 550 555 560  
 Leu Glu Ala Ser Ala Arg Ser Leu Gln Trp Glu Tyr Phe Glu His Val  
 565 570 575

047-E2F-PCT.ST25.txt

Tyr Gln Thr Met Val Leu Ser Gly Tyr Gln Met Asp Gln Thr Lys His  
580 585 590

Ala Ser Met Leu Ile Glu Ala Ser Arg Ala Gly Lys Val Thr Asn Leu  
595 600 605

Cys Leu Val  
610

<210> 1019

<211> 1758

<212> DNA

<213> Arabidopsis thaliana

<400> 1019

atgtatcggc ttgtctccaa cgttgcttcc aaagctagga ttgccagaaa gtgtacaagc	60
cagatttgaa gcaggctcaa ttctactagg aattatgcag caaaagacat aaggttcggt	120
gttgaagctc gggctttaat gcttaggggt gttgaggatc ttgctgatgc agttaaagtc	180
actatgggac ccaagggctg taatgtcatc atcgaacaaa gctgggggtgc accaaaggtg	240
acaaaggatg gtgtgactgt tgccaagagc attgagttca aggatagaat taagaacggt	300
ggtgccagtc ttgtgaaaca gggtgctaac gccacaaatg acgtagctgg tgatggaaca	360
acgtgtgcca cagtccttac tagagctatc ttcacggaag gttgtaaatc agttgccgct	420
ggaatgaatg caatggacct aagacgtggt atcaaattgg cagttgatac tgttgtgacg	480
aacttgcaga gccgagcacg catgattagc acctctgaag aaatcgccca agttggaaca	540
atatcagcta atggagatag ggaaattggt gaactgattg caaaggctat ggaaactgtc	600
ggcaaagagg gagtgatcac aattcaagat ggcaagacct tgtttaatga gctggaagtt	660
gttgagggtg tgaagattga caggggatac atctccccgt acttcataac taacccgaaa	720
acacaaaaat gtgaactaga agatcctctc attcttatcc acgagaagaa aatttccaat	780
ataaacgcaa tggtgaaagt attagaactg gccctcaaga agcaaaggcc gctgctgac	840
gttgctgagg atgtggagag cgatgctctt gccaccctaa ttctgaacaa acttcgtgct	900
aatatcaagg tctgtgctgt gaaggcccct ggttttgagg agaaccgaaa ggccaattta	960
catgatctag ctgccctcac tggagcccag gtaataacag aagagttggg tatgaatcta	1020
gacaacattg acctcagtat gtttgaaac tgcaagaagg taacggtatc caaagatgat	1080
actgttgttc tcgatggggc tggtgacaag caagcaattg gggaacgatg tgaacagata	1140
cgatccatgg ttgaagcaag cacttctgat tatgacaagg agaagttgca agaaagggtg	1200

047-E2F-PCT.ST25.txt

gctaagcttt cgggtggtgt tgctgtacta aagattggag gagcaagtga gacagaagtt 1260  
 agtgaaaaga aagatagagt aacggatgct ctaaagcagc cgtagaggag 1320  
 ggtattgttc caggtggtgg tgttgctctt ttgtatgctt cgaaagaact tgagaagctt 1380  
 tccacagcta actttgatca gaaaattggt gttcaaatca ttcaaacgc actcaagaca 1440  
 cctgtttaca cgattgcttc caatgctgga gtcgaggggtg cagttgtcgt aggcaagctt 1500  
 ttggaacaag ataatcctga ccttggttat gatgctgcta aaggagaata tgtggacatg 1560  
 ataaaggctg gtattatcga tcctttgaaa gtgatacagaa ccgcattagt tgatgctgca 1620  
 agtgtttcgt ctttggtgac aacgacggaa gcagttgtga ctgagattcc aacgaaagag 1680  
 gtagcatctc cgggtatggg cgggtggtggc atgggcggca tgggtggcat gggcggtatg 1740  
 ggaggaatgg gtttctga 1758

<210> 1020

<211> 585

<212> PRT

<213> Arabidopsis thaliana

<400> 1020

Met Tyr Arg Leu Val Ser Asn Val Ala Ser Lys Ala Arg Ile Ala Arg  
 1 5 10 15

Lys Cys Thr Ser Gln Ile Gly Ser Arg Leu Asn Ser Thr Arg Asn Tyr  
 20 25 30

Ala Ala Lys Asp Ile Arg Phe Gly Val Glu Ala Arg Ala Leu Met Leu  
 35 40 45

Arg Gly Val Glu Asp Leu Ala Asp Ala Val Lys Val Thr Met Gly Pro  
 50 55 60

Lys Gly Arg Asn Val Ile Ile Glu Gln Ser Trp Gly Ala Pro Lys Val  
 65 70 75 80

Thr Lys Asp Gly Val Thr Val Ala Lys Ser Ile Glu Phe Lys Asp Arg  
 85 90 95

Ile Lys Asn Val Gly Ala Ser Leu Val Lys Gln Val Ala Asn Ala Thr  
 100 105 110

Asn Asp Val Ala Gly Asp Gly Thr Thr Cys Ala Thr Val Leu Thr Arg  
 Page 1559

115

120

125

Ala Ile Phe Thr Glu Gly Cys Lys Ser Val Ala Ala Gly Met Asn Ala  
 130 135 140  
 Met Asp Leu Arg Arg Gly Ile Lys Leu Ala Val Asp Thr Val Val Thr  
 145 150 155 160  
 Asn Leu Gln Ser Arg Ala Arg Met Ile Ser Thr Ser Glu Glu Ile Ala  
 165 170 175  
 Gln Val Gly Thr Ile Ser Ala Asn Gly Asp Arg Glu Ile Gly Glu Leu  
 180 185 190  
 Ile Ala Lys Ala Met Glu Thr Val Gly Lys Glu Gly Val Ile Thr Ile  
 195 200 205  
 Gln Asp Gly Lys Thr Leu Phe Asn Glu Leu Glu Val Val Glu Gly Met  
 210 215 220  
 Lys Ile Asp Arg Gly Tyr Ile Ser Pro Tyr Phe Ile Thr Asn Pro Lys  
 225 230 235 240  
 Thr Gln Lys Cys Glu Leu Glu Asp Pro Leu Ile Leu Ile His Glu Lys  
 245 250 255  
 Lys Ile Ser Asn Ile Asn Ala Met Val Lys Val Leu Glu Leu Ala Leu  
 260 265 270  
 Lys Lys Gln Arg Pro Leu Leu Ile Val Ala Glu Asp Val Glu Ser Asp  
 275 280 285  
 Ala Leu Ala Thr Leu Ile Leu Asn Lys Leu Arg Ala Asn Ile Lys Val  
 290 295 300  
 Cys Ala Val Lys Ala Pro Gly Phe Gly Glu Asn Arg Lys Ala Asn Leu  
 305 310 315 320  
 His Asp Leu Ala Ala Leu Thr Gly Ala Gln Val Ile Thr Glu Glu Leu  
 325 330 335  
 Gly Met Asn Leu Asp Asn Ile Asp Leu Ser Met Phe Gly Asn Cys Lys  
 340 345 350  
 Lys Val Thr Val Ser Lys Asp Asp Thr Val Val Leu Asp Gly Ala Gly  
 355 360 365

Asp Lys Gln Ala Ile Gly Glu Arg Cys Glu Gln Ile Arg Ser Met Val  
 370 375 380

Glu Ala Ser Thr Ser Asp Tyr Asp Lys Glu Lys Leu Gln Glu Arg Leu  
 385 390 395 400

Ala Lys Leu Ser Gly Gly Val Ala Val Leu Lys Ile Gly Gly Ala Ser  
 405 410 415

Glu Thr Glu Val Ser Glu Lys Lys Asp Arg Val Thr Asp Ala Leu Asn  
 420 425 430

Ala Thr Lys Ala Ala Val Glu Glu Gly Ile Val Pro Gly Gly Gly Val  
 435 440 445

Ala Leu Leu Tyr Ala Ser Lys Glu Leu Glu Lys Leu Ser Thr Ala Asn  
 450 455 460

Phe Asp Gln Lys Ile Gly Val Gln Ile Ile Gln Asn Ala Leu Lys Thr  
 465 470 475 480

Pro Val Tyr Thr Ile Ala Ser Asn Ala Gly Val Glu Gly Ala Val Val  
 485 490 495

Val Gly Lys Leu Leu Glu Gln Asp Asn Pro Asp Leu Gly Tyr Asp Ala  
 500 505 510

Ala Lys Gly Glu Tyr Val Asp Met Ile Lys Ala Gly Ile Ile Asp Pro  
 515 520 525

Leu Lys Val Ile Arg Thr Ala Leu Val Asp Ala Ala Ser Val Ser Ser  
 530 535 540

Leu Leu Thr Thr Thr Glu Ala Val Val Thr Glu Ile Pro Thr Lys Glu  
 545 550 555 560

Val Ala Ser Pro Gly Met Gly Gly Gly Gly Met Gly Gly Met Gly Gly  
 565 570 575

Met Gly Gly Met Gly Gly Met Gly Phe  
 580 585

<210> 1021

<211> 1191

<212> DNA

<213> Arabidopsis thaliana

```

<400> 1021
atggctccgg tgaagcagaa gaagaagaat aagaagaagc ctctggataa ggcgaagaag      60
ttggcgaaga ataaagagaa gaagagagtc aacgcagtgc cattggatcc ggaggctatc      120
gactgcgact ggtgggatac tttctggctc cgaaactctt ctccctcagt cccctcagac      180
gaagactatg cgttcaagca cttcttttagg gcttctaaga caacttttag ctacatttgc      240
tcgctcgtca gggaggacct tatctctaga cctccctctg gtctcatcaa catcgaggga      300
aggcttctta gtgttgagaa acaagtcgcc attgctcttc gaaggtttagc ttccggtgat      360
tctcaggtct ccgttggtgc tgcctttggt gttggccagt ccactgtttc tcaggttaca      420
tgagagattca tcgaggcact cgaagaacgt gccaagcatc atcttagatg gccagattct      480
gaccgaattg aagagatcaa gtcaaagttc gaggagatgt acggtctccc caattgctgc      540
ggagccattg aactacgca catcatcatg actctcccgg ctgtgcaagc atcagatgac      600
tggtgtgacc aggagaagaa ctacagcatg ttcttacaag gagtctttga tcacgagatg      660
agatttctca acatggttac cggctggcct ggcggcatga ccgtctccaa gcttctcaag      720
ttctctggct tcttcaaact ctgtgaaaac gctcagattt tagacggcaa tcctaaaact      780
ctatcccaag gagcccagat tagagaatac gttgttggag ggatcagtta cccgcttctt      840
ccctggctta taactcctca cgacagcgat catccctctg attccatggt ggcgttcaac      900
gaaaggcatg agaagggtgag gtcagtcgca gctactgcct ttcaacagct taaaggaagc      960
tgaggatttc tgagcaaagt tatgtggaga ccagacagga ggaagctacc tagtataata     1020
ctggtgtgtt gtttgttgca taacatcatt atcgactgtg gggattatct tcaagaagat     1080
gttcctttgt ctggtcatca cgactccggt tatgcagacc ggtactgcaa gcagaccgag     1140
ccgcttggtg gtgagctcag aggatgtctg actgagcatt tgcttaggtg a                1191

```

<210> 1022

<211> 396

<212> PRT

<213> *Arabidopsis thaliana*

<400> 1022

```

Met Ala Pro Val Lys Gln Lys Lys Lys Asn Lys Lys Lys Pro Leu Asp
1           5           10           15

```

```

Lys Ala Lys Lys Leu Ala Lys Asn Lys Glu Lys Lys Arg Val Asn Ala
20           25           30

```



047-E2F-PCT.ST25.txt

Val Pro Leu Asp Pro Glu Ala Ile Asp Cys Asp Trp Trp Asp Thr Phe  
 35 40 45  
 Trp Leu Arg Asn Ser Ser Pro Ser Val Pro Ser Asp Glu Asp Tyr Ala  
 50 55 60  
 Phe Lys His Phe Phe Arg Ala Ser Lys Thr Thr Phe Ser Tyr Ile Cys  
 65 70 75 80  
 Ser Leu Val Arg Glu Asp Leu Ile Ser Arg Pro Pro Ser Gly Leu Ile  
 85 90  
 Asn Ile Glu Gly Arg Leu Leu Ser Val Glu Lys Gln Val Ala Ile Ala  
 100 105 110  
 Leu Arg Arg Leu Ala Ser Gly Asp Ser Gln Val Ser Val Gly Ala Ala  
 115 120 125  
 Phe Gly Val Gly Gln Ser Thr Val Ser Gln Val Thr Trp Arg Phe Ile  
 130 135 140  
 Glu Ala Leu Glu Glu Arg Ala Lys His His Leu Arg Trp Pro Asp Ser  
 145 150 155 160  
 Asp Arg Ile Glu Glu Ile Lys Ser Lys Phe Glu Glu Met Tyr Gly Leu  
 165 170 175  
 Pro Asn Cys Cys Gly Ala Ile Asp Thr Thr His Ile Ile Met Thr Leu  
 180 185 190  
 Pro Ala Val Gln Ala Ser Asp Asp Trp Cys Asp Gln Glu Lys Asn Tyr  
 195 200 205  
 Ser Met Phe Leu Gln Gly Val Phe Asp His Glu Met Arg Phe Leu Asn  
 210 215 220  
 Met Val Thr Gly Trp Pro Gly Gly Met Thr Val Ser Lys Leu Leu Lys  
 225 230 235 240  
 Phe Ser Gly Phe Phe Lys Leu Cys Glu Asn Ala Gln Ile Leu Asp Gly  
 245 250 255  
 Asn Pro Lys Thr Leu Ser Gln Gly Ala Gln Ile Arg Glu Tyr Val Val  
 260 265 270

Gly Gly Ile Ser Tyr Pro Leu Leu Pro Trp Leu Ile Thr Pro His Asp  
 Page 1563

275

280

285

Ser Asp His Pro Ser Asp Ser Met Val Ala Phe Asn Glu Arg His Glu  
 290 295 300

Lys Val Arg Ser Val Ala Ala Thr Ala Phe Gln Gln Leu Lys Gly Ser  
 305 310 315 320

Trp Arg Ile Leu Ser Lys Val Met Trp Arg Pro Asp Arg Arg Lys Leu  
 325 330 335

Pro Ser Ile Ile Leu Val Cys Cys Leu Leu His Asn Ile Ile Ile Asp  
 340 345 350

Cys Gly Asp Tyr Leu Gln Glu Asp Val Pro Leu Ser Gly His His Asp  
 355 360 365

Ser Gly Tyr Ala Asp Arg Tyr Cys Lys Gln Thr Glu Pro Leu Gly Ser  
 370 375 380

Glu Leu Arg Gly Cys Leu Thr Glu His Leu Leu Arg  
 385 390 395

&lt;210&gt; 1023

&lt;211&gt; 849

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1023

```

atgggtacta gagctcagca gattccttta cttgaaggtg agactgataa ttacgatggt      60
gttactgtaa ccatggtgga acctatggat tctgaggttt ttactgaaag tcttagggct      120
tctctttcgc attggagaga agaggggaag aaggggaattt ggataaagct gcctcttgga      180
ttggctaadc ttgtggaggc tgcagttagt gaaggattta gatatcacca cgcggagcct      240
gagtacttga tgcttgatc ttggatctct gaaactcctg atacaatccc agccaatgct      300
tctcatgttg taggtgctgg tgctttggtc atcaacaaaa atactaaaga ggtcctcgtt      360
gtccaggaga ggagtgggtt tttcaaagat aaaaatgtgt ggaagctgcc tactggtggt      420
atcaacgagg gcgaggatat atggactgga gtagctaggg aagtggaaga agaaactgga      480
attattgcag attttgtcga agtactggct ttcaggcaaa gccacaaagc catcttaaaa      540
aagaaaacag atatgttttt cctgtgtgtc ttaagtccgc gctcttacga tattactgaa      600
caaaaatctg agatcttgca agctaagtgg atgccgatcc aagagtatgt agaccaacca      660

```

047-E2F-PCT.ST25.txt

tggaacaaga agaacgagat gttcaagttc atggctaaca tttgccaaaa gaagtgtgag	720
gaagaatact tgggattcgc cattgtgcca actaccacat catctggtaa agagagcttt	780
atctactgca atgcggatca tgccaagcgc cttaaagtat cgcgtgacca agcctctgct	840
tctctctga	849

<210> 1024

<211> 282

<212> PRT

<213> Arabidopsis thaliana

<400> 1024

Met Gly Thr Arg Ala Gln Gln Ile Pro Leu Leu Glu Gly Glu Thr Asp	
1 5 10 15	

Asn Tyr Asp Gly Val Thr Val Thr Met Val Glu Pro Met Asp Ser Glu	
20 25 30	

Val Phe Thr Glu Ser Leu Arg Ala Ser Leu Ser His Trp Arg Glu Glu	
35 40 45	

Gly Lys Lys Gly Ile Trp Ile Lys Leu Pro Leu Gly Leu Ala Asn Leu	
50 55 60	

Val Glu Ala Ala Val Ser Glu Gly Phe Arg Tyr His His Ala Glu Pro	
65 70 75 80	

Glu Tyr Leu Met Leu Val Ser Trp Ile Ser Glu Thr Pro Asp Thr Ile	
85 90 95	

Pro Ala Asn Ala Ser His Val Val Gly Ala Gly Ala Leu Val Ile Asn	
100 105 110	

Lys Asn Thr Lys Glu Val Leu Val Val Gln Glu Arg Ser Gly Phe Phe	
115 120 125	

Lys Asp Lys Asn Val Trp Lys Leu Pro Thr Gly Val Ile Asn Glu Gly	
130 135 140	

Glu Asp Ile Trp Thr Gly Val Ala Arg Glu Val Glu Glu Glu Thr Gly	
145 150 155 160	

Ile Ile Ala Asp Phe Val Glu Val Leu Ala Phe Arg Gln Ser His Lys	
Page 1565	

165

175

Ala Ile Leu Lys Lys Lys Thr Asp Met Phe Phe Leu Cys Val Leu Ser  
180 185 190

Pro Arg Ser Tyr Asp Ile Thr Glu Gln Lys Ser Glu Ile Leu Gln Ala  
195 200 205

Lys Trp Met Pro Ile Gln Glu Tyr Val Asp Gln Pro Trp Asn Lys Lys  
210 215 220

Asn Glu Met Phe Lys Phe Met Ala Asn Ile Cys Gln Lys Lys Cys Glu  
225 230 235 240

Glu Glu Tyr Leu Gly Phe Ala Ile Val Pro Thr Thr Thr Ser Ser Gly  
245 250 255

Lys Glu Ser Phe Ile Tyr Cys Asn Ala Asp His Ala Lys Arg Leu Lys  
260 265 270

Val Ser Arg Asp Gln Ala Ser Ala Ser Leu  
275 280

<210> 1025

<211> 1227

<212> DNA

<213> Arabidopsis thaliana

<400> 1025

atggcgacag cgaatcctgg ccgtggaggt ggtagaagag gcggtggagc tatggatgac	60
gataagttgg tcttcgagac taccgatgga attgagccca tcacgagctt caatgatatg	120
ggcattaagg aagatgtgct tcgcggtgtc tacgaatatg gattcgagaa gccttccgcg	180
attcagcaga gggctgttat gccgattcct caaggacgtg atgttattgc tcaagctcag	240
tccggtaccg ggaagacatc tatgattgct ctctccgttt gtcaagtcgt tgatacttct	300
tctagagagg ttcaggcctt gatattatcc ccaacaagag agctggctac acaaacagag	360
aagacgatac aagctattgg attacatgcc aatattcagg cacatgcttg catcgggtggg	420
aatagtgttg gagaagacat caggaagctg gagcatggtg ttcattgttg gtctgggaca	480
cctggtcgtg tctgtgacat gataaagagg agaagtcttc gtaccagagc tattaactt	540
ctgattcttg atgaatcaga tgaaatgctg agcagagggg tcaaggacca gatctatgat	600
gtttacagat atcttccacc agatcttcag gtttgcttgg tttctgcaac tcttcctcac	660

047-E2F-PCT.ST25.txt

gagattttgg agatgacatc caagtttatg acagaaccag tgaagatact tgtgaagcgt 720  
 gatgagttga ctcttgaagg aatcaaaca ttttttggtg ctgttgagaa ggaagagtgg 780  
 aaatttgata cactctgtga tctttatgac acgcttacta tcactcaagc tgttatcttc 840  
 tgcaatacta aacgaaaggt ggattatctt agtgagaaaa tgagaagtca caacttcact 900  
 gtctcatcaa tgcattggaga catgcctcag aaggagagag acgccatcat gaatgagttt 960  
 cggtcaggtg atagtcgtgt ttgataaca acagatgtat gggcacgtgg gattgatgtg 1020  
 caacaagttt ctcttggtat caattatgat ctccccaaca accgtgagct ctacatccat 1080  
 cgtattgggc ggtctggtcg attcgggcgt aagggtggtg caatcaactt tgttaaaagc 1140  
 gacgacatca agattctcag agacattgag cagtactaca gtaccagat tgatgagatg 1200  
 ccaatgaatg tagctgatct tatctaa 1227

<210> 1026

<211> 408

<212> PRT

<213> Arabidopsis thaliana

<400> 1026

Met Ala Thr Ala Asn Pro Gly Arg Gly Gly Gly Arg Arg Gly Gly Gly  
 1 5 10 15

Ala Met Asp Asp Asp Lys Leu Val Phe Glu Thr Thr Asp Gly Ile Glu  
 20 25 30

Pro Ile Thr Ser Phe Asn Asp Met Gly Ile Lys Glu Asp Val Leu Arg  
 35 40 45

Gly Val Tyr Glu Tyr Gly Phe Glu Lys Pro Ser Ala Ile Gln Gln Arg  
 50 55 60

Ala Val Met Pro Ile Leu Gln Gly Arg Asp Val Ile Ala Gln Ala Gln  
 65 70 75 80

Ser Gly Thr Gly Lys Thr Ser Met Ile Ala Leu Ser Val Cys Gln Val  
 85 90 95

Val Asp Thr Ser Ser Arg Glu Val Gln Ala Leu Ile Leu Ser Pro Thr  
 100 105 110

Arg Glu Leu Ala Thr Gln Thr Glu Lys Thr Ile Gln Ala Ile Gly Leu

047-E2F-PCT.ST25.txt  
125

115

120

125

His 130	Ala	Asn	Ile	Gln	Ala	His 135	Ala	Cys	Ile	Gly	Gly 140	Asn	Ser	Val	Gly
Glu 145	Asp	Ile	Arg	Lys	Leu 150	Glu	His	Gly	Val	His 155	Val	Val	Ser	Gly	Thr 160
Pro	Gly	Arg	Val	Cys 165	Asp	Met	Ile	Lys	Arg 170	Arg	Ser	Leu	Arg	Thr 175	Arg
Ala	Ile	Lys	Leu 180	Leu	Ile	Leu	Asp	Glu 185	Ser	Asp	Glu	Met	Leu 190	Ser	Arg
Gly	Phe	Lys 195	Asp	Gln	Ile	Tyr	Asp 200	Val	Tyr	Arg	Tyr	Leu 205	Pro	Pro	Asp
Leu	Gln 210	Val	Cys	Leu	Val	Ser 215	Ala	Thr	Leu	Pro	His 220	Glu	Ile	Leu	Glu
Met 225	Thr	Ser	Lys	Phe	Met 230	Thr	Glu	Pro	Val	Lys 235	Ile	Leu	Val	Lys	Arg 240
Asp	Glu	Leu	Thr	Leu 245	Glu	Gly	Ile	Lys	Gln 250	Phe	Phe	Val	Ala	Val 255	Glu
Lys	Glu	Glu	Trp 260	Lys	Phe	Asp	Thr	Leu 265	Cys	Asp	Leu	Tyr	Asp 270	Thr	Leu
Thr	Ile	Thr 275	Gln	Ala	Val	Ile	Phe 280	Cys	Asn	Thr	Lys	Arg 285	Lys	Val	Asp
Tyr	Leu 290	Ser	Glu	Lys	Met	Arg 295	Ser	His	Asn	Phe	Thr 300	Val	Ser	Ser	Met
His 305	Gly	Asp	Met	Pro	Gln 310	Lys	Glu	Arg	Asp	Ala 315	Ile	Met	Asn	Glu	Phe 320
Arg	Ser	Gly	Asp	Ser 325	Arg	Val	Leu	Ile	Thr 330	Thr	Asp	Val	Trp	Ala 335	Arg
Gly	Ile	Asp	Val 340	Gln	Gln	Val	Ser	Leu 345	Val	Ile	Asn	Tyr	Asp 350	Leu	Pro
Asn	Asn	Arg 355	Glu	Leu	Tyr	Ile	His 360	Arg	Ile	Gly	Arg	Ser 365	Gly	Arg	Phe

Gly Arg Lys Gly Val Ala Ile Asn Phe Val Lys Ser Asp Asp Ile Lys  
 370 375 380

Ile Leu Arg Asp Ile Glu Gln Tyr Tyr Ser Thr Gln Ile Asp Glu Met  
 385 390 395 400

Pro Met Asn Val Ala Asp Leu Ile  
 405

<210> 1027

<211> 1842

<212> DNA

<213> Arabidopsis thaliana

<400> 1027

atgggagcag tagagcttat gagtgatcca tcgagcttat gcacagtcga gaactatgtg	60
gacaacgttg atttatctga tacgcaattg gtgcagaccg tgagaaaggc tcttacatct	120
gtcaaaactg gggactcaga cttttatagt gagatggttg gagttatggc acgggacatc	180
aaagaattta aggatcctga tgtagtggcg cagcttgaga cagtcttgaa agctctatca	240
ggcgctgtgg cttgcataga tgtccttcac catcaaaagc ttctttctgc gctttttcga	300
atgaaattgt gggaccacag acctgatgtc atggatgcat tggatgaacct tgtcatatca	360
ctggctgtca ctagtggaaa gtatttagac tcttgtctga atatgctcgt aagcaacttc	420
gttccacctc cttgggtagt gaataacctt tcgcactccc gtatactaaa caagaagata	480
gacgttcttt ctcgggtgca tgcagcgctt ctgaaaatct ctattttggt tcctcttact	540
ccctcaagat tagtgccaat gctcttcag caaatgccca agatgcacaa aaaggaccat	600
tcgatagtga tatatgtgga gagcttatta aaattggaga atagctcaat agggcaagtt	660
ggtggcagca tgattcttgg tatggtgatg gagaggctgc gagatttgga tttagagatt	720
gaatgggatg atattccaca agatgactct agtagaggaa tgtttgatat ggaacttgaa	780
gatgcagctg aaggcactat gaatgatgga gacgagcttc cagtgggacc tctaaagcag	840
gatacatcag atggaagtat agtctctaag ttgttggaaca aattgatggt cgtagctttt	900
gagcatcttg aatcctgtca aaatgatggt cgtttgatc aggtgtttga aagcctcttc	960
aagtcatttg aaaacttcat tctgaacaca tacaaatcaa aattcaccca gtttctgata	1020
ttctatgcct gctcactgga tcctgaaaat tgtggtgtga aatttgctag taagctagtg	1080
gagatttttc tctccagcaa caagcatgta gctactagaa tgagtgcggt ggcttatctt	1140
gctagcttct tggctcgtgg aaagtttttg cctgtttcct ttgtggctag catgttgaaa	1200

```

aggttgatag atgagtgtgt gggttactgc agaacttgca atgatgatac taggcctgaa 1260
gcacatcaga ttttcttctc cggatgtcag gcaatcatgt atgtgctctg cttcaggatg 1320
agatccatct tggatgttcc tcgctttcgg tcccagctta caccattgga gtcaatatta 1380
atgcacaaac taaaccatt gatggtatgc cttccatcgg tagttgcgga gttccttaga 1440
caagctaaag aaggtggtct gttcatcgtc tcagactcgt tcattttcga tgacctactt 1500
gagtctgagc tttcccgtgc ttttggcggg tttgagaggc tggatacatt cttcccattt 1560
gacccttgct tgctaaaatc ctcaaacagc tttatctccc caaatttcat ctactggtca 1620
atggtcaaag cgacctatga cgaagatgat gatgataatg atgctgaggt gatcgtgaat 1680
ggagatgagg acagtgacga agatgacgag gctgatcttg attacgccct gaacaagatg 1740
tccataacgc ctaagcactc tttcaagaac aagatggaaa gagacagact tttagaatg 1800
ccttccagga tcagaccgtc aacgagtcct gaatccttgt ga 1842

```

&lt;210&gt; 1028

&lt;211&gt; 613

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1028

```

Met Gly Ala Val Glu Leu Met Ser Asp Pro Ser Ser Leu Cys Thr Val
1      5      10      15

```

```

Glu Asn Tyr Val Asp Asn Val Asp Leu Ser Asp Thr Gln Leu Val Gln
20      25      30

```

```

Thr Val Arg Lys Ala Leu Thr Ser Val Lys Thr Gly Asp Ser Asp Leu
35      40      45

```

```

Tyr Ser Glu Met Val Gly Val Met Ala Arg Asp Ile Lys Glu Phe Lys
50      55      60

```

```

Asp Pro Asp Val Val Ala Gln Leu Glu Thr Val Leu Lys Ala Leu Ser
65      70      75      80

```

```

Gly Ala Val Ala Cys Ile Asp Val Leu His His Gln Lys Leu Leu Ser
85      90      95

```

```

Ala Leu Phe Arg Met Lys Leu Trp Asp His Arg Pro Asp Val Met Asp
100     105     110

```



Ala Leu Val Asn Leu Val Ile Ser Leu Ala Val Thr Ser Gly Lys Tyr  
 115 120 125  
 Leu Asp Ser Cys Leu Asn Met Leu Val Ser Asn Phe Val Pro Pro Pro  
 130 135 140  
 Trp Val Val Asn Asn Leu Ser His Ser Arg Ile Leu Asn Lys Lys Ile  
 145 150 155 160  
 Asp Val Leu Ser Arg Val His Ala Ala Leu Leu Lys Ile Ser Ile Leu  
 165 170 175  
 Val Pro Leu Thr Pro Ser Arg Leu Val Pro Met Leu Phe Gln Gln Met  
 180 185 190  
 Pro Lys Met His Lys Lys Asp His Ser Ile Val Ile Tyr Val Glu Ser  
 195 200 205  
 Leu Leu Lys Leu Glu Asn Ser Ser Ile Gly Gln Val Gly Gly Ser Met  
 210 215 220  
 Ile Leu Gly Met Val Met Glu Arg Leu Arg Asp Leu Asp Leu Glu Ile  
 225 230 235 240  
 Glu Trp Asp Asp Ile Pro Gln Asp Asp Ser Ser Arg Gly Met Phe Asp  
 245 250 255  
 Met Glu Leu Glu Asp Ala Ala Glu Gly Thr Met Asn Asp Gly Asp Glu  
 260 265 270  
 Leu Pro Val Gly Pro Leu Lys Gln Asp Thr Ser Asp Gly Ser Ile Val  
 275 280 285  
 Ser Lys Leu Leu Asp Lys Leu Met Val Val Ala Phe Glu His Leu Glu  
 290 295 300  
 Ser Cys Gln Asn Asp Gly Arg Leu Asp Gln Val Phe Glu Ser Leu Phe  
 305 310 315 320  
 Lys Ser Phe Glu Asn Phe Ile Leu Asn Thr Tyr Lys Ser Lys Phe Thr  
 325 330 335  
 Gln Phe Leu Ile Phe Tyr Ala Cys Ser Leu Asp Pro Glu Asn Cys Gly  
 340 345 350  
 Val Lys Phe Ala Ser Lys Leu Val Glu Ile Phe Leu Ser Ser Asn Lys  
 355 360 365

047-E2F-PCT.ST25.txt

His Val Ala Thr Arg Met Ser Ala Val Ala Tyr Leu Ala Ser Phe Leu  
 370 375 380  
 Ala Arg Gly Lys Phe Leu Pro Val Ser Phe Val Ala Ser Met Leu Lys  
 385 390 395 400  
 Arg Leu Ile Asp Glu Cys Val Gly Tyr Cys Arg Thr Cys Asn Asp Asp  
 405 410 415  
 Thr Arg Pro Glu Ala His Gln Ile Phe Phe Ser Gly Cys Gln Ala Ile  
 420 425 430  
 Met Tyr Val Leu Cys Phe Arg Met Arg Ser Ile Leu Asp Val Pro Arg  
 435 440 445  
 Phe Arg Ser Gln Leu Thr Pro Leu Glu Ser Ile Leu Met His Lys Leu  
 450 455 460  
 Asn Pro Leu Met Val Cys Leu Pro Ser Val Val Ala Glu Phe Leu Arg  
 465 470 475 480  
 Gln Ala Lys Glu Gly Gly Leu Phe Ile Val Ser Asp Ser Phe Ile Phe  
 485 490 495  
 Asp Asp Leu Leu Glu Ser Glu Leu Ser Arg Ala Phe Gly Gly Phe Glu  
 500 505 510  
 Arg Leu Asp Thr Phe Phe Pro Phe Asp Pro Cys Leu Leu Lys Ser Ser  
 515 520 525  
 Asn Ser Phe Ile Ser Pro Asn Phe Ile Tyr Trp Ser Met Val Lys Ala  
 530 535 540  
 Thr Tyr Asp Glu Asp Asp Asp Asp Asn Asp Ala Glu Val Ile Val Asn  
 545 550 555 560  
 Gly Asp Glu Asp Ser Asp Glu Asp Asp Glu Ala Asp Leu Asp Tyr Ala  
 565 570 575  
 Leu Asn Lys Met Ser Ile Thr Pro Lys His Ser Phe Lys Asn Lys Met  
 580 585 590  
 Glu Arg Asp Arg Leu Leu Arg Met Pro Ser Arg Ile Arg Pro Ser Thr  
 595 600 605  
 Ser Pro Glu Ser Leu  
 610

&lt;210&gt; 1029

&lt;211&gt; 1014

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1029

```

atgtcgaatt ggagacataa actatggaga aaattgagct catttcagag agctagttac      60
tcaactacat cttcaagaaa caacaaatta aagcttgatg accttagaaa actccggcca      120
atgattctaa agagaatcga aaatcgagct aaagattacc cggttaaaga gattgttcct      180
gtagctgaag aaatccttat agctagaaag aatctaata gtaacatcgc cgctcttctt      240
aagggtgtttc ctgtcttgac atgcaaattc tgttcagaag tgtttggttg caaagaagga      300
catttgattg agacatgtcg tagttatata cggcgtggta acaataggct acacgaatgg      360
gttccagggtt ccataaacga tatacttggtg ccagttgaat cctatcactt acacaacatc      420
tctcaagggtg ttatcagaca ccaagagagg tttgattatg atcgtgttcc cgcaatcttg      480
gaactatggt gtcaagcagg agccatccat cctgaagaaa tccttcaata ttcggaaatt      540
cacgataacc cgcaaattct tgaggaagat atcaggagtt taccgctgg agatctcaaa      600
tatgttgggg caaacgctct tatggcgtgg gagaaagtga gagctggtgt gaagaaacta      660
ttgcttggtt atccttcaaa agtttgcaaa cgatgtaagg aggttcatgt ggggtccgagt      720
ggtcataaag ctcggttatg tgggtgtgtt aaatatgaga gctggcgcgg cactcattac      780
tgggaaaaaag cgggtgtgaa tgatttggtg cccgagaaaa tgggtgtggca cgggaggcct      840
caggaccag tggttcttgt tgacgaaggg cggagttatt atgggcatgc ccctgctatt      900
gtgagccttt gtagccatac cggtgccatt gttcctgtaa aatacgcttg caagatgaag      960
ccccaagggt tatctttttt tttcactaat ccagttccaa atctcgaaac gtag          1014

```

&lt;210&gt; 1030

&lt;211&gt; 337

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1030

```

Met Ser Asn Trp Arg His Lys Leu Trp Arg Lys Leu Ser Ser Phe Gln
1          5          10          15

```

047-E2F-PCT.ST25.txt

Arg Ala Ser Tyr Ser Thr Thr Ser Ser Arg Asn Asn Lys Leu Lys Leu  
20 25 30

Asp Asp Leu Arg Lys Leu Arg Pro Met Ile Leu Lys Arg Ile Glu Asn  
35 40 45

Arg Ala Lys Asp Tyr Pro Val Lys Glu Ile Val Pro Val Ala Glu Glu  
50 55 60

Ile Leu Ile Ala Arg Lys Asn Leu Ile Ser Asn Ile Ala Ala Leu Leu  
65 70 75 80

Lys Val Phe Pro Val Leu Thr Cys Lys Phe Cys Ser Glu Val Phe Val  
85 90 95

Gly Lys Glu Gly His Leu Ile Glu Thr Cys Arg Ser Tyr Ile Arg Arg  
100 105 110

Gly Asn Asn Arg Leu His Glu Trp Val Pro Gly Ser Ile Asn Asp Ile  
115 120 125

Leu Val Pro Val Glu Ser Tyr His Leu His Asn Ile Ser Gln Gly Val  
130 135 140

Ile Arg His Gln Glu Arg Phe Asp Tyr Asp Arg Val Pro Ala Ile Leu  
145 150 155 160

Glu Leu Cys Cys Gln Ala Gly Ala Ile His Pro Glu Glu Ile Leu Gln  
165 170 175

Tyr Ser Glu Ile His Asp Asn Pro Gln Ile Ser Glu Glu Asp Ile Arg  
180 185 190

Ser Leu Pro Ala Gly Asp Leu Lys Tyr Val Gly Ala Asn Ala Leu Met  
195 200 205

Ala Trp Glu Lys Val Arg Ala Gly Val Lys Lys Leu Leu Leu Val Tyr  
210 215 220

Pro Ser Lys Val Cys Lys Arg Cys Lys Glu Val His Val Gly Pro Ser  
225 230 235 240

Gly His Lys Ala Arg Leu Cys Gly Val Phe Lys Tyr Glu Ser Trp Arg  
245 250 255

Gly Thr His Tyr Trp Glu Lys Ala Gly Val Asn Asp Leu Val Pro Glu  
260 265 270

Lys Met Val Trp His Arg Arg Pro Gln Asp Pro Val Val Leu Val Asp  
 275 280 285

Glu Gly Arg Ser Tyr Tyr Gly His Ala Pro Ala Ile Val Ser Leu Cys  
 290 295 300

Ser His Thr Gly Ala Ile Val Pro Val Lys Tyr Ala Cys Lys Met Lys  
 305 310 315 320

Pro Gln Gly Leu Ser Phe Ser Phe Thr Asn Pro Val Pro Asn Leu Glu  
 325 330 335

Thr

<210> 1031

<211> 1296

<212> DNA

<213> Arabidopsis thaliana

<400> 1031

atgaatgtgg tgcggagatt aacgagtatt gcctctggac gtaatttcgt ttcttctgat	60
aacgtaggag aaactgagac gccgagatca aagcctaacc agaatcgtga agaaacagag	120
tctacggaaa ctacgtcgta cgagaaagat tctgtctctt cctcagagaa ctctgatcat	180
ttaccaaagg aaatccgtga ggatatggac tgtggaatca tcaagggaaa tggaacagaa	240
tctggacgga ttattaccac caaaaagaag ggtttgaatg atcaaaaaga caagacaatc	300
tcttacagag ctgaacatgt aattggcact ggctcattcg gtgttgtctt tcaggctaag	360
tgcttagaga cggaagaaaa agtagcaata aagaaagtgt tacaggacaa gagatacaaa	420
aacagagaac ttcagatcat gcgaatgctt gatcatccta atgtcgttga gctcaagcat	480
tctttctttt ccacgactga gaaagacgag ctttatctta accttggtct tgagtatgta	540
cccgagacta tttaccgcgc ttccagatct tacaccaaga tgaatcagca tatgcctttg	600
atztatattc agctctacac ctatcagatt tgccgtgcta tgaattatct gcatcaagtg	660
gttggagtgt gtcaccgtga cattaagccg cagaatctgt tggtaataa tgttacgcat	720
gaagtaaaga tatgcatgtt tgggagcgcc aaaatgctga ttccaggaga accaaatata	780
tcttacatat gctcaaggta ttacagagct cctgaactca tatttggagc aaccgaatac	840
acaagtgcga tcgatatgtg gtctgtaggt tgtgtcatgg ctgagctttt tcttggacat	900

047-E2F-PCT.ST25.txt

cctctattcc ctggagaaac cagtgttgat caattggtgg agatcattaa gatttttaggg 960  
acaccagcaa gagaagagat aaagaacatg aatcctcggtt acaatgattt taagtccct 1020  
cagatcaaag ctgagccgtg gcacaagatt ttccggagac aggtatctcc agaagcaatg 1080  
gatcttgctt ctagattgct ccagtattca ccaaacctga gatgcacagc gcttgaagca 1140  
tgtgcacacc cattcttcga tgatctgaga gacccgagag catccttgcc taatggaaga 1200  
gcacttcctc cattgtttga ttccacagct caagaacttg ctggggcatc tgttgaactg 1260  
cgtcatcgct taataacctga gcatgcaagg aatga 1296

<210> 1032

<211> 431

<212> PRT

<213> Arabidopsis thaliana

<400> 1032

Met Asn Val Val Arg Arg Leu Thr Ser Ile Ala Ser Gly Arg Asn Phe  
1 5 10 15

Val Ser Ser Asp Asn Val Gly Glu Thr Glu Thr Pro Arg Ser Lys Pro  
20 25 30

Asn Gln Asn Arg Glu Glu Thr Glu Ser Thr Glu Thr Thr Ser Tyr Glu  
35 40 45

Lys Asp Ser Val Ser Ser Ser Glu Asn Ser Asp His Leu Pro Lys Glu  
50 55 60

Ile Arg Glu Asp Met Asp Cys Gly Ile Ile Lys Gly Asn Gly Thr Glu  
65 70 75 80

Ser Gly Arg Ile Ile Thr Thr Lys Lys Lys Gly Leu Asn Asp Gln Lys  
85 90 95

Asp Lys Thr Ile Ser Tyr Arg Ala Glu His Val Ile Gly Thr Gly Ser  
100 105 110

Phe Gly Val Val Phe Gln Ala Lys Cys Leu Glu Thr Glu Glu Lys Val  
115 120 125

Ala Ile Lys Lys Val Leu Gln Asp Lys Arg Tyr Lys Asn Arg Glu Leu  
130 135 140

## 047-E2F-PCT.ST25.txt

Gln Ile Met Arg Met Leu Asp His Pro Asn Val Val Glu Leu Lys His  
 145 150 155 160  
 Ser Phe Phe Ser Thr Thr Glu Lys Asp Glu Leu Tyr Leu Asn Leu Val  
 165 170 175  
 Leu Glu Tyr Val Pro Glu Thr Ile Tyr Arg Ala Ser Arg Ser Tyr Thr  
 180 185 190  
 Lys Met Asn Gln His Met Pro Leu Ile Tyr Ile Gln Leu Tyr Thr Tyr  
 195 200 205  
 Gln Ile Cys Arg Ala Met Asn Tyr Leu His Gln Val Val Gly Val Cys  
 210 215 220  
 His Arg Asp Ile Lys Pro Gln Asn Leu Leu Val Asn Asn Val Thr His  
 225 230 235 240  
 Glu Val Lys Ile Cys Asp Phe Gly Ser Ala Lys Met Leu Ile Pro Gly  
 245 250 255  
 Glu Pro Asn Ile Ser Tyr Ile Cys Ser Arg Tyr Tyr Arg Ala Pro Glu  
 260 265 270  
 Leu Ile Phe Gly Ala Thr Glu Tyr Thr Ser Ala Ile Asp Met Trp Ser  
 275 280 285  
 Val Gly Cys Val Met Ala Glu Leu Phe Leu Gly His Pro Leu Phe Pro  
 290 295 300  
 Gly Glu Thr Ser Val Asp Gln Leu Val Glu Ile Ile Lys Ile Leu Gly  
 305 310 315 320  
 Thr Pro Ala Arg Glu Glu Ile Lys Asn Met Asn Pro Arg Tyr Asn Asp  
 325 330 335  
 Phe Lys Phe Pro Gln Ile Lys Ala Gln Pro Trp His Lys Ile Phe Arg  
 340 345 350  
 Arg Gln Val Ser Pro Glu Ala Met Asp Leu Ala Ser Arg Leu Leu Gln  
 355 360 365  
 Tyr Ser Pro Asn Leu Arg Cys Thr Ala Leu Glu Ala Cys Ala His Pro  
 370 375 380  
 Phe Phe Asp Asp Leu Arg Asp Pro Arg Ala Ser Leu Pro Asn Gly Arg  
 385 390 395 400

047-E2F-PCT.ST25.txt

Ala Leu Pro Pro Leu Phe Asp Phe Thr Ala Gln Glu Leu Ala Gly Ala  
 405 410 415

Ser Val Glu Leu Arg His Arg Leu Ile Pro Glu His Ala Arg Lys  
 420 425 430

<210> 1033

<211> 858

<212> DNA

<213> Arabidopsis thaliana

<400> 1033

atgtcacgat atttcacatc cccaccgcct gtgtatgcga ggaactgggc gaacggtcaa	60
aacttggtcg aatggactaa gatcgaaaga ccaatagttg attctaaaaa gctgcatcgg	120
aaagagaaga aggagaaaaa gaaagaaaag aaattaaaga aagagaagaa atcccttgaa	180
cagaagtatt ccacaaccaa gacagtctca tatgaatccg aacagcttga gaaatcttgt	240
ttaacagaag aatttgagca acctcagggt ggatatttgt ctgatggtag ccagaacagt	300
aagaagagaa gaagggaaac ttctcctgct gttgttgaga gtcaaataca agctacacct	360
gtagctggta aaccactacg gattcgtatt gttttcaaga aaccgaaaga agctgaagct	420
gtacctcaag aggatcctgt ttgttccact tcagggactc agagacctag cgaattacca	480
agttctgtct ctcttccaag tatctgtgat catgatgtgg ctgtaccctc aacttctctt	540
gagagtggca aggtagcaat tatttccgaa tcaaagaaga gaaagaaaca taagcctagc	600
aaagaatccc ggtacaattc attgtttgat gaattagttc ctccctgtat ttccttgagg	660
gaagatgata gcagcagcga tgactggctt tttggaacaa gtcggaaaga aaatgtttct	720
tctgccaagt cttcttataa gactgatgaa gacacgatca tgagcttgca gacgtcaaga	780
gattgttcct ctttgccctag agctatgtta ttgtctgaag ttggaatttt ttcattacca	840
tatactgtcc cgtttttag	858

<210> 1034

<211> 285

<212> PRT

<213> Arabidopsis thaliana

<400> 1034



Met Ser Arg Tyr Phe Thr Ser Pro Pro Pro Val Tyr Ala Arg Asn Trp  
 1 5 10 15  
 Ala Asn Gly Gln Asn Leu Val Glu Trp Thr Lys Ile Glu Arg Pro Ile  
 20 25 30  
 Val Asp Ser Lys Lys Leu His Arg Lys Glu Lys Lys Glu Lys Lys Lys  
 35 40 45  
 Glu Lys Lys Leu Lys Lys Glu Lys Lys Ser Leu Glu Gln Lys Tyr Ser  
 50 55 60  
 Thr Thr Lys Thr Val Ser Tyr Glu Ser Glu Gln Leu Glu Lys Ser Cys  
 65 70 75 80  
 Leu Thr Glu Glu Phe Glu Gln Pro Gln Val Gly Tyr Leu Ser Asp Gly  
 85 90 95  
 Ser Gln Asn Ser Lys Lys Arg Arg Arg Glu Thr Ser Pro Ala Val Val  
 100 105 110  
 Glu Ser Gln Ile Lys Ala Thr Pro Val Ala Gly Lys Pro Leu Arg Ile  
 115 120 125  
 Arg Ile Val Phe Lys Lys Pro Lys Glu Ala Glu Ala Val Pro Gln Glu  
 130 135 140  
 Asp Pro Val Cys Ser Thr Ser Gly Thr Gln Arg Pro Ser Glu Leu Pro  
 145 150 155 160  
 Ser Ser Val Ser Leu Pro Ser Ile Cys Asp His Asp Val Ala Val Pro  
 165 170 175  
 Ser Thr Ser Leu Glu Ser Gly Lys Val Ala Ile Ile Ser Glu Ser Lys  
 180 185 190  
 Lys Arg Lys Lys His Lys Pro Ser Lys Glu Ser Arg Tyr Asn Ser Leu  
 195 200 205  
 Phe Asp Glu Leu Val Pro Pro Cys Ile Ser Leu Glu Glu Asp Asp Ser  
 210 215 220  
 Ser Ser Asp Asp Trp Leu Phe Gly Thr Ser Arg Lys Glu Asn Val Ser  
 225 230 235 240  
 Ser Ala Lys Ser Ser Tyr Lys Thr Asp Glu Asp Thr Ile Met Ser Leu  
 245 250 255

Gln Thr Ser Arg Asp Cys Ser Ser Leu Pro Arg Ala Met Leu Leu Ser  
 260 265 270

Glu Val Gly Ile Phe Ser Leu Pro Tyr Thr Val Pro Phe  
 275 280 285

<210> 1035

<211> 1011

<212> DNA

<213> Arabidopsis thaliana

<400> 1035

```

atggatctcg cgtcgaatct tgggtgggaag atcgataaat ccgatgttct caccgccgtc      60
gaaaagtatg agcaatatca tgtcttccat ggaggaaacg aggaagagag aaaagccaat      120
tatactgaca tggttaataa gtactatgac cttgctacta gcttttatga gtacggatgg      180
ggagaatcct tccatcttgc acaaagatgg aaaggagaat cgcttcgaga gagtattaag      240
cgacacgagc actttcttgc tcttcagctt ggcattccaa caggacaaaa ggtactggat      300
gtaggatgtg gaattggtgg accgttgagg gaaattgcaa gattcagcaa ttcagttggt      360
accgggctca acaataacga ataccagatc accagaggca aggaactaaa ccgacttgca      420
ggtgtcgaca agacatgtaa ctttgtcaag gctgacttca tgaagatgcc attcccggaa      480
aacagtttcg atgcagttta tgcaatagaa gcaacttgcc atgcacctga tgcgtatgga      540
tgctacaaag agatctacag agtgctaaag cctgggcaat gttttgctgc ctatgagtgg      600
tgtatgactg atgcatttga ccctgataac gccgaacatc agaaaataaa gggagagata      660
gagattggag atggtcttcc tgacattagg ctgactacaa aatgcctcga agctctgaag      720
caggccgggt ttgaagtgat atgggaaaag gatctggcca aggactcgcc ggtcccatgg      780
tacttacctc ttgacaaaaa tcattttctca ctcagtagct tccgccttac agctgttgga      840
cgattcataa ccaaaaacat ggtcaagatc cttgaatata taagacttgc acctcaagga      900
agccaaaggg tctcaaattt cctggagcag gctgcggaag gattagtcga cgggtggaagg      960
agagagattt tcacgccaat gtattttctt ttggcccggg agccagagta a      1011

```

<210> 1036

<211> 336

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 1036

```

Met Asp Leu Ala Ser Asn Leu Gly Gly Lys Ile Asp Lys Ser Asp Val
1      5      10      15
Leu Thr Ala Val Glu Lys Tyr Glu Gln Tyr His Val Phe His Gly Gly
20      25      30
Asn Glu Glu Glu Arg Lys Ala Asn Tyr Thr Asp Met Val Asn Lys Tyr
35      40      45
Tyr Asp Leu Ala Thr Ser Phe Tyr Glu Tyr Gly Trp Gly Glu Ser Phe
50      55      60
His Phe Ala Gln Arg Trp Lys Gly Glu Ser Leu Arg Glu Ser Ile Lys
65      70      75      80
Arg His Glu His Phe Leu Ala Leu Gln Leu Gly Ile Gln Pro Gly Gln
85      90      95
Lys Val Leu Asp Val Gly Cys Gly Ile Gly Gly Pro Leu Arg Glu Ile
100     105     110
Ala Arg Phe Ser Asn Ser Val Val Thr Gly Leu Asn Asn Asn Glu Tyr
115     120     125
Gln Ile Thr Arg Gly Lys Glu Leu Asn Arg Leu Ala Gly Val Asp Lys
130     135     140
Thr Cys Asn Phe Val Lys Ala Asp Phe Met Lys Met Pro Phe Pro Glu
145     150     155     160
Asn Ser Phe Asp Ala Val Tyr Ala Ile Glu Ala Thr Cys His Ala Pro
165     170     175
Asp Ala Tyr Gly Cys Tyr Lys Glu Ile Tyr Arg Val Leu Lys Pro Gly
180     185     190
Gln Cys Phe Ala Ala Tyr Glu Trp Cys Met Thr Asp Ala Phe Asp Pro
195     200     205
Asp Asn Ala Glu His Gln Lys Ile Lys Gly Glu Ile Glu Ile Gly Asp
210     215     220
Gly Leu Pro Asp Ile Arg Leu Thr Thr Lys Cys Leu Glu Ala Leu Lys
225     230     235     240

```

047-E2F-PCT.ST25.txt

Gln Ala Gly Phe Glu Val Ile Trp Glu Lys Asp Leu Ala Lys Asp Ser  
245 250 255

Pro Val Pro Trp Tyr Leu Pro Leu Asp Lys Asn His Phe Ser Leu Ser  
260 265 270

Ser Phe Arg Leu Thr Ala Val Gly Arg Phe Ile Thr Lys Asn Met Val  
275 280 285

Lys Ile Leu Glu Tyr Ile Arg Leu Ala Pro Gln Gly Ser Gln Arg Val  
290 295 300

Ser Asn Phe Leu Glu Gln Ala Ala Glu Gly Leu Val Asp Gly Gly Arg  
305 310 315 320

Arg Glu Ile Phe Thr Pro Met Tyr Phe Phe Leu Ala Arg Lys Pro Glu  
325 330 335

<210> 1037

<211> 1275

<212> DNA

<213> Arabidopsis thaliana

<400> 1037

atggcggcag aagagggtaa agatgaggcg ggattggatc aggtggaaga agagttctct	60
atttgaaaaa ggaacacacc ttttctctac gatcttatga tctctcacc actagaatgg	120
ccttctctta ctctccactg ggttccttcg acgccgattc cgtactcgaa agatccttac	180
tttgccgtcc ataagcttat ccttgggact catacctccg gtggtgcca agattttcta	240
atggtcgccg atgtcgttat tccgacacc gacgctgaac caggattagg tggaagagat	300
caggaaccta tcgtccctaa ggtggagatt aagcagaaga tacgtgttga tggagaagt	360
aacagagcga ggtgtatgcc acaaaagcca actcttgtgg gtgctaaaac aagtggctct	420
gaggtgtttc tgtttgatta cgccagactc tctggaaagc ccaaacaag tgagtgtgat	480
cctgatctga ggctaattggg acatgaacaa gaaggttatg gattggcttg gagttccttt	540
aaggaggggtt atcttttgag tggctcacia gatcagagaa tctgcctttg ggatgtctca	600
gcgactgcca ctgataaagt tttgaaccca atgcatgtgt atgagggaca tcaaagtatc	660
atcgaagatg tagcatggca catgaagaat gaaaacatat tcgggtctgc gggatgatgat	720
tgtcaattgg tgatatggga cttacggact aaccaaatgc aacaccaagt caaagttcac	780
gagagagaga taaactatct ttctttcaat cccttcaatg aatgggtact agccacagct	840

047-E2F-PCT.ST25.txt

```
tcctcagact caactgtcgc cttgtttgac cttcgtaagc tgactgcgcc attacatgtc 900
ctgagcaaac acgagggaga agttttccaa gtggagtggg atcccaacca tgaaacagtg 960
cttgcattct ctggcgagga cagaagactc atggtctggg atatcaacag ggttggggat 1020
gagcagcttg aaatagagtt ggatgcagaa gatggtccac ctgagctgct cttctctcat 1080
ggaggccaca aggccaagat atcagacttt gcctggaaca aggacgagcc ttgggtcatc 1140
tcaagtgtag ctgaagacaa cagtcttcaa gtctggcaaa tggcggaag catctaccgc 1200
gaagatgacg aggatgagga tgatgatgat gaaggcaacc aaaatgcaca acattccaat 1260
gaaaaccaga aatga 1275
```

<210> 1038

<211> 424

<212> PRT

<213> Arabidopsis thaliana

<400> 1038

```
Met Ala Ala Glu Glu Gly Lys Asp Glu Ala Gly Leu Asp Gln Val Glu
1          5          10          15
```

```
Glu Glu Phe Ser Ile Trp Lys Arg Asn Thr Pro Phe Leu Tyr Asp Leu
20          25          30
```

```
Met Ile Ser His Pro Leu Glu Trp Pro Ser Leu Thr Leu His Trp Val
35          40          45
```

```
Pro Ser Thr Pro Ile Pro Tyr Ser Lys Asp Pro Tyr Phe Ala Val His
50          55          60
```

```
Lys Leu Ile Leu Gly Thr His Thr Ser Gly Gly Ala Gln Asp Phe Leu
65          70          75          80
```

```
Met Val Ala Asp Val Val Ile Pro Thr Pro Asp Ala Glu Pro Gly Leu
85          90          95
```

```
Gly Gly Arg Asp Gln Glu Pro Ile Val Pro Lys Val Glu Ile Lys Gln
100         105         110
```

```
Lys Ile Arg Val Asp Gly Glu Val Asn Arg Ala Arg Cys Met Pro Gln
115         120         125
```

```
Lys Pro Thr Leu Val Gly Ala Lys Thr Ser Gly Ser Glu Val Phe Leu
Page 1583
```

130

135

Phe Asp Tyr Ala Arg Leu Ser Gly Lys Pro Gln Thr Ser Glu Cys Asp  
145 150 155 160

Pro Asp Leu Arg Leu Met Gly His Glu Gln Glu Gly Tyr Gly Leu Ala  
165 170 175

Trp Ser Ser Phe Lys Glu Gly Tyr Leu Leu Ser Gly Ser Gln Asp Gln  
180 185 190

Arg Ile Cys Leu Trp Asp Val Ser Ala Thr Ala Thr Asp Lys Val Leu  
195 200 205

Asn Pro Met His Val Tyr Glu Gly His Gln Ser Ile Ile Glu Asp Val  
210 215 220

Ala Trp His Met Lys Asn Glu Asn Ile Phe Gly Ser Ala Gly Asp Asp  
225 230 235 240

Cys Gln Leu Val Ile Trp Asp Leu Arg Thr Asn Gln Met Gln His Gln  
245 250 255

Val Lys Val His Glu Arg Glu Ile Asn Tyr Leu Ser Phe Asn Pro Phe  
260 265 270

Asn Glu Trp Val Leu Ala Thr Ala Ser Ser Asp Ser Thr Val Ala Leu  
275 280 285

Phe Asp Leu Arg Lys Leu Thr Ala Pro Leu His Val Leu Ser Lys His  
290 295 300

Glu Gly Glu Val Phe Gln Val Glu Trp Asp Pro Asn His Glu Thr Val  
305 310 315 320

Leu Ala Ser Ser Gly Glu Asp Arg Arg Leu Met Val Trp Asp Ile Asn  
325 330 335

Arg Val Gly Asp Glu Gln Leu Glu Ile Glu Leu Asp Ala Glu Asp Gly  
340 345 350

Pro Pro Glu Leu Leu Phe Ser His Gly Gly His Lys Ala Lys Ile Ser  
355 360 365

Asp Phe Ala Trp Asn Lys Asp Glu Pro Trp Val Ile Ser Ser Val Ala  
370 375 380

Glu Asp Asn Ser Leu Gln Val Trp Gln Met Ala Glu Ser Ile Tyr Arg  
 385 390 395 400

Glu Asp Asp Glu Asp Glu Asp Asp Asp Asp Glu Gly Asn Gln Asn Ala  
 405 410 415

Gln His Ser Asn Glu Asn Gln Lys  
 420

<210> 1039

<211> 15468

<212> DNA

<213> Arabidopsis thaliana

<400> 1039

atggctattg atgggagttt caaccttaaa cttgccttgg agacgttctc tgtacgttgt	60
ccaaaggctg cagcttttcc atgtttcact tcgattctca gcaagggagg agaagttgtg	120
gataacgaag aggtgattca tgctttaggg gatgctgttc ttcacccgga gtttacagtt	180
ccgttggttc attgcttcct tccaataata agaaatgttg tagatagagt ggtgggtcct	240
cttcgtctag tggatgatct taagtcaagt attgactact cagacgatgt gtcacagtt	300
ttggataatg ctatgacgga aggtattagt gtgattgatt tttatgtccg gcgtggacaa	360
aggttggagc ttcattgagt tgcttgcttg gccttcagtc gtgcgcttca tttcaatacg	420
tctttgttag ggtctattct aaattatttt gagaaagctc caccaccata cgagcgaatt	480
cttgtgaaag atatatgttc tgagtcgcgc atggaggcta cagatgcgta cttgctttgt	540
cttcgagtat catatcgttt tcttgtcatt agacctgaag ttttctctaa gttgtgggat	600
tggctctgtt acttggaact catgaaaagg ctctcagaat gtcctagaca acaaaggcat	660
ttcttggaag agtatcgaga tgctgtgtgg gatgtcaatt ctttctctga accatttgaa	720
atccactcta ggggtgaagaa atcttttgaa atgggtctcat tggctgttag tcaaaagcga	780
cctgttcttc tgtatggtcc ctcggggtct ggaaagtctg ccctcattag gaagttggct	840
gatgaaagtg gtaaccatgt tgtattttat cacatggatg atcaacttga tgggaaaaca	900
ttggttggca cttatgtgtg tactgatcaa cctggcgaat tcagatggca gcctgggtca	960
cttaccagag cgattatgaa tgggttcttg gtggttcttg aggacataga caaagctcca	1020
tcagatgttc ccctcgtctt gtcacttttg ctgggagggt cttgctcatt cttgaccagt	1080
caaggagagg agatacggat agcagaaact ttccaactgt tttcaactat atcgacacct	1140
gaatgcagtg tgtcacacat cagagacgct ggaaattcgt tgagtcctct atggaggaga	1200

attgtttgtat atccaccaga tcgtgagagc ttgcaaagta tcctgggtgc taggtatcct	1260
aacctaggtc ctgttgcaga gaagcttatt gaaacatttg aaaccatcaa ctctgctctt	1320
cgtccccaat tttctagttc aacaactgaa aactcagcta ctttcagttc tccaagtaga	1380
ttttcactga gagatctgct caagtgggtg gaacgagttc atggcctgcc ctcctatgat	1440
ggccatgcag tttatcagga ggcagcagat atattctctg cgtctaatat gtcagttaaa	1500
aaccgagtgg cagtaagtga gattgtggct agtattttgga atgtcgctgt tccagaatct	1560
caggataagc ccccaattca gtcacatgat cgggtctaggt ttgttgaaac acgcacatct	1620
acacggttac ttgagaaaat agctcgctct gtcgagtaca atgagccagt tctcttagta	1680
ggagaaacag ggactgggaa aacgacacta gttcaaaatc ttgcacactg gatcggacag	1740
aaactcactg ttttgaatth gagccagcaa agtgatatag ttgatctatt ggggtggtttt	1800
aagcctattg atccaaagct tatgtgcaca atggtgtaca atgaattcaa tgaattggca	1860
agagatttga agattaagga tgattcaaaa attatgaaat ggctgcaaga taattttaga	1920
gccagaagt ggcatacatt tttgactggg ttattggaca ttattaaagg cattgaaggt	1980
agaattactg aacgcatgga aggtaaaatt ggggaagcaa ggtctagatc tggtagaaag	2040
aggaagaaac cagaagaaga gctcaaaaac tgtgcgtgtc tgaggacgaa agtgaataag	2100
atacgacaac agatccattc aggtggaatg gtttttacct ttgttgaagg tgcgtttgtg	2160
actgccctca gggaggggca ttgggtttta ctagatgaag tgaacttagc cccaccagag	2220
atattgggca ggctgattgg tgttcttgaa ggagtgagag gatcactttg tttagctgag	2280
agaggggatg taatgggcat tcccagacat ttgaatttcc gtttgtttgc ttgtatgaat	2340
ccagccacag atgctggtaa gcgagacttg ccattctcat tccgaagcag atttacagag	2400
tatgctgtgg atgatgacat atgtgatgat gacctggaga tattcgtgag acgattttta	2460
ggtggacgtg gatctgacag taagttagta gccaacattg tttggtttta caaagaagct	2520
aaaagggttat ctgaagaaag cttgcaggat ggtgctaatc agaagccaca gtacagctta	2580
aggtctctat accgtgcgct agaatatgcg ataaaagcag aagctatttg tggttttcag	2640
aaagcattat atgatggatt ttccatgttt ttcctctcct tattggatgc ttccagtgc	2700
aagatcgtgg aaccgataat aaagcgtatc tccggggaaa atatccgaag ccaaccactt	2760
caaagatact tgggagaatt aaaaggcagt tctgataaat ttgttggcag ttatgttaag	2820
acgaagagtg taattgatca tcttaatcat ttggcgcagt ccatttttat taaaagatat	2880
cctgtgctct tacaaggacc aacatccagt ggaaaaacaa gccttgtcaa atatcttgca	2940
gcaataagtg gaaacaaatt tgtaagaatc aataatcatg agcagactga tatccaagag	3000
tatttaggtt cctatatgac tgattcttca ggggaagcttg tatttcacga aggagcgttg	3060
gtgaaggctg tcaggggtgg gcattggatt gtcttagatg aacttaattt ggctccatct	3120



gatgtcttag	aggcactaaa	caggctgctt	gatgacaata	gggagctttt	tgtgcctgag	3180
ctgagtga	caatctcagc	gcataccta	tttatgctct	tcgctacaca	gaaccctcct	3240
actttatat	gtggacgcaa	aatactgtct	cgagcttttc	gcaatcggtt	tgtggagatt	3300
catgttgat	aaattccaga	agatgaactg	agtgaatttc	ttactacgaa	gtgtagtatt	3360
gctaacagtc	atgcttcaaa	aatgggttgaa	gtgatgaaag	acctgcaacg	caataggcag	3420
agtagcaaa	cttttgctgg	aaaacatggt	tatataactc	caagagattt	attccggtgg	3480
gcctatcgtt	tcaggactta	tgacggtaca	tctcatgaag	aactcgccag	agaaggggat	3540
tacatccttg	cagaaaggct	gcgtgatgac	actgagaagg	tagttgttca	agaggtgctg	3600
gagagacatt	tccgtgtcag	tcttgccaaa	gatgatttgt	acaatatggg	attctttcct	3660
gtgagagaca	gatcaaaatt	gatcacagaa	tacgagaatc	aagtcaaaca	gttggagctc	3720
tctcaggcat	tgacgccttt	tgcccaagat	attgttattt	gtggagatat	tagtagagct	3780
gaagtgtcga	tcaaatcagt	agaggtagct	ttggagaagt	acaaaaatgg	ttcagttata	3840
ggagtggccg	ccacgccaca	ggatgttgat	tttcttgaga	aaataaggaa	caatatggtg	3900
atgctgtatc	aaaaatggcg	tgcaatat	gtttggcaag	atggggccct	tgtggaagct	3960
atgagagctg	gaaatatcgt	tcttgtggat	gagatatctt	tggtgatga	cagtgtatta	4020
gaaagaatga	atagtgtgtt	ggagacagac	aggaaattgt	ccttagctga	gaaaggtggt	4080
cccgtcttgg	aggaagtgtg	agctcatgaa	gacttttttg	ttctagccac	catgaacccg	4140
ggtggtgatt	atggaaagaa	ggaattgtca	cctgcgcttc	gtaatcgttt	tactgagata	4200
tgggtccctc	ctattacaga	tactgaggag	ctcagaagta	ttgccttttc	tggcctgtcc	4260
agtttgaagg	aatctaattg	tgtagatccc	atcatcaact	tctgggagtg	gttcaacagg	4320
ttgcatactg	ggagaacgct	tactgtcaga	gatctcctct	cctggggtgc	atttgtcaac	4380
atggcaactg	agagtttagg	accagcatat	gctattcttc	atggagcatt	tctcgtgtta	4440
cttgacgggt	taagtctcgg	aactggtttc	tctggaaggg	atggtcaaga	tctgagagaa	4500
aaatgcttcg	ctttcctgtt	acaacaactt	gagctttttg	ctagcgatac	actacctttg	4560
gagctttcaa	gaatggagct	gtatggctgg	ggtgattcca	aagcaatttg	tgaaaaaagt	4620
aagagtgttc	gacatgaggg	catgtttggc	atcgatccat	tttttataag	caaaggtgat	4680
gaaaatcctg	agattggtgg	attcgagttt	ttagcaccaa	ctaccacag	gaatgtcttg	4740
agagtattgc	gtgcaatgca	gctttcaaaa	ccaattttat	tagaaggtag	ccctggtgtt	4800
ggaaaaacta	gtctgatatt	ggcgttggga	aaatattctg	gccacaaggt	tgtgcgcata	4860
aatctatcgg	agcagactga	catgatggat	ttgctgggat	cagatttacc	agttgaaagt	4920
gatgaggaca	tgaagtttgc	ttggtctgat	ggaattctct	tgcagggttt	gaatgcgatt	4980

ttggatcatc	gtgctcaagt	cttcatccca	gaactgggct	gtacctttga	atgccctcca	5040
acatttagag	tttttgcattg	tcagaatcct	tccactcaag	gtggtggcag	gaaaggtctt	5100
cccaagtctt	tccttaaccg	attcacgaaa	gtttatgtgg	acgagttagt	ggaagatgat	5160
tacctcttca	tctgtcgtc	actttaccca	tctgttccta	gtccattgct	ttcaaagctt	5220
attgctctca	acagacagtt	acacgatggg	actatgttat	atcgaaagtt	tggtcacgat	5280
ggctcaccat	gggaattcaa	tctacgggat	gtgataagat	catgccagtt	tatgcaagag	5340
gcgatacatg	acttagaagt	tgaaagcttt	ctcaatgttc	tgtacattca	aagaatgcgt	5400
actgcaactg	accgtaaaga	agttctgcgt	atctataagg	ctatTTTTga	taaaacccccg	5460
tcgataaatc	cgtatcctcg	ggttcagcta	aatcctgcgt	acttagttgt	tggaactgct	5520
gccattaaac	gaaatttaaa	tcagtctaata	attgccagtg	agcagttgaa	acttttgcct	5580
gaaatccgtc	aaaatctgga	agctgttgca	cattgtgtgc	agaataaatg	gttgtgcatc	5640
ctagtcggac	catcgtcatc	tggaagact	tcggtgatca	gaatattggc	tcagttaaca	5700
ggatatcctc	ttaatgaatt	aaatctttcg	tctgcgactg	acagctctga	tctactcgga	5760
tgctttgagc	agtacaatgc	cttccgtaata	ttcagattgg	tgatgactcg	agttgagcac	5820
cttgtcgtatg	agtataacag	tctgtctatta	cagtcttccc	aggaggccct	tttcagcaat	5880
aggagtggct	tagtttccag	atggctttcc	tatttaaata	agattgattc	ctctctcgtg	5940
gagaacccat	tattcttctt	gaacgactct	gaaacactgt	ctacattaga	agaggttgta	6000
gaagacctgg	aacaggtctt	gaaagaaggt	gttttaccgc	ttagttgggc	aaaaaagtat	6060
ctggaacaaa	tctcgaagac	tatattgcag	ttacaaactc	atgagaaaaa	gcagtctaca	6120
aagtttgaat	gggtgacagg	aatgctgata	aaggcaatag	aaaagggaga	gtgggttgtc	6180
ctcaaaaatg	ctaattctctg	taatcccacg	gtacttgata	gaattaaactc	attggtggaa	6240
ccgtgtggat	caatcactat	aaatgaatgc	gggatcggtta	atggtgaacc	tgtcactgtg	6300
gttccgcacc	caaactttcg	tttgttcctg	tctgtaaaatc	caaaatttgg	ggaagtatca	6360
agagcaatga	ggaatagagg	cgttgaggta	tttatgatgg	ggccacattg	gcagctcaat	6420
gaggatggct	caaactgtga	agagcttgtg	ctgagagggtg	tggaaggggtt	tcttgctctg	6480
tcaggatattc	caggttataa	gctgggttact	tccatggcca	aagcacatgt	tcattgcatgg	6540
ctaaacgggtc	aaagcttttg	tgtacggatc	acgtatcttg	agctcgaaca	gtgggttcac	6600
ctctttccaat	tgctgctcat	gaatggtaata	caacttttgt	ggagcttaca	gctaagttgg	6660
gagcacatct	atctctcttc	gcttggggta	actgatggaa	aagaagttgt	tgattttgtg	6720
cgtgagacat	atttatcaga	tggtgaactt	tctgagcttg	attcatttat	gggtggggat	6780
ctgtacctgc	ctggaggatg	gccaaagcct	ttcaacttga	gagacttgac	atggtactca	6840
agagaaacaa	cagtaagaca	gaattgcatg	tatctggagt	tcctaggagc	tcagtatgcc	6900

tcacatcagc	ctaaaataag	cgacaatgtc	aatcaagag	atagggagtt	ggctgctggg	6960
gaaccaagaa	ttattttattc	tattgattct	tggacgctta	aaaaagtctt	gtttcctaaa	7020
gccttaattg	ggtcaagctg	tgcaccagat	gcagcaaatt	ttgaaaatga	tttggcttca	7080
aaaatgctat	tgtttgctgc	caactggaca	atagaacagg	caaccgaaga	ggatattcaa	7140
ctctatcttg	cgtggtttag	ttggtttggt	tctagactgc	aacaacactg	tccgtttctg	7200
ctttgttttc	tcaatacggt	gaagggttag	tttgagcatc	caatttgga	tcatatatct	7260
agatgtcgg	aaaatctgaa	attcctctgc	agattggatc	cagatgctgt	tccaattcct	7320
atgctgtcct	ccaaattgat	tgatgtagcc	gcacaaatg	accagtccaa	accttacagt	7380
aaatccctct	ttgagtctct	caactctggt	ggcgttcttc	gtcgttcgta	tcagcagtg	7440
cttgtagaga	gcaacgacaa	ccacacagat	gtatccactt	ttactcgggt	tttggattcg	7500
cttcgcgtat	tggagaagaa	aattctttgc	gaaattggtg	gagcaccatc	tttcagtggt	7560
ttgattcagt	tgtacaccga	agttattgac	aaccattcat	tcttttggtc	tggtttggtc	7620
tcttcttcag	atgagtatct	attgttttcc	ttttggtcac	tgataaaatc	tatcaaaaag	7680
atgcacagtt	ttttccctgg	agaagttcag	gtggttctgg	aggaaagcaa	aaatattaac	7740
aacatagttt	tgcattggtc	ccctgaaaag	tctatgctgt	gggcttatgg	gggacatcct	7800
tccttgccgg	tatctgcaga	gctgttccac	aagcagcaag	agtttctaca	gctgtgcagc	7860
acagtttggc	cattgaaatc	agaatcagat	gaacacggaa	atgatcatct	taccaaagcc	7920
attccatttt	ctggccctga	attatgtttg	cttgccctgg	aaggctcttg	catttcattca	7980
tacattgctg	acgaagacga	tgtagattat	gtagctgctg	ttcagctgga	tgagatctac	8040
cagacttttt	tggagaggct	gaaactagag	aagaagagac	tggaggataa	aatgggtttc	8100
agtgagattg	acaatactga	aaatataact	gcttcctgct	gcgtgttctg	tccagagatt	8160
gtgactacag	ggtctggatt	tagcagttgg	gtgaagacat	gttttattgc	tagcagtgaa	8220
agttgttctc	tagacgtaga	gttacttgct	gcacttcagc	acctcttggt	tgctcgacct	8280
actgaacatc	aggatcttgt	ggacattcga	aaactgctca	aaccggctct	agaatattct	8340
ttatcctcaa	ccaggcctcc	acagactctt	gtagctcatc	aaaaactcct	gtgggcaatt	8400
gatgcacatg	cctctgaact	aggagtggac	accaaatttg	ctggttttgc	tctcgagatt	8460
tgggtactgg	ggcattctgt	attgtggaaa	aatagtcaaa	ttggtctcat	gattgcat	8520
ttagtaacat	ctttctttca	tctcatgttc	acggggccta	cagaatatct	cagacactgg	8580
caactgtcag	attctgtcac	cttctatgct	gattcagcct	gtgaaaacag	ctaccgttgc	8640
tcagattcta	taatataac	gcacaaaag	tcatttgagt	cagaaacggt	tgtggcaatt	8700
aagtctgtat	ttcatgcaat	tgagaaaaag	cagaacaaga	tggatggaat	acagaatctt	8760

atctcactga	ttggctcatc	aagccataat	aaattgaaat	ccgttactca	ctcatttgtc	8820
ggaccattag	caaaacgtct	ttattccgat	agctcatcaa	atgaattcta	ctgcaatctt	8880
ggcttggcgt	ggctttatct	tggaggacta	cgcttccatc	ttttgaatag	cttagatggt	8940
atagatccag	ccatgaagat	cacttgcaag	ctgttaaagc	tagaagagaa	aatctcatca	9000
cttgagctaa	acatcaaggt	ccggggagaa	tgtgggtatc	tgtctggatt	gctttactct	9060
ggaaacaatg	acgaaagcag	tgaacataca	ttatctaagc	tcaaaactga	gcataaaaga	9120
ttgcaaagaa	aggttatctt	tagatctgat	ccaaaaaagt	accaggatct	acgaagggcg	9180
ctggatgaat	ttgctggatt	tctcacacgt	cccataagtc	tggtcaacga	tattgaagtg	9240
cttgattgga	atcaggttgt	tgagcagggt	ttcaactggc	aggagacagc	aatatctttt	9300
attgatcgga	tgtcaagtga	ctattctgaa	tatgtcgata	taactcagcc	aattcaagtt	9360
tcagtgtacg	agatgaaatt	gggtttatca	ctctttgtat	ctggtgctct	cttgggaaaa	9420
cttctcaaca	gatttgacat	agacatgggt	gactcagtc	tggaacaat	ttatgcctta	9480
atgagatttc	caagggactc	gtcgatagct	tcaactacct	acaccgaatg	tttgccacct	9540
ttgcaccttt	cccatgggtg	aaattctcgt	gctaagtcct	taggtttgga	tggtggcttg	9600
ttgcacaaac	ttatctctgt	ttcaagtga	gaagattcga	gaaaagcctc	agagttgcaa	9660
ctcaaagttg	ctctttataa	aaatctccat	gctcgtgttt	tacaatttgt	cgcaaatact	9720
gggctactgg	atgaagcttc	ttttgagtta	ttggacaaga	tatatgttga	attggcgaga	9780
atttggtatg	agatgaagtt	tcaagccaaa	acaaaggctg	acaatcttcc	tgggctgtac	9840
aaatttcgtt	cccgggactt	caaaattgat	agtgtcatgg	aagtagatat	atctgccctt	9900
ggcaagtatt	tcccaaacga	aagtttctct	gagtggcaag	agtatctggc	tgatgatgat	9960
acgaagaatg	tgaaagatat	gacacatatt	gaccaggatg	aggaaaattt	ggaggatgat	10020
tgggacttga	tacaggagca	tctggatagt	atatatagca	cacataatga	gttatttggt	10080
ttctgtgacc	tctctgaaaa	gacaatttat	tctattcagt	ctggaagatt	ctgtattact	10140
gacagtagaa	gactggattc	gttactgat	tcctatgaac	ttggagtcag	tatgatcaaa	10200
gggctaaggg	gtttattttac	atcgagcttg	gatgcaaaac	ttgttccaga	acacctactt	10260
cgtctttgcc	tggaaaacaa	aaaaaacttc	acttcaaact	atcagtcagc	cagtaaatat	10320
aaacttttaca	aggattttgga	tggtcctgag	ctggggaaaa	tggtcaagtt	tctcactcct	10380
cttcaacaaa	gaattaattc	tctattgcaa	gaacgggagg	accatcctgg	tcttcagaaa	10440
ctttctgggtg	tacttcagat	gctcttggct	attccctcca	gtactcctct	cgcaaaggct	10500
ctctcaggat	tgcaatttct	gctctgcaag	gttcacaagt	tacaggaaga	gggatgtaaa	10560
ttgcccattct	ctgatctttt	ggagccaatt	atttccctag	caagctcttg	gcagaaggtg	10620
gaatttgagc	gctggcctac	tttgcttgat	gaggttcagg	atcagtatga	actaaacgct	10680

## 047-E2F-PCT.ST25.txt

aggaagttct gtttcagaag gatgctgtgg aaatttcaga acatgaaaac gagtccattt 10740  
 cacaaagtat cattcttgaa ggatttaaag ggccttcagc attatatact taagtcttca 10800  
 cagttgattg ctccctccgct gtttttacag ttgacttcta acttgactgt ctttgactcc 10860  
 cgcttttact ttgacagtga ttcacacaag aggaggggtgg aaatgtgcta caatattttt 10920  
 ggattctata ttcaatttct accggttgta atggagcagt tagatttgaa tagaaaaaat 10980  
 gttgaaactg agttaaagga ggttcttaaa ctttgtcggt gggagaggcc agataattat 11040  
 ttgtacaatg agaccactaa aaggaccagg caaaagggtca agaaactgat acagaagttt 11100  
 acggacatgc tacgcctccc tgtaatgctt gttaagccag acctgacgaa ggaacgagct 11160  
 caatttctcc ctctactaga tccagatctt atggatggag catccgacat gaggatcgag 11220  
 gtcctagtta gtgctttaga tgcagagcaa ttgagggaca ggtcttcatg gtatgttgtc 11280  
 tgggtggaata aattaaagga atcggtagga cgctttcacc aagaaatgca ctataaaaca 11340  
 ttgctgatgg gtgcagagca tcagtattcg tcccctgtct atcaggggtga ttggaaaaat 11400  
 ttgtggagta cggttgctag gattggtgaa accatagctg gctgttcaga tctatggaga 11460  
 aacagtgata gagatgttgc aaagaagagg gccctgtttg aacttctcaa gttattagaa 11520  
 agtagtggtt tgcagaaaca caagtttgaa aatatagaga tgtcaaatca ctttaaaggg 11580  
 ttgctttatc agccagcata cgatccaaag catctgttac tgctaacaca taccaaaagt 11640  
 aacatacatc cttccatggg tgtagaagat caaaacaagg aaaattcact agttgagtgg 11700  
 agagtggcaa atgagtttta ctttaagagc ttggcttcag tgcaactcat gttaaattat 11760  
 gaccgaaaac actccgatgt aacagctgag caggttaaac gggcaatctc atttctcaat 11820  
 catcttgtgg aaataacaacg gcaacaaagg aaatctgcgt atgcctttgc cgaacttttc 11880  
 aaccgctttc gccaatgtgt tttatctcta gcgagattac tgggtgattc agttggtgcg 11940  
 gatagaaagg atgattctgt gttcagtttc ccccaaaatc aacatgctgt cttcaattgc 12000  
 ttgtggctac agaagcaact ctttgataac attactgcaa tgcttcttga ggagtcggcc 12060  
 ttactgagaa cagttggaag tacacacttg gattcctgtc aagctgtgaa aacctcatca 12120  
 cggagtttgc tcagctttat tgaaatacta attcccatcg ctcaaaattc caaggcttcg 12180  
 ctggataggc ttctacttga ttgcaacggt tttatcatca caccaagtag cagtcttaag 12240  
 cagtttgtca ctacgcatat gggtcaggtg ctacgccaga actttgatca acttacggac 12300  
 cttgagaacc aaatttcaag tttctgtgaa aacaatgaga aaagctattg cagagacggt 12360  
 cttctcagtc aattttcccc tgtgttttaa gaggggaaat tgttggctga aaatctgaac 12420  
 tgcttactta acgtgagaga ccagtcaact ggaatggaac ccaaggaacg actatttctt 12480  
 gaagaaaatc ttgcaagtat atttgcaa atgttaaggatg tgattggaaa gctttgctct 12540

tataaagatg	gaagtctttc	tcaagaagag	gaaatgaata	ttactacatg	ggatggtctg	12600
tttaagaagg	cagaaaatga	cttgaacctt	gataacctgt	gtaaactcct	gtccgaatca	12660
tttggttcca	ttgaacaact	gttgaactca	tcaggcgtcc	tttcagctgg	tggttgagac	12720
cagttgaagc	aacttcaagc	atTTTTggat	cttttattga	gctttgggga	ttgttacctt	12780
aaagagtttt	tggcgataag	caaaacggtt	tcactgataa	cccatgtcct	tgcaagtgtt	12840
cttgccgatc	tattttacaaa	aggatttggc	atctccaaaa	atgaagaaga	tgatgactct	12900
aaagttgaca	aatcggaagc	tgacagaagg	actggtatgg	gagatggtgt	gggggcaaaa	12960
gatgtaagtg	accaaataga	agatgaagac	caactgcatg	gcacagataa	gaaggaagag	13020
gaagagaaa	agcaagatga	tgtgctgggt	aaaaacaaa	gcattgagat	gagtgcagaa	13080
tttgatggca	aagaatacag	cgttagttag	gatgaagaag	aagacaagga	agacgaagga	13140
agtgaggatg	agccgttggg	taatggaata	ggagatgtgg	gatctgatgc	cgaaaaagcc	13200
gatgaaaagc	catggaacaa	ggatgaagaa	gatgaggaag	aaaatatgaa	tgagaagaat	13260
gaatctggac	catctatagt	cgacaaggac	acaagatcaa	gggagctaag	agccaaggat	13320
gatggtgttg	aaactgctga	tgagcctgag	gagtccaata	cttctgacaa	accggaagaa	13380
ggaaacgatg	agaatgtgga	gcaggatgat	tttgatgata	cagataattt	agaagaaaaa	13440
atccagacca	aggaagaagc	acttggtgga	ctaactcctg	atgtcgataa	tgaacaaatt	13500
gatgatgaca	tggagatgga	caaaacagag	gaggctgaaa	aggaagatgc	aatcagcag	13560
gaagaacctt	gttcagaaga	tcaaaagcat	cctgaagaag	gtgaaaatga	tcaagaagaa	13620
actcaagagc	catctgagga	aaatatggag	gctgaggctg	aagatagggtg	tggatcacc	13680
caaaaagaag	aacctggaaa	tgatcttgaa	caggaaccag	aaacggaacc	aatagaagga	13740
aaagaagtta	tgtcagaaga	catgatgaaa	ccgaacttcc	gtaatgataa	tatttctggc	13800
gtagagtctg	gttcacaaaa	tcccatggg	tctaattgtg	tgggtgcagg	aagtacagca	13860
ccacaagaaa	atttgtctgc	tactgatgtt	acggatgaac	tcactgattc	aatggatctg	13920
ccttcgagta	gtaacacgga	aatgaacctc	atgatgacca	acatggccaa	cggtgagaca	13980
ttgacagaca	acttaccaaa	gatggaattt	cctcaaaacc	agtcattctac	tgctcaacaa	14040
accaagggtca	atccttatag	gaacgttggg	gatgccttga	aggagtggaa	agaaagagtt	14100
agaatctcct	ctgaccttgg	agaaaagcaa	gaggctgaaa	atgagatgga	agaccctgat	14160
gctagtgaat	atggatttgc	ttctcagttt	gatgcaggaa	cttcccaagc	tctaggacct	14220
gcgttgccctg	agcaagtga	cacagatatg	agagaagggg	aatccgaaga	agaaaaactt	14280
gcaggtaatc	aggatgatgt	ctctccaatg	gatattgatg	acttgaaccc	agaaaacaaa	14340
cctgctgtcc	aatccaaacc	atcgatcagt	aatagcatcg	cggaacagg	ccaagaacca	14400
gatacagata	ggaccaccca	agagaactct	cctattcata	atTTTtgggtga	tggtaacagt	14460

047-E2F-PCT.ST25.txt

```

aggatggact ctatggtctc tgtcgacaat actttcttgg gggaagaggc atgtaatctg 14520
gaccggatgc aagtgactga taatgactcg gaaagcaatc aggataatca ggaagatcca 14580
gatgccagaa gcaatgctgt tgttctttgg aggagatgtg aattgcttac tgcaaaaccg 14640
tctcaggagc tggctgagca actacgtctt atcttagaac ccacgcttgc tagcaagctc 14700
agtggtgact acagaacggg taaaaggatc aacatgaaga aggttattcc atacatagca 14760
agtcactatc ggaaagataa aatttggttg aggaggacaa aaccaaaca gcgtgattac 14820
caagttgtta tcgctgtgga tgactcgcgt agcatgtcag aaagtggatg tggtgatttt 14880
gcaattagag ctttggcaac ggtatgccga gctatgtcac agcttgagct gggaagtgtt 14940
gctgtggcaa gtttcgggaa gcaagggagc ataaagatgt tacatgattt tggtcagtct 15000
ttcaccacag aatccggcat taagatgatc tcaaatttga catttaaaca agaaaatctc 15060
attgaagatc aaccagtcgt caatctgctg agaaacatga atgaaatgct agagaatttg 15120
gccagcacia gacgacagtc ttacgggagc aaccgccttc aacaacttgt actaatcatc 15180
ggcgatggga agttccatga gcgagagaag ttgaaacgaa ctgttagaag ctttctccag 15240
caaaaacgta tgggtggtata tctgcttctc gatgacgcag agcaatctgt ttttgattta 15300
gcggactatg tatatgatgg tgaaaggaga ccttataaga aaatgaatta cttggattcc 15360
ttccccttcc catactacat tgtgctaaga gacatcgaag ccttaccag aacacttggt 15420
gatgtgttga gacagtgggt cgagctgatg caaagctcgc gggactga 15468

```

<210> 1040

<211> 5155

<212> PRT

<213> *Arabidopsis thaliana*

<400> 1040

```

Met Ala Ile Asp Gly Ser Phe Asn Leu Lys Leu Ala Leu Glu Thr Phe
1           5           10          15

```

```

Ser Val Arg Cys Pro Lys Val Ala Ala Phe Pro Cys Phe Thr Ser Ile
20          25          30

```

```

Leu Ser Lys Gly Gly Glu Val Val Asp Asn Glu Glu Val Ile His Ala
35          40          45

```

```

Leu Gly Asp Ala Phe Leu His Pro Glu Phe Thr Val Pro Leu Val His
50          55          60

```

047-E2F-PCT.ST25.txt

Cys Phe Leu Pro Ile Ile Arg Asn Val Val Asp Arg Val Val Gly Leu  
 65 70 75 80  
 Leu Arg Leu Val Asp Asp Leu Lys Ser Ser Ile Asp Tyr Ser Asp Asp  
 85 90 95  
 Val Ser Ser Val Leu Asp Asn Ala Met Thr Glu Gly Ile Ser Val Ile  
 100 105 110  
 Asp Phe Tyr Val Arg Arg Gly Gln Arg Leu Glu Leu His Glu Cys Ala  
 115 120 125  
 Cys Leu Ala Phe Ser Arg Ala Leu His Phe Asn Thr Ser Leu Leu Gly  
 130 135 140  
 Ser Ile Leu Asn Tyr Phe Glu Lys Ala Pro Pro Pro Tyr Glu Arg Ile  
 145 150 155 160  
 Leu Val Lys Asp Ile Val Ser Glu Ser Arg Met Glu Ala Thr Asp Ala  
 165 170 175  
 Tyr Leu Leu Cys Leu Arg Val Ser Tyr Arg Phe Leu Val Ile Arg Pro  
 180 185 190  
 Glu Val Phe Ser Lys Leu Trp Asp Trp Ser Cys Tyr Leu Asp Ser Met  
 195 200 205  
 Lys Arg Leu Ser Glu Cys Pro Arg Gln Gln Arg His Phe Leu Glu Lys  
 210 215 220  
 Tyr Arg Asp Ala Val Trp Asp Val Asn Ser Phe Ser Glu Pro Phe Glu  
 225 230 235 240  
 Ile His Ser Arg Val Lys Lys Ser Phe Glu Met Val Ser Leu Ala Val  
 245 250 255  
 Ser Gln Lys Arg Pro Val Leu Leu Tyr Gly Pro Ser Gly Ser Gly Lys  
 260 265 270  
 Ser Ala Leu Ile Arg Lys Leu Ala Asp Glu Ser Gly Asn His Val Val  
 275 280 285  
 Phe Ile His Met Asp Asp Gln Leu Asp Gly Lys Thr Leu Val Gly Thr  
 290 295 300  
 Tyr Val Cys Thr Asp Gln Pro Gly Glu Phe Arg Trp Gln Pro Gly Ser  
 305 310 315 320



047-E2F-PCT.ST25.txt

Leu Thr Gln Ala Ile Met Asn Gly Phe Trp Val Val Leu Glu Asp Ile  
 325 330 335  
 Asp Lys Ala Pro Ser Asp Val Pro Leu Val Leu Ser Ser Leu Leu Gly  
 340 345 350  
 Gly Ser Cys Ser Phe Leu Thr Ser Gln Gly Glu Glu Ile Arg Ile Ala  
 355 360 365  
 Glu Thr Phe Gln Leu Phe Ser Thr Ile Ser Thr Pro Glu Cys Ser Val  
 370 375 380  
 Ser His Ile Arg Asp Ala Gly Asn Ser Leu Ser Pro Leu Trp Arg Arg  
 385 390 395 400  
 Ile Val Val Tyr Pro Pro Asp Arg Glu Ser Leu Gln Ser Ile Leu Gly  
 405 410 415  
 Ala Arg Tyr Pro Asn Leu Gly Pro Val Ala Glu Lys Leu Ile Glu Thr  
 420 425 430  
 Phe Glu Thr Ile Asn Ser Ala Leu Arg Pro Gln Phe Ser Ser Ser Thr  
 435 440 445  
 Thr Glu Asn Ser Ala Thr Phe Ser Ser Pro Ser Arg Phe Ser Leu Arg  
 450 455 460  
 Asp Leu Leu Lys Trp Cys Glu Arg Val His Gly Leu Pro Ser Tyr Asp  
 465 470 475 480  
 Gly His Ala Val Tyr Gln Glu Ala Ala Asp Ile Phe Ser Ala Ser Asn  
 485 490 495  
 Met Ser Val Lys Asn Arg Val Ala Val Ser Glu Ile Val Ala Ser Ile  
 500 505 510  
 Trp Asn Val Ala Val Pro Glu Ser Gln Asp Lys Pro Pro Ile Gln Ser  
 515 520 525  
 His Asp Arg Ser Arg Phe Val Glu Thr Arg Thr Ser Thr Arg Leu Leu  
 530 535 540  
 Glu Lys Ile Ala Arg Ser Val Glu Tyr Asn Glu Pro Val Leu Leu Val  
 545 550 555 560

Gly Glu Thr Gly Thr Gly Lys Thr Thr Leu Val Gln Asn Leu Ala His  
 Page 1595

Trp Ile Gly Gln Lys Leu Thr Val Leu Asn Leu Ser Gln Gln Ser Asp  
580 585 590

Ile Val Asp Leu Leu Gly Gly Phe Lys Pro Ile Asp Pro Lys Leu Met  
595 600 605

Cys Thr Met Val Tyr Asn Glu Phe Asn Glu Leu Ala Arg Asp Leu Lys  
610 615 620

Ile Lys Asp Asp Ser Lys Ile Met Lys Trp Leu Gln Asp Asn Phe Arg  
625 630 635 640

Ala Lys Lys Trp His Thr Phe Leu Thr Gly Leu Leu Asp Ile Ile Lys  
645 650 655

Gly Ile Glu Gly Arg Ile Thr Glu Arg Met Glu Gly Lys Ile Gly Glu  
660 665 670

Ala Arg Ser Arg Ser Gly Arg Lys Arg Lys Lys Pro Glu Glu Glu Leu  
675 680 685

Lys Asn Cys Ala Cys Leu Arg Thr Lys Val Asn Lys Ile Arg Gln Gln  
690 695 700

Ile His Ser Gly Gly Met Val Phe Thr Phe Val Glu Gly Ala Phe Val  
705 710 715 720

Thr Ala Leu Arg Glu Gly His Trp Val Leu Leu Asp Glu Val Asn Leu  
725 730 735

Ala Pro Pro Glu Ile Leu Gly Arg Leu Ile Gly Val Leu Glu Gly Val  
740 745 750

Arg Gly Ser Leu Cys Leu Ala Glu Arg Gly Asp Val Met Gly Ile Pro  
755 760 765

Arg His Leu Asn Phe Arg Leu Phe Ala Cys Met Asn Pro Ala Thr Asp  
770 775 780

Ala Gly Lys Arg Asp Leu Pro Phe Ser Phe Arg Ser Arg Phe Thr Glu  
785 790 795 800

Tyr Ala Val Asp Asp Asp Ile Cys Asp Asp Asp Leu Glu Ile Phe Val  
805 810 815

Arg Arg Phe Leu Gly Gly Arg Gly Ser Asp Ser Lys Leu Val Ala Asn  
 820 825 830  
 Ile Val Trp Phe Tyr Lys Glu Ala Lys Arg Leu Ser Glu Glu Ser Leu  
 835 840 845  
 Gln Asp Gly Ala Asn Gln Lys Pro Gln Tyr Ser Leu Arg Ser Leu Tyr  
 850 855 860  
 Arg Ala Leu Glu Tyr Ala Ile Lys Ala Glu Ala Ile Gly Gly Phe Gln  
 865 870 875 880  
 Lys Ala Leu Tyr Asp Gly Phe Ser Met Phe Phe Leu Ser Leu Leu Asp  
 885 890 895  
 Ala Ser Ser Ala Lys Ile Val Glu Pro Ile Ile Lys Arg Ile Ser Gly  
 900 905 910  
 Glu Asn Ile Arg Ser Gln Pro Leu Gln Arg Tyr Leu Gly Glu Leu Lys  
 915 920 925  
 Gly Ser Ser Asp Lys Phe Val Gly Ser Tyr Val Lys Thr Lys Ser Val  
 930 935 940  
 Ile Asp His Leu Asn His Leu Ala His Ala Ile Phe Ile Lys Arg Tyr  
 945 950 955 960  
 Pro Val Leu Leu Gln Gly Pro Thr Ser Ser Gly Lys Thr Ser Leu Val  
 965 970 975  
 Lys Tyr Leu Ala Ala Ile Ser Gly Asn Lys Phe Val Arg Ile Asn Asn  
 980 985 990  
 His Glu Gln Thr Asp Ile Gln Glu Tyr Leu Gly Ser Tyr Met Thr Asp  
 995 1000 1005  
 Ser Ser Gly Lys Leu Val Phe His Glu Gly Ala Leu Val Lys Ala  
 1010 1015 1020  
 Val Arg Gly Gly His Trp Ile Val Leu Asp Glu Leu Asn Leu Ala  
 1025 1030 1035  
 Pro Ser Asp Val Leu Glu Ala Leu Asn Arg Leu Leu Asp Asp Asn  
 1040 1045 1050  
 Arg Glu Leu Phe Val Pro Glu Leu Ser Glu Thr Ile Ser Ala His  
 1055 1060 1065

## 047-E2F-PCT.ST25.txt

Pro	Asn 1070	Phe	Met	Leu	Phe	Ala 1075	Thr	Gln	Asn	Pro	Pro 1080	Thr	Leu	Tyr
Gly	Gly 1085	Arg	Lys	Ile	Leu	Ser 1090	Arg	Ala	Phe	Arg	Asn 1095	Arg	Phe	Val
Glu	Ile 1100	His	Val	Asp	Glu	Ile 1105	Pro	Glu	Asp	Glu	Leu 1110	Ser	Glu	Ile
Leu	Thr 1115	Thr	Lys	Cys	Ser	Ile 1120	Ala	Asn	Ser	His	Ala 1125	Ser	Lys	Met
Val	Glu 1130	Val	Met	Lys	Asp	Leu 1135	Gln	Arg	Asn	Arg	Gln 1140	Ser	Ser	Lys
Ala	Phe 1145	Ala	Gly	Lys	His	Gly 1150	Tyr	Ile	Thr	Pro	Arg 1155	Asp	Leu	Phe
Arg	Trp 1160	Ala	Tyr	Arg	Phe	Arg 1165	Thr	Tyr	Asp	Gly	Thr 1170	Ser	His	Glu
Glu	Leu 1175	Ala	Arg	Glu	Gly	Tyr 1180	Tyr	Ile	Leu	Ala	Glu 1185	Arg	Leu	Arg
Asp	Asp 1190	Thr	Glu	Lys	Val	Val 1195	Val	Gln	Glu	Val	Leu 1200	Glu	Arg	His
Phe	Arg 1205	Val	Ser	Leu	Ala	Lys 1210	Asp	Asp	Leu	Tyr	Asn 1215	Met	Gly	Phe
Phe	Pro 1220	Val	Arg	Asp	Arg	Ser 1225	Lys	Leu	Ile	Thr	Glu 1230	Tyr	Glu	Asn
Gln	Val 1235	Lys	Gln	Leu	Glu	Leu 1240	Ser	Gln	Ala	Leu	Thr 1245	Pro	Phe	Gly
Gln	Asp 1250	Ile	Val	Ile	Cys	Gly 1255	Asp	Ile	Ser	Arg	Ala 1260	Glu	Val	Ser
Ile	Lys 1265	Ser	Val	Glu	Val	Ala 1270	Leu	Glu	Lys	Tyr	Lys 1275	Asn	Gly	Ser
Val	Ile 1280	Gly	Val	Ala	Ala	Thr 1285	Pro	Gln	Asp	Val	Asp 1290	Phe	Leu	Glu
Lys	Ile 1295	Arg	Asn	Asn	Met	Val 1300	Met	Leu	Tyr	Gln	Lys 1305	Trp	Arg	Ala

047-E2F-PCT.ST25.txt

Ile	Phe	Val	Trp	Gln	Asp	Gly	Pro	Leu	Val	Glu	Ala	Met	Arg	Ala
	1310					1315					1320			
Gly	Asn	Ile	Val	Leu	Val	Asp	Glu	Ile	Ser	Leu	Ala	Asp	Asp	Ser
	1325					1330					1335			
Val	Leu	Glu	Arg	Met	Asn	Ser	Val	Leu	Glu	Thr	Asp	Arg	Lys	Leu
	1340					1345					1350			
Ser	Leu	Ala	Glu	Lys	Gly	Gly	Pro	Val	Leu	Glu	Glu	Val	Val	Ala
	1355					1360					1365			
His	Glu	Asp	Phe	Phe	Val	Leu	Ala	Thr	Met	Asn	Pro	Gly	Gly	Asp
	1370					1375					1380			
Tyr	Gly	Lys	Lys	Glu	Leu	Ser	Pro	Ala	Leu	Arg	Asn	Arg	Phe	Thr
	1385					1390					1395			
Glu	Ile	Trp	Val	Pro	Pro	Ile	Thr	Asp	Thr	Glu	Glu	Leu	Arg	Ser
	1400					1405					1410			
Ile	Ala	Phe	Ser	Gly	Leu	Ser	Ser	Leu	Lys	Glu	Ser	Asn	Val	Val
	1415					1420					1425			
Asp	Pro	Ile	Ile	Asn	Phe	Trp	Glu	Trp	Phe	Asn	Arg	Leu	His	Thr
	1430					1435					1440			
Gly	Arg	Thr	Leu	Thr	Val	Arg	Asp	Leu	Leu	Ser	Trp	Val	Ala	Phe
	1445					1450					1455			
Val	Asn	Met	Ala	Thr	Glu	Ser	Leu	Gly	Pro	Ala	Tyr	Ala	Ile	Leu
	1460					1465					1470			
His	Gly	Ala	Phe	Leu	Val	Leu	Leu	Asp	Gly	Leu	Ser	Leu	Gly	Thr
	1475					1480					1485			
Gly	Phe	Ser	Gly	Arg	Asp	Gly	Gln	Asp	Leu	Arg	Glu	Lys	Cys	Phe
	1490					1495					1500			
Ala	Phe	Leu	Leu	Gln	Gln	Leu	Glu	Leu	Phe	Ala	Ser	Asp	Thr	Leu
	1505					1510					1515			
Pro	Leu	Glu	Leu	Ser	Arg	Met	Glu	Leu	Tyr	Gly	Trp	Gly	Asp	Ser
	1520					1525					1530			
Lys	Ala	Ile	Cys	Glu	Lys	Ser	Lys	Ser	Val	Arg	His	Glu	Gly	Met

047-E2F-PCT.ST25.txt

1535

1540

1545

Phe Gly Ile Asp Pro Phe Phe Ile Ser Lys Gly Asp Glu Asn Pro  
1550 1555 1560

Glu Ile Gly Gly Phe Glu Phe Leu Ala Pro Thr Thr His Arg Asn  
1565 1570 1575

Val Leu Arg Val Leu Arg Ala Met Gln Leu Ser Lys Pro Ile Leu  
1580 1585 1590

Leu Glu Gly Ser Pro Gly Val Gly Lys Thr Ser Leu Ile Leu Ala  
1595 1600 1605

Leu Gly Lys Tyr Ser Gly His Lys Val Val Arg Ile Asn Leu Ser  
1610 1615 1620

Glu Gln Thr Asp Met Met Asp Leu Leu Gly Ser Asp Leu Pro Val  
1625 1630 1635

Glu Ser Asp Glu Asp Met Lys Phe Ala Trp Ser Asp Gly Ile Leu  
1640 1645 1650

Leu Gln Gly Leu Asn Ala Ile Leu Asp His Arg Ala Gln Val Phe  
1655 1660 1665

Ile Pro Glu Leu Gly Cys Thr Phe Glu Cys Pro Pro Thr Phe Arg  
1670 1675 1680

Val Phe Ala Cys Gln Asn Pro Ser Thr Gln Gly Gly Gly Arg Lys  
1685 1690 1695

Gly Leu Pro Lys Ser Phe Leu Asn Arg Phe Thr Lys Val Tyr Val  
1700 1705 1710

Asp Glu Leu Val Glu Asp Asp Tyr Leu Phe Ile Cys Arg Ser Leu  
1715 1720 1725

Tyr Pro Ser Val Pro Ser Pro Leu Leu Ser Lys Leu Ile Ala Leu  
1730 1735 1740

Asn Arg Gln Leu His Asp Gly Thr Met Leu Tyr Arg Lys Phe Gly  
1745 1750 1755

His Asp Gly Ser Pro Trp Glu Phe Asn Leu Arg Asp Val Ile Arg  
1760 1765 1770

Ser Cys Gln Phe Met Gln Glu Ala Ile His Asp Leu Glu Val Glu  
 1775 1780 1785  
 Ser Phe Leu Asn Val Leu Tyr Ile Gln Arg Met Arg Thr Ala Thr  
 1790 1795 1800  
 Asp Arg Lys Glu Val Leu Arg Ile Tyr Lys Ala Ile Phe Asp Lys  
 1805 1810 1815  
 Thr Pro Ser Ile Asn Pro Tyr Pro Arg Val Gln Leu Asn Pro Ala  
 1820 1825 1830  
 Tyr Leu Val Val Gly Thr Ala Ala Ile Lys Arg Asn Leu Asn Gln  
 1835 1840 1845  
 Ser Asn Ile Ala Ser Glu Gln Leu Lys Leu Leu Pro Glu Ile Arg  
 1850 1855 1860  
 Gln Asn Leu Glu Ala Val Ala His Cys Val Gln Asn Lys Trp Leu  
 1865 1870 1875  
 Cys Ile Leu Val Gly Pro Ser Ser Ser Gly Lys Thr Ser Val Ile  
 1880 1885 1890  
 Arg Ile Leu Ala Gln Leu Thr Gly Tyr Pro Leu Asn Glu Leu Asn  
 1895 1900 1905  
 Leu Ser Ser Ala Thr Asp Ser Ser Asp Leu Leu Gly Cys Phe Glu  
 1910 1915 1920  
 Gln Tyr Asn Ala Phe Arg Asn Phe Arg Leu Val Met Thr Arg Val  
 1925 1930 1935  
 Glu His Leu Val Asp Glu Tyr Asn Ser Leu Leu Leu Gln Ser Ser  
 1940 1945 1950  
 Gln Glu Ala Leu Phe Ser Asn Arg Ser Gly Leu Val Ser Arg Trp  
 1955 1960 1965  
 Leu Ser Tyr Leu Asn Lys Ile Asp Ser Ser Leu Val Glu Asn Pro  
 1970 1975 1980  
 Leu Phe Phe Leu Asn Asp Ser Glu Thr Leu Ser Thr Leu Glu Glu  
 1985 1990 1995  
 Val Val Glu Asp Leu Glu Gln Val Leu Lys Glu Gly Val Leu Pro  
 2000 2005 2010

## 047-E2F-PCT.ST25.txt

Val	Ser	Trp	Ser	Lys	Lys	Tyr	Leu	Glu	Gln	Ile	Ser	Lys	Thr	Ile
	2015					2020					2025			
Leu	Gln	Leu	Gln	Thr	His	Glu	Lys	Lys	Gln	Ser	Thr	Lys	Phe	Glu
	2030					2035					2040			
Trp	Val	Thr	Gly	Met	Leu	Ile	Lys	Ala	Ile	Glu	Lys	Gly	Glu	Trp
	2045					2050					2055			
Val	Val	Leu	Lys	Asn	Ala	Asn	Leu	Cys	Asn	Pro	Thr	Val	Leu	Asp
	2060					2065					2070			
Arg	Ile	Asn	Ser	Leu	Val	Glu	Pro	Cys	Gly	Ser	Ile	Thr	Ile	Asn
	2075					2080					2085			
Glu	Cys	Gly	Ile	Val	Asn	Gly	Glu	Pro	Val	Thr	Val	Val	Pro	His
	2090					2095					2100			
Pro	Asn	Phe	Arg	Leu	Phe	Leu	Ser	Val	Asn	Pro	Lys	Phe	Gly	Glu
	2105					2110					2115			
Val	Ser	Arg	Ala	Met	Arg	Asn	Arg	Gly	Val	Glu	Val	Phe	Met	Met
	2120					2125					2130			
Gly	Pro	His	Trp	Gln	Leu	Asn	Glu	Asp	Gly	Ser	Asn	Cys	Glu	Glu
	2135					2140					2145			
Leu	Val	Leu	Arg	Gly	Val	Glu	Arg	Phe	Leu	Ala	Leu	Ser	Gly	Ile
	2150					2155					2160			
Pro	Gly	Tyr	Lys	Leu	Val	Thr	Ser	Met	Ala	Lys	Ala	His	Val	His
	2165					2170					2175			
Ala	Trp	Leu	Asn	Gly	Gln	Ser	Phe	Gly	Val	Arg	Ile	Thr	Tyr	Leu
	2180					2185					2190			
Glu	Leu	Glu	Gln	Trp	Val	His	Leu	Phe	Gln	Leu	Leu	Leu	Met	Asn
	2195					2200					2205			
Gly	Asn	Gln	Leu	Leu	Trp	Ser	Leu	Gln	Leu	Ser	Trp	Glu	His	Ile
	2210					2215					2220			
Tyr	Leu	Ser	Ser	Leu	Gly	Val	Thr	Asp	Gly	Lys	Glu	Val	Val	Asp
	2225					2230					2235			
Phe	Val	Arg	Glu	Thr	Tyr	Leu	Ser	Asp	Val	Glu	Leu	Ser	Glu	Leu
	2240					2245					2250			



## 047-E2F-PCT.ST25.txt

Asp	Ser	Phe	Met	Gly	Gly	Asp	Leu	Tyr	Leu	Pro	Gly	Gly	Trp	Pro
	2255					2260					2265			
Lys	Pro	Phe	Asn	Leu	Arg	Asp	Leu	Thr	Trp	Tyr	Ser	Arg	Glu	Thr
	2270					2275					2280			
Thr	Val	Arg	Gln	Asn	Cys	Met	Tyr	Leu	Glu	Phe	Leu	Gly	Ala	Gln
	2285					2290					2295			
Tyr	Ala	Ser	His	Gln	Pro	Lys	Ile	Ser	Asp	Asn	Val	Lys	Ser	Arg
	2300					2305					2310			
Asp	Arg	Glu	Leu	Ala	Ala	Gly	Glu	Pro	Arg	Ile	Ile	Tyr	Ser	Ile
	2315					2320					2325			
Asp	Ser	Trp	Thr	Leu	Lys	Lys	Val	Leu	Phe	Pro	Lys	Ala	Leu	Ile
	2330					2335					2340			
Gly	Ser	Ser	Cys	Ala	Pro	Asp	Ala	Ala	Asn	Phe	Glu	Asn	Asp	Leu
	2345					2350					2355			
Ala	Ser	Lys	Met	Leu	Leu	Phe	Ala	Ala	Asn	Trp	Thr	Ile	Glu	Gln
	2360					2365					2370			
Ala	Thr	Glu	Glu	Asp	Ile	Gln	Leu	Tyr	Leu	Ala	Trp	Phe	Ser	Trp
	2375					2380					2385			
Phe	Gly	Ser	Arg	Leu	Gln	Gln	His	Cys	Pro	Phe	Leu	Leu	Cys	Phe
	2390					2395					2400			
Leu	Asn	Thr	Leu	Lys	Val	Glu	Phe	Glu	His	Pro	Ile	Trp	Asn	His
	2405					2410					2415			
Ile	Ser	Arg	Cys	Arg	Lys	Asn	Leu	Lys	Phe	Leu	Cys	Arg	Leu	Asp
	2420					2425					2430			
Pro	Asp	Ala	Val	Pro	Ile	Pro	Met	Leu	Ser	Ser	Lys	Leu	Ile	Asp
	2435					2440					2445			
Val	Ala	Ala	Ser	Asn	Asp	Gln	Ser	Lys	Pro	Tyr	Ser	Lys	Ser	Leu
	2450					2455					2460			
Phe	Glu	Ser	Leu	Asn	Ser	Val	Gly	Val	Leu	Arg	Arg	Ser	Tyr	Gln
	2465					2470					2475			
Gln	Trp	Leu	Val	Glu	Ser	Asn	Asp	Asn	His	Thr	Asp	Val	Ser	Thr

047-EZF-PC1.S125.TXT														
2480					2485					2490				
Phe	Thr	Arg	Phe	Leu	Asp	Ser	Leu	Arg	Val	Leu	Glu	Lys	Lys	Ile
	2495					2500					2505			
Leu	Cys	Glu	Ile	Val	Gly	Ala	Pro	Ser	Phe	Ser	Val	Leu	Ile	Gln
	2510					2515					2520			
Leu	Tyr	Thr	Glu	Val	Ile	Asp	Asn	His	Ser	Phe	Phe	Trp	Ser	Gly
	2525					2530					2535			
Leu	Val	Ser	Ser	Ser	Asp	Glu	Tyr	Leu	Leu	Phe	Ser	Phe	Trp	Ser
	2540					2545					2550			
Leu	Ile	Lys	Ser	Ile	Lys	Lys	Met	His	Ser	Phe	Phe	Pro	Gly	Glu
	2555					2560					2565			
Val	Gln	Val	Val	Leu	Glu	Glu	Ser	Lys	Asn	Ile	Asn	Asn	Ile	Val
	2570					2575					2580			
Leu	His	Gly	His	Pro	Glu	Lys	Ser	Met	Leu	Trp	Ala	Tyr	Gly	Gly
	2585					2590					2595			
His	Pro	Ser	Leu	Pro	Val	Ser	Ala	Glu	Leu	Phe	His	Lys	Gln	Gln
	2600					2605					2610			
Glu	Phe	Leu	Gln	Leu	Cys	Ser	Thr	Val	Trp	Pro	Leu	Lys	Ser	Glu
	2615					2620					2625			
Ser	Asp	Glu	His	Gly	Asn	Asp	His	Leu	Thr	Lys	Ala	Ile	Pro	Phe
	2630					2635					2640			
Ser	Gly	Pro	Glu	Leu	Cys	Leu	Leu	Ala	Leu	Glu	Gly	Leu	Cys	Ile
	2645					2650					2655			
Ser	Ser	Tyr	Ile	Ala	Asp	Glu	Asp	Asp	Val	Asp	Tyr	Val	Ala	Ala
	2660					2665					2670			
Val	Gln	Leu	Asp	Glu	Ile	Tyr	Gln	Thr	Phe	Leu	Glu	Arg	Leu	Lys
	2675					2680					2685			
Leu	Glu	Lys	Lys	Arg	Leu	Glu	Asp	Lys	Met	Gly	Phe	Ser	Glu	Ile
	2690					2695					2700			
Asp	Asn	Thr	Glu	Asn	Ile	Thr	Ala	Ser	Cys	Cys	Val	Phe	Cys	Pro
	2705					2710					2715			

Glu	Ile	Val	Thr	Thr	Gly	Ser	Gly	Phe	Ser	Ser	Trp	Val	Lys	Thr
2720						2725					2730			
Cys	Phe	Ile	Ala	Ser	Ser	Glu	Ser	Cys	Ser	Leu	Asp	Val	Glu	Leu
2735						2740					2745			
Leu	Ala	Ala	Leu	Gln	His	Leu	Leu	Val	Ala	Arg	Pro	Thr	Glu	His
2750						2755					2760			
Gln	Asp	Leu	Val	Asp	Ile	Arg	Lys	Leu	Leu	Lys	Pro	Ala	Leu	Glu
2765						2770					2775			
Tyr	Ser	Leu	Ser	Ser	Thr	Arg	Pro	Pro	Gln	Thr	Leu	Val	Ala	His
2780						2785					2790			
Gln	Lys	Leu	Leu	Trp	Ala	Ile	Asp	Ala	His	Ala	Ser	Glu	Leu	Gly
2795						2800					2805			
Val	Asp	Thr	Lys	Ile	Ala	Gly	Phe	Ala	Leu	Glu	Ile	Trp	Tyr	Trp
2810						2815					2820			
Trp	His	Ser	Val	Leu	Trp	Lys	Asn	Ser	Gln	Ile	Gly	Leu	Met	Ile
2825						2830					2835			
Ala	His	Leu	Val	Thr	Ser	Phe	Phe	His	Leu	Met	Phe	Thr	Gly	Pro
2840						2845					2850			
Thr	Glu	Tyr	Leu	Arg	His	Trp	Gln	Leu	Ser	Asp	Ser	Val	Thr	Phe
2855						2860					2865			
Tyr	Ala	Asp	Ser	Ala	Cys	Glu	Asn	Ser	Tyr	Arg	Cys	Ser	Asp	Ser
2870						2875					2880			
Ile	Ile	Tyr	Thr	His	Gln	Lys	Ser	Phe	Glu	Ser	Glu	Thr	Phe	Val
2885						2890					2895			
Ala	Ile	Lys	Ser	Val	Phe	His	Ala	Ile	Glu	Lys	Lys	Gln	Asn	Lys
2900						2905					2910			
Met	Asp	Gly	Ile	Gln	Asn	Leu	Ile	Ser	Leu	Ile	Gly	Ser	Ser	Ser
2915						2920					2925			
His	Asn	Lys	Leu	Lys	Ser	Val	Thr	His	Ser	Phe	Val	Gly	Pro	Leu
2930						2935					2940			
Ala	Lys	Arg	Leu	Tyr	Ser	Asp	Ser	Ser	Ser	Asn	Glu	Phe	Tyr	Cys
2945						2950					2955			

## 047-E2F-PCT.ST25.txt

Asn Leu Gly Leu Ala Trp Leu Tyr Leu Gly Gly Leu Arg Phe His  
 2960 2965 2970  
 Leu Leu Asn Ser Leu Asp Val Ile Asp Pro Ala Met Lys Ile Thr  
 2975 2980 2985  
 Cys Lys Leu Leu Lys Leu Glu Glu Lys Ile Ser Ser Leu Glu Leu  
 2990 2995 3000  
 Asn Ile Lys Val Arg Gly Glu Cys Gly Tyr Leu Ser Gly Leu Leu  
 3005 3010 3015  
 Tyr Ser Gly Asn Asn Asp Glu Ser Ser Glu His Thr Leu Ser Lys  
 3020 3025 3030  
 Leu Lys Thr Glu His Lys Arg Leu Gln Arg Lys Val Ile Phe Arg  
 3035 3040 3045  
 Ser Asp Pro Lys Lys Tyr Gln Asp Leu Arg Arg Ala Leu Asp Glu  
 3050 3055 3060  
 Phe Ala Gly Phe Leu Thr Arg Pro Ile Ser Leu Val Asn Asp Ile  
 3065 3070 3075  
 Glu Val Leu Asp Trp Asn Gln Val Val Glu Gln Val Phe Asn Trp  
 3080 3085 3090  
 Gln Glu Thr Ala Ile Ser Phe Ile Asp Arg Met Ser Ser Asp Tyr  
 3095 3100 3105  
 Ser Glu Tyr Val Asp Ile Thr Gln Pro Ile Gln Val Ser Val Tyr  
 3110 3115 3120  
 Glu Met Lys Leu Gly Leu Ser Leu Phe Val Ser Gly Ala Leu Leu  
 3125 3130 3135  
 Gly Lys Leu Leu Asn Arg Phe Asp Ile Asp Met Val Asp Ser Val  
 3140 3145 3150  
 Met Glu Thr Ile Tyr Ala Leu Met Arg Phe Pro Arg Asp Ser Ser  
 3155 3160 3165  
 Ile Ala Ser Thr Thr Tyr Thr Glu Cys Leu Pro Pro Leu His Leu  
 3170 3175 3180  
 Ser His Gly Ala Asn Ser Arg Ala Lys Ser Leu Gly Leu Asp Val  
 3185 3190 3195

## 047-E2F-PCT.ST25.txt

Gly Leu Leu His Lys Leu Ile Ser Val Ser Ser Ala Glu Asp Ser  
 3200 3205 3210  
 Arg Lys Ala Ser Glu Leu Gln Leu Lys Val Ala Leu Tyr Lys Asn  
 3215 3220 3225  
 Leu His Ala Arg Val Leu Gln Phe Val Ala Asn Thr Gly Leu Leu  
 3230 3235 3240  
 Asp Glu Ala Ser Phe Glu Leu Leu Asp Lys Ile Tyr Val Glu Leu  
 3245 3250 3255  
 Ala Arg Ile Trp Met Glu Met Lys Phe Gln Ala Lys Thr Lys Ala  
 3260 3265 3270  
 Asp Asn Leu Pro Gly Leu Tyr Lys Phe Arg Ser Arg Asp Phe Lys  
 3275 3280 3285  
 Ile Asp Ser Val Met Glu Val Asp Ile Ser Ala Leu Gly Lys Tyr  
 3290 3295 3300  
 Phe Pro Asn Glu Ser Phe Ser Glu Trp Gln Glu Tyr Leu Ala Asp  
 3305 3310 3315  
 Asp Asp Thr Lys Asn Val Lys Asp Met Thr His Ile Asp Gln Asp  
 3320 3325 3330  
 Glu Glu Asn Leu Glu Asp Asp Trp Asp Leu Ile Gln Glu His Leu  
 3335 3340 3345  
 Asp Ser Ile Tyr Ser Thr His Asn Glu Leu Phe Gly Phe Cys Asp  
 3350 3355 3360  
 Leu Ser Glu Lys Thr Ile Tyr Ser Ile Gln Ser Gly Arg Phe Cys  
 3365 3370 3375  
 Ile Thr Asp Ser Arg Arg Leu Asp Ser Phe Thr Asp Ser Tyr Glu  
 3380 3385 3390  
 Leu Gly Val Ser Met Ile Lys Gly Leu Arg Gly Leu Phe Thr Ser  
 3395 3400 3405  
 Ser Leu Asp Ala Lys Leu Val Pro Glu His Leu Leu Arg Leu Cys  
 3410 3415 3420  
 Leu Glu Asn Lys Lys Asn Phe Thr Ser Asn Tyr Gln Ser Ala Ser

047-E2F-PCT.ST25.txt

3425

3430

3435

Lys Tyr Asn Phe Tyr Lys Asp Leu Asp Gly Pro Glu Leu Gly Lys  
3440 3445 3450

Met Val Lys Phe Leu Thr Pro Leu Gln Gln Arg Ile Asn Ser Leu  
3455 3460 3465

Leu Gln Glu Arg Glu Asp His Pro Gly Leu Gln Lys Leu Ser Gly  
3470 3475 3480

Val Leu Gln Met Leu Leu Ala Ile Pro Ser Ser Thr Pro Leu Ala  
3485 3490 3495

Lys Ala Leu Ser Gly Leu Gln Phe Leu Leu Cys Lys Val His Lys  
3500 3505 3510

Leu Gln Glu Glu Gly Cys Lys Leu Pro Ile Ser Asp Leu Leu Glu  
3515 3520 3525

Pro Ile Ile Ser Leu Ala Ser Ser Trp Gln Lys Val Glu Phe Glu  
3530 3535 3540

Arg Trp Pro Thr Leu Leu Asp Glu Val Gln Asp Gln Tyr Glu Leu  
3545 3550 3555

Asn Ala Arg Lys Phe Cys Phe Arg Arg Met Leu Trp Lys Phe Gln  
3560 3565 3570

Asn Met Lys Thr Ser Pro Phe His Lys Val Ser Phe Leu Lys Asp  
3575 3580 3585

Leu Lys Gly Leu Gln His Tyr Ile Leu Lys Ser Ser Gln Leu Ile  
3590 3595 3600

Ala Pro Pro Leu Phe Leu Gln Leu Thr Ser Asn Leu Thr Val Phe  
3605 3610 3615

Asp Ser Arg Phe Tyr Phe Asp Ser Asp Ser His Lys Arg Arg Val  
3620 3625 3630

Glu Met Cys Tyr Asn Ile Phe Gly Phe Tyr Ile Gln Phe Leu Pro  
3635 3640 3645

Val Val Met Glu Gln Leu Asp Leu Asn Arg Lys Asn Val Glu Thr  
3650 3655 3660

Glu	Leu	Lys	Glu	Val	Leu	Lys	Leu	Cys	Arg	Trp	Glu	Arg	Pro	Asp
	3665					3670					3675			
Asn	Tyr	Leu	Tyr	Asn	Glu	Thr	Thr	Lys	Arg	Thr	Arg	Gln	Lys	Val
	3680					3685					3690			
Lys	Lys	Leu	Ile	Gln	Lys	Phe	Thr	Asp	Met	Leu	Arg	Leu	Pro	Val
	3695					3700					3705			
Met	Leu	Val	Lys	Pro	Asp	Leu	Thr	Lys	Glu	Arg	Ala	Gln	Phe	Leu
	3710					3715					3720			
Pro	Leu	Leu	Asp	Pro	Asp	Leu	Met	Asp	Gly	Ala	Ser	Asp	Met	Arg
	3725					3730					3735			
Ile	Glu	Val	Leu	Val	Ser	Ala	Leu	Asp	Ala	Glu	Gln	Leu	Arg	Asp
	3740					3745					3750			
Arg	Ser	Ser	Trp	Tyr	Val	Val	Trp	Trp	Asn	Lys	Leu	Lys	Glu	Ser
	3755					3760					3765			
Val	Gly	Arg	Phe	His	Gln	Glu	Met	His	Tyr	Lys	Thr	Leu	Leu	Met
	3770					3775					3780			
Gly	Ala	Glu	His	Gln	Tyr	Ser	Ser	Pro	Val	Tyr	Gln	Gly	Asp	Trp
	3785					3790					3795			
Lys	Asn	Leu	Trp	Ser	Thr	Val	Ala	Arg	Ile	Gly	Glu	Thr	Ile	Ala
	3800					3805					3810			
Gly	Cys	Ser	Asp	Leu	Trp	Arg	Asn	Ser	Asp	Arg	Asp	Val	Ala	Lys
	3815					3820					3825			
Lys	Arg	Ala	Leu	Phe	Glu	Leu	Leu	Lys	Leu	Leu	Glu	Ser	Ser	Gly
	3830					3835					3840			
Leu	Gln	Lys	His	Lys	Phe	Glu	Asn	Ile	Glu	Met	Ser	Asn	His	Phe
	3845					3850					3855			
Lys	Gly	Leu	Leu	Tyr	Gln	Pro	Ala	Tyr	Asp	Pro	Lys	His	Leu	Leu
	3860					3865					3870			
Leu	Leu	Thr	His	Thr	Lys	Ser	Asn	Ile	His	Pro	Ser	Met	Gly	Val
	3875					3880					3885			
Glu	Asp	Gln	Asn	Lys	Glu	Asn	Ser	Leu	Val	Glu	Trp	Arg	Val	Ala
	3890					3895					3900			

## 047-E2F-PCT.ST25.txt

Asn	Glu 3905	Phe	Tyr	Phe	Lys	Ser 3910	Leu	Ala	Ser	Val	Gln 3915	Leu	Met	Leu
Asn	Ile 3920	Asp	Arg	Lys	His	Ser 3925	Asp	Val	Thr	Ala	Glu 3930	Gln	Val	Lys
Arg	Ala 3935	Ile	Ser	Phe	Leu	Asn 3940	His	Leu	Val	Glu	Ile 3945	Gln	Arg	Gln
Gln	Arg 3950	Lys	Ser	Ala	Tyr	Ala 3955	Phe	Ala	Glu	Leu	Phe 3960	Asn	Arg	Phe
Arg	Gln 3965	Cys	Val	Leu	Ser	Leu 3970	Ala	Arg	Leu	Leu	Gly 3975	Asp	Ser	Val
Gly	Ala 3980	Asp	Arg	Lys	Asp	Asp 3985	Ser	Val	Phe	Ser	Phe 3990	Pro	Gln	Asn
Gln	His 3995	Ala	Val	Phe	Asn	Cys 4000	Leu	Trp	Leu	Gln	Lys 4005	Gln	Leu	Phe
Asp	Asn 4010	Ile	Thr	Ala	Met	Leu 4015	Leu	Glu	Glu	Ser	Ala 4020	Leu	Leu	Arg
Thr	Val 4025	Gly	Ser	Thr	His	Leu 4030	Asp	Ser	Cys	Gln	Ala 4035	Val	Lys	Thr
Ser	Ser 4040	Arg	Ser	Leu	Leu	Ser 4045	Phe	Ile	Glu	Ile	Leu 4050	Ile	Pro	Ile
Ala	Gln 4055	Asn	Ser	Lys	Ala	Ser 4060	Leu	Asp	Arg	Leu	Leu 4065	Leu	Asp	Cys
Asn	Gly 4070	Phe	Ile	Ile	Thr	Pro 4075	Ser	Ser	Ser	Leu	Lys 4080	Gln	Phe	Val
Thr	Gln 4085	His	Met	Val	Gln	Val 4090	Leu	Arg	Gln	Asn	Phe 4095	Asp	Gln	Leu
Thr	Asp 4100	Leu	Glu	Asn	Gln	Ile 4105	Ser	Ser	Phe	Cys	Glu 4110	Asn	Asn	Glu
Lys	Ser 4115	Tyr	Cys	Arg	Asp	Val 4120	Leu	Leu	Ser	Gln	Phe 4125	Ser	Pro	Val
Phe	Lys 4130	Glu	Gly	Lys	Leu	Leu 4135	Ala	Glu	Asn	Leu	Asn 4140	Cys	Leu	Leu



047-E2F-PCT.ST25.txt

Asn	Val	Arg	Asp	Gln	Ser	Thr	Gly	Met	Glu	Pro	Lys	Glu	Arg	Leu
	4145					4150					4155			
Phe	Leu	Glu	Glu	Asn	Leu	Ala	Ser	Ile	Phe	Ala	Asn	Val	Lys	Asp
	4160					4165					4170			
Val	Ile	Gly	Lys	Leu	Cys	Ser	Tyr	Lys	Asp	Gly	Ser	Leu	Ser	Gln
	4175					4180					4185			
Glu	Glu	Glu	Met	Asn	Ile	Thr	Thr	Trp	Asp	Gly	Leu	Phe	Lys	Lys
	4190					4195					4200			
Ala	Glu	Asn	Asp	Leu	Asn	Leu	Asp	Asn	Leu	Cys	Lys	Leu	Leu	Ser
	4205					4210					4215			
Glu	Ser	Phe	Gly	Ser	Ile	Glu	Gln	Leu	Leu	Asn	Ser	Ser	Gly	Val
	4220					4225					4230			
Leu	Ser	Ala	Gly	Val	Gly	Asp	Gln	Leu	Lys	Gln	Leu	Gln	Ala	Phe
	4235					4240					4245			
Leu	Asp	Leu	Leu	Leu	Ser	Phe	Gly	Asp	Cys	Tyr	Leu	Lys	Glu	Phe
	4250					4255					4260			
Leu	Ala	Ile	Ser	Lys	Thr	Val	Ser	Leu	Ile	Thr	His	Val	Leu	Ala
	4265					4270					4275			
Ser	Val	Leu	Ala	Asp	Leu	Phe	Thr	Lys	Gly	Phe	Gly	Ile	Ser	Lys
	4280					4285					4290			
Asn	Glu	Glu	Asp	Asp	Asp	Ser	Lys	Val	Asp	Lys	Ser	Glu	Ala	Ala
	4295					4300					4305			
Glu	Gly	Thr	Gly	Met	Gly	Asp	Gly	Val	Gly	Ala	Lys	Asp	Val	Ser
	4310					4315					4320			
Asp	Gln	Ile	Glu	Asp	Glu	Asp	Gln	Leu	His	Gly	Thr	Asp	Lys	Lys
	4325					4330					4335			
Glu	Glu	Glu	Glu	Lys	Glu	Gln	Asp	Asp	Val	Leu	Gly	Lys	Asn	Lys
	4340					4345					4350			
Gly	Ile	Glu	Met	Ser	Asp	Glu	Phe	Asp	Gly	Lys	Glu	Tyr	Ser	Val
	4355					4360					4365			
Ser	Glu	Asp	Glu	Glu	Glu	Asp	Lys	Glu	Asp	Glu	Gly	Ser	Glu	Asp

4370						4375						4380
Glu	Pro	Leu	Asp	Asn	Gly	Ile	Gly	Asp	Val	Gly	Ser	Asp
4385						4390					4395	Ala Glu
Lys	Ala	Asp	Glu	Lys	Pro	Trp	Asn	Lys	Asp	Glu	Glu	Asp
4400						4405					4410	Glu Glu
Glu	Asn	Met	Asn	Glu	Lys	Asn	Glu	Ser	Gly	Pro	Ser	Ile
4415						4420					4425	Val Asp
Lys	Asp	Thr	Arg	Ser	Arg	Glu	Leu	Arg	Ala	Lys	Asp	Asp
4430						4435					4440	Gly Val
Glu	Thr	Ala	Asp	Glu	Pro	Glu	Glu	Ser	Asn	Thr	Ser	Asp
4445						4450					4455	Lys Pro
Glu	Glu	Gly	Asn	Asp	Glu	Asn	Val	Glu	Gln	Asp	Asp	Phe
4460						4465					4470	Asp Asp
Thr	Asp	Asn	Leu	Glu	Glu	Lys	Ile	Gln	Thr	Lys	Glu	Glu
4475						4480					4485	Ala Leu
Gly	Gly	Leu	Thr	Pro	Asp	Val	Asp	Asn	Glu	Gln	Ile	Asp
4490						4495					4500	Asp Asp
Met	Glu	Met	Asp	Lys	Thr	Glu	Glu	Val	Glu	Lys	Glu	Asp
4505						4510					4515	Ala Asn
Gln	Gln	Glu	Glu	Pro	Cys	Ser	Glu	Asp	Gln	Lys	His	Pro
4520						4525					4530	Glu Glu
Gly	Glu	Asn	Asp	Gln	Glu	Glu	Thr	Gln	Glu	Pro	Ser	Glu
4535						4540					4545	Glu Asn
Met	Glu	Ala	Glu	Ala	Glu	Asp	Arg	Cys	Gly	Ser	Pro	Gln
4550						4555					4560	Lys Glu
Glu	Pro	Gly	Asn	Asp	Leu	Glu	Gln	Glu	Pro	Glu	Thr	Glu
4565						4570					4575	Pro Ile
Glu	Gly	Lys	Glu	Val	Met	Ser	Glu	Asp	Met	Met	Lys	Pro
4580						4585					4590	Asn Phe
Arg	Asn	Asp	Asn	Ile	Ser	Gly	Val	Glu	Ser	Gly	Ser	Gln
4595						4600					4605	Asn Pro

His	Gly	Ser	Asn	Val	Leu	Gly	Ala	Gly	Ser	Thr	Ala	Pro	Gln	Glu
	4610					4615					4620			
Asn	Leu	Ser	Ala	Thr	Asp	Val	Thr	Asp	Glu	Leu	Thr	Asp	Ser	Met
	4625					4630					4635			
Asp	Leu	Pro	Ser	Ser	Ser	Asn	Thr	Glu	Met	Asn	Leu	Met	Met	Thr
	4640					4645					4650			
Asn	Met	Ala	Asn	Gly	Glu	Thr	Leu	Thr	Asp	Asn	Leu	Pro	Lys	Met
	4655					4660					4665			
Glu	Phe	Pro	Gln	Asn	Gln	Ser	Ser	Thr	Ala	Gln	Gln	Thr	Lys	Val
	4670					4675					4680			
Asn	Pro	Tyr	Arg	Asn	Val	Gly	Asp	Ala	Leu	Lys	Glu	Trp	Lys	Glu
	4685					4690					4695			
Arg	Val	Arg	Ile	Ser	Ser	Asp	Leu	Gly	Glu	Lys	Gln	Glu	Ala	Glu
	4700					4705					4710			
Asn	Glu	Met	Glu	Asp	Pro	Asp	Ala	Ser	Glu	Tyr	Gly	Phe	Ala	Ser
	4715					4720					4725			
Gln	Phe	Asp	Ala	Gly	Thr	Ser	Gln	Ala	Leu	Gly	Pro	Ala	Leu	Pro
	4730					4735					4740			
Glu	Gln	Val	Asn	Thr	Asp	Met	Arg	Glu	Gly	Glu	Ser	Glu	Glu	Glu
	4745					4750					4755			
Lys	Leu	Ala	Gly	Asn	Gln	Asp	Asp	Val	Ser	Pro	Met	Asp	Ile	Asp
	4760					4765					4770			
Asp	Leu	Asn	Pro	Glu	Asn	Lys	Pro	Ala	Val	Gln	Ser	Lys	Pro	Ser
	4775					4780					4785			
Ile	Ser	Asn	Ser	Ile	Ala	Glu	Gln	Val	Gln	Glu	Pro	Asp	Thr	Asp
	4790					4795					4800			
Arg	Thr	His	Gln	Glu	Asn	Ser	Pro	Ile	His	Asn	Phe	Gly	Asp	Gly
	4805					4810					4815			
Asn	Ser	Arg	Met	Asp	Ser	Met	Val	Ser	Val	Asp	Asn	Thr	Phe	Leu
	4820					4825					4830			
Gly	Glu	Glu	Ala	Cys	Asn	Leu	Asp	Arg	Met	Gln	Val	Thr	Asp	Asn
	4835					4840					4845			

## 047-E2F-PCT.ST25.txt

Asp	Ser	Glu	Ser	Asn	Gln	Asp	Asn	Gln	Glu	Asp	Pro	Asp	Ala	Arg
	4850					4855					4860			
Ser	Asn	Ala	Val	Val	Leu	Trp	Arg	Arg	Cys	Glu	Leu	Leu	Thr	Ala
	4865					4870					4875			
Lys	Pro	Ser	Gln	Glu	Leu	Ala	Glu	Gln	Leu	Arg	Leu	Ile	Leu	Glu
	4880					4885					4890			
Pro	Thr	Leu	Ala	Ser	Lys	Leu	Ser	Gly	Asp	Tyr	Arg	Thr	Gly	Lys
	4895					4900					4905			
Arg	Ile	Asn	Met	Lys	Lys	Val	Ile	Pro	Tyr	Ile	Ala	Ser	His	Tyr
	4910					4915					4920			
Arg	Lys	Asp	Lys	Ile	Trp	Leu	Arg	Arg	Thr	Lys	Pro	Asn	Lys	Arg
	4925					4930					4935			
Asp	Tyr	Gln	Val	Val	Ile	Ala	Val	Asp	Asp	Ser	Arg	Ser	Met	Ser
	4940					4945					4950			
Glu	Ser	Gly	Cys	Gly	Asp	Phe	Ala	Ile	Arg	Ala	Leu	Ala	Thr	Val
	4955					4960					4965			
Cys	Arg	Ala	Met	Ser	Gln	Leu	Glu	Leu	Gly	Ser	Leu	Ala	Val	Ala
	4970					4975					4980			
Ser	Phe	Gly	Lys	Gln	Gly	Ser	Ile	Lys	Met	Leu	His	Asp	Phe	Gly
	4985					4990					4995			
Gln	Ser	Phe	Thr	Thr	Glu	Ser	Gly	Ile	Lys	Met	Ile	Ser	Asn	Leu
	5000					5005					5010			
Thr	Phe	Lys	Gln	Glu	Asn	Leu	Ile	Glu	Asp	Gln	Pro	Val	Val	Asn
	5015					5020					5025			
Leu	Leu	Arg	Asn	Met	Asn	Glu	Met	Leu	Glu	Asn	Leu	Ala	Ser	Thr
	5030					5035					5040			
Arg	Arg	Gln	Ser	Tyr	Gly	Ser	Asn	Pro	Leu	Gln	Gln	Leu	Val	Leu
	5045					5050					5055			
Ile	Ile	Gly	Asp	Gly	Lys	Phe	His	Glu	Arg	Glu	Lys	Leu	Lys	Arg
	5060					5065					5070			
Thr	Val	Arg	Ser	Phe	Leu	Gln	Gln	Lys	Arg	Met	Val	Val	Tyr	Leu
	5075					5080					5085			

047-E2F-PCT.ST25.txt

Leu Leu Asp Asp Ala Glu Gln Ser Val Phe Asp Leu Ala Asp Tyr  
 5090 5095 5100  
 Val Tyr Asp Gly Glu Arg Arg Pro Tyr Lys Lys Met Asn Tyr Leu  
 5105 5110 5115  
 Asp Ser Phe Pro Phe Pro Tyr Tyr Ile Val Leu Arg Asp Ile Glu  
 5120 5125 5130  
 Ala Leu Pro Arg Thr Leu Gly Asp Val Leu Arg Gln Trp Phe Glu  
 5135 5140 5145  
 Leu Met Gln Ser Ser Arg Asp  
 5150 5155

<210> 1041

<211> 396

<212> DNA

<213> Arabidopsis thaliana

<400> 1041

atggagtcctt cttcttcact aaaaggttct gcacttgga agcttgtggt gacctctggt	60
ctcttacata gctcatggag taagatcttg gagatacata acccacctta ttcgaatcat	120
gatccaggtc tacaagtttc aaaaaaaaaa aaagattcag gtctagaatt tcagattcac	180
cgagaagaga aattcacact tgtggttttt agcgaccac cgatctgcag aagtagtagc	240
tctgattcta ctcttcttca tgtgaaagat aaagaaaatc ctttccatt cctctgctcc	300
gagaacaacc catcattctc tcttcacaca cctgctttta acctttttac ctctgcttct	360
actagtctca cttacctcaa atcagaggta atttaa	396

<210> 1042

<211> 131

<212> PRT

<213> Arabidopsis thaliana

<400> 1042

Met Glu Ser Ser Ser Ser Leu Lys Gly Ser Ala Leu Gly Lys Leu Val	
1 5 10 15	

047-E2F-PCT.ST25.txt

Val Thr Ser Gly Leu Leu His Ser Ser Trp Ser Lys Ile Leu Glu Ile  
20 25 30

His Asn Pro Pro Tyr Ser Asn His Asp Pro Gly Leu Gln Val Ser Lys  
35 40 45

Lys Lys Lys Asp Ser Gly Leu Glu Phe Gln Ile His Arg Glu Glu Lys  
50 55 60

Phe Thr Leu Val Val Phe Ser Ala Pro Pro Ile Cys Arg Ser Ser Ser  
65 70 75 80

Ser Asp Ser Thr Leu Leu His Val Lys Asp Lys Glu Asn Pro Phe Pro  
85 90 95

Phe Leu Cys Ser Glu Asn Asn Pro Ser Phe Ser Leu His Thr Pro Ala  
100 105 110

Phe Asn Leu Phe Thr Ser Ala Ser Thr Ser Leu Thr Tyr Leu Lys Ser  
115 120 125

Glu Val Ile  
130

<210> 1043

<211> 1503

<212> DNA

<213> Arabidopsis thaliana

<400> 1043

atggtgatct tatctctcgt ctcttggtcc ttctccgttt tctcaccgcc gattagtctc	60
cggcttcac tcccgcgggt aacttctctc tgctcccatg gaaccttccc tgcttcttct	120
acatttcggt ctcagctaca accattgctt atcagctgct taaatcatcg agaacctgct	180
ttaactttcc gatgtagctg ccttagctct ccgattgaat ccggaagtca aattgaatct	240
ctgttttcgt tattccgaga tattgggttt atagaagaag aaactgagat gattttagcg	300
aagaaccag atataaagtc gacatctttg gataaaatcg gtgctcgtgt tgcttctctt	360
cagtctctga aaatcaatgg cttcccgctt cagggtttga tagctaagtg ccctaattta	420
ttgacttcag aagaatttga tctcggttatt agtttcttag ttgatgaact tgaaggaagg	480
cttgatcctg aattagttga gcgcttactc tctgtggtag acacatctat cttgcttagt	540
tttaatcaga aggtgagatt gcttctcctc catgggatac ctaaagaaaa gatctctcat	600

047-E2F-PCT.ST25.txt

gtattgaaca aagtgtacct aaataaattg ctgtatcaga aatcagttga agatattgag 660  
agattgatta gtttcttgga accttttggg ggaattggta taattgctag gcggccagtg 720  
attctcaata gtgacttgga tagtcagttg attcctaggg ttgatttcat taggaatcta 780  
agcggggaag acgatttcgc tactggaacg gtgctacgta gacttcctgc catattgagt 840  
tatagtgttg agcatatgaa cggccaagta gagtttctca agtcttttgc tggcttgacg 900  
agtgaagcaag tgtttaagat tgttcatgtg ttccctaattg ttatcagcac tagtaaagag 960  
aggaaactgc gcccaggat agagtttctg aaggaatgcg gctttgattc ccccggcattg 1020  
ttcaaattct tgagtaaagc accattgatt ttagctctat ccgaaaataa tctctcgcac 1080  
aaactcgggtt ttctggtgaa gattggatat aagcatagaa caaaggaact ggcctttgcg 1140  
atgggagctg tgaccagaac aagctctgac aatatgcaga gggttattgg actgtacttg 1200  
agttatggtc ttctattcga agacattcta gcaatgagca caaaacatcc tcaagtcctg 1260  
cagtataatt atacttcttt agaggaaaaa ctggagtatt tgatcgagta catgggtcgt 1320  
gaagtcgaag aacttcttgc attccctgca ttctttggat acaagcttga tagcaggatc 1380  
aagcatcggg atgaagaaaa gttgaagagc agaggtgaga acatgtctct taacaagctt 1440  
ttgacagtat cagctgaaag attctctaag gcggctgata atatcgaaat gatttgttta 1500  
tga 1503

<210> 1044

<211> 500

<212> PRT

<213> Arabidopsis thaliana

<400> 1044

Met Val Ile Leu Ser Leu Val Ser Cys Ser Phe Ser Val Phe Ser Pro  
1 5 10 15

Pro Ile Ser Leu Arg Leu His Leu Pro Pro Val Thr Ser Leu Cys Ser  
20 25 30

His Gly Thr Phe Pro Ala Ser Ser Thr Phe Arg Ser Gln Leu Gln Pro  
35 40 45

Leu Leu Ile Ser Cys Leu Asn His Arg Glu Pro Ala Leu Thr Phe Arg  
50 55 60

Cys Ser Cys Leu Ser Ser Pro Ile Glu Ser Gly Ser Gln Ile Glu Ser  
Page 1617

65                      70                      80  
Leu Phe Ser Leu Phe Arg Asp Ile Gly Phe Ile Glu Glu Glu Thr Glu  
85                      90                      95  
Met Ile Leu Ala Lys Asn Pro Asp Ile Lys Ser Thr Ser Leu Asp Lys  
100                      105                      110  
Ile Gly Ala Arg Val Ala Ser Leu Gln Ser Leu Lys Ile Asn Gly Phe  
115                      120                      125  
Pro Leu Gln Gly Leu Ile Ala Lys Cys Pro Asn Leu Leu Thr Ser Glu  
130                      135                      140  
Glu Phe Asp Leu Val Ile Ser Phe Leu Val Asp Glu Leu Glu Gly Arg  
145                      150                      155                      160  
Leu Asp Pro Glu Leu Val Glu Arg Leu Leu Ser Val Val Asp Thr Ser  
165                      170                      175  
Ile Leu Leu Ser Phe Asn Gln Lys Val Arg Leu Leu Leu Leu His Gly  
180                      185                      190  
Ile Pro Lys Glu Lys Ile Ser His Val Leu Asn Lys Val Tyr Leu Asn  
195                      200                      205  
Lys Leu Leu Tyr Gln Lys Ser Val Glu Asp Ile Glu Arg Leu Ile Ser  
210                      215                      220  
Phe Leu Glu Pro Phe Gly Gly Ile Gly Ile Ile Ala Arg Arg Pro Val  
225                      230                      235                      240  
Ile Leu Asn Ser Asp Leu Asp Ser Gln Leu Ile Pro Arg Val Asp Phe  
245                      250                      255  
Ile Arg Asn Leu Ser Gly Glu Asp Asp Phe Ala Thr Gly Thr Val Leu  
260                      265                      270  
Arg Arg Leu Pro Ala Ile Leu Ser Tyr Ser Val Glu His Met Asn Gly  
275                      280                      285  
Gln Val Glu Phe Leu Lys Ser Phe Ala Gly Leu Thr Ser Glu Gln Val  
290                      295                      300  
Phe Lys Ile Val His Val Phe Pro Asn Val Ile Ser Thr Ser Lys Glu  
305                      310                      315                      320



Arg Lys Leu Arg Pro Arg Ile Glu Phe Leu Lys Glu Cys Gly Phe Asp  
 325 330 335

Ser Pro Gly Met Phe Lys Phe Leu Ser Lys Ala Pro Leu Ile Leu Ala  
 340 345 350

Leu Ser Glu Asn Asn Leu Ser His Lys Leu Gly Phe Leu Val Lys Ile  
 355 360 365

Gly Tyr Lys His Arg Thr Lys Glu Leu Ala Phe Ala Met Gly Ala Val  
 370 375 380

Thr Arg Thr Ser Ser Asp Asn Met Gln Arg Val Ile Gly Leu Tyr Leu  
 385 390 395 400

Ser Tyr Gly Leu Ser Phe Glu Asp Ile Leu Ala Met Ser Thr Lys His  
 405 410 415

Pro Gln Val Leu Gln Tyr Asn Tyr Thr Ser Leu Glu Glu Lys Leu Glu  
 420 425 430

Tyr Leu Ile Glu Tyr Met Gly Arg Glu Val Glu Glu Leu Leu Ala Phe  
 435 440 445

Pro Ala Phe Leu Gly Tyr Lys Leu Asp Ser Arg Ile Lys His Arg Tyr  
 450 455 460

Glu Glu Lys Leu Lys Ser Arg Gly Glu Asn Met Ser Leu Asn Lys Leu  
 465 470 475 480

Leu Thr Val Ser Ala Glu Arg Phe Ser Lys Ala Ala Asp Asn Ile Glu  
 485 490 495

Met Ile Cys Leu  
 500

<210> 1045

<211> 2931

<212> DNA

<213> Arabidopsis thaliana

<400> 1045

atgtctgagt cgttgcttcg tattgatcac gccggcttag acaccctaatt tccgggaatg 60

atgtgcagtc acagagtttg gacacactca gaactagctc ctccttcagt gagcgtgaat 120

gaatcccatc	tggtgaaagg	tctctttacaa	gcttttgcaag	gtttctcttag	tcccttcatt	180
ttctgggacc	gaaaggaaca	aactttccgc	gctaaaagtg	agatacgagt	ttctcatttg	240
tctcagtc	gccttcattg	ccttctcgct	ggatttttgt	atgctgctac	atgtttgaag	300
cttggtgagt	ctattgttag	tggaattaat	gcctctctta	aatctcctcc	tacttttaatg	360
gcattttcga	actctgcctc	tggttggtt	gaggcaaata	ttgctttgaa	tgaggaagtg	420
aagatcaacg	attctaattg	tgctgttact	ccaactcttt	tgaggattaac	tagttcttta	480
tctagtctgt	gttcagatgc	tgaatacctt	ttccaagttg	tacgaggtgc	gatccctcat	540
gcgtattttg	agtcgagttc	ggctattttc	acagctgaaa	ttgctgtgca	cgttcttgat	600
tacctttaca	agaggctaga	tgaagtatgt	cttgtacaag	gtggtgagct	tgtggccgtg	660
gaaggatttc	acatgttatt	gcaaactctt	gctggaagtt	tattgccata	tgtagagagt	720
ttggattcat	ggttgtttga	gggaactctt	gatgatcctt	ttgaagagtt	gttctttaca	780
gccaaaccaat	cggctctcgg	tagcgatgca	gagttttggg	agaaaagcta	tctgttgacg	840
aggggtgctg	gtccaaaatc	aaatgtaact	tcgctaaatc	aaaagaaagg	gatgagtgga	900
aatgactcca	attcagtttc	tgacaaagac	aaagagcaga	acaatcgggt	gttatgcca	960
ctgttcataa	aagacatatg	taagtcgatt	gtttctgctg	gaaagtcact	gcagctgatg	1020
cagcatattc	cttctacgtc	ttcagaaaat	tgtgaaaaga	ttcagtagca	tgggcgaaat	1080
ggttttggga	attctggctg	tggcatactc	ctggctggaa	agaatagctt	tagaagcatt	1140
gcagacttat	ccttgctctga	aatattctgt	ctatcacttg	ctggcctcat	aggccatggt	1200
gatcatgtat	ctagatatct	gtggaaagat	gagacagatg	agtgggagat	ttctcctact	1260
ttagcatcat	atataagtgg	taagctagtg	aatggcacag	gtgatcttct	cacatactca	1320
gagcgaatgt	ggtataagtt	gttggttggg	gctgtgcaag	agaaaaaatc	tatagaagcc	1380
aaatcagaac	tccagagtcc	atgttggtgt	acttggtgta	aagaagaaaa	aatgtttctc	1440
gctgccgaaa	aggtgttgca	ggggttggtt	tgtcatgaaa	accttggtgt	ttcagcatct	1500
aaaatggatc	ttgagaggaa	taaaaatgcc	tggtcatgtc	tgaacttatc	agagaactat	1560
tgtctaccct	ctctaaatga	taagagtttg	ttgagtgtct	tttttgaggg	atctggcggt	1620
gcacccaaat	ttgtcggaac	aaactacaaa	tatggattcc	aattcggtag	atctgaatat	1680
ctttcttctc	aagatgacac	caaaattcta	gaaacgttat	ttccttttcc	tacattgctg	1740
ccgtcattcc	agtcgaagct	ccatatgtca	gaattcctac	cttaccaaaa	gaatagtaca	1800
cttccttcaa	gagttctcag	ctggatactt	aggacagagc	caaggaatac	tctacttcct	1860
gttgtaataa	tgcaagaatg	cttcacaatc	aacatcagga	ggcaggtgga	caacattagc	1920
aaagtgattt	tttcaaaact	aatgaatgaa	tggaaattga	tgcacgaact	tgcggtgttg	1980
cgtgccattt	atttgttagg	ttcaggggac	cttctgcagc	attttttgac	tgtcatattt	2040

047-E2F-PCT.ST25.txt

gataggctgg gcaagggaga gtcatcaaat gatgattttg agttgaacat aatcattcag 2100  
 gaatcaatta gaaattcagc tgataccatg ttgttaagca gtcctgatgc attggtggta 2160  
 tctattttcca gtgaaggggtg tttggacaga gacaaagatg acaagggcga cgtaaaatcc 2220  
 ctttcttcac ctcgtgaaag cagcgttaac aattatgcga tagattgcct tgaatctctc 2280  
 aaattcacat acaaggtgcc gtggccgctt gagcttattg cgaacagcga ggccattaag 2340  
 aagtataacc aggtcaagcg agcaaaatat gtgcttgata aggcacgaag gttgatgtgg 2400  
 aagggtaaag gctctgcaac aaaaatccgc aagcaccact gtttactgga aaaaagctc 2460  
 ctcaattttg tggatgcttt tcatcaatac gtaatggata gggatatatca cactgcttgg 2520  
 cgtgagctgt gcgaagctat ggtaaaagca gggctctctag atgagggtcat agatgtacac 2580  
 gagacgtact tgttatcgat tcagaggcaa tgttttgtgg ttcaagaaaa gctgtgggca 2640  
 atcatcgcaa gtcggatcaa catgattctc ggtttagctc tagaattcta ctcaatacaa 2700  
 cagacgtga gcagcgggtg agcagtttca gctatcaagg ctagatggga gatggagata 2760  
 gaccgcatcg agaaacaatt cgaggactgt attgctttcc tccttagagt attgacttcg 2820  
 aagaagaatg tgggacactt ccctcatctg gctgatttgg tgaccagaat caattacaat 2880  
 tactactaca tgtctgacac tggaagctcg atgactgctt ctggatcata g 2931

<210> 1046

<211> 976

<212> PRT

<213> Arabidopsis thaliana

<400> 1046

Met Ser Glu Ser Leu Leu Arg Ile Asp His Ala Gly Leu Asp Thr Leu  
 1 5 10 15

Ile Pro Gly Met Met Cys Ser His Arg Val Trp Thr His Ser Glu Leu  
 20 25 30

Ala Pro Pro Ser Val Ser Val Asn Glu Ser His Leu Val Lys Gly Leu  
 35 40 45

Leu Gln Ala Leu Gln Gly Phe Ser Ser Pro Phe Ile Phe Trp Asp Arg  
 50 55 60

Lys Glu Gln Thr Phe Arg Ala Lys Ser Glu Ile Arg Val Ser His Leu  
 65 70 75 80

047-E2F-PCT.ST25.txt

Ser Gln Ser Ser Leu His Val Leu Leu Ala Gly Phe Leu Tyr Ala Ala  
 85 90 95  
 Thr Cys Leu Lys Leu Val Glu Ser Ile Val Ser Gly Ile Asn Ala Ser  
 100 105 110  
 Leu Lys Ser Pro Pro Thr Leu Met Ala Phe Ser Asn Ser Ala Ser Gly  
 115 120 125  
 Trp Leu Glu Ala Asn Ile Ala Leu Asn Glu Glu Val Lys Ile Asn Asp  
 130 135 140  
 Ser Asn Val Ala Val Thr Pro Thr Leu Leu Gly Leu Thr Ser Ser Leu  
 145 150 155 160  
 Ser Ser Leu Cys Ser Asp Ala Glu Tyr Leu Phe Gln Val Val Arg Gly  
 165 170 175  
 Ala Ile Pro His Ala Tyr Phe Glu Ser Ser Ser Ala Ile Ser Thr Ala  
 180 185 190  
 Glu Ile Ala Val His Val Leu Asp Tyr Leu Tyr Lys Arg Leu Asp Glu  
 195 200 205  
 Val Cys Leu Val Gln Gly Gly Glu Leu Val Ala Val Glu Gly Phe His  
 210 215 220  
 Met Leu Leu Gln Ile Phe Ala Gly Ser Leu Leu Pro Tyr Val Glu Ser  
 225 230 235 240  
 Leu Asp Ser Trp Leu Phe Glu Gly Thr Leu Asp Asp Pro Phe Glu Glu  
 245 250 255  
 Leu Phe Phe Thr Ala Asn Gln Ser Val Ser Val Ser Asp Ala Glu Phe  
 260 265 270  
 Trp Glu Lys Ser Tyr Leu Leu Thr Arg Val Leu Gly Pro Lys Ser Asn  
 275 280 285  
 Val Thr Ser Leu Asn Gln Lys Lys Gly Met Ser Gly Asn Asp Ser Asn  
 290 295 300  
 Ser Val Ser Asp Lys Asp Lys Glu Gln Asn Asn Arg Val Leu Cys Pro  
 305 310 315 320  
 Leu Phe Ile Lys Asp Ile Cys Lys Ser Ile Val Ser Ala Gly Lys Ser  
 325 330 335

047-E2F-PCT.ST25.txt

Leu Gln Leu Met Gln His Ile Pro Ser Thr Ser Ser Glu Asn Cys Glu  
 340 345 350  
 Lys Ile Gln Tyr His Gly Arg Asn Gly Phe Gly Asn Ser Gly Cys Gly  
 355 360 365  
 Ile Leu Leu Ala Gly Lys Asn Ser Phe Arg Ser Ile Ala Asp Leu Ser  
 370 375 380  
 Leu Ser Glu Ile Phe Cys Leu Ser Leu Ala Gly Leu Ile Gly His Gly  
 385 390 395 400  
 Asp His Val Ser Arg Tyr Leu Trp Lys Asp Glu Thr Asp Glu Trp Glu  
 405 410 415  
 Ile Ser Pro Thr Leu Ala Ser Tyr Ile Ser Gly Lys Leu Val Asn Gly  
 420 425 430  
 Thr Gly Asp Leu Leu Thr Tyr Ser Glu Arg Met Trp Tyr Lys Leu Leu  
 435 440 445  
 Val Gly Ala Val Gln Glu Lys Lys Ser Ile Glu Ala Lys Ser Glu Leu  
 450 455 460  
 Gln Ser Pro Cys Cys Val Thr Cys Val Lys Glu Glu Lys Asn Val Leu  
 465 470 475 480  
 Ala Ala Glu Lys Val Leu Gln Gly Leu Phe Cys His Glu Asn Leu Val  
 485 490 495  
 Val Ser Ala Ser Lys Met Asp Leu Glu Arg Asn Lys Asn Ala Trp His  
 500 505 510  
 Val Leu Asn Leu Ser Glu Asn Tyr Cys Leu Pro Ser Leu Asn Asp Lys  
 515 520 525  
 Ser Leu Leu Ser Ala Val Phe Glu Gly Ser Gly Val Ala Pro Lys Phe  
 530 535 540  
 Val Gly Thr Asn Tyr Lys Tyr Gly Phe Gln Phe Gly Arg Ser Glu Tyr  
 545 550 555 560  
 Leu Ser Ser Gln Asp Asp Thr Lys Ile Leu Glu Thr Leu Phe Pro Phe  
 565 570 575

580

585

590

Leu Pro Tyr Gln Lys Asn Ser Thr Leu Pro Ser Arg Val Leu Ser Trp  
 595 600 605  
 Ile Leu Arg Thr Glu Pro Arg Asn Thr Leu Leu Pro Val Val Ile Met  
 610 615 620  
 Gln Glu Cys Phe Thr Ile Asn Ile Arg Arg Gln Val Asp Asn Ile Ser  
 625 630 635 640  
 Lys Val Ile Phe Ser Lys Leu Met Asn Glu Trp Lys Leu Met His Glu  
 645 650 655  
 Leu Ala Val Leu Arg Ala Ile Tyr Leu Leu Gly Ser Gly Asp Leu Leu  
 660 665 670  
 Gln His Phe Leu Thr Val Ile Phe Asp Arg Leu Gly Lys Gly Glu Ser  
 675 680 685  
 Ser Asn Asp Asp Phe Glu Leu Asn Ile Ile Ile Gln Glu Ser Ile Arg  
 690 695 700  
 Asn Ser Ala Asp Thr Met Leu Leu Ser Ser Pro Asp Ala Leu Val Val  
 705 710 715 720  
 Ser Ile Ser Ser Glu Gly Cys Leu Asp Arg Asp Lys Asp Asp Lys Gly  
 725 730 735  
 Asp Val Lys Ser Leu Ser Ser Pro Arg Glu Ser Ser Val Asn Asn Tyr  
 740 745 750  
 Ala Ile Asp Cys Leu Glu Ser Leu Lys Phe Thr Tyr Lys Val Pro Trp  
 755 760 765  
 Pro Leu Glu Leu Ile Ala Asn Ser Glu Ala Ile Lys Lys Tyr Asn Gln  
 770 775 780  
 Val Lys Arg Ala Lys Tyr Val Leu Asp Lys Ala Arg Arg Leu Met Trp  
 785 790 795 800  
 Lys Gly Lys Gly Ser Ala Thr Lys Ile Arg Lys His His Cys Leu Leu  
 805 810 815  
 Glu Gln Lys Leu Leu Asn Phe Val Asp Ala Phe His Gln Tyr Val Met  
 820 825 830

047-E2F-PCT.ST25.txt

Asp Arg Val Tyr His Thr Ala Trp Arg Glu Leu Cys Glu Ala Met Val  
835 840 845

Lys Ala Gly Ser Leu Asp Glu Val Ile Asp Val His Glu Thr Tyr Leu  
850 855 860

Leu Ser Ile Gln Arg Gln Cys Phe Val Val Gln Glu Lys Leu Trp Ala  
865 870 875 880

Ile Ile Ala Ser Arg Ile Asn Met Ile Leu Gly Leu Ala Leu Glu Phe  
885 890 895

Tyr Ser Ile Gln Gln Thr Leu Ser Ser Gly Gly Ala Val Ser Ala Ile  
900 905 910

Lys Ala Arg Trp Glu Met Glu Ile Asp Arg Ile Glu Lys Gln Phe Glu  
915 920 925

Asp Cys Ile Ala Phe Leu Leu Arg Val Leu Thr Ser Lys Lys Asn Val  
930 935 940

Gly His Phe Pro His Leu Ala Asp Leu Val Thr Arg Ile Asn Tyr Asn  
945 950 955 960

Tyr His Tyr Met Ser Asp Thr Gly Ser Ser Met Thr Ala Ser Gly Ser  
965 970 975

<210> 1047

<211> 1572

<212> DNA

<213> Arabidopsis thaliana

<400> 1047

atgggtgtct gtttctccgc cattagagtc actggtgcta gcagcagtag acgaagcagt	60
cagaccaaatt ccaaggctgc tcctactccc atcgatacca aggcctctac caaacgccga	120
accggctcca tcccctgcgg caagcgtacc gattttggct actccaaaga cttccacgat	180
cactacacca tcggcaagtt gtcggccat ggtcaattcg gctacaccta cgtcgccatc	240
cacagaccca atggagatcg cgtcgccgctc aaaagactcg ataagtctaa gatggttctt	300
cctattgctg ttgaggatgt caagcgtgag gttcagattc ttattgctct ctctggccac	360
gagaatgttg ttcagtttca caatgccttt gaggatgacg attacgtcta tattgttatg	420
gagttgtgcg aaggaggcga attgctggat aggatattat ccaagaaagg taatcggtac	480

047-E2F-PCT.ST25.txt

tccgagaaag atgcagccgt tgtcgtagg cagatgctca aagttgcagg agaatgtcat 540  
ctacacgggtc ttgtacatag agatatgaaa ccagagaact ttttgttcaa atcagctcaa 600  
ctagattcgc ctctaaaggc tacggatttt ggtttatcgg attttatcaa accagggaaa 660  
aggttccatg acattgttgg tagcgcctat tatgtggctc ctgaggtatt aaagcgcaga 720  
tcagggcctg aatcagatgt atggagcatt ggtgtgatta cgtatatatt actttgtggg 780  
aggcggcctt tttgggatag aactgaagat ggtatatatta aagaggtttt aagaaataaa 840  
cctgacttca gccgtaaacc ttgggcaact ataagtgaca gcgcaaaga ttttgtgaaa 900  
aagttacttg taaaagacc acgagcacgg ctaactgctg cacaagcact atcacatgcg 960  
tgggttagag aaggcgggaa tgctactgat atccctgtcg acatttcagt tctgaacaac 1020  
ttaagacaat ttgtgagata cagccgtcta aagcaatttg ctttaagggc gcttgctagc 1080  
acacttgacg aggcagagat ctctgacctc agagatcaat ttgatgcat tgatgtggat 1140  
aaaaatggcg tcattagtct tgaagagatg agacaggcac ttgccaaaga tcttccttgg 1200  
aaactgaaag actcacgagt tgctgagatc cttgaagcga ttgatagcaa cactgatggg 1260  
ttagtggact tcacagagtt tgtagcagca gctctacatg ttcatcaact agaagaacat 1320  
gattcagaga aatggcagct aaggtcaaga gcagcttttg agaaattcga cctagacaaa 1380  
gacgggtaca taacgcctga ggaacttcga atgcacacgg ggttaagagg atcaatagat 1440  
ccactgctgg atgaagcaga catagacaga gatgggaaaa taagcctgca tgagttcagg 1500  
agacttctaa gaacagcgag cataagttca cagagagcac caagccctgc aggtcacagg 1560  
aatcttcgat ag 1572

<210> 1048

<211> 523

<212> PRT

<213> Arabidopsis thaliana

<400> 1048

Met Gly Val Cys Phe Ser Ala Ile Arg Val Thr Gly Ala Ser Ser Ser  
1 5 10 15

Arg Arg Ser Ser Gln Thr Lys Ser Lys Ala Ala Pro Thr Pro Ile Asp  
20 25 30

Thr Lys Ala Ser Thr Lys Arg Arg Thr Gly Ser Ile Pro Cys Gly Lys  
35 40 45



Arg Thr Asp Phe Gly Tyr Ser Lys Asp Phe His Asp His Tyr Thr Ile  
 50 55 60  
 Gly Lys Leu Leu Gly His Gly Gln Phe Gly Tyr Thr Tyr Val Ala Ile  
 65 70 75 80  
 His Arg Pro Asn Gly Asp Arg Val Ala Val Lys Arg Leu Asp Lys Ser  
 85 90 95  
 Lys Met Val Leu Pro Ile Ala Val Glu Asp Val Lys Arg Glu Val Gln  
 100 105 110  
 Ile Leu Ile Ala Leu Ser Gly His Glu Asn Val Val Gln Phe His Asn  
 115 120 125  
 Ala Phe Glu Asp Asp Asp Tyr Val Tyr Ile Val Met Glu Leu Cys Glu  
 130 135 140  
 Gly Gly Glu Leu Leu Asp Arg Ile Leu Ser Lys Lys Gly Asn Arg Tyr  
 145 150 155 160  
 Ser Glu Lys Asp Ala Ala Val Val Val Arg Gln Met Leu Lys Val Ala  
 165 170 175  
 Gly Glu Cys His Leu His Gly Leu Val His Arg Asp Met Lys Pro Glu  
 180 185 190  
 Asn Phe Leu Phe Lys Ser Ala Gln Leu Asp Ser Pro Leu Lys Ala Thr  
 195 200 205  
 Asp Phe Gly Leu Ser Asp Phe Ile Lys Pro Gly Lys Arg Phe His Asp  
 210 215 220  
 Ile Val Gly Ser Ala Tyr Tyr Val Ala Pro Glu Val Leu Lys Arg Arg  
 225 230 235 240  
 Ser Gly Pro Glu Ser Asp Val Trp Ser Ile Gly Val Ile Thr Tyr Ile  
 245 250 255  
 Leu Leu Cys Gly Arg Arg Pro Phe Trp Asp Arg Thr Glu Asp Gly Ile  
 260 265 270  
 Phe Lys Glu Val Leu Arg Asn Lys Pro Asp Phe Ser Arg Lys Pro Trp  
 275 280 285  
 Ala Thr Ile Ser Asp Ser Ala Lys Asp Phe Val Lys Lys Leu Leu Val  
 290 295 300

047-E2F-PCT.ST25.txt

Lys Asp Pro Arg Ala Arg Leu Thr Ala Ala Gln Ala Leu Ser His Ala  
305 310 315 320

Trp Val Arg Glu Gly Gly Asn Ala Thr Asp Ile Pro Val Asp Ile Ser  
325 330 335

Val Leu Asn Asn Leu Arg Gln Phe Val Arg Tyr Ser Arg Leu Lys Gln  
340 345 350

Phe Ala Leu Arg Ala Leu Ala Ser Thr Leu Asp Glu Ala Glu Ile Ser  
355 360 365

Asp Leu Arg Asp Gln Phe Asp Ala Ile Asp Val Asp Lys Asn Gly Val  
370 375 380

Ile Ser Leu Glu Glu Met Arg Gln Ala Leu Ala Lys Asp Leu Pro Trp  
385 390 395 400

Lys Leu Lys Asp Ser Arg Val Ala Glu Ile Leu Glu Ala Ile Asp Ser  
405 410 415

Asn Thr Asp Gly Leu Val Asp Phe Thr Glu Phe Val Ala Ala Ala Leu  
420 425 430

His Val His Gln Leu Glu Glu His Asp Ser Glu Lys Trp Gln Leu Arg  
435 440 445

Ser Arg Ala Ala Phe Glu Lys Phe Asp Leu Asp Lys Asp Gly Tyr Ile  
450 455 460

Thr Pro Glu Glu Leu Arg Met His Thr Gly Leu Arg Gly Ser Ile Asp  
465 470 475 480

Pro Leu Leu Asp Glu Ala Asp Ile Asp Arg Asp Gly Lys Ile Ser Leu  
485 490 495

His Glu Phe Arg Arg Leu Leu Arg Thr Ala Ser Ile Ser Ser Gln Arg  
500 505 510

Ala Pro Ser Pro Ala Gly His Arg Asn Leu Arg  
515 520

<210> 1049

<211> 1020

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1049

```

atgtcaactt cagaaaacac tccgtttaat ggcgttgcct catccaccat tgttcgagct    60
accattgtcc aagcctccac cgtctacaac gatactcccg ccactctaga aaaggcgaac    120
aagttttattg tggaggctgc aagcaaggga tcggagctgg ttgtgttccc ggaggcgttt    180
atcgggtggtt atcctcgagg ttttaggttt ggttttagggg tgggagttca taacgaagaa    240
gggcgtgatg agttccgcaa gtaccatgct tctgctatta aagttcctgg ccctgaagta    300
gaaaagttgg cggagttggc cgggaagaac aatgtgtact tggtaatggg agcgatagag    360
aaggatgggt atacactcta ttgcacagca cttttcttca gtccacaagg tcagttcttg    420
ggtaagcacc gtaaactcat gcccacaagt ttggaacgtt gcatttgggg tcaaggagac    480
ggatcaacca tccccgttta cgacactccg atttgaaaac tcggtgctgc tatttgctgg    540
gagaatagga tgcccctcta cagaactgct ttgtacgcca aaggcattga gctttattgt    600
gcacctactg ctgatggttc gaaagaatgg caatcgtcga tgcttcacat tgcgatcgaa    660
ggtggatggt tcgtattgtc ggcttgccag ttctgccttc gtaaagattt ccctgatcat    720
cctgactact tgtttaccga ttggtacgac gacaaagagc ctgactctat tgtttcccaa    780
ggtggaagtg ttattatttc acctttggga caggttcttg cgggaccaa ctttgaatca    840
gaggggtctca tcacagctga tcttgatctt ggtgatgtag caagagctaa gttgtacttc    900
gattcggttg gacattactc gagaccagat gttttacact tgaccgtaaa tgagcacccg    960
aagaaaccgg tcacattcat ttcgaagggt gagaaagcgg aagatgactc aaacaagtaa   1020

```

&lt;210&gt; 1050

&lt;211&gt; 339

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1050

```

Met Ser Thr Ser Glu Asn Thr Pro Phe Asn Gly Val Ala Ser Ser Thr
1          5          10          15

Ile Val Arg Ala Thr Ile Val Gln Ala Ser Thr Val Tyr Asn Asp Thr
          20          25          30

Pro Ala Thr Leu Glu Lys Ala Asn Lys Phe Ile Val Glu Ala Ala Ser
          35          40          45

```

047-E2F-PCT.ST25.txt

Lys Gly Ser Glu Leu Val Val Phe Pro Glu Ala Phe Ile Gly Gly Tyr  
 50 55 60  
 Pro Arg Gly Phe Arg Phe Gly Leu Gly Val Gly Val His Asn Glu Glu  
 65 70 75 80  
 Gly Arg Asp Glu Phe Arg Lys Tyr His Ala Ser Ala Ile Lys Val Pro  
 85 90 95  
 Gly Pro Glu Val Glu Lys Leu Ala Glu Leu Ala Gly Lys Asn Asn Val  
 100 105 110  
 Tyr Leu Val Met Gly Ala Ile Glu Lys Asp Gly Tyr Thr Leu Tyr Cys  
 115 120 125  
 Thr Ala Leu Phe Phe Ser Pro Gln Gly Gln Phe Leu Gly Lys His Arg  
 130 135 140  
 Lys Leu Met Pro Thr Ser Leu Glu Arg Cys Ile Trp Gly Gln Gly Asp  
 145 150 155 160  
 Gly Ser Thr Ile Pro Val Tyr Asp Thr Pro Ile Gly Lys Leu Gly Ala  
 165 170 175  
 Ala Ile Cys Trp Glu Asn Arg Met Pro Leu Tyr Arg Thr Ala Leu Tyr  
 180 185 190  
 Ala Lys Gly Ile Glu Leu Tyr Cys Ala Pro Thr Ala Asp Gly Ser Lys  
 195 200 205  
 Glu Trp Gln Ser Ser Met Leu His Ile Ala Ile Glu Gly Gly Cys Phe  
 210 215 220  
 Val Leu Ser Ala Cys Gln Phe Cys Leu Arg Lys Asp Phe Pro Asp His  
 225 230 235 240  
 Pro Asp Tyr Leu Phe Thr Asp Trp Tyr Asp Asp Lys Glu Pro Asp Ser  
 245 250 255  
 Ile Val Ser Gln Gly Gly Ser Val Ile Ile Ser Pro Leu Gly Gln Val  
 260 265 270  
 Leu Ala Gly Pro Asn Phe Glu Ser Glu Gly Leu Ile Thr Ala Asp Leu  
 275 280 285  
 Asp Leu Gly Asp Val Ala Arg Ala Lys Leu Tyr Phe Asp Ser Val Gly  
 290 295 300

047-E2F-PCT.ST25.txt

His Tyr Ser Arg Pro Asp Val Leu His Leu Thr Val Asn Glu His Pro  
305 310 315 320

Lys Lys Pro Val Thr Phe Ile Ser Lys Val Glu Lys Ala Glu Asp Asp  
325 330 335

Ser Asn Lys

<210> 1051

<211> 2394

<212> DNA

<213> Arabidopsis thaliana

<400> 1051

atggaagacg acggcaagag cagccccaag ttaccgatcc ctggaaagag aaatatacta	60
atcaccagtg ctttgcctta cgtcaacaac gttcctcatc tcggaaacat catcggatgt	120
gttctgagcg ctgatgtgta tgctagatac tgtcgtctcc gtggctataa tgcgatttac	180
atatgtggaa ccgatgaata tgggactgca actgagacca aagctttgga ggagaattgc	240
acccccaagg aaatctgtga caagtaccat gccattcata aagaagttta tgactggttt	300
gggtataagtt ttgacaagtt tgggcgaact tcaactccag aacagactga ggtgtgccaa	360
gcaattttca acaagttgtg ggacaacaag tggctttcag agaacaccat gcagcagctt	420
tactgcgata catgcaagaa gttcttagct gaccggcttg ttgagggttc ttgtccgttc	480
gaaggatgta attatgattc tgctcgtgga gatcagtgcg aaaaatgtgg aaagctcctg	540
aatcctactg aacttaaaga tccgaagtgc aaggctctgtc aaaacacacc ccgaattcgc	600
gacacagacc acctgtttat tgagcttccg ttactgaaag atagggttgga agcgtatatt	660
aaaaagacct ctgttactgg atcttggagt caaaatgcta ttcaaacgac aaatgcatgg	720
cttagggatg ggcttagaca gagatgcatt acgagggatc ttaagtgggg agtgcctgtc	780
ccacatgaga aatacaagga caaagtcttc tatgtttggt ttgatgctcc tattggatac	840
gtctcaataa cgtcttgcta cacatctgaa tgggagaagt ggtggaagaa tcctgagaat	900
gtggagcttt atcagtttat ggggaaagac aatgtgccat ttcacactgt gatgtttccc	960
tctaccacgc ttggaactga ggaaaattgg aactcatga agacaatcag tgtgactgaa	1020
tattttaaact atgaagacgg aaagttctcc aagagtaaag gtgttggagt gtttggtaat	1080
gatgtaaaag atacaaatat acctgtcgaa gtgtggagat actacttgct gaccaacagg	1140

047-E2F-PCT.ST25.txt

cctgaggtgt ctgacacatc gttttcatgg actgatttgc aagcaaaact gaatggcgag 1200  
 ttgctgagca acctaggcaa ctttgттаат cgagttctga gttttatagc aaagcctgat 1260  
 aatgcagggtt acgggtctgt cattcctgat gctcatgatg ctgaatctca ttctttaaca 1320  
 aaatcactgg cggaaaaggt tgaaaagttt gtggcagagt atgttgaagc catggaaaag 1380  
 gttaagctca agcagggact gaaaactgct atgctgattt caagcgaagg gaactattac 1440  
 ttgcaggcaa gccaattttg gaaactttac aaggaagata aacctttgtg tgcagttggt 1500  
 ataagaactg ctgctggttt agtacacctt cttgctcaat tgttagaacc tttcatgcca 1560  
 tccttttctt gtgaggtatt taaacagcta aatttgcctc cacaattttc tctctccgac 1620  
 gagaggggag aggtattact agcaagtaga ccatgggata ttctgcctcc tagccacagg 1680  
 ataggcacc cccaaccttt gttcaaggag ttggaaaacg acgaagtggc acggtacaga 1740  
 gaaaagtttg ctggaagtca gtctgataga cgtgctaggg atgaagcagc aaatttggcg 1800  
 gatcaactta ataaaacaaa actttcagat gccaaagaaac aaaaggcatc atcaaaaggc 1860  
 ggaggaaaac ccaaacctca accagctgct gatcgtgaaa taactatggc aagacttgat 1920  
 atccgagttg gtaaaattgt gaaggctgag aaacatcca aggcagatgc attgtatgta 1980  
 gaagaaattg atgttggggg tggtgaaatt cgcactgttg tcagtggact ggtcaaatat 2040  
 atacctcttg aggaaatgca gaatcgtatg gtttgtgttc tttgcaactt gaaaccggcg 2100  
 aaaatgaggg atattgtgtc acaagcaatg gttcttgag cttccagtag tgatggaagc 2160  
 aaggtggagt tagttgagcc ccctaaaact gctaataattg gagagcgagt tacatttccc 2220  
 gggtttgaag gcgagccaga cgatgtctta aacccaaaga agaaagtatg ggagacgctt 2280  
 ttggttgatc taaacacaaa agagaatcta gttgcttgct acaaagatgt gcccttcact 2340  
 acatctgcag gtgtatgcaa agtttcatcc atcagcaatg gcacgatccg gtaa 2394

<210> 1052

<211> 797

<212> PRT

<213> Arabidopsis thaliana

<400> 1052

Met Glu Asp Asp Gly Lys Ser Ser Pro Lys Leu Pro Ile Pro Gly Lys  
 1 5 10 15

Arg Asn Ile Leu Ile Thr Ser Ala Leu Pro Tyr Val Asn Asn Val Pro  
 20 25 30

His Leu Gly Asn Ile Ile Gly Cys Val Leu Ser Ala Asp Val Tyr Ala  
 35 40 45  
 Arg Tyr Cys Arg Leu Arg Gly Tyr Asn Ala Ile Tyr Ile Cys Gly Thr  
 50 55 60  
 Asp Glu Tyr Gly Thr Ala Thr Glu Thr Lys Ala Leu Glu Glu Asn Cys  
 65 70 75 80  
 Thr Pro Lys Glu Ile Cys Asp Lys Tyr His Ala Ile His Lys Glu Val  
 85 90 95  
 Tyr Asp Trp Phe Gly Ile Ser Phe Asp Lys Phe Gly Arg Thr Ser Thr  
 100 105 110  
 Pro Glu Gln Thr Glu Val Cys Gln Ala Ile Phe Asn Lys Leu Trp Asp  
 115 120 125  
 Asn Lys Trp Leu Ser Glu Asn Thr Met Gln Gln Leu Tyr Cys Asp Thr  
 130 135 140  
 Cys Lys Lys Phe Leu Ala Asp Arg Leu Val Glu Gly Ser Cys Pro Phe  
 145 150 155 160  
 Glu Gly Cys Asn Tyr Asp Ser Ala Arg Gly Asp Gln Cys Glu Lys Cys  
 165 170 175  
 Gly Lys Leu Leu Asn Pro Thr Glu Leu Lys Asp Pro Lys Cys Lys Val  
 180 185 190  
 Cys Gln Asn Thr Pro Arg Ile Arg Asp Thr Asp His Leu Phe Ile Glu  
 195 200 205  
 Leu Pro Leu Leu Lys Asp Arg Leu Glu Ala Tyr Ile Lys Lys Thr Ser  
 210 215 220  
 Val Thr Gly Ser Trp Ser Gln Asn Ala Ile Gln Thr Thr Asn Ala Trp  
 225 230 235 240  
 Leu Arg Asp Gly Leu Arg Gln Arg Cys Ile Thr Arg Asp Leu Lys Trp  
 245 250 255  
 Gly Val Pro Val Pro His Glu Lys Tyr Lys Asp Lys Val Phe Tyr Val  
 260 265 270  
 Trp Phe Asp Ala Pro Ile Gly Tyr Val Ser Ile Thr Ser Cys Tyr Thr  
 275 280 285

047-E2F-PCT.ST25.txt

Ser Glu Trp Glu Lys Trp Trp Lys Asn Pro Glu Asn Val Glu Leu Tyr  
290 295 300

Gln Phe Met Gly Lys Asp Asn Val Pro Phe His Thr Val Met Phe Pro  
305 310 315 320

Ser Thr Gln Leu Gly Thr Glu Glu Asn Trp Thr Leu Met Lys Thr Ile  
325 330 335

Ser Val Thr Glu Tyr Leu Asn Tyr Glu Asp Gly Lys Phe Ser Lys Ser  
340 345 350

Lys Gly Val Gly Val Phe Gly Asn Asp Val Lys Asp Thr Asn Ile Pro  
355 360 365

Val Glu Val Trp Arg Tyr Tyr Leu Leu Thr Asn Arg Pro Glu Val Ser  
370 375 380

Asp Thr Ser Phe Ser Trp Thr Asp Leu Gln Ala Lys Leu Asn Gly Glu  
385 390 395 400

Leu Leu Ser Asn Leu Gly Asn Phe Val Asn Arg Val Leu Ser Phe Ile  
405 410 415

Ala Lys Pro Asp Asn Ala Gly Tyr Gly Ser Val Ile Pro Asp Ala His  
420 425 430

Asp Ala Glu Ser His Ser Leu Thr Lys Ser Leu Ala Glu Lys Val Glu  
435 440 445

Lys Phe Val Ala Glu Tyr Val Glu Ala Met Glu Lys Val Lys Leu Lys  
450 455 460

Gln Gly Leu Lys Thr Ala Met Leu Ile Ser Ser Glu Gly Asn Tyr Tyr  
465 470 475 480

Leu Gln Ala Ser Gln Phe Trp Lys Leu Tyr Lys Glu Asp Lys Pro Leu  
485 490 495

Cys Ala Val Val Ile Arg Thr Ala Ala Gly Leu Val His Leu Leu Ala  
500 505 510

Gln Leu Leu Glu Pro Phe Met Pro Ser Phe Ser Cys Glu Val Phe Lys  
515 520 525

Gln Leu Asn Leu Pro Pro Gln Phe Ser Leu Ser Asp Glu Arg Gly Glu  
530 535 540



047-E2F-PCT.ST25.txt

Val Leu Leu Ala Ser Arg Pro Trp Asp Ile Leu Pro Pro Ser His Arg  
545 550 555 560  
Ile Gly Thr Pro Gln Pro Leu Phe Lys Glu Leu Glu Asn Asp Glu Val  
565 570 575  
Ala Arg Tyr Arg Glu Lys Phe Ala Gly Ser Gln Ser Asp Arg Arg Ala  
580 585 590  
Arg Asp Glu Ala Ala Asn Leu Ala Asp Gln Leu Asn Lys Thr Lys Leu  
595 600 605  
Ser Asp Ala Lys Lys Gln Lys Ala Ser Ser Lys Gly Gly Gly Lys Pro  
610 615 620  
Lys Pro Gln Pro Ala Ala Asp Arg Glu Ile Thr Met Ala Arg Leu Asp  
625 630 635 640  
Ile Arg Val Gly Lys Ile Val Lys Ala Glu Lys His Pro Lys Ala Asp  
645 650 655  
Ala Leu Tyr Val Glu Glu Ile Asp Val Gly Gly Gly Glu Ile Arg Thr  
660 665 670  
Val Val Ser Gly Leu Val Lys Tyr Ile Pro Leu Glu Glu Met Gln Asn  
675 680 685  
Arg Met Val Cys Val Leu Cys Asn Leu Lys Pro Ala Lys Met Arg Asp  
690 695 700  
Ile Val Ser Gln Ala Met Val Leu Ala Ala Ser Ser Ser Asp Gly Ser  
705 710 715 720  
Lys Val Glu Leu Val Glu Pro Pro Lys Thr Ala Asn Ile Gly Glu Arg  
725 730 735  
Val Thr Phe Pro Gly Phe Glu Gly Glu Pro Asp Asp Val Leu Asn Pro  
740 745 750  
Lys Lys Lys Val Trp Glu Thr Leu Leu Val Asp Leu Asn Thr Lys Glu  
755 760 765  
Asn Leu Val Ala Cys Tyr Lys Asp Val Pro Phe Thr Thr Ser Ala Gly  
770 775 780  
Val Cys Lys Val Ser Ser Ile Ser Asn Gly Thr Ile Arg

785

790

<210> 1053

<211> 1095

<212> DNA

<213> *Arabidopsis thaliana*

<400> 1053

atggagggtt	tcttagagat	gcttctcacg	gcggttggtg	ctctcttggt	ttctttcctt	60
ttggccaagc	tcgtttctgt	tgctacggtg	gagaacgatt	tgagttctga	tcagccgctc	120
aagcccgaga	tcggtgtcgg	tgttacagag	gatgttcggt	ttggtatgaa	gatggatgct	180
cgtgttctcg	aaagccagag	gaatttccaa	gttggtgatg	agaatgtgga	acttgtcgat	240
cggtttctta	gcgaagaagc	tgatcgagtt	tatgaagtcg	atgaagctgt	tactggaaac	300
gctaaaatct	gtggtgaccg	tgaagctgag	tcctcggtcg	cagcctcgtc	ggaaaattat	360
gtgatcgccg	aggaggtgat	cttagttcga	ggacaggacg	aacagagcga	ctcggctgaa	420
gctgagtcca	tttcttctgt	ctcgccggaa	aacgtggtag	cggaggagat	taagagtcaa	480
ggacaagagg	aagtaacaga	attaggaaga	agtggttgctg	tagaaaacga	agaaagtgggt	540
ggagatgtct	tagtcgctga	atctgaggag	gtagaggttg	aaaagagtag	taatatggtg	600
gaggagagtg	atgctgaagc	agagaatgaa	gagaaaacag	agttgactat	tgaagaagat	660
gatgattggg	aaggaattga	gaggagtga	cttgagaaag	cctttgcggc	tgctgtaaat	720
cttttggaag	aatccgggaa	agctgaagaa	attggtgctg	aagctaagat	ggagttgttt	780
ggccttcaca	agatcgccac	tgaagggtca	tgtagagagg	cacaacctat	ggccgtcatg	840
atctctgctc	gtgccaaatg	gaatgcgtgg	caaaaacttg	gaaacatgag	tcaagaagag	900
gcaatggagc	agtatcttgc	acttgctctca	aaggaaatcc	ctggtttgac	gaaagctggt	960
catactgtag	ggaagatgtc	agaaatggaa	acctctgttg	gcttgccctc	gaattcagga	1020
tcattagaag	atccgaccaa	cttagtcaca	actggtggtg	atgaatccag	caaaaatggt	1080
tcaggggaga	ggtga					1095

<210> 1054

<211> 364

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1054

Met Glu Val Phe Leu Glu Met Leu Leu Thr Ala Val Val Ala Leu Leu  
1 5 10 15

Phe Ser Phe Leu Leu Ala Lys Leu Val Ser Val Ala Thr Val Glu Asn  
20 25 30

Asp Leu Ser Ser Asp Gln Pro Leu Lys Pro Glu Ile Gly Val Gly Val  
35 40 45

Thr Glu Asp Val Arg Phe Gly Met Lys Met Asp Ala Arg Val Leu Glu  
50 55 60

Ser Gln Arg Asn Phe Gln Val Val Asp Glu Asn Val Glu Leu Val Asp  
65 70 75 80

Arg Phe Leu Ser Glu Glu Ala Asp Arg Val Tyr Glu Val Asp Glu Ala  
85 90 95

Val Thr Gly Asn Ala Lys Ile Cys Gly Asp Arg Glu Ala Glu Ser Ser  
100 105 110

Ala Ala Ala Ser Ser Glu Asn Tyr Val Ile Ala Glu Glu Val Ile Leu  
115 120 125

Val Arg Gly Gln Asp Glu Gln Ser Asp Ser Ala Glu Ala Glu Ser Ile  
130 135 140

Ser Ser Val Ser Pro Glu Asn Val Val Ala Glu Glu Ile Lys Ser Gln  
145 150 155 160

Gly Gln Glu Glu Val Thr Glu Leu Gly Arg Ser Gly Cys Val Glu Asn  
165 170 175

Glu Glu Ser Gly Gly Asp Val Leu Val Ala Glu Ser Glu Glu Val Arg  
180 185 190

Val Glu Lys Ser Ser Asn Met Val Glu Glu Ser Asp Ala Glu Ala Glu  
195 200 205

Asn Glu Glu Lys Thr Glu Leu Thr Ile Glu Glu Asp Asp Asp Trp Glu  
210 215 220

Gly Ile Glu Arg Ser Glu Leu Glu Lys Ala Phe Ala Ala Ala Val Asn  
225 230 235 240

Leu Leu Glu Glu Ser Gly Lys Ala Glu Glu Ile Gly Ala Glu Ala Lys  
Page 1637

245

255

Met Glu Leu Phe Gly Leu His Lys Ile Ala Thr Glu Gly Ser Cys Arg  
260 265 270  
Glu Ala Gln Pro Met Ala Val Met Ile Ser Ala Arg Ala Lys Trp Asn  
275 280 285  
Ala Trp Gln Lys Leu Gly Asn Met Ser Gln Glu Glu Ala Met Glu Gln  
290 295 300  
Tyr Leu Ala Leu Val Ser Lys Glu Ile Pro Gly Leu Thr Lys Ala Gly  
305 310 315 320  
His Thr Val Gly Lys Met Ser Glu Met Glu Thr Ser Val Gly Leu Pro  
325 330 335  
Pro Asn Ser Gly Ser Leu Glu Asp Pro Thr Asn Leu Val Thr Thr Gly  
340 345 350  
Val Asp Glu Ser Ser Lys Asn Val Ser Gly Glu Arg  
355 360

<210> 1055

<211> 2133

<212> DNA

<213> Arabidopsis thaliana

<400> 1055

atggaccaac aaccggagag gcgagaaggc cggagttttc cggagcgtaa aggacagaag	60
cggaagctag aggaaggagc cgccgccgta gaagatcgag agatctctgc cgtcagcacc	120
gacggaggcc aagcgcttct tagcgaggtt gctgctcaag tctcggtact aaactctgcc	180
ttctcttggc aagagtccga tcgcgctgct gccaaagcgag ccaactcaagt tctggctgag	240
ctagccaaaa acgaggattt agtgaacgtg attgtcgacg gaggtgctgt tccagctctt	300
atgacgcatt tacaggcgcc accatacaac gacggggact tggctgagaa gccgtacgaa	360
cacgaagttg agaaggggaag cgcttttgcg cttggtcttc ttgctattaa gccagagtat	420
cagaaactga tagtagacaa aggtgcctta cctcatttag tgaatttggt gaagagaaac	480
aaagatgggt ctagctctcg agctgtgaat agtggtatca gaagagcggc tgatgccatc	540
accaatcttg ctcattgagaa cagcagtatc aagaccctg ttagggtaga aggcggtatt	600
ccacctctcg tggagttgct tgaattttct gattcaaagg tccagagagc agcagcaggg	660

## 047-E2F-PCT.ST25.txt

```

gcattgagaa cccttgcatt taaaaatgat gataacaaga atcagatagt tgaatgcaat 720
gctcttccca cacttattct aatgctagga tcagaggatg ctgctataca ttatgaagcg 780
gttgaggatta taggcaatct agtacactcg tctccacaca ttaaaaaaga gggttcttact 840
gccggggcgt tgcaacctgt cattgggtctt cttagctcct gttgccctga gagtcaaaga 900
gaggcggcctt tattacttgg gcagtttgcc tcaactgatt ctgattgtaa ggtgcacatt 960
gtgcaaaggg gtgctgtccg tcctttaatt gagatgcttc agtccccgga tgtccagttg 1020
aaggaaatgt cggcctttgc actgggtaga ttggcacagg atgcccacaa tcaagctggt 1080
attgcccata gtggtggttt aggaccttta ttgaagcttc tcgattcaag aaatggatca 1140
ttgcaacaca atgctgcatt tgctctttat ggccttgccg ataatgagga taatgtgtca 1200
gattttatca ggggtgggagg tatccaaaag ctacaggatg gagagtttat tgttcaagca 1260
actaaagatt gtgtttccaa aacactaaag agattggagg agaagattca tggaagagtt 1320
ctgagacatc tgttgtacct aatgcgcatc tcagagaagt ctatccaaag acgagttgct 1380
cttgcccttg ctcatctctg ttcacccgag gatcaacgaa ccatattcat agatgacaac 1440
gggttggagt tgctactcgg tcttcttggg tctttaaaca ctaagcagca acttgacggg 1500
gcagcagcgt tgtacaaatt agcaaataaa tctatggcac tttctccagt tgatgctgct 1560
cctccttctc caacacaaag ggtttatctc ggagagcaat atgtaaataa tgctacgctg 1620
tctgatgtaa ctttctagt cgaaggaagg acattctatg cacacagaat ttgtctgctg 1680
gcatcctcag atgcatttcg tgcaatgttt gatggtggtt acagagaaaa agacgctaga 1740
gatattgaga ttccaaatat caaatgggag gtgtttgagt taatgatgag gtttatatac 1800
actggatctg tcgacataac aaatgagata tcaaaagatc ttctaagagc agcggatcag 1860
tatctcttgg agggcctgaa acgactctgt gaatacacia ttgctcagga tattacgttg 1920
gaaagtatag gagacatgta cgagctatca gaagcattcc atgcatgctc gctgaggcaa 1980
gcttgatatca tgttcacatc ggagcatttc gataaactga gttcaatgcc ttggcagaac 2040
gagctggtgc agagaacaat accagagata agagagtact tttgtagagc cctaacaaag 2100
tctactacaa acctgcaaag cttgaggttg tag 2133

```

&lt;210&gt; 1056

&lt;211&gt; 710

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1056

047-E2F-PCT.ST25.txt

Met Asp Gln Gln Pro Glu Arg Arg Glu Gly Arg Ser Phe Pro Glu Arg  
1 5 10 15  
Lys Gly Gln Lys Arg Lys Leu Glu Gly Ala Ala Ala Val Glu Asp  
20 25 30  
Arg Glu Ile Ser Ala Val Ser Thr Asp Gly Gly Gln Ala Leu Leu Ser  
35 40 45  
Glu Val Ala Ala Gln Val Ser Val Leu Asn Ser Ala Phe Ser Trp Gln  
50 55 60  
Glu Ser Asp Arg Ala Ala Ala Lys Arg Ala Thr Gln Val Leu Ala Glu  
65 70 75 80  
Leu Ala Lys Asn Glu Asp Leu Val Asn Val Ile Val Asp Gly Gly Ala  
85 90 95  
Val Pro Ala Leu Met Thr His Leu Gln Ala Pro Pro Tyr Asn Asp Gly  
100 105 110  
Asp Leu Ala Glu Lys Pro Tyr Glu His Glu Val Glu Lys Gly Ser Ala  
115 120 125  
Phe Ala Leu Gly Leu Leu Ala Ile Lys Pro Glu Tyr Gln Lys Leu Ile  
130 135 140  
Val Asp Lys Gly Ala Leu Pro His Leu Val Asn Leu Leu Lys Arg Asn  
145 150 155 160  
Lys Asp Gly Ser Ser Ser Arg Ala Val Asn Ser Val Ile Arg Arg Ala  
165 170 175  
Ala Asp Ala Ile Thr Asn Leu Ala His Glu Asn Ser Ser Ile Lys Thr  
180 185 190  
Arg Val Arg Val Glu Gly Gly Ile Pro Pro Leu Val Glu Leu Leu Glu  
195 200 205  
Phe Ser Asp Ser Lys Val Gln Arg Ala Ala Ala Gly Ala Leu Arg Thr  
210 215 220  
Leu Ala Phe Lys Asn Asp Asp Asn Lys Asn Gln Ile Val Glu Cys Asn  
225 230 235 240  
Ala Leu Pro Thr Leu Ile Leu Met Leu Gly Ser Glu Asp Ala Ala Ile  
245 250 255

047-E2F-PCT.ST25.txt

His Tyr Glu Ala Val Gly Val Ile Gly Asn Leu Val His Ser Ser Pro  
 260 265 270  
 His Ile Lys Lys Glu Val Leu Thr Ala Gly Ala Leu Gln Pro Val Ile  
 275 280 285  
 Gly Leu Leu Ser Ser Cys Cys Pro Glu Ser Gln Arg Glu Ala Ala Leu  
 290 295 300  
 Leu Leu Gly Gln Phe Ala Ser Thr Asp Ser Asp Cys Lys Val His Ile  
 305 310 315 320  
 Val Gln Arg Gly Ala Val Arg Pro Leu Ile Glu Met Leu Gln Ser Pro  
 325 330 335  
 Asp Val Gln Leu Lys Glu Met Ser Ala Phe Ala Leu Gly Arg Leu Ala  
 340 345 350  
 Gln Asp Ala His Asn Gln Ala Gly Ile Ala His Ser Gly Gly Leu Gly  
 355 360 365  
 Pro Leu Leu Lys Leu Leu Asp Ser Arg Asn Gly Ser Leu Gln His Asn  
 370 375 380  
 Ala Ala Phe Ala Leu Tyr Gly Leu Ala Asp Asn Glu Asp Asn Val Ser  
 385 390 395 400  
 Asp Phe Ile Arg Val Gly Gly Ile Gln Lys Leu Gln Asp Gly Glu Phe  
 405 410 415  
 Ile Val Gln Ala Thr Lys Asp Cys Val Ser Lys Thr Leu Lys Arg Leu  
 420 425 430  
 Glu Glu Lys Ile His Gly Arg Val Leu Arg His Leu Leu Tyr Leu Met  
 435 440 445  
 Arg Ile Ser Glu Lys Ser Ile Gln Arg Arg Val Ala Leu Ala Leu Ala  
 450 455 460  
 His Leu Cys Ser Pro Glu Asp Gln Arg Thr Ile Phe Ile Asp Asp Asn  
 465 470 475 480  
 Gly Leu Glu Leu Leu Leu Gly Leu Leu Gly Ser Leu Asn Thr Lys Gln  
 485 490 495  
 Gln Leu Asp Gly Ala Ala Ala Leu Tyr Lys Leu Ala Asn Lys Ser Met

500

505

510

Ala Leu Ser Pro Val Asp Ala Ala Pro Pro Ser Pro Thr Gln Arg Val  
 515 520 525

Tyr Leu Gly Glu Gln Tyr Val Asn Asn Ala Thr Leu Ser Asp Val Thr  
 530 535 540

Phe Leu Val Glu Gly Arg Thr Phe Tyr Ala His Arg Ile Cys Leu Leu  
 545 550 555 560

Ala Ser Ser Asp Ala Phe Arg Ala Met Phe Asp Gly Gly Tyr Arg Glu  
 565 570 575

Lys Asp Ala Arg Asp Ile Glu Ile Pro Asn Ile Lys Trp Glu Val Phe  
 580 585 590

Glu Leu Met Met Arg Phe Ile Tyr Thr Gly Ser Val Asp Ile Thr Asn  
 595 600 605

Glu Ile Ser Lys Asp Leu Leu Arg Ala Ala Asp Gln Tyr Leu Leu Glu  
 610 615 620

Gly Leu Lys Arg Leu Cys Glu Tyr Thr Ile Ala Gln Asp Ile Thr Leu  
 625 630 635 640

Glu Ser Ile Gly Asp Met Tyr Glu Leu Ser Glu Ala Phe His Ala Met  
 645 650 655

Ser Leu Arg Gln Ala Cys Ile Met Phe Ile Leu Glu His Phe Asp Lys  
 660 665 670

Leu Ser Ser Met Pro Trp Gln Asn Glu Leu Val Gln Arg Thr Ile Pro  
 675 680 685

Glu Ile Arg Glu Tyr Phe Cys Arg Ala Leu Thr Lys Ser Thr Thr Asn  
 690 695 700

Leu Gln Ser Leu Arg Leu  
 705 710

<210> 1057

<211> 780

<212> DNA

<213> Arabidopsis thaliana



<400> 1057  
 atggcgacga caacaacaga agcaacgaag acatcatcga ccaatggaga agatcagaag 60  
 cagtctcaga atcttcgaca tcaagaagtt ggtcacaaga gtctcttaca gagcgatgat 120  
 ctctaccagt atatactgga gacaagtgtg tctcctagag aaccagaatc aatgaaggaa 180  
 ctcaggggaag tgacagcaaa acatccatgg aacataatga ccacatcagc tgatgaaggaa 240  
 cagttcttaa acatgcttat caagctcgtt aacgccaaga acacaatgga gatcggagtt 300  
 tacactggct actctcttct cgccaccgct cttgctctcc ctgaagacgg caaaattctg 360  
 gctatggatg tcaacagaga gaattacgaa ttgggtttac cgatcattga gaaagccggc 420  
 gttgctcaca agatcgactt cagggaaggc cctgctcttc ccgttcttga tgaaatcgtt 480  
 gctgacgaga agaaccatgg aacatatgac tttatattcg ttgatgctga caaagacaac 540  
 tacatcaact accacaagcg tttgatcgat cttgtgaaaa ttggaggagt gattggctac 600  
 gacaacactc tgtggaatgg ttctgtcgtg gctcctcctg atgcaccaat gaggaagtac 660  
 gttcgttact acagagactt tgttcttgag cttacaagg ctcttgctgc tgaccctcgg 720  
 atcgagatct gtatgctccc tgttggtgat ggaatcacta tctgccgtcg gatcagttga 780

<210> 1058

<211> 259

<212> PRT

<213> Arabidopsis thaliana

<400> 1058

Met Ala Thr Thr Thr Thr Glu Ala Thr Lys Thr Ser Ser Thr Asn Gly  
 1 5 10 15

Glu Asp Gln Lys Gln Ser Gln Asn Leu Arg His Gln Glu Val Gly His  
 20 25 30

Lys Ser Leu Leu Gln Ser Asp Asp Leu Tyr Gln Tyr Ile Leu Glu Thr  
 35 40 45

Ser Val Tyr Pro Arg Glu Pro Glu Ser Met Lys Glu Leu Arg Glu Val  
 50 55 60

Thr Ala Lys His Pro Trp Asn Ile Met Thr Thr Ser Ala Asp Glu Gly  
 65 70 75 80

Gln Phe Leu Asn Met Leu Ile Lys Leu Val Asn Ala Lys Asn Thr Met  
 Page 1643

Glu Ile Gly Val Tyr Thr Gly Tyr Ser Leu Leu Ala Thr Ala Leu Ala  
100 105 110

Leu Pro Glu Asp Gly Lys Ile Leu Ala Met Asp Val Asn Arg Glu Asn  
115 120 125

Tyr Glu Leu Gly Leu Pro Ile Ile Glu Lys Ala Gly Val Ala His Lys  
130 135 140

Ile Asp Phe Arg Glu Gly Pro Ala Leu Pro Val Leu Asp Glu Ile Val  
145 150 155 160

Ala Asp Glu Lys Asn His Gly Thr Tyr Asp Phe Ile Phe Val Asp Ala  
165 170 175

Asp Lys Asp Asn Tyr Ile Asn Tyr His Lys Arg Leu Ile Asp Leu Val  
180 185 190

Lys Ile Gly Gly Val Ile Gly Tyr Asp Asn Thr Leu Trp Asn Gly Ser  
195 200 205

Val Val Ala Pro Pro Asp Ala Pro Met Arg Lys Tyr Val Arg Tyr Tyr  
210 215 220

Arg Asp Phe Val Leu Glu Leu Asn Lys Ala Leu Ala Ala Asp Pro Arg  
225 230 235 240

Ile Glu Ile Cys Met Leu Pro Val Gly Asp Gly Ile Thr Ile Cys Arg  
245 250 255

Arg Ile Ser

<210> 1059

<211> 1248

<212> DNA

<213> Arabidopsis thaliana

<400> 1059

atgatgcagc agccacctcc agcttccaac ggtgctgcaa cagggccagg gcagattcct 60

tccgaccaac aagcttacct ccagcagcag cagtcgtgga tgatgcagca ccagcagcaa 120

caacaaggtc agccgcctgc aggatggaat cagcagtctg caccgtcttc tggtaacca 180

047-E2F-PCT.ST25.txt

```

cagcagcagc agtatggtgg tgggtggatct cagaatccag gatcagctgg tgagatccgg 240
tccctgtgga tcggtgactt gcagccatgg atggatgaga actatctcat gaacgtcttt 300
ggtcttactg gcgaggctac agcagctaaa gttattcgca ataaacagaa cggatattca 360
gaaggttatg gctttattga gtttgtgaac catgctacag ctgagaggaa tttacagact 420
tacaatggtg ctccgatgcc gagcagtgag caggccttca ggttgaactg ggctcagctt 480
ggagctggag agagacgcca ggctgaaggg cctgagcaca cagtttttgt tggagacttg 540
gcacctgatg ttaccgacca catgcttact gaaacgttta aagctgtgta ttcctctgtc 600
aagggagcta aagttgtgaa tgataggact actggacggg ccaaggggta tggatttgtc 660
aggtttgcgg atgaaagtga gcagattcgt gccatgactg aaatgaatgg tcaatactgc 720
tcatcaaggc ctatgcgtac tggtcctgct gccaacaaga agcctcttac aatgcaacca 780
gcttcatatc agaacactca aggaaattca ggagaaagtg atccaactaa cacaacaatt 840
tttgttggag ctgtggatca aagtgtgaaca gaagatgatt tgaagtcagt ttttggtcaa 900
tttggtgaac tagttcatgt gaaaataccc gcaggaaaac gttgcggatt tgttcaatac 960
gccaataggg catgtgctga gcaagcactt tctgtgttga acggaacaca acttggggga 1020
caaagcattc gtctttcatg gggtcgcagt ccttccaaca aacagactca acctgatcaa 1080
gcccagtatg gtggtggtgg aggatactat gggatcctc ctcaaggata tgaagcatac 1140
ggatatgcac ctctcctca ggaccctaac gcctactacg gtggttatgc tgggggcggc 1200
tatggaaact accagcagcc tgggtgatac cagcagcaac agcagtga 1248

```

<210> 1060

<211> 415

<212> PRT

<213> Arabidopsis thaliana

<400> 1060

```

Met Met Gln Gln Pro Pro Pro Ala Ser Asn Gly Ala Ala Thr Gly Pro
1          5          10          15

```

```

Gly Gln Ile Pro Ser Asp Gln Gln Ala Tyr Leu Gln Gln Gln Gln Ser
20          25          30

```

```

Trp Met Met Gln His Gln Gln Gln Gln Gly Gln Pro Pro Ala Gly
35          40          45

```

```

Trp Asn Gln Gln Ser Ala Pro Ser Ser Gly Gln Pro Gln Gln Gln Gln

```

50

55

Tyr Gly Gly Gly Gly Ser Gln Asn Pro Gly Ser Ala Gly Glu Ile Arg  
65 70 75 80

Ser Leu Trp Ile Gly Asp Leu Gln Pro Trp Met Asp Glu Asn Tyr Leu  
85 90 95

Met Asn Val Phe Gly Leu Thr Gly Glu Ala Thr Ala Ala Lys Val Ile  
100 105 110

Arg Asn Lys Gln Asn Gly Tyr Ser Glu Gly Tyr Gly Phe Ile Glu Phe  
115 120 125

Val Asn His Ala Thr Ala Glu Arg Asn Leu Gln Thr Tyr Asn Gly Ala  
130 135 140

Pro Met Pro Ser Ser Glu Gln Ala Phe Arg Leu Asn Trp Ala Gln Leu  
145 150 155 160

Gly Ala Gly Glu Arg Arg Gln Ala Glu Gly Pro Glu His Thr Val Phe  
165 170 175

Val Gly Asp Leu Ala Pro Asp Val Thr Asp His Met Leu Thr Glu Thr  
180 185 190

Phe Lys Ala Val Tyr Ser Ser Val Lys Gly Ala Lys Val Val Asn Asp  
195 200 205

Arg Thr Thr Gly Arg Ser Lys Gly Tyr Gly Phe Val Arg Phe Ala Asp  
210 215 220

Glu Ser Glu Gln Ile Arg Ala Met Thr Glu Met Asn Gly Gln Tyr Cys  
225 230 235 240

Ser Ser Arg Pro Met Arg Thr Gly Pro Ala Ala Asn Lys Lys Pro Leu  
245 250 255

Thr Met Gln Pro Ala Ser Tyr Gln Asn Thr Gln Gly Asn Ser Gly Glu  
260 265 270

Ser Asp Pro Thr Asn Thr Thr Ile Phe Val Gly Ala Val Asp Gln Ser  
275 280 285

Val Thr Glu Asp Asp Leu Lys Ser Val Phe Gly Gln Phe Gly Glu Leu  
290 295 300

Val His Val Lys Ile Pro Ala Gly Lys Arg Cys Gly Phe Val Gln Tyr  
305 310 315 320

Ala Asn Arg Ala Cys Ala Glu Gln Ala Leu Ser Val Leu Asn Gly Thr  
325 330 335

Gln Leu Gly Gly Gln Ser Ile Arg Leu Ser Trp Gly Arg Ser Pro Ser  
340 345 350

Asn Lys Gln Thr Gln Pro Asp Gln Ala Gln Tyr Gly Gly Gly Gly Gly  
355 360 365

Tyr Tyr Gly Tyr Pro Pro Gln Gly Tyr Glu Ala Tyr Gly Tyr Ala Pro  
370 375 380

Pro Pro Gln Asp Pro Asn Ala Tyr Tyr Gly Gly Tyr Ala Gly Gly Gly  
385 390 395 400

Tyr Gly Asn Tyr Gln Gln Pro Gly Gly Tyr Gln Gln Gln Gln Gln  
405 410 415

<210> 1061

<211> 1305

<212> DNA

<213> Arabidopsis thaliana

<400> 1061

atggatctat cttctcaacg acaatcccca aatggttcta ggggttttcg tcttcaagct	60
ccattggtgg attctgtatc ttgttattgt agagtagatt ccggtcttaa gactgttgta	120
gaagcaagga agtttggtcc tggttcaaag ctttgtattc aacctgatat caatcccaat	180
gctcatagac gtaagaattc taagagggag aggactagaa ttcaacctcc gcttctccct	240
ggcctccctg acgatctagc tgctcgcttg cttatccgtg ttcctcgtgc agaacataga	300
aaactcaggc tcgtgtgtaa gagatggtat aggcttgctt ctgggaactt cttttactct	360
caaaggaagt tacttgggat gtctgaagaa tgggtttatg tttttaaaag agatcgtgat	420
gggaagatct cgtggaatac gtttgatcct atctctcagc tttggcagcc gcttccacct	480
gttccaaggg aatattcaga ggctgttggg tttggttgcg ctgttttaag cggttgtcat	540
ctttattttgt ttggaggtaa ggatccttta agaggggtcaa tgaggagggt cattttctat	600
aatgcaagga cgaataagtg gcacagagca ccggatatgc ttaggaagcg gcattttttt	660
ggttggtgtg ttataaacia ttgtttatat gtagcgggtg gggagtgtga aggaattcaa	720

047-E2F-PCT.ST25.txt

```

aggacacttc gctcagctga ggtttatgat ccaaacaaga acaggtggag ttttattgct 780
gatatgagta cagcaatggt gcctctgata ggtgtggttt atgacaaaaa gtggtttctc 840
aagggctcttg ggtctcacca actagtaatg agtgaagctt atgaccaga agttaattca 900
tgagagcccg ttagtgacgg gatggttgct ggttggcgta atccgtgtac ttctctaaac 960
ggtcgtcttt acggattgga ttgtagggac ggatgcaaac tcaggggtatt tgatgaatcc 1020
acggattcat ggaacaaatt catggacagt aaagctcatt tgggaaactc gaagtcgctt 1080
gaagctgcag ctcttggtcc tctacacaat aagctttgta taatccggaa caacatgagc 1140
atgagtctgg ttgatgtctc gaatcctgac aaaaacaacc ctcgactgtg ggaaaacatt 1200
gccgtaaaag gacagtccaa gagcattctc agtaatatat ggtcgagtat tgcagggaga 1260
gctttgaaga gccatatagt gcattgtcaa gtgcttcaag cgtga 1305

```

<210> 1062

<211> 434

<212> PRT

<213> Arabidopsis thaliana

<400> 1062

Met Asp Leu Ser Ser Gln Arg Gln Ser Pro Asn Gly Ser Arg Gly Phe  
1 5 10 15

Arg Leu Gln Ala Pro Leu Val Asp Ser Val Ser Cys Tyr Cys Arg Val  
20 25 30

Asp Ser Gly Leu Lys Thr Val Val Glu Ala Arg Lys Phe Val Pro Gly  
35 40 45

Ser Lys Leu Cys Ile Gln Pro Asp Ile Asn Pro Asn Ala His Arg Arg  
50 55 60

Lys Asn Ser Lys Arg Glu Arg Thr Arg Ile Gln Pro Pro Leu Leu Pro  
65 70 75 80

Gly Leu Pro Asp Asp Leu Ala Val Ala Cys Leu Ile Arg Val Pro Arg  
85 90 95

Ala Glu His Arg Lys Leu Arg Leu Val Cys Lys Arg Trp Tyr Arg Leu  
100 105 110

Ala Ser Gly Asn Phe Phe Tyr Ser Gln Arg Lys Leu Leu Gly Met Ser  
115 120 125

047-E2F-PCT.ST25.txt

Glu Glu Trp Val Tyr Val Phe Lys Arg Asp Arg Asp Gly Lys Ile Ser  
 130 135 140  
 Trp Asn Thr Phe Asp Pro Ile Ser Gln Leu Trp Gln Pro Leu Pro Pro  
 145 150 155 160  
 Val Pro Arg Glu Tyr Ser Glu Ala Val Gly Phe Gly Cys Ala Val Leu  
 165 170 175  
 Ser Gly Cys His Leu Tyr Leu Phe Gly Gly Lys Asp Pro Leu Arg Gly  
 180 185 190  
 Ser Met Arg Arg Val Ile Phe Tyr Asn Ala Arg Thr Asn Lys Trp His  
 195 200 205  
 Arg Ala Pro Asp Met Leu Arg Lys Arg His Phe Phe Gly Cys Cys Val  
 210 215 220  
 Ile Asn Asn Cys Leu Tyr Val Ala Gly Gly Glu Cys Glu Gly Ile Gln  
 225 230 235 240  
 Arg Thr Leu Arg Ser Ala Glu Val Tyr Asp Pro Asn Lys Asn Arg Trp  
 245 250 255  
 Ser Phe Ile Ala Asp Met Ser Thr Ala Met Val Pro Leu Ile Gly Val  
 260 265 270  
 Val Tyr Asp Lys Lys Trp Phe Leu Lys Gly Leu Gly Ser His Gln Leu  
 275 280 285  
 Val Met Ser Glu Ala Tyr Asp Pro Glu Val Asn Ser Trp Ser Pro Val  
 290 295 300  
 Ser Asp Gly Met Val Ala Gly Trp Arg Asn Pro Cys Thr Ser Leu Asn  
 305 310 315 320  
 Gly Arg Leu Tyr Gly Leu Asp Cys Arg Asp Gly Cys Lys Leu Arg Val  
 325 330 335  
 Phe Asp Glu Ser Thr Asp Ser Trp Asn Lys Phe Met Asp Ser Lys Ala  
 340 345 350  
 His Leu Gly Asn Ser Lys Ser Leu Glu Ala Ala Ala Leu Val Pro Leu  
 355 360 365

His Asn Lys Leu Cys Ile Ile Arg Asn Asn Met Ser Met Ser Leu Val  
 Page 1649

370

375

Asp Val Ser Asn Pro Asp Lys Asn Asn Pro Arg Leu Trp Glu Asn Ile  
385 390 395 400

Ala Val Lys Gly Gln Ser Lys Ser Ile Leu Ser Asn Ile Trp Ser Ser  
405 410 415

Ile Ala Gly Arg Ala Leu Lys Ser His Ile Val His Cys Gln Val Leu  
420 425 430

Gln Ala

<210> 1063

<211> 3564

<212> DNA

<213> Arabidopsis thaliana

<400> 1063

atgagaaacc attgcttaga actctcttcc aattgttcct ccattttcgc ttctttccaaa	60
tccaatcctc gtttctctcc ttccaagctc tcctattcca ctttcttctc tcgctctgcc	120
atctattaca gatcaaaacc aaaacaagcc tcgtcttctt cttccttctc cactttcccc	180
ccatgtctca atcggaaaag ctccctcacg catgttctca aaccctctc agagctcgcc	240
gacaccacta ccaagccttt ttctccggag atcgtcggca agagaaccga tctgaagaag	300
attatgattc tcggcgctgg tccgattgtc attggacaag cttgtgagtt tgattactct	360
ggtactcaag cttgtaaagc ctttaagagaa gagggtatg aggttatcct gatcaattcg	420
aatcctgcca ctatcatgac tgatccggaa actgctaadc ggacttatat cgctccgatg	480
actcctgagc ttgtcgagca ggttattgag aaagagagggc ctgacgcttt gttaccaacc	540
atgggtgggc aaaccgcatt gaacctcgcg gttgctcttg ctgagagtgg tgctttggag	600
aaatacgggtg ttgaattgat aggagctaag cttggtgcga ttaagaaagc tgaagatcgt	660
gagttgttca aggatgcgat gaagaacatt gggctaaaga ctccaccttc agggattggg	720
accactcttg atgagtgttt tgacattgct gagaaaattg gtgagttccc tttgattatc	780
cgtcctgcgt ttacttttagg tggtactggt ggtggaattg cgtataacaa agaggagttt	840
gagtctatat gtaaactcggg tttggctgcg agtgcgacaa gtcaagttct tgtggagaaa	900
tccttgttgg gttggaaaga atatgagctt gaggtgatga gagacttagc tgacaatggt	960
gtcattatct gttccattga gaatattgat cctatgggtg tgcacactgg tgattccatc	1020



## 047-E2F-PCT.ST25.txt

actgtggcac ctgcacagac tctaacggat agagagtacc agcggccttag ggattattcc 1080  
 attgcgatta tacgggagat tgggtgttgag tgtggtggat ctaatgtgca gtttgctgtc 1140  
 aacccggttg atggtgaagt tatgatcata gagatgaacc ctaggggtctc aagatcttct 1200  
 gctcttgctt ccaaggctac aggggtttccc attgctaaaa tggctgccaa gttgtctgtt 1260  
 ggctatacct tggatcagat tcctaattgat atcacgagga aaacaccggc tagcttcgag 1320  
 ccctccatcg attatgtggt gactaagatt cctcgatttg catttgaaaa gtttccagga 1380  
 tctcagccat tgctaacgac ccagatgaaa tctgttgggg aatctatggc tctcggccgt 1440  
 acattccaag aatctttcca gaaagctctg aggtctctgg agtgtggatt ctcgggttgg 1500  
 ggttgtgcaa aaattaaaga gctagatttg gactgggatac agctgaaata cagcctaaga 1560  
 gtcccaaatac ctgacaggat ccatgcgata tatgctgcca tgaaaaaggg tatgaaaatt 1620  
 gatgaaatct acgagttgag catggtggac aagtggttcc taaccagct taaagagctc 1680  
 gtggacgtcg aacagtatct tatgtccgga acctgtcag agattacaaa agaagacctt 1740  
 tacgaagtca aaaagcgggg atttagtac aagcaaactg cttttgctac aaagacaacc 1800  
 gaggaagaag tccgtaccaa gcggatttct ctaggagttg ttccatctta caagagagtg 1860  
 gatacatgtg ctgcagagtt cgaagcgcac acaccataca tgtactcttc atatgatgtt 1920  
 gaatgtgaat cagctccaaa caacaagaag aaggttttga ttttgggtgg agggccaaac 1980  
 cgcattgggtc aagggattga atttgattac tgttgttgcc acacatcttt cgccttacag 2040  
 gatgctggat atgagaccat aatgttgaac tcaaactctg aaacagtatc cacagattat 2100  
 gatacaagcg ataggctcta ttttgaacct ctcaaatcg aggatgttct caatgttatc 2160  
 gaccttgaga aacctgatgg cataatagtg caatttgggt gtcaaactcc tctgaaactt 2220  
 gctctgccga tcaaacatta tttggataag cacatgccca tgagcttgag cggagcggga 2280  
 cctgttcgca tctggggtac atcacctgac tccattgacg ctgctgaaga cagagagagg 2340  
 ttcaatgcaa ttctcgacga gctgaagatt gagcagccca agggaggcat tgcaaagagc 2400  
 gaagctgatg cattagccat agcaaaggag gtaggggtacc cagttgtggt aagaccttct 2460  
 tatgttctag gtggacgagc aatggagatc gtttatgatg acagtagact aataacctat 2520  
 ttggaaaatg cgggtacaagt tgaccagag agacctgttt tggtagataa atatctttct 2580  
 gatgccattg agatcgacgt tgataccctt actgattcct atggaaatgt ggtgattggt 2640  
 ggaataatgg agcatatcga acaagctggt gtgcattctg gtgactcagc ttgtatgctt 2700  
 ccaacacaaa ccattccagc ttcttgtttg caaactattc gaacatggac cactaagctg 2760  
 gcgaagaagc taaatgtatg tgggctgatg aactgtcagt acgcaatcac aacatctggg 2820  
 gatgtttttt tgctggaagc caatccccga gcttccccga ctgtcccttt tgtgtcaaaa 2880

```

gccattggac accctcttgc caagtatgca gcgctgggtca tgtcgggcaa atctctcaaa 2940
gatcttaact ttgaaaaaga agttatccct aaacatgtct ctgtgaaaga agctgttttc 3000
ccgtttgaga agttccaagg atgcatgttg atactcgggc cagagatgag aagcacagga 3060
gaagtgatga gcatcagttc tgaattctca agtgcgtttg caatggctca gatcgctgca 3120
gggtcaaaagc tacctctatc aggcacagtc ttcctcagct taaacgatat gaccaaaccg 3180
cacctggaga aaatcgcggt gtccttcctc gagcttgggt tcaaaatagt tgccacctcg 3240
ggaacagctc atttcctgga actgaaaggc attccagtgg agagagtgtt gaagttgcat 3300
gaaggaagac cacatgctgc tgatatggtg gcgaatggtc agatccattt gatgttgatc 3360
acaagctcgg gtgatgctct tgatcagaaa gatgggagac agctcagaca aatggctcta 3420
gcatacaagg tacctgttat aaccactgtt gctggtgcat tggccactgc tgagggaatc 3480
aagagcttga agtcaagtgc cattaaaatg accgctcttc aggacttctt tgaggtaaag 3540
aatgtatctt ctttgctcgt ctga 3564

```

&lt;210&gt; 1064

&lt;211&gt; 1187

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1064

```

Met Arg Asn His Cys Leu Glu Leu Ser Ser Asn Cys Ser Ser Ile Phe
1          5          10          15

```

```

Ala Ser Ser Lys Ser Asn Pro Arg Phe Ser Pro Ser Lys Leu Ser Tyr
20          25          30

```

```

Ser Thr Phe Phe Ser Arg Ser Ala Ile Tyr Tyr Arg Ser Lys Pro Lys
35          40          45

```

```

Gln Ala Ser Ser Ser Ser Ser Phe Ser Thr Phe Pro Pro Cys Leu Asn
50          55          60

```

```

Arg Lys Ser Ser Leu Thr His Val Leu Lys Pro Val Ser Glu Leu Ala
65          70          75          80

```

```

Asp Thr Thr Thr Lys Pro Phe Ser Pro Glu Ile Val Gly Lys Arg Thr
85          90          95

```

```

Asp Leu Lys Lys Ile Met Ile Leu Gly Ala Gly Pro Ile Val Ile Gly
100          105          110

```

047-E2F-PCT.ST25.txt

Gln Ala Cys Glu Phe Asp Tyr Ser Gly Thr Gln Ala Cys Lys Ala Leu  
115 120 125

Arg Glu Glu Gly Tyr Glu Val Ile Leu Ile Asn Ser Asn Pro Ala Thr  
130 135 140

Ile Met Thr Asp Pro Glu Thr Ala Asn Arg Thr Tyr Ile Ala Pro Met  
145 150 155 160

Thr Pro Glu Leu Val Glu Gln Val Ile Glu Lys Glu Arg Pro Asp Ala  
165 170 175

Leu Leu Pro Thr Met Gly Gly Gln Thr Ala Leu Asn Leu Ala Val Ala  
180 185 190

Leu Ala Glu Ser Gly Ala Leu Glu Lys Tyr Gly Val Glu Leu Ile Gly  
195 200 205

Ala Lys Leu Gly Ala Ile Lys Lys Ala Glu Asp Arg Glu Leu Phe Lys  
210 215 220

Asp Ala Met Lys Asn Ile Gly Leu Lys Thr Pro Pro Ser Gly Ile Gly  
225 230 235 240

Thr Thr Leu Asp Glu Cys Phe Asp Ile Ala Glu Lys Ile Gly Glu Phe  
245 250 255

Pro Leu Ile Ile Arg Pro Ala Phe Thr Leu Gly Gly Thr Gly Gly Gly  
260 265 270

Ile Ala Tyr Asn Lys Glu Glu Phe Glu Ser Ile Cys Lys Ser Gly Leu  
275 280 285

Ala Ala Ser Ala Thr Ser Gln Val Leu Val Glu Lys Ser Leu Leu Gly  
290 295 300

Trp Lys Glu Tyr Glu Leu Glu Val Met Arg Asp Leu Ala Asp Asn Val  
305 310 315 320

Val Ile Ile Cys Ser Ile Glu Asn Ile Asp Pro Met Gly Val His Thr  
325 330 335

Gly Asp Ser Ile Thr Val Ala Pro Ala Gln Thr Leu Thr Asp Arg Glu  
340 345 350

Tyr Gln Arg Leu Arg Asp Tyr Ser Ile Ala Ile Ile Arg Glu Ile Gly  
Page 1653

355

360

365

Val Glu Cys Gly Gly Ser Asn Val Gln Phe Ala Val Asn Pro Val Asp  
 370 375 380  
 Gly Glu Val Met Ile Ile Glu Met Asn Pro Arg Val Ser Arg Ser Ser  
 385 390 395 400  
 Ala Leu Ala Ser Lys Ala Thr Gly Phe Pro Ile Ala Lys Met Ala Ala  
 405 410 415  
 Lys Leu Ser Val Gly Tyr Thr Leu Asp Gln Ile Pro Asn Asp Ile Thr  
 420 425 430  
 Arg Lys Thr Pro Ala Ser Phe Glu Pro Ser Ile Asp Tyr Val Val Thr  
 435 440 445  
 Lys Ile Pro Arg Phe Ala Phe Glu Lys Phe Pro Gly Ser Gln Pro Leu  
 450 455 460  
 Leu Thr Thr Gln Met Lys Ser Val Gly Glu Ser Met Ala Leu Gly Arg  
 465 470 475 480  
 Thr Phe Gln Glu Ser Phe Gln Lys Ala Leu Arg Ser Leu Glu Cys Gly  
 485 490 495  
 Phe Ser Gly Trp Gly Cys Ala Lys Ile Lys Glu Leu Asp Trp Asp Trp  
 500 505 510  
 Asp Gln Leu Lys Tyr Ser Leu Arg Val Pro Asn Pro Asp Arg Ile His  
 515 520 525  
 Ala Ile Tyr Ala Ala Met Lys Lys Gly Met Lys Ile Asp Glu Ile Tyr  
 530 535 540  
 Glu Leu Ser Met Val Asp Lys Trp Phe Leu Thr Gln Leu Lys Glu Leu  
 545 550 555 560  
 Val Asp Val Glu Gln Tyr Leu Met Ser Gly Thr Leu Ser Glu Ile Thr  
 565 570 575  
 Lys Glu Asp Leu Tyr Glu Val Lys Lys Arg Gly Phe Ser Asp Lys Gln  
 580 585 590  
 Ile Ala Phe Ala Thr Lys Thr Thr Glu Glu Glu Val Arg Thr Lys Arg  
 595 600 605

Ile Ser Leu Gly Val Val Pro Ser Tyr Lys Arg Val Asp Thr Cys Ala  
 610 615 620  
 Ala Glu Phe Glu Ala His Thr Pro Tyr Met Tyr Ser Ser Tyr Asp Val  
 625 630 635 640  
 Glu Cys Glu Ser Ala Pro Asn Asn Lys Lys Lys Val Leu Ile Leu Gly  
 645 650 655  
 Gly Gly Pro Asn Arg Ile Gly Gln Gly Ile Glu Phe Asp Tyr Cys Cys  
 660 665 670  
 Cys His Thr Ser Phe Ala Leu Gln Asp Ala Gly Tyr Glu Thr Ile Met  
 675 680 685  
 Leu Asn Ser Asn Pro Glu Thr Val Ser Thr Asp Tyr Asp Thr Ser Asp  
 690 695 700  
 Arg Leu Tyr Phe Glu Pro Leu Thr Ile Glu Asp Val Leu Asn Val Ile  
 705 710 715 720  
 Asp Leu Glu Lys Pro Asp Gly Ile Ile Val Gln Phe Gly Gly Gln Thr  
 725 730 735  
 Pro Leu Lys Leu Ala Leu Pro Ile Lys His Tyr Leu Asp Lys His Met  
 740 745 750  
 Pro Met Ser Leu Ser Gly Ala Gly Pro Val Arg Ile Trp Gly Thr Ser  
 755 760 765  
 Pro Asp Ser Ile Asp Ala Ala Glu Asp Arg Glu Arg Phe Asn Ala Ile  
 770 775 780  
 Leu Asp Glu Leu Lys Ile Glu Gln Pro Lys Gly Gly Ile Ala Lys Ser  
 785 790 795 800  
 Glu Ala Asp Ala Leu Ala Ile Ala Lys Glu Val Gly Tyr Pro Val Val  
 805 810 815  
 Val Arg Pro Ser Tyr Val Leu Gly Gly Arg Ala Met Glu Ile Val Tyr  
 820 825 830  
 Asp Asp Ser Arg Leu Ile Thr Tyr Leu Glu Asn Ala Val Gln Val Asp  
 835 840 845  
 Pro Glu Arg Pro Val Leu Val Asp Lys Tyr Leu Ser Asp Ala Ile Glu  
 850 855 860

047-E2F-PCT.ST25.txt

Ile Asp Val Asp Thr Leu Thr Asp Ser Tyr Gly Asn Val Val Ile Gly  
865 870 875 880

Gly Ile Met Glu His Ile Glu Gln Ala Gly Val His Ser Gly Asp Ser  
885 890 895

Ala Cys Met Leu Pro Thr Gln Thr Ile Pro Ala Ser Cys Leu Gln Thr  
900 905 910

Ile Arg Thr Trp Thr Thr Lys Leu Ala Lys Lys Leu Asn Val Cys Gly  
915 920 925

Leu Met Asn Cys Gln Tyr Ala Ile Thr Thr Ser Gly Asp Val Phe Leu  
930 935 940

Leu Glu Ala Asn Pro Arg Ala Ser Arg Thr Val Pro Phe Val Ser Lys  
945 950 955 960

Ala Ile Gly His Pro Leu Ala Lys Tyr Ala Ala Leu Val Met Ser Gly  
965 970 975

Lys Ser Leu Lys Asp Leu Asn Phe Glu Lys Glu Val Ile Pro Lys His  
980 985 990

Val Ser Val Lys Glu Ala Val Phe Pro Phe Glu Lys Phe Gln Gly Cys  
995 1000 1005

Asp Val Ile Leu Gly Pro Glu Met Arg Ser Thr Gly Glu Val Met  
1010 1015 1020

Ser Ile Ser Ser Glu Phe Ser Ser Ala Phe Ala Met Ala Gln Ile  
1025 1030 1035

Ala Ala Gly Gln Lys Leu Pro Leu Ser Gly Thr Val Phe Leu Ser  
1040 1045 1050

Leu Asn Asp Met Thr Lys Pro His Leu Glu Lys Ile Ala Val Ser  
1055 1060 1065

Phe Leu Glu Leu Gly Phe Lys Ile Val Ala Thr Ser Gly Thr Ala  
1070 1075 1080

His Phe Leu Glu Leu Lys Gly Ile Pro Val Glu Arg Val Leu Lys  
1085 1090 1095

Leu His Glu Gly Arg Pro His Ala Ala Asp Met Val Ala Asn Gly  
1100 1105 1110

Gln Ile His Leu Met Leu Ile Thr Ser Ser Gly Asp Ala Leu Asp  
 1115 1120 1125

Gln Lys Asp Gly Arg Gln Leu Arg Gln Met Ala Leu Ala Tyr Lys  
 1130 1135 1140

Val Pro Val Ile Thr Thr Val Ala Gly Ala Leu Ala Thr Ala Glu  
 1145 1150 1155

Gly Ile Lys Ser Leu Lys Ser Ser Ala Ile Lys Met Thr Ala Leu  
 1160 1165 1170

Gln Asp Phe Phe Glu Val Lys Asn Val Ser Ser Leu Leu Val  
 1175 1180 1185

<210> 1065

<211> 2667

<212> DNA

<213> Arabidopsis thaliana

<400> 1065  
 atgaggactt ttacccttc tgattcttgt aaagaatcac aactcgattc cttgaatcca 60  
 cagtcatggc ttcaagttga gagaggggaag ctatcttcct ctgcttcttc atctgctcca 120  
 ctgtgtagag aatcatttat caaagttccc gagcctcaga tactgccgca ttataagcct 180  
 ctcgactatg tagaagttct agctcagatt catgaagaac tcgacacttg ccctttgcag 240  
 gagagatcga ttctgtatgt gttgcagtat caagtgttta gaggtcttgg agagacaaaa 300  
 cttagacgga gaagccttca atcagcttgg caagaggcta ctactgtcca tgagaaagtt 360  
 gtgtttggat cttggttgag gtatgagaaa caaggagaag aagttatcac agatttgctt 420  
 tcctcttggt gtaaataattc tgaagaattt gtgccactag atattgcatc ctatttccca 480  
 gctactactg cttcttcccc tgaggcagca tctgtgaaga cgaaccgcag tgtatctaaa 540  
 aatgttgtgt ttaagatagg agaagagaag atagcttgcc aaaggcggaa aattgcgagt 600  
 ctttcagctc catttcatgc tatgctttat ggtaatttca cggaatcgct tcttgatgag 660  
 atagatatgt cagaaaacca tgtatcctca tcagctatgc gggttgttag agatttcagc 720  
 gttgttggtg tactaatcgg agtttccaag aaccttcttt tggaagtttt agttttcgca 780  
 aacaagtttt gctgagcg acttaaagat gcatgcgata gagaattggc atctttgatt 840  
 tcttctatgg aatgtgccat tgagcttatg gactttgcac ttgaagagaa ttccccatc 900

ctagcttcat	cgtgtctgca	agtttttctt	tatgagatgc	ctgatagttt	gaatgatgag	960
cgtgttggtg	aggttttgac	tcgagttaat	agatctcaag	tctcaaccat	ggcaggaaaa	1020
gctccattct	ccttatattc	ttgtttaagt	gaagtctcga	tgtgtataga	tcctcgggtct	1080
gacagaacac	tcggtttctt	ggagaaatta	gttgactttg	cagaaaatga	ccggcaacaa	1140
gtattggggg	tccatcgggt	aggttgtatg	aggctattga	ggaaagaata	ccgggagggt	1200
gaagaagctt	ttgaaacagc	ttttaactta	ggccatgtgt	attccgctac	tggttttagca	1260
agactaggat	acatccaagg	gcatcggctt	tgggcttatg	agaagctaag	ctcggtaatc	1320
tcctctgttt	cgccgcctct	cgggtggatg	tatcaggaaa	ggtctttcta	ttgtgagggt	1380
gacaagaaat	tggaagatct	cgagaaggca	accgaattgg	atccgacttt	gacatatcct	1440
tacatgtata	gagctgtcac	acgaatgtcg	aaacaaaatg	ctaaggctgc	tcttgaagaa	1500
atcaatcga	tcttggggtt	taaacttgct	ttagaatgct	tagaaattcg	gttttgtctt	1560
tatcttggtg	tggatgacta	tgaagcggct	cttcgtgata	ttcaggctgc	tcttacgctg	1620
tgtcctgatt	atagaatgtt	cgatgggaaa	gtagctggga	ggcagctcca	gacgcttggt	1680
tatgagcatg	tcgagaattg	gacaaccgca	gattgttgga	tgcagctata	tgagaaatgg	1740
tctaattgtt	atgatatagg	ttctctttct	gtaatctatc	agatgctcga	atccgatgct	1800
tgcaaagggt	ttctctactt	caggcaatct	ttgcttctcc	taaggttgaa	ttgtccagaa	1860
gcagcgatgc	gcagtttaca	gttagcccg	gagcatgcct	caagtgacca	cgagcgtcta	1920
gtttacgaag	gatggatctt	gtatgataca	ggtcactgcg	aagaagggtc	tcaaaagggt	1980
aaggaatcca	ttggaataaa	gagatcattt	gaagcttatt	tcctccaagc	ttatgcctta	2040
gcagaatcta	gccttgatcc	atcgagttct	tctactgttg	tttcacttct	tgaagatgct	2100
cttaaagtgc	cctctgatag	gttgcgcaaa	ggtcaggctc	tgaacaatct	cgggagtgtc	2160
tatgtcgatt	gcgagaagct	agatttagct	gctgattgct	atataaacgc	tctcaaggta	2220
agacacacgc	gtgcacacca	aggcttagct	cgtgtccatt	tccttagaaa	cgacaaagct	2280
gcagcctacg	aagaaatgac	cagactaatc	gaaaaggctc	aaaacaatgc	atccgcctac	2340
gagaaaagat	ctgagtattg	tgatcgtgaa	ctcgccaaat	ctgatcttga	aatggtcacc	2400
cggtttagacc	ctctccgggt	ttatccttac	cgatatcgcg	ccgcagtgtt	gatggatagt	2460
cggaaagaga	gagaggctat	cacagagtta	tcccagacta	tcgcctttta	agcagatctt	2520
catcttcttc	acttacgagc	ggctttccac	gagcatatcg	gtgatgtcac	gagtgcgttg	2580
cgggactgtc	gtgcagcgct	ctcggtcgac	cccaaccatc	aggagatgct	cgaactccat	2640
agccgtgtta	atagccatga	accttga				2667



&lt;211&gt; 888

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1066

Met Arg Thr Phe Tyr Pro Ser Asp Ser Cys Lys Glu Ser Gln Leu Asp  
 1 5 10 15

Ser Leu Asn Pro Gln Ser Trp Leu Gln Val Glu Arg Gly Lys Leu Ser  
 20 25 30

Ser Ser Ala Ser Ser Ser Ala Pro Leu Cys Arg Glu Ser Phe Ile Lys  
 35 40 45

Val Pro Glu Pro Gln Ile Leu Pro His Tyr Lys Pro Leu Asp Tyr Val  
 50 55 60

Glu Val Leu Ala Gln Ile His Glu Glu Leu Asp Thr Cys Pro Leu Gln  
 65 70 75 80

Glu Arg Ser Ile Leu Tyr Leu Leu Gln Tyr Gln Val Phe Arg Gly Leu  
 85 90 95

Gly Glu Thr Lys Leu Arg Arg Arg Ser Leu Gln Ser Ala Trp Gln Glu  
 100 105 110

Ala Thr Thr Val His Glu Lys Val Val Phe Gly Ser Trp Leu Arg Tyr  
 115 120 125

Glu Lys Gln Gly Glu Glu Val Ile Thr Asp Leu Leu Ser Ser Cys Gly  
 130 135 140

Lys Tyr Ser Glu Glu Phe Val Pro Leu Asp Ile Ala Ser Tyr Phe Pro  
 145 150 155 160

Ala Thr Thr Ala Ser Ser Pro Glu Ala Ala Ser Val Lys Thr Asn Arg  
 165 170 175

Ser Val Ser Lys Asn Val Val Phe Lys Ile Gly Glu Glu Lys Ile Ala  
 180 185 190

Cys Gln Arg Arg Lys Ile Ala Ser Leu Ser Ala Pro Phe His Ala Met  
 195 200 205

Leu Tyr Gly Asn Phe Thr Glu Ser Leu Leu Asp Glu Ile Asp Met Ser  
 Page 1659

210

215

Glu Asn His Val Ser Ser Ser Ala Met Arg Val Val Arg Asp Phe Ser  
225 230 235 240  
Val Val Gly Val Leu Ile Gly Val Ser Lys Asn Leu Leu Leu Glu Val  
245 250 255  
Leu Val Phe Ala Asn Lys Phe Cys Cys Glu Arg Leu Lys Asp Ala Cys  
260 265 270  
Asp Arg Glu Leu Ala Ser Leu Ile Ser Ser Met Glu Cys Ala Ile Glu  
275 280 285  
Leu Met Asp Phe Ala Leu Glu Glu Asn Ser Pro Ile Leu Ala Ser Ser  
290 295 300  
Cys Leu Gln Val Phe Leu Tyr Glu Met Pro Asp Ser Leu Asn Asp Glu  
305 310 315 320  
Arg Val Val Glu Val Leu Thr Arg Val Asn Arg Ser Gln Val Ser Thr  
325 330 335  
Met Ala Gly Lys Ala Pro Phe Ser Leu Tyr Ser Cys Leu Ser Glu Val  
340 345 350  
Ser Met Cys Ile Asp Pro Arg Ser Asp Arg Thr Leu Gly Phe Leu Glu  
355 360 365  
Lys Leu Val Asp Phe Ala Glu Asn Asp Arg Gln Gln Val Leu Gly Phe  
370 375 380  
His Arg Leu Gly Cys Met Arg Leu Leu Arg Lys Glu Tyr Arg Glu Ala  
385 390 395 400  
Glu Glu Ala Phe Glu Thr Ala Phe Asn Leu Gly His Val Tyr Ser Ala  
405 410 415  
Thr Gly Leu Ala Arg Leu Gly Tyr Ile Gln Gly His Arg Leu Trp Ala  
420 425 430  
Tyr Glu Lys Leu Ser Ser Val Ile Ser Ser Val Ser Pro Pro Leu Gly  
435 440 445  
Trp Met Tyr Gln Glu Arg Ser Phe Tyr Cys Glu Gly Asp Lys Lys Leu  
450 455 460

Glu Asp Leu Glu Lys Ala Thr Glu Leu Asp Pro Thr Leu Thr Tyr Pro  
 465 470 475 480  
 Tyr Met Tyr Arg Ala Val Thr Arg Met Ser Lys Gln Asn Ala Lys Ala  
 485 490 495  
 Ala Leu Glu Glu Ile Asn Arg Ile Leu Gly Phe Lys Leu Ala Leu Glu  
 500 505 510  
 Cys Leu Glu Ile Arg Phe Cys Leu Tyr Leu Gly Met Asp Asp Tyr Glu  
 515 520 525  
 Ala Ala Leu Arg Asp Ile Gln Ala Ala Leu Thr Leu Cys Pro Asp Tyr  
 530 535 540  
 Arg Met Phe Asp Gly Lys Val Ala Gly Arg Gln Leu Gln Thr Leu Val  
 545 550 555 560  
 Tyr Glu His Val Glu Asn Trp Thr Thr Ala Asp Cys Trp Met Gln Leu  
 565 570 575  
 Tyr Glu Lys Trp Ser Asn Val Asp Asp Ile Gly Ser Leu Ser Val Ile  
 580 585 590  
 Tyr Gln Met Leu Glu Ser Asp Ala Cys Lys Gly Val Leu Tyr Phe Arg  
 595 600 605  
 Gln Ser Leu Leu Leu Leu Arg Leu Asn Cys Pro Glu Ala Ala Met Arg  
 610 615 620  
 Ser Leu Gln Leu Ala Arg Glu His Ala Ser Ser Asp His Glu Arg Leu  
 625 630 635 640  
 Val Tyr Glu Gly Trp Ile Leu Tyr Asp Thr Gly His Cys Glu Glu Gly  
 645 650 655  
 Leu Gln Lys Ala Lys Glu Ser Ile Gly Ile Lys Arg Ser Phe Glu Ala  
 660 665 670  
 Tyr Phe Leu Gln Ala Tyr Ala Leu Ala Glu Ser Ser Leu Asp Pro Ser  
 675 680 685  
 Ser Ser Ser Thr Val Val Ser Leu Leu Glu Asp Ala Leu Lys Cys Pro  
 690 695 700  
 Ser Asp Arg Leu Arg Lys Gly Gln Ala Leu Asn Asn Leu Gly Ser Val  
 705 710 715 720

047-E2F-PCT.ST25.txt

Tyr Val Asp Cys Glu Lys Leu Asp Leu Ala Ala Asp Cys Tyr Ile Asn  
725 730 735

Ala Leu Lys Val Arg His Thr Arg Ala His Gln Gly Leu Ala Arg Val  
740 745 750

His Phe Leu Arg Asn Asp Lys Ala Ala Ala Tyr Glu Glu Met Thr Arg  
755 760 765

Leu Ile Glu Lys Ala Gln Asn Asn Ala Ser Ala Tyr Glu Lys Arg Ser  
770 775 780

Glu Tyr Cys Asp Arg Glu Leu Ala Lys Ser Asp Leu Glu Met Val Thr  
785 790 795 800

Arg Leu Asp Pro Leu Arg Val Tyr Pro Tyr Arg Tyr Arg Ala Ala Val  
805 810 815

Leu Met Asp Ser Arg Lys Glu Arg Glu Ala Ile Thr Glu Leu Ser Arg  
820 825 830

Ala Ile Ala Phe Lys Ala Asp Leu His Leu Leu His Leu Arg Ala Ala  
835 840 845

Phe His Glu His Ile Gly Asp Val Thr Ser Ala Leu Arg Asp Cys Arg  
850 855 860

Ala Ala Leu Ser Val Asp Pro Asn His Gln Glu Met Leu Glu Leu His  
865 870 875 880

Ser Arg Val Asn Ser His Glu Pro  
885

<210> 1067

<211> 1833

<212> DNA

<213> Arabidopsis thaliana

<400> 1067

atgattagca cagtacttcg ccgatctatc cttggtacgt caaggcgtac tctcgccgct	60
tcggtgacct ccattaacgc agctctatatt cataaccttg ctccagccgc cgccacagtc	120
tccgatctag caaatggagc tactaatgtc aagtctctcc cttcgaattc gagccctttt	180
ggtgttaaag tgagagactt tcatgttaaa tctgtaccgt cggagtttag atcgctcgatt	240

047-E2F-PCT.ST25.txt

gtttcttctg	cgggattcgc	ggctcaagag	tatgctcctt	cttatgagaa	cgatggaggg	300
attggagatt	cggagagtgt	tggtagcagc	ggtggtggtg	atgggcttgc	gatagctgat	360
cttggtatat	ctccggagat	tgttaaagct	ttgaagggta	ggggatttga	gaaactcttt	420
cctattcaga	aagctgtggt	ggagccagcg	atggaggggtc	gtgatatgat	tggccgtgca	480
aggactggaa	cgggaaagac	acttgctttt	gggattccta	ttattgacaa	aatcatcaaa	540
ttcaacgcta	aacatggctg	tgggaagaat	cctcagtgtc	tggttttggc	accgacgagg	600
gagcttgctc	gtcaggttga	gaaagagttc	agggaaatctg	ctccaagttt	ggatactatt	660
tgtctctatg	gaggtacacc	aatcgggcaa	caaagtgggg	agctgaacta	tggatttgat	720
gtggcggttg	gaactcctgg	tcgtatcatt	gatctgatga	aaaggggagc	tttgaatcta	780
tcagaggttc	agtttgtggt	tcttgatgaa	gctgatcaga	tgcttcaagt	tggatttgcg	840
gaagatgttg	aaataatatt	gcagaagttg	ccagcgaagc	gtcagagtat	gatgttttct	900
gcaacaatgc	caagttggat	cagatctctc	accaagaagt	acctgaacaa	tcctttgaca	960
attgatcttg	ttggagattc	agatcagaaa	cttgcagatg	ggattactat	gtattctatc	1020
gctgcagatt	cttatggaag	agcatccatc	attggtcctc	ttgtaaagga	acatggcaaa	1080
ggaggaaaat	gcattgtctt	tacccaaaca	aaacgtgatg	cagatcgctt	tgcatttgga	1140
ttggcaaaaa	gctataaatg	tgaagcttta	cacggtgaca	tatctcaagc	tcagagagaa	1200
agaacacttg	ctggtttcag	ggatgggaat	ttcagtatct	ttgttgcaac	tgatgttgct	1260
gcccgtggac	ttgatgtacc	taatgtcgat	ttagtaattc	attatgagct	tcctaataac	1320
acggagacgt	ttgttcaccg	aacggggcga	actggtcgtg	ctggaaagaa	aggaagcgcg	1380
attctcatcc	acggtcaaga	tcaaaccagg	gctgttaaaa	tgattgagaa	agaagtcgga	1440
agcagattca	atgagctgcc	tagcattgct	gtggaaagag	gaagcgcaag	catgtttgaa	1500
ggagtaggtg	ctagatctgg	tgggtcgttc	ggaggaggtc	gatcaggcgg	tggtaggtat	1560
ggtagttacg	gtagcagcag	tggccgttca	ggtggtggtg	gttatggagg	ttatggtggc	1620
agcagtggcc	gttcaggtgg	tgggtggtgg	agttatggag	gttcaggggg	atcaagcagc	1680
cgttactctg	gtggttcaga	ccgctcatct	ggtttcggaa	gctttggttc	aggcggttct	1740
tcaggaggat	ttggttcaga	ccgttcttct	cagtcaagtg	gaaggagcag	ctttggtggg	1800
tttgatcaa	acgatggtaa	aagatcttac	tga			1833

<210> 1068

<211> 610

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 1068

```

Met Ile Ser Thr Val Leu Arg Arg Ser Ile Leu Gly Thr Ser Arg Arg
1      5      10      15

Thr Leu Ala Ala Ser Val Thr Ser Ile Asn Ala Ala Leu Phe His Asn
      20      25      30

Leu Ala Pro Ala Ala Ala Thr Val Ser Asp Leu Ala Asn Gly Ala Thr
      35      40      45

Asn Val Lys Ser Leu Pro Ser Asn Ser Ser Pro Phe Gly Val Lys Val
50      55      60

Arg Asp Phe His Val Lys Ser Val Pro Ser Glu Phe Arg Ser Ser Ile
65      70      75      80

Val Ser Ser Ala Gly Phe Ala Ala Gln Glu Tyr Ala Pro Ser Tyr Glu
      85      90      95

Asn Asp Gly Gly Ile Gly Asp Ser Glu Ser Val Gly Ser Ser Gly Gly
100     105     110

Gly Asp Gly Leu Ala Ile Ala Asp Leu Gly Ile Ser Pro Glu Ile Val
115     120     125

Lys Ala Leu Lys Gly Arg Gly Ile Glu Lys Leu Phe Pro Ile Gln Lys
130     135     140

Ala Val Leu Glu Pro Ala Met Glu Gly Arg Asp Met Ile Gly Arg Ala
145     150     155     160

Arg Thr Gly Thr Gly Lys Thr Leu Ala Phe Gly Ile Pro Ile Ile Asp
165     170     175

Lys Ile Ile Lys Phe Asn Ala Lys His Gly Arg Gly Lys Asn Pro Gln
180     185     190

Cys Leu Val Leu Ala Pro Thr Arg Glu Leu Ala Arg Gln Val Glu Lys
195     200     205

Glu Phe Arg Glu Ser Ala Pro Ser Leu Asp Thr Ile Cys Leu Tyr Gly
210     215     220

Gly Thr Pro Ile Gly Gln Gln Met Arg Glu Leu Asn Tyr Gly Ile Asp
225     230     235     240

```

047-E2F-PCT.ST25.txt

Val Ala Val Gly Thr Pro Gly Arg Ile Ile Asp Leu Met Lys Arg Gly  
245 250 255

Ala Leu Asn Leu Ser Glu Val Gln Phe Val Val Leu Asp Glu Ala Asp  
260 265 270

Gln Met Leu Gln Val Gly Phe Ala Glu Asp Val Glu Ile Ile Leu Gln  
275 280 285

Lys Leu Pro Ala Lys Arg Gln Ser Met Met Phe Ser Ala Thr Met Pro  
290 295 300

Ser Trp Ile Arg Ser Leu Thr Lys Lys Tyr Leu Asn Asn Pro Leu Thr  
305 310 315 320

Ile Asp Leu Val Gly Asp Ser Asp Gln Lys Leu Ala Asp Gly Ile Thr  
325 330 335

Met Tyr Ser Ile Ala Ala Asp Ser Tyr Gly Arg Ala Ser Ile Ile Gly  
340 345 350

Pro Leu Val Lys Glu His Gly Lys Gly Gly Lys Cys Ile Val Phe Thr  
355 360 365

Gln Thr Lys Arg Asp Ala Asp Arg Leu Ala Phe Gly Leu Ala Lys Ser  
370 375 380

Tyr Lys Cys Glu Ala Leu His Gly Asp Ile Ser Gln Ala Gln Arg Glu  
385 390 395 400

Arg Thr Leu Ala Gly Phe Arg Asp Gly Asn Phe Ser Ile Leu Val Ala  
405 410 415

Thr Asp Val Ala Ala Arg Gly Leu Asp Val Pro Asn Val Asp Leu Val  
420 425 430

Ile His Tyr Glu Leu Pro Asn Asn Thr Glu Thr Phe Val His Arg Thr  
435 440 445

Gly Arg Thr Gly Arg Ala Gly Lys Lys Gly Ser Ala Ile Leu Ile His  
450 455 460

Gly Gln Asp Gln Thr Arg Ala Val Lys Met Ile Glu Lys Glu Val Gly  
465 470 475 480

485

490

495

Ser Met Phe Glu Gly Val Gly Ala Arg Ser Gly Gly Ser Phe Gly Gly  
 500 505 510  
 Gly Arg Ser Gly Gly Gly Gly Tyr Gly Ser Tyr Gly Ser Ser Ser Gly  
 515 520 525  
 Arg Ser Gly Gly Gly Ser Tyr Gly Gly Tyr Gly Gly Ser Ser Gly Arg  
 530 535 540  
 Ser Gly Gly Gly Gly Gly Ser Tyr Gly Gly Ser Gly Gly Ser Ser Ser  
 545 550 555 560  
 Arg Tyr Ser Gly Gly Ser Asp Arg Ser Ser Gly Phe Gly Ser Phe Gly  
 565 570 575  
 Ser Gly Gly Ser Ser Gly Gly Phe Gly Ser Asp Arg Ser Ser Gln Ser  
 580 585 590  
 Ser Gly Arg Ser Ser Phe Gly Gly Phe Gly Ser Asn Asp Gly Lys Arg  
 595 600 605  
 Ser Tyr  
 610

&lt;210&gt; 1069

&lt;211&gt; 1395

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1069

atgatgtcca acggtggtga ttcgtcggaa attgtccggg aactggaaga gttaaagctc 60  
 aagaaggcag aaatagagca ccgtattttcg accctcgaag ctaagctcca ggatacggcg 120  
 gcagttgaac tgtacgacgc cgtatccaac ggtgactctt atctgacggc accggagctt 180  
 gaacatgggt tatctccaga tcagatttac cgttatagtc gtcaactggt acttccttcg 240  
 tttgctgttg aagggcagtc aaatcttttg aagtcttcgg tattagttat tggagcagga 300  
 ggactagggt cacctgcctt attgtatctt gcagcatgtg gtgttggtca gttgggtatt 360  
 atcgatcatg atgtttaga gctcaacaat atgcataggc agattataca cacagaagca 420  
 ttatttgac atcccaaagt gaaatctgct gctgctgctt gtcgctcgat aaattcaacg 480  
 atcaaagttg atgaatatgt ggaagctctt cgcacttcca atgctttgga aatcctcagc 540



047-E2F-PCT.ST25.txt

```

caatatgata tcatagtcga tgcgactgat aatcctccaa gccgttacat gatcagtgat      600
tgtttgtgtct tgttaggaaa gcctttggtg tcgggtgctg cgcttggtat ggaagggcag      660
cttacggttt ataatcataa cggaggcccc tgttaccggt gtctttttcc cactcctcca      720
cctacctcag cgtgccaaag atgttctgat agtggagttc ttggagtagt gccaggtggt      780
attggttgct tacaagcgct agagacaatt aaactcgcaa gcctggtggg agaaccactc      840
tctgaacgga tgcttctttt tgatgcttta tcagcaagga tgcgcattgt caagatcaga      900
ggcaggtcat cacagtgcac cgtgtgtgga gacaattcat ctttcaataa gcaaactttt      960
aaagattttg actatgagga cttcactcaa tttcctttat ttgcggggccc attgaacctg     1020
cttcctgcag aatcaagaat tagcagcaag gagttcaaag aaattcttca aaagaaggaa     1080
caacatgttc tgctcgatgt tcgaccttca catcactata agattgtctc tctcccggat     1140
tcaactaaca tccctcttgc aaacttagag actcgggttaa acgagcttac ttcagctctt     1200
aaagaaaagg gaaatggcca tgcgaacact gaatcttgca caaatcctag tgtcttcggt     1260
gtatgcagac gcgggaatga ttcacaaaga gctgttcaat atcttcgtga gtcgggtttt     1320
gattcggcta aggatataat tggaggactg gaagcttggg cagccaatgt caacccaac      1380
ttccccacct actag                                          1395

```

<210> 1070

<211> 464

<212> PRT

<213> Arabidopsis thaliana

<400> 1070

```

Met Met Ser Asn Gly Gly Asp Ser Ser Glu Ile Val Arg Glu Leu Glu
1          5          10          15

Glu Leu Lys Leu Lys Lys Ala Glu Ile Glu His Arg Ile Ser Thr Leu
20          25          30

Glu Ala Lys Leu Gln Asp Thr Ala Ala Val Glu Leu Tyr Asp Ala Val
35          40          45

Ser Asn Gly Asp Ser Tyr Leu Thr Ala Pro Glu Leu Glu His Gly Leu
50          55          60

Ser Pro Asp Gln Ile Tyr Arg Tyr Ser Arg Gln Leu Leu Leu Pro Ser
65          70          75          80

```

047-E2F-PCT.ST25.txt

Phe Ala Val Glu Gly Gln Ser Asn Leu Leu Lys Ser Ser Val Leu Val  
 85 90 95  
 Ile Gly Ala Gly Gly Leu Gly Ser Pro Ala Leu Leu Tyr Leu Ala Ala  
 100 105 110  
 Cys Gly Val Gly Gln Leu Gly Ile Ile Asp His Asp Val Val Glu Leu  
 115 120 125  
 Asn Asn Met His Arg Gln Ile Ile His Thr Glu Ala Phe Ile Gly His  
 130 135 140  
 Pro Lys Val Lys Ser Ala Ala Ala Ala Cys Arg Ser Ile Asn Ser Thr  
 145 150 155 160  
 Ile Lys Val Asp Glu Tyr Val Glu Ala Leu Arg Thr Ser Asn Ala Leu  
 165 170 175  
 Glu Ile Leu Ser Gln Tyr Asp Ile Ile Val Asp Ala Thr Asp Asn Pro  
 180 185 190  
 Pro Ser Arg Tyr Met Ile Ser Asp Cys Cys Val Leu Leu Gly Lys Pro  
 195 200 205  
 Leu Val Ser Gly Ala Ala Leu Gly Met Glu Gly Gln Leu Thr Val Tyr  
 210 215 220  
 Asn His Asn Gly Gly Pro Cys Tyr Arg Cys Leu Phe Pro Thr Pro Pro  
 225 230 235 240  
 Pro Thr Ser Ala Cys Gln Arg Cys Ser Asp Ser Gly Val Leu Gly Val  
 245 250 255  
 Val Pro Gly Val Ile Gly Cys Leu Gln Ala Leu Glu Thr Ile Lys Leu  
 260 265 270  
 Ala Ser Leu Val Gly Glu Pro Leu Ser Glu Arg Met Leu Leu Phe Asp  
 275 280 285  
 Ala Leu Ser Ala Arg Met Arg Ile Val Lys Ile Arg Gly Arg Ser Ser  
 290 295 300  
 Gln Cys Thr Val Cys Gly Asp Asn Ser Ser Phe Asn Lys Gln Thr Phe  
 305 310 315 320  
 Lys Asp Phe Asp Tyr Glu Asp Phe Thr Gln Phe Pro Leu Phe Ala Gly  
 325 330 335

047-E2F-PCT.ST25.txt

Pro Leu Asn Leu Leu Pro Ala Glu Ser Arg Ile Ser Ser Lys Glu Phe  
340 345 350

Lys Glu Ile Leu Gln Lys Lys Glu Gln His Val Leu Leu Asp Val Arg  
355 360 365

Pro Ser His His Tyr Lys Ile Val Ser Leu Pro Asp Ser Leu Asn Ile  
370 375 380

Pro Leu Ala Asn Leu Glu Thr Arg Leu Asn Glu Leu Thr Ser Ala Leu  
385 390 395 400

Lys Glu Lys Gly Asn Gly His Ala Asn Thr Glu Ser Cys Thr Asn Pro  
405 410 415

Ser Val Phe Val Val Cys Arg Arg Gly Asn Asp Ser Gln Arg Ala Val  
420 425 430

Gln Tyr Leu Arg Glu Ser Gly Phe Asp Ser Ala Lys Asp Ile Ile Gly  
435 440 445

Gly Leu Glu Ala Trp Ala Ala Asn Val Asn Pro Asn Phe Pro Thr Tyr  
450 455 460

<210> 1071

<211> 564

<212> DNA

<213> Arabidopsis thaliana

<400> 1071

atggcgatca atcgtagctc cgatcatgaa tccgacgaaa acaccgtctt ttaccatcct	60
taccagaact accaggtccc gatcaaattct cagtatctat acaagcttcc gacttctccg	120
gaatttctat tcacggaaga gtctctcaag cagcgtcgat catggggaga aaatctcact	180
ttctacacag ggacgggtta tctagccggc tctgtagccg gtgcttcagc tgggatcttc	240
tctggtatca agagtttcga aaatgggagac acgacgaagc tgaaaatcaa caggattttg	300
aattcgtctg gtcaggcagg tcgtacttgg ggtaataggg ttgggattgt tgggttgatc	360
tacgcaggga ttgagagtgg tgtggtggcg gtaactgata aggacgatgt ttggaccagt	420
gttgctcgctg gtctgggaac tggagcggtc tttagggcag cagcaggagt gagatctgcg	480
gctgtggctg gtgcttttgg cggaattgcg gctggtgcag ttgtggcggg gaagcaggtt	540

ttcaagcggg atgctcacat atga

&lt;210&gt; 1072

&lt;211&gt; 187

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1072

Met Ala Ile Asn Arg Ser Ser Asp His Glu Ser Asp Glu Asn Thr Arg  
 1 5 10 15

Leu Tyr His Pro Tyr Gln Asn Tyr Gln Val Pro Ile Lys Ser Gln Tyr  
 20 25 30

Leu Tyr Lys Leu Pro Thr Ser Pro Glu Phe Leu Phe Thr Glu Glu Ser  
 35 40 45

Leu Lys Gln Arg Arg Ser Trp Gly Glu Asn Leu Thr Phe Tyr Thr Gly  
 50 55 60

Thr Gly Tyr Leu Ala Gly Ser Val Ala Gly Ala Ser Ala Gly Ile Phe  
 65 70 75 80

Ser Gly Ile Lys Ser Phe Glu Asn Gly Asp Thr Thr Lys Leu Lys Ile  
 85 90 95

Asn Arg Ile Leu Asn Ser Ser Gly Gln Ala Gly Arg Thr Trp Gly Asn  
 100 105 110

Arg Val Gly Ile Val Gly Leu Ile Tyr Ala Gly Ile Glu Ser Gly Val  
 115 120 125

Val Ala Val Thr Asp Lys Asp Asp Val Trp Thr Ser Val Val Ala Gly  
 130 135 140

Leu Gly Thr Gly Ala Val Phe Arg Ala Ala Arg Gly Val Arg Ser Ala  
 145 150 155 160

Ala Val Ala Gly Ala Phe Gly Gly Ile Ala Ala Gly Ala Val Val Ala  
 165 170 175

Gly Lys Gln Val Phe Lys Arg Tyr Ala His Ile  
 180 185

&lt;210&gt; 1073

&lt;211&gt; 1674

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1073

```

atgggttttgg ggtgtttccc ttgaaaagc aagaagaaac gtggctctgt ttctatgaag    60
cggttggatc ttgaagaaag caagccaact gctttacctg agccaccaa gattccaagt    120
cgtaatttac aatcagctcc tccgagtttc agaactcgtg tgaagccaat tcaatctaac    180
aacggtggaa ccggagagat gagtagccga gcaagagtca tgtctgctcc gtcaagcatc    240
cacggtgcag cggaacggga ttgtcttgct ggtgtttacc acgacgagca agatgaacaa    300
ccaagagatc cacgtacttc tactaaagaa tctagccctc aaccacttcc gttaccgtca    360
ccaagaactg gttcttcatt gaagaattgg ggaagcttta agtcgtttta cggaagcagc    420
ggtcggttat catcatccgc agctgtatct ggacctttac ctttgccacc tagcgggtca    480
gttaggagct tttcatatga tgaagtaatg gctgcgtgta acgctttttc ttcagaccga    540
tgtgtcatgg aaggctcttc atctgttatg tacatggctt ctttggtga tgaggcttcg    600
acctcagggt taaagaagg tgcgcaact gttgtacgac ttcacgtaat tactcagagt    660
attagggagt tcattaatga agtcaacaca ttggcgctgc tgcaacacca gaacctttgt    720
aagctggtag gctatcatgc tcgtgacggt tctgacacaa gaatgttggt gtacgagagg    780
cttgctctgg gcagcttgga ccgtttactg catgggagat cagatgggcc tcctcttgat    840
tggaacacta gaatgaagat tgcactatgc gcagctcagg gtctaacctt cttgcacgaa    900
gaaggccctt ttcaggcaat gtacaatgaa ttttcgacgg caaatatcca agtcgataaa    960
gatttcagcg ccaagctatc aggatacgg tgtgcaggcc atgcgcctga gacagagaca   1020
tctaatagtt cggcacttgc taatctctct gtcgagactc tagagagagg gcttttgacc   1080
ccgaagagca atgtgtggag ctatggaata gttcttcttg agatgttaac gggtcgaaa   1140
aatatggacg ggtcttacct gaaagaagag aggaacttag tgaaatggag cagagctttt   1200
ctagcagatg attgcaggct ctcgcttata atggatcctc agcttaaagg tcggtttccg   1260
gcaaaagcgg ctaggagcat agcagatata gcacagaaat gtctgcagggt ggagccttca   1320
gagcgtccaa ccatgagaaa catcgtggat caactcaaga tcatacagga catgaagtac   1380
tcgtgtagg tccattgag agaaccgcga ccggtcgtgg caaggaaaca tatgggaaga   1440
tcaagcagtc tcaacacgat tatttgacc ccggcatcag tgccaccaag gtcgagtttt   1500
tcaccgtcac ctccaccag acgaccgtct gtctcaccca caaggggacg gacgctcgtg   1560

```

tttccccag tgtttccgcc gcgagcgtgt tcattcttgg aggaaatggc tcgggaagag 1620  
gttcgaagat cgtcttcagc cagtggtagg agaactagcc tcgaagggtt ttga 1674

<210> 1074

<211> 557

<212> PRT

<213> Arabidopsis thaliana

<400> 1074

Met Val Leu Gly Cys Phe Pro Leu Lys Ser Lys Lys Lys Arg Gly Ser  
1 5 10 15

Val Ser Met Lys Arg Leu Asp Leu Glu Glu Ser Lys Pro Thr Ala Leu  
20 25 30

Pro Glu Pro Pro Lys Ile Pro Ser Arg Asn Leu Gln Ser Ala Pro Pro  
35 40 45

Ser Phe Arg Thr Arg Val Lys Pro Ile Gln Ser Asn Asn Gly Gly Thr  
50 55 60

Gly Glu Met Ser Ser Arg Ala Arg Val Met Ser Ala Pro Ser Ser Ile  
65 70 75 80

His Gly Ala Ala Glu Arg Asp Leu Leu Ala Gly Val Tyr His Asp Glu  
85 90 95

Gln Asp Glu Gln Pro Arg Asp Pro Arg Thr Ser Thr Lys Glu Ser Ser  
100 105 110

Pro Gln Pro Leu Pro Leu Pro Ser Pro Arg Thr Gly Ser Ser Leu Lys  
115 120 125

Asn Trp Gly Ser Phe Lys Ser Phe Asn Gly Ser Ser Gly Arg Leu Ser  
130 135 140

Ser Ser Ala Ala Val Ser Gly Pro Leu Pro Leu Pro Pro Ser Gly Ser  
145 150 155 160

Val Arg Ser Phe Ser Tyr Asp Glu Val Met Ala Ala Cys Asn Ala Phe  
165 170 175

Ser Ser Asp Arg Cys Val Met Glu Gly Leu Ser Ser Val Met Tyr Met  
180 185 190

047-E2F-PCT.ST25.txt

Ala Ser Phe Gly Asp Glu Ala Ser Thr Ser Gly Leu Lys Lys Val Asp  
195 200 205

Ala Thr Val Val Arg Leu His Val Ile Thr Gln Ser Ile Arg Glu Phe  
210 215 220

Ile Asn Glu Val Asn Thr Leu Ala Ser Leu Gln His Gln Asn Leu Cys  
225 230 235 240

Lys Leu Val Gly Tyr His Ala Arg Asp Gly Ser Asp Thr Arg Met Leu  
245 250 255

Val Tyr Glu Arg Leu Ala Leu Gly Ser Leu Asp Arg Leu Leu His Gly  
260 265 270

Arg Ser Asp Gly Pro Pro Leu Asp Trp Asn Thr Arg Met Lys Ile Ala  
275 280 285

Leu Cys Ala Ala Gln Gly Leu Thr Phe Leu His Glu Glu Gly Pro Phe  
290 295 300

Gln Ala Met Tyr Asn Glu Phe Ser Thr Ala Asn Ile Gln Val Asp Lys  
305 310 315 320

Asp Phe Ser Ala Lys Leu Ser Gly Tyr Gly Cys Ala Gly His Ala Pro  
325 330 335

Glu Thr Glu Thr Ser Asn Ser Ser Ala Leu Ala Asn Leu Ser Val Glu  
340 345 350

Thr Leu Glu Arg Gly Leu Leu Thr Pro Lys Ser Asn Val Trp Ser Tyr  
355 360 365

Gly Ile Val Leu Leu Glu Met Leu Thr Gly Arg Lys Asn Met Asp Gly  
370 375 380

Ser Tyr Pro Lys Glu Glu Arg Asn Leu Val Lys Trp Ser Arg Ala Phe  
385 390 395 400

Leu Ala Asp Asp Cys Arg Leu Ser Leu Ile Met Asp Pro Gln Leu Lys  
405 410 415

Gly Arg Phe Pro Ala Lys Ala Ala Arg Ser Ile Ala Asp Ile Ala Gln  
420 425 430

435

440

445

Val Asp Gln Leu Lys Ile Ile Gln Asp Met Lys Tyr Ser Cys Arg Phe  
 450 455 460

Pro Leu Arg Glu Pro Ala Pro Val Val Ala Arg Lys His Met Gly Arg  
 465 470 475 480

Ser Ser Ser Leu Asn Thr Ile Ile Trp Thr Pro Ala Ser Val Pro Pro  
 485 490 495

Arg Ser Ser Phe Ser Pro Ser Pro Pro Arg Arg Pro Ser Val Ser  
 500 505 510

Pro Thr Arg Gly Arg Thr Leu Val Phe Pro Pro Val Phe Pro Pro Arg  
 515 520 525

Ala Cys Ser Ser Leu Glu Glu Met Ala Arg Glu Glu Val Arg Arg Ser  
 530 535 540

Ser Ser Ala Ser Gly Arg Arg Thr Ser Leu Glu Gly Phe  
 545 550 555

&lt;210&gt; 1075

&lt;211&gt; 1074

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1075

```

atggaaggtt cctcgtcagc catcgcgagg aagacatggg agctagagaa caacattctc      60
ccagtggaac caaccgattc agcctccgac agtatattcc actacgacga cgcttcacaa      120
gccaaaatcc agcaggagaa gccatgggcc tccgataccta actacttcaa gcgcggttcac      180
atctcagccc ttgctcttct caagatggtg gttcacgctc gctccggtgg cacaatcgag      240
atcatgggtc ttatgcaggg taaaaccgag ggtgatacaa tcatcgttat ggatgctttt      300
gctttgcctg ttgaaggtac tgagactagg gttaatgctc agtctgatgc ctatgagtat      360
atggttgaat actctcagac cagcaagctg gctgggaggt tggagaacgt tgttggatgg      420
tatcactctc accctgggta tggatgttgg ctctcgggta ttgatgtttc gacacagatg      480
cttaaccaac agtatcagga gccattctta gctgttggtta ttgatccaac aaggactggt      540
tcggctggta aggttgagat tggggcattc agaacatatc cagagggaca taagatctcg      600
gatgatcatg tttctgagta tcagactatc cctcttaaca agattgagga ctttggtgta      660

```



047-E2F-PCT.ST25.txt

cattgcaaac agtactactc attggacatc acttattttca agtcatctct cgatagtcac 720  
 cttctggatc tcctttggaa caagtactgg gtgaacactc tttcttcttc cccactgttg 780  
 ggcaatggag actatgtttgc cgggcaaata tcagacttgg ctgagaagct cgagcaagcg 840  
 gagagtcagc tcgctaactc ccggtatgga ggaattgctc cagccggtca ccaaaggagg 900  
 aaagaggatg agcctcaact cgcgaagata actcgggata gtgcaaagat aactgtcgag 960  
 caggtccatg gactaatgtc acaggttatc aaagacatct tgttcaattc cgctcgtcag 1020  
 tccaagaagt ctgctgacga ctcacatgat ccagagccca tgattacatc gtga 1074

<210> 1076

<211> 357

<212> PRT

<213> Arabidopsis thaliana

<400> 1076

Met Glu Gly Ser Ser Ser Ala Ile Ala Arg Lys Thr Trp Glu Leu Glu  
 1 5 10 15

Asn Asn Ile Leu Pro Val Glu Pro Thr Asp Ser Ala Ser Asp Ser Ile  
 20 25 30

Phe His Tyr Asp Asp Ala Ser Gln Ala Lys Ile Gln Gln Glu Lys Pro  
 35 40 45

Trp Ala Ser Asp Pro Asn Tyr Phe Lys Arg Val His Ile Ser Ala Leu  
 50 55 60

Ala Leu Leu Lys Met Val Val His Ala Arg Ser Gly Gly Thr Ile Glu  
 65 70 75 80

Ile Met Gly Leu Met Gln Gly Lys Thr Glu Gly Asp Thr Ile Ile Val  
 85 90 95

Met Asp Ala Phe Ala Leu Pro Val Glu Gly Thr Glu Thr Arg Val Asn  
 100 105 110

Ala Gln Ser Asp Ala Tyr Glu Tyr Met Val Glu Tyr Ser Gln Thr Ser  
 115 120 125

Lys Leu Ala Gly Arg Leu Glu Asn Val Val Gly Trp Tyr His Ser His  
 130 135 140

047-E2F-PCT.ST25.txt

Pro Gly Tyr Gly Cys Trp Leu Ser Gly Ile Asp Val Ser Thr Gln Met  
145 150 155 160

Leu Asn Gln Gln Tyr Gln Glu Pro Phe Leu Ala Val Val Ile Asp Pro  
165 170 175

Thr Arg Thr Val Ser Ala Gly Lys Val Glu Ile Gly Ala Phe Arg Thr  
180 185 190

Tyr Pro Glu Gly His Lys Ile Ser Asp Asp His Val Ser Glu Tyr Gln  
195 200 205

Thr Ile Pro Leu Asn Lys Ile Glu Asp Phe Gly Val His Cys Lys Gln  
210 215 220

Tyr Tyr Ser Leu Asp Ile Thr Tyr Phe Lys Ser Ser Leu Asp Ser His  
225 230 235 240

Leu Leu Asp Leu Leu Trp Asn Lys Tyr Trp Val Asn Thr Leu Ser Ser  
245 250 255

Ser Pro Leu Leu Gly Asn Gly Asp Tyr Val Ala Gly Gln Ile Ser Asp  
260 265 270

Leu Ala Glu Lys Leu Glu Gln Ala Glu Ser Gln Leu Ala Asn Ser Arg  
275 280 285

Tyr Gly Gly Ile Ala Pro Ala Gly His Gln Arg Arg Lys Glu Asp Glu  
290 295 300

Pro Gln Leu Ala Lys Ile Thr Arg Asp Ser Ala Lys Ile Thr Val Glu  
305 310 315 320

Gln Val His Gly Leu Met Ser Gln Val Ile Lys Asp Ile Leu Phe Asn  
325 330 335

Ser Ala Arg Gln Ser Lys Lys Ser Ala Asp Asp Ser Ser Asp Pro Glu  
340 345 350

Pro Met Ile Thr Ser  
355

<210> 1077

<211> 993

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1077

```

atggctcttc cgttgccatt gatcttcctt atcttctctc atttgttcgt ttctggagtt      60
agatcaacga gcttcattat ggtgaacaaa tgcaataca cagtctggcc tggactttta      120
tcaaacgccg gagttccacc acttccgacg accggattcg ttctccaaaa aggccaagaa      180
cgaacaatca gcgctccaac ttcatgggga ggaagattct gggggagaac tcaatgttcc      240
accgacaccg acggaaaatt cacttgtctc accggagatt gcggatctgg taccctcgaa      300
tgctccggat ccggagcaac accaccagca aacttagcgg aattcacact agacggatct      360
aacggactcg atttctacga cgttagtctc gtcgacggtt acaacgtccc gatgctagtg      420
gctccacaag gaggctcggg tttaaactgt agcagcaccg gatgcgttgt agatctgaac      480
ggttcgtgtc cgtcggagct taaagtgacg agtttagacg gcagaggtaa acaatccatg      540
ggatgtaaaa gcgcggtgtga agcttttcgt acgccggagt attggtgcag cggcgcccac      600
ggtacacctg acacgtgtaa accgtcgtcg tactcgttga tgtttaaaac tgcgtgtcca      660
cgtgcttaca gctacgttta cgatgatcag agtagtacct tcacatgtgc tgaatctcct      720
aattacgtta tcacgttttg ccctactcct aacaccagtc aaaaatcatc tcaagatcag      780
agcccagatc ccaaaccgac gacaccaacc gggacgtcgt cgacaactcc tgccggagat      840
agtagtacga cgtgggtcacc ggtagataca tcaatgatat acgaaggagc tttggatcaa      900
aacaaggat caccgtccac gtgtcatctt tcgttatgtg gaatcacagt cacacttgcg      960
ctggcctttt gtcggatgtg gcggctcttt tga                                993

```

&lt;210&gt; 1078

&lt;211&gt; 330

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1078

```

Met Ala Leu Pro Leu Pro Leu Ile Phe Leu Ile Phe Ser His Leu Phe
1          5          10          15

Val Ser Gly Val Arg Ser Thr Ser Phe Ile Met Val Asn Lys Cys Glu
20          25          30

Tyr Thr Val Trp Pro Gly Leu Leu Ser Asn Ala Gly Val Pro Pro Leu
35          40          45

```

047-E2F-PCT.ST25.txt

Pro Thr Thr Gly Phe Val Leu Gln Lys Gly Glu Glu Arg Thr Ile Ser  
50 55 60

Ala Pro Thr Ser Trp Gly Gly Arg Phe Trp Gly Arg Thr Gln Cys Ser  
65 70 75 80

Thr Asp Thr Asp Gly Lys Phe Thr Cys Leu Thr Gly Asp Cys Gly Ser  
85 90 95

Gly Thr Leu Glu Cys Ser Gly Ser Gly Ala Thr Pro Pro Ala Thr Leu  
100 105 110

Ala Glu Phe Thr Leu Asp Gly Ser Asn Gly Leu Asp Phe Tyr Asp Val  
115 120 125

Ser Leu Val Asp Gly Tyr Asn Val Pro Met Leu Val Ala Pro Gln Gly  
130 135 140

Gly Ser Gly Leu Asn Cys Ser Ser Thr Gly Cys Val Val Asp Leu Asn  
145 150 155 160

Gly Ser Cys Pro Ser Glu Leu Lys Val Thr Ser Leu Asp Gly Arg Gly  
165 170 175

Lys Gln Ser Met Gly Cys Lys Ser Ala Cys Glu Ala Phe Arg Thr Pro  
180 185 190

Glu Tyr Cys Cys Ser Gly Ala His Gly Thr Pro Asp Thr Cys Lys Pro  
195 200 205

Ser Ser Tyr Ser Leu Met Phe Lys Thr Ala Cys Pro Arg Ala Tyr Ser  
210 215 220

Tyr Ala Tyr Asp Asp Gln Ser Ser Thr Phe Thr Cys Ala Glu Ser Pro  
225 230 235 240

Asn Tyr Val Ile Thr Phe Cys Pro Thr Pro Asn Thr Ser Gln Lys Ser  
245 250 255

Ser Gln Asp Gln Ser Pro Asp Pro Lys Pro Thr Thr Pro Thr Gly Thr  
260 265 270

Ser Ser Thr Thr Pro Ala Gly Asp Ser Ser Thr Thr Trp Ser Pro Val  
275 280 285

Asp Thr Ser Met Ile Tyr Glu Gly Ala Leu Asp Gln Asn Lys Gly Ser  
290 295 300

047-E2F-PCT.ST25.txt

Pro Ser Thr Cys His Leu Ser Leu Cys Gly Ile Thr Val Thr Leu Ala  
305 310 315 320

Leu Ala Phe Cys Arg Met Trp Arg Leu Phe  
325 330

<210> 1079

<211> 1140

<212> DNA

<213> Arabidopsis thaliana

<400> 1079

atgtgtggag gagctataat ctccgatttc atacctccgc cgaggctcct ccgcgtcact	60
aacgagttta tctggccgga tctgaaaaac aaagtgaag cttcaaagaa gagatcgaat	120
aagcgatccg atttcttcga tcttgacgat gatttcgaag ctgatttcca agggtttaag	180
gatgactcgg cttttgactg cgaagacgat gatgatgtct tcgtcaatgt taagcctttc	240
gtcttcaccg caactactaa gcccgtagct tccgctttcg tctccactgg tatatatttg	300
gtaggttcag catatgccaa gaaaactgta gagtccgctg agcaagctga gaaatcttct	360
aagaggaaga ggaagaatca ataccgaggg attaggcagc gtccttgggg aaaatgggct	420
gcggagatcc gtgatccgag aaaaggctcc cgagaatggc ttggaacatt cgacactgct	480
gaggaagcag caagagctta tgatgctgca gcacgcagaa tccgtggcac gaaagctaag	540
gtgaattttc ccgaggagaa gaaccctagc gtcgtatccc agaaacgtcc tagtgctaag	600
actaataatc ttcagaaatc agtggctaaa ccaaacaaaa gcgtaacttt ggttcagcag	660
ccaacacatc tgagtcagca gtactgcaac aactcctttg acaactcttt tggatgatg	720
agtttcatgg aagagaagcc tcagatgtac aacaatcagt ttgggttaac aaactcgttc	780
gatgctggag gtaacaatgg ataccagtat ttcagttccg atcagggcag taactccttc	840
gactgttctg agttcgggtg gagtgatcac ggccctaaaa caccgagat ctcttcaatg	900
cttgtcaata acaacgaagc atcatttggt gaagaaacca atgcagccaa gaagctcaaa	960
ccaaactctg atgagtcaga cgatctgatg gcataccttg acaacgcctt gtgggacacc	1020
ccactagaag tggaagccat gcttggcgca gatgctggtg ctgtgactca ggaagaggaa	1080
aaccagtgag agctatggag cttagatgag atcaatttca tgctggaagg agacttttga	1140

<210> 1080

<211> 379

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1080

Met Cys Gly Gly Ala Ile Ile Ser Asp Phe Ile Pro Pro Pro Arg Ser  
 1 5 10 15

Leu Arg Val Thr Asn Glu Phe Ile Trp Pro Asp Leu Lys Asn Lys Val  
 20 25 30

Lys Ala Ser Lys Lys Arg Ser Asn Lys Arg Ser Asp Phe Phe Asp Leu  
 35 40 45

Asp Asp Asp Phe Glu Ala Asp Phe Gln Gly Phe Lys Asp Asp Ser Ala  
 50 55 60

Phe Asp Cys Glu Asp Asp Asp Val Phe Val Asn Val Lys Pro Phe  
 65 70 75 80

Val Phe Thr Ala Thr Thr Lys Pro Val Ala Ser Ala Phe Val Ser Thr  
 85 90 95

Gly Ile Tyr Leu Val Gly Ser Ala Tyr Ala Lys Lys Thr Val Glu Ser  
 100 105 110

Ala Glu Gln Ala Glu Lys Ser Ser Lys Arg Lys Arg Lys Asn Gln Tyr  
 115 120 125

Arg Gly Ile Arg Gln Arg Pro Trp Gly Lys Trp Ala Ala Glu Ile Arg  
 130 135 140

Asp Pro Arg Lys Gly Ser Arg Glu Trp Leu Gly Thr Phe Asp Thr Ala  
 145 150 155 160

Glu Glu Ala Ala Arg Ala Tyr Asp Ala Ala Ala Arg Arg Ile Arg Gly  
 165 170 175

Thr Lys Ala Lys Val Asn Phe Pro Glu Glu Lys Asn Pro Ser Val Val  
 180 185 190

Ser Gln Lys Arg Pro Ser Ala Lys Thr Asn Asn Leu Gln Lys Ser Val  
 195 200 205

Ala Lys Pro Asn Lys Ser Val Thr Leu Val Gln Gln Pro Thr His Leu  
 210 215 220

047-E2F-PCT.ST25.txt

Ser Gln Gln Tyr Cys Asn Asn Ser Phe Asp Asn Ser Phe Gly Asp Met  
225 230 235 240

Ser Phe Met Glu Glu Lys Pro Gln Met Tyr Asn Asn Gln Phe Gly Leu  
245 250 255

Thr Asn Ser Phe Asp Ala Gly Gly Asn Asn Gly Tyr Gln Tyr Phe Ser  
260 265 270

Ser Asp Gln Gly Ser Asn Ser Phe Asp Cys Ser Glu Phe Gly Trp Ser  
275 280 285

Asp His Gly Pro Lys Thr Pro Glu Ile Ser Ser Met Leu Val Asn Asn  
290 295 300

Asn Glu Ala Ser Phe Val Glu Glu Thr Asn Ala Ala Lys Lys Leu Lys  
305 310 315 320

Pro Asn Ser Asp Glu Ser Asp Asp Leu Met Ala Tyr Leu Asp Asn Ala  
325 330 335

Leu Trp Asp Thr Pro Leu Glu Val Glu Ala Met Leu Gly Ala Asp Ala  
340 345 350

Gly Ala Val Thr Gln Glu Glu Glu Asn Pro Val Glu Leu Trp Ser Leu  
355 360 365

Asp Glu Ile Asn Phe Met Leu Glu Gly Asp Phe  
370 375

<210> 1081

<211> 936

<212> DNA

<213> Arabidopsis thaliana

<400> 1081

atgggagaca acaaccctaa ccgatcagaa gcagaacgtc ttctcggaat cgcggagaag	60
cttctcgagt caccgagatct aaacggttca aaagagtttg caatcttagc tcaagagaca	120
gagccactcc tcgaaggcac cgatcaaadc ctcgccgtcg tcgatgtctt actctcatca	180
gcaccagaga atcgtatcaa aaaccaacca aactggtaca aaatccttca gatcgaagat	240
ctaactgaat catcaacaga caacgatcta atcaagaaac aataccgtcg tcttgctctt	300

047-E2F-PCT.ST25.txt

cttctccacc ctgacaaaaa ccgtttccct ttcgccgatac aagctttcag attcgtgctt 360  
 gatgcatggg aagttctatc aacacctacg aagaaatctc aattcgatgg agatttgaat 420  
 ctcatcttca ctaaagtaaa tctcaacct cagaaatcga agaagaaaac aacaacgaat 480  
 gagaagatgt ctacgttttg gacggcgtgt ccgtactgtt acagtcttca tgagtatcct 540  
 agggtttatc aagagtattg tattagatgt caaaactgtc aaagagcgtt tcacgctgcg 600  
 agtattcctc agttgcctcc gttgatacct ggtaaagatg agtattattg ttgttggggg 660  
 ttttttccga tgggggtttgt tgggtggtaaa ggaggagaag ctgccattgc taatggagta 720  
 gatgcagcta agttccctaa ttggatgcct ccggttttct catccggcgg cgttgcagct 780  
 cctccaagtg gtaatggtgt tagttttgat ggatggtcag gtggtgcggc gaagagagat 840  
 aatgaggctg tgaggagtaa taatggtgtt ggagttaatt cagatggaac accgaagaag 900  
 agaggaagag gaaggccgaa gaagaatccg gtttag 936

<210> 1082

<211> 311

<212> PRT

<213> Arabidopsis thaliana

<400> 1082

Met Gly Asp Asn Asn Pro Asn Arg Ser Glu Ala Glu Arg Leu Leu Gly  
 1 5 10 15  
 Ile Ala Glu Lys Leu Leu Glu Ser Arg Asp Leu Asn Gly Ser Lys Glu  
 20 25 30  
 Phe Ala Ile Leu Ala Gln Glu Thr Glu Pro Leu Leu Glu Gly Thr Asp  
 35 40 45  
 Gln Ile Leu Ala Val Val Asp Val Leu Leu Ser Ser Ala Pro Glu Asn  
 50 55 60  
 Arg Ile Lys Asn Gln Pro Asn Trp Tyr Lys Ile Leu Gln Ile Glu Asp  
 65 70 75 80  
 Leu Thr Glu Ser Ser Thr Asp Asn Asp Leu Ile Lys Lys Gln Tyr Arg  
 85 90 95  
 Arg Leu Ala Leu Leu Leu His Pro Asp Lys Asn Arg Phe Pro Phe Ala  
 100 105 110



Asp Gln Ala Phe Arg Phe Val Leu Asp Ala Trp Glu Val Leu Ser Thr  
 115 120 125

Pro Thr Lys Lys Ser Gln Phe Asp Gly Asp Leu Asn Leu Ile Phe Thr  
 130 135 140

Lys Val Asn Leu Asn Thr Gln Lys Ser Lys Lys Lys Thr Thr Thr Asn  
 145 150 155 160

Glu Lys Met Ser Thr Phe Trp Thr Ala Cys Pro Tyr Cys Tyr Ser Leu  
 165 170 175

His Glu Tyr Pro Arg Val Tyr Gln Glu Tyr Cys Ile Arg Cys Gln Asn  
 180 185 190

Cys Gln Arg Ala Phe His Ala Ala Ser Ile Pro Gln Leu Pro Pro Leu  
 195 200 205

Ile Pro Gly Lys Asp Glu Tyr Tyr Cys Cys Trp Gly Phe Phe Pro Met  
 210 215 220

Gly Phe Val Gly Gly Lys Gly Gly Glu Ala Ala Ile Ala Asn Gly Val  
 225 230 235 240

Asp Ala Ala Lys Phe Pro Asn Trp Met Pro Pro Val Phe Ser Ser Gly  
 245 250 255

Gly Val Ala Ala Pro Pro Ser Gly Asn Gly Val Ser Phe Asp Gly Trp  
 260 265 270

Ser Gly Gly Ala Ala Lys Arg Asp Asn Glu Ala Val Arg Ser Asn Asn  
 275 280 285

Gly Val Gly Val Asn Ser Asp Gly Thr Pro Lys Lys Arg Gly Arg Gly  
 290 295 300

Arg Pro Lys Lys Asn Pro Val  
 305 310

<210> 1083

<211> 648

<212> DNA

<213> Arabidopsis thaliana

<400> 1083

```

atggtgagaa tattccttct ctacaatata ctaaattcgt ttcttctctc tttagtagca    60
aagaagctac gaactctttt ccctctttct tggttcgaca aaactctcca caagaactca    120
ccaccgtctc cgtcaacgat gttaccttct ccacatctct cttcagcgcc gacgaaaaga    180
atagatccgt ccgagctcaa acgcgttttc cagatgttcg acaagaacgg tgacgggtcga    240
atcacaaagg aagagctcaa cgactcgctt gagaatcttg gaatctacat accagacaaa    300
gatctgactc aaatgatcca caagatcgat gctaacggtg atggatgcgt cgacatagac    360
gagtttgagt cgctgtacag ctcgattgtg gatgagcatc acaacgatgg cgaaacagag    420
gaagaggata tgaaagatgc gtttaacgtg tttgaccaag acggagatgg gtttatcact    480
gtggaggagt tgaaatctgt gatggcttcc ttgggactca agcaagggaa gaccctagat    540
ggttgtaaga agatgattat gcaagttgat gcagatggtg atggtagagt caattacaaa    600
gagtttcttc agatgatgaa aggtggtggc tttagcagca gtaattga                648

```

&lt;210&gt; 1084

&lt;211&gt; 215

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1084

```

Met Val Arg Ile Phe Leu Leu Tyr Asn Ile Leu Asn Ser Phe Leu Leu
1           5           10           15

```

```

Ser Leu Val Pro Lys Lys Leu Arg Thr Leu Phe Pro Leu Ser Trp Phe
          20           25           30

```

```

Asp Lys Thr Leu His Lys Asn Ser Pro Pro Ser Pro Ser Thr Met Leu
          35           40           45

```

```

Pro Ser Pro Ser Ser Ser Ser Ala Pro Thr Lys Arg Ile Asp Pro Ser
50           55           60

```

```

Glu Leu Lys Arg Val Phe Gln Met Phe Asp Lys Asn Gly Asp Gly Arg
65           70           75           80

```

```

Ile Thr Lys Glu Glu Leu Asn Asp Ser Leu Glu Asn Leu Gly Ile Tyr
          85           90           95

```

```

Ile Pro Asp Lys Asp Leu Thr Gln Met Ile His Lys Ile Asp Ala Asn
          100          105          110

```

Gly Asp Gly Cys Val Asp Ile Asp Glu Phe Glu Ser Leu Tyr Ser Ser  
 115 120 125

Ile Val Asp Glu His His Asn Asp Gly Glu Thr Glu Glu Glu Asp Met  
 130 135 140

Lys Asp Ala Phe Asn Val Phe Asp Gln Asp Gly Asp Gly Phe Ile Thr  
 145 150 155 160

Val Glu Glu Leu Lys Ser Val Met Ala Ser Leu Gly Leu Lys Gln Gly  
 165 170 175

Lys Thr Leu Asp Gly Cys Lys Lys Met Ile Met Gln Val Asp Ala Asp  
 180 185 190

Gly Asp Gly Arg Val Asn Tyr Lys Glu Phe Leu Gln Met Met Lys Gly  
 195 200 205

Gly Gly Phe Ser Ser Ser Asn  
 210 215

<210> 1085

<211> 483

<212> DNA

<213> Arabidopsis thaliana

<400> 1085  
 atggagagtg aaggaaagat tgtgttcaca gaagagcaag aggctcttgt agtgaagtct 60  
 tggagtgtca tgaagaaaaa ctcagctgaa ttaggtctca aactcttcat caagatcttt 120  
 gagattgcac caacaacgaa gaagatgttc tctttcttga gagactcacc aattcctgct 180  
 gagcaaaatc caaagctcaa gcctcacgca atgtctgttt ttgtcatgtg ttgtgaatca 240  
 gcagtacaac tgaggaaaac agggaaagtt acggtgaggg agactacttt gaagagactt 300  
 ggagccagcc attctaaata cgggtgtcgtt gacgaacact ttgaggtggc caagtatgca 360  
 ttgttggaga cgataaagga ggcagtgccg gagatgtggt caccggagat gaaggtggct 420  
 tggggtcagg cttatgatca ccttgttgct gccattaaag ctgaaatgaa tctttccaac 480  
 taa 483

<210> 1086

<211> 160

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1086

Met Glu Ser Glu Gly Lys Ile Val Phe Thr Glu Glu Gln Glu Ala Leu  
 1 5 10 15  
 Val Val Lys Ser Trp Ser Val Met Lys Lys Asn Ser Ala Glu Leu Gly  
 20 25 30  
 Leu Lys Leu Phe Ile Lys Ile Phe Glu Ile Ala Pro Thr Thr Lys Lys  
 35 40 45  
 Met Phe Ser Phe Leu Arg Asp Ser Pro Ile Pro Ala Glu Gln Asn Pro  
 50 55 60  
 Lys Leu Lys Pro His Ala Met Ser Val Phe Val Met Cys Cys Glu Ser  
 65 70 75 80  
 Ala Val Gln Leu Arg Lys Thr Gly Lys Val Thr Val Arg Glu Thr Thr  
 85 90 95  
 Leu Lys Arg Leu Gly Ala Ser His Ser Lys Tyr Gly Val Val Asp Glu  
 100 105 110  
 His Phe Glu Val Ala Lys Tyr Ala Leu Leu Glu Thr Ile Lys Glu Ala  
 115 120 125  
 Val Pro Glu Met Trp Ser Pro Glu Met Lys Val Ala Trp Gly Gln Ala  
 130 135 140  
 Tyr Asp His Leu Val Ala Ala Ile Lys Ala Glu Met Asn Leu Ser Asn  
 145 150 155 160

&lt;210&gt; 1087

&lt;211&gt; 411

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1087

atggctttct gcaacaaact tagcgggtatc ttgagacaag gggttttctca gagctcaaatt 60  
 ggtccagttta catctatgct tggctctctt cgttacatgt cctctaagct ttttggttgggt 120  
 ggtctctctt ggggaactga tgacagctcc ttaaagcaag ctttcactag ctttggtgaa 180

047-E2F-PCT.ST25.txt

gtcacagaag caacggtgat tgcagacaga gagacagggg ggtcgagggg attcggattt 240  
 gttagcttca gctgtgagga ttctgctaac aatgccataa aagaaatgga tggaaaggag 300  
 ctgaatggta ggcaaatccg tgtgaatctt gcaaccgaaa gatcgagtgc cccgagatca 360  
 tcatttggtg gtggtggcgg ttacggtggt ggcggtggtg gtggctacta a 411

<210> 1088

<211> 136

<212> PRT

<213> Arabidopsis thaliana

<400> 1088

Met Ala Phe Cys Asn Lys Leu Ser Gly Ile Leu Arg Gln Gly Val Ser  
 1 5 10 15

Gln Ser Ser Asn Gly Pro Val Thr Ser Met Leu Gly Ser Leu Arg Tyr  
 20 25 30

Met Ser Ser Lys Leu Phe Val Gly Gly Leu Ser Trp Gly Thr Asp Asp  
 35 40 45

Ser Ser Leu Lys Gln Ala Phe Thr Ser Phe Gly Glu Val Thr Glu Ala  
 50 55 60

Thr Val Ile Ala Asp Arg Glu Thr Gly Arg Ser Arg Gly Phe Gly Phe  
 65 70 75 80

Val Ser Phe Ser Cys Glu Asp Ser Ala Asn Asn Ala Ile Lys Glu Met  
 85 90 95

Asp Gly Lys Glu Leu Asn Gly Arg Gln Ile Arg Val Asn Leu Ala Thr  
 100 105 110

Glu Arg Ser Ser Ala Pro Arg Ser Ser Phe Gly Gly Gly Gly Gly Tyr  
 115 120 125

Gly Gly Gly Gly Gly Gly Gly Tyr  
 130 135

<210> 1089

<211> 2163

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1089

```

atggaaccac cgccttcttc tctgtcctcc accgcggtgg cttccacctc catctccgcc      60
gccactgctc ctgttcctcc tcctctacct cctcacgtga cttcttctta ccccgaatct      120
ctcgactcct cccctcggtc tcgcaccacc gatggctggg atgaccttcc tgctccttct      180
ggcggcgggc gtggcggtgg tggtagcgcc gtctcttcta aacttcgttt tatgtgtagc      240
tacggcggtc atatccttcc tcgccctcac gataagtctc tctgctacat gggcggtgac      300
actcgcatcg ttgtcgtcga ccgtaactcc tctctccctt ctctcatcgc tcgtctctcc      360
aacacgcttc tcgacggtcg ttccttcacc ctcaagtacc agttacctag cgaagacctt      420
gactctctca tctccgtcac taccgacgaa gatctcgaca acatgatcga agagtatgac      480
cgtaccatth cgccttccaa ttccaccaa ccttcgcgtc tccggttggt tctattcacc      540
tccaagcctg aggctactca atctatgggt cagatccttg agagctctgc caagagcgac      600
gattggttcc tcaacgcact caatagcgcc ggtcttctca atcgaggatt ctgagattct      660
gatactaacg tcaatcgtht acttggtttg gatgatgctc ttgctctccg ttctaattcc      720
ggtgacaaca acaatcgaga tggatgatgat ggctctgtta aaagcgccaa gcaacagcaa      780
cctccaccgc cgcagcagca agaacaacag caaggaggcc aagatgtgaa ctgcttaccg      840
gattctccga tgtagatac atcctcttct ttcgggtcca cttcttcgtc tccctcgtc      900
gccaatthgc ctccgatccg tgtccatgta gaggaaccag gcggagtaag gactthgcca      960
gatcagagaa atctgggaat tgaagaacag ttcgcacgat tcaacgtcgg gaacaagcat     1020
cagctacatg acgacggatt tgctgcgac tccttcaccac cgccgatgcc tgtcacaatc     1080
gcccttcttg ctgcgcctgt gactgcagcc accgtctcta atgagttcca ggccagggth     1140
tactcagatg acgagagatc cgatcacggc gtgcaggctg gatacaggaa gcctccgact     1200
ccgcgatcgc agccgcagaa tctaccgcct cagcaggctc atcagctgaa atcaaatagc     1260
ggtggtggac acgagctgcc atcacccaat tccgtthcca gtgatagcag tatgagcaac     1320
ccaatgthtc accaaagacc atctgtctat caagaaccaa ttgctcagat accttctggc     1380
tctaccgttg ttactggtat gatcaatccc tcagatccaa gcacacttht gtcacagcat     1440
cagaatcagg acccagccta tatccttcac cccagthtg agcaacaatc tgcacaatct     1500
cagccacagc agcagthcat acacactgct gtcctcctc aatacattca tcaccatccg     1560
tctagcggcc ttcctgtccc gacttacatc caggtthacc cttcgcaaca gcctcaacag     1620
tccttccatc aacacgcagg tcgactggat cagcagcctt atcctgttht ttatgtcact     1680
gctcctgtcc cacctaggcc ctacagtatg cctgtgccac aatctccaag tgtgagcgat     1740

```

047-E2F-PCT.ST25.txt

gctgcagggg ctatccctc taaccatccc aactctacca tgatgcctcc acctcctaac 1800  
aaccacatga gaagtgttag cagtggcaaa cctgagatgg gacaggctgg ggtttacaca 1860  
acagccccag gtgtgggcgg tgctcagatg gttcaccaga ttcccacaaa ccagcagcaa 1920  
ttcatggggg attcgcagat ccgtcacctt cctcagtctg gttcagctgg gaatccaaac 1980  
tatggatatg aatatgtcga caatgctcat acacagatat actacactca acctatggga 2040  
catgcacagt accagacaat gactgggcct ccacctgcca tggatgatgcc tgatggttct 2100  
gctgctgcta agcttcacgc tgagaacatg actcaacaga tccggagttc acagccattg 2160  
tga 2163

<210> 1090

<211> 720

<212> PRT

<213> Arabidopsis thaliana

<400> 1090

Met Glu Pro Pro Pro Ser Ser Leu Ser Ser Thr Ala Val Ala Ser Thr  
1 5 10 15

Ser Ile Ser Ala Ala Thr Ala Pro Val Pro Pro Pro Leu Pro Pro His  
20 25 30

Val Thr Ser Ser Tyr Pro Glu Ser Leu Asp Ser Ser Pro Arg Ser Arg  
35 40 45

Thr Thr Asp Gly Trp Asp Asp Leu Pro Ala Pro Ser Gly Gly Gly Gly  
50 55 60

Gly Gly Gly Gly Ser Ala Val Ser Ser Lys Leu Arg Phe Met Cys Ser  
65 70 75 80

Tyr Gly Gly His Ile Leu Pro Arg Pro His Asp Lys Ser Leu Cys Tyr  
85 90 95

Met Gly Gly Asp Thr Arg Ile Val Val Val Asp Arg Asn Ser Ser Leu  
100 105 110

Pro Ser Leu Ile Ala Arg Leu Ser Asn Thr Leu Leu Asp Gly Arg Ser  
115 120 125

Phe Thr Leu Lys Tyr Gln Leu Pro Ser Glu Asp Leu Asp Ser Leu Ile  
Page 1689

130

135

Ser Val Thr Thr Asp Glu Asp Leu Asp Asn Met Ile Glu Glu Tyr Asp  
145 150 155 160

Arg Thr Ile Ser Ala Ser Asn Ser Thr Lys Pro Ser Arg Leu Arg Leu  
165 170 175

Phe Leu Phe Thr Ser Lys Pro Glu Ala Thr Gln Ser Met Gly Gln Ile  
180 185 190

Leu Glu Ser Ser Ala Lys Ser Asp Asp Trp Phe Leu Asn Ala Leu Asn  
195 200 205

Ser Ala Gly Leu Leu Asn Arg Gly Phe Ser Asp Ser Asp Thr Asn Val  
210 215 220

Asn Arg Leu Leu Gly Leu Asp Asp Ala Leu Ala Leu Arg Ser Asn Ser  
225 230 235 240

Gly Asp Asn Asn Asn Arg Asp Gly Asp Asp Gly Ser Val Lys Ser Ala  
245 250 255

Lys Gln Gln Gln Pro Pro Pro Pro Gln Gln Gln Glu Gln Gln Gln Gly  
260 265 270

Gly Gln Asp Val Asn Cys Leu Pro Asp Ser Pro Met Leu Asp Thr Ser  
275 280 285

Ser Ser Phe Gly Ser Thr Ser Ser Ser Pro Ser Leu Ala Asn Leu Pro  
290 295 300

Pro Ile Arg Val His Val Glu Glu Pro Gly Gly Val Arg Thr Leu Pro  
305 310 315 320

Asp Gln Arg Asn Leu Gly Ile Glu Glu Gln Phe Ala Arg Phe Asn Val  
325 330 335

Gly Asn Lys His Gln Leu His Asp Asp Gly Phe Ala Ala Ile Ser Ser  
340 345 350

Pro Pro Pro Met Pro Val Thr Ile Ala Leu Pro Ala Ala Pro Val Thr  
355 360 365

Ala Ala Thr Val Ser Asn Glu Phe Gln Ala Arg Val Tyr Ser Asp Asp  
370 375 380



Glu Arg Ser Asp His Gly Val Gln Ala Gly Tyr Arg Lys Pro Pro Thr  
 385 390 395 400  
 Pro Arg Ser Gln Pro Gln Asn Leu Pro Pro Gln Gln Ala His Gln Leu  
 405 410 415  
 Lys Ser Asn Ser Gly Gly Gly His Glu Leu Pro Ser Pro Asn Ser Val  
 420 425 430  
 Ser Ser Asp Ser Ser Met Ser Asn Pro Met Phe His Gln Arg Pro Ser  
 435 440 445  
 Val Tyr Gln Glu Pro Ile Ala Gln Ile Pro Ser Gly Ser Thr Val Val  
 450 455 460  
 Thr Gly Met Ile Asn Pro Ser Asp Pro Ser Thr Leu Leu Ser Gln His  
 465 470 475 480  
 Gln Asn Gln Asp Pro Ala Tyr Ile Leu His Pro Gln Phe Glu Gln Gln  
 485 490 495  
 Ser Ala Gln Ser Gln Pro Gln Gln Gln Phe Ile His Thr Ala Ala Pro  
 500 505 510  
 Pro Gln Tyr Ile His His His Pro Ser Ser Gly Leu Pro Val Pro Thr  
 515 520 525  
 Tyr Ile Gln Val Tyr Pro Ser Gln Gln Pro Gln Gln Ser Phe His Gln  
 530 535 540  
 His Ala Gly Arg Leu Asp Gln Gln Pro Tyr Pro Val Tyr Tyr Val Thr  
 545 550 555 560  
 Ala Pro Val Pro Pro Arg Pro Tyr Ser Met Pro Val Pro Gln Ser Pro  
 565 570 575  
 Ser Val Ser Asp Ala Ala Gly Ser Ile Pro Ser Asn His Pro Asn Ser  
 580 585 590  
 Thr Met Met Pro Pro Pro Pro Asn Asn His Met Arg Ser Val Ser Ser  
 595 600 605  
 Gly Lys Pro Glu Met Gly Gln Ala Gly Val Tyr Thr Thr Ala Pro Gly  
 610 615 620  
 Val Gly Gly Ala Gln Met Val His Gln Ile Pro Thr Asn Gln Gln Gln  
 625 630 635 640

047-E2F-PCT.ST25.txt

Phe Met Gly Tyr Ser Gln Ile Arg His Pro Pro Gln Ser Gly Ser Ala  
645 650 655

Gly Asn Pro Asn Tyr Gly Tyr Glu Tyr Val Asp Asn Ala His Thr Gln  
660 665 670

Ile Tyr Tyr Thr Gln Pro Met Gly His Ala Gln Tyr Gln Thr Met Thr  
675 680 685

Gly Pro Pro Pro Ala Met Val Met Pro Asp Gly Ser Ala Ala Ala Lys  
690 695 700

Leu Pro Ala Glu Asn Met Thr Gln Gln Ile Arg Ser Ser Gln Pro Leu  
705 710 715 720

<210> 1091

<211> 831

<212> DNA

<213> Arabidopsis thaliana

<400> 1091

atggaatcaa aatcagaaca aaacgagtgg agctccggcg tgtgggctca cttaaccgcc	60
gtacggcaac aatcgccgct tggtcagtcg atcaccaact tcgtctcgat ggatctcggt	120
gccaacacgc ttttatccgc cggatgcatt ccagcgatgg tccattccgt cggtgagatt	180
cctgatttca ctcctcatat tcacgcgctc tgcgtcaacg tcggaacact tacacctgac	240
tggtctccgt caatgaaagc tgccgctgaa ctcgcttctc agctccgaaa gccttggggt	300
cttgatcccg ccgccgtgag ttgctccgga ttccgattaa aagcgtgttt ggagctcatc	360
gagctaaaac ctactgtaat caaaggaaac ggttctgaga ttattgctct ctcctctgct	420
tcacgtggac aaactaaggg tgctgatagc tcacatgaat caacagacgc tatagaagct	480
gcaaagtcac tagcgatgtc aagtgggtgct gttggttcag tgcaggagc tggtgatatt	540
gttactgatg ggaaacaggt tattggtgtt cacaacggga cgaagatgat gcaacagatt	600
actgcaactg gttgttctct agctgggtttg attgtagcgt ttcttgctat tgattcatca	660
cggttactgg aagctacggt ttccgctatg gctgtctttg gcattgcagg tgagttgggt	720
gaagcgatgg cgaatggtcc agcgtcattg agaatgcatt tgatagattg tctttatggg	780
ttggatgaaa ccacagtgtc taaacgtgtg aatgtgacca gggtgggttg a	831

<210> 1092

&lt;211&gt; 276

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1092

Met Glu Ser Lys Ser Glu Gln Asn Glu Trp Ser Ser Gly Val Trp Ala  
 1 5 10 15

His Leu Thr Ala Val Arg Gln Gln Ser Pro Leu Val Gln Cys Ile Thr  
 20 25 30

Asn Phe Val Ser Met Asp Leu Val Ala Asn Thr Leu Leu Ser Ala Gly  
 35 40 45

Ala Ser Pro Ala Met Val His Ser Val Val Glu Ile Pro Asp Phe Thr  
 50 55 60

Pro His Ile His Ala Leu Cys Val Asn Val Gly Thr Leu Thr Pro Asp  
 65 70 75 80

Trp Leu Pro Ser Met Lys Ala Ala Ala Glu Leu Ala Ser Gln Leu Arg  
 85 90 95

Lys Pro Trp Val Leu Asp Pro Ala Ala Val Ser Cys Ser Gly Phe Arg  
 100 105 110

Leu Lys Ala Cys Leu Glu Leu Ile Glu Leu Lys Pro Thr Val Ile Lys  
 115 120 125

Gly Asn Gly Ser Glu Ile Ile Ala Leu Ser Ser Ala Ser Arg Gly Gln  
 130 135 140

Thr Lys Gly Ala Asp Ser Ser His Glu Ser Thr Asp Ala Ile Glu Ala  
 145 150 155 160

Ala Lys Ser Leu Ala Met Ser Ser Gly Ala Val Val Ala Val Ser Gly  
 165 170 175

Ala Val Asp Ile Val Thr Asp Gly Lys Gln Val Ile Gly Val His Asn  
 180 185 190

Gly Thr Lys Met Met Gln Gln Ile Thr Ala Thr Gly Cys Ser Leu Ala  
 195 200 205

Gly Leu Ile Val Ala Phe Leu Ala Ile Asp Ser Ser Arg Val Leu Glu  
 Page 1693

210

215

Ala Thr Val Ser Ala Met Ala Val Phe Gly Ile Ala Gly Glu Leu Gly  
225 230 235 240

Glu Ala Met Ala Asn Gly Pro Ala Ser Leu Arg Met His Leu Ile Asp  
245 250 255

Cys Leu Tyr Gly Leu Asp Glu Thr Thr Val Leu Lys Arg Val Asn Val  
260 265 270

Thr Arg Leu Gly  
275

<210> 1093

<211> 732

<212> DNA

<213> Arabidopsis thaliana

<400> 1093

atgggaacac cagagacatc tcgggagcct tgccctgata gtataactga tgatatcggt	60
gggtgcttttg gtatgggagc tggtggagga tctgcctttc atttcattaa agggacttac	120
aattctccta aaggtagtcg ctttggttga ggaacacaat cggtagcat gaacgcacct	180
cgtactggag gcagttttgc tggttgggga ggtttattct cgacatttga ctgtaccatg	240
gtgtacctaa ggcaaaagga ggatccttgg aactctatca ttgctggtgc tgcaactgga	300
gggtttctgt ctatgcggca aggggctggt gctgcttca gatcagctat ttttggaggg	360
gttttgcttg ctttgattga aggagctggg atcatgttga acaagggtact ggctcagcct	420
cagaatatga tgatggagga ccctggaatg caaggaatgc ctgggatgca gggaatgcag	480
ggaatgcctg ggatgcccgg aatgcaagga atgcctggga tgcaaggaat gcagatgggg	540
cagatgcaga gtcaagcaca gataaggtca gagagtcaaa accagaatac agcttcatca	600
tcatcatcat catcatggtt tggagggctt tttgataaga aaaaggagga ggtgcaacca	660
ggcagtga aa gtaaaacaga ggtgttggag agttttgatg ctctccggt gccatcattt	720
gagttcaagt aa	732

<210> 1094

<211> 243

<212> PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1094

```

Met Gly Thr Pro Glu Thr Ser Arg Glu Pro Cys Pro Asp Arg Ile Leu
1      5      10      15

Asp Asp Ile Gly Gly Ala Phe Gly Met Gly Ala Val Gly Gly Ser Ala
      20      25      30

Phe His Phe Ile Lys Gly Thr Tyr Asn Ser Pro Lys Gly Ser Arg Phe
      35      40      45

Val Gly Gly Thr Gln Ser Val Ser Met Asn Ala Pro Arg Thr Gly Gly
      50      55      60

Ser Phe Ala Val Trp Gly Gly Leu Phe Ser Thr Phe Asp Cys Thr Met
65      70      75      80

Val Tyr Leu Arg Gln Lys Glu Asp Pro Trp Asn Ser Ile Ile Ala Gly
      85      90      95

Ala Ala Thr Gly Gly Phe Leu Ser Met Arg Gln Gly Ala Gly Ala Ala
      100      105      110

Ser Arg Ser Ala Ile Phe Gly Gly Val Leu Leu Ala Leu Ile Glu Gly
      115      120      125

Ala Gly Ile Met Leu Asn Lys Val Leu Ala Gln Pro Gln Asn Met Met
      130      135      140

Met Glu Asp Pro Gly Met Gln Gly Met Pro Gly Met Gln Gly Met Gln
145      150      155      160

Gly Met Pro Gly Met Pro Gly Met Gln Gly Met Pro Gly Met Gln Gly
      165      170      175

Met Gln Met Gly Gln Met Gln Ser Gln Ala Gln Ile Arg Ser Glu Ser
      180      185      190

Gln Asn Gln Asn Thr Ala Ser Ser Ser Ser Ser Ser Trp Phe Gly
      195      200      205

Gly Leu Phe Asp Lys Lys Lys Glu Glu Val Gln Pro Gly Ser Glu Ser
      210      215      220

Lys Thr Glu Val Leu Glu Ser Phe Asp Ala Pro Pro Val Pro Ser Phe
      Page 1695

```

225

230

240

Glu Phe Lys

<210> 1095

<211> 2391

<212> DNA

<213> *Arabidopsis thaliana*

<400> 1095

atgggagacg gagctttaat cgtagcgggtg gctatcaaag ggaacaatag caaaacaaaa	60
ggcgttggttc gatgggcact tcaagaatctt gcttctcaag aacatgtcgt cttcaagctc	120
ttacatgtcc aaccaagaga ttcgaattcg gtttcaacta caagaaaaga tttgaccaca	180
agtgtttaca aaaaagatgt tgatagaaaa accagagaga tgcttcttcc aagcagagac	240
atgtttgttc atagagaggt tcaattggat ataattggtgc ttgaatcaga cgatatagct	300
gatgcaatct ctaaagcagt tcaagatcat ggaattagtg agctagtcac tggagcttcc	360
tcttcaatca tcttctcatg gaagttgaag agaagcaact tgtcttcaag aattgcagat	420
gctacaccaa gattttgctc agttcatggt atctctaaag gaaagcttct caatgttcgt	480
aaatccgata tggacaccga aacgagcatt gcagacgata gaagcgaaag ccggttctct	540
tcagatagcc attcaggaac agtaagttcg acatcgagtc atcaattctc atcaaacact	600
ttactcttcc aacgaatcca agccctaaca accgtgaacc agaagggttg aacaaacatt	660
ggaaaacaga acaatgaacc gcatcatcat catcataaca gagctgggtc tctagacgtg	720
gatgaatcaa agttactgaa ccagaagggc ttttatcgaa caagcagctc cggaatcggg	780
tatggaggaa gtgatatcag tagctggaga agctctcaga tggaagaggc ttcaagctca	840
agtacctaca gtgaccctac ttcatttagt agccagatac ataaagactt tgagttagag	900
aagctgaaga ttgaactccg tcacattaaa ggaatgtatg cagttgctca aagcgaagtc	960
atcgatgctt ctaaaaagat gcaagatctg aaccagcggc gatcagagga agctacaagg	1020
ctcaagaact taacgataag agaagaagaa gcggatgaag tgggtggaaat ggagagggag	1080
agacaagagg atgcggaaaa cgaagctgag ctcgtgagag aatgcattga gagagaaacc	1140
gaagagagac ttgaggcggg agcaagagcg gaagagggtta gaaaagagaa gcagagggtta	1200
gaggatgcac ttgaagggtg accgcttcaa cgccaacaat acatgaaatt tgagtgggaa	1260
gagatcgtcg aggcgacgtc atctttctcg gatgaactta agatcggagt cgggtggttac	1320
ggaagcgtat ataggtgtaa cttgcatcac acgacagtag ctgtcaagggt tcttcattca	1380

047-E2F-PCT.ST25.txt

gacaaaagta gtttaaccaa acagtttcac caagagcttg agattcttag caagattcgt 1440  
catccacact tgcttctcct cctaggcgcg tgtcctgaac gcggaagctt agtttacgag 1500  
tatatgcaca acggaagcct tgaggaaaga ctcatgaaac gccgaccaa cgttgacaca 1560  
ccgcaaccgc cgccattacg gtggttcgag cggttccgaa tcgcttgga gatcgcttca 1620  
gcactctact ttctccacac aaacgaacca agaccaatcg ttcaccgcga tcttaaacca 1680  
gccaatatcc tcctagaccg gaacaatgtg agcaaatcg gagacgtagg cctttccaaa 1740  
atggttaatc ttgatccttc tcatgcctca acggttttca acgaaaccgg tccagttgga 1800  
acattcttct acatagatcc tgaataccaa agaaccggag tggtaactcc cgaatctgat 1860  
atctacgcgt ttggaatcat acttcttcag ctagtacag ctagatccgc gatgggtttg 1920  
gctcattcga tagagaaagc gttgagagat caaaccggga aatttacaga gatcttgga 1980  
aaaactgctg gagattggcc ggttaaggaa gctaaagaga tggttatgat agggcttaga 2040  
tgtgcagaga tgagaaagcg tgatcgtcct gatttaggga aagagatttt gccggttctt 2100  
gaacggttaa aggaagtgc gtctatcgca aggaacatgt ttgctgataa cctaattgat 2160  
catcaccata acgctccgac ccatttctac tgtccaataa caaaggatgt gatggagaat 2220  
ccatgtgttg cttcgatgg atatacgtat gagaagagag cgattaagga atggcttcag 2280  
aagaatcata aatctccaat gacggatttg ccttttcta gtgattctct tcttcctaata 2340  
catttcttct tttctgcaat caaggagtgg agatcacaac taattaaata a 2391

<210> 1096

<211> 796

<212> PRT

<213> Arabidopsis thaliana

<400> 1096

Met Gly Asp Gly Ala Leu Ile Val Ala Val Ala Ile Lys Gly Asn Asn  
1 5 10 15

Ser Lys Thr Lys Gly Val Val Arg Trp Ala Leu Gln Glu Phe Ala Ser  
20 25 30

Gln Glu His Val Val Phe Lys Leu Leu His Val Gln Pro Arg Asp Ser  
35 40 45

Asn Ser Val Ser Thr Thr Arg Lys Asp Leu Thr Thr Ser Val Tyr Lys  
50 55 60

047-E2F-PCT.ST25.txt

Lys Asp Val Asp Arg Lys Thr Arg Glu Met Leu Leu Pro Ser Arg Asp  
 65 70 75 80  
 Met Phe Val His Arg Glu Val Gln Leu Asp Ile Met Val Leu Glu Ser  
 85 90 95  
 Asp Asp Ile Ala Asp Ala Ile Ser Lys Ala Val Gln Asp His Gly Ile  
 100 105 110  
 Ser Glu Leu Val Ile Gly Ala Ser Ser Ser Ile Ile Phe Ser Trp Lys  
 115 120 125  
 Leu Lys Arg Ser Asn Leu Ser Ser Arg Ile Ala Asp Ala Thr Pro Arg  
 130 135 140  
 Phe Cys Ser Val His Val Ile Ser Lys Gly Lys Leu Leu Asn Val Arg  
 145 150 155 160  
 Lys Ser Asp Met Asp Thr Glu Thr Ser Ile Ala Asp Asp Arg Ser Glu  
 165 170 175  
 Ser Arg Phe Ser Ser Asp Ser His Ser Gly Thr Val Ser Ser Thr Ser  
 180 185 190  
 Ser His Gln Phe Ser Ser Thr Pro Leu Leu Phe Gln Arg Ile Gln Ala  
 195 200 205  
 Leu Thr Thr Val Asn Gln Lys Val Gly Thr Asn Ile Gly Lys Gln Asn  
 210 215 220  
 Asn Glu Pro His His His His His Asn Arg Ala Gly Ser Leu Asp Val  
 225 230 235 240  
 Asp Glu Ser Lys Leu Leu Asn Gln Lys Gly Phe Tyr Arg Thr Ser Ser  
 245 250 255  
 Ser Gly Ile Gly Tyr Gly Gly Ser Asp Ile Ser Ser Trp Arg Ser Ser  
 260 265 270  
 Gln Met Glu Glu Ala Ser Ser Ser Ser Thr Tyr Ser Asp Pro Thr Ser  
 275 280 285  
 Ser Ser Ser Gln Ile His Lys Asp Phe Glu Leu Glu Lys Leu Lys Ile  
 290 295 300  
 Glu Leu Arg His Ile Lys Gly Met Tyr Ala Val Ala Gln Ser Glu Val  
 305 310 315 320



047-E2F-PCT.ST25.txt

Ile Asp Ala Ser Lys Lys Met Gln Asp Leu Asn Gln Arg Arg Ser Glu  
325 330 335

Glu Ala Thr Arg Leu Lys Asn Leu Thr Ile Arg Glu Glu Glu Ala Asp  
340 345 350

Glu Val Val Glu Met Glu Arg Glu Arg Gln Glu Asp Ala Glu Asn Glu  
355 360 365

Ala Glu Leu Val Arg Glu Cys Ile Glu Arg Glu Thr Glu Glu Arg Leu  
370 375 380

Glu Ala Glu Ala Arg Ala Glu Glu Val Arg Lys Glu Lys Gln Arg Leu  
385 390 395 400

Glu Asp Ala Leu Glu Gly Gly Pro Leu Gln Arg Gln Gln Tyr Met Lys  
405 410 415

Phe Glu Trp Glu Glu Ile Val Glu Ala Thr Ser Ser Phe Ser Asp Glu  
420 425 430

Leu Lys Ile Gly Val Gly Gly Tyr Gly Ser Val Tyr Arg Cys Asn Leu  
435 440 445

His His Thr Thr Val Ala Val Lys Val Leu His Ser Asp Lys Ser Ser  
450 455 460

Leu Thr Lys Gln Phe His Gln Glu Leu Glu Ile Leu Ser Lys Ile Arg  
465 470 475 480

His Pro His Leu Leu Leu Leu Gly Ala Cys Pro Glu Arg Gly Ser  
485 490 495

Leu Val Tyr Glu Tyr Met His Asn Gly Ser Leu Glu Glu Arg Leu Met  
500 505 510

Lys Arg Arg Pro Asn Val Asp Thr Pro Gln Pro Pro Pro Leu Arg Trp  
515 520 525

Phe Glu Arg Phe Arg Ile Ala Trp Glu Ile Ala Ser Ala Leu Tyr Phe  
530 535 540

Leu His Thr Asn Glu Pro Arg Pro Ile Val His Arg Asp Leu Lys Pro  
545 550 555 560

Ala Asn Ile Leu Leu Asp Arg Asn Asn Val Ser Lys Ile Gly Asp Val

Gly Leu Ser Lys Met Val Asn Leu Asp Pro Ser His Ala Ser Thr Val  
580 585 590

Phe Asn Glu Thr Gly Pro Val Gly Thr Phe Phe Tyr Ile Asp Pro Glu  
595 600 605

Tyr Gln Arg Thr Gly Val Val Thr Pro Glu Ser Asp Ile Tyr Ala Phe  
610 615 620

Gly Ile Ile Leu Leu Gln Leu Val Thr Ala Arg Ser Ala Met Gly Leu  
625 630 635 640

Ala His Ser Ile Glu Lys Ala Leu Arg Asp Gln Thr Gly Lys Phe Thr  
645 650 655

Glu Ile Leu Asp Lys Thr Ala Gly Asp Trp Pro Val Lys Glu Ala Lys  
660 665 670

Glu Met Val Met Ile Gly Leu Arg Cys Ala Glu Met Arg Lys Arg Asp  
675 680 685

Arg Pro Asp Leu Gly Lys Glu Ile Leu Pro Val Leu Glu Arg Leu Lys  
690 695 700

Glu Val Ala Ser Ile Ala Arg Asn Met Phe Ala Asp Asn Leu Ile Asp  
705 710 715 720

His His His Asn Ala Pro Thr His Phe Tyr Cys Pro Ile Thr Lys Asp  
725 730 735

Val Met Glu Asn Pro Cys Val Ala Ser Asp Gly Tyr Thr Tyr Glu Lys  
740 745 750

Arg Ala Ile Lys Glu Trp Leu Gln Lys Asn His Lys Ser Pro Met Thr  
755 760 765

Asp Leu Pro Phe Pro Ser Asp Ser Leu Leu Pro Asn His Ser Leu Leu  
770 775 780

Ser Ala Ile Lys Glu Trp Arg Ser Gln Leu Ile Lys  
785 790 795

&lt;210&gt; 1097

&lt;211&gt; 1515

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1097

```

atgcctaacg ccggtcgtgg aggatctcga aagagtaaga ccacaccaaa cgtgactcaa      60
agagccggag gttcaacgcc tgctggaaga ccctcttcgc taccgcagca gtacgatttc      120
accccggcgg cggcgacggt tcaagtttct gcatcgattc cgcctcaagg agccggcgcc      180
ggcgctcat cctctgcccc cactaccgt aactaccac caccgcagca actcttccaa      240
cactccacca atcaaccaca gcgtgtagat ccgttgccac cacaagagac tgctcagcaa      300
gaccctcctc tttcgccgga tccagaaact gcatctcaca gtcattccctc gtctcaaggc      360
aacaacttcc aagagggcat tcctgcagtg ttgccggagc tccaagaaga ctccgtgggt      420
gctctgaatg acattctctc tgtgcctggc agagaagcgt ggtgttgtgt gttgtctccc      480
attccccggc caaaaaccga atggtttact cgagacagag gatctcgctt ggtaggaag      540
atcactagaa ttttcttaca aaaattcgat gctcccttct ataactggtc atgtgtgcca      600
gttgataaaa gagaaagatt attttttagag tttgcgaaaa ctcaccactg ggatccctta      660
ataacagga cagtccaata ttacttcaat gagatcgtca agaggcgctt gaaggacatg      720
gttagcaccg caaggacaac tcgagagcag cctccatgga ttggagaaac gctgtgggga      780
acaatgtgtg cttactggga cacagaagca gcacaaaaaa ggagtcggac ctattccaaa      840
gctcgtctct ctgaccgtaa cggtatcggc cctcacgtcc actactctgg gccaaaatct      900
tttcaagaaa tccaagatga attggaagag aagttgggaa gaccgggtcca tcttggtgag      960
gtgttcattg aaacacacac taagtcggat ggctcatttg ttgatcagaa gtcggagaag     1020
attgctcaag cttatcagca gaatgtgaga gataggctgt cagcactaga ggcgtctgct     1080
tctgctgtct ctgatggctc ttcacgacct ccggagctca cactagatga ttatacagcc     1140
atctttctcg agtccacaga aaaggattca agaggcaatc cttatggact aggatgtcta     1200
aaagacactc taggcagcgc caaccgcaat cactccggtt cctcatcatc ctttcaagcc     1260
ctagaagaac ggctgcagga agctcaaagg aaaatagaag agcaggctgc atataatgag     1320
aagagagatg ctgagattgc tgcccagaaa gctgagtcac cccgagtcac agctgagcaa     1380
aaggacaagc tcgagcaatt gtcttttagtc gagaagtatc tacgccaaac cgatccgcag     1440
ttcttggtgact tcatggcaag tcaactctacc acaaccacag aacgtatacc aagtcctcca     1500
cctaattgatc cttag                                           1515

```

&lt;210&gt; 1098

&lt;211&gt; 504

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1098

Met Pro Asn Ala Gly Arg Gly Gly Ser Arg Lys Ser Lys Thr Thr Pro  
 1 5 10 15

Asn Val Thr Gln Arg Ala Gly Gly Ser Thr Pro Ala Gly Arg Pro Ser  
 20 25 30

Ser Leu Pro Gln Gln Tyr Asp Phe Thr Pro Ala Ala Ala Thr Val Gln  
 35 40 45

Val Ser Ala Ser Ile Pro Pro Gln Gly Ala Gly Ala Gly Ala Ser Ser  
 50 55 60

Ser Ala Pro His Tyr Arg Asn Tyr Pro Pro Pro Gln Gln Leu Phe Gln  
 65 70 75 80

His Ser Thr Asn Gln Pro Gln Arg Val Asp Pro Leu Pro Pro Gln Glu  
 85 90 95

Thr Ala Gln Gln Asp Pro Pro Leu Ser Pro Asp Pro Glu Thr Ala Ser  
 100 105 110

His Ser His Pro Ser Ser Gln Gly Asn Asn Phe Gln Glu Gly Ile Pro  
 115 120 125

Ala Val Leu Pro Glu Leu Gln Glu Asp Ser Val Val Ala Leu Asn Asp  
 130 135 140

Ile Leu Ser Val Pro Gly Arg Glu Ala Trp Cys Cys Val Leu Ser Pro  
 145 150 155 160

Ile Pro Arg Pro Lys Thr Glu Trp Phe Thr Arg Asp Arg Gly Ser Arg  
 165 170 175

Leu Val Arg Lys Ile Thr Arg Ile Phe Leu Gln Lys Phe Asp Ala Pro  
 180 185 190

Phe Tyr Asn Trp Ser Cys Val Pro Val Asp Lys Arg Glu Arg Leu Phe  
 195 200 205

Leu Glu Phe Ala Lys Thr His His Trp Asp Pro Leu Ile Thr Gly Thr  
 210 215 220

047-E2F-PCT.ST25.txt

Val Gln Tyr Tyr Phe Asn Glu Ile Val Lys Arg Arg Leu Lys Asp Met  
 225 230 235 240  
 Val Ser Thr Ala Arg Thr Thr Arg Glu Gln Pro Pro Trp Ile Gly Glu  
 245 250 255  
 Thr Leu Trp Gly Thr Met Cys Ala Tyr Trp Asp Thr Glu Ala Ala Gln  
 260 265 270  
 Lys Arg Ser Arg Thr Tyr Ser Lys Ala Arg Leu Ser Asp Arg Asn Gly  
 275 280 285  
 Ile Gly Pro His Val His Tyr Ser Gly Pro Lys Ser Phe Gln Glu Ile  
 290 295 300  
 Gln Asp Glu Leu Glu Glu Lys Leu Gly Arg Pro Val His Leu Gly Glu  
 305 310 315 320  
 Val Phe Ile Glu Thr His Thr Lys Ser Asp Gly Ser Phe Val Asp Gln  
 325 330 335  
 Lys Ser Glu Lys Ile Ala Gln Ala Tyr Gln Gln Asn Val Arg Asp Arg  
 340 345 350  
 Leu Ser Ala Leu Glu Ala Ser Ala Ser Ala Val Ser Asp Gly Ser Ser  
 355 360 365  
 Arg Pro Pro Glu Leu Thr Leu Asp Asp Tyr Thr Ala Ile Phe Leu Glu  
 370 375 380  
 Ser Thr Glu Lys Asp Ser Arg Gly Asn Pro Tyr Gly Leu Gly Cys Leu  
 385 390 395 400  
 Lys Asp Thr Leu Gly Ser Ala Asn Arg Asn His Ser Gly Ser Ser Ser  
 405 410 415  
 Ser Phe Gln Ala Leu Glu Glu Arg Leu Gln Glu Ala Gln Arg Lys Ile  
 420 425 430  
 Glu Glu Gln Ala Ala Tyr Asn Glu Lys Arg Asp Ala Glu Ile Ala Ala  
 435 440 445  
 Arg Glu Ala Glu Ser Ser Arg Val Thr Ala Glu Gln Lys Asp Lys Leu  
 450 455 460  
 Glu Gln Leu Ser Leu Val Glu Lys Tyr Leu Arg Gln Thr Asp Pro Gln

465

470

475

480

Phe Leu Asp Phe Met Ala Ser His Ser Thr Thr Thr Thr Glu Arg Ile  
 485 490 495

Pro Ser Pro Pro Pro Asn Asp Pro  
 500

&lt;210&gt; 1099

&lt;211&gt; 1887

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1099

atgatgttta atgagatggg aatgtgtgga aacatggatt tcttctcttc tggatcactt	60
ggtgaagttg atttctgtcc tgttccacaa gctgagcctg attccattgt tgaagatgac	120
tatactgatg atgagattga tgttgatgaa ttggagagga ggatgtggag agacaaaatg	180
cggcttaaac gtctcaagga gcaggataag ggtaaagaag gtgttgatgc tgctaaacag	240
aggcagtctc aagagcaagc taggaggaag aaaatgtcta gagctcaaga tgggatcttg	300
aagtatatgt tgaagatgat ggaagtttgt aaagctcaag gctttgttta tgggattatt	360
ccggagaatg ggaagcctgt gactgggtgct tctgataatt taagggagtg gtggaaagat	420
aaggttaggt ttgatcgtaa tggtcctgct gctattacca agtatcaagc ggagaataat	480
atcccgggga ttcataagga taataacccg attggaccga ctctcatac cttgcaagag	540
cttcaagaca cgactcttgg atcgcttttg tctgcgttga tgcaacactg tgatcctcct	600
cagagacgtt ttccttttga gaaaggagtt cctcctccgt ggtggcctaa tgggaaagag	660
gattggtggc ctcaacttgg tttgcctaaa gatcaaggct ctgcacctta caagaagcct	720
catgatttga agaaggcgtg gaaagtcggc gttttgactg cggttatcaa gcatatgttt	780
cctgatattg ctaagatccg taagctcgtg aggcaatcta aatgtttgca ggataagatg	840
actgctaaag agagtgttac ctggcttgct attattaacc aagaagagtc cttggctaga	900
gagctttatc ccgagtcattg tccacctctt tctctgtctg gtggaagttg ctcgcttctg	960
atgaatgatt gcagtcaata cgatgttgaa ggtttcgaga aggagtctca ctatgaagtg	1020
gaagagctca agccagaaaa agttatgaat tcttcaaact ttgggatggg tgctaaaatg	1080
catgactttc ctgtcaaaga agaagtccca gcaggaaact cggaattcat gagaaagaga	1140
aagccaaaca gagatctgaa cactattatg gacagaaccg ttttcacctg cgagaatctt	1200
gggtgtgctg acagcgaaat cagccgggga tttctggata ggaattcgag agacaaccat	1260

047-E2F-PCT.ST25.txt

caactggcat gtccacatcg agacagtcgc ttaccgtatg gagcagcacc atccaggttt 1320  
catgtcaatg aagttaagcc tgtagttgga tttcctcagc caaggccagt gaactcagta 1380  
gccaaccaa ttgacttaac gggatatagtt cctgaagatg gacagaagat gatctcagag 1440  
ctcatgtcca tgtacgacag aaatgtccag agcaaccaa cctctatggc catggaaaat 1500  
caaagcgtgt cactgcttca acccacagtc cataaccatc aagaacatct ccagttccca 1560  
ggaaacatgg tggaaggaag tttctttgaa gacttgaaca tcccaaacag agcaaacaac 1620  
aacaacagca gcaacaatca aacgtttttt caaggaaca acaacaaca caatgtgttt 1680  
aagttcgaca ctgcagatca caacaacttt gaagctgcac ataacaaca caataacagt 1740  
agcggcaaca ggttccagct tgtgtttgat tccacaccgt tcgacatggc gtcattcgat 1800  
tacagagatg atatgtcgat gccaggagta gtaggaacga tggatggaat gcagcagaag 1860  
cagcaagatg tatccatatg gttctaa 1887

<210> 1100

<211> 628

<212> PRT

<213> Arabidopsis thaliana

<400> 1100

Met Met Phe Asn Glu Met Gly Met Cys Gly Asn Met Asp Phe Phe Ser  
1 5 10 15

Ser Gly Ser Leu Gly Glu Val Asp Phe Cys Pro Val Pro Gln Ala Glu  
20 25 30

Pro Asp Ser Ile Val Glu Asp Asp Tyr Thr Asp Asp Glu Ile Asp Val  
35 40 45

Asp Glu Leu Glu Arg Arg Met Trp Arg Asp Lys Met Arg Leu Lys Arg  
50 55 60

Leu Lys Glu Gln Asp Lys Gly Lys Glu Gly Val Asp Ala Ala Lys Gln  
65 70 75 80

Arg Gln Ser Gln Glu Gln Ala Arg Arg Lys Lys Met Ser Arg Ala Gln  
85 90 95

Asp Gly Ile Leu Lys Tyr Met Leu Lys Met Met Glu Val Cys Lys Ala  
100 105 110

## 047-E2F-PCT.ST25.txt

Gln Gly Phe Val Tyr Gly Ile Ile Pro Glu Asn Gly Lys Pro Val Thr  
 115 120 125  
 Gly Ala Ser Asp Asn Leu Arg Glu Trp Trp Lys Asp Lys Val Arg Phe  
 130 135 140  
 Asp Arg Asn Gly Pro Ala Ala Ile Thr Lys Tyr Gln Ala Glu Asn Asn  
 145 150 155 160  
 Ile Pro Gly Ile His Glu Gly Asn Asn Pro Ile Gly Pro Thr Pro His  
 165 170 175  
 Thr Leu Gln Glu Leu Gln Asp Thr Thr Leu Gly Ser Leu Leu Ser Ala  
 180 185 190  
 Leu Met Gln His Cys Asp Pro Pro Gln Arg Arg Phe Pro Leu Glu Lys  
 195 200 205  
 Gly Val Pro Pro Pro Trp Trp Pro Asn Gly Lys Glu Asp Trp Trp Pro  
 210 215 220  
 Gln Leu Gly Leu Pro Lys Asp Gln Gly Pro Ala Pro Tyr Lys Lys Pro  
 225 230 235 240  
 His Asp Leu Lys Lys Ala Trp Lys Val Gly Val Leu Thr Ala Val Ile  
 245 250 255  
 Lys His Met Phe Pro Asp Ile Ala Lys Ile Arg Lys Leu Val Arg Gln  
 260 265 270  
 Ser Lys Cys Leu Gln Asp Lys Met Thr Ala Lys Glu Ser Ala Thr Trp  
 275 280 285  
 Leu Ala Ile Ile Asn Gln Glu Glu Ser Leu Ala Arg Glu Leu Tyr Pro  
 290 295 300  
 Glu Ser Cys Pro Pro Leu Ser Leu Ser Gly Gly Ser Cys Ser Leu Leu  
 305 310 315 320  
 Met Asn Asp Cys Ser Gln Tyr Asp Val Glu Gly Phe Glu Lys Glu Ser  
 325 330 335  
 His Tyr Glu Val Glu Glu Leu Lys Pro Glu Lys Val Met Asn Ser Ser  
 340 345 350  
 Asn Phe Gly Met Val Ala Lys Met His Asp Phe Pro Val Lys Glu Glu  
 355 360 365



047-E2F-PCT.ST25.txt

Val Pro Ala Gly Asn Ser Glu Phe Met Arg Lys Arg Lys Pro Asn Arg  
370 375 380

Asp Leu Asn Thr Ile Met Asp Arg Thr Val Phe Thr Cys Glu Asn Leu  
385 390 395 400

Gly Cys Ala His Ser Glu Ile Ser Arg Gly Phe Leu Asp Arg Asn Ser  
405 410 415

Arg Asp Asn His Gln Leu Ala Cys Pro His Arg Asp Ser Arg Leu Pro  
420 425 430

Tyr Gly Ala Ala Pro Ser Arg Phe His Val Asn Glu Val Lys Pro Val  
435 440 445

Val Gly Phe Pro Gln Pro Arg Pro Val Asn Ser Val Ala Gln Pro Ile  
450 455 460

Asp Leu Thr Gly Ile Val Pro Glu Asp Gly Gln Lys Met Ile Ser Glu  
465 470 475 480

Leu Met Ser Met Tyr Asp Arg Asn Val Gln Ser Asn Gln Thr Ser Met  
485 490 495

Val Met Glu Asn Gln Ser Val Ser Leu Leu Gln Pro Thr Val His Asn  
500 505 510

His Gln Glu His Leu Gln Phe Pro Gly Asn Met Val Glu Gly Ser Phe  
515 520 525

Phe Glu Asp Leu Asn Ile Pro Asn Arg Ala Asn Asn Asn Asn Ser Ser  
530 535 540

Asn Asn Gln Thr Phe Phe Gln Gly Asn Asn Asn Asn Asn Val Phe  
545 550 555 560

Lys Phe Asp Thr Ala Asp His Asn Asn Phe Glu Ala Ala His Asn Asn  
565 570 575

Asn Asn Asn Ser Ser Gly Asn Arg Phe Gln Leu Val Phe Asp Ser Thr  
580 585 590

Pro Phe Asp Met Ala Ser Phe Asp Tyr Arg Asp Asp Met Ser Met Pro  
595 600 605

Gly Val Val Gly Thr Met Asp Gly Met Gln Gln Lys Gln Gln Asp Val

610

615

Ser Ile Trp Phe  
625

<210> 1101

<211> 2691

<212> DNA

<213> *Arabidopsis thaliana*

<400> 1101

atgtattgta gagagtcctt gtcgagtctc cagactttga acgtagcaaa gagtctcagc	60
tctttgttcc ctaaacaatc agctctcatc aacccgatct ccgctggacg tcgaaacaac	120
ctgcctcgtc caaacctcag aagacgatgt aaggtcaccg cttcacgggc taatattgaa	180
caagaaggta acacagtga aagaaccatt cagaatatta aagtaaaggg atacataacg	240
gccaagaag agtttctgga gggcataact tggtcgagag gtctcgatga cattgctgat	300
atccgcggca gatcattgct cgtcgagctt attagcgcca agactgacca gcggattacg	360
gtagaagact acgcacaacg tgtatggggc gaagcccctg atgagaagta cgagtgcgag	420
tttgagatgc ctgaagactt tggaccagtg ggagccatca agattcagaa ccaataccat	480
cgacagttgt tcctcaaggg ggtagagctt aaattaccgc gcgggtcgat aacgtttaca	540
tgtgagtcac ggggtggccc caagtccgtt gacccaacca agcggatatt cttctccgac	600
aagtcctact tgccttccca aacaccagag cctcttaaaa agtatcgaaa agaggagctc	660
gagaccttac aaggcaagaa ccgcgaggaa gttggtgaat ttaccaagtt tgagcgcatt	720
tacgactatg atgtgtacaa cgatgttggg gaccctgaca atgatcctga acttgctcgt	780
ccggtaattg gaggcctcac acatccatat ccaaggcggt gcaagaccgg tcgaaaacct	840
tgtgagactg acccctcttc agagcaacgc tacgggggag agttctatgt accaagagac	900
gaggagttct ctacagccaa gggcacttca ttcacaggca aggccgtact ggcagctctt	960
ccctccatct tccctcagat cgagtctggt ctattgagtc cccaagaacc ttttccacac	1020
ttcaaggcca taaaaatct ctttgaagaa ggcattcagc ttcccaagga tgctggcctc	1080
ttacctctgc tccccagaat catcaaagct cttggcgaag ctcaagatga tattctccag	1140
tttgatgccc cagttctcat taacagggat agattttcat ggttacgaga cgacgagttt	1200
gctcgccaga cacttgccgg ccttaatcct tatagcattc agctagttga agagtggccg	1260
ttaataagca aactagaccc ggccgtttat ggtgatccca cctcactcat tacttgggaa	1320
attgtggaaa gagaagttaa aggaaacatg acagttgatg aggtctctaaa gaataagaga	1380

047-E2F-PCT.ST25.txt

```

ttgttcgtgt tggattatca tgatttgctt ctaccatatg tgaacaaagt gagagagtta 1440
aacaatacca cattatatgc ttctagaaca ctattcttcc tcagcgatga tagcacattg 1500
aggcctgttg ccattgagtt gacttgtcca ccaaatatca acaagcccca atggaaacaa 1560
gtcttcacgc caggctatga tgctacgtca tgctggctat ggaatcttgc taagactcat 1620
gctatctctc atgacgccgg ttatcatcag cttatttccc attggttgag gactcatgcc 1680
tgtacggagc catacataat agcggcaaat agacaactaa gtgccatgca tcccatttat 1740
aggcttttgc atcctcattt ccgctacacc atggaaatca acgctcgtgc acgccaaagt 1800
cttgtcaacg gaggtggaat cattgagact tgtttctggc ccgggaagta tgcattagag 1860
ctaagttcag ccgtctatgg taaactatgg aggtttgacc aggaaggctt acccgcggat 1920
ctcatcaaaa ggggggttggc tgaggaagat aagaccgcag aacatggagt acgtctgacg 1980
ataccagact atccatttgc aaatgatggg ctaatatgtt gggatgcaat taaagaatgg 2040
gtgacagact atgtgaaaca ttactatcct gatgaagaac tgatcacatc ggacgaggaa 2100
ctccaaggat ggtggagtga agtgcggaac ataggccacg gagacaagaa agacgaacct 2160
tggtggcctg tcctcaaaac acaagatgac ttgattgggtg tggtaactac gattgcatgg 2220
gtcacctcag gtcaccatgc agctgtaaac tttggacagt acggatatgg aggatacttt 2280
cccaaccgac caacgacaac aaggataaga atgccaacgg aagatccgac agatgaagcc 2340
ttaaaagagt tctatgagtc gccagaaaaa gtgttgctta agacataccc atcgcagaaa 2400
caggcgaccc tagtgatggg cacgttggat cttttatcaa cacattcacc tgacgaagag 2460
tacattggag aacaacaaga agcatcttgg gccaatgagc ctgttatcaa tgctgcattt 2520
gaaagattca aaggcaagct ccaatatcta gaaggagtga tagatgagag aaacgtgaac 2580
attactctaa agaatagagc tggagctggg gttgttaagt atgagctttt gaagcctacc 2640
tctgagcatg gtgttaccgg aatgggtggt ctttatagta tttctatttg a 2691

```

<210> 1102

<211> 896

<212> PRT

<213> Arabidopsis thaliana

<400> 1102

Met Tyr Cys Arg Glu Ser Leu Ser Ser Leu Gln Thr Leu Asn Val Ala  
1 5 10 15

Lys Ser Leu Ser Ser Leu Phe Pro Lys Gln Ser Ala Leu Ile Asn Pro  
Page 1709

Ile Ser Ala Gly Arg Arg Asn Asn Leu Pro Arg Pro Asn Leu Arg Arg  
 35 40 45  
 Arg Cys Lys Val Thr Ala Ser Arg Ala Asn Ile Glu Gln Glu Gly Asn  
 50 55 60  
 Thr Val Lys Glu Pro Ile Gln Asn Ile Lys Val Lys Gly Tyr Ile Thr  
 65 70 75 80  
 Ala Gln Glu Glu Phe Leu Glu Gly Ile Thr Trp Ser Arg Gly Leu Asp  
 85 90 95  
 Asp Ile Ala Asp Ile Arg Gly Arg Ser Leu Leu Val Glu Leu Ile Ser  
 100 105 110  
 Ala Lys Thr Asp Gln Arg Ile Thr Val Glu Asp Tyr Ala Gln Arg Val  
 115 120 125  
 Trp Ala Glu Ala Pro Asp Glu Lys Tyr Glu Cys Glu Phe Glu Met Pro  
 130 135 140  
 Glu Asp Phe Gly Pro Val Gly Ala Ile Lys Ile Gln Asn Gln Tyr His  
 145 150 155 160  
 Arg Gln Leu Phe Leu Lys Gly Val Glu Leu Lys Leu Pro Gly Gly Ser  
 165 170 175  
 Ile Thr Phe Thr Cys Glu Ser Trp Val Ala Pro Lys Ser Val Asp Pro  
 180 185 190  
 Thr Lys Arg Ile Phe Phe Ser Asp Lys Ser Tyr Leu Pro Ser Gln Thr  
 195 200 205  
 Pro Glu Pro Leu Lys Lys Tyr Arg Lys Glu Glu Leu Glu Thr Leu Gln  
 210 215 220  
 Gly Lys Asn Arg Glu Glu Val Gly Glu Phe Thr Lys Phe Glu Arg Ile  
 225 230 235 240  
 Tyr Asp Tyr Asp Val Tyr Asn Asp Val Gly Asp Pro Asp Asn Asp Pro  
 245 250 255  
 Glu Leu Ala Arg Pro Val Ile Gly Gly Leu Thr His Pro Tyr Pro Arg  
 260 265 270

Arg Cys Lys Thr Gly Arg Lys Pro Cys Glu Thr Asp Pro Ser Ser Glu  
 275 280 285  
 Gln Arg Tyr Gly Gly Glu Phe Tyr Val Pro Arg Asp Glu Glu Phe Ser  
 290 295 300  
 Thr Ala Lys Gly Thr Ser Phe Thr Gly Lys Ala Val Leu Ala Ala Leu  
 305 310 315 320  
 Pro Ser Ile Phe Pro Gln Ile Glu Ser Val Leu Leu Ser Pro Gln Glu  
 325 330 335  
 Pro Phe Pro His Phe Lys Ala Ile Gln Asn Leu Phe Glu Glu Gly Ile  
 340 345 350  
 Gln Leu Pro Lys Asp Ala Gly Leu Leu Pro Leu Leu Pro Arg Ile Ile  
 355 360 365  
 Lys Ala Leu Gly Glu Ala Gln Asp Asp Ile Leu Gln Phe Asp Ala Pro  
 370 375 380  
 Val Leu Ile Asn Arg Asp Arg Phe Ser Trp Leu Arg Asp Asp Glu Phe  
 385 390 395 400  
 Ala Arg Gln Thr Leu Ala Gly Leu Asn Pro Tyr Ser Ile Gln Leu Val  
 405 410 415  
 Glu Glu Trp Pro Leu Ile Ser Lys Leu Asp Pro Ala Val Tyr Gly Asp  
 420 425 430  
 Pro Thr Ser Leu Ile Thr Trp Glu Ile Val Glu Arg Glu Val Lys Gly  
 435 440 445  
 Asn Met Thr Val Asp Glu Ala Leu Lys Asn Lys Arg Leu Phe Val Leu  
 450 455 460  
 Asp Tyr His Asp Leu Leu Leu Pro Tyr Val Asn Lys Val Arg Glu Leu  
 465 470 475 480  
 Asn Asn Thr Thr Leu Tyr Ala Ser Arg Thr Leu Phe Phe Leu Ser Asp  
 485 490 495  
 Asp Ser Thr Leu Arg Pro Val Ala Ile Glu Leu Thr Cys Pro Pro Asn  
 500 505 510  
 Ile Asn Lys Pro Gln Trp Lys Gln Val Phe Thr Pro Gly Tyr Asp Ala  
 515 520 525

047-E2F-PCT.ST25.txt

Thr Ser Cys Trp Leu Trp Asn Leu Ala Lys Thr His Ala Ile Ser His  
 530 535 540  
 Asp Ala Gly Tyr His Gln Leu Ile Ser His Trp Leu Arg Thr His Ala  
 545 550 555 560  
 Cys Thr Glu Pro Tyr Ile Ile Ala Ala Asn Arg Gln Leu Ser Ala Met  
 565 570 575  
 His Pro Ile Tyr Arg Leu Leu His Pro His Phe Arg Tyr Thr Met Glu  
 580 585 590  
 Ile Asn Ala Arg Ala Arg Gln Ser Leu Val Asn Gly Gly Gly Ile Ile  
 595 600 605  
 Glu Thr Cys Phe Trp Pro Gly Lys Tyr Ala Leu Glu Leu Ser Ser Ala  
 610 615 620  
 Val Tyr Gly Lys Leu Trp Arg Phe Asp Gln Glu Gly Leu Pro Ala Asp  
 625 630 635 640  
 Leu Ile Lys Arg Gly Leu Ala Glu Glu Asp Lys Thr Ala Glu His Gly  
 645 650 655  
 Val Arg Leu Thr Ile Pro Asp Tyr Pro Phe Ala Asn Asp Gly Leu Ile  
 660 665 670  
 Leu Trp Asp Ala Ile Lys Glu Trp Val Thr Asp Tyr Val Lys His Tyr  
 675 680 685  
 Tyr Pro Asp Glu Glu Leu Ile Thr Ser Asp Glu Glu Leu Gln Gly Trp  
 690 695 700  
 Trp Ser Glu Val Arg Asn Ile Gly His Gly Asp Lys Lys Asp Glu Pro  
 705 710 715 720  
 Trp Trp Pro Val Leu Lys Thr Gln Asp Asp Leu Ile Gly Val Val Thr  
 725 730 735  
 Thr Ile Ala Trp Val Thr Ser Gly His His Ala Ala Val Asn Phe Gly  
 740 745 750  
 Gln Tyr Gly Tyr Gly Gly Tyr Phe Pro Asn Arg Pro Thr Thr Thr Arg  
 755 760 765  
 Ile Arg Met Pro Thr Glu Asp Pro Thr Asp Glu Ala Leu Lys Glu Phe  
 770 775 780

047-E2F-PCT.ST25.txt

Tyr Glu Ser Pro Glu Lys Val Leu Leu Lys Thr Tyr Pro Ser Gln Lys  
785 790 795 800

Gln Ala Thr Leu Val Met Val Thr Leu Asp Leu Leu Ser Thr His Ser  
805 810 815

Pro Asp Glu Glu Tyr Ile Gly Glu Gln Gln Glu Ala Ser Trp Ala Asn  
820 825 830

Glu Pro Val Ile Asn Ala Ala Phe Glu Arg Phe Lys Gly Lys Leu Gln  
835 840 845

Tyr Leu Glu Gly Val Ile Asp Glu Arg Asn Val Asn Ile Thr Leu Lys  
850 855 860

Asn Arg Ala Gly Ala Gly Val Val Lys Tyr Glu Leu Leu Lys Pro Thr  
865 870 875 880

Ser Glu His Gly Val Thr Gly Met Gly Val Pro Tyr Ser Ile Ser Ile  
885 890 895

<210> 1103

<211> 984

<212> DNA

<213> Arabidopsis thaliana

<400> 1103

atgacaatag ggtcgttttt ctcttctctc ttattctggc gcaattctca ggaccaggag	60
gcgcagagag ggaggatgca ggagatagat cttagtgttc aactataaa gtcccatgga	120
ggaagagtcg cttctaaaca caagcacgat tggatcatac tcgtcatctt gattgccatc	180
gagataggct tgaacctcat ctctcctttc taccgctacg tgggaaaaga catgatgact	240
gacctcaagt accctttcaa ggacaacacc gtacctatct ggtctgtccc tgtgtacgct	300
gtgcttcttc ccatcatagt gttcgtctgc ttctacctga agaggacatg tgtgtacgat	360
ctgcaccaca gcatcctcgg gctgctcttc gccgtcttga taactggtgt catcactgac	420
tccatcaagg tagccaccgg acgccctcgt cctaacttct actggcgctg cttccccgac	480
ggcaaagagc tgtatgatgc gttgggaggt gtggtatgcc acggcaaggc agctgaggtc	540
aaggaaggcc acaagagctt cccgagcgga cacacttcct ggtcctttgc ggggcttaca	600
ttcctttccc ttacctctc tggcaaatc aaggccttca acaatgaagg acatgtggcg	660

```

aaactctgcc tcgtgatctt ccctctgctt gccgcttgct ttgtggggat atctcgtgtg 720
gatgactact ggcaccactg gcaagatgtc ttcgcaggag ctctcattgg cacccttgta 780
gccgccttct gctaccgtca gttctacccc aacccttacc acgaagaagg atgggggtccc 840
tacgcctatt tcaaggcagc tcaagaacga ggagtccttg tgacctcctc caaaaacgga 900
gatgccttga gggctatgtc tctgcagatg gattcaacat ctctcgaaaa catggaatct 960
ggcacttcca ccgctcccag atga 984

```

&lt;210&gt; 1104

&lt;211&gt; 327

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1104

```

Met Thr Ile Gly Ser Phe Phe Ser Ser Leu Leu Phe Trp Arg Asn Ser
1      5      10      15

```

```

Gln Asp Gln Glu Ala Gln Arg Gly Arg Met Gln Glu Ile Asp Leu Ser
20     25     30

```

```

Val His Thr Ile Lys Ser His Gly Gly Arg Val Ala Ser Lys His Lys
35     40     45

```

```

His Asp Trp Ile Ile Leu Val Ile Leu Ile Ala Ile Glu Ile Gly Leu
50     55     60

```

```

Asn Leu Ile Ser Pro Phe Tyr Arg Tyr Val Gly Lys Asp Met Met Thr
65     70     75     80

```

```

Asp Leu Lys Tyr Pro Phe Lys Asp Asn Thr Val Pro Ile Trp Ser Val
85     90     95

```

```

Pro Val Tyr Ala Val Leu Leu Pro Ile Ile Val Phe Val Cys Phe Tyr
100    105    110

```

```

Leu Lys Arg Thr Cys Val Tyr Asp Leu His His Ser Ile Leu Gly Leu
115    120    125

```

```

Leu Phe Ala Val Leu Ile Thr Gly Val Ile Thr Asp Ser Ile Lys Val
130    135    140

```

```

Ala Thr Gly Arg Pro Arg Pro Asn Phe Tyr Trp Arg Cys Phe Pro Asp
145    150    155    160

```



047-E2F-PCT.ST25.txt

Gly Lys Glu Leu Tyr Asp Ala Leu Gly Gly Val Val Cys His Gly Lys  
165 170 175

Ala Ala Glu Val Lys Glu Gly His Lys Ser Phe Pro Ser Gly His Thr  
180 185 190

Ser Trp Ser Phe Ala Gly Leu Thr Phe Leu Ser Leu Tyr Leu Ser Gly  
195 200 205

Lys Ile Lys Ala Phe Asn Asn Glu Gly His Val Ala Lys Leu Cys Leu  
210 215 220

Val Ile Phe Pro Leu Leu Ala Ala Cys Leu Val Gly Ile Ser Arg Val  
225 230 235 240

Asp Asp Tyr Trp His His Trp Gln Asp Val Phe Ala Gly Ala Leu Ile  
245 250 255

Gly Thr Leu Val Ala Ala Phe Cys Tyr Arg Gln Phe Tyr Pro Asn Pro  
260 265 270

Tyr His Glu Glu Gly Trp Gly Pro Tyr Ala Tyr Phe Lys Ala Ala Gln  
275 280 285

Glu Arg Gly Val Pro Val Thr Ser Ser Gln Asn Gly Asp Ala Leu Arg  
290 295 300

Ala Met Ser Leu Gln Met Asp Ser Thr Ser Leu Glu Asn Met Glu Ser  
305 310 315 320

Gly Thr Ser Thr Ala Pro Arg  
325

<210> 1105

<211> 378

<212> DNA

<213> Arabidopsis thaliana

<400> 1105

atggcacgtg tttctcacgt gctcaaggct gctcaactcc tttctctctt ctccgttgct	60
tctctctctt ggccgcctcc gctctacttc tggcctctca tggcctttgg ccagtttctc	120
aacttcaggg tataccaatt gttaggtgaa gctgggactt attacggtgt tcgattcggg	180

aagaacatac catgggttac agagttccca ttggagtca ttagagatcc acagtatggt 240  
 gggagtatca tgtctctatt ggcattgcctc tcttgggttc catttcaata cattctcctc 300  
 tggtctctcg gttatgtttt catgatgttt ctcgagtcaa aggaggatcc aaatgctcgt 360  
 gccaaatcca tctcatga 378

<210> 1106

<211> 125

<212> PRT

<213> Arabidopsis thaliana

<400> 1106

Met Ala Arg Val Ser His Val Leu Lys Ala Ala Gln Leu Leu Ser Leu  
 1 5 10 15

Phe Ser Val Ala Ser Leu Ser Trp Pro Pro Pro Leu Tyr Phe Trp Pro  
 20 25 30

Leu Met Ala Phe Gly Gln Phe Leu Asn Phe Arg Val Tyr Gln Leu Leu  
 35 40 45

Gly Glu Ala Gly Thr Tyr Tyr Gly Val Arg Phe Gly Lys Asn Ile Pro  
 50 55 60

Trp Val Thr Glu Phe Pro Phe Gly Val Ile Arg Asp Pro Gln Tyr Val  
 65 70 75 80

Gly Ser Ile Met Ser Leu Leu Ala Cys Leu Ser Trp Val Pro Phe Gln  
 85 90 95

Tyr Ile Leu Leu Trp Ser Leu Gly Tyr Val Phe Met Met Phe Leu Glu  
 100 105 110

Ser Lys Glu Asp Pro Asn Ala Arg Ala Lys Ser Ile Ser  
 115 120 125

<210> 1107

<211> 2022

<212> DNA

<213> Arabidopsis thaliana

&lt;400&gt; 1107

atggctccaa attcagtagc agtgacaatg gagaagccag acaacttctc tttagtagag	60
atcaacggct cagatccatc ctcatcccc gacaaacgta aatccatcag tccaaaacaa	120
ttctcatggt tccttcttct caaagctcat agactcatct cgtgtctctc gtggctagtc	180
tcttcggtta aaaagcgaat cgcgttctcc gcgaagaaca ttaacgaaga agaagatcct	240
aaaagcagag gaaaacaaat gtacagattc atcaaagctt gtcttgtcat ctccattatt	300
gccttgtcca tagaaatcgt tgcacatttc aagaaatgga atcttgatct cattaaccga	360
ccgtcttggg aggtttacgg gcttgtcgaa tggctgtaca tggcttggct ctcgtttcga	420
tccgattaca tcgctcctct tgtcatcagt ctctccagat tctgcactgt actctttttg	480
attcagtctc ttgatcgggt agtcctctgt ctcggttgct tttggatcaa atttaaaaag	540
atcgaacctt agctcaccga agaattctatc gatttagaag acccctccag tttcccaatg	600
gtccttattc agatcccaat gtgcaacgaa cgagagggtg atgaacaatc aataggagca	660
gcttcacaac ttgattggcc aaaagatagg atcttaattc aagtattaga tgattcagac	720
gatccaaatt tacagctttt gatcaaagaa gaagtatcgg tttgggccga aaaaggcgta	780
aacataatth acaggcatag gttgatcaga actggttaca aagctggcaa tttgaaatca	840
gccatgactt gtgattacgt taaagattac gagtttgtga ctatcttcga cgcagatttc	900
acaccaaadc ctgatttcct caagaagact gttcctcatt tcaagggtaa tccagagcta	960
gggttgggtcc aagcaagggt gtcatttgtg aacaaagatg agaattctct cagaggcta	1020
caaaacataa acttatgttt ccacttcgaa gtagaacaac aagtgaacgg tgtgtttctc	1080
aatttcttcg gattcaatgg aaccgctgga gtatggagga tcaaggcatt ggaagaatcc	1140
ggcggatggc tcgagagaac caccgtggaa gatatggata tcgcggttag agcgcattct	1200
aacggctgga agtttattta ccttaatgat gttgaagtca cttgcgagtt gccagagtct	1260
tatgaagctt acaagaagca acaacatcgt tggcattccg gtcctatgca gctgttccgg	1320
ttatgccttc cttcaattat caaatcaaag atatcggttt ggaagaaggc gaatttgatc	1380
ttccttttct ttcttctaag gaagcttatt ctaccatttt actcattcac actcttttgc	1440
attatacttc cattgacaat gttcataccc gaagccgagc ttccgttgtg gatcatctgc	1500
tatgttccta tcttcatttc gcttctcaac attctcccgt cacctaaatc tttccctttc	1560
ttagtccctt accttctttt cgaaaacaca atgtcaataa ccaagttcaa cgccatgatc	1620
tccgggctgt ttcagtttgg atcggcttac gagtgggttg tgacgaagaa aaccgggaga	1680
tcatcggagt ccgatttgcg agcgtttgct gaaaaggaag agaagttgca taggagaaac	1740
tcggagtcag gtttggagct tctgagcaaa ctttaaggagc aagagacaaa tctttagagg	1800
caagaaaccg tgaagaagag ccttggaggg ctaatgaggc cgaagaacaa gaagaagacg	1860

aacatggtgt tcaagaaaga gctcgggctt gcgttcttgc tgctaaccgc agctgcaagg 1920  
 agctttctat cggcgcacgg tcttcacttc tactttttgt tgtttcaggg actgtctttc 1980  
 ttggtttag ggttggattt gatcggagaa cagatcagct ag 2022

<210> 1108

<211> 673

<212> PRT

<213> Arabidopsis thaliana

<400> 1108

Met Ala Pro Asn Ser Val Ala Val Thr Met Glu Lys Pro Asp Asn Phe  
 1 5 10 15  
 Ser Leu Leu Glu Ile Asn Gly Ser Asp Pro Ser Ser Phe Pro Asp Lys  
 20 25 30  
 Arg Lys Ser Ile Ser Pro Lys Gln Phe Ser Trp Phe Leu Leu Leu Lys  
 35 40 45  
 Ala His Arg Leu Ile Ser Cys Leu Ser Trp Leu Val Ser Ser Val Lys  
 50 55 60  
 Lys Arg Ile Ala Phe Ser Ala Lys Asn Ile Asn Glu Glu Glu Asp Pro  
 65 70 75 80  
 Lys Ser Arg Gly Lys Gln Met Tyr Arg Phe Ile Lys Ala Cys Leu Val  
 85 90 95  
 Ile Ser Ile Ile Ala Leu Ser Ile Glu Ile Val Ala His Phe Lys Lys  
 100 105 110  
 Trp Asn Leu Asp Leu Ile Asn Arg Pro Ser Trp Glu Val Tyr Gly Leu  
 115 120 125  
 Val Glu Trp Ser Tyr Met Ala Trp Leu Ser Phe Arg Ser Asp Tyr Ile  
 130 135 140  
 Ala Pro Leu Val Ile Ser Leu Ser Arg Phe Cys Thr Val Leu Phe Leu  
 145 150 155 160  
 Ile Gln Ser Leu Asp Arg Leu Val Leu Cys Leu Gly Cys Phe Trp Ile  
 165 170 175

Lys Phe Lys Lys Ile Glu Pro Lys Leu Thr Glu Glu Ser Ile Asp Leu  
 180 185 190  
 Glu Asp Pro Ser Ser Phe Pro Met Val Leu Ile Gln Ile Pro Met Cys  
 195 200 205  
 Asn Glu Arg Glu Val Tyr Glu Gln Ser Ile Gly Ala Ala Ser Gln Leu  
 210 215 220  
 Asp Trp Pro Lys Asp Arg Ile Leu Ile Gln Val Leu Asp Asp Ser Asp  
 225 230 235 240  
 Asp Pro Asn Leu Gln Leu Leu Ile Lys Glu Glu Val Ser Val Trp Ala  
 245 250 255  
 Glu Lys Gly Val Asn Ile Ile Tyr Arg His Arg Leu Ile Arg Thr Gly  
 260 265 270  
 Tyr Lys Ala Gly Asn Leu Lys Ser Ala Met Thr Cys Asp Tyr Val Lys  
 275 280 285  
 Asp Tyr Glu Phe Val Thr Ile Phe Asp Ala Asp Phe Thr Pro Asn Pro  
 290 295 300  
 Asp Phe Leu Lys Lys Thr Val Pro His Phe Lys Gly Asn Pro Glu Leu  
 305 310 315 320  
 Gly Leu Val Gln Ala Arg Trp Ser Phe Val Asn Lys Asp Glu Asn Leu  
 325 330 335  
 Leu Thr Arg Leu Gln Asn Ile Asn Leu Cys Phe His Phe Glu Val Glu  
 340 345 350  
 Gln Gln Val Asn Gly Val Phe Leu Asn Phe Phe Gly Phe Asn Gly Thr  
 355 360 365  
 Ala Gly Val Trp Arg Ile Lys Ala Leu Glu Glu Ser Gly Gly Trp Leu  
 370 375 380  
 Glu Arg Thr Thr Val Glu Asp Met Asp Ile Ala Val Arg Ala His Leu  
 385 390 395 400  
 Asn Gly Trp Lys Phe Ile Tyr Leu Asn Asp Val Glu Val Thr Cys Glu  
 405 410 415  
 Leu Pro Glu Ser Tyr Glu Ala Tyr Lys Lys Gln Gln His Arg Trp His  
 420 425 430

047-E2F-PCT.ST25.txt

Ser Gly Pro Met Gln Leu Phe Arg Leu Cys Leu Pro Ser Ile Ile Lys  
435 440 445

Ser Lys Ile Ser Val Trp Lys Lys Ala Asn Leu Ile Phe Leu Phe Phe  
450 455 460

Leu Leu Arg Lys Leu Ile Leu Pro Phe Tyr Ser Phe Thr Leu Phe Cys  
465 470 475 480

Ile Ile Leu Pro Leu Thr Met Phe Ile Pro Glu Ala Glu Leu Pro Leu  
485 490 495

Trp Ile Ile Cys Tyr Val Pro Ile Phe Ile Ser Leu Leu Asn Ile Leu  
500 505 510

Pro Ser Pro Lys Ser Phe Pro Phe Leu Val Pro Tyr Leu Leu Phe Glu  
515 520 525

Asn Thr Met Ser Ile Thr Lys Phe Asn Ala Met Ile Ser Gly Leu Phe  
530 535 540

Gln Phe Gly Ser Ala Tyr Glu Trp Val Val Thr Lys Lys Thr Gly Arg  
545 550 555 560

Ser Ser Glu Ser Asp Leu Leu Ala Phe Ala Glu Lys Glu Glu Lys Leu  
565 570 575

His Arg Arg Asn Ser Glu Ser Gly Leu Glu Leu Leu Ser Lys Leu Lys  
580 585 590

Glu Gln Glu Thr Asn Leu Val Gly Gln Glu Thr Val Lys Lys Ser Leu  
595 600 605

Gly Gly Leu Met Arg Pro Lys Asn Lys Lys Lys Thr Asn Met Val Phe  
610 615 620

Lys Lys Glu Leu Gly Leu Ala Phe Leu Leu Leu Thr Ala Ala Ala Arg  
625 630 635 640

Ser Phe Leu Ser Ala His Gly Leu His Phe Tyr Phe Leu Leu Phe Gln  
645 650 655

Gly Leu Ser Phe Leu Val Val Gly Leu Asp Leu Ile Gly Glu Gln Ile  
660 665 670

Ser

&lt;210&gt; 1109

&lt;211&gt; 792

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1109

```

atgcggatga gctgtaatgg atgcagagtt cttcggaaag ggtgtagtga ggattgtagt    60
ataaggccgt gtttggcttg gatcaaatcg cctgaagcgc aagctaacgc aactgtcttt    120
ctcgccaagt tctatggccg tgctggactc atgaacctca tcaacgccgg tcccaatcac    180
cttcgtcctg ggattttccg atcgttggtg cacgaagctt gtgggaggat tgtgaatccg    240
atctatgggt cggtgggttt gttgtggtcg gggaattggc agctttgtca agacgccgtg    300
gaggctgtga tgaaaggaga accggtcaaa gagatcgcca cagacgctgc gacgatcggc    360
caaggtccgc ctcttaagat ctacgacatc cgacatatct ccaaggatga taactctgcc    420
gccgcggcta ctggctcaac cgatttgaaa cttgcgaaaa ctcgccgtgc taagcgggtc    480
tccaccgtcg cgatacaggc ggaatcggag ggaaagtctg acgaggctag tcacgattcg    540
tcgttgagtc atcagtctga aatagtggct gctcatgaag gagagagcaa ggaatccgag    600
agcaatgtct ctgagggtttt ggcatttctg cctccggctg tgaagggctc cggcgagata    660
aagcttgacc taactttaag gtcgaaccg gtgtcacgtg cgtatcatgt ggtacctgtt    720
aagaagagaa ggatcggcgt gtttggcacg tgtcagaagg agagcacgtg taagactgag    780
cttatgctct aa                                         792

```

&lt;210&gt; 1110

&lt;211&gt; 263

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1110

```

Met Arg Met Ser Cys Asn Gly Cys Arg Val Leu Arg Lys Gly Cys Ser
1          5          10          15

Glu Asp Cys Ser Ile Arg Pro Cys Leu Ala Trp Ile Lys Ser Pro Glu
20          25          30

```

```

Ala Gln Ala Asn Ala Thr Val Phe Leu Ala Lys Phe Tyr Gly Arg Ala
Page 1721

```

35

40

45

Gly Leu Met Asn Leu Ile Asn Ala Gly Pro Asn His Leu Arg Pro Gly  
 50 55 60  
 Ile Phe Arg Ser Leu Leu His Glu Ala Cys Gly Arg Ile Val Asn Pro  
 65 70 75 80  
 Ile Tyr Gly Ser Val Gly Leu Leu Trp Ser Gly Asn Trp Gln Leu Cys  
 85 90 95  
 Gln Asp Ala Val Glu Ala Val Met Lys Gly Glu Pro Val Lys Glu Ile  
 100 105 110  
 Ala Thr Asp Ala Ala Thr Ile Gly Gln Gly Pro Pro Leu Lys Ile Tyr  
 115 120 125  
 Asp Ile Arg His Ile Ser Lys Asp Asp Asn Ser Ala Ala Ala Ala Thr  
 130 135 140  
 Gly Ser Thr Asp Leu Lys Leu Ala Lys Thr Arg Arg Ala Lys Arg Val  
 145 150 155 160  
 Ser Thr Val Ala Ile Gln Ala Glu Ser Glu Gly Lys Ser Asp Glu Ala  
 165 170 175  
 Ser His Asp Ser Ser Leu Ser His Gln Ser Glu Ile Val Ala Ala His  
 180 185 190  
 Glu Gly Glu Ser Lys Glu Ser Glu Ser Asn Val Ser Glu Val Leu Ala  
 195 200 205  
 Phe Ser Pro Pro Ala Val Lys Gly Ser Gly Glu Ile Lys Leu Asp Leu  
 210 215 220  
 Thr Leu Arg Leu Glu Pro Val Ser Arg Ala Tyr His Val Val Pro Val  
 225 230 235 240  
 Lys Lys Arg Arg Ile Gly Val Phe Gly Thr Cys Gln Lys Glu Ser Thr  
 245 250 255  
 Cys Lys Thr Glu Leu Met Leu  
 260

&lt;210&gt; 1111

&lt;211&gt; 2019



&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1111

atggcgaatc tgattcgaac agaccatcag caacatattc caaagaagag gaagagaggg	60
gaaagtagag tttttaggct gaagacgttc ggagagtctg gacatccagc tgagatgaac	120
gagttgtctt ttcgagataa cctcgctaaa ctacttgagt ttggtcactt tgagagctcc	180
ggtctaattg gaagttggtc ttttcagctc gagattcaac gaaatccaaa tcctctctat	240
gttcttctct ttgtcgtaga agagcccata gaagcctctc tcaatctccg ttgaaccat	300
tgccaatatg ttggttgggg aaatcaaatg atatgcaaca agaagtacca tttcgtgata	360
ccctcaaagg aaacaatggc ggctttttta aaactggaag gtggaggcta cgcttttccc	420
gaaaaggaaa gtttctccca tcttgtggag cttcaaggcc atgtccttca cggcttcttt	480
cactccaacg gatttggtca cttgctctct ctcaacggca ttgaaaccgg ctccgactta	540
accggtcatc aggtcatgga tttgtgggac cggctctgca ccggtttaaa ggccaggaaa	600
atagggttga atgacgcgtc gcacaaaaaa ggaatggagt tgaggctgct gcatggggta	660
gcaaaaggag agccatggtt cggtcgttgg ggctaccggt tcgggtcagg gacatacgga	720
gtgactcaaa agatttacga gaaggcactt gagtcggtcc gtaacatacc cttgtgcttg	780
cttaaccatc acctaaccag ccttaaccga gaaactccaa tcctcttgtc aaagtaccaa	840
agtttatcca ccgagccatt gatcactctc agtgacctct tcagggttcat gcttcatctc	900
cattcacgtc ttccaagaga taactacatg agtaactccc gaaaccaaat catctccatt	960
gatagtacca actgcagatg gtctcaaaaa cggatccaaa tggctatcaa agtggtcata	1020
gagtcactga aaagagtcga ataccgatgg atatcgagac aagaagtgag ggatgcagct	1080
agaaattaca ttggggacac tggtttgctt gatatttgtgt tgaagtcgct tgggaaccag	1140
gtggttggaa actatttggc cgcacgtagt ctaaatccgg tgaagaaagt gctagagtat	1200
tccttgaggg atatatcaaa tttgttacca agtagtaaca atgaactcat aacccttcaa	1260
aacaaaaact caatggggaa gatggcgaca aacggtcaca ataagatcac aagaggtcaa	1320
gttatgaaag acatgtttta tttttacaaa cacattctca tggactacaa gggagtgtta	1380
ggcccatag gaggtatatt gaaccaaata ggaatggctt caagagcaat cctcgacgct	1440
aagtacttca tcaaagagta tctactacatt agagatacat cggcgaaaac gttacactta	1500
gatcgagggg aagaattagg aatattctgc acgatcgcgt ggaaatgtca tcatacatac	1560
aacgagataa aagttcctcc acaagaatgc attgtagtga agaaagatgc aacattgagt	1620
gaagtgtacg gagaggcaga aagagtgttt agagatatct attgggaact aagagacgtc	1680

047-E2F-PCT.ST25.txt

gtggtggagt cagtgggtggg tgggtcaaata gagatcacaa gggtcgatga aatggccttg 1740  
aatgggaata agggattggt gttagaaggg aacgtaggaa tgatgatgaa cattgaagtg 1800  
acgaaatggt atgaagatga tgataaaaag aaggataaga gaatagagtg tgagtgtgga 1860  
gcaacggaag aagatggaga gagaatggtg tgttgtgata tttgtgaagt atggcaacac 1920  
acaaggtgtg ttggtgttca acacaatgag gaagtgcctc gcatttttct ttgtcaaagt 1980  
tgtgatcaac atcttattcc tctctctttt ttaccctaa 2019

<210> 1112

<211> 672

<212> PRT

<213> Arabidopsis thaliana

<400> 1112

Met Ala Asn Leu Ile Arg Thr Asp His Gln Gln His Ile Pro Lys Lys  
1 5 10 15

Arg Lys Arg Gly Glu Ser Arg Val Phe Arg Leu Lys Thr Phe Gly Glu  
20 25 30

Ser Gly His Pro Ala Glu Met Asn Glu Leu Ser Phe Arg Asp Asn Leu  
35 40 45

Ala Lys Leu Leu Glu Phe Gly His Phe Glu Ser Ser Gly Leu Met Gly  
50 55 60

Ser Trp Ser Phe Gln Leu Glu Ile Gln Arg Asn Pro Asn Pro Leu Tyr  
65 70 75 80

Val Leu Leu Phe Val Val Glu Glu Pro Ile Glu Ala Ser Leu Asn Leu  
85 90 95

Arg Cys Asn His Cys Gln Tyr Val Gly Trp Gly Asn Gln Met Ile Cys  
100 105 110

Asn Lys Lys Tyr His Phe Val Ile Pro Ser Lys Glu Thr Met Ala Ala  
115 120 125

Phe Leu Lys Leu Glu Gly Gly Gly Tyr Ala Phe Pro Glu Lys Glu Ser  
130 135 140

Phe Ser His Leu Val Glu Leu Gln Gly His Val Leu His Gly Phe Phe  
145 150 155 160

047-E2F-PCT.ST25.txt

His Ser Asn Gly Phe Gly His Leu Leu Ser Leu Asn Gly Ile Glu Thr  
165 170 175

Gly Ser Asp Leu Thr Gly His Gln Val Met Asp Leu Trp Asp Arg Leu  
180 185 190

Cys Thr Gly Leu Lys Ala Arg Lys Ile Gly Leu Asn Asp Ala Ser His  
195 200 205

Lys Lys Gly Met Glu Leu Arg Leu Leu His Gly Val Ala Lys Gly Glu  
210 215 220

Pro Trp Phe Gly Arg Trp Gly Tyr Arg Phe Gly Ser Gly Thr Tyr Gly  
225 230 235 240

Val Thr Gln Lys Ile Tyr Glu Lys Ala Leu Glu Ser Val Arg Asn Ile  
245 250 255

Pro Leu Cys Leu Leu Asn His His Leu Thr Ser Leu Asn Arg Glu Thr  
260 265 270

Pro Ile Leu Leu Ser Lys Tyr Gln Ser Leu Ser Thr Glu Pro Leu Ile  
275 280 285

Thr Leu Ser Asp Leu Phe Arg Phe Met Leu His Leu His Ser Arg Leu  
290 295 300

Pro Arg Asp Asn Tyr Met Ser Asn Ser Arg Asn Gln Ile Ile Ser Ile  
305 310 315 320

Asp Ser Thr Asn Cys Arg Trp Ser Gln Lys Arg Ile Gln Met Ala Ile  
325 330 335

Lys Val Val Ile Glu Ser Leu Lys Arg Val Glu Tyr Arg Trp Ile Ser  
340 345 350

Arg Gln Glu Val Arg Asp Ala Ala Arg Asn Tyr Ile Gly Asp Thr Gly  
355 360 365

Leu Leu Asp Phe Val Leu Lys Ser Leu Gly Asn Gln Val Val Gly Asn  
370 375 380

Tyr Leu Val Arg Arg Ser Leu Asn Pro Val Lys Lys Val Leu Glu Tyr  
385 390 395 400

405

415

Ile Thr Leu Gln Asn Gln Asn Ser Met Gly Lys Met Ala Thr Asn Gly  
420 425 430

His Asn Lys Ile Thr Arg Gly Gln Val Met Lys Asp Met Phe Tyr Phe  
435 440 445

Tyr Lys His Ile Leu Met Asp Tyr Lys Gly Val Leu Gly Pro Ile Gly  
450 455 460

Gly Ile Leu Asn Gln Ile Gly Met Ala Ser Arg Ala Ile Leu Asp Ala  
465 470 475 480

Lys Tyr Phe Ile Lys Glu Tyr His Tyr Ile Arg Asp Thr Ser Ala Lys  
485 490 495

Thr Leu His Leu Asp Arg Gly Glu Glu Leu Gly Ile Phe Cys Thr Ile  
500 505 510

Ala Trp Lys Cys His His His Asn Asn Glu Ile Lys Val Pro Pro Gln  
515 520 525

Glu Cys Ile Val Val Lys Lys Asp Ala Thr Leu Ser Glu Val Tyr Gly  
530 535 540

Glu Ala Glu Arg Val Phe Arg Asp Ile Tyr Trp Glu Leu Arg Asp Val  
545 550 555 560

Val Val Glu Ser Val Val Gly Gly Gln Ile Glu Ile Thr Arg Val Asp  
565 570 575

Glu Met Ala Leu Asn Gly Asn Lys Gly Leu Val Leu Glu Gly Asn Val  
580 585 590

Gly Met Met Met Asn Ile Glu Val Thr Lys Cys Tyr Glu Asp Asp Asp  
595 600 605

Lys Lys Lys Asp Lys Arg Ile Glu Cys Glu Cys Gly Ala Thr Glu Glu  
610 615 620

Asp Gly Glu Arg Met Val Cys Cys Asp Ile Cys Glu Val Trp Gln His  
625 630 635 640

Thr Arg Cys Val Gly Val Gln His Asn Glu Glu Val Pro Arg Ile Phe  
645 650 655

047-E2F-PCT.ST25.txt  
 Leu Cys Gln Ser Cys Asp Gln His Leu Ile Pro Leu Ser Phe Leu Pro  
 660 665 670

<210> 1113

<211> 1092

<212> DNA

<213> *Arabidopsis thaliana*

<400> 1113

atggaagcac tagttgttga tgctggctct aagttcctga aagcaggagc agcaattcct	60
gaccagtctc ctgcaatgat aattccctct caaatgaaac gaatgggttga tgatgggtct	120
tcttcagctg ataacccac cactgtcttt gaggatgtca ctcttgatcc tattgaaagg	180
ggtttgatta gagattggga tgctatggaa gatctgttgc gttatgttgt ctacactggg	240
cttgatggg aagagggaaa cgaaggcaat atacttttta cagatccact ttgtactcct	300
aaggctatta gggagcaatt ggtgcagttg atgtttgaaa cattcaatgt ctctggattt	360
tatgcatctg agcaagcagt gttgtccctt tatgctgttg gacgcatctc cggttgact	420
gttgatattg gtcattggga gatagatatt gcccagttc ttgaagggtgc agtacaacac	480
attgcctcga aacggtttga gctaggtgga accgagctaa ctaaattatt tgcccaagag	540
cttggaaaaa ccaaccgctc gatgaatctc agcatgtctg atgttgaaaa actcaaggag	600
cagtatgcaa actgtgccga ggacgaaatt gcttacaaaa aaacccaaaa ctgtgaaatc	660
gagcagcata ctcttcctga tggacaggtg ataagcatcg ggcgagagag atactcggtt	720
ggagaagctc tgtttcagcc atcaatactg ggactggagg agcatggaat cgttgagcag	780
cttgtccgga ttatctccac agtgtcatct gagaaccata ggcagctctt ggagaacact	840
gtactttgtg gtggtacaac ctccatgaca ggattcgaaa gtagattcca gaaagaagca	900
aacttgtgct catctgccat taggccaaca ctggtgaaac cgccagaata tatgccggag	960
aatttgggga tgtattcggc ttgggttgga ggagccatac tagctaaagt ggtgtttccg	1020
cagaatcagc acgttactaa agcagattat gacgagactg gaccatcagt ggttcacagg	1080
aaatgtttct ga	1092

<210> 1114

<211> 363

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1114

```

Met Glu Ala Leu Val Val Asp Ala Gly Ser Lys Phe Leu Lys Ala Gly
1      5      10      15

Ala Ala Ile Pro Asp Gln Ser Pro Ala Met Ile Ile Pro Ser Gln Met
20      25      30

Lys Arg Met Val Asp Asp Gly Ser Ser Ser Ala Asp Asn Pro Thr Thr
35      40      45

Val Phe Glu Asp Val Thr Leu Asp Pro Ile Glu Arg Gly Leu Ile Arg
50      55      60

Asp Trp Asp Ala Met Glu Asp Leu Leu Arg Tyr Val Val Tyr Thr Gly
65      70      75      80

Leu Gly Trp Glu Glu Gly Asn Glu Gly Asn Ile Leu Phe Thr Asp Pro
85      90      95

Leu Cys Thr Pro Lys Ala Ile Arg Glu Gln Leu Val Gln Leu Met Phe
100     105     110

Glu Thr Phe Asn Val Ser Gly Phe Tyr Ala Ser Glu Gln Ala Val Leu
115     120     125

Ser Leu Tyr Ala Val Gly Arg Ile Ser Gly Cys Thr Val Asp Ile Gly
130     135     140

His Gly Lys Ile Asp Ile Ala Pro Val Leu Glu Gly Ala Val Gln His
145     150     155     160

Ile Ala Ser Lys Arg Phe Glu Leu Gly Gly Thr Glu Leu Thr Lys Leu
165     170     175

Phe Ala Gln Glu Leu Gly Lys Thr Asn Pro Ser Met Asn Leu Ser Met
180     185     190

Ser Asp Val Glu Lys Leu Lys Glu Gln Tyr Ala Asn Cys Ala Glu Asp
195     200     205

Glu Ile Ala Tyr Lys Lys Thr Gln Asn Cys Glu Ile Glu Gln His Thr
210     215     220

Leu Pro Asp Gly Gln Val Ile Ser Ile Gly Arg Glu Arg Tyr Ser Val
225     230     235     240

```

Gly Glu Ala Leu Phe Gln Pro Ser Ile Leu Gly Leu Glu Glu His Gly  
 245 250 255

Ile Val Glu Gln Leu Val Arg Ile Ile Ser Thr Val Ser Ser Glu Asn  
 260 265 270

His Arg Gln Leu Leu Glu Asn Thr Val Leu Cys Gly Gly Thr Thr Ser  
 275 280 285

Met Thr Gly Phe Glu Ser Arg Phe Gln Lys Glu Ala Asn Leu Cys Ser  
 290 295 300

Ser Ala Ile Arg Pro Thr Leu Val Lys Pro Pro Glu Tyr Met Pro Glu  
 305 310 315 320

Asn Leu Gly Met Tyr Ser Ala Trp Val Gly Gly Ala Ile Leu Ala Lys  
 325 330 335

Val Val Phe Pro Gln Asn Gln His Val Thr Lys Ala Asp Tyr Asp Glu  
 340 345 350

Thr Gly Pro Ser Val Val His Arg Lys Cys Phe  
 355 360

<210> 1115

<211> 1776

<212> DNA

<213> Arabidopsis thaliana

<400> 1115

atggaatcca tcatggaaga agctgatagt tacattgagt atgtatcagt ggcggagcgg	60
agagcgattg cagcgcagaa gatacttcag cggaagggaa aagcttcgga attggaagaa	120
gaagctgaca aggaaaagct cgctgaagct aaacctagtt tacttgttca agcaactcag	180
ctcaagcgag atgtaccga agttagtgt actgagcaaa tcatcttaca agagaaagag	240
atgatggagc atttatctga taagaagacg cttatgtctg ttcgtgaact tgccaaaggt	300
atcacttata cagagcctct cttaactggg tggaacctc ctttgcatat taggaagatg	360
tctagtaagc agagagattt gattaggaag caatggcata ttattgttaa tggatgatgat	420
attcctcctc ctattaagaa ctttaaggat atgaagtttc ctagacctgt tctcgatact	480
ctcaaggaga aaggtattgt gcagcctact cctattcaag ttcagggtct tcctgtgatt	540
ttggctggga gagatatgat tgggattgct ttcactgggt ccggaagac tttggttttc	600

047-E2F-PCT.ST25.txt

gtgcttccca tgatcatgat tgctctccaa gaagagatga tgatgcctat tgctgctggt 660  
gaaggtccca ttgggcttat tgtttgccct tctagagagc ttgctaggca gacttatgaa 720  
gtggttgagc agtttgtggc tcctttgggt gaggtggtt acccgccatt gaggtcggtg 780  
ctatgtattg gaggtattga tatgagatcc cagttggagg ttgtcaagag aggtgtccat 840  
attgttggtg caacccttg gaggttaaag gatatgctcg ccaagaaaaa gatgagctta 900  
gatgcttgca ggtacctgac actagatgag gcagataggt tggttgattt gggtttcgaa 960  
gatgacataa gggaagtctt tgaccacttt aagtctcaac gtcaaact attgttctct 1020  
gccacaatgc ccacaaagat tcaaatcttt gccagaagtg ctctggtgaa acctgtgaca 1080  
gttaatgtag gaagagctgg agctgcgaat ctggatgtga tccaggaggt agaatacgtc 1140  
aaacaagaag caaagattgt ttacctctc gagtgtctac agaaaacctc tccgccggtt 1200  
ttgatattct gtgagaacaa agctgatgtt gatgatattc acgagtactt gttactgaaa 1260  
ggagtggaag cagtggccat ccatggagga aaagatcaag aagacagaga gtacgcaatc 1320  
tcttcgttta aagctgggaa aaaagatgtg ttggttgca ctgatgttg ttcagggtt 1380  
ctagatttcc ctgatataca acacgtaatc aactacgaca tgccagcaga gattgagaac 1440  
tatgtgcata ggataggacg aacaggtcgg tgtggtaaaa ctgggatagc aacgacgttt 1500  
ataaacaaga atcaaagcga aaccactctg ctggatttga aacacttggt gcaagaagct 1560  
aaacagagga ttccacctgt ccttgctgag ctgaatgatc caatggaaga agcagagacc 1620  
attgctaatt caagtgggtg caaggggtgt gcctattgtg gtggtccttg acatcgatatc 1680  
cgagactgtc caaaacttga gcaccagaag agtgtcgcca tttctaactc aagaaaagat 1740  
tattttggct cgggtggcta cagaggagaa atataa 1776

<210> 1116

<211> 591

<212> PRT

<213> Arabidopsis thaliana

<400> 1116

Met Glu Ser Ile Met Glu Glu Ala Asp Ser Tyr Ile Glu Tyr Val Ser  
1 5 10 15

Val Ala Glu Arg Arg Ala Ile Ala Ala Gln Lys Ile Leu Gln Arg Lys  
20 25 30

Gly Lys Ala Ser Glu Leu Glu Glu Glu Ala Asp Lys Glu Lys Leu Ala  
35 40 45



047-E2F-PCT.ST25.txt

Glu Ala Lys Pro Ser Leu Leu Val Gln Ala Thr Gln Leu Lys Arg Asp  
 50 55 60  
 Val Pro Glu Val Ser Ala Thr Glu Gln Ile Ile Leu Gln Glu Lys Glu  
 65 70 75 80  
 Met Met Glu His Leu Ser Asp Lys Lys Thr Leu Met Ser Val Arg Glu  
 85 90 95  
 Leu Ala Lys Gly Ile Thr Tyr Thr Glu Pro Leu Leu Thr Gly Trp Lys  
 100 105 110  
 Pro Pro Leu His Ile Arg Lys Met Ser Ser Lys Gln Arg Asp Leu Ile  
 115 120 125  
 Arg Lys Gln Trp His Ile Ile Val Asn Gly Asp Asp Ile Pro Pro Pro  
 130 135 140  
 Ile Lys Asn Phe Lys Asp Met Lys Phe Pro Arg Pro Val Leu Asp Thr  
 145 150 155 160  
 Leu Lys Glu Lys Gly Ile Val Gln Pro Thr Pro Ile Gln Val Gln Gly  
 165 170 175  
 Leu Pro Val Ile Leu Ala Gly Arg Asp Met Ile Gly Ile Ala Phe Thr  
 180 185 190  
 Gly Ser Gly Lys Thr Leu Val Phe Val Leu Pro Met Ile Met Ile Ala  
 195 200 205  
 Leu Gln Glu Glu Met Met Met Pro Ile Ala Ala Gly Glu Gly Pro Ile  
 210 215 220  
 Gly Leu Ile Val Cys Pro Ser Arg Glu Leu Ala Arg Gln Thr Tyr Glu  
 225 230 235 240  
 Val Val Glu Gln Phe Val Ala Pro Leu Val Glu Ala Gly Tyr Pro Pro  
 245 250 255  
 Leu Arg Ser Leu Leu Cys Ile Gly Gly Ile Asp Met Arg Ser Gln Leu  
 260 265 270  
 Glu Val Val Lys Arg Gly Val His Ile Val Val Ala Thr Pro Gly Arg  
 275 280 285  
 Leu Lys Asp Met Leu Ala Lys Lys Lys Met Ser Leu Asp Ala Cys Arg  
 Page 1731

290

295

Tyr Leu Thr Leu Asp Glu Ala Asp Arg Leu Val Asp Leu Gly Phe Glu  
305 310 315 320  
Asp Asp Ile Arg Glu Val Phe Asp His Phe Lys Ser Gln Arg Gln Thr  
325 330 335  
Leu Leu Phe Ser Ala Thr Met Pro Thr Lys Ile Gln Ile Phe Ala Arg  
340 345 350  
Ser Ala Leu Val Lys Pro Val Thr Val Asn Val Gly Arg Ala Gly Ala  
355 360 365  
Ala Asn Leu Asp Val Ile Gln Glu Val Glu Tyr Val Lys Gln Glu Ala  
370 375 380  
Lys Ile Val Tyr Leu Leu Glu Cys Leu Gln Lys Thr Ser Pro Pro Val  
385 390 395 400  
Leu Ile Phe Cys Glu Asn Lys Ala Asp Val Asp Asp Ile His Glu Tyr  
405 410 415  
Leu Leu Leu Lys Gly Val Glu Ala Val Ala Ile His Gly Gly Lys Asp  
420 425 430  
Gln Glu Asp Arg Glu Tyr Ala Ile Ser Ser Phe Lys Ala Gly Lys Lys  
435 440 445  
Asp Val Leu Val Ala Thr Asp Val Ala Ser Lys Gly Leu Asp Phe Pro  
450 455 460  
Asp Ile Gln His Val Ile Asn Tyr Asp Met Pro Ala Glu Ile Glu Asn  
465 470 475 480  
Tyr Val His Arg Ile Gly Arg Thr Gly Arg Cys Gly Lys Thr Gly Ile  
485 490 495  
Ala Thr Thr Phe Ile Asn Lys Asn Gln Ser Glu Thr Thr Leu Leu Asp  
500 505 510  
Leu Lys His Leu Leu Gln Glu Ala Lys Gln Arg Ile Pro Pro Val Leu  
515 520 525  
Ala Glu Leu Asn Asp Pro Met Glu Glu Ala Glu Thr Ile Ala Asn Ala  
530 535 540

Ser Gly Val Lys Gly Cys Ala Tyr Cys Gly Gly Leu Gly His Arg Ile  
 545 550 555 560

Arg Asp Cys Pro Lys Leu Glu His Gln Lys Ser Val Ala Ile Ser Asn  
 565 570 575

Ser Arg Lys Asp Tyr Phe Gly Ser Gly Gly Tyr Arg Gly Glu Ile  
 580 585 590

<210> 1117

<211> 6465

<212> DNA

<213> Arabidopsis thaliana

<400> 1117

atgagcggaa ggagatgtga tcggagggttg aatgtgcaga aagtttcagc ggcagatgaa	60
ctcgaaacta aacttgatt tgggcttttc tcccaagggg aaacgcggct cgggtggcta	120
ctcacgtttg catcatcatc ttgggaagat gccgatactg ggaaaacctt tagttgtgtg	180
gaccttttct ttgtcactca ggacggctct tcttttaaga ctaagtacaa gttccgccct	240
tacttgtatg ccgccaccaa agacaatatg gaactggaag ttgaagccta cttgagacgc	300
cgatatgaaa gacaagttgc tgatatctcag attgttcaca aagaagatct ttatcttaaa	360
aatcatctat ctggcctgca aaaaaatat ctcaaagtat catttgacac tgtgcaacaa	420
ttggtggaag taaagaggga tctgttgcatt attgtcgaac gaaacctcgc aaaatttaatt	480
gcacttgaag cttacgaatc catcttgtct ggaaaacgag aacaacgtcc tcaagactgc	540
ttagactctg tgggtggacct ccgcgagtac gatgttcctt atcatgtccg atttgcaatt	600
gataatgatg tgcgtagtgg gcaatggtac aatgtcagta tttccagcac tgatgtcata	660
ctagagaaga ggacggatct tctccaacgc gcagaagttc gcgtttgtgc attcgatata	720
gagacagtaa agcttccatt gaagttcccg gatgctgaat atgatcaaat tatgatgata	780
tcctacatgg ttgatgggca aggttttcta attactaaca gagagtgtgt tggcaaagac	840
atagaagatc tggaatatac acccaaacca gagtttgaag ggtattttcaa agtcacgaat	900
gttaccaacg aggttgaact cctccgaaaa tggttttctc atatgcaaga gttgaaacct	960
gggtatttatg ttacatacaa cggtgacttt tttgactggc catttataga acggagagca	1020
tctcatcatg ggatcaaaat gaacgaggag ttgggattcc gttgtgatca aaatcaaggt	1080
gaatgtcgag ctaagtttgt gtgccatttg gattgttttt cttgggtgaa acgtgatagc	1140
tatcttcctc agggaagcca ggggtctgaag gctgttacaa aggtaaaact gggttacgat	1200

ccactggaag tgaatcctga ggacatgggtt cggttttgcac tggaaaagcc acagacaatg	1260
gcctcctact ctgtctctga tgctgttgca acttactacc tatacatgac atatgtccat	1320
ccgttcgtttt tttctctcgc aactatcatt ccaatgggtcc ctgatgaggt tttacgcaaa	1380
gggagtggca ccctttgtga aatgctttttg atggttgagg cttacaaggc aaatgtttgta	1440
tgtcccaaca aaaatcaagc tgaccctgag aagttctacc aaggtaaact tcttgaaagt	1500
gagacatata ttggtggcca tgtagagtgc ctccaaagtg gtgttttcag atctgacatt	1560
ccaaccagtt ttaagctcga cgcattccga taccagcaac tgatcgataa ccttggtcgg	1620
gatctggaat atgctatcac tgttgaagga aaaatgagaa tggattcagt ttccaatttt	1680
gatgaagtaa aggaagtaat cagggaaaag ctcgagaagt tacgggatga tcctatacgt	1740
gaagaggggc ctcttattta tcaccttgat gtcgcggcga tgtatccaaa tattatctta	1800
acaaacaggc ttcagccacc atcaatagtt acggatgagg tttgcacagc atgtgatttc	1860
aacggcccg aaagacctg tcttagaaaa cttgaatggg tttggcgtgg ggtgacgttc	1920
aagggaaata aaagtgaata ttaccatctg aagaagcaga ttgagtctga atctgttgat	1980
gctggagcaa atatgcagtc ttcaaacct tttcttgatc tgccaaagggt ggaacaacaa	2040
tccaaattaa aagaacgact gaaaaaatac tgtcaaaagg catatagccg agtacttgac	2100
aagccaatca ctgaagtctg cgaggctggg atatgcatga gagaaaaccc gttctatgtg	2160
gacactgtgc gcagctttcg agataggagg tatgaataca aaacacttaa caaggctctgg	2220
aagggaaagt tgtcagaggc caaggcaagt ggcaatttaa tcaagatcca ggaagcacat	2280
gacatggtag tggtttacga ttccttgagc ctagctcata agtgtatact taattccttt	2340
tatggatatg tcatgcgaaa gggcgcaaga tgggtactcca tggaaatggc tggggtagtt	2400
acttatactg gagccaaaat catccagaat gctcgtttgc ttattgaacg aattgggaaa	2460
ccacttgagc tggatacaga tggatatatg tgtgctctac ctggatcttt tcctgagaac	2520
tttaccttta aaaccataga tatgaagaaa ttcaccatct cgtatccgtg tgtaatactt	2580
aatgttgatg tggcgaagaa taattcaaat gaccaatatc agactctagt agatcctgta	2640
cgaagacat ataattcacg tagcgaatgc tcaattgaat ttgaagtgga tggaccgtac	2700
aaggcaatga ttattcctgc atccaaggaa gagggaaatct taattaagaa gcggtatgct	2760
gttttcaatc atgacggaac catagcagaa ctcaaggggt ttgagatgaa gcgtagagga	2820
gagctgaaac tcattaaagt tttccaggcc gagctatttg acaaatttct gcatggatca	2880
acccttgaag agtgttattc tgctgttgca gctgttgcaa atcgttggct tgacctactc	2940
gagggatcaag gaaaagatat tgccgatagt gaattgctag attatatatc agaatacagc	3000
actatgagca aatcgtttagc agattatggc caacaaaagt catgtgcagt gaccacagca	3060
aaacgcctgg ctgattttct tggatgataca atgggtcaaag ataaaggact gcgctgccaa	3120

## 047-E2F-PCT.ST25.txt

tacatcgttg ctcgtgaacc agaggggaca cctgtaagtg aacgtgctgt ccctgttgcc 3180  
atatttcaaa cagatgatcc tgaaaaaaag ttttatctgc aaaaatggtg caagatatca 3240  
tcatatactg gaatccgttc aattattgac tggatgtatt acaagcagcg tcttcattca 3300  
gctattcaaa aagttattac cattcctgct gcaatgcaga aggtggcaaa tcctgtactt 3360  
agggtgcgtc atccttattg gctcgagaaa aaggctctgtg acaaatttcg tcagggaaaa 3420  
atagttgata tgttttagctc agcaaacaaa gatcattcga caactcaaga taatgtagtg 3480  
gcggatattg aagagttttg caaagaaaac agaccttcg taaaagggcc aaagccagtt 3540  
gcgcgttcac ttgaagtcga tagaaatcac tctgagggtg agcagcaaga gagttgggat 3600  
ccagagttcc atgatatctc attacagaac gttgacaaga atgtagatta ccaaggatgg 3660  
cttgaactgg aaaaaagaaa atggaaaatg actctaacga ataagaaaaa aagaaggttt 3720  
gatgatctaa agccttgtaa tcagattgat gcacacaaga taaataaaaa agtctgtaag 3780  
ggaagagtag gtgtaggctc ataccttagg aggcctgaag aagctttgac tagttcctat 3840  
ttgcagataa tacagttggt ccaaagtcca cagagcgggc aattttttgc ttgggttggt 3900  
gtggaaggat tgatgcttaa gatcccatg acgatcccaa ggggtgtttta cattaattcc 3960  
aaagcttcta tagctggaac cttcacggga aagtgtatca acaagattct tcctcacgga 4020  
aagccttggt acaatttgat ggaggcacgt catttacaca atacacatat cttgcttctt 4080  
gtcaatatcc aggaagatca atttataaaa gaaagcaaaa agcttgccgc tctacttgca 4140  
gaccccgaaa ttgagggcat atatgaaact aagatgcctc tggagtttag tgctatatgt 4200  
cagattggat gtgtatgcaa aattgaagac acggccaaac accgtaacac ccaagatgga 4260  
tggaacttg gtgaacttca caggataact acaactgagt gtcgctactt ggagaattct 4320  
attccacttg tttatttgta tcacagcacc tcaacaggctc gtgctgttta tgttttatat 4380  
tgtcatgctt cgaagcttat gtctgttggt gtagtcaatc cttacggtga caaggaatta 4440  
ttatcatctg ccctagagag acagttttaga gatagatgcc aagaactgtc acctgagcca 4500  
ttttcttggg atggtatcct tttccaggctc gagtatgttg accatccaga agctgccacg 4560  
aaatttttac aaaaagcgct ctgtgaatac agagaagaaa attgtggagc aactgtggca 4620  
gtcattgaat gccctgactt taacaccacg aaggaagggtg taaaggccct ggaagatttc 4680  
ccatgtgtga ggattccctt caacgacgat gacaatagtt atcagcctgt ctcctggcaa 4740  
cgtccagcag caaaaatagc agtgctccgt tgtgcttcag caattcagtg gttggaccgg 4800  
aggattgccc agtcaagata cgcccatgtg cctctgggga attttggacg tgattggtta 4860  
acgttcacag tagatatctt cctgtccagg gcactccgtg accagcaaca ggttctttgg 4920  
gtctcagata atggtgttcc agaccttgga gatataaaca atgaagagac atttctagct 4980

047-E2F-PCT.ST25.txt

gatgagttac aagagacaag tttgctattc cctggagcgt acagaaaagt gtctgtggag	5040
ttaaagggtcc atagattagc tgttaatgcc cttctgaaaa gtgacctggt gagtgaaatg	5100
gaaggaggcg gcttttttggg tgtgaattct agaggaagta gcttaaacga taatggcagt	5160
tttgatgaga ataatggatg cgcgcaagca tttcgtgtcc tgaaacaatt gatcaagcgc	5220
ttgttgcatg atgctgtgtaa ttctggcaat atatatgctg attccatttt gcaacatctg	5280
tcttggtggc tccgcagccc ttctcaaaag cttcacgac cagctctcca tctcatgctt	5340
cacaagggtca tgcaaaagggt gtttgcgctg cttttgactg atttgcggag gttaggtgct	5400
ataataatat acgcagactt ctcaaagggtc attatcgaca cagggaatt tgatctatct	5460
gctgcaaaga cttattgtga aagcttgctc acagtgatgg ggagtagaga tatctttaag	5520
ttgatcttgc ttgagccggt tcactactgg cactcgttac ttttcatgga ccagcataac	5580
tacgctggta tccgagctac cggagatgaa atttcaggta acgaagttac tattgaacca	5640
aagtggagcg ttgcacggca tttacccgag tatattcaga aggattttat cataattggt	5700
gccacgttta tatttgcccc ctggaaatth gcattagaga aaaaaagggg cagtgcagag	5760
agtttagagg cagagatggt agaatatctc aaggaacaga taggaacccg gttcataagc	5820
atgattgttg agaagattgg taatatcagg tcacacatca aggatataaa cgtgtcagat	5880
gcatcttggg cttctgggtca agctcccaaa ggagattaca cgttcgaatt tatacaaatt	5940
attactgctg ttctggctct tgatcaaaac gttcagcaag atgttctggt aatgagaaag	6000
attctgttga agtacattaa agtaaaagaa tgtgctgctg aagccgaatt tattgacct	6060
gggccatcct tcactttacc caacgtggct tgcagcaact gcggtgccta cagagaccta	6120
gatttctgca gagactcagc tctcttaaca gaaaaagaat ggtcatgtgc ggatccgcaa	6180
tgtgtgaaga tatatgacaa agagcagata gagagtagca ttatccagat ggtgagacag	6240
agggaaagaa tgtaccagtt gcaggatcta gtgtgcaata ggtgcaatca ggtgaaagcc	6300
gctcatttga cagagcagtg tgagtgttct ggatccttta gatgcaagga gagtgggttca	6360
gatttccaca agaggattga gattttcttg gatatagcaa agcgccagaa gtttagactg	6420
ctagaagaat gcatctcctg gattttatth gccaccagct gttga	6465

<210> 1118

<211> 2154

<212> PRT

<213> Arabidopsis thaliana

<400> 1118

## 047-E2F-PCT.ST25.txt

Met Ser Gly Arg Arg Cys Asp Arg Arg Leu Asn Val Gln Lys Val Ser  
 1 5 10 15  
 Ala Ala Asp Glu Leu Glu Thr Lys Leu Gly Phe Gly Leu Phe Ser Gln  
 20 25 30  
 Gly Glu Thr Arg Leu Gly Trp Leu Leu Thr Phe Ala Ser Ser Ser Trp  
 35 40 45  
 Glu Asp Ala Asp Thr Gly Lys Thr Phe Ser Cys Val Asp Leu Phe Phe  
 50 55 60  
 Val Thr Gln Asp Gly Ser Ser Phe Lys Thr Lys Tyr Lys Phe Arg Pro  
 65 70 75 80  
 Tyr Leu Tyr Ala Ala Thr Lys Asp Asn Met Glu Leu Glu Val Glu Ala  
 85 90 95  
 Tyr Leu Arg Arg Arg Tyr Glu Arg Gln Val Ala Asp Ile Gln Ile Val  
 100 105 110  
 His Lys Glu Asp Leu Tyr Leu Lys Asn His Leu Ser Gly Leu Gln Lys  
 115 120 125  
 Lys Tyr Leu Lys Val Ser Phe Asp Thr Val Gln Gln Leu Val Glu Val  
 130 135 140  
 Lys Arg Asp Leu Leu His Ile Val Glu Arg Asn Leu Ala Lys Phe Asn  
 145 150 155 160  
 Ala Leu Glu Ala Tyr Glu Ser Ile Leu Ser Gly Lys Arg Glu Gln Arg  
 165 170 175  
 Pro Gln Asp Cys Leu Asp Ser Val Val Asp Leu Arg Glu Tyr Asp Val  
 180 185 190  
 Pro Tyr His Val Arg Phe Ala Ile Asp Asn Asp Val Arg Ser Gly Gln  
 195 200 205  
 Trp Tyr Asn Val Ser Ile Ser Ser Thr Asp Val Ile Leu Glu Lys Arg  
 210 215 220  
 Thr Asp Leu Leu Gln Arg Ala Glu Val Arg Val Cys Ala Phe Asp Ile  
 225 230 235 240  
 Glu Thr Val Lys Leu Pro Leu Lys Phe Pro Asp Ala Glu Tyr Asp Gln  
 245 250 255

## 047-E2F-PCT.ST25.txt

Ile Met Met Ile Ser Tyr Met Val Asp Gly Gln Gly Phe Leu Ile Thr  
 260 265 270  
 Asn Arg Glu Cys Val Gly Lys Asp Ile Glu Asp Leu Glu Tyr Thr Pro  
 275 280 285  
 Lys Pro Glu Phe Glu Gly Tyr Phe Lys Val Thr Asn Val Thr Asn Glu  
 290 295 300  
 Val Glu Leu Leu Arg Lys Trp Phe Ser His Met Gln Glu Leu Lys Pro  
 305 310 315 320  
 Gly Ile Tyr Val Thr Tyr Asn Gly Asp Phe Phe Asp Trp Pro Phe Ile  
 325 330 335  
 Glu Arg Arg Ala Ser His His Gly Ile Lys Met Asn Glu Glu Leu Gly  
 340 345 350  
 Phe Arg Cys Asp Gln Asn Gln Gly Glu Cys Arg Ala Lys Phe Val Cys  
 355 360 365  
 His Leu Asp Cys Phe Ser Trp Val Lys Arg Asp Ser Tyr Leu Pro Gln  
 370 375 380  
 Gly Ser Gln Gly Leu Lys Ala Val Thr Lys Val Lys Leu Gly Tyr Asp  
 385 390 395 400  
 Pro Leu Glu Val Asn Pro Glu Asp Met Val Arg Phe Ala Met Glu Lys  
 405 410 415  
 Pro Gln Thr Met Ala Ser Tyr Ser Val Ser Asp Ala Val Ala Thr Tyr  
 420 425 430  
 Tyr Leu Tyr Met Thr Tyr Val His Pro Phe Val Phe Ser Leu Ala Thr  
 435 440 445  
 Ile Ile Pro Met Val Pro Asp Glu Val Leu Arg Lys Gly Ser Gly Thr  
 450 455 460  
 Leu Cys Glu Met Leu Leu Met Val Glu Ala Tyr Lys Ala Asn Val Val  
 465 470 475 480  
 Cys Pro Asn Lys Asn Gln Ala Asp Pro Glu Lys Phe Tyr Gln Gly Lys  
 485 490 495  
 Leu Leu Glu Ser Glu Thr Tyr Ile Gly Gly His Val Glu Cys Leu Gln  
 500 505 510



047-E2F-PCT.ST25.txt

Ser Gly Val Phe Arg Ser Asp Ile Pro Thr Ser Phe Lys Leu Asp Ala  
515 520 525

Ser Ala Tyr Gln Gln Leu Ile Asp Asn Leu Gly Arg Asp Leu Glu Tyr  
530 535 540

Ala Ile Thr Val Glu Gly Lys Met Arg Met Asp Ser Val Ser Asn Phe  
545 550 555 560

Asp Glu Val Lys Glu Val Ile Arg Glu Lys Leu Glu Lys Leu Arg Asp  
565 570 575

Asp Pro Ile Arg Glu Glu Gly Pro Leu Ile Tyr His Leu Asp Val Ala  
580 585 590

Ala Met Tyr Pro Asn Ile Ile Leu Thr Asn Arg Leu Gln Pro Pro Ser  
595 600 605

Ile Val Thr Asp Glu Val Cys Thr Ala Cys Asp Phe Asn Gly Pro Glu  
610 615 620

Lys Thr Cys Leu Arg Lys Leu Glu Trp Val Trp Arg Gly Val Thr Phe  
625 630 635 640

Lys Gly Asn Lys Ser Glu Tyr Tyr His Leu Lys Lys Gln Ile Glu Ser  
645 650 655

Glu Ser Val Asp Ala Gly Ala Asn Met Gln Ser Ser Lys Pro Phe Leu  
660 665 670

Asp Leu Pro Lys Val Glu Gln Gln Ser Lys Leu Lys Glu Arg Leu Lys  
675 680 685

Lys Tyr Cys Gln Lys Ala Tyr Ser Arg Val Leu Asp Lys Pro Ile Thr  
690 695 700

Glu Val Arg Glu Ala Gly Ile Cys Met Arg Glu Asn Pro Phe Tyr Val  
705 710 715 720

Asp Thr Val Arg Ser Phe Arg Asp Arg Arg Tyr Glu Tyr Lys Thr Leu  
725 730 735

Asn Lys Val Trp Lys Gly Lys Leu Ser Glu Ala Lys Ala Ser Gly Asn  
740 745 750

Leu Ile Lys Ile Gln Glu Ala His Asp Met Val Val Val Tyr Asp Ser

755

760

765

Leu Gln Leu Ala His Lys Cys Ile Leu Asn Ser Phe Tyr Gly Tyr Val  
 770 775 780

Met Arg Lys Gly Ala Arg Trp Tyr Ser Met Glu Met Ala Gly Val Val  
 785 790 795 800

Thr Tyr Thr Gly Ala Lys Ile Ile Gln Asn Ala Arg Leu Leu Ile Glu  
 805 810 815

Arg Ile Gly Lys Pro Leu Glu Leu Asp Thr Asp Gly Ile Trp Cys Ala  
 820 825 830

Leu Pro Gly Ser Phe Pro Glu Asn Phe Thr Phe Lys Thr Ile Asp Met  
 835 840 845

Lys Lys Phe Thr Ile Ser Tyr Pro Cys Val Ile Leu Asn Val Asp Val  
 850 855 860

Ala Lys Asn Asn Ser Asn Asp Gln Tyr Gln Thr Leu Val Asp Pro Val  
 865 870 875 880

Arg Lys Thr Tyr Asn Ser Arg Ser Glu Cys Ser Ile Glu Phe Glu Val  
 885 890 895

Asp Gly Pro Tyr Lys Ala Met Ile Ile Pro Ala Ser Lys Glu Glu Gly  
 900 905 910

Ile Leu Ile Lys Lys Arg Tyr Ala Val Phe Asn His Asp Gly Thr Ile  
 915 920 925

Ala Glu Leu Lys Gly Phe Glu Met Lys Arg Arg Gly Glu Leu Lys Leu  
 930 935 940

Ile Lys Val Phe Gln Ala Glu Leu Phe Asp Lys Phe Leu His Gly Ser  
 945 950 955 960

Thr Leu Glu Glu Cys Tyr Ser Ala Val Ala Ala Val Ala Asn Arg Trp  
 965 970 975

Leu Asp Leu Leu Glu Gly Gln Gly Lys Asp Ile Ala Asp Ser Glu Leu  
 980 985 990

Leu Asp Tyr Ile Ser Glu Ser Ser Thr Met Ser Lys Ser Leu Ala Asp  
 995 1000 1005

Tyr	Gly	Gln	Gln	Lys	Ser	Cys	Ala	Val	Thr	Thr	Ala	Lys	Arg	Leu
	1010					1015					1020			
Ala	Asp	Phe	Leu	Gly	Asp	Thr	Met	Val	Lys	Asp	Lys	Gly	Leu	Arg
	1025					1030					1035			
Cys	Gln	Tyr	Ile	Val	Ala	Arg	Glu	Pro	Glu	Gly	Thr	Pro	Val	Ser
	1040					1045					1050			
Glu	Arg	Ala	Val	Pro	Val	Ala	Ile	Phe	Gln	Thr	Asp	Asp	Pro	Glu
	1055					1060					1065			
Lys	Lys	Phe	Tyr	Leu	Gln	Lys	Trp	Cys	Lys	Ile	Ser	Ser	Tyr	Thr
	1070					1075					1080			
Gly	Ile	Arg	Ser	Ile	Ile	Asp	Trp	Met	Tyr	Tyr	Lys	Gln	Arg	Leu
	1085					1090					1095			
His	Ser	Ala	Ile	Gln	Lys	Val	Ile	Thr	Ile	Pro	Ala	Ala	Met	Gln
	1100					1105					1110			
Lys	Val	Ala	Asn	Pro	Val	Leu	Arg	Val	Arg	His	Pro	Tyr	Trp	Leu
	1115					1120					1125			
Glu	Lys	Lys	Val	Cys	Asp	Lys	Phe	Arg	Gln	Gly	Lys	Ile	Val	Asp
	1130					1135					1140			
Met	Phe	Ser	Ser	Ala	Asn	Lys	Asp	His	Ser	Thr	Thr	Gln	Asp	Asn
	1145					1150					1155			
Val	Val	Ala	Asp	Ile	Glu	Glu	Phe	Cys	Lys	Glu	Asn	Arg	Pro	Ser
	1160					1165					1170			
Val	Lys	Gly	Pro	Lys	Pro	Val	Ala	Arg	Ser	Phe	Glu	Val	Asp	Arg
	1175					1180					1185			
Asn	His	Ser	Glu	Gly	Lys	Gln	Gln	Glu	Ser	Trp	Asp	Pro	Glu	Phe
	1190					1195					1200			
His	Asp	Ile	Ser	Leu	Gln	Asn	Val	Asp	Lys	Asn	Val	Asp	Tyr	Gln
	1205					1210					1215			
Gly	Trp	Leu	Glu	Leu	Glu	Lys	Arg	Lys	Trp	Lys	Met	Thr	Leu	Thr
	1220					1225					1230			
Asn	Lys	Lys	Lys	Arg	Arg	Phe	Asp	Asp	Leu	Lys	Pro	Cys	Asn	Gln
	1235					1240					1245			

## 047-E2F-PCT.ST25.txt

Ile Asp Ala His Lys Ile Asn Lys Lys Val Cys Lys Gly Arg Val  
 1250 1255 1260  
 Gly Val Gly Ser Tyr Phe Arg Arg Pro Glu Glu Ala Leu Thr Ser  
 1265 1270 1275  
 Ser Tyr Leu Gln Ile Ile Gln Leu Val Gln Ser Pro Gln Ser Gly  
 1280 1285 1290  
 Gln Phe Phe Ala Trp Val Val Val Glu Gly Leu Met Leu Lys Ile  
 1295 1300 1305  
 Pro Leu Thr Ile Pro Arg Val Phe Tyr Ile Asn Ser Lys Ala Ser  
 1310 1315 1320  
 Ile Ala Gly Asn Phe Thr Gly Lys Cys Ile Asn Lys Ile Leu Pro  
 1325 1330 1335  
 His Gly Lys Pro Cys Tyr Asn Leu Met Glu Ala Arg His Leu His  
 1340 1345 1350  
 Asn Thr His Ile Leu Leu Leu Val Asn Ile Gln Glu Asp Gln Phe  
 1355 1360 1365  
 Ile Lys Glu Ser Lys Lys Leu Ala Ala Leu Leu Ala Asp Pro Glu  
 1370 1375 1380  
 Ile Glu Gly Ile Tyr Glu Thr Lys Met Pro Leu Glu Phe Ser Ala  
 1385 1390 1395  
 Ile Cys Gln Ile Gly Cys Val Cys Lys Ile Glu Asp Thr Ala Lys  
 1400 1405 1410  
 His Arg Asn Thr Gln Asp Gly Trp Lys Leu Gly Glu Leu His Arg  
 1415 1420 1425  
 Ile Thr Thr Thr Glu Cys Arg Tyr Leu Glu Asn Ser Ile Pro Leu  
 1430 1435 1440  
 Val Tyr Leu Tyr His Ser Thr Ser Thr Gly Arg Ala Val Tyr Val  
 1445 1450 1455  
 Leu Tyr Cys His Ala Ser Lys Leu Met Ser Val Val Val Val Asn  
 1460 1465 1470  
 Pro Tyr Gly Asp Lys Glu Leu Leu Ser Ser Ala Leu Glu Arg Gln  
 1475 1480 1485

## 047-E2F-PCT.ST25.txt

Phe	Arg	Asp	Arg	Cys	Gln	Glu	Leu	Ser	Pro	Glu	Pro	Phe	Ser	Trp
	1490					1495					1500			
Asp	Gly	Ile	Leu	Phe	Gln	Val	Glu	Tyr	Val	Asp	His	Pro	Glu	Ala
	1505					1510					1515			
Ala	Thr	Lys	Phe	Leu	Gln	Lys	Ala	Leu	Cys	Glu	Tyr	Arg	Glu	Glu
	1520					1525					1530			
Asn	Cys	Gly	Ala	Thr	Val	Ala	Val	Ile	Glu	Cys	Pro	Asp	Phe	Asn
	1535					1540					1545			
Thr	Thr	Lys	Glu	Gly	Val	Lys	Ala	Leu	Glu	Asp	Phe	Pro	Cys	Val
	1550					1555					1560			
Arg	Ile	Pro	Phe	Asn	Asp	Asp	Asp	Asn	Ser	Tyr	Gln	Pro	Val	Ser
	1565					1570					1575			
Trp	Gln	Arg	Pro	Ala	Ala	Lys	Ile	Ala	Val	Leu	Arg	Cys	Ala	Ser
	1580					1585					1590			
Ala	Ile	Gln	Trp	Leu	Asp	Arg	Arg	Ile	Ala	Gln	Ser	Arg	Tyr	Ala
	1595					1600					1605			
His	Val	Pro	Leu	Gly	Asn	Phe	Gly	Arg	Asp	Trp	Leu	Thr	Phe	Thr
	1610					1615					1620			
Val	Asp	Ile	Phe	Leu	Ser	Arg	Ala	Leu	Arg	Asp	Gln	Gln	Gln	Val
	1625					1630					1635			
Leu	Trp	Val	Ser	Asp	Asn	Gly	Val	Pro	Asp	Leu	Gly	Asp	Ile	Asn
	1640					1645					1650			
Asn	Glu	Glu	Thr	Phe	Leu	Ala	Asp	Glu	Leu	Gln	Glu	Thr	Ser	Leu
	1655					1660					1665			
Leu	Phe	Pro	Gly	Ala	Tyr	Arg	Lys	Val	Ser	Val	Glu	Leu	Lys	Val
	1670					1675					1680			
His	Arg	Leu	Ala	Val	Asn	Ala	Leu	Leu	Lys	Ser	Asp	Leu	Val	Ser
	1685					1690					1695			
Glu	Met	Glu	Gly	Gly	Gly	Phe	Leu	Gly	Val	Asn	Ser	Arg	Gly	Ser
	1700					1705					1710			
Ser	Leu	Asn	Asp	Asn	Gly	Ser	Phe	Asp	Glu	Asn	Asn	Gly	Cys	Ala

1715						1720						1725		
Gln	Ala	Phe	Arg	Val	Leu	Lys	Gln	Leu	Ile	Lys	Arg	Leu	Leu	His
	1730					1735					1740			
Asp	Ala	Cys	Asn	Ser	Gly	Asn	Ile	Tyr	Ala	Asp	Ser	Ile	Leu	Gln
	1745					1750					1755			
His	Leu	Ser	Trp	Trp	Leu	Arg	Ser	Pro	Ser	Ser	Lys	Leu	His	Asp
	1760					1765					1770			
Pro	Ala	Leu	His	Leu	Met	Leu	His	Lys	Val	Met	Gln	Lys	Val	Phe
	1775					1780					1785			
Ala	Leu	Leu	Leu	Thr	Asp	Leu	Arg	Arg	Leu	Gly	Ala	Ile	Ile	Ile
	1790					1795					1800			
Tyr	Ala	Asp	Phe	Ser	Lys	Val	Ile	Ile	Asp	Thr	Gly	Lys	Phe	Asp
	1805					1810					1815			
Leu	Ser	Ala	Ala	Lys	Thr	Tyr	Cys	Glu	Ser	Leu	Leu	Thr	Val	Met
	1820					1825					1830			
Gly	Ser	Arg	Asp	Ile	Phe	Lys	Leu	Ile	Leu	Leu	Glu	Pro	Val	His
	1835					1840					1845			
Tyr	Trp	His	Ser	Leu	Leu	Phe	Met	Asp	Gln	His	Asn	Tyr	Ala	Gly
	1850					1855					1860			
Ile	Arg	Ala	Thr	Gly	Asp	Glu	Ile	Ser	Gly	Asn	Glu	Val	Thr	Ile
	1865					1870					1875			
Glu	Pro	Lys	Trp	Ser	Val	Ala	Arg	His	Leu	Pro	Glu	Tyr	Ile	Gln
	1880					1885					1890			
Lys	Asp	Phe	Ile	Ile	Ile	Val	Ala	Thr	Phe	Ile	Phe	Gly	Pro	Trp
	1895					1900					1905			
Lys	Phe	Ala	Leu	Glu	Lys	Lys	Arg	Gly	Ser	Ala	Glu	Ser	Leu	Glu
	1910					1915					1920			
Ala	Glu	Met	Val	Glu	Tyr	Leu	Lys	Glu	Gln	Ile	Gly	Thr	Arg	Phe
	1925					1930					1935			
Ile	Ser	Met	Ile	Val	Glu	Lys	Ile	Gly	Asn	Ile	Arg	Ser	His	Ile
	1940					1945					1950			

Lys Asp Ile Asn Val Ser Asp Ala Ser Trp Ala Ser Gly Gln Ala  
 1955 1960 1965  
 Pro Lys Gly Asp Tyr Thr Phe Glu Phe Ile Gln Ile Ile Thr Ala  
 1970 1975 1980  
 Val Leu Ala Leu Asp Gln Asn Val Gln Gln Asp Val Leu Val Met  
 1985 1990 1995  
 Arg Lys Ile Leu Leu Lys Tyr Ile Lys Val Lys Glu Cys Ala Ala  
 2000 2005 2010  
 Glu Ala Glu Phe Ile Asp Pro Gly Pro Ser Phe Ile Leu Pro Asn  
 2015 2020 2025  
 Val Ala Cys Ser Asn Cys Gly Ala Tyr Arg Asp Leu Asp Phe Cys  
 2030 2035 2040  
 Arg Asp Ser Ala Leu Leu Thr Glu Lys Glu Trp Ser Cys Ala Asp  
 2045 2050 2055  
 Pro Gln Cys Val Lys Ile Tyr Asp Lys Glu Gln Ile Glu Ser Ser  
 2060 2065 2070  
 Ile Ile Gln Met Val Arg Gln Arg Glu Arg Met Tyr Gln Leu Gln  
 2075 2080 2085  
 Asp Leu Val Cys Asn Arg Cys Asn Gln Val Lys Ala Ala His Leu  
 2090 2095 2100  
 Thr Glu Gln Cys Glu Cys Ser Gly Ser Phe Arg Cys Lys Glu Ser  
 2105 2110 2115  
 Gly Ser Asp Phe His Lys Arg Ile Glu Ile Phe Leu Asp Ile Ala  
 2120 2125 2130  
 Lys Arg Gln Lys Phe Arg Leu Leu Glu Glu Cys Ile Ser Trp Ile  
 2135 2140 2145  
 Leu Phe Ala Thr Ser Cys  
 2150

&lt;210&gt; 1119

&lt;211&gt; 1068

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1119

```

atggagttac cgcgcgtaga tctgtctagt tacctcgact tctccggtga tgaattagga      60
tccgatctac tcgaatcatg cgcacaagtg agtcggatcc taaaagaaac cggagctctc      120
attgttaaag atcctcgatg ttgcgctcaa gacaacgatc gattcattga tatgatggaa      180
aattattttcg aaaaacctga tgatttcaaa cgattgcaac aaagacctaa tcttcactat      240
caggttggtg cgacgccgga gggagttgaa gtgccgagga gtttggttga tgaagagatg      300
caagaaaagt tcaatacaat gcctaataaa tacaaccac atattccgaa aggaccagat      360
cataagtgga gatatatgtg gagagttggt cctaggccat ctaacacacg gtttaaggag      420
cttaattctg agcctgttgt accggaaggt tttccggggt gggaagaagt aatggactca      480
tggggttaca agatgatatc cgcggttgag gttgttgctg aaatggcagc aattgggttt      540
ggtttgccta aggatgcatt tacatcactc atgaagcagg gtcctcatct tcttgctcca      600
acgggaagtg atcttaactg ttacaacgag gaaggacga tatttgcagg atatcactat      660
gatcttaatt ttctaacgat tcatggaaga agtagattcc ctggtctata tatttggtta      720
aggaatggag agaaggttgc ggttaaagtt ccggtaggct gtctcttgat tcaagctgga      780
aagcagatag aatggttaac tgctggagaa tgcattgctg gaatgcatga agtgggttgt      840
acgagcaaga cgaaggatgc catcacatta gcaaaggaac aaaaccgaag cctatggaga      900
gtttcctcga ctttgtttgc ccacattgcc tctgatgcgg agctgaaacc tttgggacat      960
ttcgcagaat catctttggc aagtaaatat ccggcgatac ccgcaggaga gtatgttgaa     1020
caagaactct cggatcatcaa tctcaaagga aataagggat cttcatag      1068

```

&lt;210&gt; 1120

&lt;211&gt; 355

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1120

```

Met Glu Leu Pro Val Val Asp Leu Ser Ser Tyr Leu Asp Phe Ser Gly
1          5          10          15
Asp Glu Leu Gly Ser Asp Leu Leu Glu Ser Cys Arg Gln Val Ser Arg
20          25          30
Ile Leu Lys Glu Thr Gly Ala Leu Ile Val Lys Asp Pro Arg Cys Cys
35          40          45

```



047-E2F-PCT.ST25.txt

Ala Gln Asp Asn Asp Arg Phe Ile Asp Met Met Glu Asn Tyr Phe Glu  
50 55 60

Lys Pro Asp Asp Phe Lys Arg Leu Gln Gln Arg Pro Asn Leu His Tyr  
65 70 75 80

Gln Val Gly Ala Thr Pro Glu Gly Val Glu Val Pro Arg Ser Leu Val  
85 90 95

Asp Glu Glu Met Gln Glu Lys Phe Asn Thr Met Pro Asn Glu Tyr Lys  
100 105 110

Pro His Ile Pro Lys Gly Pro Asp His Lys Trp Arg Tyr Met Trp Arg  
115 120 125

Val Gly Pro Arg Pro Ser Asn Thr Arg Phe Lys Glu Leu Asn Ser Glu  
130 135 140

Pro Val Val Pro Glu Gly Phe Pro Gly Trp Glu Glu Val Met Asp Ser  
145 150 155 160

Trp Gly Tyr Lys Met Ile Ser Ala Val Glu Val Val Ala Glu Met Ala  
165 170 175

Ala Ile Gly Phe Gly Leu Pro Lys Asp Ala Phe Thr Ser Leu Met Lys  
180 185 190

Gln Gly Pro His Leu Leu Ala Pro Thr Gly Ser Asp Leu Asn Cys Tyr  
195 200 205

Asn Glu Glu Gly Thr Ile Phe Ala Gly Tyr His Tyr Asp Leu Asn Phe  
210 215 220

Leu Thr Ile His Gly Arg Ser Arg Phe Pro Gly Leu Tyr Ile Trp Leu  
225 230 235 240

Arg Asn Gly Glu Lys Val Ala Val Lys Val Pro Val Gly Cys Leu Leu  
245 250 255

Ile Gln Ala Gly Lys Gln Ile Glu Trp Leu Thr Ala Gly Glu Cys Ile  
260 265 270

Ala Gly Met His Glu Val Val Val Thr Ser Lys Thr Lys Asp Ala Ile  
275 280 285

Thr Leu Ala Lys Glu Gln Asn Arg Ser Leu Trp Arg Val Ser Ser Thr

290

295

Leu Phe Ala His Ile Ala Ser Asp Ala Glu Leu Lys Pro Leu Gly His  
305 310 315 320

Phe Ala Glu Ser Ser Leu Ala Ser Lys Tyr Pro Ala Ile Pro Ala Gly  
325 330 335

Glu Tyr Val Glu Gln Glu Leu Ser Val Ile Asn Leu Lys Gly Asn Lys  
340 345 350

Gly Ser Ser  
355

<210> 1121

<211> 444

<212> DNA

<213> Arabidopsis thaliana

<400> 1121

atgagccacc gtgtttcgat tctatcatct cttttctcac ctgcctccgc cgtcatggct	60
tccgagaaag aagctgctct cgccgccact ccttccgatt ctcccacat atttgacaag	120
atcatcagca aagagattcc atccaccgtg gtttttgagg atgacaaggt cttagctttt	180
agggacataa cgccccaggg tctgtttcac atcctcctta ttccaaaagt gagggatggc	240
ctaactggcc tctctaaggc tgaggaaagg cacatcgaca tcttgggccg ccttctctac	300
actgccaagc ttgtagcaaa acaagaaggc ctacgagagg gtttcagaat tgttatcaat	360
gatggtcctc aaggctgtca atcgggtgtat cacattcatg ttcattctcat tggaggacgc	420
caaatgaact ggcctcctgg ttaa	444

<210> 1122

<211> 147

<212> PRT

<213> Arabidopsis thaliana

<400> 1122

Met Ser His Arg Val Ser Ile Leu Ser Ser His Phe Ser Pro Ala Ser  
1 5 10 15

Ala Val Met Ala Ser Glu Lys Glu Ala Ala Leu Ala Ala Thr Pro Ser  
20 25 30

Asp Ser Pro Thr Ile Phe Asp Lys Ile Ile Ser Lys Glu Ile Pro Ser  
35 40 45

Thr Val Val Phe Glu Asp Asp Lys Val Leu Ala Phe Arg Asp Ile Thr  
50 55 60

Pro Gln Gly Pro Val His Ile Leu Leu Ile Pro Lys Val Arg Asp Gly  
65 70 75 80

Leu Thr Gly Leu Ser Lys Ala Glu Glu Arg His Ile Asp Ile Leu Gly  
85 90 95

Arg Leu Leu Tyr Thr Ala Lys Leu Val Ala Lys Gln Glu Gly Leu Ala  
100 105 110

Glu Gly Phe Arg Ile Val Ile Asn Asp Gly Pro Gln Gly Cys Gln Ser  
115 120 125

Val Tyr His Ile His Val His Leu Ile Gly Gly Arg Gln Met Asn Trp  
130 135 140

Pro Pro Gly  
145

<210> 1123

<211> 1698

<212> DNA

<213> Arabidopsis thaliana

<400> 1123

atgaactgtg caatttcagg agaagttccc gtggagccag tggtttcgac gaagtcagga	60
ttactcttcg agagacgact aatcgaaaga catatatcgg attatgggaa gtgcccggtt	120
actggcgaac cacttaccat tgatgacatt gttcccatca aaactgggga gatcataaag	180
ccgaaaacat tgcatacagc tagtatccct ggattgctcg gaacgttcca gaatgaatgg	240
gacggtttga tgctatcaaa ttttgactg gagcaacaac tacatactgc aaggcaagag	300
ctaagtcatg ccttgatatca gcatgattct gcttgctcgtg tgattgctag acttaaaaaa	360
gaaagagacg aagcacgcca attactggcc gaggttgaga gacatatacc tgcggcccct	420
gaagctgtga cagctaatagc tgctctgagt aatggtaaac gagctgccgt tgacgaggaa	480

047-E2F-PCT.ST25.txt

ctgggtcctg atgcaaagaa attgtgtcct ggaatttcag ctgaaattat tacggaattg 540  
 actgattgta atgctgctct ttcccagaag cgaaaaaagc gacagattcc tcaaacattg 600  
 gcgtcaatag atacttttga gaggttcact cagctatcaa gccaccact tcacaagacc 660  
 aacaaaccag gcatttggtc gatggacatt ctacattcta aggatgtcat tgctactgga 720  
 ggagttgatg caactgctgt tctctttgat cgcccttctg gacaaatctt gtcaacactg 780  
 actggtcact cgaagaaggt tacaagcgta aaattttagt gcgactctga tcttgttttg 840  
 actgcttctg ctgacaagac agtccgtatc tggcggaatc ctgggggatgg gaattatgct 900  
 tgtgggtata cattgaatga tcattctgct gaggtgctgag ctgtaactgt gcatcccaca 960  
 aataaatact ttgtctcggc atctcttgat ggtacatggt gcttctacga tctgtcctct 1020  
 ggctcatgcc ttgcacaggt atcagatgat tcaaagaatg tagattacac ggctgctgct 1080  
 tttcatcccg atggtctcat tctcggaacc ggtacttctc aatctgttgt taagatttgg 1140  
 gacgttaaaa gtcaggcaaa tgtggctaag tttgatggac acactgggga agttacagct 1200  
 atatctttct ctgaaaatgg ttacttcctc gcgacagctg cagaggatgg tgttagggtg 1260  
 tgggatctgc gcaagttaag gaacttcaaa tcatttttat ctgcagatgc gaactctgtg 1320  
 gagtttgatc ctagcggatc ttatctcggg attgctgcat cagatatcaa agtataccag 1380  
 acggcaagtg tgaaagctga atggaacctt atcaagacac tcccagatct ctccggcact 1440  
 ggtaaagcta cgtgtgtgaa gtttggttca gatgcacagt acgttgcagt cggttcgatg 1500  
 gaccgtaact acggatattt ggtcttcctg gtgatgaaaa agccaacgct gatgatgact 1560  
 ctgcgcaaga ctcgtgaaca atccgtaaaa aactcagaca gaacattcca aatgtccatc 1620  
 tccagtgtta tctcgtcaa atttctcaag ttctgttgta tcttacagta tttgcagcaa 1680  
 tgggggagaa tttcatag 1698

<210> 1124

<211> 565

<212> PRT

<213> Arabidopsis thaliana

<400> 1124

Met Asn Cys Ala Ile Ser Gly Glu Val Pro Val Glu Pro Val Val Ser  
 1 5 10 15

Thr Lys Ser Gly Leu Leu Phe Glu Arg Arg Leu Ile Glu Arg His Ile  
 20 25 30

Ser Asp Tyr Gly Lys Cys Pro Val Thr Gly Glu Pro Leu Thr Ile Asp  
 35 40 45  
 Asp Ile Val Pro Ile Lys Thr Gly Glu Ile Ile Lys Pro Lys Thr Leu  
 50 55 60  
 His Thr Ala Ser Ile Pro Gly Leu Leu Gly Thr Phe Gln Asn Glu Trp  
 65 70 75 80  
 Asp Gly Leu Met Leu Ser Asn Phe Ala Leu Glu Gln Gln Leu His Thr  
 85 90 95  
 Ala Arg Gln Glu Leu Ser His Ala Leu Tyr Gln His Asp Ser Ala Cys  
 100 105 110  
 Arg Val Ile Ala Arg Leu Lys Lys Glu Arg Asp Glu Ala Arg Gln Leu  
 115 120 125  
 Leu Ala Glu Val Glu Arg His Ile Pro Ala Ala Pro Glu Ala Val Thr  
 130 135 140  
 Ala Asn Ala Ala Leu Ser Asn Gly Lys Arg Ala Ala Val Asp Glu Glu  
 145 150 155 160  
 Leu Gly Pro Asp Ala Lys Lys Leu Cys Pro Gly Ile Ser Ala Glu Ile  
 165 170 175  
 Ile Thr Glu Leu Thr Asp Cys Asn Ala Ala Leu Ser Gln Lys Arg Lys  
 180 185 190  
 Lys Arg Gln Ile Pro Gln Thr Leu Ala Ser Ile Asp Thr Leu Glu Arg  
 195 200 205  
 Phe Thr Gln Leu Ser Ser His Pro Leu His Lys Thr Asn Lys Pro Gly  
 210 215 220  
 Ile Cys Ser Met Asp Ile Leu His Ser Lys Asp Val Ile Ala Thr Gly  
 225 230 235 240  
 Gly Val Asp Ala Thr Ala Val Leu Phe Asp Arg Pro Ser Gly Gln Ile  
 245 250 255  
 Leu Ser Thr Leu Thr Gly His Ser Lys Lys Val Thr Ser Val Lys Phe  
 260 265 270  
 Val Gly Asp Ser Asp Leu Val Leu Thr Ala Ser Ala Asp Lys Thr Val  
 275 280 285

## 047-E2F-PCT.ST25.txt

Arg Ile Trp Arg Asn Pro Gly Asp Gly Asn Tyr Ala Cys Gly Tyr Thr  
 290 295 300  
 Leu Asn Asp His Ser Ala Glu Val Arg Ala Val Thr Val His Pro Thr  
 305 310 315 320  
 Asn Lys Tyr Phe Val Ser Ala Ser Leu Asp Gly Thr Trp Cys Phe Tyr  
 325 330 335  
 Asp Leu Ser Ser Gly Ser Cys Leu Ala Gln Val Ser Asp Asp Ser Lys  
 340 345 350  
 Asn Val Asp Tyr Thr Ala Ala Ala Phe His Pro Asp Gly Leu Ile Leu  
 355 360 365  
 Gly Thr Gly Thr Ser Gln Ser Val Val Lys Ile Trp Asp Val Lys Ser  
 370 375 380  
 Gln Ala Asn Val Ala Lys Phe Asp Gly His Thr Gly Glu Val Thr Ala  
 385 390 395 400  
 Ile Ser Phe Ser Glu Asn Gly Tyr Phe Leu Ala Thr Ala Ala Glu Asp  
 405 410 415  
 Gly Val Arg Leu Trp Asp Leu Arg Lys Leu Arg Asn Phe Lys Ser Phe  
 420 425 430  
 Leu Ser Ala Asp Ala Asn Ser Val Glu Phe Asp Pro Ser Gly Ser Tyr  
 435 440 445  
 Leu Gly Ile Ala Ala Ser Asp Ile Lys Val Tyr Gln Thr Ala Ser Val  
 450 455 460  
 Lys Ala Glu Trp Asn Leu Ile Lys Thr Leu Pro Asp Leu Ser Gly Thr  
 465 470 475 480  
 Gly Lys Ala Thr Cys Val Lys Phe Gly Ser Asp Ala Gln Tyr Val Ala  
 485 490 495  
 Val Gly Ser Met Asp Arg Asn Tyr Gly Tyr Leu Val Phe Leu Val Met  
 500 505 510  
 Lys Lys Pro Thr Ser Met Met Thr Leu Arg Lys Thr Arg Glu Gln Ser  
 515 520 525  
 Val Lys Asn Ser Asp Arg Thr Phe Gln Met Ser Ile Ser Ser Val Ile  
 530 535 540

Ser Leu Lys Phe Leu Lys Phe Cys Cys Ile Leu Gln Tyr Leu Gln Gln  
545 550 555 560

Trp Gly Arg Ile Ser  
565

<210> 1125

<211> 627

<212> DNA

<213> Arabidopsis thaliana

<400> 1125

atgtttgcgta ctatcttcct cttatctctt ctctttgctc tatccaatgc ctctgttcaa	60
gattttctgtg tcgcaaacct gaaacgcgct gaaacccctg cgggttaccc ttgcattcgt	120
cccattcatg tcaaagctac agactttgtc ttctctggct taggcactcc tggaaacact	180
acaaacatca tcaacgccgc tgtcacaccc gctttcgcag ctcagttccc ggggtctgaac	240
gggtctaggcc tctctacagc tagacttgac ttagctccta aagggtgtgat cccaatgcac	300
actcacctg gtgcctctga ggttctcttt gtccttactg gctccattac cgctgggttt	360
gtctcctcgg caaacgctgt ctacgtgcag aactcaaac caggacaggt catgggtttc	420
ccacagggct tgcttcattt ccagatcaac gcgggaaaat cctctgcttc agccgttgctc	480
actttcaaca gcgctaattc ggggtctgcag attctcgact tcgcactctt tgctaacagt	540
cttccactg aactcgtcgt ggggtactact ttccttgacg ccactacagt caagaagcta	600
aagggtgttc ttggaggaac tggctaa	627

<210> 1126

<211> 208

<212> PRT

<213> Arabidopsis thaliana

<400> 1126

Met Leu Arg Thr Ile Phe Leu Leu Ser Leu Leu Phe Ala Leu Ser Asn  
1 5 10 15

Ala Ser Val Gln Asp Phe Cys Val Ala Asn Leu Lys Arg Ala Glu Thr  
20 25 30

047-E2F-PCT.ST25.txt

Pro Ala Gly Tyr Pro Cys Ile Arg Pro Ile His Val Lys Ala Thr Asp  
35 40 45  
Phe Val Phe Ser Gly Leu Gly Thr Pro Gly Asn Thr Thr Asn Ile Ile  
50 55 60  
Asn Ala Ala Val Thr Pro Ala Phe Ala Ala Gln Phe Pro Gly Leu Asn  
65 70 75 80  
Gly Leu Gly Leu Ser Thr Ala Arg Leu Asp Leu Ala Pro Lys Gly Val  
85 90 95  
Ile Pro Met His Thr His Pro Gly Ala Ser Glu Val Leu Phe Val Leu  
100 105 110  
Thr Gly Ser Ile Thr Ala Gly Phe Val Ser Ser Ala Asn Ala Val Tyr  
115 120 125  
Val Gln Thr Leu Lys Pro Gly Gln Val Met Val Phe Pro Gln Gly Leu  
130 135 140  
Leu His Phe Gln Ile Asn Ala Gly Lys Ser Ser Ala Ser Ala Val Val  
145 150 155 160  
Thr Phe Asn Ser Ala Asn Pro Gly Leu Gln Ile Leu Asp Phe Ala Leu  
165 170 175  
Phe Ala Asn Ser Leu Pro Thr Glu Leu Val Val Gly Thr Thr Phe Leu  
180 185 190  
Asp Ala Thr Thr Val Lys Lys Leu Lys Gly Val Leu Gly Gly Thr Gly  
195 200 205

<210> 1127

<211> 840

<212> DNA

<213> Arabidopsis thaliana

<400> 1127

atggagagtg gcgatgagag tccggtggtt ctaattacgg gatgttctca gggaggaatt	60
ggtcacgcgc tggcccgtga gttcactgag aagggatgtc gagtggtggc gacgagtcga	120
tcacggagta cgatgacgga tctggagcaa gattcgaggt tattcgtgaa ggagcttgat	180
gtgcaatcgg accagaatgt gagtaagggt ttgtcggagg ttattgataa gttcggtaag	240



047-E2F-PCT.ST25.txt

```

atcgacgttc ttgttaataa cgccggagtt cagtgcgttg gacctctggc ggagactcca 300
atttccgcca tggaaaacac attcaacacc aatgtttttg gttccatgag gatgactcaa 360
gctgtttgtac cacacatggt gtctaagaaa aagggaaaga ttgtcaacgt tggaagtatc 420
actgtttatgg cacctggtcc atgggctggt gtctatacag ctaccaaagc tgctattcat 480
gctctttaccg atactctgag gttggagctt cgtccgtttg ggattgatgt catcaatgtt 540
gtcccgggag gaataagaac aaacatagca aactcagctg tggcaacttt caacaaaatg 600
cctgagctga aactatacaa gccttatgaa gaagctatca gagaaagggc gtttatatca 660
cagaggatga atccaactcc tgcagaaaca tttgccagag acactgtagc cgcagtgtcg 720
aagaagaatc caccgcttg gttctcgtca ggcaggtatt caaccctcat ggcagtcatg 780
tatcatatgc ccttatggct caaagatttt ttccagaagc aggttttaat gaagaagtga 840

```

<210> 1128

<211> 279

<212> PRT

<213> Arabidopsis thaliana

<400> 1128

Met Glu Ser Gly Asp Glu Ser Pro Val Val Leu Ile Thr Gly Cys Ser  
1 5 10 15

Gln Gly Gly Ile Gly His Ala Leu Ala Arg Glu Phe Thr Glu Lys Gly  
20 25 30

Cys Arg Val Val Ala Thr Ser Arg Ser Arg Ser Thr Met Thr Asp Leu  
35 40 45

Glu Gln Asp Ser Arg Leu Phe Val Lys Glu Leu Asp Val Gln Ser Asp  
50 55 60

Gln Asn Val Ser Lys Val Leu Ser Glu Val Ile Asp Lys Phe Gly Lys  
65 70 75 80

Ile Asp Val Leu Val Asn Asn Ala Gly Val Gln Cys Val Gly Pro Leu  
85 90 95

Ala Glu Thr Pro Ile Ser Ala Met Glu Asn Thr Phe Asn Thr Asn Val  
100 105 110

Phe Gly Ser Met Arg Met Thr Gln Ala Val Val Pro His Met Val Ser  
Page 1755

115

120

125

Lys Lys Lys Gly Lys Ile Val Asn Val Gly Ser Ile Thr Val Met Ala  
 130 135 140

Pro Gly Pro Trp Ala Gly Val Tyr Thr Ala Thr Lys Ala Ala Ile His  
 145 150 155 160

Ala Leu Thr Asp Thr Leu Arg Leu Glu Leu Arg Pro Phe Gly Ile Asp  
 165 170 175

Val Ile Asn Val Val Pro Gly Gly Ile Arg Thr Asn Ile Ala Asn Ser  
 180 185 190

Ala Val Ala Thr Phe Asn Lys Met Pro Glu Leu Lys Leu Tyr Lys Pro  
 195 200 205

Tyr Glu Glu Ala Ile Arg Glu Arg Ala Phe Ile Ser Gln Arg Met Asn  
 210 215 220

Pro Thr Pro Ala Glu Thr Phe Ala Arg Asp Thr Val Ala Ala Val Leu  
 225 230 235 240

Lys Lys Asn Pro Pro Ala Trp Phe Ser Ser Gly Arg Tyr Ser Thr Leu  
 245 250 255

Met Ala Val Met Tyr His Met Pro Leu Trp Leu Lys Asp Phe Phe Gln  
 260 265 270

Lys Gln Val Leu Met Lys Lys  
 275

<210> 1129

<211> 1704

<212> DNA

<213> Arabidopsis thaliana

<400> 1129

atgggttttg gtacatcttc ttcttcatct tcttcctcag ctctgaaatg gctaggtttc	60
gttactgccg tttgggtcca atccatctcc ggcaacaatt acaccttctc aaattactcc	120
ggcgactca aatccttaat gaacctcact cagttagaac tcaacagtct ctccgtcgct	180
aaagacgtcg gaaaagcatt cggaatcctc gccggacttg cttccgaccg tctttcaact	240
ccggtgatcc tcctcatcgg ttctttcgaa ggtcttcttg gttatggtgt acaatggctt	300

047-E2F-PCT.ST25.txt

```

gtcgttagcc gcacgattca acctatacct tattggcaga tgtgtgtgtt tctctgtatg 360
ggaggaaaca gtacgacgtg gatgaacacg gcggttcttg ttacttgtat aagaaacttc 420
cggcgaaatc gtggtcctgt ttcagggatt cttaaaggat acgttggttt aagtactgcg 480
attttcacgg atctatgtaa tgctctgttt tcctctgacc cagcttcgtt tcttgccttc 540
ctctccgtcg tgccttttgc cgtttgtctc acggcggttt tcttcctccg tgaaatccct 600
ccgtctacta ccttcgccga ggataacgaa gagtctaaat actttgctgt gtttaacatc 660
gttgcggttg ttgttgctgt gtaccttcag tcttacgaca tcatcggaat caaaacagga 720
gctttctcaa tcgcattcgc ttccatactt ctcatactct tagcctctcc tgtcgtgta 780
cctttccacg cttttatccg tagcaaagtt catgatgagc aagacgtaga aggacgaata 840
gatgaacctt tactaagatc aggatctgag attgaagtgg aggaaacaat cgtaggtgct 900
gcagcggcgg cggataacga attgccaccg tctcttaagc cgtaagtaa cgaggaggaa 960
gagaatcacg gaactatagt gacgacggag aagaaaagac cggttcttgg agaagaacac 1020
accataatgg aagctatgtt gaccgttgac ttttggtgtg tggtcgtgtc gttcttgtgt 1080
ggagtaggaa ctggttttagc agttatgaac aatatgggtc agatcgggct tgcgcttgg 1140
tactactgatg tctccatfff tgtctccatg actagcatff ggggattcft tggtcggatt 1200
ctctccggtg ctatctccga gcacttcatc aagaaagctg gaacaccaag accattatgg 1260
aatgcagcag ctcaaatacat tatggccgtg ggatatctac tgatggctff agccttgccc 1320
ggttcactct atattggttc aatggtggtt ggggtatgct atggagttcg gttagcgata 1380
accgtaccaa cagcatcaga actcttcggt ctcaaatact atggactcat ctacaacatc 1440
cttatactta atatgcctct aggatcgffc ctcttctcgg gtctactcgc gggtttactc 1500
tacgatgctg aagccacacc tactcctggt ggaggcaata cgtgtgtagg agctcattgt 1560
ttccgtatcg tcttcattgt aatggcgfff gcttctatca ttggggtcgg tcttgacfft 1620
ttgcttgctg atagaaccaa ggggatctat gcgaagattc atgcgagcaa gaagactaag 1680
aaatctggtg gtaatcttcg atga 1704

```

<210> 1130

<211> 567

<212> PRT

<213> Arabidopsis thaliana

<400> 1130

Met Gly Phe Gly Thr Ser Ser Ser Ser Ser Ser Ser Ser Ala Leu Lys

1		5												15	
Trp	Leu	Gly	Phe	Val	Thr	Ala	Val	Trp	Val	Gln	Ser	Ile	Ser	Gly	Asn
			20					25					30		
Asn	Tyr	Thr	Phe	Ser	Asn	Tyr	Ser	Gly	Ala	Leu	Lys	Ser	Leu	Met	Asn
		35					40					45			
Leu	Thr	Gln	Leu	Glu	Leu	Asn	Ser	Leu	Ser	Val	Ala	Lys	Asp	Val	Gly
	50					55					60				
Lys	Ala	Phe	Gly	Ile	Leu	Ala	Gly	Leu	Ala	Ser	Asp	Arg	Leu	Ser	Thr
65					70					75					80
Pro	Val	Ile	Leu	Leu	Ile	Gly	Ser	Phe	Glu	Gly	Leu	Leu	Gly	Tyr	Gly
				85					90					95	
Val	Gln	Trp	Leu	Val	Val	Ser	Arg	Thr	Ile	Gln	Pro	Ile	Pro	Tyr	Trp
			100					105					110		
Gln	Met	Cys	Val	Phe	Leu	Cys	Met	Gly	Gly	Asn	Ser	Thr	Thr	Trp	Met
		115					120					125			
Asn	Thr	Ala	Val	Leu	Val	Thr	Cys	Ile	Arg	Asn	Phe	Arg	Arg	Asn	Arg
	130					135					140				
Gly	Pro	Val	Ser	Gly	Ile	Leu	Lys	Gly	Tyr	Val	Gly	Leu	Ser	Thr	Ala
145					150					155					160
Ile	Phe	Thr	Asp	Leu	Cys	Asn	Ala	Leu	Phe	Ser	Ser	Asp	Pro	Ala	Ser
				165					170					175	
Phe	Leu	Val	Leu	Leu	Ser	Val	Val	Pro	Phe	Ala	Val	Cys	Leu	Thr	Ala
			180					185					190		
Val	Phe	Phe	Leu	Arg	Glu	Ile	Pro	Pro	Ser	Thr	Thr	Phe	Ala	Glu	Asp
		195					200					205			
Asn	Glu	Glu	Ser	Lys	Tyr	Phe	Ala	Val	Phe	Asn	Ile	Val	Ala	Val	Val
	210					215					220				
Val	Ala	Val	Tyr	Leu	Gln	Ser	Tyr	Asp	Ile	Ile	Gly	Ile	Lys	Thr	Gly
225					230					235					240
Ala	Phe	Ser	Ile	Ala	Phe	Ala	Ser	Ile	Leu	Leu	Ile	Leu	Leu	Ala	Ser
				245					250					255	

Pro Val Ala Val Pro Phe His Ala Phe Ile Arg Ser Lys Val His Asp  
 260 265 270  
 Glu Gln Asp Val Glu Gly Arg Ile Asp Glu Pro Leu Leu Arg Ser Gly  
 275 280 285  
 Ser Glu Ile Glu Val Glu Glu Thr Ile Val Gly Ala Ala Ala Ala Ala  
 290 295 300  
 Asp Asn Glu Leu Pro Pro Ser Leu Lys Pro Leu Ser Asn Glu Glu Glu  
 305 310 315 320  
 Glu Asn His Gly Thr Ile Val Thr Thr Glu Lys Lys Arg Pro Val Leu  
 325 330 335  
 Gly Glu Glu His Thr Ile Met Glu Ala Met Leu Thr Val Asp Phe Trp  
 340 345 350  
 Val Leu Phe Val Ser Phe Leu Cys Gly Val Gly Thr Gly Leu Ala Val  
 355 360 365  
 Met Asn Asn Met Gly Gln Ile Gly Leu Ala Leu Gly Tyr Thr Asp Val  
 370 375 380  
 Ser Ile Phe Val Ser Met Thr Ser Ile Trp Gly Phe Phe Gly Arg Ile  
 385 390 395 400  
 Leu Ser Gly Thr Ile Ser Glu His Phe Ile Lys Lys Ala Gly Thr Pro  
 405 410 415  
 Arg Pro Leu Trp Asn Ala Ala Ala Gln Ile Ile Met Ala Val Gly Tyr  
 420 425 430  
 Leu Leu Met Ala Leu Ala Leu Pro Gly Ser Leu Tyr Ile Gly Ser Met  
 435 440 445  
 Val Val Gly Val Cys Tyr Gly Val Arg Leu Ala Ile Thr Val Pro Thr  
 450 455 460  
 Ala Ser Glu Leu Phe Gly Leu Lys Tyr Tyr Gly Leu Ile Tyr Asn Ile  
 465 470 475 480  
 Leu Ile Leu Asn Met Pro Leu Gly Ser Phe Leu Phe Ser Gly Leu Leu  
 485 490 495  
 Ala Gly Leu Leu Tyr Asp Ala Glu Ala Thr Pro Thr Pro Gly Gly Gly  
 500 505 510

047-E2F-PCT.ST25.txt

Asn Thr Cys Val Gly Ala His Cys Phe Arg Ile Val Phe Ile Val Met  
515 520 525

Ala Phe Ala Ser Ile Ile Gly Val Gly Leu Asp Leu Leu Leu Ala Tyr  
530 535 540

Arg Thr Lys Gly Ile Tyr Ala Lys Ile His Ala Ser Lys Lys Thr Lys  
545 550 555 560

Lys Ser Gly Gly Asn Leu Arg  
565

<210> 1131

<211> 1503

<212> DNA

<213> Arabidopsis thaliana

<400> 1131

atgccggttg atttagataa ttcctctaca gtttccggcg atgcaagcgt ctcacgacc	60
ggaaacaaaa atctaactcc taaatccgtc gggaagaaga aacggaatct tcctggaatg	120
cctgatccag acgctgaagt gatagctttg tcacctaaaa cacttatggc aacgaatcga	180
ttcgtttgcg aaatctgtaa caaaggtttt caacgtgacc agaattttca gcttcacgtg	240
cgtggtcaca atcttccatg gaaacttcga cagagatcga ctaaagaagt gaggaagaag	300
gtttatgttt gtcctgtttc tggctgtgtt catcatgacc cttcacgtgc tcttgagat	360
cttactggaa tcaagaaaca cttttgtcgg aaacacggcg agaagaaatg gaagtgtgag	420
aaatgttcta agaagtatgc tgttcaatca gattggaaag ctcatcga gatttgtggc	480
accaaggagt ataaatgcga ttgtggaact ctgttttcta ggagagatag ctttataacg	540
catagagcct tttgtgatgc cttggctgaa gagagtgcga agaatacat tcaaagcaag	600
aaactttatc cagaaactgt cactaggaag aatcctgaaa ttgagcaaaa atctccagca	660
gctgttgagt cttctccgtc attaccgcct tcttctccgc catcggttgc tatagctccg	720
gcaccggcta tttcggttga gactgagtct gtcaaaatca tatcttcctc tgttttgccg	780
attcagaatt ctccagaatc tcaagaaaac aacaatcatc ctgaagtcatt tattgaggaa	840
gcttcaagaa cgatcgggtt caatgttagc tcatcgatc taagcaatga tcacagtaac	900
aacaatggtg gatacgagg tttgtttgta tcatcaacag cttcgcttag tttatatgct	960
tcctcaaccg cttctccaag tctattcgca ccatcgctct ccatggaacc catctctctc	1020
tgtctctcga cgaacccttc tttgttcgga ccaacaatac gagatccgcc acatttccta	1080

047-E2F-PCT.ST25.txt

actcctctcc ctcctcaacc ggcaatgtca gctactgcat tgctccaaaa agctgcacaa 1140  
atggggttcca cgggatcagg aggttcgttg cttcgcgggt taggcatagt ttcaactact 1200  
tcttcattcta tggaactcag caatcatgat gcattgtcat tagctcctgg tcttggactt 1260  
ggactacctt gtagcagcgg tggtagcgga tcgggtctaa aagagctcat gatggggaat 1320  
tcatcggtgt ttggtccgaa acagacgaca ctagactttc ttggattagg aagagctggt 1380  
ggtaatggtg gtaataccgg aggtggattg tctgctctgt taacttctat aggtggtgga 1440  
ggtggaatcg atctgtttgg atcaggggag ttttcaggca aagacattgg aagaagtctg 1500  
taa 1503

<210> 1132

<211> 500

<212> PRT

<213> Arabidopsis thaliana

<400> 1132

Met Pro Val Asp Leu Asp Asn Ser Ser Thr Val Ser Gly Asp Ala Ser  
1 5 10 15

Val Ser Ser Thr Gly Asn Gln Asn Leu Thr Pro Lys Ser Val Gly Lys  
20 25 30

Lys Lys Arg Asn Leu Pro Gly Met Pro Asp Pro Asp Ala Glu Val Ile  
35 40 45

Ala Leu Ser Pro Lys Thr Leu Met Ala Thr Asn Arg Phe Val Cys Glu  
50 55 60

Ile Cys Asn Lys Gly Phe Gln Arg Asp Gln Asn Leu Gln Leu His Arg  
65 70 75 80

Arg Gly His Asn Leu Pro Trp Lys Leu Arg Gln Arg Ser Thr Lys Glu  
85 90 95

Val Arg Lys Lys Val Tyr Val Cys Pro Val Ser Gly Cys Val His His  
100 105 110

Asp Pro Ser Arg Ala Leu Gly Asp Leu Thr Gly Ile Lys Lys His Phe  
115 120 125

Cys Arg Lys His Gly Glu Lys Lys Trp Lys Cys Glu Lys Cys Ser Lys  
Page 1761

130

135

Lys Tyr Ala Val Gln Ser Asp Trp Lys Ala His Ser Lys Ile Cys Gly  
145 150 155 160

Thr Lys Glu Tyr Lys Cys Asp Cys Gly Thr Leu Phe Ser Arg Arg Asp  
165 170 175

Ser Phe Ile Thr His Arg Ala Phe Cys Asp Ala Leu Ala Glu Glu Ser  
180 185 190

Ala Lys Asn His Thr Gln Ser Lys Lys Leu Tyr Pro Glu Thr Val Thr  
195 200 205

Arg Lys Asn Pro Glu Ile Glu Gln Lys Ser Pro Ala Ala Val Glu Ser  
210 215 220

Ser Pro Ser Leu Pro Pro Ser Ser Pro Pro Ser Val Ala Ile Ala Pro  
225 230 235 240

Ala Pro Ala Ile Ser Val Glu Thr Glu Ser Val Lys Ile Ile Ser Ser  
245 250 255

Ser Val Leu Pro Ile Gln Asn Ser Pro Glu Ser Gln Glu Asn Asn Asn  
260 265 270

His Pro Glu Val Ile Ile Glu Glu Ala Ser Arg Thr Ile Gly Phe Asn  
275 280 285

Val Ser Ser Ser Asp Leu Ser Asn Asp His Ser Asn Asn Asn Gly Gly  
290 295 300

Tyr Ala Gly Leu Phe Val Ser Ser Thr Ala Ser Pro Ser Leu Tyr Ala  
305 310 315 320

Ser Ser Thr Ala Ser Pro Ser Leu Phe Ala Pro Ser Ser Ser Met Glu  
325 330 335

Pro Ile Ser Leu Cys Leu Ser Thr Asn Pro Ser Leu Phe Gly Pro Thr  
340 345 350

Ile Arg Asp Pro Pro His Phe Leu Thr Pro Leu Pro Pro Gln Pro Ala  
355 360 365

Met Ser Ala Thr Ala Leu Leu Gln Lys Ala Ala Gln Met Gly Ser Thr  
370 375 380



Gly Ser Gly Gly Ser Leu Leu Arg Gly Leu Gly Ile Val Ser Thr Thr  
 385 390 395 400

Ser Ser Ser Met Glu Leu Ser Asn His Asp Ala Leu Ser Leu Ala Pro  
 405 410 415

Gly Leu Gly Leu Gly Leu Pro Cys Ser Ser Gly Gly Ser Gly Ser Gly  
 420 425 430

Leu Lys Glu Leu Met Met Gly Asn Ser Ser Val Phe Gly Pro Lys Gln  
 435 440 445

Thr Thr Leu Asp Phe Leu Gly Leu Gly Arg Ala Val Gly Asn Gly Gly  
 450 455 460

Asn Thr Gly Gly Gly Leu Ser Ala Leu Leu Thr Ser Ile Gly Gly Gly  
 465 470 475 480

Gly Gly Ile Asp Leu Phe Gly Ser Gly Glu Phe Ser Gly Lys Asp Ile  
 485 490 495

Gly Arg Ser Ser  
 500

<210> 1133

<211> 1668

<212> DNA

<213> Arabidopsis thaliana

<400> 1133

atgcacgcac cggctactcgt tctgagcgat tcgttgaagc gtgaatctgg aagtaagggt	60
catcatggta atatccaagc ttccaaggct gttgctgata tcattcgtac aacattgggt	120
cctcgttcta tgttgaagat gcttcttgat gctggtggag ggattgttgt tactaatgat	180
gggaatgcta ttcttcgtga gctagatgtc gctcatcctg cagctaagtc aatgattgag	240
ttgagccgta cgcaagatga agaagttggt gatgggacaa cgtctgttat tgttctagct	300
ggtgaaatgc ttcacgttgc agaagcgttt cttgagaaga attaccatcc cacagtcata	360
tgccgagctt acatcaaggc tctcgaagat tctattgctg ttcttgacaa aattgctatg	420
tcaattgata tcaatgaccg ttcacaagtg ctaggattag tcaagagctg catagggaca	480
aagttcacta gccaatattg agatcttatt gcggatttgg ctattgatgc cactactact	540
gttggtgttg atcttggaca aggtttgagg gaggtagaca ttaaaaagta catcaagggt	600

047-E2F-PCT.ST25.txt

gagaaagttc ctggtggtca gttcaggagac tctgaggttc ttaaaggagt tatgtttaac 660  
aaagatgttg ttgctcctgg taaaatgaaa agaaagattg tcaaccacg gattattctt 720  
cttgactgtc ctcttgagta caagaaaggt gaaaatcaaa ccaatgctga gttggttaga 780  
gaagaggact gggaagtgtt gttgaagttg gaagaggaat atatcgagaa catttgcggt 840  
caaatactaa agttcaagcc tgatttggtt atcacagaga agggctcttag tgacttggcc 900  
tgtcactatt tcagtaaagc tggggttaagt gcaatccgaa gggtgagaaa aactgacaac 960  
aacagaatcg ccaaggcttg tggagcagta attgtgaaca ggcccacga actgcaggag 1020  
tctgatatcg gtactggggc tggcttggtt gaggtcaaga aaattggaga tgatttcttt 1080  
tctttcattg ttgattgcaa agaaccctaa gcctgtactg tactcttaag gggaccaagt 1140  
aaagatttca tcaatgaagt ggaaagaaat ttacaggatg ccatgtctgt tgcaagaaac 1200  
attatcaaaa acccaaagct agttcctggt ggaggagcca cagagctaac cgtttctgcc 1260  
acattaaaac agaagagtgc aacaattgaa ggcatagaaa agtggcctta tgaagcagct 1320  
gccattgctt tcgaggctat tccacgtacc ctggctcaaa actgtggggg taacgtgatc 1380  
cgtactatga ctgcattgca aggaagcat gcaaatggtg aaaacgcatg gactggtatt 1440  
gacgggaaca ctggtgcaat agctgatatg aaagagagca agatatggga ttcgtacaat 1500  
gtgaaggcgc aaactttcaa gacggctata gaagcagcgt gtatgcttct aaggatcgat 1560  
gatatagtga gtggaatcaa gaagaagcaa gctcctggat ctggaccttc aaagcctacc 1620  
attgagacag aaggagatgc agacaacgaa caaattcttc ccgactaa 1668

<210> 1134

<211> 555

<212> PRT

<213> Arabidopsis thaliana

<400> 1134

Met His Ala Pro Val Leu Val Leu Ser Asp Ser Leu Lys Arg Glu Ser  
1 5 10 15

Gly Ser Lys Val His His Gly Asn Ile Gln Ala Ser Lys Ala Val Ala  
20 25 30

Asp Ile Ile Arg Thr Thr Leu Gly Pro Arg Ser Met Leu Lys Met Leu  
35 40 45

Leu Asp Ala Gly Gly Gly Ile Val Val Thr Asn Asp Gly Asn Ala Ile  
50 55 60

047-E2F-PCT.ST25.txt

Leu Arg Glu Leu Asp Val Ala His Pro Ala Ala Lys Ser Met Ile Glu  
 65 70 75 80  
 Leu Ser Arg Thr Gln Asp Glu Glu Val Gly Asp Gly Thr Thr Ser Val  
 85 90 95  
 Ile Val Leu Ala Gly Glu Met Leu His Val Ala Glu Ala Phe Leu Glu  
 100 105 110  
 Lys Asn Tyr His Pro Thr Val Ile Cys Arg Ala Tyr Ile Lys Ala Leu  
 115 120 125  
 Glu Asp Ser Ile Ala Val Leu Asp Lys Ile Ala Met Ser Ile Asp Ile  
 130 135 140  
 Asn Asp Arg Ser Gln Val Leu Gly Leu Val Lys Ser Cys Ile Gly Thr  
 145 150 155 160  
 Lys Phe Thr Ser Gln Phe Gly Asp Leu Ile Ala Asp Leu Ala Ile Asp  
 165 170 175  
 Ala Thr Thr Thr Val Gly Val Asp Leu Gly Gln Gly Leu Arg Glu Val  
 180 185 190  
 Asp Ile Lys Lys Tyr Ile Lys Val Glu Lys Val Pro Gly Gly Gln Phe  
 195 200 205  
 Glu Asp Ser Glu Val Leu Lys Gly Val Met Phe Asn Lys Asp Val Val  
 210 215 220  
 Ala Pro Gly Lys Met Lys Arg Lys Ile Val Asn Pro Arg Ile Ile Leu  
 225 230 235 240  
 Leu Asp Cys Pro Leu Glu Tyr Lys Lys Gly Glu Asn Gln Thr Asn Ala  
 245 250 255  
 Glu Leu Val Arg Glu Glu Asp Trp Glu Val Leu Leu Lys Leu Glu Glu  
 260 265 270  
 Glu Tyr Ile Glu Asn Ile Cys Val Gln Ile Leu Lys Phe Lys Pro Asp  
 275 280 285  
 Leu Val Ile Thr Glu Lys Gly Leu Ser Asp Leu Ala Cys His Tyr Phe  
 290 295 300

Ser Lys Ala Gly Val Ser Ala Ile Arg Arg Leu Arg Lys Thr Asp Asn  
 Page 1765

305 310 320  
 Asn Arg Ile Ala Lys 325 Ala Cys Gly Ala Val 330 Ile Val Asn Arg Pro Asp 335  
 Glu Leu Gln Glu 340 Ser Asp Ile Gly Thr 345 Gly Ala Gly Leu Phe 350 Glu Val  
 Lys Lys Ile 355 Gly Asp Asp Phe Phe 360 Ser Phe Ile Val Asp 365 Cys Lys Glu  
 Pro Lys 370 Ala Cys Thr Val Leu 375 Leu Arg Gly Pro Ser 380 Lys Asp Phe Ile  
 Asn Glu Val Glu Arg Asn 390 Leu Gln Asp Ala Met 395 Ser Val Ala Arg Asn 400  
 Ile Ile Lys Asn Pro 405 Lys Leu Val Pro Gly 410 Gly Gly Ala Thr Glu 415 Leu  
 Thr Val Ser Ala 420 Thr Leu Lys Gln Lys 425 Ser Ala Thr Ile Glu 430 Gly Ile  
 Glu Lys Trp 435 Pro Tyr Glu Ala Ala 440 Ala Ile Ala Phe Glu 445 Ala Ile Pro  
 Arg Thr 450 Leu Ala Gln Asn Cys 455 Gly Val Asn Val Ile 460 Arg Thr Met Thr  
 Ala Leu Gln Gly Lys His 470 Ala Asn Gly Glu Asn 475 Ala Trp Thr Gly Ile 480  
 Asp Gly Asn Thr Gly 485 Ala Ile Ala Asp Met 490 Lys Glu Ser Lys Ile 495 Trp  
 Asp Ser Tyr Asn 500 Val Lys Ala Gln Thr 505 Phe Lys Thr Ala Ile 510 Glu Ala  
 Ala Cys Met 515 Leu Leu Arg Ile Asp 520 Asp Ile Val Ser Gly 525 Ile Lys Lys  
 Lys Gln Ala Pro Gly Ser Gly 535 Pro Ser Lys Pro Thr 540 Ile Glu Thr Glu  
 Gly Asp Ala Asp Asn Glu 550 Gln Ile Leu Pro Asp 555

&lt;210&gt; 1135

&lt;211&gt; 2448

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1135

```

atgctcgagt accgtttgcag ctccgttgac tggaaaccat caccggtggt agccctagct      60
aacagctccg acgactctca agtcgccgcc gctcgcgagg acggttctct tgaaatctgg      120
ctcgtctccc cgggcgccgt cggatggcac tgtcaactca ctatccatgg cgatccaaat      180
tcgagaatct cgtctcttgc gtggtgctgt tctccttcta tagggcttcc ttctggtcgg      240
ttattctcct ctagcatcga tggctctatt tctgaatggg atcttttcga tttgaagcag      300
aagattgtgc ttgagtctat tggaatctcg atatggcaaa tggcattggc tccgattagc      360
ggattctcga gtgatgtaga aggtattaag aatggatact tgagtgagaa atcgaatgat      420
gaggaagaga ttgggagtga agaagatggt tctgattccg atgagtttca tgagaagtca      480
gaggaggaga tagataggat tcttgcagct gcttgtgatg atggttgtgt gagactgtac      540
cgtatctcta atttagaaaa gttaacttac tatagatcat tgcctagggt cagtggacgt      600
gctttaagtg taacatggag tccagatgca aaaaggatct tttcggggag cagtgatggg      660
ctgataagat gctgggacgc tacctcgtgt catgaggat acagaattac agctggtctt      720
ggtggactag gaagtagttc tgagatctgt gtttggtcac ttctttcgtt gaggtgttca      780
gttcttgtga gtggagatag tacaggaact gtccagtttt gggatagtga gcatggaacc      840
cttttggaag cacactctaa tcacaaagggt gatgtcaata ctcttgcagc agcccccagc      900
cataatcgag tcttttctgc tgggtgcggat ggacagggtta tcctttataa gctctctggt      960
agtactaacg gttctcaaga tttgaagcct tcttcctctc agaaatggga ctatattggt     1020
tatgtcaagg ctcatacaca tgacatcaga gctcttacag ttgctgtacc aattagtcga     1080
gaagatcctt ttccggatga tatactgcca gataaagcga gtcgtaaaca tcgcaaaaag     1140
gggaagccgg ttgacttcac ttatcataaa tgggctcatt tgggtgttcc gatgcttatt     1200
tctgctggtg atgatgcaaa gctttttgca tattcaattc aggaatttac taagttctcc     1260
ccacatgata tatgtcctgc gcctcagaga atacccatgc aaatggtaca taattcgatg     1320
ttcaataaga cttctcttct actggttcag ggtattagta ctttagatat tcttcgactt     1380
aatataagca gtgattctag tggtcgtgcc tcaacaaagt cattggttcg tgttaaaagt     1440
agagatgccc gaaagatcat atgcagtgca atttctaaca ccggatcaca ttttgcttac     1500
tctgaccaaa ttggccccag tctgttcgag ttgaagaaaa atgaatttac aaagtgtcca     1560

```

047-E2F-PCT.ST25.txt

tggagtggtta gtagaaggcg acttcctgaa cttccatttg cacattccat gattttcagt 1620  
 tcggactgct ctcgtctaataaatagcaggg catgatagaa ggatatatac tattgacata 1680  
 agtagtttgg aactagtata tgcattttaca ccatctaggg aggagcatga aggtgaagct 1740  
 ccaacaccta aggagcctcc aataacaaaa ttgtttacta gctcagatgg tcagtggcta 1800  
 gctgctatca attgcttttg ggacatctat gtattcaacc tcgaaacaca aaggcagcac 1860  
 tggttcattt caagactcga tgggtgcatct gttaccgctg ctggattttca tccctggaat 1920  
 aacaatgcac ttgtgatctc aacctcctcg aatcaggtct ttgcttttga tgtagaagct 1980  
 agacagtttag gcaagtggtc gttgctaaac acttatgttc tgccaaagag gtatcaagag 2040  
 tttcctgggg aggtccttgg actctcattc tccccgtcac caaattcatc atctgtgata 2100  
 gtttacagtt ccagagcgaa atgtttgatc gacttcggga agcctgtgga agaagatgaa 2160  
 gagtatgatt taccaaacgg caatttgtct aaaacgctag aaggtaaact tgtcaacttg 2220  
 ggcttgaaaa agggaaaggg taaaaccga aaacgctggt tagatgagta tcagttagag 2280  
 ggtaagagta atgaacgaaa gaacttcgaa atcttacctt caaaccaccc tgttttattc 2340  
 gtgggtcacc tttctaaaaa ctcaatcctg gtgatagaga aaccatggat ggatgttgtc 2400  
 aagagtttgg ataatacaacc agtagacaga catatttttg gaacttga 2448

<210> 1136

<211> 815

<212> PRT

<213> Arabidopsis thaliana

<400> 1136

Met Leu Glu Tyr Arg Cys Ser Ser Val Asp Trp Lys Pro Ser Pro Val  
 1 5 10 15

Val Ala Leu Ala Asn Ser Ser Asp Asp Ser Gln Val Ala Ala Ala Arg  
 20 25 30

Glu Asp Gly Ser Leu Glu Ile Trp Leu Val Ser Pro Gly Ala Val Gly  
 35 40 45

Trp His Cys Gln Leu Thr Ile His Gly Asp Pro Asn Ser Arg Ile Ser  
 50 55 60

Ser Leu Ala Trp Cys Cys Ser Pro Ser Ile Gly Leu Pro Ser Gly Arg  
 65 70 75 80

Leu Phe Ser Ser Ser Ile Asp Gly Ser Ile Ser Glu Trp Asp Leu Phe  
 85 90 95  
 Asp Leu Lys Gln Lys Ile Val Leu Glu Ser Ile Gly Ile Ser Ile Trp  
 100 105 110  
 Gln Met Ala Leu Ala Pro Ile Ser Gly Phe Ser Ser Asp Val Glu Gly  
 115 120 125  
 Ile Lys Asn Gly Tyr Leu Ser Glu Lys Ser Asn Asp Glu Glu Glu Ile  
 130 135 140  
 Gly Ser Glu Glu Asp Gly Ser Asp Ser Asp Glu Phe His Glu Lys Ser  
 145 150 155 160  
 Glu Glu Glu Ile Asp Arg Ile Leu Ala Ala Ala Cys Asp Asp Gly Cys  
 165 170 175  
 Val Arg Leu Tyr Arg Ile Ser Asn Leu Glu Lys Leu Thr Tyr Tyr Arg  
 180 185 190  
 Ser Leu Pro Arg Val Ser Gly Arg Ala Leu Ser Val Thr Trp Ser Pro  
 195 200 205  
 Asp Ala Lys Arg Ile Phe Ser Gly Ser Ser Asp Gly Leu Ile Arg Cys  
 210 215 220  
 Trp Asp Ala Thr Ser Cys His Glu Val Tyr Arg Ile Thr Ala Gly Leu  
 225 230 235 240  
 Gly Gly Leu Gly Ser Ser Ser Glu Ile Cys Val Trp Ser Leu Leu Ser  
 245 250 255  
 Leu Arg Cys Ser Val Leu Val Ser Gly Asp Ser Thr Gly Thr Val Gln  
 260 265 270  
 Phe Trp Asp Ser Glu His Gly Thr Leu Leu Glu Ala His Ser Asn His  
 275 280 285  
 Lys Gly Asp Val Asn Thr Leu Ala Ala Ala Pro Ser His Asn Arg Val  
 290 295 300  
 Phe Ser Ala Gly Ala Asp Gly Gln Val Ile Leu Tyr Lys Leu Ser Gly  
 305 310 315 320  
 Ser Thr Asn Gly Ser Gln Asp Leu Lys Pro Ser Ser Ser Gln Lys Trp  
 325 330 335

047-E2F-PCT.ST25.txt

Asp Tyr Ile Gly Tyr Val Lys Ala His Thr His Asp Ile Arg Ala Leu  
 340 345 350  
 Thr Val Ala Val Pro Ile Ser Arg Glu Asp Pro Phe Pro Asp Asp Ile  
 355 360 365  
 Leu Pro Asp Lys Ala Ser Arg Lys His Arg Lys Lys Gly Lys Pro Val  
 370 375 380  
 Asp Phe Thr Tyr His Lys Trp Ala His Leu Gly Val Pro Met Leu Ile  
 385 390 395 400  
 Ser Ala Gly Asp Asp Ala Lys Leu Phe Ala Tyr Ser Ile Gln Glu Phe  
 405 410 415  
 Thr Lys Phe Ser Pro His Asp Ile Cys Pro Ala Pro Gln Arg Ile Pro  
 420 425 430  
 Met Gln Met Val His Asn Ser Met Phe Asn Lys Thr Ser Leu Leu Leu  
 435 440 445  
 Val Gln Gly Ile Ser Thr Leu Asp Ile Leu Arg Leu Asn Ile Ser Ser  
 450 455 460  
 Asp Ser Ser Gly Arg Ala Ser Thr Lys Ser Leu Val Arg Val Lys Ser  
 465 470 475 480  
 Arg Asp Ala Arg Lys Ile Ile Cys Ser Ala Ile Ser Asn Thr Gly Ser  
 485 490 495  
 His Phe Ala Tyr Ser Asp Gln Ile Gly Pro Ser Leu Phe Glu Leu Lys  
 500 505 510  
 Lys Asn Glu Phe Thr Lys Cys Pro Trp Ser Val Ser Arg Arg Arg Leu  
 515 520 525  
 Pro Glu Leu Pro Phe Ala His Ser Met Ile Phe Ser Ser Asp Cys Ser  
 530 535 540  
 Arg Leu Ile Ile Ala Gly His Asp Arg Arg Ile Tyr Thr Ile Asp Ile  
 545 550 555 560  
 Ser Ser Leu Glu Leu Val Tyr Ala Phe Thr Pro Ser Arg Glu Glu His  
 565 570 575  
 Glu Gly Glu Ala Pro Thr Pro Lys Glu Pro Pro Ile Thr Lys Leu Phe  
 580 585 590



047-E2F-PCT.ST25.txt

Thr Ser Ser Asp Gly Gln Trp Leu Ala Ala Ile Asn Cys Phe Gly Asp  
595 600 605

Ile Tyr Val Phe Asn Leu Glu Thr Gln Arg Gln His Trp Phe Ile Ser  
610 615 620

Arg Leu Asp Gly Ala Ser Val Thr Ala Ala Gly Phe His Pro Trp Asn  
625 630 635 640

Asn Asn Ala Leu Val Ile Ser Thr Ser Ser Asn Gln Val Phe Ala Phe  
645 650 655

Asp Val Glu Ala Arg Gln Leu Gly Lys Trp Ser Leu Leu Asn Thr Tyr  
660 665 670

Val Leu Pro Lys Arg Tyr Gln Glu Phe Pro Gly Glu Val Leu Gly Leu  
675 680 685

Ser Phe Ser Pro Ser Pro Asn Ser Ser Ser Val Ile Val Tyr Ser Ser  
690 695 700

Arg Ala Lys Cys Leu Ile Asp Phe Gly Lys Pro Val Glu Glu Asp Glu  
705 710 715 720

Glu Tyr Asp Leu Pro Asn Gly Asn Leu Ser Lys Thr Leu Glu Gly Lys  
725 730 735

Leu Val Asn Leu Gly Leu Lys Lys Gly Lys Gly Thr Asn Arg Lys Arg  
740 745 750

Arg Leu Asp Glu Tyr Gln Leu Glu Gly Lys Ser Asn Glu Arg Lys Asn  
755 760 765

Phe Glu Ile Leu Pro Ser Asn His Pro Val Leu Phe Val Gly His Leu  
770 775 780

Ser Lys Asn Ser Ile Leu Val Ile Glu Lys Pro Trp Met Asp Val Val  
785 790 795 800

Lys Ser Leu Asp Asn Gln Pro Val Asp Arg His Ile Phe Gly Thr  
805 810 815

<210> 1137

<211> 1071

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1137

```

atggtcttaa atatggagtc taccggagaa gctgtttagat caaccaccgg taacgacggt      60
ggatttacgg tggtttagatc cgacgcgccg tcagatttcc acgtagctca aagatcagaa    120
agctcaaacc aatctcccac ctctgtcact cctcctccac cacagccatc gtctcatcac    180
acagctcctc cgccgctgca aatttcgacg gtgacgacta cgactacgac ggccgcgatg    240
gaaggatatct ccggtggact gatgaagaag aagcgtggac ggccaaggaa gtatggaccg    300
gacgggactg ttgtagcggt atctcctaaa ccgatttcat cagcgccggc gccgtcgcgt    360
cttccgccgc cgagttcaca cgtcatcgat ttctccgctt ctgagaaacg tagcaaagtg    420
aaaccaacga actcgtttaa cagaacaaag tatcatcacc aagttgagaa tttgggtgaa    480
tgggctcctt gctccgtcgg tggtaatttc acacctcata taatcacagt caacaccggc    540
gaggatgtaa caatgaagat aatctcgttt tcgcaacaag gacctcgctc tatttggtgt    600
ctgtcagcaa acggtgttat ttcaagcggt acacttcgtc agccagattc ctctggcggc    660
acattgacat acgaaggctg gtttgagata ttatcattat ccgggtcatt catgcctaata    720
gattcaggcg gaacacgaag tagaacggga ggaatgagtg tatcgtttagc aagtcccgat    780
ggacgtgtag taggcggtgg cctcgccggt ttactagtag ccgcgagtcg gggttcagggtg    840
gttgtaggaa gtttttttagc gggcactgac catcaagatc agaaaccgaa aaagaacaaa    900
catgatttca tgttgctgag tcctaccgct gcaattccta tctctagtgc agctgatcac    960
cggacaatcc attcggcttc gtctcttccg gtcaataata atacatggca gacttcttta   1020
gcttccgatc caagaaacaa gcataccgat attaatgtca atgtaacttg a              1071

```

&lt;210&gt; 1138

&lt;211&gt; 356

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1138

```

Met Val Leu Asn Met Glu Ser Thr Gly Glu Ala Val Arg Ser Thr Thr
1          5          10          15
Gly Asn Asp Gly Gly Ile Thr Val Val Arg Ser Asp Ala Pro Ser Asp
          20          25          30

```

Phe His Val Ala Gln Arg Ser Glu Ser Ser Asn Gln Ser Pro Thr Ser  
 35 40 45  
 Val Thr Pro Pro Pro Pro Gln Pro Ser Ser His His Thr Ala Pro Pro  
 50 55 60  
 Pro Leu Gln Ile Ser Thr Val Thr Thr Thr Thr Thr Thr Ala Ala Met  
 65 70 75 80  
 Glu Gly Ile Ser Gly Gly Leu Met Lys Lys Lys Arg Gly Arg Pro Arg  
 85 90 95  
 Lys Tyr Gly Pro Asp Gly Thr Val Val Ala Leu Ser Pro Lys Pro Ile  
 100 105 110  
 Ser Ser Ala Pro Ala Pro Ser His Leu Pro Pro Pro Ser Ser His Val  
 115 120 125  
 Ile Asp Phe Ser Ala Ser Glu Lys Arg Ser Lys Val Lys Pro Thr Asn  
 130 135 140  
 Ser Phe Asn Arg Thr Lys Tyr His His Gln Val Glu Asn Leu Gly Glu  
 145 150 155 160  
 Trp Ala Pro Cys Ser Val Gly Gly Asn Phe Thr Pro His Ile Ile Thr  
 165 170 175  
 Val Asn Thr Gly Glu Asp Val Thr Met Lys Ile Ile Ser Phe Ser Gln  
 180 185 190  
 Gln Gly Pro Arg Ser Ile Cys Val Leu Ser Ala Asn Gly Val Ile Ser  
 195 200 205  
 Ser Val Thr Leu Arg Gln Pro Asp Ser Ser Gly Gly Thr Leu Thr Tyr  
 210 215 220  
 Glu Gly Arg Phe Glu Ile Leu Ser Leu Ser Gly Ser Phe Met Pro Asn  
 225 230 235 240  
 Asp Ser Gly Gly Thr Arg Ser Arg Thr Gly Gly Met Ser Val Ser Leu  
 245 250 255  
 Ala Ser Pro Asp Gly Arg Val Val Gly Gly Gly Leu Ala Gly Leu Leu  
 260 265 270  
 Val Ala Ala Ser Pro Val Gln Val Val Val Gly Ser Phe Leu Ala Gly  
 275 280 285

047-E2F-PCT.ST25.txt

Thr Asp His Gln Asp Gln Lys Pro Lys Lys Asn Lys His Asp Phe Met  
290 295 300

Leu Ser Ser Pro Thr Ala Ala Ile Pro Ile Ser Ser Ala Ala Asp His  
305 310 315 320

Arg Thr Ile His Ser Val Ser Ser Leu Pro Val Asn Asn Asn Thr Trp  
325 330 335

Gln Thr Ser Leu Ala Ser Asp Pro Arg Asn Lys His Thr Asp Ile Asn  
340 345 350

Val Asn Val Thr  
355

<210> 1139

<211> 1587

<212> DNA

<213> Arabidopsis thaliana

<400> 1139

atggtgaggt tcgagaaggt tcatttagtg ttagggttag ctctggttct aactctggtc	60
ggagctccga ccaaagccca aggacctgtt tgcggtgcag gcctgcctga caaatttagc	120
agattaaact tccctgaagg cttcatttgg ggaaccgcaa cagcagcatt tcaggttgaa	180
ggagctgtta atgaagggtt cagaggtcca agcatgtggg atactttcac taagaagttc	240
ccacatagat gtgaaaatca taacgctgat gttgctgtgg atttctatca tcgttacaag	300
gaagatatcc agttgatgaa agaccttaac actgatgctt ttagactttc tattgcgtgg	360
cccagaatat tccccatgg aaggatgtct aagggaataa gcaaagtggg agtccaattc	420
taccacgacc tcatcgatga gtttctcaaa aacaatataa taccattagt tacagtcttt	480
cattgggata ctccccaaga cttggaagat gaatatggtg gtttcttaag tggtcgcatc	540
gtgcaagatt ttaccgaata tgcgaatttc actttccacg aatatggaca caaagtgaag	600
cattggatca catttaacga gccatgggtg tttagtcgtg ccggttacga caacggaaag	660
aaagctccgg gacgttggtt gccgtacatc cccggttatg gacagcattg tcaggatggg	720
cggctctggat acgaagctta tcaagtcagt cacaacttac tcttgctgca tgcttacgct	780
gttgacgcat tcagaaactg caaacagtgt gctggaggta aaattggaat tgcacacagt	840
ccagcttggt tcgaaccaca agaccttgag catgttggag gttccattga acgtgtgctt	900
gatttcatcc taggatggca tttggctcca acaacttatg gagattatcc acaatcgatg	960

047-E2F-PCT.ST25.txt

aaggatcgtg tcggtcatag attgccaaaa ttcacagaag ctgagaagaa gttgctaaag 1020  
 ggttctacag attacgtagg aatgaattac tatacttcag tgtttgcaaa agaaattagc 1080  
 cctgaccta agagtccgag ttggacgact gattctcttg ttgattggga tagcaagagt 1140  
 gtggatggat acaaaattgg tagcaagccg tttaatggta aactggatgt gtattcaaaa 1200  
 ggtttgagat accttttgaa gtatattaag gataactatg gcgaccaga agttatcatt 1260  
 gccgagaatg gatacggaga agaccttgga gagaagcaca atgacgtaaa ctttgggaca 1320  
 caagatcaca acagaaaata ttatatccaa aggcattctt tgagtatgca cgacgccatt 1380  
 tgcaaggaca aagtgaacgt tacgggatac tttgtgtggt ctttgatgga caactttgag 1440  
 tggcaagatg ggtacaaggc gaggttcgga ctttactaca tcgatttcca gaacaacttg 1500  
 acccgtcacc aaaaagtttc gggcaaattg tattccgaat tcctcaaacc acagtttcca 1560  
 acctccaagc tgagggaaga actctag 1587

<210> 1140

<211> 528

<212> PRT

<213> Arabidopsis thaliana

<400> 1140

Met Val Arg Phe Glu Lys Val His Leu Val Leu Gly Leu Ala Leu Val  
 1 5 10 15

Leu Thr Leu Val Gly Ala Pro Thr Lys Ala Gln Gly Pro Val Cys Gly  
 20 25 30

Ala Gly Leu Pro Asp Lys Phe Ser Arg Leu Asn Phe Pro Glu Gly Phe  
 35 40 45

Ile Trp Gly Thr Ala Thr Ala Ala Phe Gln Val Glu Gly Ala Val Asn  
 50 55 60

Glu Gly Cys Arg Gly Pro Ser Met Trp Asp Thr Phe Thr Lys Lys Phe  
 65 70 75 80

Pro His Arg Cys Glu Asn His Asn Ala Asp Val Ala Val Asp Phe Tyr  
 85 90 95

His Arg Tyr Lys Glu Asp Ile Gln Leu Met Lys Asp Leu Asn Thr Asp  
 100 105 110

047-E2F-PCT.ST25.txt

Ala Phe Arg Leu Ser Ile Ala Trp Pro Arg Ile Phe Pro His Gly Arg  
115 120 125

Met Ser Lys Gly Ile Ser Lys Val Gly Val Gln Phe Tyr His Asp Leu  
130 135 140

Ile Asp Glu Leu Leu Lys Asn Asn Ile Ile Pro Leu Val Thr Val Phe  
145 150 155 160

His Trp Asp Thr Pro Gln Asp Leu Glu Asp Glu Tyr Gly Gly Phe Leu  
165 170 175

Ser Gly Arg Ile Val Gln Asp Phe Thr Glu Tyr Ala Asn Phe Thr Phe  
180 185 190

His Glu Tyr Gly His Lys Val Lys His Trp Ile Thr Phe Asn Glu Pro  
195 200 205

Trp Val Phe Ser Arg Ala Gly Tyr Asp Asn Gly Lys Lys Ala Pro Gly  
210 215 220

Arg Cys Ser Pro Tyr Ile Pro Gly Tyr Gly Gln His Cys Gln Asp Gly  
225 230 235 240

Arg Ser Gly Tyr Glu Ala Tyr Gln Val Ser His Asn Leu Leu Leu Ser  
245 250 255

His Ala Tyr Ala Val Asp Ala Phe Arg Asn Cys Lys Gln Cys Ala Gly  
260 265 270

Gly Lys Ile Gly Ile Ala His Ser Pro Ala Trp Phe Glu Pro Gln Asp  
275 280 285

Leu Glu His Val Gly Gly Ser Ile Glu Arg Val Leu Asp Phe Ile Leu  
290 295 300

Gly Trp His Leu Ala Pro Thr Thr Tyr Gly Asp Tyr Pro Gln Ser Met  
305 310 315 320

Lys Asp Arg Val Gly His Arg Leu Pro Lys Phe Thr Glu Ala Glu Lys  
325 330 335

Lys Leu Leu Lys Gly Ser Thr Asp Tyr Val Gly Met Asn Tyr Tyr Thr  
340 345 350

Ser Val Phe Ala Lys Glu Ile Ser Pro Asp Pro Lys Ser Pro Ser Trp  
355 360 365

047-E2F-PCT.ST25.txt

Thr Thr Asp Ser Leu Val Asp Trp Asp Ser Lys Ser Val Asp Gly Tyr  
 370 375 380

Lys Ile Gly Ser Lys Pro Phe Asn Gly Lys Leu Asp Val Tyr Ser Lys  
 385 390 395 400

Gly Leu Arg Tyr Leu Leu Lys Tyr Ile Lys Asp Asn Tyr Gly Asp Pro  
 405 410 415

Glu Val Ile Ile Ala Glu Asn Gly Tyr Gly Glu Asp Leu Gly Glu Lys  
 420 425 430

His Asn Asp Val Asn Phe Gly Thr Gln Asp His Asn Arg Lys Tyr Tyr  
 435 440 445

Ile Gln Arg His Leu Leu Ser Met His Asp Ala Ile Cys Lys Asp Lys  
 450 455 460

Val Asn Val Thr Gly Tyr Phe Val Trp Ser Leu Met Asp Asn Phe Glu  
 465 470 475 480

Trp Gln Asp Gly Tyr Lys Ala Arg Phe Gly Leu Tyr Tyr Ile Asp Phe  
 485 490 495

Gln Asn Asn Leu Thr Arg His Gln Lys Val Ser Gly Lys Trp Tyr Ser  
 500 505 510

Glu Phe Leu Lys Pro Gln Phe Pro Thr Ser Lys Leu Arg Glu Glu Leu  
 515 520 525

<210> 1141  
 <211> 2436  
 <212> DNA  
 <213> Arabidopsis thaliana

<400> 1141  
 atggaagttc ttctcagaag tatctcgtcg tttctaaatc tgtcatcttc taaacatatt 60  
 gatttagacc cgtttgagaa gtactataag agagttgaag agttattgag agtggtgaag 120  
 cctatagcag atgttggtgt tacctctgat ttgttttttg atgagaaact tggtaaagca 180  
 tttgaagaat tgactcagga tgttgatcaa tccattgatc ttttcaggag ttggcaagct 240  
 ttctctagta aagtctatctt cgttcttcaa attgaatctt tgctaccaaa gatgcgggac 300

accattgtgg	atacttttca	gtttctcatg	tcttctaaga	accatctacc	tgatgagcta	360
agcccagctt	ctcttgagca	atgtctagag	aagattaagc	atcttagtta	tgaagaaata	420
tcttctgtca	ttgacggtgc	tttgagggat	cagagagatg	gtgttggacc	tagccctgag	480
atcttggtga	aaattggaga	gaacactggt	cttagatcaa	accaggagat	tctgattgaa	540
gctgttgctc	tagagaggca	gaaagagatg	gctgagcagt	ctgagaataa	tgcagaagtc	600
gagttccttg	accaactgat	tgttattgta	aaccgcatgc	atgaacgtct	tcttctgatac	660
aaacagactc	agacttctag	tgctgccatt	cttgccgact	tcttttgccc	tctgtcactt	720
gaagtaatga	ctgatccagt	gatttgtgtca	tcaggacaaa	catatgaaaa	ggcgtttatc	780
aagagatgga	ttgatttggg	tttaaaagtg	tgtcccaaga	ctcgacagac	cctgactcac	840
actactctaa	taccaatta	caccgtgaag	gccttaatcg	ctaactggtg	tgagacaaac	900
gatgtcaagc	tgccatgatc	caataaatca	acaagtttaa	atgagctttc	tcctctttta	960
tcatgtacag	actccattcc	tagcacgggt	gctgatgttt	ctgctcgtaa	agtttagcaac	1020
aagtcacatg	attgggatgc	ttcttcaagt	gaaaccggta	agccctcggt	ctcaagccga	1080
gcaactgaaa	gagaagggtc	ttctccttca	cgtcctgctt	ctgccttggg	tgcttcttca	1140
ccgggtatat	ctggaaatgg	ttacggtttg	gacgccagga	ggggatcact	aaatgatttt	1200
gaagatagat	caaacgattc	tcgagaactg	aggacagatg	cacctggtag	gtcatctgta	1260
tcttcaacta	cacgaggctc	agtagaaaat	ggacaaacat	ctgagaacca	ccatcatagg	1320
tcctcttctg	ctactagcac	tgtttccaat	gaggagtttc	caagggcaga	tgcgaaatgag	1380
aattcagaag	aatcagctca	tgctacacct	tacagcagtg	atgcttcagg	agaaattaga	1440
tcagggcctc	ttgctgcaac	cacttcagca	gctactcgcc	gagatttgct	tgatttttcc	1500
ccaaaattca	tggaatagacg	taccggtggt	caattttggc	gacgtccatc	agagagactc	1560
ggttcaagga	ttgtttcagc	gccttcgaat	gagacaagac	gtgatctttc	tgagggtcgaa	1620
actcaagtta	agaagttggt	ggaggagtgt	aaaagcagct	cattggatac	tcagagacaa	1680
gcaaccgcag	aactaagggt	gctagccaag	cacaacatgg	ataatcggat	agtcattggg	1740
aactctggag	caatcgctct	attggtggaa	ctactttact	caactgactc	agctacacag	1800
gaaaacgctg	ttaccgcaact	tctcaactta	tctatcaatg	acaacaacaa	aaaagcaatt	1860
gctgatgctg	gtgcaattga	gccgctcatt	cacgtgcttg	aaaatgggag	ctctgaagcc	1920
aaggagaatt	cagctgctac	tctcttcagc	ctctctgtaa	tagaagaaaa	caagattaag	1980
attggtcagt	cgggtgcaat	cgggcctctt	gtagatcttc	tcggtaacgg	taccctcgg	2040
ggtaagaaag	acgctgctac	tgcttgtttt	aatctatcga	tacatcaaga	aaacaaggcg	2100
atgatcgtgc	aatcaggtgc	tgtgagatat	cttattgatc	tgatggaccc	agcagctggg	2160
atggtggata	aagcagttgc	tgttttggca	aatctagcta	caattccgga	aggaagaaac	2220



047-E2F-PCT.ST25.txt

gcgattggtc aagaaggcgg aatccctctt cttgttgaag tcgttgagtt gggttcagct 2280  
agaggggaaag aaaacgcagc agcagctctt cttcaacttt caaccaacag tggtcggttc 2340  
tgcaacatgg ttcttcaaga aggcgccgtt cctccactcg tcgctctctc acagtctggt 2400  
actcctagag ctagagaaaa ggtacaaact ttataa 2436

<210> 1142

<211> 811

<212> PRT

<213> Arabidopsis thaliana

<400> 1142

Met Glu Val Leu Leu Arg Ser Ile Ser Ser Phe Leu Asn Leu Ser Ser  
1 5 10 15

Ser Lys His Ile Asp Leu Asp Pro Phe Glu Lys Tyr Tyr Lys Arg Val  
20 25 30

Glu Glu Leu Leu Arg Val Leu Lys Pro Ile Ala Asp Val Val Val Thr  
35 40 45

Ser Asp Phe Val Phe Asp Glu Lys Leu Gly Lys Ala Phe Glu Glu Leu  
50 55 60

Thr Gln Asp Val Asp Gln Ser Ile Asp Leu Phe Arg Ser Trp Gln Ala  
65 70 75 80

Phe Ser Ser Lys Val Tyr Phe Val Leu Gln Ile Glu Ser Leu Leu Pro  
85 90 95

Lys Met Arg Asp Thr Ile Val Asp Thr Phe Gln Phe Leu Met Ser Ser  
100 105 110

Lys Asn His Leu Pro Asp Glu Leu Ser Pro Ala Ser Leu Glu Gln Cys  
115 120 125

Leu Glu Lys Ile Lys His Leu Ser Tyr Glu Glu Ile Ser Ser Val Ile  
130 135 140

Asp Gly Ala Leu Arg Asp Gln Arg Asp Gly Val Gly Pro Ser Pro Glu  
145 150 155 160

Ile Leu Val Lys Ile Gly Glu Asn Thr Gly Leu Arg Ser Asn Gln Glu  
Page 1779

Ile Leu Ile Glu Ala Val Ala Leu Glu Arg Gln Lys Glu Met Ala Glu  
180 185 190

Gln Ser Glu Asn Asn Ala Glu Val Glu Phe Leu Asp Gln Leu Ile Val  
195 200 205

Ile Val Asn Arg Met His Glu Arg Leu Leu Leu Ile Lys Gln Thr Gln  
210 215 220

Thr Ser Ser Val Ala Ile Leu Ala Asp Phe Phe Cys Pro Leu Ser Leu  
225 230 235 240

Glu Val Met Thr Asp Pro Val Ile Val Ser Ser Gly Gln Thr Tyr Glu  
245 250 255

Lys Ala Phe Ile Lys Arg Trp Ile Asp Leu Gly Leu Lys Val Cys Pro  
260 265 270

Lys Thr Arg Gln Thr Leu Thr His Thr Thr Leu Ile Pro Asn Tyr Thr  
275 280 285

Val Lys Ala Leu Ile Ala Asn Trp Cys Glu Thr Asn Asp Val Lys Leu  
290 295 300

Pro Asp Pro Asn Lys Ser Thr Ser Leu Asn Glu Leu Ser Pro Leu Leu  
305 310 315 320

Ser Cys Thr Asp Ser Ile Pro Ser Thr Gly Ala Asp Val Ser Ala Arg  
325 330 335

Lys Val Ser Asn Lys Ser His Asp Trp Asp Ala Ser Ser Ser Glu Thr  
340 345 350

Gly Lys Pro Ser Phe Ser Ser Arg Ala Thr Glu Arg Glu Gly Ala Ser  
355 360 365

Pro Ser Arg Pro Ala Ser Ala Leu Gly Ala Ser Ser Pro Gly Ile Ser  
370 375 380

Gly Asn Gly Tyr Gly Leu Asp Ala Arg Arg Gly Ser Leu Asn Asp Phe  
385 390 395 400

Glu Asp Arg Ser Asn Asp Ser Arg Glu Leu Arg Thr Asp Ala Pro Gly  
405 410 415

047-E2F-PCT.ST25.txt

Arg	Ser	Ser	Val	Ser	Ser	Thr	Thr	Arg	Gly	Ser	Val	Glu	Asn	Gly	Gln
			420					425					430		
Thr	Ser	Glu	Asn	His	His	His	Arg	Ser	Pro	Ser	Ala	Thr	Ser	Thr	Val
		435					440					445			
Ser	Asn	Glu	Glu	Phe	Pro	Arg	Ala	Asp	Ala	Asn	Glu	Asn	Ser	Glu	Glu
	450					455					460				
Ser	Ala	His	Ala	Thr	Pro	Tyr	Ser	Ser	Asp	Ala	Ser	Gly	Glu	Ile	Arg
465					470					475					480
Ser	Gly	Pro	Leu	Ala	Ala	Thr	Thr	Ser	Ala	Ala	Thr	Arg	Arg	Asp	Leu
				485					490					495	
Ser	Asp	Phe	Ser	Pro	Lys	Phe	Met	Asp	Arg	Arg	Thr	Arg	Gly	Gln	Phe
			500					505					510		
Trp	Arg	Arg	Pro	Ser	Glu	Arg	Leu	Gly	Ser	Arg	Ile	Val	Ser	Ala	Pro
		515					520					525			
Ser	Asn	Glu	Thr	Arg	Arg	Asp	Leu	Ser	Glu	Val	Glu	Thr	Gln	Val	Lys
	530					535					540				
Lys	Leu	Val	Glu	Glu	Leu	Lys	Ser	Ser	Ser	Leu	Asp	Thr	Gln	Arg	Gln
545					550					555					560
Ala	Thr	Ala	Glu	Leu	Arg	Leu	Leu	Ala	Lys	His	Asn	Met	Asp	Asn	Arg
				565					570					575	
Ile	Val	Ile	Gly	Asn	Ser	Gly	Ala	Ile	Val	Leu	Leu	Val	Glu	Leu	Leu
			580					585					590		
Tyr	Ser	Thr	Asp	Ser	Ala	Thr	Gln	Glu	Asn	Ala	Val	Thr	Ala	Leu	Leu
		595					600					605			
Asn	Leu	Ser	Ile	Asn	Asp	Asn	Asn	Lys	Lys	Ala	Ile	Ala	Asp	Ala	Gly
	610					615					620				
Ala	Ile	Glu	Pro	Leu	Ile	His	Val	Leu	Glu	Asn	Gly	Ser	Ser	Glu	Ala
625					630					635					640
Lys	Glu	Asn	Ser	Ala	Ala	Thr	Leu	Phe	Ser	Leu	Ser	Val	Ile	Glu	Glu
				645					650					655	
Asn	Lys	Ile	Lys	Ile	Gly	Gln	Ser	Gly	Ala	Ile	Gly	Pro	Leu	Val	Asp
			660					665					670		

047-E2F-PCT.ST25.txt

Leu Leu Gly Asn Gly Thr Pro Arg Gly Lys Lys Asp Ala Ala Thr Ala  
675 680 685

Leu Phe Asn Leu Ser Ile His Gln Glu Asn Lys Ala Met Ile Val Gln  
690 695 700

Ser Gly Ala Val Arg Tyr Leu Ile Asp Leu Met Asp Pro Ala Ala Gly  
705 710 715 720

Met Val Asp Lys Ala Val Ala Val Leu Ala Asn Leu Ala Thr Ile Pro  
725 730 735

Glu Gly Arg Asn Ala Ile Gly Gln Glu Gly Gly Ile Pro Leu Leu Val  
740 745 750

Glu Val Val Glu Leu Gly Ser Ala Arg Gly Lys Glu Asn Ala Ala Ala  
755 760 765

Ala Leu Leu Gln Leu Ser Thr Asn Ser Gly Arg Phe Cys Asn Met Val  
770 775 780

Leu Gln Glu Gly Ala Val Pro Pro Leu Val Ala Leu Ser Gln Ser Gly  
785 790 795 800

Thr Pro Arg Ala Arg Glu Lys Val Gln Thr Leu  
805 810

<210> 1143

<211> 2427

<212> DNA

<213> Arabidopsis thaliana

<400> 1143

atgaatttca acggttttct cgacgacggt gctggagcct caaagctact ctctgatgct	60
ccgtacaaca accacttctc tttctccgcc gtagacacca tgctcggaag cgccgccatt	120
gctccttctc agtctcttcc tttctcttct tcaggcctct ctctcggact ccaaacaat	180
ggagaaatga gtagaaacgg agagattatg gagtcaaacg taagtcgtaa gagtagtaga	240
ggagaagatg tagaaagcag atctgaaagt gataacgctg aagctgtctc cggtgacgat	300
ttagatacct ccgatagacc tttaaagaag aagaacggt accatcgta cactcctaaa	360
caaattcaag acctcgaatc ggttttttaa gagtgtgcac atccagacga gaagcaacgt	420
cttgatctta gccgtcgact taacttagat cctcgtcaag tcaagttctg gttccagaat	480

## 047-E2F-PCT.ST25.txt

cgctcgta	ctc	agatgaagac	tcaa	atcgaa	cgacatgaga	atgctttg	tt	gaggcaagag	540
aacgataagc	ttcgagctga	gaatatgtct	gtacgcgaag	ctatgagaaa	ccctatgtgt			600	
ggtaattg	cgcggacctgc	cgttatcggt	gagatctcaa	tggaagagca	acatctgaga			660	
attgaaaact	ctcgtctcaa	agatgagtta	gaccgagtct	gtgccttaac	cggtaagttt			720	
cttggccggt	cta	atggttc	acatcatata	ccggactcag	cacttg	ttct	cggcg	ttgg	780
gttggttctg	gtggatgtaa	tg	ttgggtggt	gg	ttt	cactc	tctcttctcc	gctgttgcct	840
caagcttctc	ctagatttga	gatttcta	at	ggaaccggtt	ctgg	ttt	gg	ctacggtt	900
aaccgtcaac	aaccggttag	tg	ttagtgat	ttt	gatcaga	gatc	gaggt	tttggattta	960
gctcttg	cgcg	ctatggatga	gctt	gtgaag	atggctcaga	cacgtgagcc	gctctggg	tt	1020
cgaagctcgcg	attctgg	ttt	tgaagtgc	tg	aaccaggaag	agtacgacac	aagtttctct		1080
cgggtgtgttg	gacccaaa	aca	agatggg	ttt	gtctcagaag	cttctaaaga	agctggaact		1140
gttatcatca	atagcttagc	gctcgttgaa	acctta	at	tg	actcggaacg	gtgggcggaa		1200
atgtttccta	gtatggtctc	aagaacttca	accacagaga	ttatctctag	tg	gcatggga			1260
gggcgaaatg	gtgcacttca	cctgatgcac	gcagagcttc	aactgctgtc	tccactcgtg				1320
ccggttagac	aagtgtcgtt	cttgcggttc	tgtaa	acagc	acgcggaagg	tg	tttgggca		1380
gtcgtggatg	tctcaattga	ttccattaga	gaaggttctt	cttcgagctg	tagaagatta				1440
ccatccggtt	gcctcgtaca	agacatggcc	aatggctact	caaaggtaac	atggatcgag				1500
cacacggagt	atgacgaaaa	ccacatccac	cgtttatacc	gccattact	caggtgcggt				1560
ctagcg	tttg	gtgcgcatcg	atggatggct	gcattacaac	gtcaatgcga	atgcctcacg			1620
attctcatgt	cctccactgt	ttccacttcc	actaatccat	cccctataaa	ctgcaatggg				1680
agaaaaagca	tgctaaagct	agcgaagagg	atgactgata	atttctgtgg	agggg	ttt	gt		1740
gcttcgtcgt	tacagaaatg	gagcaaa	ctc	aacgttggca	acgtcgacga	agacgttagg			1800
ataatgacta	ggaagagtgt	aaacaatcct	ggc	gagccgc	ctgggataat	tctaaatgcg			1860
gcgacgtcag	tttggatgcc	ggtatctccg	aggcggtt	gt	ttgacttcct	tg	gaaacgaa		1920
cggcttagat	cggaatggga	tatcttatcc	aacggtggac	caatgaaaga	gatggcccat				1980
atagctaaag	gccatgaccg	ttccaactcc	gtctccctcc	tccgtgccag	cgcgataaat				2040
gcgaatcaga	gtagtatgct	gatattacaa	gagacaagca	tagacgctgc	aggagcggtt				2100
gtcgtgtacg	cgctgttga	tatcccagca	atgcaagctg	tgatgaacgg	tg	gagattct			2160
gcttacgtgg	cactccttcc	ttcaggattc	gccattctcc	ctaacggtca	ggctgg	tacg			2220
caacgctgcg	ccgcagagga	acgtaacagt	attggtaacg	gtgggtgcat	ggaggaagga				2280
gggtcgttac	taacggtggc	gtttcagata	ctggtgaata	gtttgcctac	ggctaagcta				2340

acggtggaat ctgtggagac ggtaataat ttgatatcgt gcaccgttca gaagattaaa 2400  
gctgctcttc attgtgatag cacctga 2427

<210> 1144

<211> 808

<212> PRT

<213> Arabidopsis thaliana

<400> 1144

Met Asn Phe Asn Gly Phe Leu Asp Asp Gly Ala Gly Ala Ser Lys Leu  
1 5 10 15

Leu Ser Asp Ala Pro Tyr Asn Asn His Phe Ser Phe Ser Ala Val Asp  
20 25 30

Thr Met Leu Gly Ser Ala Ala Ile Ala Pro Ser Gln Ser Leu Pro Phe  
35 40 45

Ser Ser Ser Gly Leu Ser Leu Gly Leu Gln Thr Asn Gly Glu Met Ser  
50 55 60

Arg Asn Gly Glu Ile Met Glu Ser Asn Val Ser Arg Lys Ser Ser Arg  
65 70 75 80

Gly Glu Asp Val Glu Ser Arg Ser Glu Ser Asp Asn Ala Glu Ala Val  
85 90 95

Ser Gly Asp Asp Leu Asp Thr Ser Asp Arg Pro Leu Lys Lys Lys Lys  
100 105 110

Arg Tyr His Arg His Thr Pro Lys Gln Ile Gln Asp Leu Glu Ser Val  
115 120 125

Phe Lys Glu Cys Ala His Pro Asp Glu Lys Gln Arg Leu Asp Leu Ser  
130 135 140

Arg Arg Leu Asn Leu Asp Pro Arg Gln Val Lys Phe Trp Phe Gln Asn  
145 150 155 160

Arg Arg Thr Gln Met Lys Thr Gln Ile Glu Arg His Glu Asn Ala Leu  
165 170 175

Leu Arg Gln Glu Asn Asp Lys Leu Arg Ala Glu Asn Met Ser Val Arg  
180 185 190

047-E2F-PCT.ST25.txt

Glu Ala Met Arg Asn Pro Met Cys Gly Asn Cys Gly Gly Pro Ala Val  
 195 200 205  
 Ile Gly Glu Ile Ser Met Glu Glu Gln His Leu Arg Ile Glu Asn Ser  
 210 215 220  
 Arg Leu Lys Asp Glu Leu Asp Arg Val Cys Ala Leu Thr Gly Lys Phe  
 225 230 235 240  
 Leu Gly Arg Ser Asn Gly Ser His His Ile Pro Asp Ser Ala Leu Val  
 245 250 255  
 Leu Gly Val Gly Val Gly Ser Gly Gly Cys Asn Val Gly Gly Gly Phe  
 260 265 270  
 Thr Leu Ser Ser Pro Leu Leu Pro Gln Ala Ser Pro Arg Phe Glu Ile  
 275 280 285  
 Ser Asn Gly Thr Gly Ser Gly Leu Val Ala Thr Val Asn Arg Gln Gln  
 290 295 300  
 Pro Val Ser Val Ser Asp Phe Asp Gln Arg Ser Arg Tyr Leu Asp Leu  
 305 310 315 320  
 Ala Leu Ala Ala Met Asp Glu Leu Val Lys Met Ala Gln Thr Arg Glu  
 325 330 335  
 Pro Leu Trp Val Arg Ser Ser Asp Ser Gly Phe Glu Val Leu Asn Gln  
 340 345 350  
 Glu Glu Tyr Asp Thr Ser Phe Ser Arg Cys Val Gly Pro Lys Gln Asp  
 355 360 365  
 Gly Phe Val Ser Glu Ala Ser Lys Glu Ala Gly Thr Val Ile Ile Asn  
 370 375 380  
 Ser Leu Ala Leu Val Glu Thr Leu Met Asp Ser Glu Arg Trp Ala Glu  
 385 390 395 400  
 Met Phe Pro Ser Met Val Ser Arg Thr Ser Thr Thr Glu Ile Ile Ser  
 405 410 415  
 Ser Gly Met Gly Gly Arg Asn Gly Ala Leu His Leu Met His Ala Glu  
 420 425 430  
 Leu Gln Leu Leu Ser Pro Leu Val Pro Val Arg Gln Val Ser Phe Leu

435

440

445

Arg Phe Cys Lys Gln His Ala Glu Gly Val Trp Ala Val Val Asp Val  
 450 455 460

Ser Ile Asp Ser Ile Arg Glu Gly Ser Ser Ser Ser Cys Arg Arg Leu  
 465 470 475 480

Pro Ser Gly Cys Leu Val Gln Asp Met Ala Asn Gly Tyr Ser Lys Val  
 485 490 495

Thr Trp Ile Glu His Thr Glu Tyr Asp Glu Asn His Ile His Arg Leu  
 500 505 510

Tyr Arg Pro Leu Leu Arg Cys Gly Leu Ala Phe Gly Ala His Arg Trp  
 515 520 525

Met Ala Ala Leu Gln Arg Gln Cys Glu Cys Leu Thr Ile Leu Met Ser  
 530 535 540

Ser Thr Val Ser Thr Ser Thr Asn Pro Ser Pro Ile Asn Cys Asn Gly  
 545 550 555 560

Arg Lys Ser Met Leu Lys Leu Ala Lys Arg Met Thr Asp Asn Phe Cys  
 565 570 575

Gly Gly Val Cys Ala Ser Ser Leu Gln Lys Trp Ser Lys Leu Asn Val  
 580 585 590

Gly Asn Val Asp Glu Asp Val Arg Ile Met Thr Arg Lys Ser Val Asn  
 595 600 605

Asn Pro Gly Glu Pro Pro Gly Ile Ile Leu Asn Ala Ala Thr Ser Val  
 610 615 620

Trp Met Pro Val Ser Pro Arg Arg Leu Phe Asp Phe Leu Gly Asn Glu  
 625 630 635 640

Arg Leu Arg Ser Glu Trp Asp Ile Leu Ser Asn Gly Gly Pro Met Lys  
 645 650 655

Glu Met Ala His Ile Ala Lys Gly His Asp Arg Ser Asn Ser Val Ser  
 660 665 670

Leu Leu Arg Ala Ser Ala Ile Asn Ala Asn Gln Ser Ser Met Leu Ile  
 675 680 685



Leu Gln Glu Thr Ser Ile Asp Ala Ala Gly Ala Val Val Val Tyr Ala  
690 695 700

Pro Val Asp Ile Pro Ala Met Gln Ala Val Met Asn Gly Gly Asp Ser  
705 710 715 720

Ala Tyr Val Ala Leu Leu Pro Ser Gly Phe Ala Ile Leu Pro Asn Gly  
725 730 735

Gln Ala Gly Thr Gln Arg Cys Ala Ala Glu Glu Arg Asn Ser Ile Gly  
740 745 750

Asn Gly Gly Cys Met Glu Glu Gly Gly Ser Leu Leu Thr Val Ala Phe  
755 760 765

Gln Ile Leu Val Asn Ser Leu Pro Thr Ala Lys Leu Thr Val Glu Ser  
770 775 780

Val Glu Thr Val Asn Asn Leu Ile Ser Cys Thr Val Gln Lys Ile Lys  
785 790 795 800

Ala Ala Leu His Cys Asp Ser Thr  
805

<210> 1145

<211> 900

<212> DNA

<213> Arabidopsis thaliana

<400> 1145

atggcttcag aggatcaatc ggcggcgaga tctaccggga aggtgaactg gttcaacgct	60
tctaaaggct atggtttcat tactcctgac gatggcagcg tagagctttt cgttcatcaa	120
tcttcaattg tctccgaagg ttaccggagt ttaaccgctg gcgatgcggt tgagtctgct	180
attactcagg gaagcgacgg taagactaaa gccgtcaatg ttactgctcc tgggtggtggt	240
tctctcaaga aggagaataa ctctcgtggt aacgggtgcta ggcgcggcgg cgggtggaagc	300
ggttgctaca attgcggtga gttaggtcat atctctaaag attgtggtat tgggtggcggc	360
ggcggagggtg gtgaacgtag atctagagga ggagaagggt gttacaattg tgggtgatact	420
ggtcacttcg ctagggattg tacttcagct ggaaacggtg accaacgtgg agccacaaaa	480
gggtggaacg atggttgcta cacttgcggt gatgttggtc acgtggctag ggattgtact	540
cagaaatcag ttggaacgg agaccaacgt ggagcgggtca aagggtgaaa cgatggttgc	600

tacacttggtg gtgatgttgg tcacttttgc agggattgta ctcagaaggt tgctgccgga 660  
aacgtcagaa gcggtggtgg tggtagtgga acttgttatt catgcggtgg agttgggtcac 720  
attgcaagag attgtgcgac taagagacag ccttctcgtg ggtgttacca gtgtggtggt 780  
tctggtcact tggctcgtga ttgtgaccag agaggaagcg gtggaggagg taatgataat 840  
gcgtgctaca agtgtggtaa ggaaggtcac tttgcaaggg aatgttcttc tgtagcttaa 900

<210> 1146

<211> 299

<212> PRT

<213> Arabidopsis thaliana

<400> 1146

Met Ala Ser Glu Asp Gln Ser Ala Ala Arg Ser Thr Gly Lys Val Asn  
1 5 10 15

Trp Phe Asn Ala Ser Lys Gly Tyr Gly Phe Ile Thr Pro Asp Asp Gly  
20 25 30

Ser Val Glu Leu Phe Val His Gln Ser Ser Ile Val Ser Glu Gly Tyr  
35 40 45

Arg Ser Leu Thr Val Gly Asp Ala Val Glu Phe Ala Ile Thr Gln Gly  
50 55 60

Ser Asp Gly Lys Thr Lys Ala Val Asn Val Thr Ala Pro Gly Gly Gly  
65 70 75 80

Ser Leu Lys Lys Glu Asn Asn Ser Arg Gly Asn Gly Ala Arg Arg Gly  
85 90 95

Gly Gly Gly Ser Gly Cys Tyr Asn Cys Gly Glu Leu Gly His Ile Ser  
100 105 110

Lys Asp Cys Gly Ile Gly Gly Gly Gly Gly Gly Glu Arg Arg Ser  
115 120 125

Arg Gly Gly Glu Gly Cys Tyr Asn Cys Gly Asp Thr Gly His Phe Ala  
130 135 140

Arg Asp Cys Thr Ser Ala Gly Asn Gly Asp Gln Arg Gly Ala Thr Lys  
145 150 155 160

Gly Gly Asn Asp Gly Cys Tyr Thr Cys Gly Asp Val Gly His Val Ala  
 165 170 175  
 Arg Asp Cys Thr Gln Lys Ser Val Gly Asn Gly Asp Gln Arg Gly Ala  
 180 185 190  
 Val Lys Gly Gly Asn Asp Gly Cys Tyr Thr Cys Gly Asp Val Gly His  
 195 200 205  
 Phe Ala Arg Asp Cys Thr Gln Lys Val Ala Ala Gly Asn Val Arg Ser  
 210 215 220  
 Gly Gly Gly Gly Ser Gly Thr Cys Tyr Ser Cys Gly Gly Val Gly His  
 225 230 235 240  
 Ile Ala Arg Asp Cys Ala Thr Lys Arg Gln Pro Ser Arg Gly Cys Tyr  
 245 250 255  
 Gln Cys Gly Gly Ser Gly His Leu Ala Arg Asp Cys Asp Gln Arg Gly  
 260 265 270  
 Ser Gly Gly Gly Gly Asn Asp Asn Ala Cys Tyr Lys Cys Gly Lys Glu  
 275 280 285  
 Gly His Phe Ala Arg Glu Cys Ser Ser Val Ala  
 290 295

&lt;210&gt; 1147

&lt;211&gt; 6531

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1147

```

atggaaccca ctgattctac taacgagcaa ctcggagaca ctaagaccgc cgctgtcaag      60
gaagagagtc gctcctttct cggcatcgat ctcaacgaaa tccctaccgg cgctactctc      120
ggcgggtggtt gcaccgctgg tcaggatgac gacggcgaat atgaacctgt tgaagttggt      180
aggtcaattc acgataaccc ggaccagacc cctggagccc ctgccgaggt tcctgaaccg      240
gatcgggatg cttcgtgcgg cgcgtgtgga agacctgagt ctatagagct cgttgtagtc      300
tgcatgcct gtgagcgagg ctttcatatg tcttgtgtca acgatggagt tgaggcggct      360
ccttccgccg attggatgtg cagcgactgt cgtactggcg gcgagaggag caaactgtgg      420
ccgttgggggg ttaagtccaa gctcattctg gacatgaacg cctcgccgcc cagtgatgct      480

```

gagggatacg	gagctgagga	gacgtctgat	tcgagaaagc	atatgctcgc	cagcagctct	540
tgcattggaa	actcttttga	ttatgcaatg	atgcattcaa	gcttctcaag	tctcggtaga	600
ggacatgcta	gtctcgaagc	ttcagggtta	atgtctcgta	atactaaaat	gagtatggat	660
gcattggggt	cacataatct	aggtttttga	ttcccattaa	acttgaacaa	tagtagtttg	720
cccatgagat	ttccatcctt	ggatccaagt	gagttgtttc	tgcaaaatct	caggcatttc	780
atatctgaaa	ggcatggagt	attggaagat	ggctggcggtg	tcgaattcag	acaaccttta	840
aatgggttatc	agttatgtgc	agtgtattgt	gctccgaatg	gaaaaacatt	tagttcaata	900
caagaagttg	cttggttatct	gggcttggca	attaatggta	actacagctg	tatggatgct	960
gaaatcagga	atgagaattc	tcttcttcaa	gaaagattgc	atacgcccaa	gagaagaaaag	1020
acatcaagat	ggccaaacaa	tggtttccct	gagcaaaagg	gtagttcagt	gagtgtctcaa	1080
ctcaggcggt	ttcattcaa	tggtcagacc	atgtctcctt	tcgccgttaa	atctggtact	1140
cattttcagg	ctggtggttc	tcttagctct	ggaaataatg	gatgcgggtg	tgaggaagct	1200
aagaatggat	gtccgatgca	gtttgaagat	ttctttgttc	tgctcgcttg	acgaattgac	1260
ataagacagt	cttaccataa	tgtcaacgtg	atztatccaa	taggatataa	gtcctgctgg	1320
catgacaaga	tcacggggtc	actattttaca	tgtgaagtat	ctgatggcaa	ttctggtccc	1380
attttcaagg	ttacacggtc	accatgctcg	aatcatttta	ttccagctgg	atcaactgtc	1440
ttctcctgcc	caaagattga	tgaaatggtg	gaacagaaca	gtgacaaact	tagtaatcgt	1500
agagatagta	ctcaagagcg	tgatgatgac	gctagtgttg	agatccttct	ttcggaacac	1560
tgcccacctc	ttggagatga	tatattgtct	tgtttacgtg	agaagagttt	ctccaagaca	1620
gtcaattccc	tgcgctcaga	ggttgattct	tctcgagtag	attttgataa	aaatttatcc	1680
tatgatcagg	accatgggggt	tgaaattggt	gacattgttg	tggaagaaga	ttcattgtct	1740
gatgcatgga	aaaaagtgtc	tcaaaaactt	gttgatgcat	gttcaattgt	actgaagcag	1800
aagggtaccc	tgaatttcct	atgtaagcat	gttgacagag	aaacaagtga	aatcaactgg	1860
gataccatga	atgagaaaga	caatgtaatt	ttatcgttgt	caaaattttg	ctgttcggtg	1920
gctccttgca	gtgtcacgtg	tggtgaaaag	gataaaagcg	aatttgcagc	agtagttgat	1980
gctttgtcaa	ggtggctcga	tcaaaacaga	tttggaacttg	atgcagattt	tgtacaggaa	2040
atgattgaac	atatgcctgg	tgccgaatca	tgtacgaatt	ataggactct	gaagagtaga	2100
agttcttctt	ctgttcctat	aactgtagcg	gaaggagcgc	tagtggtcaa	accaaaaggt	2160
ggggaaaatg	tcaaggacga	agttttcggt	gagattttctc	ggaaagccaa	gaagcctaaa	2220
ctaaatgggtg	gtcatgggtg	cagaaatcta	caccctcctc	ctgggaggcc	aatgtgtttg	2280
aggctccctc	ctgggcttgt	tggtgacttc	cttcagggtat	ctgaagtgtt	ctggcgtttc	2340
catgaaattt	tgggttttga	agaggctttc	tcacctgaaa	accttgaaca	ggagcttatc	2400

aatccagtgt	ttgatggttt	gtttcttgat	aaacctggga	aagatgataa	gagaagtgag	2460
attaacttta	ctgataagga	ttctacagct	actaaacttt	tttctttggt	cgatgaatct	2520
cgccaacctt	ttcctgcaaa	aaatacctct	gcttctgaac	taaaggagaa	aaaggcaggg	2580
gattcttctg	attttaagat	ttcagattcc	tctcgtgggt	cgtgtgtggg	tgcacttcta	2640
acaagggtc	acatttcgct	tctgcaagt	ctaatatgtg	agctgcaatc	caaggtagct	2700
gcatttggtg	atccaaactt	tgattctggc	gaatcgagat	ccagacgagg	acgaaaaaag	2760
gatgacagta	cactttctgc	taaaagaaat	aagctgcata	tgcttcctgt	taatgagttc	2820
acttggcctg	aattggcccg	taggtacatc	ttgtctcttt	tatccatgga	tgggaacctc	2880
gaatcagcag	agattgctgc	acgtgaaagt	ggtaagggtat	tccgttgctt	acaaggggat	2940
ggtggtttgc	tttgcggtc	gcttacagga	gtggctggga	tggaagcaga	ttcaatgtta	3000
cttgcagagg	ctattaagaa	aatatctggt	tcgttgacaa	gcgaaaatga	tgttctttct	3060
gtggaagatg	atgattccga	tggccttgat	gctactgaga	caaacacttg	cagtgggtgat	3120
attccagagt	gggctcaggt	tttggaacct	gtgaaaaagc	ttccaacaaa	tgttgggact	3180
agaatcagaa	agtgtgtcta	tgaagcttta	gagagaaatc	caccagagtg	ggcaaagaag	3240
atattggagc	attctatcag	taaagaaata	tataaaggca	atgcatcagg	accaacaaag	3300
aaagctgtcc	tctcattgct	agcggatatt	cgagggtggag	acttggtgca	gaggtctatt	3360
aaaggaacca	aaaagcggac	atatataagt	gtatctgatg	tcattatgaa	gaaatgccgt	3420
gctgtattgc	gtggtgttgc	agctgcagac	gaggataaag	tcctttgcac	tttactggga	3480
agaaagttac	tgaattccag	tgataatgat	gatgacgggc	tcctgggatc	acctgcaatg	3540
gtttcgcgtc	ccttagactt	cagaactatt	gatttgaggt	tggtctgtgg	tgcgtagtac	3600
ggatcaactg	aagcttttct	tgaagatggt	cttgagctgt	ggagtagtat	acgtgttatg	3660
tatgcagatc	agcccgattg	tgtggacctg	gttgcaacat	tgtctgaaaa	attcaagtcg	3720
ttatacgagg	ctgaggttgt	accacttggt	cagaaactta	aggactacag	gaaattggaa	3780
tgccctaagt	cagagatgaa	gaaggaaatt	aaggacatag	ttgtttcagt	aaataagctt	3840
cccaaggccc	cgtgggatga	gggggtatgt	aaagtatgtg	gcgttgacaa	agatgatgac	3900
agtgttctct	tgtgtgatac	atgcgatgct	gagtatcaca	catattgttt	aatccacct	3960
cttattagaa	ttcctgatgg	aaattggtat	tgtccatctt	gtgtcattgc	caagcgcatt	4020
gctcaagagg	ctttggaatc	ttacaaacta	gttaggcggc	ggaaaggtag	aaagtatcag	4080
ggggaactca	cccagacttc	tatggaactg	actgctcacc	tggcagatgt	gatggaagaa	4140
aaggactact	gggagtttag	tgctgaggag	agaatcttgc	tgcttaagct	tctatgcgat	4200
gaactgctta	gttcatctct	tgtccatcaa	caccttgagc	agtgtgccga	agcaataatt	4260

gaaatgcagc agaagttacg ctctctttcc tcagaatgga aaaacgcaaa aatgcggcaa 4320  
 gaattcctga cggctaaact ggcaaagggtt gaaccgagta ttctgaagga agtgggcgaa 4380  
 ccacataatt caagctactt tgcagaccaa atgggatgtg atccacaacc acaggagggc 4440  
 gttggagacg gagttactcg tgatgatgag acttcctcta ctgcatatct taacaagaat 4500  
 caaggtaaat ctccacttga aaccgatact caacccggag agtcgcatgt taatttcggt 4560  
 gagagcaaaa tttcctcccc ggaaacaata tcatcccctg ggaggcatga gctacctata 4620  
 gcagatacct ctctctttgt aacagataat ctgcctgaaa aagatacctc ggagaccttg 4680  
 cttaagtcag ttggaaggaa tcatgaaaca cattcaccaa attccaatgc agtagaattg 4740  
 ccgacagctc atgatgcac tttctagggt tcccaagagt tgcaggcttg tcagcaggat 4800  
 ttgagtgcc aatagtaatga aattcagaat cttcagcaat caattagaag catagaatca 4860  
 cagcttctaa agcaatctat acggagagat tttctgggaa ccgatgctag tggtcggtta 4920  
 tattgggggtt gctgcttccc agatgaaaat cctcgtatat tggttgatgg aagcatatct 4980  
 ttgcagaaac ctgttcaagc cgatttgata gggtcaaaaag tcccctctcc gtttctccat 5040  
 accgttgacc atggaagact aaggctttca ccctggacgt attatgaaac tgaaaccgag 5100  
 atcagtgagc ttgtccaatg gcttcacgat gatgatctga aagaaagaga cctgagagag 5160  
 tctattttgt ggtggaaaag gttacgatat ggagacgttc aaaaggaaaa gaaacaagct 5220  
 cagaatttat ctgctccggt atttgctacg ggtcttgaga ccaaggctgc catgtcaatg 5280  
 gagaagagat atggtccatg catcaaatg gagatggaaa ccttaaaaaa acgggggaag 5340  
 aagacaaagg ttgcagagcg agagaaattg tgtagatgcg aatgcttgga atccattttg 5400  
 ccatctatga ttactgcct catatgccat aaaacattcg caagtgatga tgagtttgag 5460  
 gatcacactg agagtaagtg tattccttat tcattagcaa ctgaagaagg caaggacatc 5520  
 tctgattctt caaaagccaa agaaagtctg aaatccgatt atcttaatgt aaagtctagt 5580  
 gccggcaaag atgtagctga aatatccaat gtttctgaac ttgattctgg gttgataaga 5640  
 tatcaagaag aagaatctat ttccccatac ctttttgagg agatctgttc caagtttgtg 5700  
 acaaaggatt gcaacagaga tttgggttaa gagatcggtc tgatcagttc aaatggcatt 5760  
 ccaacatttc ttccatcgtc atctactcat cttaacgact ccgtgctcat ctctgcaaaa 5820  
 tccaataagc cagatgggtg tgattcaggg gatcaggtca tttttgctgg tcctgaaacc 5880  
 aatgttgaag gcttaaattc tgaatctaac atgtcattcg atagatctgt cacagacagt 5940  
 cacgggggtc cactggataa accaagtgga ctgggttttg gcttctcaga gcaaaagaat 6000  
 aagaaatctt caggtagtgg gttgaaaagc tgctgtgtgg ttccacaggc tgctttgaaa 6060  
 cgagtaactg gcaaagcttt gccgggtttc aggttcctga aaaccaactt gcttgatatg 6120  
 gatgtagcac tgcctgaaga agctttaaga ccatcgaaat cacatccaaa ccgtagaaga 6180

047-E2F-PCT.ST25.txt

gcttggcgtg tatttggttaa atcgtcgcaa agtatatacg agttggttca ggcaacaatt 6240  
 gtggtagaag atatgattaa gacagagtac ttgaaaaatg aatggtggta ctggtcttct 6300  
 ctttcagcgg ctgctaaaat ctcgactctc tcagcggttat ccgtccgtat cttctccctc 6360  
 gacgctgcta tcatttatga taaaccata actccatcaa atcctatcga tgaaacaaag 6420  
 ccgatcatca gcttaccgga ccaaaagtca cagccggttt cggattctca agaaagaagc 6480  
 agcagagtta gaagatctgg caagaaaagg aaagaacccg agggatccta g 6531

<210> 1148

<211> 2176

<212> PRT

<213> Arabidopsis thaliana

<400> 1148

Met Glu Pro Thr Asp Ser Thr Asn Glu Gln Leu Gly Asp Thr Lys Thr  
 1 5 10 15

Ala Ala Val Lys Glu Glu Ser Arg Ser Phe Leu Gly Ile Asp Leu Asn  
 20 25 30

Glu Ile Pro Thr Gly Ala Thr Leu Gly Gly Gly Cys Thr Ala Gly Gln  
 35 40 45

Asp Asp Asp Gly Glu Tyr Glu Pro Val Glu Val Val Arg Ser Ile His  
 50 55 60

Asp Asn Pro Asp Pro Ala Pro Gly Ala Pro Ala Glu Val Pro Glu Pro  
 65 70 75 80

Asp Arg Asp Ala Ser Cys Gly Ala Cys Gly Arg Pro Glu Ser Ile Glu  
 85 90 95

Leu Val Val Val Cys Asp Ala Cys Glu Arg Gly Phe His Met Ser Cys  
 100 105 110

Val Asn Asp Gly Val Glu Ala Ala Pro Ser Ala Asp Trp Met Cys Ser  
 115 120 125

Asp Cys Arg Thr Gly Gly Glu Arg Ser Lys Leu Trp Pro Leu Gly Val  
 130 135 140

Lys Ser Lys Leu Ile Leu Asp Met Asn Ala Ser Pro Pro Ser Asp Ala

145                      150                      155                      160  
 Glu Gly Tyr Gly Ala Glu Glu Thr Ser Asp Ser Arg Lys His Met Leu  
                                  165                      170                      175  
 Ala Ser Ser Ser Cys Ile Gly Asn Ser Phe Asp Tyr Ala Met Met His  
                                  180                      185                      190  
 Ser Ser Phe Ser Ser Leu Gly Arg Gly His Ala Ser Leu Glu Ala Ser  
                                  195                      200                      205  
 Gly Leu Met Ser Arg Asn Thr Lys Met Ser Met Asp Ala Leu Gly Ser  
                                  210                      215                      220  
 His Asn Leu Gly Phe Gly Phe Pro Leu Asn Leu Asn Asn Ser Ser Leu  
                                  225                      230                      235                      240  
 Pro Met Arg Phe Pro Ser Leu Asp Pro Ser Glu Leu Phe Leu Gln Asn  
                                  245                      250                      255  
 Leu Arg His Phe Ile Ser Glu Arg His Gly Val Leu Glu Asp Gly Trp  
                                  260                      265                      270  
 Arg Val Glu Phe Arg Gln Pro Leu Asn Gly Tyr Gln Leu Cys Ala Val  
                                  275                      280                      285  
 Tyr Cys Ala Pro Asn Gly Lys Thr Phe Ser Ser Ile Gln Glu Val Ala  
                                  290                      295                      300  
 Cys Tyr Leu Gly Leu Ala Ile Asn Gly Asn Tyr Ser Cys Met Asp Ala  
                                  305                      310                      315                      320  
 Glu Ile Arg Asn Glu Asn Ser Leu Leu Gln Glu Arg Leu His Thr Pro  
                                  325                      330                      335  
 Lys Arg Arg Lys Thr Ser Arg Trp Pro Asn Asn Gly Phe Pro Glu Gln  
                                  340                      345                      350  
 Lys Gly Ser Ser Val Ser Ala Gln Leu Arg Arg Phe Pro Phe Asn Gly  
                                  355                      360                      365  
 Gln Thr Met Ser Pro Phe Ala Val Lys Ser Gly Thr His Phe Gln Ala  
                                  370                      375                      380  
 Gly Gly Ser Leu Ser Ser Gly Asn Asn Gly Cys Gly Cys Glu Glu Ala  
                                  385                      390                      395                      400



Lys Asn Gly Cys Pro Met Gln Phe Glu Asp Phe Phe Val Leu Ser Leu  
 405 410 415  
 Gly Arg Ile Asp Ile Arg Gln Ser Tyr His Asn Val Asn Val Ile Tyr  
 420 425 430  
 Pro Ile Gly Tyr Lys Ser Cys Trp His Asp Lys Ile Thr Gly Ser Leu  
 435 440 445  
 Phe Thr Cys Glu Val Ser Asp Gly Asn Ser Gly Pro Ile Phe Lys Val  
 450 455 460  
 Thr Arg Ser Pro Cys Ser Lys Ser Phe Ile Pro Ala Gly Ser Thr Val  
 465 470 475 480  
 Phe Ser Cys Pro Lys Ile Asp Glu Met Val Glu Gln Asn Ser Asp Lys  
 485 490 495  
 Leu Ser Asn Arg Arg Asp Ser Thr Gln Glu Arg Asp Asp Asp Ala Ser  
 500 505 510  
 Val Glu Ile Leu Leu Ser Glu His Cys Pro Pro Leu Gly Asp Asp Ile  
 515 520 525  
 Leu Ser Cys Leu Arg Glu Lys Ser Phe Ser Lys Thr Val Asn Ser Leu  
 530 535 540  
 Arg Ser Glu Val Asp Ser Ser Arg Val Asp Phe Asp Lys Asn Leu Ser  
 545 550 555 560  
 Tyr Asp Gln Asp His Gly Val Glu Ile Gly Asp Ile Val Val Glu Glu  
 565 570 575  
 Asp Ser Leu Ser Asp Ala Trp Lys Lys Val Ser Gln Lys Leu Val Asp  
 580 585 590  
 Ala Cys Ser Ile Val Leu Lys Gln Lys Gly Thr Leu Asn Phe Leu Cys  
 595 600 605  
 Lys His Val Asp Arg Glu Thr Ser Glu Ile Asn Trp Asp Thr Met Asn  
 610 615 620  
 Glu Lys Asp Asn Val Ile Leu Ser Leu Ser Lys Phe Cys Cys Ser Leu  
 625 630 635 640  
 Ala Pro Cys Ser Val Thr Cys Gly Glu Lys Asp Lys Ser Glu Phe Ala  
 645 650 655

047-E2F-PCT.ST25.txt

Ala Val Val Asp Ala Leu Ser Arg Trp Leu Asp Gln Asn Arg Phe Gly  
660 665 670

Leu Asp Ala Asp Phe Val Gln Glu Met Ile Glu His Met Pro Gly Ala  
675 680 685

Glu Ser Cys Thr Asn Tyr Arg Thr Leu Lys Ser Arg Ser Ser Ser Ser  
690 695 700

Val Pro Ile Thr Val Ala Glu Gly Ala Leu Val Val Lys Pro Lys Gly  
705 710 715 720

Gly Glu Asn Val Lys Asp Glu Val Phe Gly Glu Ile Ser Arg Lys Ala  
725 730 735

Lys Lys Pro Lys Leu Asn Gly Gly His Gly Val Arg Asn Leu His Pro  
740 745 750

Pro Pro Gly Arg Pro Met Cys Leu Arg Leu Pro Pro Gly Leu Val Gly  
755 760 765

Asp Phe Leu Gln Val Ser Glu Val Phe Trp Arg Phe His Glu Ile Leu  
770 775 780

Gly Phe Glu Glu Ala Phe Ser Pro Glu Asn Leu Glu Gln Glu Leu Ile  
785 790 795 800

Asn Pro Val Phe Asp Gly Leu Phe Leu Asp Lys Pro Gly Lys Asp Asp  
805 810 815

Lys Arg Ser Glu Ile Asn Phe Thr Asp Lys Asp Ser Thr Ala Thr Lys  
820 825 830

Leu Phe Ser Leu Phe Asp Glu Ser Arg Gln Pro Phe Pro Ala Lys Asn  
835 840 845

Thr Ser Ala Ser Glu Leu Lys Glu Lys Lys Ala Gly Asp Ser Ser Asp  
850 855 860

Phe Lys Ile Ser Asp Ser Ser Arg Gly Ser Cys Val Gly Ala Leu Leu  
865 870 875 880

Thr Arg Ala His Ile Ser Leu Leu Gln Val Leu Ile Cys Glu Leu Gln  
885 890 895

Ser Lys Val Ala Ala Phe Val Asp Pro Asn Phe Asp Ser Gly Glu Ser  
900 905 910

047-E2F-PCT.ST25.txt

Arg Ser Arg Arg Gly Arg Lys Lys Asp Asp Ser Thr Leu Ser Ala Lys  
915 920 925

Arg Asn Lys Leu His Met Leu Pro Val Asn Glu Phe Thr Trp Pro Glu  
930 935 940

Leu Ala Arg Arg Tyr Ile Leu Ser Leu Leu Ser Met Asp Gly Asn Leu  
945 950 955 960

Glu Ser Ala Glu Ile Ala Ala Arg Glu Ser Gly Lys Val Phe Arg Cys  
965 970 975

Leu Gln Gly Asp Gly Gly Leu Leu Cys Gly Ser Leu Thr Gly Val Ala  
980 985 990

Gly Met Glu Ala Asp Ser Met Leu Leu Ala Glu Ala Ile Lys Lys Ile  
995 1000 1005

Ser Gly Ser Leu Thr Ser Glu Asn Asp Val Leu Ser Val Glu Asp  
1010 1015 1020

Asp Asp Ser Asp Gly Leu Asp Ala Thr Glu Thr Asn Thr Cys Ser  
1025 1030 1035

Gly Asp Ile Pro Glu Trp Ala Gln Val Leu Glu Pro Val Lys Lys  
1040 1045 1050

Leu Pro Thr Asn Val Gly Thr Arg Ile Arg Lys Cys Val Tyr Glu  
1055 1060 1065

Ala Leu Glu Arg Asn Pro Pro Glu Trp Ala Lys Lys Ile Leu Glu  
1070 1075 1080

His Ser Ile Ser Lys Glu Ile Tyr Lys Gly Asn Ala Ser Gly Pro  
1085 1090 1095

Thr Lys Lys Ala Val Leu Ser Leu Leu Ala Asp Ile Arg Gly Gly  
1100 1105 1110

Asp Leu Val Gln Arg Ser Ile Lys Gly Thr Lys Lys Arg Thr Tyr  
1115 1120 1125

Ile Ser Val Ser Asp Val Ile Met Lys Lys Cys Arg Ala Val Leu  
1130 1135 1140

Arg Gly Val Ala Ala Ala Asp Glu Asp Lys Val Leu Cys Thr Leu  
Page 1797

1145						1150						1155					
Leu	Gly	Arg	Lys	Leu	Leu	Asn	Ser	Ser	Asp	Asn	Asp	Asp	Asp	Gly			
	1160					1165					1170						
Leu	Leu	Gly	Ser	Pro	Ala	Met	Val	Ser	Arg	Pro	Leu	Asp	Phe	Arg			
	1175					1180					1185						
Thr	Ile	Asp	Leu	Arg	Leu	Ala	Ala	Gly	Ala	Tyr	Asp	Gly	Ser	Thr			
	1190					1195					1200						
Glu	Ala	Phe	Leu	Glu	Asp	Val	Leu	Glu	Leu	Trp	Ser	Ser	Ile	Arg			
	1205					1210					1215						
Val	Met	Tyr	Ala	Asp	Gln	Pro	Asp	Cys	Val	Asp	Leu	Val	Ala	Thr			
	1220					1225					1230						
Leu	Ser	Glu	Lys	Phe	Lys	Ser	Leu	Tyr	Glu	Ala	Glu	Val	Val	Pro			
	1235					1240					1245						
Leu	Val	Gln	Lys	Leu	Lys	Asp	Tyr	Arg	Lys	Leu	Glu	Cys	Leu	Ser			
	1250					1255					1260						
Ala	Glu	Met	Lys	Lys	Glu	Ile	Lys	Asp	Ile	Val	Val	Ser	Val	Asn			
	1265					1270					1275						
Lys	Leu	Pro	Lys	Ala	Pro	Trp	Asp	Glu	Gly	Val	Cys	Lys	Val	Cys			
	1280					1285					1290						
Gly	Val	Asp	Lys	Asp	Asp	Asp	Ser	Val	Leu	Leu	Cys	Asp	Thr	Cys			
	1295					1300					1305						
Asp	Ala	Glu	Tyr	His	Thr	Tyr	Cys	Leu	Asn	Pro	Pro	Leu	Ile	Arg			
	1310					1315					1320						
Ile	Pro	Asp	Gly	Asn	Trp	Tyr	Cys	Pro	Ser	Cys	Val	Ile	Ala	Lys			
	1325					1330					1335						
Arg	Met	Ala	Gln	Glu	Ala	Leu	Glu	Ser	Tyr	Lys	Leu	Val	Arg	Arg			
	1340					1345					1350						
Arg	Lys	Gly	Arg	Lys	Tyr	Gln	Gly	Glu	Leu	Thr	Arg	Ala	Ser	Met			
	1355					1360					1365						
Glu	Leu	Thr	Ala	His	Leu	Ala	Asp	Val	Met	Glu	Glu	Lys	Asp	Tyr			
	1370					1375					1380						

Trp	Glu	Phe	Ser	Ala	Glu	Glu	Arg	Ile	Leu	Leu	Leu	Lys	Leu	Leu
	1385					1390						1395		
Cys	Asp	Glu	Leu	Leu	Ser	Ser	Ser	Leu	Val	His	Gln	His	Leu	Glu
	1400					1405					1410			
Gln	Cys	Ala	Glu	Ala	Ile	Ile	Glu	Met	Gln	Gln	Lys	Leu	Arg	Ser
	1415					1420					1425			
Leu	Ser	Ser	Glu	Trp	Lys	Asn	Ala	Lys	Met	Arg	Gln	Glu	Phe	Leu
	1430					1435					1440			
Thr	Ala	Lys	Leu	Ala	Lys	Val	Glu	Pro	Ser	Ile	Leu	Lys	Glu	Val
	1445					1450					1455			
Gly	Glu	Pro	His	Asn	Ser	Ser	Tyr	Phe	Ala	Asp	Gln	Met	Gly	Cys
	1460					1465					1470			
Asp	Pro	Gln	Pro	Gln	Glu	Gly	Val	Gly	Asp	Gly	Val	Thr	Arg	Asp
	1475					1480					1485			
Asp	Glu	Thr	Ser	Ser	Thr	Ala	Tyr	Leu	Asn	Lys	Asn	Gln	Gly	Lys
	1490					1495					1500			
Ser	Pro	Leu	Glu	Thr	Asp	Thr	Gln	Pro	Gly	Glu	Ser	His	Val	Asn
	1505					1510					1515			
Phe	Gly	Glu	Ser	Lys	Ile	Ser	Ser	Pro	Glu	Thr	Ile	Ser	Ser	Pro
	1520					1525					1530			
Gly	Arg	His	Glu	Leu	Pro	Ile	Ala	Asp	Thr	Ser	Pro	Leu	Val	Thr
	1535					1540					1545			
Asp	Asn	Leu	Pro	Glu	Lys	Asp	Thr	Ser	Glu	Thr	Leu	Leu	Lys	Ser
	1550					1555					1560			
Val	Gly	Arg	Asn	His	Glu	Thr	His	Ser	Pro	Asn	Ser	Asn	Ala	Val
	1565					1570					1575			
Glu	Leu	Pro	Thr	Ala	His	Asp	Ala	Ser	Ser	Gln	Ala	Ser	Gln	Glu
	1580					1585					1590			
Leu	Gln	Ala	Cys	Gln	Gln	Asp	Leu	Ser	Ala	Thr	Ser	Asn	Glu	Ile
	1595					1600					1605			
Gln	Asn	Leu	Gln	Gln	Ser	Ile	Arg	Ser	Ile	Glu	Ser	Gln	Leu	Leu
	1610					1615					1620			

## 047-E2F-PCT.ST25.txt

Lys Gln Ser Ile Arg Arg Asp Phe Leu Gly Thr Asp Ala Ser Gly  
 1625 1630 1635  
 Arg Leu Tyr Trp Gly Cys Cys Phe Pro Asp Glu Asn Pro Arg Ile  
 1640 1645 1650  
 Leu Val Asp Gly Ser Ile Ser Leu Gln Lys Pro Val Gln Ala Asp  
 1655 1660 1665  
 Leu Ile Gly Ser Lys Val Pro Ser Pro Phe Leu His Thr Val Asp  
 1670 1675 1680  
 His Gly Arg Leu Arg Leu Ser Pro Trp Thr Tyr Tyr Glu Thr Glu  
 1685 1690 1695  
 Thr Glu Ile Ser Glu Leu Val Gln Trp Leu His Asp Asp Asp Leu  
 1700 1705 1710  
 Lys Glu Arg Asp Leu Arg Glu Ser Ile Leu Trp Trp Lys Arg Leu  
 1715 1720 1725  
 Arg Tyr Gly Asp Val Gln Lys Glu Lys Lys Gln Ala Gln Asn Leu  
 1730 1735 1740  
 Ser Ala Pro Val Phe Ala Thr Gly Leu Glu Thr Lys Ala Ala Met  
 1745 1750 1755  
 Ser Met Glu Lys Arg Tyr Gly Pro Cys Ile Lys Leu Glu Met Glu  
 1760 1765 1770  
 Thr Leu Lys Lys Arg Gly Lys Lys Thr Lys Val Ala Glu Arg Glu  
 1775 1780 1785  
 Lys Leu Cys Arg Cys Glu Cys Leu Glu Ser Ile Leu Pro Ser Met  
 1790 1795 1800  
 Ile His Cys Leu Ile Cys His Lys Thr Phe Ala Ser Asp Asp Glu  
 1805 1810 1815  
 Phe Glu Asp His Thr Glu Ser Lys Cys Ile Pro Tyr Ser Leu Ala  
 1820 1825 1830  
 Thr Glu Glu Gly Lys Asp Ile Ser Asp Ser Ser Lys Ala Lys Glu  
 1835 1840 1845  
 Ser Leu Lys Ser Asp Tyr Leu Asn Val Lys Ser Ser Ala Gly Lys  
 1850 1855 1860

047-E2F-PCT.ST25.txt

Asp Val 1865	Ala Glu Ile Ser	Asn Val 1870	Ser Glu Leu	Asp Ser 1875	Gly Leu
Ile Arg 1880	Tyr Gln Glu Glu	Glu Ser 1885	Ile Ser Pro	Tyr His 1890	Phe Glu
Glu Ile 1895	Cys Ser Lys Phe	Val Thr 1900	Lys Asp Cys	Asn Arg 1905	Asp Leu
Val Lys 1910	Glu Ile Gly Leu	Ile Ser 1915	Ser Ser Asn Gly	Ile Pro 1920	Thr Phe
Leu Pro 1925	Ser Ser Ser Thr	His Leu 1930	Asn Asp Ser	Val Leu 1935	Ile Ser
Ala Lys 1940	Ser Asn Lys Pro	Asp Gly 1945	Gly Gly Asp Ser	Gly Asp 1950	Gln Val
Ile Phe 1955	Ala Gly Pro Glu	Thr Asn 1960	Val Glu Gly	Leu Asn 1965	Ser Glu
Ser Asn 1970	Met Ser Phe Asp	Arg Ser 1975	Val Thr Asp	Ser His 1980	Gly Gly
Pro Leu 1985	Asp Lys Pro Ser	Gly Leu 1990	Gly Phe Gly	Phe Ser 1995	Glu Gln
Lys Asn 2000	Lys Lys Ser Ser	Gly Ser 2005	Gly Leu Lys	Ser Cys 2010	Cys Val
Val Pro 2015	Gln Ala Ala Leu	Lys Arg 2020	Val Thr Gly	Lys Ala 2025	Leu Pro
Gly Phe 2030	Arg Phe Leu Lys	Thr Asn 2035	Leu Leu Asp	Met Asp 2040	Val Ala
Leu Pro 2045	Glu Glu Ala Leu	Arg Pro 2050	Ser Lys Ser	His Pro 2055	Asn Arg
Arg Arg 2060	Ala Trp Arg Val	Phe Val 2065	Lys Ser Ser	Gln Ser 2070	Ile Tyr
Glu Leu 2075	Val Gln Ala Thr	Ile Val 2080	Val Glu Asp	Met Ile 2085	Lys Thr
Glu Tyr	Leu Lys Asn Glu Trp	Trp Tyr	Trp Ser Ser	Leu Ser	Ala

2090

2095

Ala Ala Lys Ile Ser Thr Leu Ser Ala Leu Ser Val Arg Ile Phe  
2105 2110 2115  
Ser Leu Asp Ala Ala Ile Ile Tyr Asp Lys Pro Ile Thr Pro Ser  
2120 2125 2130  
Asn Pro Ile Asp Glu Thr Lys Pro Ile Ile Ser Leu Pro Asp Gln  
2135 2140 2145  
Lys Ser Gln Pro Val Ser Asp Ser Gln Glu Arg Ser Ser Arg Val  
2150 2155 2160  
Arg Arg Ser Gly Lys Lys Arg Lys Glu Pro Glu Gly Ser  
2165 2170 2175

&lt;210&gt; 1149

&lt;211&gt; 714

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1149

atggcgaaca atgagggaga gatgcaatgt ggggtccatgt tgtttaagca agaggagcta 60  
caagagatga gtgggggtcaa tgttggtggc gattacgttg aggtcatgtg tggttgtacc 120  
agtcaccgat acggcgatgc tgttgctaga cttaggggtt tccccaccgg tgaccttgaa 180  
atcacctgcg aatgcacacc tggttgcatg gaagacaagt tgacaccagc tgcattcgag 240  
aagcattctg gaagagaaac ggcaaggaag tggaaaaaca atgtgtgggt tatcattggg 300  
ggcgaaaagg ttccattgtc aaagacagta ttgctcaagt actacaatga atcatcaaag 360  
aagtgcagta gatcaaacag atcacaaggt gccaaagttt gccatagaga tgagtttggt 420  
gggtgtaacg attgtggtaa agagaggagg ttcaggctga ggagcagaga cgaatgccgc 480  
ttgcaccaca atgcaatggg tgatccaaac tggaaatgct cagatttccc atacgacaag 540  
ataacatgtg aggaggaaga agagagaggg agcaggaagg tgtacagagg gtgcacacgt 600  
tcacctagtt gcaaaggctg cacttcctgc gtctgttttg gctgagagtt atgccgtttc 660  
tctgagtgtg cttgccagac ttgtgtcgac ttcaccagca atgtcaaagc ttga 714

&lt;210&gt; 1150

&lt;211&gt; 237



&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1150

Met Ala Asn Asn Glu Gly Glu Met Gln Cys Gly Ser Met Leu Phe Lys  
 1 5 10 15

Gln Glu Glu Leu Gln Glu Met Ser Gly Val Asn Val Gly Gly Asp Tyr  
 20 25 30

Val Glu Val Met Cys Gly Cys Thr Ser His Arg Tyr Gly Asp Ala Val  
 35 40 45

Ala Arg Leu Arg Val Phe Pro Thr Gly Asp Leu Glu Ile Thr Cys Glu  
 50 55 60

Cys Thr Pro Gly Cys Asp Glu Asp Lys Leu Thr Pro Ala Ala Phe Glu  
 65 70 75 80

Lys His Ser Gly Arg Glu Thr Ala Arg Lys Trp Lys Asn Asn Val Trp  
 85 90 95

Val Ile Ile Gly Gly Glu Lys Val Pro Leu Ser Lys Thr Val Leu Leu  
 100 105 110

Lys Tyr Tyr Asn Glu Ser Ser Lys Lys Cys Ser Arg Ser Asn Arg Ser  
 115 120 125

Gln Gly Ala Lys Val Cys His Arg Asp Glu Phe Val Gly Cys Asn Asp  
 130 135 140

Cys Gly Lys Glu Arg Arg Phe Arg Leu Arg Ser Arg Asp Glu Cys Arg  
 145 150 155 160

Leu His His Asn Ala Met Gly Asp Pro Asn Trp Lys Cys Ser Asp Phe  
 165 170 175

Pro Tyr Asp Lys Ile Thr Cys Glu Glu Glu Glu Arg Gly Ser Arg  
 180 185 190

Lys Val Tyr Arg Gly Cys Thr Arg Ser Pro Ser Cys Lys Gly Cys Thr  
 195 200 205

Ser Cys Val Cys Phe Gly Cys Glu Leu Cys Arg Phe Ser Glu Cys Thr  
 210 215 220

Cys Gln Thr Cys Val Asp Phe Thr Ser Asn Val Lys Ala  
 225 230 235

<210> 1151

<211> 2028

<212> DNA

<213> Arabidopsis thaliana

<400> 1151

```

atggaagtga ctcgtggttt ctcttttttg gacaagtttc ttcgaaagcg tcttcactgt      60
ggatgcattg cttctagatt tatgatggag cttctagaga atgggtggtgt tacctgtata      120
agttgcgcca agaaatccgg actaatttct atgaatgtga gccatgaatc taacggtaag      180
gacttccctt catttgcttc agcagagcat gtaggcagtg ttcttgagag gacaaatctc      240
aagcacttgc ttcactttca aagaatcgac cccactcatt cttctcttca aatgaaacaa      300
gaagaatcgc tgcttccttc cagcctagat gctcttagac acaaaactga aaggaaagaa      360
ttgtctgcac agccaaactt gagcatttca cttggacctt cgcttatgac aagcccattt      420
catgatgctg ctgttgatga cagaagtaag actaattcga ttttccaact ggccccctcg      480
tccaggcagc tgcttccaaa acctgcaaat tcagctccca ttgctgctgg catggagcct      540
agtgggagcc tgggtgtcaca gattcatgtc gctcggcctc ctccagaagg tcgcgggaag      600
accaattgc tttcccgtta ctggcctagg attactgacc aagagctgct gcaattatct      660
ggacagtatc ctcatctgta tgagtccttg actgtttatt ttcctagctc aaattccaaa      720
attataccac tctttgaaaa agttctgagt gcgagcgatg cgggtcgtat tggtcgactg      780
gttcttccga aagcatgtgc agaggcatat tttcccccta tatctctacc cgagggtctc      840
ccgttaaaga tacaagacat aaaagggaaa gaatgggtgt tccagttcag gttttggcct      900
aataataaca gcaggatgta cgttttggag ggtgtgactc cttgcataca gtccatgcag      960
ttgcaagctg gtgacactgt aacattcagc cgtacagaac ctgaaggaaa actcgtaatg     1020
ggataccgta aagcgacgaa ctctacagcg acacagatgt tcaagggaag cagtgaaccc     1080
aatctgaaca tgttttccaa cagcttgaat cggggatgtg gtgacatcaa ttggtctaaa     1140
ctagagaagt ctgaggacat ggcaaaggat aacttatttc ttcagtcgtc ctttaacttct     1200
gctaggaaac gggttcggaa cattgggact aagagcaagc gtctgctcat tgatagcgta     1260
gatgttctgg aactgaaaat aacttgggag gaggcacagg agctgttgcg gcctccccaa     1320
tccaccaaac ccagcatctt tacgctggaa aatcaagatt ttgaagaata tgacaaactt     1380
ccttctttac ataacgaaac tttcgtctca acagagttca aaaggaggag actggcatca     1440

```

047-E2F-PCT.ST25.txt

tcaaacgaaa agctaaacca gtcgcaggat gcatctgctc tgaatagttt aggaaatgca 1500  
 ggcatacaca caaccggtga acagggggaa atcacggttg cagccacgac caagcatcca 1560  
 agacaccggg caggggtgttc gtgcatcgtc tgcagccaac caccgagcgg aaaaggcaaa 1620  
 cacaagccgt catgcacttg cactgtgtgc gaggcagtga agagacgatt caggacgctc 1680  
 atgctgcgga agcgggaaca aggagaggca ggacaggcaa gccagcaggc gcagtcacag 1740  
 tcagagtga gggacgagac agaagtggag agcattccag cggttgaact agccgcaggg 1800  
 gaaaacatcg acttgaactc agaccgggg gcttcccgag taagcatgat gaggcttctc 1860  
 caagctgcag cgtttcctct ggaagcatat ctgaaacaaa aggctatttc caatacagca 1920  
 ggagaacagc aaagcagtga tatggtcagc acagaacacg gttcgtcctc agccgcacaa 1980  
 gaaactgaga aagacacaac aaatggagct catgatcctg tgaactaa 2028

<210> 1152

<211> 675

<212> PRT

<213> Arabidopsis thaliana

<400> 1152

Met Glu Val Thr Arg Gly Phe Ser Phe Leu Asp Lys Phe Leu Arg Lys  
 1 5 10 15

Arg Leu His Cys Gly Cys Ile Ala Ser Arg Phe Met Met Glu Leu Leu  
 20 25 30

Glu Asn Gly Gly Val Thr Cys Ile Ser Cys Ala Lys Lys Ser Gly Leu  
 35 40 45

Ile Ser Met Asn Val Ser His Glu Ser Asn Gly Lys Asp Phe Pro Ser  
 50 55 60

Phe Ala Ser Ala Glu His Val Gly Ser Val Leu Glu Arg Thr Asn Leu  
 65 70 75 80

Lys His Leu Leu His Phe Gln Arg Ile Asp Pro Thr His Ser Ser Leu  
 85 90 95

Gln Met Lys Gln Glu Glu Ser Leu Leu Pro Ser Ser Leu Asp Ala Leu  
 100 105 110

Arg His Lys Thr Glu Arg Lys Glu Leu Ser Ala Gln Pro Asn Leu Ser  
 Page 1805

115

120

125

Ile Ser Leu Gly Pro Thr Leu Met Thr Ser Pro Phe His Asp Ala Ala  
 130 135 140  
 Val Asp Asp Arg Ser Lys Thr Asn Ser Ile Phe Gln Leu Ala Pro Arg  
 145 150 155 160  
 Ser Arg Gln Leu Leu Pro Lys Pro Ala Asn Ser Ala Pro Ile Ala Ala  
 165 170 175  
 Gly Met Glu Pro Ser Gly Ser Leu Val Ser Gln Ile His Val Ala Arg  
 180 185 190  
 Pro Pro Pro Glu Gly Arg Gly Lys Thr Gln Leu Leu Pro Arg Tyr Trp  
 195 200 205  
 Pro Arg Ile Thr Asp Gln Glu Leu Leu Gln Leu Ser Gly Gln Tyr Pro  
 210 215 220  
 His Leu Tyr Glu Ser Leu Thr Val Tyr Phe Pro Ser Ser Asn Ser Lys  
 225 230 235 240  
 Ile Ile Pro Leu Phe Glu Lys Val Leu Ser Ala Ser Asp Ala Gly Arg  
 245 250 255  
 Ile Gly Arg Leu Val Leu Pro Lys Ala Cys Ala Glu Ala Tyr Phe Pro  
 260 265 270  
 Pro Ile Ser Leu Pro Glu Gly Leu Pro Leu Lys Ile Gln Asp Ile Lys  
 275 280 285  
 Gly Lys Glu Trp Val Phe Gln Phe Arg Phe Trp Pro Asn Asn Asn Ser  
 290 295 300  
 Arg Met Tyr Val Leu Glu Gly Val Thr Pro Cys Ile Gln Ser Met Gln  
 305 310 315 320  
 Leu Gln Ala Gly Asp Thr Val Thr Phe Ser Arg Thr Glu Pro Glu Gly  
 325 330 335  
 Lys Leu Val Met Gly Tyr Arg Lys Ala Thr Asn Ser Thr Ala Thr Gln  
 340 345 350  
 Met Phe Lys Gly Ser Ser Glu Pro Asn Leu Asn Met Phe Ser Asn Ser  
 355 360 365

Leu Asn Pro Gly Cys Gly Asp Ile Asn Trp Ser Lys Leu Glu Lys Ser  
 370 375 380  
 Glu Asp Met Ala Lys Asp Asn Leu Phe Leu Gln Ser Ser Leu Thr Ser  
 385 390 400  
 Ala Arg Lys Arg Val Arg Asn Ile Gly Thr Lys Ser Lys Arg Leu Leu  
 405 410 415  
 Ile Asp Ser Val Asp Val Leu Glu Leu Lys Ile Thr Trp Glu Glu Ala  
 420 425 430  
 Gln Glu Leu Leu Arg Pro Pro Gln Ser Thr Lys Pro Ser Ile Phe Thr  
 435 440 445  
 Leu Glu Asn Gln Asp Phe Glu Glu Tyr Asp Lys Leu Pro Ser Leu His  
 450 455 460  
 Asn Glu Thr Phe Val Ser Thr Glu Phe Lys Arg Arg Arg Leu Ala Ser  
 465 470 475 480  
 Ser Asn Glu Lys Leu Asn Gln Ser Gln Asp Ala Ser Ala Leu Asn Ser  
 485 490 495  
 Leu Gly Asn Ala Gly Ile Thr Thr Thr Gly Glu Gln Gly Glu Ile Thr  
 500 505  
 Val Ala Ala Thr Thr Lys His Pro Arg His Arg Ala Gly Cys Ser Cys  
 515 520 525  
 Ile Val Cys Ser Gln Pro Pro Ser Gly Lys Gly Lys His Lys Pro Ser  
 530 535 540  
 Cys Thr Cys Thr Val Cys Glu Ala Val Lys Arg Arg Phe Arg Thr Leu  
 545 550 555 560  
 Met Leu Arg Lys Arg Asn Lys Gly Glu Ala Gly Gln Ala Ser Gln Gln  
 565 570 575  
 Ala Gln Ser Gln Ser Glu Cys Arg Asp Glu Thr Glu Val Glu Ser Ile  
 580 585 590  
 Pro Ala Val Glu Leu Ala Ala Gly Glu Asn Ile Asp Leu Asn Ser Asp  
 595 600 605  
 Pro Gly Ala Ser Arg Val Ser Met Met Arg Leu Leu Gln Ala Ala Ala  
 610 615 620

047-E2F-PCT.ST25.txt

Phe Pro Leu Glu Ala Tyr Leu Lys Gln Lys Ala Ile Ser Asn Thr Ala  
625 630 635 640

Gly Glu Gln Gln Ser Ser Asp Met Val Ser Thr Glu His Gly Ser Ser  
645 650 655

Ser Ala Ala Gln Glu Thr Glu Lys Asp Thr Thr Asn Gly Ala His Asp  
660 665 670

Pro Val Asn  
675

<210> 1153

<211> 1305

<212> DNA

<213> Arabidopsis thaliana

<400> 1153

atggcagata acaattcacc acctggctct gtagaacaga aagcagatca aattggtgaa	60
gctaattccat tgggtgaagga tgatacttcg ctggaaacca tagttcgaag gttccaggat	120
tcaatgtcag aggcaaagac tcataagttc tgggagactc aacctggttg gcagtttaag	180
gatattgggg atacgagttt gcctgaaggt ccgattgagc ctgcaactcc attatctgag	240
gttaagcaag agccgtacaa ctttccttct gtttacgagt ggacgacatg tgatatgaac	300
tctgatgata tgtgttcaga ggtatacaac cttctcaaga acaactatgt tgaggatgat	360
gagaatatgt tcaggttcaa ttactccaag gagtttctaa ggtgggcact acgtccaccg	420
ggttattacc agagctggca tattggagtt cgagccaaga cttcgaagaa actcgttgct	480
ttcatcagcg gcgtgccagc aagaatcagg gtgcgtgatg aggttggttaa aatggcagag	540
atcaatttct tgtgtgttca caagaagctc aggtcctaaga ggctcgctcc tgtcatgatc	600
aaggaggtga ctagaagggc tcacttggag aacatatggc aagcagctta tactgcagga	660
gttatccttc ctacaccaat caccacctgt caatactggc acaggtcatt gaaccgaag	720
aagctaattg atgttggtt ttcaaggctt ggtgcgagaa tgacaatgag cagaaccatc	780
aaactctaca agttaccaga tgcaccgatc actcctggat tcaggaaaat ggaaccacgc	840
gatgtccctg ctgttacacg gttgcttagg aactacctca gccagtttg agtcgcgact	900
gactttgatg agaatgatgt cgagcattgg ctactcccaa gagaagatgt cgtggacagt	960
tacctagtag aaagccctga aactcacgat gtcactgact tctgcagctt ctacactctc	1020
ccttcaacca tcctcggtta cccgaactac actacattga aagctgcgta ttcttactac	1080

047-E2F-PCT.ST25.txt

aatgtggcca cacagacctc gtttcttcag ctgatgaatg atgcgctaata tgtctcaaag 1140  
 caaaaggggtt tcgatgtgtt caacgcgttg gatgtgatgc acaatgagag tttcttgaaa 1200  
 gaactgaagt ttgggccagg agatggacaa cttcattact atctctacaa ttaccgtttg 1260  
 aaaagtgcct tgaagccagc ggaactcggg cttgttctct tataa 1305

<210> 1154

<211> 434

<212> PRT

<213> Arabidopsis thaliana

<400> 1154

Met Ala Asp Asn Asn Ser Pro Pro Gly Ser Val Glu Gln Lys Ala Asp  
 1 5 10 15

Gln Ile Val Glu Ala Asn Pro Leu Val Lys Asp Asp Thr Ser Leu Glu  
 20 25 30

Thr Ile Val Arg Arg Phe Gln Asp Ser Met Ser Glu Ala Lys Thr His  
 35 40 45

Lys Phe Trp Glu Thr Gln Pro Val Gly Gln Phe Lys Asp Ile Gly Asp  
 50 55 60

Thr Ser Leu Pro Glu Gly Pro Ile Glu Pro Ala Thr Pro Leu Ser Glu  
 65 70 75 80

Val Lys Gln Glu Pro Tyr Asn Leu Pro Ser Val Tyr Glu Trp Thr Thr  
 85 90 95

Cys Asp Met Asn Ser Asp Asp Met Cys Ser Glu Val Tyr Asn Leu Leu  
 100 105 110

Lys Asn Asn Tyr Val Glu Asp Asp Glu Asn Met Phe Arg Phe Asn Tyr  
 115 120 125

Ser Lys Glu Phe Leu Arg Trp Ala Leu Arg Pro Pro Gly Tyr Tyr Gln  
 130 135 140

Ser Trp His Ile Gly Val Arg Ala Lys Thr Ser Lys Lys Leu Val Ala  
 145 150 155 160

Phe Ile Ser Gly Val Pro Ala Arg Ile Arg Val Arg Asp Glu Val Val

165

175

Lys Met Ala Glu Ile Asn Phe Leu Cys Val His Lys Lys Leu Arg Ser  
180 185 190

Lys Arg Leu Ala Pro Val Met Ile Lys Glu Val Thr Arg Arg Val His  
195 200 205

Leu Glu Asn Ile Trp Gln Ala Ala Tyr Thr Ala Gly Val Ile Leu Pro  
210 215 220

Thr Pro Ile Thr Thr Cys Gln Tyr Trp His Arg Ser Leu Asn Pro Lys  
225 230 235 240

Lys Leu Ile Asp Val Gly Phe Ser Arg Leu Gly Ala Arg Met Thr Met  
245 250 255

Ser Arg Thr Ile Lys Leu Tyr Lys Leu Pro Asp Ala Pro Ile Thr Pro  
260 265 270

Gly Phe Arg Lys Met Glu Pro Arg Asp Val Pro Ala Val Thr Arg Leu  
275 280 285

Leu Arg Asn Tyr Leu Ser Gln Phe Gly Val Ala Thr Asp Phe Asp Glu  
290 295 300

Asn Asp Val Glu His Trp Leu Leu Pro Arg Glu Asp Val Val Asp Ser  
305 310 315 320

Tyr Leu Val Glu Ser Pro Glu Thr His Asp Val Thr Asp Phe Cys Ser  
325 330 335

Phe Tyr Thr Leu Pro Ser Thr Ile Leu Gly Asn Pro Asn Tyr Thr Thr  
340 345 350

Leu Lys Ala Ala Tyr Ser Tyr Tyr Asn Val Ala Thr Gln Thr Ser Phe  
355 360 365

Leu Gln Leu Met Asn Asp Ala Leu Ile Val Ser Lys Gln Lys Gly Phe  
370 375 380

Asp Val Phe Asn Ala Leu Asp Val Met His Asn Glu Ser Phe Leu Lys  
385 390 395 400

Glu Leu Lys Phe Gly Pro Gly Asp Gly Gln Leu His Tyr Tyr Leu Tyr  
405 410 415



Asn Tyr Arg Leu Lys Ser Ala Leu Lys Pro Ala Glu Leu Gly Leu Val  
 420 425 430

Leu Leu

<210> 1155

<211> 510

<212> DNA

<213> Arabidopsis thaliana

<400> 1155

atggccgccg gaggaggagg aggaggagga ggatcatcgt cgggacgtac tccgacgtgg	60
aaagagagag agaacaataa gaagagagaa agaagaagaa gagccatcac tgctaagatt	120
tactctgggtc ttagagctca aggtaactat aagcttccta agcactgcga taacaacgag	180
gttcttaaag ctctctgtct cgaagctggg tggatcgtcg aagacgatgg caccacttat	240
cgcaaggggt ttagccacca gcatcagata tttcaggaac tcctacaaac ttcagcacia	300
attcatcaat ccaaccaagt ccacaatcat cagcttttcc aagtcctgca ccttcgtacc	360
acggaagtcc agtctcatca tccttcccga gtccatctcg ctatgacgga aacccttctt	420
cataccttct tcttccgttc ctacacaaca tcgcttcttc gattcctgct aaccttccac	480
ctcttagaat atccaacagt gcgcctgtga	510

<210> 1156

<211> 169

<212> PRT

<213> Arabidopsis thaliana

<400> 1156

Met Ala Ala Gly Gly Gly Gly Gly Gly Gly Gly Ser Ser Ser Gly Arg  
 1 5 10 15

Thr Pro Thr Trp Lys Glu Arg Glu Asn Asn Lys Lys Arg Glu Arg Arg  
 20 25 30

Arg Arg Ala Ile Thr Ala Lys Ile Tyr Ser Gly Leu Arg Ala Gln Gly  
 35 40 45

Asn Tyr Lys Leu Pro Lys His Cys Asp Asn Asn Glu Val Leu Lys Ala  
 Page 1811

50

55

60

Leu Cys Leu Glu Ala Gly Trp Ile Val Glu Asp Asp Gly Thr Thr Tyr  
 65 70 75 80

Arg Lys Gly Phe Ser His Gln His Gln Ile Phe Gln Glu Leu Leu Gln  
 85 90 95

Thr Ser Ala Gln Ile His Gln Ser Asn Gln Val His Asn His Gln Leu  
 100 105 110

Phe Gln Val Leu His Leu Arg Thr Thr Glu Val Gln Ser His His Pro  
 115 120 125

Ser Arg Val His Leu Ala Met Thr Glu Thr Leu Leu His Thr Phe Phe  
 130 135 140

Phe Arg Ser Tyr Thr Thr Ser Leu Leu Arg Phe Leu Leu Thr Phe His  
 145 150 155 160

Leu Leu Glu Tyr Pro Thr Val Arg Leu  
 165

&lt;210&gt; 1157

&lt;211&gt; 1020

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1157

atgtctaccg gagaagaagg tcacatggcg atggcagata gaggctctag aaagagaaga 60  
 gtcggcggtta agaaagggtac taaagcggcg aggaacaaaa agcaaaaatc aaaaccttct 120  
 acttccgata ggtttaaggt tacaatgaag aatcaaaagc tatttcagaa gagagcacga 180  
 gattacaatt ccgatgacga tgaagaagaa gatgatgaat cgaagaaaca accagaagta 240  
 acaattcgtg agaagatctt ctctgatgct aacatgggac caaattacga agagattgga 300  
 gaagaagata atgatgagaa ttcagatggt gaagatcatg gagagattga atctggaatc 360  
 actaagtttg ctactgatgg atgtaatgct ttcaaaatcg cttttaaaagc tattatgaag 420  
 aagactaaag gagatgatac attgggcca gttttatcag cacataagca tcttattgga 480  
 gagaagctag ctgaagatga agctgaaaag aaagctaaag gtcaagctag aaaggctaaa 540  
 catttgattg ctgagaaggg acatgttaaa cctggaagtt atttggattc tcatgaaaag 600  
 attcttattg gtgttgctac taaaggagtg gtcaagcttt tcaatgctgt caacaaggct 660

047-E2F-PCT.ST25.txt

caacatgctc agaaggggtt gaatccttca aggtctaaag acgctaaagt gctgaagaag 720  
cgaagaaaag aagcattctt gtctgagtta gggaaaacaa aaacagacac caagccttca 780  
actttggatg aacatagaag caagttagta ttctgtcttg agctggcttc tatagagaaa 840  
ggatcacctt cagtagcgag agccgctcac aaatctgaag acgaagctcc tgtttgggct 900  
cctctacgag ataattacat gttagcaaac ccaaaactga aggactggga caagaaacag 960  
gaaacaagcg agggagatga ttttgccggt ttgtcaggag atgaaagtta tgaagactga 1020

<210> 1158

<211> 339

<212> PRT

<213> Arabidopsis thaliana

<400> 1158

Met Ser Thr Gly Glu Glu Gly His Met Ala Met Ala Asp Arg Gly Ser  
1 5 10 15

Arg Lys Arg Arg Val Gly Val Lys Lys Gly Thr Lys Ala Ala Arg Asn  
20 25 30

Lys Lys Gln Lys Ser Lys Pro Ser Thr Ser Asp Arg Phe Lys Val Thr  
35 40 45

Met Lys Asn Gln Lys Leu Phe Gln Lys Arg Ala Arg Asp Tyr Asn Ser  
50 55 60

Asp Asp Asp Glu Glu Glu Asp Asp Glu Ser Lys Lys Gln Pro Glu Val  
65 70 75 80

Thr Ile Arg Glu Lys Ile Phe Ser Asp Ala Asn Met Gly Pro Asn Tyr  
85 90 95

Glu Glu Ile Gly Glu Glu Asp Asn Asp Glu Asn Ser Asp Gly Glu Asp  
100 105 110

His Gly Glu Ile Glu Ser Gly Ile Thr Lys Phe Ala Thr Asp Gly Cys  
115 120 125

Asn Ala Phe Lys Ile Ala Phe Lys Ala Ile Met Lys Lys Thr Lys Gly  
130 135 140

Asp Asp Thr Leu Gly Pro Val Leu Ser Ala His Lys His Leu Ile Gly

047-E2F-PCT.ST25.txt

145 150 155 160

Glu Lys Leu Ala Glu Asp Glu Ala Glu Lys Lys Ala Lys Gly Gln Ala  
165 170 175

Arg Lys Ala Lys His Leu Ile Ala Glu Lys Gly His Val Lys Pro Gly  
180 185 190

Ser Tyr Leu Asp Ser His Glu Lys Ile Leu Ile Gly Val Ala Thr Lys  
195 200 205

Gly Val Val Lys Leu Phe Asn Ala Val Asn Lys Ala Gln His Ala Gln  
210 215 220

Lys Gly Leu Asn Pro Ser Arg Ser Lys Asp Ala Lys Val Leu Lys Lys  
225 230 235 240

Arg Arg Lys Glu Ala Phe Leu Ser Glu Leu Gly Lys Thr Lys Thr Asp  
245 250 255

Thr Lys Pro Ser Thr Leu Asp Glu His Arg Ser Lys Leu Val Phe Cys  
260 265 270

Leu Glu Leu Ala Ser Ile Glu Lys Gly Ser Pro Ser Val Ala Arg Ala  
275 280 285

Ala His Lys Ser Glu Asp Glu Ala Pro Val Trp Ala Pro Leu Arg Asp  
290 295 300

Asn Tyr Met Leu Ala Asn Pro Lys Leu Lys Asp Trp Asp Lys Lys Gln  
305 310 315 320

Glu Thr Ser Glu Gly Asp Asp Phe Ala Gly Leu Ser Gly Asp Glu Ser  
325 330 335

Tyr Glu Asp

<210> 1159

<211> 3546

<212> DNA

<213> Arabidopsis thaliana

<400> 1159

atggcagcgc caaggccgac tggaggccag gatctgttcg atacgtattt caggagagca

60

## 047-E2F-PCT.ST25.txt

gatttggatg	gagatggtca	tattagtggg	gctgaggctg	tcgctttctt	ccagggatcg	120
aatttgccta	aacatgtcct	tgctcaggta	tggtcctatg	cagattcaaa	aaaagccggc	180
taccttggcc	gagcggagtt	ttataatgct	ctaaagttgg	taacagtggc	acaaagtaga	240
cgagagttga	ctgctgagat	agtaaaagct	gcaatttata	gtcctgcttc	agccaatatc	300
cctgcaccca	aaataaatct	tgctgcaaca	ccttctccac	agcccagagg	agttttgcct	360
gctacacaag	ctcagggagt	tacatcaatg	ccatcagtag	cggctggtgt	gagagggcct	420
cacatgggtg	gaactgtaag	cactagtaac	caacaagtag	tcccaggcca	acagaaccag	480
tttactggga	tacctccatc	tcagacacag	caaaactttc	aaagcccggg	aatgccagct	540
ggagggacta	atgcacctcg	tcctgcaaac	caacctatgc	catctgattg	gctcagcggc	600
agaagtgttg	gtccctctgg	gaacgtgaat	tctcaaattc	cttcgagtca	gagtacatat	660
ggtttgacag	cacctaattc	aactgccaac	catataacaa	aaccacatat	aacacctgca	720
gtaacaagct	ctacaacaac	cagaccccaa	gagtcagcgc	ctgtgcacaa	tccccaagaa	780
tcctctgcta	ctttcggttc	tcgtgtatca	aatgttccat	ccaatcaatt	ggtgcccaag	840
gatcccaagg	aactggctgc	atcaggaaac	gggtttacct	ctgactcact	tttcggagat	900
gtcttttcag	ttacttccac	gcagccaaaa	caacatccta	cgggaagtgc	atcaacaaca	960
ggcatctcat	cggttactac	tggaactgtc	gcgggccctg	agatcacaca	gtctgtagtt	1020
aggcaaagtt	caatcccaca	acagggttca	ttgagccagc	atgctgttgg	tgttcagacc	1080
cagcttactg	gaaactcagg	gcaaccatat	acttcctcag	gtgcggcttc	tggtccacct	1140
ggctctactg	ttggagttgg	aatttcagct	accagtcagt	tggcccagcg	tccgccccac	1200
ccccactctc	aaccacaacc	ccggccccag	ggccagtcct	aacctccttg	gccaaaaatg	1260
actccagctg	atgtccagaa	atataccaag	gtttttgtgc	aagttgacac	tgatagggac	1320
ggaaagatca	cagggaacca	ggctcggaat	ttgttcttaa	gttggaggct	tccaagagac	1380
gctttgaagc	aggtatggga	tttatctgat	caagataatg	acagcatgct	ctccttgctg	1440
gagttctgta	ttgcggtcta	tcttatggag	cgttacagag	agggccgacc	acttccccca	1500
gtgttcccaa	gctctataat	acatagtgag	agcatgttca	cctctcctgg	tcaatctgtg	1560
gcaccacatg	gcaatgcata	ctggggacat	cctcaagggg	tccaacagca	accacatcct	1620
gggggcttaa	ggccaccagc	tggtcccaaa	ggaaagcctc	cgaggccagt	gcctctgtct	1680
cctagtgatg	gaatggtcca	gcccactcag	ccaaagcgta	aaatgcctgt	gttagaaaaa	1740
ccgctggtgg	atcaacttag	caaagaggag	caggattcac	tcaacacgaa	gtttgaagaa	1800
gcaactgctg	tggtgaact	cgaaaaagaa	atagctgatt	ccaagcagaa	aattgatttc	1860
ttccgtgcta	agatgcaaga	acttgtttta	tacaagagca	gatgtgacaa	ccggtacaat	1920

## 047-E2F-PCT.ST25.txt

gagatcgag agagagtctt gggtgataaa cgtgaggaga agaaaatgga attgtaccag 1980  
gcaatagtca aatttgaaga aggcaaacctt gatgatagta tagttaagga gcgcactgaa 2040  
cacatccagt caggccttga ggaactgata aaaaatttga atgagcgctg caaacaatat 2100  
ggagtacgtg ggaaaccac ttctctggtt gagcttcctt ttggttgga gcctggaatc 2160  
caggaaggtg ctgctgattg ggatgaagat tgggataagc tagaggacga agggtttacc 2220  
ttcgtcaagg agcttacact tgatattcaa aatgtcatag cccacacaaa ggaaaaatca 2280  
tcagcgtgga gaaaagaagt tgatgtctct tcaaaagaag gtgaagatgt ttcattctca 2340  
gatgctgact ctaaaacggg gaaaaagcaa agcagtgggtg aagaagattc tgagcagtca 2400  
gagggtaaaa catccgatgt tgatgccaga gataaaacg gatctctgga tgactctaaa 2460  
gttagaaaagg gcattgaagc tgatagttca cctcgaacga aagatacgag gagtgaaaat 2520  
ggccatgatg atggtgaatc tactgcttct gctggcaaaa ctgtaaatta tgactctcac 2580  
gacgagacag attcagtttc aagcgtcaac cctgacaacg gcaaggacaa ggatcatggg 2640  
aagtatgaca gtggtttttg atttggattht gggtttgatg acttcagtat taagcctata 2700  
aaaactgggt cgaccatttc aaatgacttc ctccctccta agttatctat atttgctgat 2760  
tccgtcccaa gccaccggc aaatgcaagc gacgtttccc ctacaaaacc ttctttgttt 2820  
gctgattcag ttccgagcac tccagcgacg aacaatgcct cttaccagg ccagaaatca 2880  
ttttttgatg actcgggtccc gagcactcct gcttatccag gcaacttggt tgctgagaag 2940  
aaatccttct ttgacgactc tgtcccgagc acccctgctt atccaggcaa cttgtttgcc 3000  
gagaagaaat cctatttcga tgactctgtc ccgagcactc ctgcttatag cacgtctgat 3060  
tttggtggga agccatttgc atcagagact cctcgttcag acaacctggt cccaggaaga 3120  
agccccctta tgttcgactc tgtcccaagt acaccgcgcg cacacgatga cttctctaac 3180  
aacagcttct cccgcttcga ttcattcaac agcaacaaca acgatgcttt ctctctatcc 3240  
cgcacagact cgatgcgcag cacaagcgag cctgacccat tcgcatcaag gtttgattct 3300  
ttcaactatc aaagatatga ttcttcaat gcacaaagct atgattcctc tagcaacaac 3360  
aatgcatcgg agacgcctaa agcctcattg acaagattcg actcaattgg aagcaccagg 3420  
gactctgatt acagtcatgg gtttggttgc gacgaccatg acccgttcgg ttctacagga 3480  
ccattcaaaa caacgacaac tacagcagag acacctcgga gttctgataa ttggaatgct 3540  
ttctag 3546

&lt;210&gt; 1160

&lt;211&gt; 1181

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1160

Met Ala Ala Pro Arg Pro Thr Gly Gly Gln Asp Leu Phe Asp Thr Tyr  
 1 5 10 15

Phe Arg Arg Ala Asp Leu Asp Gly Asp Gly His Ile Ser Gly Ala Glu  
 20 25 30

Ala Val Ala Phe Phe Gln Gly Ser Asn Leu Pro Lys His Val Leu Ala  
 35 40 45

Gln Val Trp Ser Tyr Ala Asp Ser Lys Lys Ala Gly Tyr Leu Gly Arg  
 50 55 60

Ala Glu Phe Tyr Asn Ala Leu Lys Leu Val Thr Val Ala Gln Ser Arg  
 65 70 75 80

Arg Glu Leu Thr Ala Glu Ile Val Lys Ala Ala Ile Tyr Ser Pro Ala  
 85 90 95

Ser Ala Asn Ile Pro Ala Pro Lys Ile Asn Leu Ala Ala Thr Pro Ser  
 100 105 110

Pro Gln Pro Arg Gly Val Leu Pro Ala Thr Gln Ala Gln Gly Val Thr  
 115 120 125

Ser Met Pro Ser Val Ala Ala Gly Val Arg Gly Pro His Met Gly Gly  
 130 135 140

Thr Val Ser Thr Ser Asn Gln Gln Val Val Pro Gly Gln Gln Asn Gln  
 145 150 155 160

Phe Thr Gly Ile Pro Pro Ser Gln Thr Gln Gln Asn Phe Gln Ser Pro  
 165 170 175

Gly Met Pro Ala Gly Gly Thr Asn Ala Pro Arg Pro Ala Asn Gln Pro  
 180 185 190

Met Pro Ser Asp Trp Leu Ser Gly Arg Ser Val Gly Pro Ser Gly Asn  
 195 200 205

Val Asn Ser Gln Ile Pro Ser Ser Gln Ser Thr Tyr Gly Leu Thr Ala  
 210 215 220

Pro Asn Ser Thr Ala Asn His Ile Thr Lys Pro His Ile Thr Pro Ala  
 Page 1817

047-E2F-PCT.ST25.txt															
225					230					235					240
Val	Thr	Ser	Ser	Thr 245	Thr	Thr	Arg	Pro	Gln 250	Glu	Ser	Ala	Pro	Val 255	His
Asn	Pro	Gln	Glu 260	Ser	Ser	Ala	Thr	Phe 265	Gly	Ser	Arg	Val	Ser 270	Asn	Val
Pro	Ser	Asn 275	Gln	Leu	Val	Pro	Lys 280	Asp	Pro	Lys	Glu	Leu 285	Ala	Ala	Ser
Gly	Asn 290	Gly	Phe	Thr	Ser	Asp 295	Ser	Leu	Phe	Gly	Asp 300	Val	Phe	Ser	Val
Thr 305	Ser	Thr	Gln	Pro	Lys 310	Gln	His	Pro	Thr	Gly 315	Ser	Ala	Ser	Thr	Thr 320
Gly	Ile	Ser	Ser	Val 325	Thr	Thr	Gly	Thr	Val 330	Ala	Gly	Pro	Glu	Ile 335	Thr
Gln	Ser	Val	Val 340	Arg	Gln	Ser	Ser	Ile 345	Pro	Gln	Gln	Gly	Ser 350	Leu	Ser
Gln	His	Ala 355	Val	Gly	Val	Gln	Thr 360	Gln	Leu	Thr	Gly	Asn 365	Ser	Gly	Gln
Pro	Tyr 370	Thr	Ser	Ser	Gly	Ala 375	Ala	Ser	Gly	Pro	Pro 380	Gly	Ser	Thr	Val
Gly 385	Val	Gly	Ile	Ser	Ala 390	Thr	Ser	Gln	Leu	Ala 395	Gln	Arg	Pro	Pro	His 400
Pro	His	Ser	Gln	Pro 405	Gln	Pro	Arg	Pro	Gln 410	Gly	Gln	Ser	Gln	Pro 415	Pro
Trp	Pro	Lys	Met 420	Thr	Pro	Ala	Asp	Val 425	Gln	Lys	Tyr	Thr	Lys 430	Val	Phe
Val	Gln	Val 435	Asp	Thr	Asp	Arg	Asp 440	Gly	Lys	Ile	Thr	Gly 445	Asn	Gln	Ala
Arg	Asn 450	Leu	Phe	Leu	Ser	Trp 455	Arg	Leu	Pro	Arg	Asp 460	Ala	Leu	Lys	Gln
Val 465	Trp	Asp	Leu	Ser	Asp 470	Gln	Asp	Asn	Asp	Ser 475	Met	Leu	Ser	Leu	Arg 480



Glu Phe Cys Ile Ala Val Tyr Leu Met Glu Arg Tyr Arg Glu Gly Arg  
 485 490 495  
 Pro Leu Pro Pro Val Phe Pro Ser Ser Ile Ile His Ser Glu Ser Met  
 500 505 510  
 Phe Thr Ser Pro Gly Gln Ser Val Ala Pro His Gly Asn Ala Ser Trp  
 515 520 525  
 Gly His Pro Gln Gly Phe Gln Gln Gln Pro His Pro Gly Gly Leu Arg  
 530 535 540  
 Pro Pro Ala Gly Pro Lys Gly Lys Pro Pro Arg Pro Val Pro Leu Ser  
 545 550 555 560  
 Pro Ser Asp Gly Met Val Gln Pro Thr Gln Pro Lys Arg Lys Met Pro  
 565 570 575  
 Val Leu Glu Lys Pro Leu Val Asp Gln Leu Ser Lys Glu Glu Gln Asp  
 580 585 590  
 Ser Leu Asn Thr Lys Phe Glu Glu Ala Thr Ala Val Asp Glu Leu Glu  
 595 600 605  
 Lys Glu Ile Ala Asp Ser Lys Gln Lys Ile Asp Phe Phe Arg Ala Lys  
 610 615 620  
 Met Gln Glu Leu Val Leu Tyr Lys Ser Arg Cys Asp Asn Arg Tyr Asn  
 625 630 635 640  
 Glu Ile Ala Glu Arg Val Leu Gly Asp Lys Arg Glu Glu Lys Lys Met  
 645 650 655  
 Glu Leu Tyr Gln Ala Ile Val Lys Phe Glu Glu Gly Lys Leu Asp Asp  
 660 665 670  
 Ser Ile Val Lys Glu Arg Thr Glu His Ile Gln Ser Gly Leu Glu Glu  
 675 680 685  
 Leu Ile Lys Asn Leu Asn Glu Arg Cys Lys Gln Tyr Gly Val Arg Gly  
 690 695 700  
 Lys Pro Thr Ser Leu Val Glu Leu Pro Phe Gly Trp Gln Pro Gly Ile  
 705 710 715 720  
 Gln Glu Gly Ala Ala Asp Trp Asp Glu Asp Trp Asp Lys Leu Glu Asp  
 725 730 735

047-E2F-PCT.ST25.txt

Glu Gly Phe Thr Phe Val Lys Glu Leu Thr Leu Asp Ile Gln Asn Val  
 740 745 750  
 Ile Ala Pro Pro Lys Glu Lys Ser Ser Ala Trp Arg Lys Glu Val Asp  
 755 760 765  
 Val Ser Ser Lys Glu Gly Glu Asp Val Ser Phe Ser Asp Ala Asp Ser  
 770 775 780  
 Lys Thr Gly Lys Lys Gln Ser Ser Gly Glu Glu Asp Ser Glu Gln Ser  
 785 790 795 800  
 Glu Gly Lys Thr Ser Asp Val Asp Ala Arg Asp Lys Asn Gly Ser Leu  
 805 810 815  
 Asp Asp Ser Lys Val Arg Lys Gly Ile Glu Ala Asp Ser Ser Pro Arg  
 820 825 830  
 Thr Lys Asp Thr Arg Ser Glu Asn Gly His Asp Asp Gly Glu Ser Thr  
 835 840 845  
 Ala Ser Ala Gly Lys Thr Val Asn Tyr Asp Ser His Asp Glu Thr Asp  
 850 855 860  
 Ser Val Ser Ser Val Asn Pro Asp Asn Gly Lys Asp Lys Asp His Gly  
 865 870 875 880  
 Lys Tyr Asp Ser Gly Phe Gly Phe Gly Phe Gly Phe Asp Asp Phe Ser  
 885 890 895  
 Ile Lys Pro Ile Lys Thr Gly Ser Thr Ile Ser Asn Asp Phe Leu Pro  
 900 905 910  
 Pro Lys Leu Ser Ile Phe Ala Asp Ser Val Pro Ser Pro Pro Ala Asn  
 915 920 925  
 Ala Ser Asp Val Ser Pro Thr Lys Pro Ser Leu Phe Ala Asp Ser Val  
 930 935 940  
 Pro Ser Thr Pro Ala Thr Asn Asn Ala Ser Tyr Pro Gly Gln Lys Ser  
 945 950 955 960  
 Phe Phe Asp Asp Ser Val Pro Ser Thr Pro Ala Tyr Pro Gly Asn Leu  
 965 970 975  
 Phe Ala Glu Lys Lys Ser Phe Phe Asp Asp Ser Val Pro Ser Thr Pro  
 980 985 990

047-E2F-PCT.ST25.txt

Ala Tyr Pro Gly Asn Leu Phe Ala Glu Lys Lys Ser Tyr Phe Asp Asp  
995 1000 1005

Ser Val Pro Ser Thr Pro Ala Tyr Ser Thr Ser Asp Phe Gly Gly  
1010 1015 1020

Lys Pro Phe Ala Ser Glu Thr Pro Arg Ser Asp Asn Leu Phe Pro  
1025 1030 1035

Gly Arg Ser Pro Phe Met Phe Asp Ser Val Pro Ser Thr Pro Ala  
1040 1045 1050

Ala His Asp Asp Phe Ser Asn Asn Ser Phe Ser Arg Phe Asp Ser  
1055 1060 1065

Phe Asn Ser Asn Asn Asn Asp Ala Phe Ser Leu Ser Arg Thr Asp  
1070 1075 1080

Ser Met Arg Ser Thr Ser Glu Pro Asp Pro Phe Ala Ser Arg Phe  
1085 1090 1095

Asp Ser Phe Asn Tyr Gln Arg Tyr Asp Ser Phe Asn Ala Gln Ser  
1100 1105 1110

Tyr Asp Ser Ser Ser Asn Asn Asn Ala Ser Glu Thr Pro Lys Ala  
1115 1120 1125

Ser Leu Thr Arg Phe Asp Ser Ile Gly Ser Thr Arg Asp Ser Asp  
1130 1135 1140

Tyr Ser His Gly Phe Gly Phe Asp Asp His Asp Pro Phe Gly Ser  
1145 1150 1155

Thr Gly Pro Phe Lys Thr Thr Thr Thr Thr Ala Glu Thr Pro Arg  
1160 1165 1170

Ser Ser Asp Asn Trp Asn Ala Phe  
1175 1180

<210> 1161

<211> 1446

<212> DNA

<213> Arabidopsis thaliana

<400> 1161  
 atggctcaca gaatactgag agatcatgaa gccgatggat gggaacgctc cgatttccca 60  
 atcatctgcg aatcttgtct cggtgacaac ccctacgtgc gaatgaccaa agcgaattat 120  
 gataaggaat gcaagatatg tacacgacct ttcacggtgt ttaggtggcg acctggccgg 180  
 gatgctagat acaagaaaac cgaaatttgt cagacttgct gcaagttgaa aaatgtttgt 240  
 caagtctgtc ttctggatct tgagtatggt cttccagttc aagtaagaga cacagcactc 300  
 aacattagta ctcattgactc tatccctaaa agtgatgtca acagagagta ttttgctgaa 360  
 gagcatgaca ggaaggctag agctggactg gattatgaat cttcattcgg gaagatgcga 420  
 cccaatgata ctatttttaa gcttcaaaga acaacaccgt actataagag gaaccgagca 480  
 catgtttgta gtttcttcat caggggtgag tgtacaagag gtgctgaatg tccataccgg 540  
 catgagatgc ccgaaacagg agagctatcc cagcaaaaca taaaagaccg ttattatggt 600  
 gttaatgata cagttgctat gaagttgctt ggcaaagctg gtgagatggg cactttggaa 660  
 tcgccagacg atgaaagcat caaaaccctt tacgtcgggtg gacttaactc gagaattctc 720  
 gagcaggaca tacgagacca attctacgtc catggagaaa ttgaatctat cagaatcttg 780  
 gccgataaag cctgtgcatt tgtcacatac acaagccgtg aagggtgcaga gaaggctgcg 840  
 caagagctct ccaacaggct agtcatcaac ggtcagaggc taaaactcac atggggaaga 900  
 cccaaacctg atcaagatgg tgcaaacc aaagggcgggtg tggctcatag tgggttacta 960  
 cctcgagccg ttatatctca gcagcacaat caacccccac caatgcagca gtactatatg 1020  
 caccaccac cagctaacca agacaaacct tattacccat caatggaccc acagagaatg 1080  
 ggtgcagtca tttcaacca agaggctggt ggttcaagca ctgagaacaa cggagcttca 1140  
 tcttcttctt acatgatgcc tccacaccag tcataccac caccaccata tggatatatg 1200  
 ccatgcctt accagcagca gtatcctcct aaccatcatc atcaacctag tcctatgcag 1260  
 cactatgccc cgcctccagc agcttaccg taccacagc aacctggtcc tggatcaaga 1320  
 cctgcaccgt ctccaaccgc ggtctctgct atatcaccg actctgcacc tgctgggtct 1380  
 ggagcacctt cgggacctc tcaacaagct cctgatgttt ctacagctac tggttcgtct 1440  
 cagtag 1446

<210> 1162

<211> 481

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 1162

Met Ala His Arg Ile Leu Arg Asp His Glu Ala Asp Gly Trp Glu Arg  
 1 5 10 15

Ser Asp Phe Pro Ile Ile Cys Glu Ser Cys Leu Gly Asp Asn Pro Tyr  
 20 25 30

Val Arg Met Thr Lys Ala Asn Tyr Asp Lys Glu Cys Lys Ile Cys Thr  
 35 40 45

Arg Pro Phe Thr Val Phe Arg Trp Arg Pro Gly Arg Asp Ala Arg Tyr  
 50 55 60

Lys Lys Thr Glu Ile Cys Gln Thr Cys Cys Lys Leu Lys Asn Val Cys  
 65 70 75 80

Gln Val Cys Leu Leu Asp Leu Glu Tyr Gly Leu Pro Val Gln Val Arg  
 85 90 95

Asp Thr Ala Leu Asn Ile Ser Thr His Asp Ser Ile Pro Lys Ser Asp  
 100 105 110

Val Asn Arg Glu Tyr Phe Ala Glu Glu His Asp Arg Lys Ala Arg Ala  
 115 120 125

Gly Leu Asp Tyr Glu Ser Ser Phe Gly Lys Met Arg Pro Asn Asp Thr  
 130 135 140

Ile Leu Lys Leu Gln Arg Thr Thr Pro Tyr Tyr Lys Arg Asn Arg Ala  
 145 150 155 160

His Val Cys Ser Phe Phe Ile Arg Gly Glu Cys Thr Arg Gly Ala Glu  
 165 170 175

Cys Pro Tyr Arg His Glu Met Pro Glu Thr Gly Glu Leu Ser Gln Gln  
 180 185 190

Asn Ile Lys Asp Arg Tyr Tyr Gly Val Asn Asp Pro Val Ala Met Lys  
 195 200 205

Leu Leu Gly Lys Ala Gly Glu Met Gly Thr Leu Glu Ser Pro Asp Asp  
 210 215 220

Glu Ser Ile Lys Thr Leu Tyr Val Gly Gly Leu Asn Ser Arg Ile Leu  
 225 230 235 240

Glu Gln Asp Ile Arg Asp Gln Phe Tyr Ala His Gly Glu Ile Glu Ser  
 Page 1823

Ile Arg Ile Leu Ala Asp Lys Ala Cys Ala Phe Val Thr Tyr Thr Ser  
260 265 270

Arg Glu Gly Ala Glu Lys Ala Ala Gln Glu Leu Ser Asn Arg Leu Val  
275 280 285

Ile Asn Gly Gln Arg Leu Lys Leu Thr Trp Gly Arg Pro Lys Pro Asp  
290 295 300

Gln Asp Gly Ala Asn Gln Gln Gly Gly Val Ala His Ser Gly Leu Leu  
305 310 315 320

Pro Arg Ala Val Ile Ser Gln Gln His Asn Gln Pro Pro Pro Met Gln  
325 330 335

Gln Tyr Tyr Met His Pro Pro Pro Ala Asn Gln Asp Lys Pro Tyr Tyr  
340 345 350

Pro Ser Met Asp Pro Gln Arg Met Gly Ala Val Ile Ser Thr Gln Glu  
355 360 365

Ala Gly Gly Ser Ser Thr Glu Asn Asn Gly Ala Ser Ser Ser Tyr  
370 375 380

Met Met Pro Pro His Gln Ser Tyr Pro Pro Pro Tyr Gly Tyr Met  
385 390 395 400

Pro Ser Pro Tyr Gln Gln Gln Tyr Pro Pro Asn His His His Gln Pro  
405 410 415

Ser Pro Met Gln His Tyr Ala Pro Pro Ala Ala Tyr Pro Tyr Pro  
420 425 430

Gln Gln Pro Gly Pro Gly Ser Arg Pro Ala Pro Ser Pro Thr Ala Val  
435 440 445

Ser Ala Ile Ser Pro Asp Ser Ala Pro Ala Gly Ser Gly Ala Pro Ser  
450 455 460

Gly Ser Ser Gln Gln Ala Pro Asp Val Ser Thr Ala Thr Gly Ser Ser  
465 470 475 480

Gln

&lt;210&gt; 1163

&lt;211&gt; 1881

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1163

```

atggaaggtg cggctgatca aactacgaaa gcgttatctg aattagccat ggattcttct    60
accaccttga atgctgctga gtctagcgct ggtgatggag ctggacctcg gagtaaaaat    120
gctttgaaga aggaacagaa aatgaagcag aaagaggaag agaagagacg aaaggacgaa    180
gagaaagctg aaaaggctaa acaagcacct aaagcaagct cccagaaggc agtggcagca    240
gatgatgaag agatggatgc aacgcaatac tatgagaaca gattgaaata tcttgcggt    300
gagaaggcta aaggggagaa tccatatact cacaagtctg ctgtgtcaat gtcgattcct    360
aaatacattg agacgtatgg tagtttgaac aatggagatc atgttgaaaa cgctgaggag    420
tcttttagctg ggcggataat gagcaagcga tcttcctctt ccaagctctt cttctatgat    480
ctacacggtg atgatttcaa ggtccaagtc atggctgatg caagtaagtc aggattggat    540
gaagctgagt tcttaaagct ccattcgaat gctaagcgtg gtgatattgt tggagtcatt    600
gggtttccag gaaaaactaa gaggggagaa ttgagtatct ttccccgatc atttattctt    660
ctgtcccatt gcctccacat gatgccgaga aaggctgata atgttaatgc aaagaaacct    720
gaaatctggg ttccaggtca aacgagaaat cctgaagcat atgttctgaa agaccaggaa    780
tcaagatata gtcagcgtca tcttgatatg attttgaacg tggaggttcg tcagatattc    840
aggactagag ctaaaatcat ctctatgtc cgcagattcc tcgacaacaa aaatttcttg    900
gaggctgaga cacctatgat gaacatgatt gctggtggag cagctgctag accttttgtg    960
acacatcaca atgatctaga tatgaggctg tacatgcgaa tcgcacctga actctatctc   1020
aagcaactta ttgttggtgg cttggaacgt gtttacgaga taggaaagca attcagaaac   1080
gagggatatag acctgacca caatccggag ttcaccactt gcgagttcta tatggctttt   1140
gcagactaca atgacctgat ggaaatgact gaggttatgt tgagtggcat ggttaaggaa   1200
ttaacaggtg gttataaaat caagtataat gctaatgggt atgacaagga tccaattgaa   1260
atcgacttta ctccaccatt caggaggatt gagatgatag gagagttaga gaaggttgct   1320
aagctcaata taccaaaaga cttggctagc gaagaagcta acaagtatct gattgatgca   1380
tgtgcgaggt ttgatgtcaa atgccctcct cctcagacaa cagctcgtct gttagataaa   1440
cttgttggag aatttctgga accgacatgt gtgaacccaa ctttcatcat caaccagccc   1500
gagatcatga gtcctttggc taaatggcac agatcgaaga gtggattgac agagagattc   1560

```

047-E2F-PCT.ST25.txt

gagctgttca tcaacaaaca tgaactctgc aatgcctaca cggagctaaa cgatcctgtg 1620  
gtacagcgcc agcgttttgc tgatcagctc aaggatcgac agtctggaga cgatgaagcg 1680  
atggcttttag atgaaacatt ttgtaatgct ttagaatatg ggttggctcc tacagggtggc 1740  
tggggattag gaatagacag actctctatg cttttgaccg actcactgaa catcaaggag 1800  
gttcttttct tcccggcaat gaggccacca caggaggagt cagcagccgc tcaagctcct 1860  
ttaacagaag agaagaaata a 1881

<210> 1164

<211> 626

<212> PRT

<213> Arabidopsis thaliana

<400> 1164

Met Glu Gly Ala Ala Asp Gln Thr Thr Lys Ala Leu Ser Glu Leu Ala  
1 5 10 15

Met Asp Ser Ser Thr Thr Leu Asn Ala Ala Glu Ser Ser Ala Gly Asp  
20 25 30

Gly Ala Gly Pro Arg Ser Lys Asn Ala Leu Lys Lys Glu Gln Lys Met  
35 40 45

Lys Gln Lys Glu Glu Glu Lys Arg Arg Lys Asp Glu Glu Lys Ala Glu  
50 55 60

Lys Ala Lys Gln Ala Pro Lys Ala Ser Ser Gln Lys Ala Val Ala Ala  
65 70 75 80

Asp Asp Glu Glu Met Asp Ala Thr Gln Tyr Tyr Glu Asn Arg Leu Lys  
85 90 95

Tyr Leu Ala Ala Glu Lys Ala Lys Gly Glu Asn Pro Tyr Pro His Lys  
100 105 110

Phe Ala Val Ser Met Ser Ile Pro Lys Tyr Ile Glu Thr Tyr Gly Ser  
115 120 125

Leu Asn Asn Gly Asp His Val Glu Asn Ala Glu Glu Ser Leu Ala Gly  
130 135 140

Arg Ile Met Ser Lys Arg Ser Ser Ser Ser Lys Leu Phe Phe Tyr Asp  
145 150 155 160



047-E2F-PCT.ST25.txt

Leu His Gly Asp Asp Phe Lys Val Gln Val Met Ala Asp Ala Ser Lys  
 165 170 175  
 Ser Gly Leu Asp Glu Ala Glu Phe Leu Lys Leu His Ser Asn Ala Lys  
 180 185 190  
 Arg Gly Asp Ile Val Gly Val Ile Gly Phe Pro Gly Lys Thr Lys Arg  
 195 200 205  
 Gly Glu Leu Ser Ile Phe Pro Arg Ser Phe Ile Leu Leu Ser His Cys  
 210 215 220  
 Leu His Met Met Pro Arg Lys Ala Asp Asn Val Asn Ala Lys Lys Pro  
 225 230 235 240  
 Glu Ile Trp Val Pro Gly Gln Thr Arg Asn Pro Glu Ala Tyr Val Leu  
 245 250 255  
 Lys Asp Gln Glu Ser Arg Tyr Arg Gln Arg His Leu Asp Met Ile Leu  
 260 265 270  
 Asn Val Glu Val Arg Gln Ile Phe Arg Thr Arg Ala Lys Ile Ile Ser  
 275 280 285  
 Tyr Val Arg Arg Phe Leu Asp Asn Lys Asn Phe Leu Glu Val Glu Thr  
 290 295 300  
 Pro Met Met Asn Met Ile Ala Gly Gly Ala Ala Ala Arg Pro Phe Val  
 305 310 315 320  
 Thr His His Asn Asp Leu Asp Met Arg Leu Tyr Met Arg Ile Ala Pro  
 325 330 335  
 Glu Leu Tyr Leu Lys Gln Leu Ile Val Gly Gly Leu Glu Arg Val Tyr  
 340 345 350  
 Glu Ile Gly Lys Gln Phe Arg Asn Glu Gly Ile Asp Leu Thr His Asn  
 355 360 365  
 Pro Glu Phe Thr Thr Cys Glu Phe Tyr Met Ala Phe Ala Asp Tyr Asn  
 370 375 380  
 Asp Leu Met Glu Met Thr Glu Val Met Leu Ser Gly Met Val Lys Glu  
 385 390 395 400

405

415

Asp Pro Ile Glu Ile Asp Phe Thr Pro Pro Phe Arg Arg Ile Glu Met  
420 425 430

Ile Gly Glu Leu Glu Lys Val Ala Lys Leu Asn Ile Pro Lys Asp Leu  
435 440 445

Ala Ser Glu Glu Ala Asn Lys Tyr Leu Ile Asp Ala Cys Ala Arg Phe  
450 455 460

Asp Val Lys Cys Pro Pro Pro Gln Thr Thr Ala Arg Leu Leu Asp Lys  
465 470 475 480

Leu Val Gly Glu Phe Leu Glu Pro Thr Cys Val Asn Pro Thr Phe Ile  
485 490 495

Ile Asn Gln Pro Glu Ile Met Ser Pro Leu Ala Lys Trp His Arg Ser  
500 505 510

Lys Ser Gly Leu Thr Glu Arg Phe Glu Leu Phe Ile Asn Lys His Glu  
515 520 525

Leu Cys Asn Ala Tyr Thr Glu Leu Asn Asp Pro Val Val Gln Arg Gln  
530 535 540

Arg Phe Ala Asp Gln Leu Lys Asp Arg Gln Ser Gly Asp Asp Glu Ala  
545 550 555 560

Met Ala Leu Asp Glu Thr Phe Cys Asn Ala Leu Glu Tyr Gly Leu Ala  
565 570 575

Pro Thr Gly Gly Trp Gly Leu Gly Ile Asp Arg Leu Ser Met Leu Leu  
580 585 590

Thr Asp Ser Leu Asn Ile Lys Glu Val Leu Phe Phe Pro Ala Met Arg  
595 600 605

Pro Pro Gln Glu Glu Ser Ala Ala Ala Gln Ala Pro Leu Thr Glu Glu  
610 615 620

Lys Lys  
625

<210> 1165

<211> 1701

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1165

atgggcacat catctgggtc caatcttcct caccagatgc tacctccacg tcagcaacta	60
caaacatctc tttcgcttgt atcttcagat cccacttgt cacggtctaa ttctggcatt	120
gtgcgtgaat caccagctga aagtgtctagc tctcaagaaa cttggccaac ctcaaaatct	180
attatgggaa ggaagacaga tagcggaaag acagggcctg actctcatga tcaacatgtg	240
atccgccatg tttccattgc tgataaggta tcgctacggg acatagctag agagagactt	300
gacatagtcg ctgagagaat gcatcgatta ccagaagaat atctcgagga gttaaagaat	360
ggtcttaagg ctatccttga aggaaatggt ggcgagccta tagatgagtt tatgtttctg	420
cagaagtttg tccagacgag atctgattta acttcaaaga cacttgctcag ggctcaccga	480
gtgcagcttg aagttcttgt ggttataaac actggtatcc aagcattctt gcacccaaac	540
atcaatctct ctcagtcatc actcatcgag atctttgtgt acaagagatg cagaaacata	600
gcttgccaaa acgaactccc ggctgatggg tgtccctgtg agatatgcgc taataggaaa	660
ggcttctgca acctgtgcat gtgtgtgata tgtaacaagt ttgactttgc agtcaacaca	720
tgccgctgga ttggctgca cgtgtgttct cattggactc atacggattg tgctattagg	780
gatggggaga tttcgatggg agtttctccc aagagcgtat ctgggatggg agaaatgctg	840
ttcaagtgtc gagcgtgcaa ccatacttct gaattgctgg ggtgggtgaa agatgtgttt	900
cagcactgtg caccaaactg ggatagggaa tctttaatga aggaacttga cttcgttagt	960
aggattttcc gtggaagcga agatacaaga ggccggaaac tcttctggaa gtgtgaggag	1020
cttatggaga agattaaagg tggactggct gaagcaacag cggccaagtt gatactcatg	1080
tttttccaag aaattgaatt ggactctcca aagagccttg aaagcggaga aggtgggggt	1140
acgatagcac ctcaagatgc atgcaaccga attgctgaag ttgtaaagga aacactgagg	1200
aaaatggaga tagtgggtga ggaaaagacg aggatgtaca agaaagcgcg aatggggctt	1260
gaggaatgcg agagagaggt agaagagaaa gcaaagcaag tggcggaact gcagatggag	1320
aggcagaaga agaaacaaca gatagaagag gtggagagga tagtgaggct gaagcaagca	1380
gaggcagaga tgtttcagtt aaaagcaaac gaggcaaaag tggaagcaga gagattggaa	1440
aggatttgtga aagcgaaaaa ggagaaaaca gaagaggaat acgcaagtaa ctatttgaaa	1500
ctgaggctga gcgaggcgga ggcagagaaa gagtatctgt ttgaaaagat aaaagagcag	1560
gaaagtgggtg ggaatgggtg tgaagcgtca caagcagtga tgtactcaaa gatcagagaa	1620
atgctgcatg gatacaatgc atcgctcgcca agggtagatc caagatcaaa ccagcgaaat	1680

ccttttcagat ccaatcctta g

1701

&lt;210&gt; 1166

&lt;211&gt; 566

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1166

Met Gly Thr Ser Ser Gly Ser Asn Leu Pro His Gln Met Leu Pro Pro  
 1 5 10 15

Arg Gln Gln Leu Gln Thr Ser Leu Ser Leu Val Ser Ser Asp Pro His  
 20 25 30

Leu Ser Arg Ser Asn Ser Gly Ile Val Arg Glu Ser Pro Ala Glu Ser  
 35 40 45

Ala Ser Ser Gln Glu Thr Trp Pro Thr Ser Lys Ser Ile Met Gly Arg  
 50 55 60

Lys Thr Asp Ser Gly Lys Thr Gly Pro Asp Ser His Asp Gln His Val  
 65 70 75 80

Ile Arg His Val Ser Ile Ala Asp Lys Val Ser Leu Arg Asp Ile Ala  
 85 90 95

Arg Glu Arg Leu Asp Ile Val Ala Glu Arg Met His Arg Leu Pro Glu  
 100 105 110

Glu Tyr Leu Glu Glu Leu Lys Asn Gly Leu Lys Ala Ile Leu Glu Gly  
 115 120 125

Asn Gly Ala Gln Pro Ile Asp Glu Phe Met Phe Leu Gln Lys Phe Val  
 130 135 140

Gln Thr Arg Ser Asp Leu Thr Ser Lys Thr Leu Val Arg Ala His Arg  
 145 150 155 160

Val Gln Leu Glu Val Leu Val Val Ile Asn Thr Gly Ile Gln Ala Phe  
 165 170 175

Leu His Pro Asn Ile Asn Leu Ser Gln Ser Ser Leu Ile Glu Ile Phe  
 180 185 190

Val Tyr Lys Arg Cys Arg Asn Ile Ala Cys Gln Asn Glu Leu Pro Ala  
 195 200 205  
 Asp Gly Cys Pro Cys Glu Ile Cys Ala Asn Arg Lys Gly Phe Cys Asn  
 210 215 220  
 Leu Cys Met Cys Val Ile Cys Asn Lys Phe Asp Phe Ala Val Asn Thr  
 225 230 235 240  
 Cys Arg Trp Ile Gly Cys Asp Val Cys Ser His Trp Thr His Thr Asp  
 245 250 255  
 Cys Ala Ile Arg Asp Gly Glu Ile Ser Met Gly Val Ser Pro Lys Ser  
 260 265 270  
 Val Ser Gly Met Gly Glu Met Leu Phe Lys Cys Arg Ala Cys Asn His  
 275 280 285  
 Thr Ser Glu Leu Leu Gly Trp Val Lys Asp Val Phe Gln His Cys Ala  
 290 295 300  
 Pro Asn Trp Asp Arg Glu Ser Leu Met Lys Glu Leu Asp Phe Val Ser  
 305 310 315 320  
 Arg Ile Phe Arg Gly Ser Glu Asp Thr Arg Gly Arg Lys Leu Phe Trp  
 325 330 335  
 Lys Cys Glu Glu Leu Met Glu Lys Ile Lys Gly Gly Leu Ala Glu Ala  
 340 345 350  
 Thr Ala Ala Lys Leu Ile Leu Met Phe Phe Gln Glu Ile Glu Leu Asp  
 355 360 365  
 Ser Pro Lys Ser Leu Glu Ser Gly Glu Gly Gly Gly Thr Ile Ala Pro  
 370 375 380  
 Gln Asp Ala Cys Asn Arg Ile Ala Glu Val Val Lys Glu Thr Leu Arg  
 385 390 395 400  
 Lys Met Glu Ile Val Gly Glu Glu Lys Thr Arg Met Tyr Lys Lys Ala  
 405 410 415  
 Arg Met Gly Leu Glu Glu Cys Glu Arg Glu Val Glu Glu Lys Ala Lys  
 420 425 430  
 Gln Val Ala Glu Leu Gln Met Glu Arg Gln Lys Lys Lys Gln Gln Ile  
 435 440 445

047-E2F-PCT.ST25.txt

Glu Glu Val Glu Arg Ile Val Arg Leu Lys Gln Ala Glu Ala Glu Met  
450 455 460

Phe Gln Leu Lys Ala Asn Glu Ala Lys Val Glu Ala Glu Arg Leu Glu  
465 470 475 480

Arg Ile Val Lys Ala Lys Lys Glu Lys Thr Glu Glu Glu Tyr Ala Ser  
485 490 495

Asn Tyr Leu Lys Leu Arg Leu Ser Glu Ala Glu Ala Glu Lys Glu Tyr  
500 505 510

Leu Phe Glu Lys Ile Lys Glu Gln Glu Ser Gly Gly Asn Gly Gly Glu  
515 520 525

Ala Ser Gln Ala Val Met Tyr Ser Lys Ile Arg Glu Met Leu His Gly  
530 535 540

Tyr Asn Ala Ser Ser Pro Arg Val Asp Pro Arg Ser Asn Gln Arg Asn  
545 550 555 560

Pro Phe Arg Ser Asn Pro  
565

<210> 1167

<211> 1413

<212> DNA

<213> Arabidopsis thaliana

<400> 1167

atggcagcct caggcacctc tgctactttc agagcctccg tttcttcagc tccttcctct	60
tcttcccaat tgacccattt gaaatcaccc ttcaaagctg tcaaataac gcctctgcca	120
tcgtctcgct ccaagtcatc atccttctcc gtctcctgca ccatcgccaa ggacccgcct	180
gttctcatgg ccgccggatc tgacccggcc ctgtggcaac gacccgattc gttcggtcgg	240
tttggaagt ttggtgggaa gtatgtacct gaaaccctta tgcacgctct atctgagctt	300
gaatccgctt tctatgctct tgccaccgac gatgatttcc agagagagtt ggctggaatc	360
ttgaaggact atgtgggtag agaaagtcct ctgtattttg cagagaggct tacggagcat	420
tacaggcgcg agaatggcga agggcctctt atatacttga agagagaaga cttgaatcac	480
acaggagctc acaagattaa caacgctgtg gctcaggctc ttcttgctaa gcggttgggg	540
aagaagagga ttattgctga gacaggagcg ggtcaacatg gtgtggctac agctactgtg	600

047-E2F-PCT.ST25.txt

tgtgcccggtt ttggtttgga gtgtattatc tatatgggtg ctcaagatat ggagagacaa 660  
gcactcaatg tgttcagaat gcgacttctt ggtgccgagg tgagaggagt ccactctgga 720  
acagcgacat tgaaggatgc gacatctgaa gcgataagag attgggtgac aaatgtggag 780  
actaccatt acatattggg atctgtggcg ggtcctcatc cttaccccat gatggtcaga 840  
gactttcacg ctgtgattgg taaagaaaca aggaaacaag cgttggagaa atggggcggg 900  
aagccggatg tcttggtggc ttgtgtcggg ggtgggttaa acgctatggg actcttccat 960  
gaatttgtga atgacacaga ggtccggatg atcgggtgtg aagcagcggg attcggattg 1020  
gacagtggca aacacgctgc tacattgaca aaggagatg ttggtgtcct ccatggagct 1080  
atgagttact tgctgcaaga tgatgatgga caaatcattg aaccacactc catcagtga 1140  
ggattggact accctggagt cggacccgag cacagtttct ttaaagacat gggacgggct 1200  
gaatactata gcataaccga cgaagaagcg ttggaagcgt tcaagagagt gtcgcgggta 1260  
gagggaaatca ttccagcact ggagacctca cacgcactag cttacctga gaagctatgt 1320  
cccacattat cagacgggac gagagtgggc ttgaacttca gcggaagagg agataaagat 1380  
gttcagacag tggctaaata tcttgatggt tga 1413

<210> 1168

<211> 470

<212> PRT

<213> Arabidopsis thaliana

<400> 1168

Met Ala Ala Ser Gly Thr Ser Ala Thr Phe Arg Ala Ser Val Ser Ser  
1 5 10 15

Ala Pro Ser Ser Ser Ser Gln Leu Thr His Leu Lys Ser Pro Phe Lys  
20 25 30

Ala Val Lys Tyr Thr Pro Leu Pro Ser Ser Arg Ser Lys Ser Ser Ser  
35 40 45

Phe Ser Val Ser Cys Thr Ile Ala Lys Asp Pro Pro Val Leu Met Ala  
50 55 60

Ala Gly Ser Asp Pro Ala Leu Trp Gln Arg Pro Asp Ser Phe Gly Arg  
65 70 75 80

Phe Gly Lys Phe Gly Gly Lys Tyr Val Pro Glu Thr Leu Met His Ala  
Page 1833

Leu Ser Glu Leu Glu Ser Ala Phe Tyr Ala Leu Ala Thr Asp Asp Asp  
100 105 110

Phe Gln Arg Glu Leu Ala Gly Ile Leu Lys Asp Tyr Val Gly Arg Glu  
115 120 125

Ser Pro Leu Tyr Phe Ala Glu Arg Leu Thr Glu His Tyr Arg Arg Glu  
130 135 140

Asn Gly Glu Gly Pro Leu Ile Tyr Leu Lys Arg Glu Asp Leu Asn His  
145 150 155 160

Thr Gly Ala His Lys Ile Asn Asn Ala Val Ala Gln Ala Leu Leu Ala  
165 170 175

Lys Arg Leu Gly Lys Lys Arg Ile Ile Ala Glu Thr Gly Ala Gly Gln  
180 185 190

His Gly Val Ala Thr Ala Thr Val Cys Ala Arg Phe Gly Leu Glu Cys  
195 200 205

Ile Ile Tyr Met Gly Ala Gln Asp Met Glu Arg Gln Ala Leu Asn Val  
210 215 220

Phe Arg Met Arg Leu Leu Gly Ala Glu Val Arg Gly Val His Ser Gly  
225 230 235 240

Thr Ala Thr Leu Lys Asp Ala Thr Ser Glu Ala Ile Arg Asp Trp Val  
245 250 255

Thr Asn Val Glu Thr Thr His Tyr Ile Leu Gly Ser Val Ala Gly Pro  
260 265 270

His Pro Tyr Pro Met Met Val Arg Asp Phe His Ala Val Ile Gly Lys  
275 280 285

Glu Thr Arg Lys Gln Ala Leu Glu Lys Trp Gly Gly Lys Pro Asp Val  
290 295 300

Leu Val Ala Cys Val Gly Gly Gly Ser Asn Ala Met Gly Leu Phe His  
305 310 315 320

Glu Phe Val Asn Asp Thr Glu Val Arg Met Ile Gly Val Glu Ala Ala  
325 330 335



Gly Phe Gly Leu Asp Ser Gly Lys His Ala Ala Thr Leu Thr Lys Gly  
 340 345 350

Asp Val Gly Val Leu His Gly Ala Met Ser Tyr Leu Leu Gln Asp Asp  
 355 360 365

Asp Gly Gln Ile Ile Glu Pro His Ser Ile Ser Ala Gly Leu Asp Tyr  
 370 375 380

Pro Gly Val Gly Pro Glu His Ser Phe Phe Lys Asp Met Gly Arg Ala  
 385 390 395 400

Glu Tyr Tyr Ser Ile Thr Asp Glu Glu Ala Leu Glu Ala Phe Lys Arg  
 405 410 415

Val Ser Arg Leu Glu Gly Ile Ile Pro Ala Leu Glu Thr Ser His Ala  
 420 425 430

Leu Ala Tyr Leu Glu Lys Leu Cys Pro Thr Leu Ser Asp Gly Thr Arg  
 435 440 445

Val Val Leu Asn Phe Ser Gly Arg Gly Asp Lys Asp Val Gln Thr Val  
 450 455 460

Ala Lys Tyr Leu Asp Val  
 465 470

<210> 1169

<211> 1350

<212> DNA

<213> Arabidopsis thaliana

<400> 1169

atgaggagcg ttaataatag tagtgtcgac accgtgaacg ccgccgcttc cgccatcgtc	60
tccgctgagt ctagaacaca accgtcgtcg gttcagaaaa aaaggggaag ctggtggagc	120
ttgtactggt gttttggatc caagaagaac aataaaagga taggccacgc ggtgcttgta	180
cccgaaccag ctgcatcagg agctgcggtg gctccagtcc aaaactcttc gagcaattct	240
acttcaatat tcatgccctt tatagctcct ccttcatctc ctgcttcctt tctgccatca	300
ggctctccct ctgcgtcaca tactcctgat cctgggtctac tttgttcctt aaccgtcaat	360
gaaccgcctt cagcctttac tattggacca tacgctcatg agactcaacc tgttactcct	420
ccagtgttct ctgctttcac aacggaaccc tccaccgcgc cattcacgcc acctcctgaa	480

047-E2F-PCT.ST25.txt

```

tcaccttctt cccctgaagt gccttttgct cagttactta catcttcatt ggaaagggct 540
aggaggaaca gtggtggtgg aatgaatcag aagttttcag ctgcacacta cgagtttaag 600
tcttgtcaag tgtatcctgg aagtccaggt ggtaatctaa tctctcctgg ttcaggtaca 660
tcttctcctt acccagggaa atgctccatc atcgagtttc gtatcggcga acctccaaag 720
tttcttggtt ttgagcactt cacagcgcgt aaatggggat caagattcgg ttctggatcc 780
atcacacctg ctggacaagg ttcaagggtg ggttcaggtg ctttgactcc tgatggctca 840
aagctaactt ctggtgtagt gacaccaa at ggtgcagaga ctgttataag aatgagttat 900
gggaatctca caccacttga aggcagtcct ttggatagtc agatctctga ggttgcgtct 960
ttagccaatt cggaccacgg gtcgtcaagg cataatgatg aagctctcgt ggttcctcac 1020
agagtttctt tcgagttgac tggatgaagac gttgcacggt gtcttgcaag caagctaaac 1080
cgttccggtt cacatgaaaa agcaagcggc gaacatttaa gaccaaactg ttgtaaaacg 1140
tcgggagaaa cagagagcga acagagtcag aagctaagat cgttttctac aggctctaac 1200
aaagaattca agtttgatag caccaatgaa gagatgatag agaaaattcg atcggagtg 1260
tgggcgaatg agaaggtcgc cggaaaaggt gatcacagtc caagaaacag ttggactttc 1320
tttccagtct tacgctctgg acatacttag 1350

```

<210> 1170

<211> 449

<212> PRT

<213> Arabidopsis thaliana

<400> 1170

Met Arg Ser Val Asn Asn Ser Ser Val Asp Thr Val Asn Ala Ala Ala  
1 5 10 15

Ser Ala Ile Val Ser Ala Glu Ser Arg Thr Gln Pro Ser Ser Val Gln  
20 25 30

Lys Lys Arg Gly Ser Trp Trp Ser Leu Tyr Trp Cys Phe Gly Ser Lys  
35 40 45

Lys Asn Asn Lys Arg Ile Gly His Ala Val Leu Val Pro Glu Pro Ala  
50 55 60

Ala Ser Gly Ala Ala Val Ala Pro Val Gln Asn Ser Ser Ser Asn Ser  
65 70 75 80

Thr Ser Ile Phe Met Pro Phe Ile Ala Pro Pro Ser Ser Pro Ala Ser  
 85 90 95  
 Phe Leu Pro Ser Gly Pro Pro Ser Ala Ser His Thr Pro Asp Pro Gly  
 100 105 110  
 Leu Leu Cys Ser Leu Thr Val Asn Glu Pro Pro Ser Ala Phe Thr Ile  
 115 120 125  
 Gly Pro Tyr Ala His Glu Thr Gln Pro Val Thr Pro Pro Val Phe Ser  
 130 135 140  
 Ala Phe Thr Thr Glu Pro Ser Thr Ala Pro Phe Thr Pro Pro Pro Glu  
 145 150 155 160  
 Ser Pro Ser Ser Pro Glu Val Pro Phe Ala Gln Leu Leu Thr Ser Ser  
 165 170 175  
 Leu Glu Arg Ala Arg Arg Asn Ser Gly Gly Gly Met Asn Gln Lys Phe  
 180 185 190  
 Ser Ala Ala His Tyr Glu Phe Lys Ser Cys Gln Val Tyr Pro Gly Ser  
 195 200 205  
 Pro Gly Gly Asn Leu Ile Ser Pro Gly Ser Gly Thr Ser Ser Pro Tyr  
 210 215 220  
 Pro Gly Lys Cys Ser Ile Ile Glu Phe Arg Ile Gly Glu Pro Pro Lys  
 225 230 235 240  
 Phe Leu Gly Phe Glu His Phe Thr Ala Arg Lys Trp Gly Ser Arg Phe  
 245 250 255  
 Gly Ser Gly Ser Ile Thr Pro Ala Gly Gln Gly Ser Arg Leu Gly Ser  
 260 265 270  
 Gly Ala Leu Thr Pro Asp Gly Ser Lys Leu Thr Ser Gly Val Val Thr  
 275 280 285  
 Pro Asn Gly Ala Glu Thr Val Ile Arg Met Ser Tyr Gly Asn Leu Thr  
 290 295 300  
 Pro Leu Glu Gly Ser Leu Leu Asp Ser Gln Ile Ser Glu Val Ala Ser  
 305 310 315 320  
 Leu Ala Asn Ser Asp His Gly Ser Ser Arg His Asn Asp Glu Ala Leu  
 325 330 335

047-E2F-PCT.ST25.txt

Val Val Pro His Arg Val Ser Phe Glu Leu Thr Gly Glu Asp Val Ala  
340 345 350

Arg Cys Leu Ala Ser Lys Leu Asn Arg Ser Gly Ser His Glu Lys Ala  
355 360 365

Ser Gly Glu His Leu Arg Pro Asn Cys Cys Lys Thr Ser Gly Glu Thr  
370 375 380

Glu Ser Glu Gln Ser Gln Lys Leu Arg Ser Phe Ser Thr Gly Ser Asn  
385 390 395 400

Lys Glu Phe Lys Phe Asp Ser Thr Asn Glu Glu Met Ile Glu Lys Ile  
405 410 415

Arg Ser Glu Trp Trp Ala Asn Glu Lys Val Ala Gly Lys Gly Asp His  
420 425 430

Ser Pro Arg Asn Ser Trp Thr Phe Phe Pro Val Leu Arg Ser Gly His  
435 440 445

Thr

<210> 1171  
<211> 1410  
<212> DNA  
<213> Arabidopsis thaliana

<400> 1171  
atggcggaac taaagctatc agagagtcgg gacttaacca gagtcgagcg aatcggcgca 60  
cactcacaca tcagaggact aggtctcgac tctgccctcg agccgcgagc tgtttccgaa 120  
ggtatggtcg gtcaagtga ggcgcgtaaa gccgccggtg taatccttca gatgattaga 180  
gaaggga aaa tcgcgggtcg ggctattcta atagcgggtc aaccggaac gggtaagaca 240  
gcgattgcaa tgggtatggc gaaatctctt ggcttgaaa ctctttttgc gatgattgca 300  
ggaagtga aa ttttctcatt agagatgtca aagacagaag ctttgactca gtcttttcgt 360  
aaagcgattg gtgttaggat caaagaagag acagagggtta ttgaaggaga agttgttgag 420  
gttcagattg ataggcctgc ttcttctggt gttgcttcca agtcagggaa gatgactatg 480  
aaaacgactg atatggaaac tgtgtatgat atgggagcta agatgattga ggctttgaac 540  
aaggagaaag tgcagagtgg tgatgttatt gccattgata aagctactgg gaagattact 600

047-E2F-PCT.ST25.txt

```

aagcttggaa gatcgttttc gaggtctcgt gattatgatg ctatgggtgc gcagaccaag 660
tttgtgcagt gccctgaagg tgagttgcag aagaggaaag aggttgtaca ttgtgtcact 720
cttcacgaga ttgatgttat caacagcagg acacaagggt ttcttgccct tttcactggc 780
gatactggag aaatccgatc agaagtccgg gaacaaattg atacaaaagt agctgaatgg 840
agagaagaag gaaaagcaga gatagttccc ggagttctct tcattgatga agtccacatg 900
ctcgacatcg aatgcttctc attccttaac cgagctctag aaaacgaaat gtcaccaatc 960
cttgtggtgg caacaaaccg aggagtgcg acaatccgtg gcacaaacca gaaatcacca 1020
cacgggatcc cgattgatct ccttgaccgt cttctcatca tctactacca accttacaca 1080
gacgatgaca taaggaagat attagaaatc cgttgccaaag aggaagacgt tgagatgaac 1140
gaagaggcca aacagctttt gacattgatc ggacgtgata catctctaag gtatgcgatt 1200
catcttataa cgcagctgc attgtcatgc cagaaacgga aagggaaggt cgtggagggt 1260
gaggatattc agagagttta cagactgttc ttggatgtga ggagatcgat gcagtatctt 1320
gttgagtatc agagtcagta tatgttcagt gaaccaatca aaaacgatga agctgctgca 1380
gaagacgaac aagatgctat gcagatctga 1410

```

<210> 1172

<211> 469

<212> PRT

<213> Arabidopsis thaliana

<400> 1172

Met Ala Glu Leu Lys Leu Ser Glu Ser Arg Asp Leu Thr Arg Val Glu  
1 5 10 15

Arg Ile Gly Ala His Ser His Ile Arg Gly Leu Gly Leu Asp Ser Ala  
20 25 30

Leu Glu Pro Arg Ala Val Ser Glu Gly Met Val Gly Gln Val Lys Ala  
35 40 45

Arg Lys Ala Ala Gly Val Ile Leu Gln Met Ile Arg Glu Gly Lys Ile  
50 55 60

Ala Gly Arg Ala Ile Leu Ile Ala Gly Gln Pro Gly Thr Gly Lys Thr  
65 70 75 80

Ala Ile Ala Met Gly Met Ala Lys Ser Leu Gly Leu Glu Thr Pro Phe  
Page 1839

Ala Met Ile Ala Gly Ser Glu Ile Phe Ser Leu Glu Met Ser Lys Thr  
100 105 110

Glu Ala Leu Thr Gln Ser Phe Arg Lys Ala Ile Gly Val Arg Ile Lys  
115 120 125

Glu Glu Thr Glu Val Ile Glu Gly Glu Val Val Glu Val Gln Ile Asp  
130 135 140

Arg Pro Ala Ser Ser Gly Val Ala Ser Lys Ser Gly Lys Met Thr Met  
145 150 155 160

Lys Thr Thr Asp Met Glu Thr Val Tyr Asp Met Gly Ala Lys Met Ile  
165 170 175

Glu Ala Leu Asn Lys Glu Lys Val Gln Ser Gly Asp Val Ile Ala Ile  
180 185 190

Asp Lys Ala Thr Gly Lys Ile Thr Lys Leu Gly Arg Ser Phe Ser Arg  
195 200 205

Ser Arg Asp Tyr Asp Ala Met Gly Ala Gln Thr Lys Phe Val Gln Cys  
210 215 220

Pro Glu Gly Glu Leu Gln Lys Arg Lys Glu Val Val His Cys Val Thr  
225 230 235 240

Leu His Glu Ile Asp Val Ile Asn Ser Arg Thr Gln Gly Phe Leu Ala  
245 250 255

Leu Phe Thr Gly Asp Thr Gly Glu Ile Arg Ser Glu Val Arg Glu Gln  
260 265 270

Ile Asp Thr Lys Val Ala Glu Trp Arg Glu Glu Gly Lys Ala Glu Ile  
275 280 285

Val Pro Gly Val Leu Phe Ile Asp Glu Val His Met Leu Asp Ile Glu  
290 295 300

Cys Phe Ser Phe Leu Asn Arg Ala Leu Glu Asn Glu Met Ser Pro Ile  
305 310 315 320

Leu Val Val Ala Thr Asn Arg Gly Val Thr Thr Ile Arg Gly Thr Asn  
325 330 335

Gln Lys Ser Pro His Gly Ile Pro Ile Asp Leu Leu Asp Arg Leu Leu  
 340 345 350

Ile Ile Thr Thr Gln Pro Tyr Thr Asp Asp Asp Ile Arg Lys Ile Leu  
 355 360 365

Glu Ile Arg Cys Gln Glu Glu Asp Val Glu Met Asn Glu Glu Ala Lys  
 370 375 380

Gln Leu Leu Thr Leu Ile Gly Arg Asp Thr Ser Leu Arg Tyr Ala Ile  
 385 390 395 400

His Leu Ile Thr Ala Ala Ala Leu Ser Cys Gln Lys Arg Lys Gly Lys  
 405 410 415

Val Val Glu Val Glu Asp Ile Gln Arg Val Tyr Arg Leu Phe Leu Asp  
 420 425 430

Val Arg Arg Ser Met Gln Tyr Leu Val Glu Tyr Gln Ser Gln Tyr Met  
 435 440 445

Phe Ser Glu Pro Ile Lys Asn Asp Glu Ala Ala Ala Glu Asp Glu Gln  
 450 455 460

Asp Ala Met Gln Ile  
 465

<210> 1173

<211> 1779

<212> DNA

<213> Arabidopsis thaliana

<400> 1173

atggcaccat caatgaaaga aatTTTTTct aaagataatt tcaagaaaaa caagaaactt	60
gttttgctat cgcgcgccgt agctttgctc ttcgtagccg ccgtcgccgg aatctctgcc	120
ggagcttcaa aagccaacga aaaacgaact ctatccccgt cgtctcacgc cgtgctaaga	180
tcctcatgca gctccacgcg ttaccctgag ctctgtatct ctgccgtggt aactgccggc	240
ggcgtcgagc taacgtcgca aaaagatgtc atcgaggcat cgggtgaacct aacaataacc	300
gccgtggagc acaattactt caccgtgaag aagctgatca agaagaggaa aggactgacg	360
ccgcgcgaga agacggcgct tcatgactgt ttggagacta ttgatgagac gctggacgag	420
ctccatgaaa cgggtgaaga tctccatttg tatccaacca aaaaaactct ccgggaacac	480

047-E2F-PCT.ST25.txt

```

gccggagatc tcaaaacact aattagctcc gccattacca accaggagac ttgtctcgac 540
ggcttctctc atgacgacgc cgataagcaa gttcgtaaag ccttgttgaa ggggcagata 600
cacgtagagc acatgtgcag caacgctcta gcaatgatca agaacatgac tgatactgac 660
atagccaact tcgagcaaaa agctaaaata acctcaaaca accgtaagct caaggaggag 720
aatcaggaaa ctacggtggc tgtagatatc gccggagccg gagaactaga ctcggaggga 780
tgGCCaactt ggTtatccgc tggagatagg aggcttcttc agggttcagg tgtgaaagct 840
gacgccaccg tggcagctga cggtagcggc acatttaaaa ctgtggctgc tgcggttgcc 900
gcggcccctg aaaatagtaa taagaggatg gtgatacata taaaagccgg agtttacaga 960
gagaatgtgg aggttgctaa gaagaaaaag aatataatgt ttatgggaga tggtcggacg 1020
agaactatta tcaccggaag tcgaaacggt gtagacggta gcaccacttt ccactccgcc 1080
accgttgctg ctgtcggcga gagattctta gctcgtgaca tcactttcca aaacacggcg 1140
ggtccgtcga agcaccaagc ggtggctctc cgtgtggggt ctgatttctc cgccttctac 1200
aattgcgaca tgttagctta tcaagacact ctatacgtcc actctaaccg tcaattcttc 1260
gtcaaatgtc tcatcgccgg aaccgttgac ttcatcttcg gaaacgccgc cgtcgtgctc 1320
caagactgtg acatccacgc tcgccgccct aattccggtc agaaaaacat ggtcacagct 1380
cagggagaaa cggatcctaa ccagaacaca gggatcggtt tccagaaatg taggatcggc 1440
gccacgtcgg atttacagtc ggtgaaaggc agttttccga cgtacttggg tcggccatgg 1500
aaggaatatt cacaaacggt gataatgcag tcggctatct ccgacgtgat ccgacccgaa 1560
gggtgggtccg agtggaccgg gacttttgcg ttgaacactc tgacttacag agagtattcg 1620
aacacaggag caggggctgg aactgcaaat agagtgaagt ggaggggctt taaggtaatt 1680
acggctgctg ctgaagctca aaaatatacg gctggctcag ttattgggtg tggaggctgg 1740
ttatcgtcga ccggtttccc cttctcgctc ggtctttga 1779

```

<210> 1174

<211> 592

<212> PRT

<213> Arabidopsis thaliana

<400> 1174

Met Ala Pro Ser Met Lys Glu Ile Phe Ser Lys Asp Asn Phe Lys Lys  
1 5 10 15

Asn Lys Lys Leu Val Leu Leu Ser Ala Ala Val Ala Leu Leu Phe Val  
20 25 30



047-E2F-PCT.ST25.txt

Ala Ala Val Ala Gly Ile Ser Ala Gly Ala Ser Lys Ala Asn Glu Lys  
35 40 45

Arg Thr Leu Ser Pro Ser Ser His Ala Val Leu Arg Ser Ser Cys Ser  
50 55 60

Ser Thr Arg Tyr Pro Glu Leu Cys Ile Ser Ala Val Val Thr Ala Gly  
65 70 75 80

Gly Val Glu Leu Thr Ser Gln Lys Asp Val Ile Glu Ala Ser Val Asn  
85 90 95

Leu Thr Ile Thr Ala Val Glu His Asn Tyr Phe Thr Val Lys Lys Leu  
100 105 110

Ile Lys Lys Arg Lys Gly Leu Thr Pro Arg Glu Lys Thr Ala Leu His  
115 120 125

Asp Cys Leu Glu Thr Ile Asp Glu Thr Leu Asp Glu Leu His Glu Thr  
130 135 140

Val Glu Asp Leu His Leu Tyr Pro Thr Lys Lys Thr Leu Arg Glu His  
145 150 155 160

Ala Gly Asp Leu Lys Thr Leu Ile Ser Ser Ala Ile Thr Asn Gln Glu  
165 170 175

Thr Cys Leu Asp Gly Phe Ser His Asp Asp Ala Asp Lys Gln Val Arg  
180 185 190

Lys Ala Leu Leu Lys Gly Gln Ile His Val Glu His Met Cys Ser Asn  
195 200 205

Ala Leu Ala Met Ile Lys Asn Met Thr Asp Thr Asp Ile Ala Asn Phe  
210 215 220

Glu Gln Lys Ala Lys Ile Thr Ser Asn Asn Arg Lys Leu Lys Glu Glu  
225 230 235 240

Asn Gln Glu Thr Thr Val Ala Val Asp Ile Ala Gly Ala Gly Glu Leu  
245 250 255

Asp Ser Glu Gly Trp Pro Thr Trp Leu Ser Ala Gly Asp Arg Arg Leu  
260 265 270

Leu Gln Gly Ser Gly Val Lys Ala Asp Ala Thr Val Ala Ala Asp Gly

275

280

285

Ser Gly Thr Phe Lys Thr Val Ala Ala Ala Val Ala Ala Ala Pro Glu  
 290 295 300  
 Asn Ser Asn Lys Arg Tyr Val Ile His Ile Lys Ala Gly Val Tyr Arg  
 305 310 315 320  
 Glu Asn Val Glu Val Ala Lys Lys Lys Lys Asn Ile Met Phe Met Gly  
 325 330 335  
 Asp Gly Arg Thr Arg Thr Ile Ile Thr Gly Ser Arg Asn Val Val Asp  
 340 345 350  
 Gly Ser Thr Thr Phe His Ser Ala Thr Val Ala Ala Val Gly Glu Arg  
 355 360 365  
 Phe Leu Ala Arg Asp Ile Thr Phe Gln Asn Thr Ala Gly Pro Ser Lys  
 370 375 380  
 His Gln Ala Val Ala Leu Arg Val Gly Ser Asp Phe Ser Ala Phe Tyr  
 385 390 395 400  
 Asn Cys Asp Met Leu Ala Tyr Gln Asp Thr Leu Tyr Val His Ser Asn  
 405 410 415  
 Arg Gln Phe Phe Val Lys Cys Leu Ile Ala Gly Thr Val Asp Phe Ile  
 420 425 430  
 Phe Gly Asn Ala Ala Val Val Leu Gln Asp Cys Asp Ile His Ala Arg  
 435 440 445  
 Arg Pro Asn Ser Gly Gln Lys Asn Met Val Thr Ala Gln Gly Arg Thr  
 450 455 460  
 Asp Pro Asn Gln Asn Thr Gly Ile Val Ile Gln Lys Cys Arg Ile Gly  
 465 470 475 480  
 Ala Thr Ser Asp Leu Gln Ser Val Lys Gly Ser Phe Pro Thr Tyr Leu  
 485 490 495  
 Gly Arg Pro Trp Lys Glu Tyr Ser Gln Thr Val Ile Met Gln Ser Ala  
 500 505 510  
 Ile Ser Asp Val Ile Arg Pro Glu Gly Trp Ser Glu Trp Thr Gly Thr  
 515 520 525

047-E2F-PCT.ST25.txt

Phe Ala Leu Asn Thr Leu Thr Tyr Arg Glu Tyr Ser Asn Thr Gly Ala  
530 535 540

Gly Ala Gly Thr Ala Asn Arg Val Lys Trp Arg Gly Phe Lys Val Ile  
545 550 555 560

Thr Ala Ala Ala Glu Ala Gln Lys Tyr Thr Ala Gly Gln Phe Ile Gly  
565 570 575

Gly Gly Gly Trp Leu Ser Ser Thr Gly Phe Pro Phe Ser Leu Gly Leu  
580 585 590

<210> 1175

<211> 906

<212> DNA

<213> Arabidopsis thaliana

<400> 1175

atggataagc caagcttcgt aatccaatcc aaagaagcag aatccgccgc gaaacaactc	60
ggcgttttccg tcattcagct cctcccgtcg ctagtcaaac cagcacaatc ctacgctcga	120
actccgattt cgaaattcaa cgtcgcagtc gtcggactcg gatcatcagg tcggatcttc	180
ttaggcgtca atgtcgaatt cccaaatctc cctctccacc actcaatcca cgccgaacag	240
ttcctcgtca ccaatctcac actcaacggt gaacgtcatc tcaatttctt cgccgtctcc	300
gccgcaccat gtggccattg ccgtcaattc ctccaagaaa ttcgcgacgc acctgaaatc	360
aaaatcctta tcaccgatcc aaacaactcc gccgattccg attccgccgc cgattcagac	420
ggattcttac gtctcggaag cttcttgcca cacagattcg gtcccgcga tcttctcggg	480
aaagatcatc ctcttcttct cgaatctcac gataaccatc tcaaaatctc agatctggat	540
tcgatttgta acggaaacac cgattcatcc gccgatttga aacaaacggc tttagcggcg	600
gcgaatagat cgtacgcgcc gtatagttta tgtccatcgg gagtttcgct ggtggattgt	660
gacgggaaag tgtacagagg ttggtatatg gaatcggcgg cgtataatcc tagtatggga	720
ccagtacagg cggcgttggt tgattatgtg gctaatggtg gtggaggagg atacgagagg	780
atcgtcggag cggttctggt ggagaaagaa gatgcggtgg tgaggcaaga gcacacggcg	840
aggttgttat tagagactat atcgccgaaa tgcgaattca aagtgtttca ttgctatgaa	900
gcttag	906

<210> 1176

<211> 301

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1176

Met Asp Lys Pro Ser Phe Val Ile Gln Ser Lys Glu Ala Glu Ser Ala  
 1 5 10 15

Ala Lys Gln Leu Gly Val Ser Val Ile Gln Leu Leu Pro Ser Leu Val  
 20 25 30

Lys Pro Ala Gln Ser Tyr Ala Arg Thr Pro Ile Ser Lys Phe Asn Val  
 35 40 45

Ala Val Val Gly Leu Gly Ser Ser Gly Arg Ile Phe Leu Gly Val Asn  
 50 55 60

Val Glu Phe Pro Asn Leu Pro Leu His His Ser Ile His Ala Glu Gln  
 65 70 75 80

Phe Leu Val Thr Asn Leu Thr Leu Asn Gly Glu Arg His Leu Asn Phe  
 85 90 95

Phe Ala Val Ser Ala Ala Pro Cys Gly His Cys Arg Gln Phe Leu Gln  
 100 105 110

Glu Ile Arg Asp Ala Pro Glu Ile Lys Ile Leu Ile Thr Asp Pro Asn  
 115 120 125

Asn Ser Ala Asp Ser Asp Ser Ala Ala Asp Ser Asp Gly Phe Leu Arg  
 130 135 140

Leu Gly Ser Phe Leu Pro His Arg Phe Gly Pro Asp Asp Leu Leu Gly  
 145 150 155 160

Lys Asp His Pro Leu Leu Leu Glu Ser His Asp Asn His Leu Lys Ile  
 165 170 175

Ser Asp Leu Asp Ser Ile Cys Asn Gly Asn Thr Asp Ser Ser Ala Asp  
 180 185 190

Leu Lys Gln Thr Ala Leu Ala Ala Ala Asn Arg Ser Tyr Ala Pro Tyr  
 195 200 205

Ser Leu Cys Pro Ser Gly Val Ser Leu Val Asp Cys Asp Gly Lys Val  
 210 215 220

Tyr Arg Gly Trp Tyr Met Glu Ser Ala Ala Tyr Asn Pro Ser Met Gly  
225 230 235 240

Pro Val Gln Ala Ala Leu Val Asp Tyr Val Ala Asn Gly Gly Gly Gly  
245 250 255

Gly Tyr Glu Arg Ile Val Gly Ala Val Leu Val Glu Lys Glu Asp Ala  
260 265 270

Val Val Arg Gln Glu His Thr Ala Arg Leu Leu Leu Glu Thr Ile Ser  
275 280 285

Pro Lys Cys Glu Phe Lys Val Phe His Cys Tyr Glu Ala  
290 295 300

<210> 1177

<211> 1197

<212> DNA

<213> Arabidopsis thaliana

<400> 1177

atggttcccc cgccgtctaa tccgcagcag gttcagcagt tcctctcctc tgccctctcc	60
cagcgcggcc catcttcagt cccctacgaa gagtccaaca agtggttgat ccggcaacat	120
ctacttaacc taatctcttc ttacccttcc ttagagccca aaacggcatc gtttatgcac	180
aacgatggtc gtcctgtcaa cctccttcaa gcagatggta cgattccgat gccttttcat	240
ggagtcacct ataacatacc tgtgattatc tggctcctcg agtcatatcc tcgtcatcct	300
ccttgcgctc atgtgaatcc caccgctgat atgatcatca agcgacctca cgcacatgtc	360
actccttctg gtctcgtttc tcttcgttac cttcagaatt ggggtctacc tagctccaat	420
ctcgtagatc tcgtctccga tctcagcgct gcttttgctc gtgatccgcc tctttattct	480
cgacgccgtc ctcagccacc gccaccgtct cctcctacgg tatacgattc gtctctgtca	540
cgacctcctt cggctgatca gtcattgcct agaccgttcc cgccatcacc ttacggcgga	600
ggagtaagta ggggtgaagt gcagcatggt caccaccagc agcaatctga tgatgcggcg	660
gaggttttca agagaaatgc gattaataag atggtggaga tggttcatag cgatttggtt	720
tcgatgagga gagccagaga agctgaagca gaggagctgc tgagcttgca agctgggctg	780
aagagaagag aggatgagct taatataggg ttgaaagaga tggttgagga gaaagaaaca	840
cttgaacaac aattacagat tatctccatg aacactgata ttctagactc gtggggttaga	900

gagaaccaag gcaaaaccaa gaatttagtt gatttggatg tggataatgc ttttgaatgt 960  
 ggtgacacac tctctaagca gatgtttagag tgtactgctt tggatttagc cattgaagat 1020  
 gctattttatt ccttggataa gtcgtttcaa gatggtgttg ttccctttga tcagtatttg 1080  
 aggaatgtga gggtgtgtgc gagagaacag ttcttccacc gagccacggg ttctaaagtc 1140  
 agggcggcac aaatggaggt tcagggttgca gccatcgag gtaggttaca ttcatga 1197

<210> 1178

<211> 398

<212> PRT

<213> Arabidopsis thaliana

<400> 1178

Met Val Pro Pro Pro Ser Asn Pro Gln Gln Val Gln Gln Phe Leu Ser  
1 5 10 15

Ser Ala Leu Ser Gln Arg Gly Pro Ser Ser Val Pro Tyr Glu Glu Ser  
20 25 30

Asn Lys Trp Leu Ile Arg Gln His Leu Leu Asn Leu Ile Ser Ser Tyr  
35 40 45

Pro Ser Leu Glu Pro Lys Thr Ala Ser Phe Met His Asn Asp Gly Arg  
50 55 60

Ser Val Asn Leu Leu Gln Ala Asp Gly Thr Ile Pro Met Pro Phe His  
65 70 75 80

Gly Val Thr Tyr Asn Ile Pro Val Ile Ile Trp Leu Leu Glu Ser Tyr  
85 90 95

Pro Arg His Pro Pro Cys Val Tyr Val Asn Pro Thr Ala Asp Met Ile  
100 105 110

Ile Lys Arg Pro His Ala His Val Thr Pro Ser Gly Leu Val Ser Leu  
115 120 125

Pro Tyr Leu Gln Asn Trp Val Tyr Pro Ser Ser Asn Leu Val Asp Leu  
130 135 140

Val Ser Asp Leu Ser Ala Ala Phe Ala Arg Asp Pro Pro Leu Tyr Ser  
145 150 155 160

Arg Arg Arg Pro Gln Pro Pro Pro Pro Ser Pro Pro Thr Val Tyr Asp  
 165 170 175  
 Ser Ser Leu Ser Arg Pro Pro Ser Ala Asp Gln Ser Leu Pro Arg Pro  
 180 185 190  
 Phe Pro Pro Ser Pro Tyr Gly Gly Gly Val Ser Arg Val Gln Val Gln  
 195 200 205  
 His Val His His Gln Gln Gln Ser Asp Asp Ala Ala Glu Val Phe Lys  
 210 215 220  
 Arg Asn Ala Ile Asn Lys Met Val Glu Met Val His Ser Asp Leu Val  
 225 230 235 240  
 Ser Met Arg Arg Ala Arg Glu Ala Glu Ala Glu Glu Leu Leu Ser Leu  
 245 250 255  
 Gln Ala Gly Leu Lys Arg Arg Glu Asp Glu Leu Asn Ile Gly Leu Lys  
 260 265 270  
 Glu Met Val Glu Glu Lys Glu Thr Leu Glu Gln Gln Leu Gln Ile Ile  
 275 280 285  
 Ser Met Asn Thr Asp Ile Leu Asp Ser Trp Val Arg Glu Asn Gln Gly  
 290 295 300  
 Lys Thr Lys Asn Leu Val Asp Leu Asp Val Asp Asn Ala Phe Glu Cys  
 305 310 315 320  
 Gly Asp Thr Leu Ser Lys Gln Met Leu Glu Cys Thr Ala Leu Asp Leu  
 325 330 335  
 Ala Ile Glu Asp Ala Ile Tyr Ser Leu Asp Lys Ser Phe Gln Asp Gly  
 340 345 350  
 Val Val Pro Phe Asp Gln Tyr Leu Arg Asn Val Arg Leu Leu Ser Arg  
 355 360 365  
 Glu Gln Phe Phe His Arg Ala Thr Gly Ser Lys Val Arg Ala Ala Gln  
 370 375 380  
 Met Glu Val Gln Val Ala Ala Ile Ala Gly Arg Leu His Ser  
 385 390 395

&lt;210&gt; 1179

&lt;211&gt; 1344

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1179

```

atgggtcttc ctctaatagat ggagagatca tcaaacaaca acaacgtcga gctttctcga      60
gtggcggttt cagacactca cggcgaagac tcaccgtact tcgccggctg gaaagcttac      120
gacgaaaatc cttacgacga atctcataac ctttccggtg tcatccaaat ggggtctcgct      180
gagaatcagg tctcgtttga tcttcttgaa acttacttgg agaagaagaa tccagaaggt      240
tcgatgtggg gatcaaaagg agctcctggg ttccgtgaaa acgcattggt tcaagactac      300
cacggtctca aaactttcag acaagccatg gctagtttca tggaacagat tcgaggaggc      360
aaagctagat ttgatcctga ccggatcgtc ctcaccgccg gagccaccgc cgctaacgaa      420
ctcttaactt tcattctcgc cgatcctaac gacgcccttc tagttccac accgtattat      480
ccaggattcg atagagattt gagatggaga accggagtga aaatagtacc catccactgc      540
gacagctcga accattttcca gataaccccg gaggcgctag agtcggcgta ccaaacggct      600
cgtgacgcga acattagagt ccgaggagtg ctcataacca acccatcgaa cccattaggg      660
gcgacggtcc aaaagaaggt tctagaagat ctccttgact tctgcgtacg caagaatatt      720
cacttggtct cagacgagat ctactccggc tccgtcttcc atgcctccga gttcacaagc      780
gttgccgaga tcgtagaaaa catagatgac gtgtcagtaa aggaacgagt tcacatcgtc      840
tacagtctct ccaaggatct tggctttcct gggttccgcg tgggaactat atactcgtag      900
aacgataatg ttgttcggac agcgagaagg atgtcgagct tcacgcttgt ctcgtctcag      960
acacaacata tgctggcttc tatgttgtcg gatgaggagt ttacggagaa gtacattagg     1020
ataaacggg aaagacttag aagacggtac gataccattg tggaagggct taagaaggca     1080
gggattgagt gtttgaaagg gaacgcaggg ctattttggt ggatgaattt gggtttcttg     1140
ctcgaagaaga aaactaaaga cggcgagctc cagctttggg atgtgatctt aaaggagctg     1200
aacctgaata tatctccggg atcttcgtgc cactgctcgg aggtcggatg gtttaggggt     1260
tgttttgcta atatgagtga gaacactttg gagattgcgt tgaagagaat acatgagttc     1320
atggaccgac gaaggagggt ttga                                             1344

```

&lt;210&gt; 1180

&lt;211&gt; 447

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*



&lt;400&gt; 1180

```

Met Gly Leu Pro Leu Met Met Glu Arg Ser Ser Asn Asn Asn Asn Val
1      5      10     15

Glu Leu Ser Arg Val Ala Val Ser Asp Thr His Gly Glu Asp Ser Pro
20     25     30

Tyr Phe Ala Gly Trp Lys Ala Tyr Asp Glu Asn Pro Tyr Asp Glu Ser
35     40     45

His Asn Pro Ser Gly Val Ile Gln Met Gly Leu Ala Glu Asn Gln Val
50     55     60

Ser Phe Asp Leu Leu Glu Thr Tyr Leu Glu Lys Lys Asn Pro Glu Gly
65     70     75     80

Ser Met Trp Gly Ser Lys Gly Ala Pro Gly Phe Arg Glu Asn Ala Leu
85     90     95

Phe Gln Asp Tyr His Gly Leu Lys Thr Phe Arg Gln Ala Met Ala Ser
100    105    110

Phe Met Glu Gln Ile Arg Gly Gly Lys Ala Arg Phe Asp Pro Asp Arg
115    120    125

Ile Val Leu Thr Ala Gly Ala Thr Ala Ala Asn Glu Leu Leu Thr Phe
130    135    140

Ile Leu Ala Asp Pro Asn Asp Ala Leu Leu Val Pro Thr Pro Tyr Tyr
145    150    155    160

Pro Gly Phe Asp Arg Asp Leu Arg Trp Arg Thr Gly Val Lys Ile Val
165    170    175

Pro Ile His Cys Asp Ser Ser Asn His Phe Gln Ile Thr Pro Glu Ala
180    185    190

Leu Glu Ser Ala Tyr Gln Thr Ala Arg Asp Ala Asn Ile Arg Val Arg
195    200    205

Gly Val Leu Ile Thr Asn Pro Ser Asn Pro Leu Gly Ala Thr Val Gln
210    215    220

Lys Lys Val Leu Glu Asp Leu Leu Asp Phe Cys Val Arg Lys Asn Ile
225    230    235    240

```

047-E2F-PCT.ST25.txt

His Leu Val Ser Asp Glu Ile Tyr Ser Gly Ser Val Phe His Ala Ser  
245 250 255

Glu Phe Thr Ser Val Ala Glu Ile Val Glu Asn Ile Asp Asp Val Ser  
260 265 270

Val Lys Glu Arg Val His Ile Val Tyr Ser Leu Ser Lys Asp Leu Gly  
275 280 285

Leu Pro Gly Phe Arg Val Gly Thr Ile Tyr Ser Tyr Asn Asp Asn Val  
290 295 300

Val Arg Thr Ala Arg Arg Met Ser Ser Phe Thr Leu Val Ser Ser Gln  
305 310 315 320

Thr Gln His Met Leu Ala Ser Met Leu Ser Asp Glu Glu Phe Thr Glu  
325 330 335

Lys Tyr Ile Arg Ile Asn Arg Glu Arg Leu Arg Arg Arg Tyr Asp Thr  
340 345 350

Ile Val Glu Gly Leu Lys Lys Ala Gly Ile Glu Cys Leu Lys Gly Asn  
355 360 365

Ala Gly Leu Phe Cys Trp Met Asn Leu Gly Phe Leu Leu Glu Lys Lys  
370 375 380

Thr Lys Asp Gly Glu Leu Gln Leu Trp Asp Val Ile Leu Lys Glu Leu  
385 390 395 400

Asn Leu Asn Ile Ser Pro Gly Ser Ser Cys His Cys Ser Glu Val Gly  
405 410 415

Trp Phe Arg Val Cys Phe Ala Asn Met Ser Glu Asn Thr Leu Glu Ile  
420 425 430

Ala Leu Lys Arg Ile His Glu Phe Met Asp Arg Arg Arg Arg Phe  
435 440 445

<210> 1181

<211> 1050

<212> DNA

<213> Arabidopsis thaliana

047-E2F-PCT.ST25.txt

<400> 1181  
atgggggtttt ctccttcatt ttcttgcagt gctattggag ccctaatttt gggttgcctt 60  
ctgcttcaag catcaaactc taatgctcag ttgaggcctg atttctactt cgggacgtgc 120  
ccatttgttt ttgatatcat tggaaatata atcgtcgatg aactgcagac tgatcctcgt 180  
attgccgcga gcctccttcg tcttcacttt cactgactgct ttgttcgtgg ttgtgatgca 240  
tcgatcttgc ttgacaattc cacatcattc cggactgaga aagatgctgc tccgaacgca 300  
aattcggctc gaggggtttaa tgtcatagat agaatgaaag tagcccttga gagagcttgc 360  
ccaggaagag tctcttgtgc agatattctc accatcgcct ctcaaataatc agtgcttttg 420  
tcgggaggtc catggtggcc ggttccgttg gggaggagag acagtgtaga agctttcttc 480  
gctctggcta atacagctct gccctctccg tttttcaatc ttactcaact taaaacagcc 540  
tttgctgacg ttggcctaaa ccgcacttcc gatctagttg ctctttccgg tggtcacaca 600  
tttggaagag cacaatgcca gttcgtgacg cctcgtctct acaacttcaa tgggtacaaac 660  
agtccagacc caagtctgaa cccaacttac cttgtcgaac tccgtcgatt gtgtcctcaa 720  
aacggaaacg gcaccgttct ggtcaacttc gatgtcgtga ctccagatgc tttcgatagt 780  
caatactaca ccaaccttcg taatgggaaa ggtcttattc agagtgacca ggaactcttt 840  
tcgactccag gagccgatac gatcccttta gtaaaccaat acagcagcga catgtccgtg 900  
ttctttcgag cattcattga cgcaatgatt aggatgggaa atcttagacc tttgactgga 960  
actcaaggag agattagaca aaattgtagg gttgtgaatc cacgaattag ggttgtggag 1020  
aacgacgatg gtgttgtgag ttctatctga 1050

<210> 1182

<211> 349

<212> PRT

<213> Arabidopsis thaliana

<400> 1182

Met Gly Phe Ser Pro Ser Phe Ser Cys Ser Ala Ile Gly Ala Leu Ile  
1 5 10 15

Leu Gly Cys Leu Leu Leu Gln Ala Ser Asn Ser Asn Ala Gln Leu Arg  
20 25 30

Pro Asp Phe Tyr Phe Gly Thr Cys Pro Phe Val Phe Asp Ile Ile Gly  
35 40 45

Asn Ile Ile Val Asp Glu Leu Gln Thr Asp Pro Arg Ile Ala Ala Ser  
Page 1853

50

55

Leu Leu Arg Leu His Phe His Asp Cys Phe Val Arg Gly Cys Asp Ala  
65 70 75 80

Ser Ile Leu Leu Asp Asn Ser Thr Ser Phe Arg Thr Glu Lys Asp Ala  
85 90 95

Ala Pro Asn Ala Asn Ser Ala Arg Gly Phe Asn Val Ile Asp Arg Met  
100 105 110

Lys Val Ala Leu Glu Arg Ala Cys Pro Gly Arg Val Ser Cys Ala Asp  
115 120 125

Ile Leu Thr Ile Ala Ser Gln Ile Ser Val Leu Leu Ser Gly Gly Pro  
130 135 140

Trp Trp Pro Val Pro Leu Gly Arg Arg Asp Ser Val Glu Ala Phe Phe  
145 150 155 160

Ala Leu Ala Asn Thr Ala Leu Pro Ser Pro Phe Phe Asn Leu Thr Gln  
165 170 175

Leu Lys Thr Ala Phe Ala Asp Val Gly Leu Asn Arg Thr Ser Asp Leu  
180 185 190

Val Ala Leu Ser Gly Gly His Thr Phe Gly Arg Ala Gln Cys Gln Phe  
195 200 205

Val Thr Pro Arg Leu Tyr Asn Phe Asn Gly Thr Asn Ser Pro Asp Pro  
210 215 220

Ser Leu Asn Pro Thr Tyr Leu Val Glu Leu Arg Arg Leu Cys Pro Gln  
225 230 235 240

Asn Gly Asn Gly Thr Val Leu Val Asn Phe Asp Val Val Thr Pro Asp  
245 250 255

Ala Phe Asp Ser Gln Tyr Tyr Thr Asn Leu Arg Asn Gly Lys Gly Leu  
260 265 270

Ile Gln Ser Asp Gln Glu Leu Phe Ser Thr Pro Gly Ala Asp Thr Ile  
275 280 285

Pro Leu Val Asn Gln Tyr Ser Ser Asp Met Ser Val Phe Phe Arg Ala  
290 295 300

Phe Ile Asp Ala Met Ile Arg Met Gly Asn Leu Arg Pro Leu Thr Gly  
305 310 315 320

Thr Gln Gly Glu Ile Arg Gln Asn Cys Arg Val Val Asn Pro Arg Ile  
325 330 335

Arg Val Val Glu Asn Asp Asp Gly Val Val Ser Ser Ile  
340 345

<210> 1183

<211> 3078

<212> DNA

<213> Arabidopsis thaliana

<400> 1183

atggtttggt ttagaatcgg ttcttctgtg gcaaagcttg ccataagaag gacactgtct	60
cagtctcggt gtggttcata tgccactaga acaagggttt tgccttgtca aaccagatgt	120
tttcaactcta caataactcaa atcaaaggca gagtctgctg cacctgttcc acgtcctgtc	180
ccacttttcta agctaactga tagcttctta gatggaacaa gcagtgtgta tctagaggag	240
ttacaaagag cttgggagggc tgatcccaac agtggtgatg agtcgtggga taactttttt	300
aggaattttg tgggtcaggc ttctacatcg cctggtatct cggggcaaac cattcaagaa	360
agcatgctgt tgttgttgct agttagagct taccagggtta atggccacat gaaggccaag	420
cttgatcctt taggtctaga gaagagagag attccagagg atctcacgcc aggtctttat	480
gggtttactg aggctgatct tgatcgggaa ttctttctgg gtgtatggag gatgtcgggt	540
tttctctctg agaaccgccc ggttcaaaca ctgagggtcga tactgtcgag gcttgagcaa	600
gcttactgtg ggactatagg gtatgagtac atgcacattg ctgataggga taaatgtaac	660
tggttgagag acaagatcga gacccaact cctcgacagt acaatagtga gcgtcggatg	720
gttatattatg ataggcttac ctggagcaca cagtttgaga atttcttggc tactaagtgg	780
accacggcta aaaggtttg actggaagg gctgaatctt tgattcctgg catgaaggag	840
atgttcgata ggtctgcaga tctcggggta gagaacatag ttatcggtat gccccatagg	900
ggtcgactta atgttttggg taatgttggt agaaaacctc tacgcaaatt attcagcgag	960
tttagcgggt gtactaggcc agtagatgaa gttgggcttt acaccggaac aggtgatgtg	1020
aaataccact tgggtacatc ttatgatcgt ccaactagag gaggcaaaca tctccacttg	1080
tctttggtag caaatcccag tcacttgga gcagtagatc ctgttgatgat aggtaaaacc	1140
agagcgaaac aatattacac gaaagacgag aacagaacaa agaacatggg tattttgatc	1200

catggggatg gtagctttgc cggacaagga gtggtgtatg aaactctcca tcttagtgca	1260
cttcctaact actgtaccgg tggaacagtg cacattgtgg tgaataatca agtggctttc	1320
acaaccgatc ccaggaagg aaggtcttca cagtattgca ctgatgttgc aaaggctttg	1380
agcgcccaa ttttccatgt caatgcagat gacattgaag cagtagtgca tgcttgtgag	1440
cttgctgctg agtggcgcca gacgttccat tctgatgttg ttgttgattt agtatgctac	1500
cgtcgctttg ggcataacga gatagacgaa ccgtcattca cacaaccaa aatgtacaag	1560
gtgatacgca gtcatccctc gtcacttcaa atctaccagg agaagctctt gcaatctgga	1620
caggtaaccc aagaagatat tgataagatt caaaagaaag taagctctat cctcaatgaa	1680
gaatatgagg caagtaaaga ttatatcca caaaaacgtg actggctggc aagtcactgg	1740
actggattca agtctccgga gcagatttct aggattcgaa acaccggagt gaagccagag	1800
atattgaaga atgtgggaaa ggcaatctca accttccctg agaactttaa gccacacaga	1860
ggagttaaaa gagtttatga acaacgtgct caaatgattg aatcgggaga aggcattgac	1920
tggggacttg gagaagcact tgcttttgct acactggttg tggaaggga ccatgttcgg	1980
ctaagtggtc aagatgttga aagaggaact ttcagtcata gacactcagt gcttcatgat	2040
caagaaaccg gggaggaata ttgtcccctc gatcacctaa tcaaaaacca agaccctgaa	2100
atgttctactg tcagcaacag ctccccttca gaatttggtg ttctcggttt cgaactgggt	2160
tattcgatgg aaaatcccaa ttctctggtg atatgggaag ctgagtttg agactttgct	2220
aatggcgcac aagttatgtt tgatcagttc ataagcagtg gggaagccaa atggctccgt	2280
caaactggtc tagtagtttt acttcctcat ggatatgatg gtcagggctc tgaacattcc	2340
agtggaagat tggaacgttt ccttcagatg agtgatgaca atccttacgt tatccctgag	2400
atggacccaa ctcttcgaaa gcagattcaa gaatgtaatt ggcaagttgt taatgttact	2460
acacctgcca actatttcca tgttctgctg cggcagatac acagggactt tcgcaagcct	2520
cttatagtga tggccccc aaacttgctt cgtcacaaac agtgtgtatc taatctctcg	2580
gaattcgatg atgttaaagg acatcctgga ttgacaagc aaggaactcg atttaaacgg	2640
ttgatcaaag atcaaagtgg ccactctgat cttgaagaag gtatcagacg tctagtcctc	2700
tgctctggga aggtctacta tgagcttgac gaagagcgaa agaagtctga aacaaaggat	2760
gtagccatth gcagagtaga gcagctttgc ccatttccat atgatctcat ccaaagagaa	2820
ctaaagcgat atccaaatgc agagatcgtg tgggtgtcaag aagagccgat gaacatggga	2880
ggataccaat acatagccct aaggctttgc accgcgatga aagcactgca aagaggaaac	2940
ttcaacgaca tcaaatacgt tggctgtctt ccctcagctg ctacagccac aggattttac	3000
cagcttcatg ttaaggagca gactgatctt gtgaagaaag ctcttcaacc tgaccccatc	3060
accccgctca tcccttaa	3078

&lt;210&gt; 1184

&lt;211&gt; 1025

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1184

Met Val Trp Phe Arg Ile Gly Ser Ser Val Ala Lys Leu Ala Ile Arg  
 1 5 10 15

Arg Thr Leu Ser Gln Ser Arg Cys Gly Ser Tyr Ala Thr Arg Thr Arg  
 20 25 30

Val Leu Pro Cys Gln Thr Arg Cys Phe His Ser Thr Ile Leu Lys Ser  
 35 40 45

Lys Ala Glu Ser Ala Ala Pro Val Pro Arg Pro Val Pro Leu Ser Lys  
 50 55 60

Leu Thr Asp Ser Phe Leu Asp Gly Thr Ser Ser Val Tyr Leu Glu Glu  
 65 70 75 80

Leu Gln Arg Ala Trp Glu Ala Asp Pro Asn Ser Val Asp Glu Ser Trp  
 85 90 95

Asp Asn Phe Phe Arg Asn Phe Val Gly Gln Ala Ser Thr Ser Pro Gly  
 100 105 110

Ile Ser Gly Gln Thr Ile Gln Glu Ser Met Arg Leu Leu Leu Val  
 115 120 125

Arg Ala Tyr Gln Val Asn Gly His Met Lys Ala Lys Leu Asp Pro Leu  
 130 135 140

Gly Leu Glu Lys Arg Glu Ile Pro Glu Asp Leu Thr Pro Gly Leu Tyr  
 145 150 155 160

Gly Phe Thr Glu Ala Asp Leu Asp Arg Glu Phe Phe Leu Gly Val Trp  
 165 170 175

Arg Met Ser Gly Phe Leu Ser Glu Asn Arg Pro Val Gln Thr Leu Arg  
 180 185 190

Ser Ile Leu Ser Arg Leu Glu Gln Ala Tyr Cys Gly Thr Ile Gly Tyr  
 Page 1857

195

200

205

Glu Tyr Met His Ile Ala Asp Arg Asp Lys Cys Asn Trp Leu Arg Asp  
 210 215 220  
 Lys Ile Glu Thr Pro Thr Pro Arg Gln Tyr Asn Ser Glu Arg Arg Met  
 225 230 235 240  
 Val Ile Tyr Asp Arg Leu Thr Trp Ser Thr Gln Phe Glu Asn Phe Leu  
 245 250 255  
 Ala Thr Lys Trp Thr Thr Ala Lys Arg Phe Gly Leu Glu Gly Ala Glu  
 260 265 270  
 Ser Leu Ile Pro Gly Met Lys Glu Met Phe Asp Arg Ser Ala Asp Leu  
 275 280 285  
 Gly Val Glu Asn Ile Val Ile Gly Met Pro His Arg Gly Arg Leu Asn  
 290 295 300  
 Val Leu Gly Asn Val Val Arg Lys Pro Leu Arg Gln Ile Phe Ser Glu  
 305 310 315 320  
 Phe Ser Gly Gly Thr Arg Pro Val Asp Glu Val Gly Leu Tyr Thr Gly  
 325 330 335  
 Thr Gly Asp Val Lys Tyr His Leu Gly Thr Ser Tyr Asp Arg Pro Thr  
 340 345 350  
 Arg Gly Gly Lys His Leu His Leu Ser Leu Val Ala Asn Pro Ser His  
 355 360 365  
 Leu Glu Ala Val Asp Pro Val Val Ile Gly Lys Thr Arg Ala Lys Gln  
 370 375 380  
 Tyr Tyr Thr Lys Asp Glu Asn Arg Thr Lys Asn Met Gly Ile Leu Ile  
 385 390 395 400  
 His Gly Asp Gly Ser Phe Ala Gly Gln Gly Val Val Tyr Glu Thr Leu  
 405 410 415  
 His Leu Ser Ala Leu Pro Asn Tyr Cys Thr Gly Gly Thr Val His Ile  
 420 425 430  
 Val Val Asn Asn Gln Val Ala Phe Thr Thr Asp Pro Arg Glu Gly Arg  
 435 440 445



Ser Ser Gln Tyr Cys Thr Asp Val Ala Lys Ala Leu Ser Ala Pro Ile  
 450 455 460  
 Phe His Val Asn Ala Asp Asp Ile Glu Ala Val Val His Ala Cys Glu  
 465 470 475 480  
 Leu Ala Ala Glu Trp Arg Gln Thr Phe His Ser Asp Val Val Val Asp  
 485 490 495  
 Leu Val Cys Tyr Arg Arg Phe Gly His Asn Glu Ile Asp Glu Pro Ser  
 500 505 510  
 Phe Thr Gln Pro Lys Met Tyr Lys Val Ile Arg Ser His Pro Ser Ser  
 515 520 525  
 Leu Gln Ile Tyr Gln Glu Lys Leu Leu Gln Ser Gly Gln Val Thr Gln  
 530 535 540  
 Glu Asp Ile Asp Lys Ile Gln Lys Lys Val Ser Ser Ile Leu Asn Glu  
 545 550 555 560  
 Glu Tyr Glu Ala Ser Lys Asp Tyr Ile Pro Gln Lys Arg Asp Trp Leu  
 565 570 575  
 Ala Ser His Trp Thr Gly Phe Lys Ser Pro Glu Gln Ile Ser Arg Ile  
 580 585 590  
 Arg Asn Thr Gly Val Lys Pro Glu Ile Leu Lys Asn Val Gly Lys Ala  
 595 600 605  
 Ile Ser Thr Phe Pro Glu Asn Phe Lys Pro His Arg Gly Val Lys Arg  
 610 615 620  
 Val Tyr Glu Gln Arg Ala Gln Met Ile Glu Ser Gly Glu Gly Ile Asp  
 625 630 635 640  
 Trp Gly Leu Gly Glu Ala Leu Ala Phe Ala Thr Leu Val Val Glu Gly  
 645 650 655  
 Asn His Val Arg Leu Ser Gly Gln Asp Val Glu Arg Gly Thr Phe Ser  
 660 665 670  
 His Arg His Ser Val Leu His Asp Gln Glu Thr Gly Glu Glu Tyr Cys  
 675 680 685  
 Pro Leu Asp His Leu Ile Lys Asn Gln Asp Pro Glu Met Phe Thr Val  
 690 695 700

## 047-E2F-PCT.ST25.txt

Ser Asn Ser Ser Leu Ser Glu Phe Gly Val Leu Gly Phe Glu Leu Gly  
 705 710 715 720  
 Tyr Ser Met Glu Asn Pro Asn Ser Leu Val Ile Trp Glu Ala Gln Phe  
 725 730 735  
 Gly Asp Phe Ala Asn Gly Ala Gln Val Met Phe Asp Gln Phe Ile Ser  
 740 745 750  
 Ser Gly Glu Ala Lys Trp Leu Arg Gln Thr Gly Leu Val Val Leu Leu  
 755 760 765  
 Pro His Gly Tyr Asp Gly Gln Gly Pro Glu His Ser Ser Gly Arg Leu  
 770 775 780  
 Glu Arg Phe Leu Gln Met Ser Asp Asp Asn Pro Tyr Val Ile Pro Glu  
 785 790 795 800  
 Met Asp Pro Thr Leu Arg Lys Gln Ile Gln Glu Cys Asn Trp Gln Val  
 805 810 815  
 Val Asn Val Thr Thr Pro Ala Asn Tyr Phe His Val Leu Arg Arg Gln  
 820 825 830  
 Ile His Arg Asp Phe Arg Lys Pro Leu Ile Val Met Ala Pro Lys Asn  
 835 840 845  
 Leu Leu Arg His Lys Gln Cys Val Ser Asn Leu Ser Glu Phe Asp Asp  
 850 855 860  
 Val Lys Gly His Pro Gly Phe Asp Lys Gln Gly Thr Arg Phe Lys Arg  
 865 870 875 880  
 Leu Ile Lys Asp Gln Ser Gly His Ser Asp Leu Glu Glu Gly Ile Arg  
 885 890 895  
 Arg Leu Val Leu Cys Ser Gly Lys Val Tyr Tyr Glu Leu Asp Glu Glu  
 900 905 910  
 Arg Lys Lys Ser Glu Thr Lys Asp Val Ala Ile Cys Arg Val Glu Gln  
 915 920 925  
 Leu Cys Pro Phe Pro Tyr Asp Leu Ile Gln Arg Glu Leu Lys Arg Tyr  
 930 935 940  
 Pro Asn Ala Glu Ile Val Trp Cys Gln Glu Glu Pro Met Asn Met Gly  
 945 950 955 960

Gly Tyr Gln Tyr Ile Ala Leu Arg Leu Cys Thr Ala Met Lys Ala Leu  
                   965                  970                  975

Gln Arg Gly Asn Phe Asn Asp Ile Lys Tyr Val Gly Arg Leu Pro Ser  
                   980                  985                  990

Ala Ala Thr Ala Thr Gly Phe Tyr Gln Leu His Val Lys Glu Gln Thr  
                   995                  1000                  1005

Asp Leu Val Lys Lys Ala Leu Gln Pro Asp Pro Ile Thr Pro Val  
       1010                  1015                  1020

Ile Pro  
       1025

<210> 1185

<211> 2325

<212> DNA

<213> Arabidopsis thaliana

<400> 1185

atgtcttgtt ataataaagc actattgatc ggcaacaaag tcgtcgttat acttgtattc	60
ctcttatgtt tggttcactc gtcagagtca cttcgaccac tgtttgcatg tgatccagca	120
aacgggttaa cccggacgct ccggttctgt cgggccaatg taccgatcca tgtgagagtt	180
caagatttgc tcggaaggct cacgttgcag gagaagatcc gcaacctcgt caacaatgct	240
gccgccgtac cacgtctcgg tattggaggc tatgagtggg ggtccgaggc tctccacggc	300
atttccgacg ttggtccagg cgctaagttc ggtggtgctt ttcccggcgc caccagcttc	360
cctcagggtca tcaccaccgc agcttctttc aaccagtctc tatgggaaga gatcggacgg	420
gtggtgtctg atgaggcaag agctatgtac aatggtggcg tggccggtct gacatattgg	480
agtccgaatg tgaatatctt gagggacccg cgggtggggc gaggccaaga aactcccgga	540
gaagatccta tcgttgccgc aaaatatgcc gccagctacg tccggggact tcagggtact	600
gctgccggta accgccttaa agtcgccgca tgttgcaaac attacactgc ttatgatctt	660
gataattgga atggcgtcga ccgtttccac ttcaacgcta aggtcaccca acaagattta	720
gaggacacat acaacgtgcc attcaaatca tgtgtttacg aaggaaaagt agcgagtgtg	780
atgtgttcgt acaaccaagt caatggaaag cccacatgtg ctgatgaaaa tctcttaaag	840
aacactattc gtggtcaatg gcgtctcaat gggtacattg tctcagattg tgactctgtt	900

```

gatgttttct tcaaccaaca acattacact agcactccgg aagaagccgc cgccagatcc 960
attaaagccg gtttggactt ggactgcggg ccgtttttgg cgattttcac ggaaggtgca 1020
gtgaagaaag gattgttaac ggagaatgac atcaatttag cacttgctaa tacattaaca 1080
gtccaaatga gacttggtat gtttgatggt aaccttgggc cgtacgctaa tcttgggcca 1140
agagatgttt gtactccggc ccataaacat ttagctcttg aagcagccca tcaagggatt 1200
gttctttctca aaaactctgc tcgctctctt ccactctccc ccagacgcca ccgcaccgtc 1260
gccgtgattg gtccaaactc cgacgtcact gagactatga tcggcaacta tgcagggaaa 1320
gcatgcgcct atacgtcgcc gttgcaaggg atttcaagat acgcgaggac acttcaccaa 1380
gctggctgtg ccggcggtggc ttgcaaaggg aaccaaggat ttggtgcagc ggaggcagcg 1440
gcgcgtgaag ccgacgcgac ggttcttgtg atgggattag atcagtcgat agaggcagag 1500
acacgagatc gaaccgggct tctcttaccg ggttatcaac aagacctagt gaccctgtga 1560
gctcaagctt ctagagggtc agtcattttg gtccttatga gtggtggacc aatcgatgta 1620
accttcgcta agaattgatc tcgtgttgct gccatcattt gggctgggta tccgggtcaa 1680
gcgggtggag ctgccatcgc caatatcatc tttggtgctg ctaatcccgg aggaaaacta 1740
ccaatgacat ggtatccaca agattacgtg gccaaagtgc caatgacggt aatggccatg 1800
agagcatccg gtaattatcc aggaaggaca tacagattct acaaagggtc agtagtattt 1860
ccatttgggt tcggtttaag ttactactacc ttactcata gtttggccaa aagcccattg 1920
gcccaactat cagtttctact ctccaatctc aactctgcca ataccattct caactcttca 1980
tcacactcca tcaaagtgtc tcacaccaac tgcaattcat ttccgaaaat gccccttcac 2040
gtcgaagtat caaacacagg tgaattcgat ggaacacaca cggtgtttgt atttgctgag 2100
ccgccgataa acggaataaa aggattgggt gtgaacaaac aattgatagc gttcgagaag 2160
gttcatgtca tggcaggggc aaaacagacc gttcaagttg atgttgatgc ttgcaagcat 2220
cttggtgtag tggatgagta tggaaagagg agaatcccaa tgggtgagca taagctgcac 2280
attggtgacc ttaaacatac tattttggtc caaccgcaac tttga 2325

```

<210> 1186

<211> 774

<212> PRT

<213> Arabidopsis thaliana

<400> 1186

Met Ser Cys Tyr Asn Lys Ala Leu Leu Ile Gly Asn Lys Val Val Val  
1 5 10 15

047-E2F-PCT.ST25.txt

Ile Leu Val Phe Leu Leu Cys Leu Val His Ser Ser Glu Ser Leu Arg  
20 25 30

Pro Leu Phe Ala Cys Asp Pro Ala Asn Gly Leu Thr Arg Thr Leu Arg  
35 40 45

Phe Cys Arg Ala Asn Val Pro Ile His Val Arg Val Gln Asp Leu Leu  
50 55 60

Gly Arg Leu Thr Leu Gln Glu Lys Ile Arg Asn Leu Val Asn Asn Ala  
65 70 75 80

Ala Ala Val Pro Arg Leu Gly Ile Gly Gly Tyr Glu Trp Trp Ser Glu  
85 90 95

Ala Leu His Gly Ile Ser Asp Val Gly Pro Gly Ala Lys Phe Gly Gly  
100 105 110

Ala Phe Pro Gly Ala Thr Ser Phe Pro Gln Val Ile Thr Thr Ala Ala  
115 120 125

Ser Phe Asn Gln Ser Leu Trp Glu Glu Ile Gly Arg Val Val Ser Asp  
130 135 140

Glu Ala Arg Ala Met Tyr Asn Gly Gly Val Ala Gly Leu Thr Tyr Trp  
145 150 155 160

Ser Pro Asn Val Asn Ile Leu Arg Asp Pro Arg Trp Gly Arg Gly Gln  
165 170 175

Glu Thr Pro Gly Glu Asp Pro Ile Val Ala Ala Lys Tyr Ala Ala Ser  
180 185 190

Tyr Val Arg Gly Leu Gln Gly Thr Ala Ala Gly Asn Arg Leu Lys Val  
195 200 205

Ala Ala Cys Cys Lys His Tyr Thr Ala Tyr Asp Leu Asp Asn Trp Asn  
210 215 220

Gly Val Asp Arg Phe His Phe Asn Ala Lys Val Thr Gln Gln Asp Leu  
225 230 235 240

Glu Asp Thr Tyr Asn Val Pro Phe Lys Ser Cys Val Tyr Glu Gly Lys  
245 250 255

260 265 270  
 Cys Ala Asp Glu Asn Leu Leu Lys Asn Thr Ile Arg Gly Gln Trp Arg  
 275 280 285  
 Leu Asn Gly Tyr Ile Val Ser Asp Cys Asp Ser Val Asp Val Phe Phe  
 290 295 300  
 Asn Gln Gln His Tyr Thr Ser Thr Pro Glu Glu Ala Ala Ala Arg Ser  
 305 310 315 320  
 Ile Lys Ala Gly Leu Asp Leu Asp Cys Gly Pro Phe Leu Ala Ile Phe  
 325 330 335  
 Thr Glu Gly Ala Val Lys Lys Gly Leu Leu Thr Glu Asn Asp Ile Asn  
 340 345 350  
 Leu Ala Leu Ala Asn Thr Leu Thr Val Gln Met Arg Leu Gly Met Phe  
 355 360 365  
 Asp Gly Asn Leu Gly Pro Tyr Ala Asn Leu Gly Pro Arg Asp Val Cys  
 370 375 380  
 Thr Pro Ala His Lys His Leu Ala Leu Glu Ala Ala His Gln Gly Ile  
 385 390 395 400  
 Val Leu Leu Lys Asn Ser Ala Arg Ser Leu Pro Leu Ser Pro Arg Arg  
 405 410 415  
 His Arg Thr Val Ala Val Ile Gly Pro Asn Ser Asp Val Thr Glu Thr  
 420 425 430  
 Met Ile Gly Asn Tyr Ala Gly Lys Ala Cys Ala Tyr Thr Ser Pro Leu  
 435 440 445  
 Gln Gly Ile Ser Arg Tyr Ala Arg Thr Leu His Gln Ala Gly Cys Ala  
 450 455 460  
 Gly Val Ala Cys Lys Gly Asn Gln Gly Phe Gly Ala Ala Glu Ala Ala  
 465 470 475 480  
 Ala Arg Glu Ala Asp Ala Thr Val Leu Val Met Gly Leu Asp Gln Ser  
 485 490 495  
 Ile Glu Ala Glu Thr Arg Asp Arg Thr Gly Leu Leu Leu Pro Gly Tyr  
 500 505 510

Gln Gln Asp Leu Val Thr Arg Val Ala Gln Ala Ser Arg Gly Pro Val  
 515 520 525

Ile Leu Val Leu Met Ser Gly Gly Pro Ile Asp Val Thr Phe Ala Lys  
 530 535 540

Asn Asp Pro Arg Val Ala Ala Ile Ile Trp Ala Gly Tyr Pro Gly Gln  
 545 550 555 560

Ala Gly Gly Ala Ala Ile Ala Asn Ile Ile Phe Gly Ala Ala Asn Pro  
 565 570 575

Gly Gly Lys Leu Pro Met Thr Trp Tyr Pro Gln Asp Tyr Val Ala Lys  
 580 585 590

Val Pro Met Thr Val Met Ala Met Arg Ala Ser Gly Asn Tyr Pro Gly  
 595 600 605

Arg Thr Tyr Arg Phe Tyr Lys Gly Pro Val Val Phe Pro Phe Gly Phe  
 610 615 620

Gly Leu Ser Tyr Thr Thr Phe Thr His Ser Leu Ala Lys Ser Pro Leu  
 625 630 635 640

Ala Gln Leu Ser Val Ser Leu Ser Asn Leu Asn Ser Ala Asn Thr Ile  
 645 650 655

Leu Asn Ser Ser Ser His Ser Ile Lys Val Ser His Thr Asn Cys Asn  
 660 665 670

Ser Phe Pro Lys Met Pro Leu His Val Glu Val Ser Asn Thr Gly Glu  
 675 680 685

Phe Asp Gly Thr His Thr Val Phe Val Phe Ala Glu Pro Pro Ile Asn  
 690 695 700

Gly Ile Lys Gly Leu Gly Val Asn Lys Gln Leu Ile Ala Phe Glu Lys  
 705 710 715 720

Val His Val Met Ala Gly Ala Lys Gln Thr Val Gln Val Asp Val Asp  
 725 730 735

Ala Cys Lys His Leu Gly Val Val Asp Glu Tyr Gly Lys Arg Arg Ile  
 740 745 750

Pro Met Gly Glu His Lys Leu His Ile Gly Asp Leu Lys His Thr Ile  
 755 760 765

Leu Val Gln Pro Gln Leu  
770

<210> 1187

<211> 669

<212> DNA

<213> Arabidopsis thaliana

<400> 1187

```

atggccaaga tgggcttgaa acccgacccg gctactacta accagaccca caataatgcc      60
aaggagattc gttacagagg cgtttaggaag cgtccttggg gccgttatgc cgccgagatc    120
cgagatccgg gcaagaaaac ccgcgtctgg cttggcactt tcgatacggc tgaagaggcg    180
gcgcgtgctt acgatacggc ggcgcgtgat tttcgtggtg ctaaggctaa gaccaatttc    240
ccaacttttc tcgagctgag tgaccagaag gtccctaccg gtttcgcgcg tagccctagc    300
cagagcagca cgctcgactg tgcttctcct ccgacgttag ttgtgccttc agcgacggct    360
gggaatgttc ccccgagct cgagcttagt ctcggcggag gaggcggcgg ctcgtgttat    420
cagatcccgga tgtcgcgtcc tgtctacttt ttggacctga tggggatcgg taacgtaggt    480
cgtggtcagc ctcctcctgt gacatcggcg tttagatcgc cggtggtgca tgttgcgacg    540
aagatggctt gtggtgccca aagcgactct gattcgtcat cggtcgttga tttcgaaggt    600
gggatggaga agagatctca gctgttagat ctagatctta atttgcctcc tccatcggaa    660
caggcctga                                         669

```

<210> 1188

<211> 222

<212> PRT

<213> Arabidopsis thaliana

<400> 1188

```

Met Ala Lys Met Gly Leu Lys Pro Asp Pro Ala Thr Thr Asn Gln Thr
1          5          10          15

His Asn Asn Ala Lys Glu Ile Arg Tyr Arg Gly Val Arg Lys Arg Pro
          20          25          30

Trp Gly Arg Tyr Ala Ala Glu Ile Arg Asp Pro Gly Lys Lys Thr Arg
          35          40          45

```



047-E2F-PCT.ST25.txt

Val Trp Leu Gly Thr Phe Asp Thr Ala Glu Glu Ala Ala Arg Ala Tyr  
50 55 60

Asp Thr Ala Ala Arg Asp Phe Arg Gly Ala Lys Ala Lys Thr Asn Phe  
65 70 75 80

Pro Thr Phe Leu Glu Leu Ser Asp Gln Lys Val Pro Thr Gly Phe Ala  
85 90 95

Arg Ser Pro Ser Gln Ser Ser Thr Leu Asp Cys Ala Ser Pro Pro Thr  
100 105 110

Leu Val Val Pro Ser Ala Thr Ala Gly Asn Val Pro Pro Gln Leu Glu  
115 120 125

Leu Ser Leu Gly Gly Gly Gly Gly Gly Ser Cys Tyr Gln Ile Pro Met  
130 135 140

Ser Arg Pro Val Tyr Phe Leu Asp Leu Met Gly Ile Gly Asn Val Gly  
145 150 155 160

Arg Gly Gln Pro Pro Pro Val Thr Ser Ala Phe Arg Ser Pro Val Val  
165 170 175

His Val Ala Thr Lys Met Ala Cys Gly Ala Gln Ser Asp Ser Asp Ser  
180 185 190

Ser Ser Val Val Asp Phe Glu Gly Gly Met Glu Lys Arg Ser Gln Leu  
195 200 205

Leu Asp Leu Asp Leu Asn Leu Pro Pro Pro Ser Glu Gln Ala  
210 215 220

<210> 1189

<211> 870

<212> DNA

<213> Arabidopsis thaliana

<400> 1189  
atgccgatag cgaaaccgat caaccaaacc actactgttc catatccacc acaacattac 60  
agtaaaccgc ctctagtcac aatcctaacc gtgatcctcc tcgtcgtctt tttcatcggt 120  
tttttcgcta tctattttctg taaatgtttc taccacactc tcaccgaagc ttggaaccac 180

cattaccaca acggattgcc cgaaaatcaa atccaagcac aacaagaacc cgttcaacca 240  
 ccggttaacc ctggtctaga gccacacatc atccaatcct accctttggt tccattctca 300  
 tccgtcaaag atctcagga agacaaatac ggtctcgaat gcgcgatttg tctacttgaa 360  
 ttcgaagaag aacacatcct cctacgactc ttgacaactt gttaccatgt ttttcatcaa 420  
 gaatgcatcg atcaatggct tgaatctaac aaaacatgcc ctgtatgtcg tcggaattta 480  
 gatccaaacg cgccagaaaa catcaaagag ttgatcatcg aagtcataca agaaaacgca 540  
 catgaaaatc gcgatcagga acaaacgtca acatcaaacg aggttatggt gtcgagacaa 600  
 agtagtggt acaacgagag aaagattgag acgttaccgg ataaattctc gagatcgaag 660  
 acgacaggtc attcaattgt gaggaataaa ccggaggaag aagatcggt tactttgagg 720  
 ttaccggatc atgttaagat taaggttacg agaagacaca acaataatca aacagagagt 780  
 tgtatttcat ttggtgagct tgttagaac agagaaggcc ggtttggtga agtttctggt 840  
 caatcacttg taccggaatc aggaagttaa 870

<210> 1190

<211> 289

<212> PRT

<213> Arabidopsis thaliana

<400> 1190

Met Pro Ile Ala Lys Pro Ile Asn Gln Asn Thr Thr Val Pro Tyr Pro  
1 5 10 15

Pro Gln His Tyr Ser Lys Pro Pro Leu Val Ile Ile Leu Thr Val Ile  
20 25 30

Leu Leu Val Val Phe Phe Ile Gly Phe Phe Ala Ile Tyr Phe Cys Lys  
35 40 45

Cys Phe Tyr His Thr Leu Thr Glu Ala Trp Asn His His Tyr His Asn  
50 55 60

Gly Leu Pro Glu Asn Gln Ile Gln Ala Gln Gln Glu Pro Val Gln Pro  
65 70 75 80

Pro Val Asn Pro Gly Leu Glu Pro His Ile Ile Gln Ser Tyr Pro Leu  
85 90 95

Phe Pro Phe Ser Ser Val Lys Asp Leu Arg Glu Asp Lys Tyr Gly Leu  
100 105 110

047-E2F-PCT.ST25.txt

Glu Cys Ala Ile Cys Leu Leu Glu Phe Glu Glu Glu His Ile Leu Leu  
115 120 125

Arg Leu Leu Thr Thr Cys Tyr His Val Phe His Gln Glu Cys Ile Asp  
130 135 140

Gln Trp Leu Glu Ser Asn Lys Thr Cys Pro Val Cys Arg Arg Asn Leu  
145 150 155 160

Asp Pro Asn Ala Pro Glu Asn Ile Lys Glu Leu Ile Ile Glu Val Ile  
165 170 175

Gln Glu Asn Ala His Glu Asn Arg Asp Gln Glu Gln Thr Ser Thr Ser  
180 185 190

Asn Glu Val Met Leu Ser Arg Gln Ser Ser Gly Asn Asn Glu Arg Lys  
195 200 205

Ile Glu Thr Leu Pro Asp Lys Phe Ser Arg Ser Lys Thr Thr Gly His  
210 215 220

Ser Ile Val Arg Asn Lys Pro Glu Glu Glu Asp Arg Tyr Thr Leu Arg  
225 230 235 240

Leu Pro Asp His Val Lys Ile Lys Val Thr Arg Arg His Asn Asn Asn  
245 250 255

Gln Thr Glu Ser Cys Ile Ser Phe Gly Glu Leu Val Arg Asn Arg Glu  
260 265 270

Gly Arg Phe Gly Glu Val Ser Gly Gln Ser Leu Val Pro Glu Ser Gly  
275 280 285

Ser

<210> 1191

<211> 1239

<212> DNA

<213> Arabidopsis thaliana

<400> 1191

atggcaggat ctgcaccaga aggcacacag tttgatgcac gtcagtttga ccagaaactc

60

047-E2F-PCT.ST25.txt

aatgaagtac ttgagggaca agatgagttc ttcacatcct atgatgatgt tcatgagagc 120  
 tttgatgccca tgggtcttca agagaacctt ctcaggggta tttatgctta tggttttgag 180  
 aagccttctg ctattcagca aagaggaatc gtcccttctt gtaaggggtct tgatgtgatt 240  
 caacaggctc agtctggtac tgggaaaaca gcaactttct gctctggtgt cttgcagcag 300  
 ctggacttct cccttatcca gtgtcaggct ttggttctag ctccaactag agagcttgct 360  
 cagcaaattg agaaggtcat gagggccctt ggtgattacc ttggtgtcaa gggttcacgcc 420  
 tgtgttggtg gaaccagtgt ccgtgaggat cagcgcaccc tccaagctgg tgtccatggt 480  
 gttgttgga ctccagggcg tgtctttgac atgttgaaga ggcagtctct tcgtgctgac 540  
 aacatcaaga tgtttgttct cgatgaagct gatgaaatgc tctcccgtgg tttcaaggac 600  
 cagatctatg acatattcca gcttcttcca ccaaagatcc aagttggtgt gttctccgca 660  
 acaatgccac cagaagctct tgagatcaca aggaagttca tgagcaagcc agtgagaatc 720  
 ttggtgaagc gtgatgagct tacccttgaa ggtatcaagc agttctacgt caacgttgag 780  
 aaagaagagt ggaagctcga gacactctgt gatctctacg agactcttgc catcactcag 840  
 agtgtcatct tcgtgaacac caggcgtaag gttgattggc tcacagacaa aatgagaagc 900  
 cgtgaccaca cagtctctgc aactcacgga gacatggacc agaacaccag ggacatcatc 960  
 atgagagagt tcaggctctgg ttcctcccggt gttctcatca ccactgacct cttagctcgt 1020  
 ggtattgatg tccaacaagt ctccctgggt atcaacttcg atctcccaac tcagccagag 1080  
 aactaccttc accgtatcgg aagaagtgga aggttcggga gaaaggggtgt tgcgatcaat 1140  
 ttcgtgaccc gtgatgatga gaggatgctg tttgatattc agaaattcta caatgtgggt 1200  
 gtcgaagagc tgccttcgaa cgtggccgat ctgctgtga 1239

<210> 1192

<211> 412

<212> PRT

<213> Arabidopsis thaliana

<400> 1192

Met Ala Gly Ser Ala Pro Glu Gly Thr Gln Phe Asp Ala Arg Gln Phe  
 1 5 10 15

Asp Gln Lys Leu Asn Glu Val Leu Glu Gly Gln Asp Glu Phe Phe Thr  
 20 25 30

Ser Tyr Asp Asp Val His Glu Ser Phe Asp Ala Met Gly Leu Gln Glu  
 35 40 45

047-E2F-PCT.ST25.txt

Asn Leu Leu Arg Gly Ile Tyr Ala Tyr Gly Phe Glu Lys Pro Ser Ala  
 50 55 60  
 Ile Gln Gln Arg Gly Ile Val Pro Phe Cys Lys Gly Leu Asp Val Ile  
 65 70 75 80  
 Gln Gln Ala Gln Ser Gly Thr Gly Lys Thr Ala Thr Phe Cys Ser Gly  
 85 90 95  
 Val Leu Gln Gln Leu Asp Phe Ser Leu Ile Gln Cys Gln Ala Leu Val  
 100 105 110  
 Leu Ala Pro Thr Arg Glu Leu Ala Gln Gln Ile Glu Lys Val Met Arg  
 115 120 125  
 Ala Leu Gly Asp Tyr Leu Gly Val Lys Val His Ala Cys Val Gly Gly  
 130 135 140  
 Thr Ser Val Arg Glu Asp Gln Arg Ile Leu Gln Ala Gly Val His Val  
 145 150 155 160  
 Val Val Gly Thr Pro Gly Arg Val Phe Asp Met Leu Lys Arg Gln Ser  
 165 170 175  
 Leu Arg Ala Asp Asn Ile Lys Met Phe Val Leu Asp Glu Ala Asp Glu  
 180 185 190  
 Met Leu Ser Arg Gly Phe Lys Asp Gln Ile Tyr Asp Ile Phe Gln Leu  
 195 200 205  
 Leu Pro Pro Lys Ile Gln Val Gly Val Phe Ser Ala Thr Met Pro Pro  
 210 215 220  
 Glu Ala Leu Glu Ile Thr Arg Lys Phe Met Ser Lys Pro Val Arg Ile  
 225 230 235 240  
 Leu Val Lys Arg Asp Glu Leu Thr Leu Glu Gly Ile Lys Gln Phe Tyr  
 245 250 255  
 Val Asn Val Glu Lys Glu Glu Trp Lys Leu Glu Thr Leu Cys Asp Leu  
 260 265 270  
 Tyr Glu Thr Leu Ala Ile Thr Gln Ser Val Ile Phe Val Asn Thr Arg  
 275 280 285  
 Arg Lys Val Asp Trp Leu Thr Asp Lys Met Arg Ser Arg Asp His Thr  
 Page 1871

290

295

Val Ser Ala Thr His Gly Asp Met Asp Gln Asn Thr Arg Asp Ile Ile  
305 310 315 320  
Met Arg Glu Phe Arg Ser Gly Ser Ser Arg Val Leu Ile Thr Thr Asp  
325 330 335  
Leu Leu Ala Arg Gly Ile Asp Val Gln Gln Val Ser Leu Val Ile Asn  
340 345 350  
Phe Asp Leu Pro Thr Gln Pro Glu Asn Tyr Leu His Arg Ile Gly Arg  
355 360 365  
Ser Gly Arg Phe Gly Arg Lys Gly Val Ala Ile Asn Phe Val Thr Arg  
370 375 380  
Asp Asp Glu Arg Met Leu Phe Asp Ile Gln Lys Phe Tyr Asn Val Val  
385 390 395 400  
Val Glu Glu Leu Pro Ser Asn Val Ala Asp Leu Leu  
405 410

<210> 1193

<211> 1341

<212> DNA

<213> Arabidopsis thaliana

<400> 1193

atggcaaatg atgcggctgc atgtgcagaa agggctacaa atgatatgct gattggtcca	60
gattgggcta ttaacattga attgtgtgat cttatcaaca tggatcctag tcaagcaaaa	120
gaagctgtga aggtgctcaa gaagcggtta ggaagtaaaa actctaaagt ccagattctt	180
gcactttatg cattggaaac tttaagtaag aattgtggcg aaaacgtgta ccagcttatc	240
attgaccgtg gtctattgaa tgacatggtc aaaatagtga agaaaaagcc ggaactgaat	300
gtgagggaaa agatactaac ttgtttagac acatggcaag aagcctttgg tggacgtgga	360
ggtcgatacc cacaatacta caatgcctat aacgatctca ggtctgctgg aattgagttt	420
ccgcctcgaa cggaaagcag tctatcgttc ttactccac cgcagactca gccagatgaa	480
gatgctgcta ttcaggcttc gttgcaagga gatgatgctt ctagcctcag cctggaagag	540
attcaaagcg ctgagggatc agttgatgtt ttgatggaca tgcttggagc acatgatccc	600
gggaatcccg agagtttaaa agaagaagtt atagtagact tggttgagca atgtcgtact	660

047-E2F-PCT.ST25.txt

tatcaaagac gtgtaatgac tcttgtgaac actacaacag atgaggaact tctgtgtcag 720  
 ggattggcat taaacgataa tttgcagcat gttcttcagc gtcacgatga tatcgcaaatt 780  
 gtcggctctg ttccttcaaa tggaaggaat actagagctc ctctccagc tcagattggt 840  
 gacatcaatc atgatgatga agatgacgaa tcagatgatg agtttgctcg gcttgctcac 900  
 aggtcttcaa cacctacaag gagaccagta catggtagtg attcgggtat ggtggatatc 960  
 cttagtgggg acgtctataa acctcaaggc aactcctcct cacagggagt aaagaagcct 1020  
 cctcctcctc ctccgcatac ttcttcttcc tcttcttctc ctgttttcga tgatgcaagt 1080  
 ccacaacaaa gcaaatcctc tgaggtaatt aggaatcttc cacctccgcc ttcaaggcac 1140  
 aaccagaggc aacagttctt tgagcatcac cactcgagta gcggctcaga ttcctcttac 1200  
 gagggacaga cccggaacct ttctttgaca agtagtgaac cgcagaaaga agagaaacca 1260  
 gaggatttgc ttttcaaaga cctggttgag ttcgccaaaa ccaggtcctc caaagccaac 1320  
 aataataata ggtcgctctg a 1341

<210> 1194

<211> 446

<212> PRT

<213> Arabidopsis thaliana

<400> 1194

Met Ala Asn Asp Ala Ala Ala Cys Ala Glu Arg Ala Thr Asn Asp Met  
 1 5 10 15

Leu Ile Gly Pro Asp Trp Ala Ile Asn Ile Glu Leu Cys Asp Leu Ile  
 20 25 30

Asn Met Asp Pro Ser Gln Ala Lys Glu Ala Val Lys Val Leu Lys Lys  
 35 40 45

Arg Leu Gly Ser Lys Asn Ser Lys Val Gln Ile Leu Ala Leu Tyr Ala  
 50 55 60

Leu Glu Thr Leu Ser Lys Asn Cys Gly Glu Asn Val Tyr Gln Leu Ile  
 65 70 75 80

Ile Asp Arg Gly Leu Leu Asn Asp Met Val Lys Ile Val Lys Lys Lys  
 85 90 95

Pro Glu Leu Asn Val Arg Glu Lys Ile Leu Thr Leu Leu Asp Thr Trp  
 Page 1873

100 105 110  
 Gln Glu Ala Phe Gly Gly Arg Gly Gly Arg Tyr Pro Gln Tyr Tyr Asn  
 115 120 125  
 Ala Tyr Asn Asp Leu Arg Ser Ala Gly Ile Glu Phe Pro Pro Arg Thr  
 130 135 140  
 Glu Ser Ser Leu Ser Phe Phe Thr Pro Pro Gln Thr Gln Pro Asp Glu  
 145 150 155 160  
 Asp Ala Ala Ile Gln Ala Ser Leu Gln Gly Asp Asp Ala Ser Ser Leu  
 165 170 175  
 Ser Leu Glu Glu Ile Gln Ser Ala Glu Gly Ser Val Asp Val Leu Met  
 180 185 190  
 Asp Met Leu Gly Ala His Asp Pro Gly Asn Pro Glu Ser Leu Lys Glu  
 195 200 205  
 Glu Val Ile Val Asp Leu Val Glu Gln Cys Arg Thr Tyr Gln Arg Arg  
 210 215 220  
 Val Met Thr Leu Val Asn Thr Thr Thr Asp Glu Glu Leu Leu Cys Gln  
 225 230 235 240  
 Gly Leu Ala Leu Asn Asp Asn Leu Gln His Val Leu Gln Arg His Asp  
 245 250 255  
 Asp Ile Ala Asn Val Gly Ser Val Pro Ser Asn Gly Arg Asn Thr Arg  
 260 265 270  
 Ala Pro Pro Pro Val Gln Ile Val Asp Ile Asn His Asp Asp Glu Asp  
 275 280 285  
 Asp Glu Ser Asp Asp Glu Phe Ala Arg Leu Ala His Arg Ser Ser Thr  
 290 295 300  
 Pro Thr Arg Arg Pro Val His Gly Ser Asp Ser Gly Met Val Asp Ile  
 305 310 315 320  
 Leu Ser Gly Asp Val Tyr Lys Pro Gln Gly Asn Ser Ser Ser Gln Gly  
 325 330 335  
 Val Lys Lys Pro Pro Pro Pro Pro Pro His Thr Ser Ser Ser Ser Ser  
 340 345 350



Ser Pro Val Phe Asp Asp Ala Ser Pro Gln Gln Ser Lys Ser Ser Glu  
 355 360 365

Val Ile Arg Asn Leu Pro Pro Pro Pro Ser Arg His Asn Gln Arg Gln  
 370 375 380

Gln Phe Phe Glu His His His Ser Ser Ser Gly Ser Asp Ser Ser Tyr  
 385 390 395 400

Glu Gly Gln Thr Arg Asn Leu Ser Leu Thr Ser Ser Glu Pro Gln Lys  
 405 410 415

Glu Glu Lys Pro Glu Asp Leu Leu Phe Lys Asp Leu Val Glu Phe Ala  
 420 425 430

Lys Thr Arg Ser Ser Lys Ala Asn Asn Asn Asn Arg Ser Leu  
 435 440 445

<210> 1195

<211> 444

<212> DNA

<213> Arabidopsis thaliana

<400> 1195

atgaagtttg atgaatcgaa aacgctctta ccggtgagaa aacctgtaaa tggcaaccgc	60
aaaaccgctg gttacaagct ttgggttcta atcgctgttc tactcttggc ctttggttct	120
atgttaaccg gttccgtctc tctcaaagga atcggtttgt tccattctgc tgacggcggt	180
aacgcattct ctttcggcga tgatctcgac gttctggaaa ttgaagagag agagaaagtg	240
gtgagacaga tgtgggatgt gtacggacgc tccggtggcg ttaaggttcc tcggttctgg	300
cgagaagctt tcgaagcggc gtatgagttt ctcattcagt attccgccgc cgttcgaaat	360
gctgccgttt ccgatatcgc aaagttgtct cttgttcggt ttgttaagtc agagtctact	420
tcggcccagc ccaatcttca ttga	444

<210> 1196

<211> 147

<212> PRT

<213> Arabidopsis thaliana

<400> 1196

047-E2F-PCT.ST25.txt

Met Lys Phe Asp Glu Ser Lys Thr Leu Leu Pro Val Arg Lys Pro Val  
1 5 10 15  
Asn Gly Asn Arg Lys Thr Ala Gly Tyr Lys Leu Trp Val Leu Ile Ala  
20 25 30  
Val Leu Leu Leu Ala Phe Gly Ser Met Leu Thr Gly Ser Val Ser Leu  
35 40 45  
Lys Gly Ile Gly Leu Phe His Ser Ala Asp Gly Val Asn Ala Phe Ser  
50 55 60  
Phe Gly Asp Asp Leu Asp Val Leu Glu Ile Glu Glu Arg Glu Lys Val  
65 70 75 80  
Val Arg Gln Met Trp Asp Val Tyr Gly Arg Ser Gly Gly Val Lys Val  
85 90 95  
Pro Arg Phe Trp Arg Glu Ala Phe Glu Ala Ala Tyr Glu Phe Leu Ile  
100 105 110  
Ser Asp Ser Ala Ala Val Arg Asn Ala Ala Val Ser Asp Ile Ala Lys  
115 120 125  
Leu Ser Leu Val Arg Phe Val Lys Ser Glu Ser Thr Ser Ala Gln Pro  
130 135 140  
Asn Leu His  
145

<210> 1197

<211> 213

<212> DNA

<213> Arabidopsis thaliana

<400> 1197  
atgaccacat gttccaaaga gaagcctact aaaccttcct atagaaactg tgaacgccag 60  
atagcatcag gaagaccaga taagacacaa caccaaagcc taaccaatcg caacaccgac 120  
aaggaaggca aaaggcttca cccgatacca aggaatcatg aaccactaga gccaagtcac 180  
accatagcag acggagataa agagacaggc tag 213

<210> 1198

&lt;211&gt; 70

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1198

Met Thr Thr Cys Ser Lys Glu Lys Pro Thr Lys Pro Ser Tyr Arg Asn  
 1 5 10 15

Cys Glu Arg Gln Ile Ala Ser Gly Arg Pro Asp Lys Thr Gln His Gln  
 20 25 30

Ser Leu Thr Asn Arg Asn Thr Asp Lys Glu Gly Lys Arg Leu His Pro  
 35 40 45

Ile Pro Arg Asn His Glu Pro Leu Glu Pro Ser His Thr Ile Ala Asp  
 50 55 60

Gly Asp Lys Glu Thr Gly  
 65 70

&lt;210&gt; 1199

&lt;211&gt; 1002

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1199

atggagactc tgagtcgttt attggttttc atgtctctgt tttccggttt agtttctgga 60  
 tttgctctgc aaaatcttcc aatcacatct tttgaagaaa gttacactca actttttggt 120  
 gacaagaact tatttgttca tcaagatggc aaatctgtcc ggttaacgct cgatgaaaga 180  
 accggttccg gttttgtttc aaatgattat tacttgcatt gattcttcag tgcttcaatt 240  
 aaattacctt ctgattatac agctggagtt gttgttgctt tttatatgtc taatggagat 300  
 atgtatgaga agaatcatga tgagatagat tttgagtttc ttggtaacat tagagaaaaa 360  
 gaatggagag ttcagacaaa catttacggt aatggaagta ctattcagg aagagaagag 420  
 agatataatc tctggtttga tcctactgaa gattttcatc aatacagtat cctctggtct 480  
 gattctcaca tcatattctt tgtagacaat gttcctatta gagagggtcaa acgtactgcg 540  
 gaaatgggtg gtcactttcc atcaaagccg atgtctctct acacaacaat atgggacggt 600  
 tctaaatggg caactaacgg tggaaagtac ggtgtaaact acaaatatgc gccttacatt 660

gcgcggttct cggatctagt cctgcacggc tgccccgtgg accctatcga gcagtttccg 720  
 aggtgcatg aaggcgcggc tgaggatatg cgtgcggcgc aagagattac tccttcacaa 780  
 aggagtaaaa tggatgtttt cagacggaga ctcatgacat attcatattg ctatgatcgg 840  
 gctaggtaca atgttgcttt atcggagtgt gtggtgaatc ccgctgaggc tcaaaggctt 900  
 agggtttatg atccggtcag atttggcggc attccgaggc gccaccgcaa tggaaagcac 960  
 cggagcaaga gaagccgggt tgatggaacc gagtcgatat ga 1002

<210> 1200

<211> 333

<212> PRT

<213> Arabidopsis thaliana

<400> 1200

Met Glu Thr Leu Ser Arg Leu Leu Val Phe Met Ser Leu Phe Ser Gly  
 1 5 10 15

Leu Val Ser Gly Phe Ala Leu Gln Asn Leu Pro Ile Thr Ser Phe Glu  
 20 25 30

Glu Ser Tyr Thr Gln Leu Phe Gly Asp Lys Asn Leu Phe Val His Gln  
 35 40 45

Asp Gly Lys Ser Val Arg Leu Thr Leu Asp Glu Arg Thr Gly Ser Gly  
 50 55 60

Phe Val Ser Asn Asp Tyr Tyr Leu His Gly Phe Phe Ser Ala Ser Ile  
 65 70 75 80

Lys Leu Pro Ser Asp Tyr Thr Ala Gly Val Val Val Ala Phe Tyr Met  
 85 90 95

Ser Asn Gly Asp Met Tyr Glu Lys Asn His Asp Glu Ile Asp Phe Glu  
 100 105 110

Phe Leu Gly Asn Ile Arg Glu Lys Glu Trp Arg Val Gln Thr Asn Ile  
 115 120 125

Tyr Gly Asn Gly Ser Thr His Ser Gly Arg Glu Glu Arg Tyr Asn Leu  
 130 135 140

Trp Phe Asp Pro Thr Glu Asp Phe His Gln Tyr Ser Ile Leu Trp Ser  
 145 150 155 160

047-E2F-PCT.ST25.txt

Asp Ser His Ile Ile Phe Phe Val Asp Asn Val Pro Ile Arg Glu Val  
165 170 175

Lys Arg Thr Ala Glu Met Gly Gly His Phe Pro Ser Lys Pro Met Ser  
180 185 190

Leu Tyr Thr Thr Ile Trp Asp Gly Ser Lys Trp Ala Thr Asn Gly Gly  
195 200 205

Lys Tyr Gly Val Asn Tyr Lys Tyr Ala Pro Tyr Ile Ala Arg Phe Ser  
210 215 220

Asp Leu Val Leu His Gly Cys Pro Val Asp Pro Ile Glu Gln Phe Pro  
225 230 235 240

Arg Cys Asp Glu Gly Ala Ala Glu Asp Met Arg Ala Ala Gln Glu Ile  
245 250 255

Thr Pro Ser Gln Arg Ser Lys Met Asp Val Phe Arg Arg Arg Leu Met  
260 265 270

Thr Tyr Ser Tyr Cys Tyr Asp Arg Ala Arg Tyr Asn Val Ala Leu Ser  
275 280 285

Glu Cys Val Val Asn Pro Ala Glu Ala Gln Arg Leu Arg Val Tyr Asp  
290 295 300

Pro Val Arg Phe Gly Gly Ile Pro Arg Arg His Arg Asn Gly Lys His  
305 310 315 320

Arg Ser Lys Arg Ser Arg Val Asp Gly Thr Glu Ser Ile  
325 330

<210> 1201

<211> 1752

<212> DNA

<213> Arabidopsis thaliana

<400> 1201

atggaaccag atcttcatga ccagcaacaa caacaacgag tccacagcgt agtcataatc	60
actctccac catctgatga tccttcacaa ggcaaaacaa tctctgcttt cactctcact	120
gaccacgatt acccactcga aatcccaccc gaggataacc caaacccgag ttttcaaccc	180

gacccacttc accgaaacca acaatctcgc ctcttggttct cggatctctc aatgaattcg 240  
ccgagattag ttctgggtct tctcggaatc tcgcttctcg cggttgcttt ctacgcctct 300  
gtttttccca actctgttca aatgttttagg gtttctcctg atgagaggaa ccgtgacgac 360  
gacgataatc tccgtgaaac ggcgtcgttt gttttccctg tatatcacia attgagagct 420  
cgagagttcc acgagcggat cttagaggaa gatttagggt tagagaatga aaactttgtg 480  
gaatcaatgg atttagagct ggtcaaccct gtaaaagtca acgatgtttt atctacaagt 540  
gccggttcta ttgactcctc cactacgatt tttcccgtcg gtggtaatgt gtatccagat 600  
gggctgtatt atacacgcat tcttgttgga aagcctgaag atggacaata ctatcatctt 660  
gatattgata cggaagtga attgacttgg atccaatgtg atgctccttg tactagtgtg 720  
gctaaggagg caaatcaact atataagcct agaaaagata acttagtgag atcttcagag 780  
gccttttgtg tagaagtcca aaggaatcaa ctgacagaac attgtgaaaa ttgtcatcaa 840  
tgtgactacg agattgaata tgctgatcat agctactcca tgggagttct caccaaagat 900  
aagtttcatc taaaactcca taacggatca ctagccgagt cagatatagt tttcgggtgc 960  
gggtatgatc agcaaggact actgttgaat actctgctaa agacagacgg gattctcggg 1020  
ctaagcagag ctaaaattag cttaccttct caacttgcaa gcagaggtat tatcagcaat 1080  
gtggttggcc attgccttgc ctctgattta aacggtgaag gatatatctt catgggaagt 1140  
gatttggttc catcacacgg aatgacatgg gttcctatgc ttcacgattc ccgcttgat 1200  
gcttatcaga tgcaagttac aaagatgagc tacgggcagg gtatgcttag cttagatggg 1260  
gaaaacggaa gagtagggaa agtcttattt gacacaggaa gttcctatac atacttcctt 1320  
aaccaggctt actcccaatt ggtcacatca cttcaagaag tttctggttt agaactaaca 1380  
cgcgatgatt cagacgaaac actgcctatc tgctggcgag ccaaaactaa cttcccgttt 1440  
agttccttgt cggatgttaa gaagttcttc agaccaataa ctctgcaaat agggagcaaa 1500  
tggttgatca tatcaagaaa acttttgatt caaccgagg attacttgat catcagcaac 1560  
aaaggaaatg tctgtcttgg gatattagat ggaagcagtg ttcgatgatg ttccactatt 1620  
attcttggag atatctcgat gcgtggacac ttgatcgtgt acgacaatgt gaaacggaga 1680  
atcggatgga tgaaatcaga ttgcgtccgg cctcgtgaga ttgatcacia tgtacctttc 1740  
tttcaaggct ga 1752

<210> 1202

<211> 583

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 1202

```

Met Glu Pro Asp Leu His Asp Gln Gln Gln Gln Gln Arg Val His Ser
 1      5      10      15

Val Val Ile Ile Thr Leu Pro Pro Ser Asp Asp Pro Ser Gln Gly Lys
      20      25      30

Thr Ile Ser Ala Phe Thr Leu Thr Asp His Asp Tyr Pro Leu Glu Ile
      35      40      45

Pro Pro Glu Asp Asn Pro Asn Pro Ser Phe Gln Pro Asp Pro Leu His
 50      55      60

Arg Asn Gln Gln Ser Arg Leu Leu Phe Ser Asp Leu Ser Met Asn Ser
65      70      75      80

Pro Arg Leu Val Leu Gly Leu Leu Gly Ile Ser Leu Leu Ala Val Ala
      85      90      95

Phe Tyr Ala Ser Val Phe Pro Asn Ser Val Gln Met Phe Arg Val Ser
      100      105      110

Pro Asp Glu Arg Asn Arg Asp Asp Asp Asp Asn Leu Arg Glu Thr Ala
      115      120      125

Ser Phe Val Phe Pro Val Tyr His Lys Leu Arg Ala Arg Glu Phe His
      130      135      140

Glu Arg Ile Leu Glu Glu Asp Leu Gly Leu Glu Asn Glu Asn Phe Val
145      150      155      160

Glu Ser Met Asp Leu Glu Leu Val Asn Pro Val Lys Val Asn Asp Val
      165      170      175

Leu Ser Thr Ser Ala Gly Ser Ile Asp Ser Ser Thr Thr Ile Phe Pro
      180      185      190

Val Gly Gly Asn Val Tyr Pro Asp Gly Leu Tyr Tyr Thr Arg Ile Leu
      195      200      205

Val Gly Lys Pro Glu Asp Gly Gln Tyr Tyr His Leu Asp Ile Asp Thr
      210      215      220

Gly Ser Glu Leu Thr Trp Ile Gln Cys Asp Ala Pro Cys Thr Ser Cys
225      230      235      240

```

047-E2F-PCT.ST25.txt

Ala Lys Gly Ala Asn Gln Leu Tyr Lys Pro Arg Lys Asp Asn Leu Val  
245 250 255

Arg Ser Ser Glu Ala Phe Cys Val Glu Val Gln Arg Asn Gln Leu Thr  
260 265 270

Glu His Cys Glu Asn Cys His Gln Cys Asp Tyr Glu Ile Glu Tyr Ala  
275 280 285

Asp His Ser Tyr Ser Met Gly Val Leu Thr Lys Asp Lys Phe His Leu  
290 295 300

Lys Leu His Asn Gly Ser Leu Ala Glu Ser Asp Ile Val Phe Gly Cys  
305 310 315 320

Gly Tyr Asp Gln Gln Gly Leu Leu Leu Asn Thr Leu Leu Lys Thr Asp  
325 330 335

Gly Ile Leu Gly Leu Ser Arg Ala Lys Ile Ser Leu Pro Ser Gln Leu  
340 345 350

Ala Ser Arg Gly Ile Ile Ser Asn Val Val Gly His Cys Leu Ala Ser  
355 360 365

Asp Leu Asn Gly Glu Gly Tyr Ile Phe Met Gly Ser Asp Leu Val Pro  
370 375 380

Ser His Gly Met Thr Trp Val Pro Met Leu His Asp Ser Arg Leu Asp  
385 390 395 400

Ala Tyr Gln Met Gln Val Thr Lys Met Ser Tyr Gly Gln Gly Met Leu  
405 410 415

Ser Leu Asp Gly Glu Asn Gly Arg Val Gly Lys Val Leu Phe Asp Thr  
420 425 430

Gly Ser Ser Tyr Thr Tyr Phe Pro Asn Gln Ala Tyr Ser Gln Leu Val  
435 440 445

Thr Ser Leu Gln Glu Val Ser Gly Leu Glu Leu Thr Arg Asp Asp Ser  
450 455 460

Asp Glu Thr Leu Pro Ile Cys Trp Arg Ala Lys Thr Asn Phe Pro Phe  
465 470 475 480

Ser Ser Leu Ser Asp Val Lys Lys Phe Phe Arg Pro Ile Thr Leu Gln  
485 490 495



047-E2F-PCT.ST25.txt

Ile Gly Ser Lys Trp Leu Ile Ile Ser Arg Lys Leu Leu Ile Gln Pro  
500 505 510

Glu Asp Tyr Leu Ile Ile Ser Asn Lys Gly Asn Val Cys Leu Gly Ile  
515 520 525

Leu Asp Gly Ser Ser Val His Asp Gly Ser Thr Ile Ile Leu Gly Asp  
530 535 540

Ile Ser Met Arg Gly His Leu Ile Val Tyr Asp Asn Val Lys Arg Arg  
545 550 555 560

Ile Gly Trp Met Lys Ser Asp Cys Val Arg Pro Arg Glu Ile Asp His  
565 570 575

Asn Val Pro Phe Phe Gln Gly  
580

<210> 1203

<211> 909

<212> DNA

<213> Arabidopsis thaliana

<400> 1203

atggatacaa tcagtgtaga atttggggct tcaagggttt cctcaagcaa ggtgtatggt	60
gcagtaccac caccacagca actgatttct ggagctccgg gttctgacca ggagaaccaa	120
aatttgattt caacgtatgg tttgatgaca tcgataccca tcacagcacc accatacgct	180
gtagttcgt ttccagttac tccagcaaca agtctttatc ctcagtttcc agtaatgcaa	240
tctctaggaa tatcaaattg tggcccctcg cagcccgtgg ctggaggaac tagctatagt	300
gggtatgctg gaatataccc tcaagccaca ccattgcaac aagttgctca agtccttaag	360
caatcaattt ctctgttat ctctactgtg cccctacta tgttgacagc tacgtcctta	420
tcgatcccaa gtgataatgc aagtaatgaa atggaaaggc gtccaccccg gaagcgaaag	480
tttcaggaac ttccagctga ttgtaagggt ccagaaaaag acaaacagca atcggagtta	540
gcaatgacag gtgatgttac tccatcagca aatagagtgc ggtcgccgcc ttcaccaaga	600
tctgtaatgc ctctcctcc accaaagacc atcgaccac cgccttctaa gaccatgtct	660
cctccatcat caaaaagcat gtttcctcca ccaccagtt ctaagacat gtctcctcta	720
tcatcaaaaa gcatgcttcc tccaccaccg cgatttacac tgacaactca acgttcaaga	780

ttacaggaca accacatcag tgtaaagaaa ccaaatccag ttccagatac gttaataaag 840  
 ctgatggaat atggagacga tgaagacgat gatgacgatc ctgatgagcc attgacaact 900  
 agatcgtga 909

<210> 1204

<211> 302

<212> PRT

<213> Arabidopsis thaliana

<400> 1204

Met Asp Thr Ile Ser Val Glu Phe Gly Ala Ser Arg Val Ser Ser Ser  
 1 5 10 15

Lys Val Tyr Gly Ala Val Pro Pro Pro Gln Gln Leu Ile Ser Gly Ala  
 20 25 30

Pro Gly Ser Asp Gln Glu Asn Gln Asn Leu Ile Ser Thr Tyr Gly Leu  
 35 40 45

Met Thr Ser Ile Pro Ile Thr Ala Pro Pro Tyr Ala Val Ser Ser Phe  
 50 55 60

Pro Val Thr Pro Ala Thr Ser Leu Tyr Pro Gln Phe Pro Val Met Gln  
 65 70 75 80

Ser Leu Gly Ile Ser Asn Gly Gly Pro Ser Gln Pro Val Ala Gly Gly  
 85 90 95

Thr Ser Tyr Ser Gly Tyr Ala Gly Ile Tyr Pro Gln Ala Thr Pro Leu  
 100 105 110

Gln Gln Val Ala Gln Val Leu Lys Gln Ser Ile Ser Pro Val Ile Ser  
 115 120 125

Thr Val Pro Pro Thr Met Leu Thr Ala Thr Ser Leu Ser Ile Pro Ser  
 130 135 140

Asp Asn Ala Ser Asn Glu Met Glu Arg Arg Pro Pro Arg Lys Arg Lys  
 145 150 155 160

Phe Gln Glu Leu Pro Ala Asp Cys Lys Val Pro Glu Lys Asp Lys Gln  
 165 170 175

Gln Ser Glu Leu Ala Met Thr Gly Asp Val Thr Pro Ser Ala Asn Arg  
180 185 190

Val Arg Ser Pro Pro Ser Pro Arg Ser Val Met Pro Pro Pro Pro Pro  
195 200 205

Lys Thr Ile Ala Pro Pro Pro Ser Lys Thr Met Ser Pro Pro Ser Ser  
210 215 220

Lys Ser Met Leu Pro Pro Pro Pro Arg Ser Lys Thr Met Ser Pro Leu  
225 230 235 240

Ser Ser Lys Ser Met Leu Pro Pro Pro Pro Arg Phe Thr Leu Thr Thr  
245 250 255

Gln Arg Ser Arg Leu Gln Asp Asn His Ile Ser Val Lys Lys Pro Asn  
260 265 270

Pro Val Pro Asp Thr Leu Ile Lys Leu Met Glu Tyr Gly Asp Asp Glu  
275 280 285

Asp Asp Asp Asp Asp Pro Asp Glu Pro Leu Thr Thr Arg Ser  
290 295 300

<210> 1205

<211> 417

<212> DNA

<213> Arabidopsis thaliana

<400> 1205

atggaggtgg aggaagccaa gatcttgctc ggctttcctc ctaattctcg tcccgatcct	60
tctcaggtta aagctgctta caggaagaaa gtatgggaat cacatcctga cttatttcct	120
gatgatcaga agcttggtgc cgagtctaag ttcaaatacga tatctgaagc ttattcttgc	180
ctagagtctg gtgatgttaa aggtcaatgg tattacagag caggtgtgta ttcgagggtc	240
gtcaagactg gggttcctcg gccatattca tctgccaaaa gaggttaaccg ttggttgatc	300
gggtgcacctt tccttttgat tgtcttagga accatcggac ttggtggaat caaagctaac	360
agggcatata atctgcaaaa acagacgttc ccatctcaca atcctttcct tccttga	417

<210> 1206

<211> 138

<212> PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1206

Met Glu Val Glu Glu Ala Lys Ile Leu Leu Gly Phe Pro Pro Asn Ser  
 1 5 10 15  
 Arg Pro Asp Pro Ser Gln Val Lys Ala Ala Tyr Arg Lys Lys Val Trp  
 20 25 30  
 Glu Ser His Pro Asp Leu Phe Pro Asp Asp Gln Lys Leu Val Ala Glu  
 35 40 45  
 Ser Lys Phe Lys Ser Ile Ser Glu Ala Tyr Ser Cys Leu Glu Ser Gly  
 50 55 60  
 Asp Val Lys Gly Gln Trp Tyr Tyr Arg Ala Gly Val Tyr Ser Arg Val  
 65 70 75 80  
 Val Lys Thr Gly Val Pro Arg Pro Tyr Ser Ser Ala Lys Arg Gly Asn  
 85 90 95  
 Arg Trp Leu Ile Gly Ala Pro Phe Leu Leu Ile Val Leu Gly Thr Ile  
 100 105 110  
 Gly Leu Gly Gly Ile Lys Ala Asn Arg Ala Tyr Asn Leu Gln Lys Gln  
 115 120 125  
 Thr Phe Pro Ser His Asn Pro Phe Leu Pro  
 130 135

&lt;210&gt; 1207

&lt;211&gt; 999

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1207

atggcgaaag aaccagttcg tgtgctcggtt actggagctg caggacaaat cggatatgct 60  
 cttgtaccta tgattgcaag gggatatcatg cttgggtgctg accaacctgt tatcctccac 120  
 atgttgata ttcctccagc tgctgaagct ttgaacggtg ttaagatgga gttgatcgat 180  
 gctgctttcc ctcttcttaa aggtgttggt gctacaactg atgccgttga gggatgtact 240  
 ggagtcaatg ttgctgttat ggttggtggt ttcccaggga aagaaggat ggagaggaag 300

047-E2F-PCT.ST25.txt

```

gatgtgatgt ccaagaatgt ttccatctac aagtctcagg ctgctgcctt ggagaagcat 360
gccgctccta actgcaagggt tcttggttggt gcccaaccgga caaacaccaa cgcattgatc 420
ctcaaggaat ttgcaccatc aatccctgaa aagaacatct cttgttttgac aaggcttgac 480
cacaacaggg ctttgggaca gatctctgag aggttgagcg tgccagtgtc tgatgttaag 540
aacgtgatca tctggggaaa ccactcatcc tcacagtacc cagatgtcaa ccatgctaaa 600
gtgcagacct cgtctggaga gaagcctgtc cgtgagctcg tcaaggacga tgcattggtg 660
gacggagaat ttatctctac agttcaacaa cgtggagctg caatcatcaa ggcgaggaag 720
ttgtctagtg cgctctctgc tgctagctct gcttggtgacc acatccgtga ctgggtcctt 780
ggaactccag agggtagctt cgtttccatg ggagtatact ccgatggctc ttacagcgtt 840
ccatcaggac ttatctactc cttccctgta acttgctgca atggagactg gagtattgtc 900
caaggccttc cgattgatga agtatcaagg aagaagatgg atttgactgc agaggagctc 960
aaggaagaga aggacttggc gtactcatgc ctctcttaa 999

```

<210> 1208

<211> 332

<212> PRT

<213> Arabidopsis thaliana

<400> 1208

Met Ala Lys Glu Pro Val Arg Val Leu Val Thr Gly Ala Ala Gly Gln  
1 5 10 15

Ile Gly Tyr Ala Leu Val Pro Met Ile Ala Arg Gly Ile Met Leu Gly  
20 25 30

Ala Asp Gln Pro Val Ile Leu His Met Leu Asp Ile Pro Pro Ala Ala  
35 40 45

Glu Ala Leu Asn Gly Val Lys Met Glu Leu Ile Asp Ala Ala Phe Pro  
50 55 60

Leu Leu Lys Gly Val Val Ala Thr Thr Asp Ala Val Glu Gly Cys Thr  
65 70 75 80

Gly Val Asn Val Ala Val Met Val Gly Gly Phe Pro Arg Lys Glu Gly  
85 90 95

Met Glu Arg Lys Asp Val Met Ser Lys Asn Val Ser Ile Tyr Lys Ser

100

105

110

Gln Ala Ala Ala Leu Glu Lys His Ala Ala Pro Asn Cys Lys Val Leu  
 115 120 125  
 Val Val Ala Asn Pro Ala Asn Thr Asn Ala Leu Ile Leu Lys Glu Phe  
 130 135 140  
 Ala Pro Ser Ile Pro Glu Lys Asn Ile Ser Cys Leu Thr Arg Leu Asp  
 145 150 155 160  
 His Asn Arg Ala Leu Gly Gln Ile Ser Glu Arg Leu Ser Val Pro Val  
 165 170 175  
 Ser Asp Val Lys Asn Val Ile Ile Trp Gly Asn His Ser Ser Ser Gln  
 180 185 190  
 Tyr Pro Asp Val Asn His Ala Lys Val Gln Thr Ser Ser Gly Glu Lys  
 195 200 205  
 Pro Val Arg Glu Leu Val Lys Asp Asp Ala Trp Leu Asp Gly Glu Phe  
 210 215 220  
 Ile Ser Thr Val Gln Gln Arg Gly Ala Ala Ile Ile Lys Ala Arg Lys  
 225 230 235 240  
 Leu Ser Ser Ala Leu Ser Ala Ala Ser Ser Ala Cys Asp His Ile Arg  
 245 250 255  
 Asp Trp Val Leu Gly Thr Pro Glu Gly Thr Phe Val Ser Met Gly Val  
 260 265 270  
 Tyr Ser Asp Gly Ser Tyr Ser Val Pro Ser Gly Leu Ile Tyr Ser Phe  
 275 280 285  
 Pro Val Thr Cys Arg Asn Gly Asp Trp Ser Ile Val Gln Gly Leu Pro  
 290 295 300  
 Ile Asp Glu Val Ser Arg Lys Lys Met Asp Leu Thr Ala Glu Glu Leu  
 305 310 315 320  
 Lys Glu Glu Lys Asp Leu Ala Tyr Ser Cys Leu Ser  
 325 330

&lt;210&gt; 1209

&lt;211&gt; 1731

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1209

```

atggctgcat ctttctctgt cccctctatg ataatggaag aagaagggag attcgaagcg      60
gaggttgcgg aagtgcagac ttggtggagc tcagagaggt tcaagctaac aaggcgccct      120
tacactgccc gtgacgtggt ggctctacgt ggccatctca agcaaggcta tgcttcgaac      180
gagatggcta agaagctgtg gagaacgctc aaaagccatc aagccaacgg tacggcctct      240
cgcaccttcg gagcgttgga ccctgttcag gtgaccatga tggctaaaca tttggacacc      300
atctatgtct ctggttgga gtgctcgcc actcacacat ccactaatga gcctggtcct      360
gatcttgctg attatccgta cgacaccgtt cctaacaagg ttgaacacct cttcttcgct      420
cagcagtacc atgacagaaa gcagagggag gcaagaatga gcatgagcag agaagagagg      480
acaaaaactc cgttcgtgga ctacctaaag cccatcatcg ccgacggaga caccggcttt      540
ggcggcacca ccgccaccgt caaactctgc aagcttttcg ttgaaagagg cgccgctggg      600
gtccacatcg aggaccagtc ctccgtcacc aagaagtgtg gccacatggc cggaaaggct      660
ctcgtggcag tcagcgaaca catcaaccgc cttgtcgcg ctcggctcca gttcgacgtg      720
atgggtacag agaccgtcct tgttgctaga acagatgcgg tcgcagctac tctgatccag      780
tcgaacattg acgcgagggg ccaccagttc atcctcggtg ccactaacc gagccttaga      840
ggcaagagtt tgtcctcgct tctggctgag ggaatgactg taggcaagaa tgggtccggcg      900
ttgcaatcca ttgaagatca gtggcttggc tcggccggtc ttatgacttt ctcggaagct      960
gtcgtgcagg ccatcaagcg catgaacctc aacgagaacg agaagaatca gagactgagc     1020
gagtggttaa cccatgcaag gtatgagaac tgcctgtcaa atgagcaagg ccgagtgtta     1080
gcagcaaaac ttggtgtgac agatcttttc tgggactggg acttgccgag aaccagagaa     1140
ggattctacc ggttcgaagg ctcggtcgca gcggccgtgg tccgtggctg ggcctttgca     1200
cagatcgagc acatcatctg gatggaaacg gcaagccctg atctcaatga atgcacccaa     1260
ttcgccgaag gtatcaagtc caagacaccg gaggtcatgc tcgcctacaa tctctcgccg     1320
tccttcaact gggacgcttc cggtatgacg gatcagcaga tggttgagtt cattccgcgg     1380
attgctaggc tcggatattg ttggcagttc ataacgcttg cgggtttcca tgcggatgct     1440
cttgtggttg atacatttgc aaaggattac gctaggcgcg ggatgttggc ttatgtggag     1500
aggatacaaa gagaagagag gacccatggg gttgacactt tggctcacca gaaatgggtcc     1560
ggtgctaatt actatgatcg ttatcttaag accgtccaag gtggaatctc ctccactgca     1620
gccatgggaa aaggtgtcac tgaagaacag ttcaaggaga gttggacaag gccgggagct     1680

```

gatggaatgg gtgaagggac tagccttgtg gtcgccaagt caagaatgta a

1731

<210> 1210

<211> 576

<212> PRT

<213> Arabidopsis thaliana

<400> 1210

Met Ala Ala Ser Phe Ser Val Pro Ser Met Ile Met Glu Glu Glu Gly  
1 5 10 15

Arg Phe Glu Ala Glu Val Ala Glu Val Gln Thr Trp Trp Ser Ser Glu  
20 25 30

Arg Phe Lys Leu Thr Arg Arg Pro Tyr Thr Ala Arg Asp Val Val Ala  
35 40 45

Leu Arg Gly His Leu Lys Gln Gly Tyr Ala Ser Asn Glu Met Ala Lys  
50 55 60

Lys Leu Trp Arg Thr Leu Lys Ser His Gln Ala Asn Gly Thr Ala Ser  
65 70 75 80

Arg Thr Phe Gly Ala Leu Asp Pro Val Gln Val Thr Met Met Ala Lys  
85 90 95

His Leu Asp Thr Ile Tyr Val Ser Gly Trp Gln Cys Ser Ser Thr His  
100 105 110

Thr Ser Thr Asn Glu Pro Gly Pro Asp Leu Ala Asp Tyr Pro Tyr Asp  
115 120 125

Thr Val Pro Asn Lys Val Glu His Leu Phe Phe Ala Gln Gln Tyr His  
130 135 140

Asp Arg Lys Gln Arg Glu Ala Arg Met Ser Met Ser Arg Glu Glu Arg  
145 150 155 160

Thr Lys Thr Pro Phe Val Asp Tyr Leu Lys Pro Ile Ile Ala Asp Gly  
165 170 175

Asp Thr Gly Phe Gly Gly Thr Thr Ala Thr Val Lys Leu Cys Lys Leu  
180 185 190



Phe Val Glu Arg Gly Ala Ala Gly Val His Ile Glu Asp Gln Ser Ser  
 195 200 205  
 Val Thr Lys Lys Cys Gly His Met Ala Gly Lys Val Leu Val Ala Val  
 210 215 220  
 Ser Glu His Ile Asn Arg Leu Val Ala Ala Arg Leu Gln Phe Asp Val  
 225 230 235 240  
 Met Gly Thr Glu Thr Val Leu Val Ala Arg Thr Asp Ala Val Ala Ala  
 245 250 255  
 Thr Leu Ile Gln Ser Asn Ile Asp Ala Arg Asp His Gln Phe Ile Leu  
 260 265 270  
 Gly Ala Thr Asn Pro Ser Leu Arg Gly Lys Ser Leu Ser Ser Leu Leu  
 275 280 285  
 Ala Glu Gly Met Thr Val Gly Lys Asn Gly Pro Ala Leu Gln Ser Ile  
 290 295 300  
 Glu Asp Gln Trp Leu Gly Ser Ala Gly Leu Met Thr Phe Ser Glu Ala  
 305 310 315 320  
 Val Val Gln Ala Ile Lys Arg Met Asn Leu Asn Glu Asn Glu Lys Asn  
 325 330 335  
 Gln Arg Leu Ser Glu Trp Leu Thr His Ala Arg Tyr Glu Asn Cys Leu  
 340 345 350  
 Ser Asn Glu Gln Gly Arg Val Leu Ala Ala Lys Leu Gly Val Thr Asp  
 355 360 365  
 Leu Phe Trp Asp Trp Asp Leu Pro Arg Thr Arg Glu Gly Phe Tyr Arg  
 370 375 380  
 Phe Gln Gly Ser Val Ala Ala Ala Val Val Arg Gly Trp Ala Phe Ala  
 385 390 395 400  
 Gln Ile Ala Asp Ile Ile Trp Met Glu Thr Ala Ser Pro Asp Leu Asn  
 405 410 415  
 Glu Cys Thr Gln Phe Ala Glu Gly Ile Lys Ser Lys Thr Pro Glu Val  
 420 425 430  
 Met Leu Ala Tyr Asn Leu Ser Pro Ser Phe Asn Trp Asp Ala Ser Gly  
 435 440 445

047-E2F-PCT.ST25.txt

Met Thr Asp Gln Gln Met Val Glu Phe Ile Pro Arg Ile Ala Arg Leu  
450 455 460

Gly Tyr Cys Trp Gln Phe Ile Thr Leu Ala Gly Phe His Ala Asp Ala  
465 470 475 480

Leu Val Val Asp Thr Phe Ala Lys Asp Tyr Ala Arg Arg Gly Met Leu  
485 490 495

Ala Tyr Val Glu Arg Ile Gln Arg Glu Glu Arg Thr His Gly Val Asp  
500 505 510

Thr Leu Ala His Gln Lys Trp Ser Gly Ala Asn Tyr Tyr Asp Arg Tyr  
515 520 525

Leu Lys Thr Val Gln Gly Gly Ile Ser Ser Thr Ala Ala Met Gly Lys  
530 535 540

Gly Val Thr Glu Glu Gln Phe Lys Glu Ser Trp Thr Arg Pro Gly Ala  
545 550 555 560

Asp Gly Met Gly Glu Gly Thr Ser Leu Val Val Ala Lys Ser Arg Met  
565 570 575

<210> 1211

<211> 1140

<212> DNA

<213> Arabidopsis thaliana

<400> 1211

atgtgtggag gagctataat ctccgatttc atacctccgc cgaggtccct ccgcgtcact	60
aacgagttta tctggccgga tctgaaaaac aaagtgaaag cttcaaagaa gagatcgaat	120
aagcgatccg atttcttcga tcttgacgat gatttcgaag ctgatttcca agggtttaag	180
gatgactcgg cttttgactg cgaagacgat gatgatgtct tcgtcaatgt taagcctttc	240
gtcttcaccg caactactaa gcccgtagct tccgctttcg tctccactgg tatatatttg	300
gtaggttcag catatgccaa gaaaactgta gagtccgctg agcaagctga gaaatcttct	360
aagaggaaga ggaagaatca ataccgaggg attaggcagc gtccttgggg aaaatgggct	420
gcggagatcc gtgatccgag aaaaggctcc cgagaatggc ttggaacatt cgacactgct	480
gaggaagcag caagagctta tgatgctgca gcacgcagaa tccgtggcac gaaagctaag	540
gtgaattttc ccgaggagaa gaaccctagc gtcgtatccc agaaacgtcc tagtgctaag	600

047-E2F-PCT.ST25.txt

actaataatc ttcagaaatc agtggctaaa ccaaacaaaa gcgtaacttt ggttcagcag 660  
ccaacacatc tgagtcagca gtactgcaac aactcctttg acaactcttt tggatgatg 720  
agtttcatgg aagagaagcc tcagatgtac aacaatcagt ttgggttaac aaactcgttc 780  
gatgctggag gtaacaatgg ataccagtat ttcagttccg atcagggcag taactccttc 840  
gactgttctg agttcgggtg gagtgatcac ggccctaaaa caccgagat ctcttcaatg 900  
cttgtcaata acaacgaagc atcatttggt gaagaaacca atgcagccaa gaagctcaaa 960  
ccaaactctg atgagtcaga cgatctgatg gcataccttg acaacgcctt gtgggacacc 1020  
ccactagaag tggaagccat gcttggcgca gatgctggtg ctgtgactca ggaagaggaa 1080  
aaccagtgag agctatggag cttagatgag atcaatttca tgctggaagg agacttttga 1140

<210> 1212

<211> 379

<212> PRT

<213> Arabidopsis thaliana

<400> 1212

Met Cys Gly Gly Ala Ile Ile Ser Asp Phe Ile Pro Pro Pro Arg Ser  
1 5 10 15

Leu Arg Val Thr Asn Glu Phe Ile Trp Pro Asp Leu Lys Asn Lys Val  
20 25 30

Lys Ala Ser Lys Lys Arg Ser Asn Lys Arg Ser Asp Phe Phe Asp Leu  
35 40 45

Asp Asp Asp Phe Glu Ala Asp Phe Gln Gly Phe Lys Asp Asp Ser Ala  
50 55 60

Phe Asp Cys Glu Asp Asp Asp Val Phe Val Asn Val Lys Pro Phe  
65 70 75 80

Val Phe Thr Ala Thr Thr Lys Pro Val Ala Ser Ala Phe Val Ser Thr  
85 90 95

Gly Ile Tyr Leu Val Gly Ser Ala Tyr Ala Lys Lys Thr Val Glu Ser  
100 105 110

Ala Glu Gln Ala Glu Lys Ser Ser Lys Arg Lys Arg Lys Asn Gln Tyr  
115 120 125

047-E2F-PCT.ST25.txt

Arg Gly Ile Arg Gln Arg Pro Trp Gly Lys Trp Ala Ala Glu Ile Arg  
 130 135 140  
 Asp Pro Arg Lys Gly Ser Arg Glu Trp Leu Gly Thr Phe Asp Thr Ala  
 145 150 155 160  
 Glu Glu Ala Ala Arg Ala Tyr Asp Ala Ala Ala Arg Arg Ile Arg Gly  
 165 170 175  
 Thr Lys Ala Lys Val Asn Phe Pro Glu Glu Lys Asn Pro Ser Val Val  
 180 185 190  
 Ser Gln Lys Arg Pro Ser Ala Lys Thr Asn Asn Leu Gln Lys Ser Val  
 195 200 205  
 Ala Lys Pro Asn Lys Ser Val Thr Leu Val Gln Gln Pro Thr His Leu  
 210 215 220  
 Ser Gln Gln Tyr Cys Asn Asn Ser Phe Asp Asn Ser Phe Gly Asp Met  
 225 230 235 240  
 Ser Phe Met Glu Glu Lys Pro Gln Met Tyr Asn Asn Gln Phe Gly Leu  
 245 250 255  
 Thr Asn Ser Phe Asp Ala Gly Gly Asn Asn Gly Tyr Gln Tyr Phe Ser  
 260 265 270  
 Ser Asp Gln Gly Ser Asn Ser Phe Asp Cys Ser Glu Phe Gly Trp Ser  
 275 280 285  
 Asp His Gly Pro Lys Thr Pro Glu Ile Ser Ser Met Leu Val Asn Asn  
 290 295 300  
 Asn Glu Ala Ser Phe Val Glu Glu Thr Asn Ala Ala Lys Lys Leu Lys  
 305 310 315 320  
 Pro Asn Ser Asp Glu Ser Asp Asp Leu Met Ala Tyr Leu Asp Asn Ala  
 325 330 335  
 Leu Trp Asp Thr Pro Leu Glu Val Glu Ala Met Leu Gly Ala Asp Ala  
 340 345 350  
 Gly Ala Val Thr Gln Glu Glu Glu Asn Pro Val Glu Leu Trp Ser Leu  
 355 360 365  
 Asp Glu Ile Asn Phe Met Leu Glu Gly Asp Phe  
 370 375

&lt;210&gt; 1213

&lt;211&gt; 312

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1213

```

atgtcaggtc gtggaaaggg aggcaaaggt ttgggcaaag gtggagccaa acgtcatagg      60
aaggttctga gagacaacat ccaaggaatc actaaaccgg cgattcggag attggctcgt      120
agaggtggtg ttaaacgtat tagtggtttg atctacgagg agacacgtgg cgttctcaag      180
atcttttttg aaaatgttat ccgtgacgcc gttacttaca ctgagcacgc tcggaggaag      240
acggtgactg ctatggatgt tgtttatgct cttagagac aaggaagaac tctctatgga      300
ttcggtggtt ga                                                                312

```

&lt;210&gt; 1214

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1214

```

Met Ser Gly Arg Gly Lys Gly Gly Lys Gly Leu Gly Lys Gly Gly Ala
1      5      10
Lys Arg His Arg Lys Val Leu Arg Asp Asn Ile Gln Gly Ile Thr Lys
20     25     30
Pro Ala Ile Arg Arg Leu Ala Arg Arg Gly Gly Val Lys Arg Ile Ser
35     40     45
Gly Leu Ile Tyr Glu Glu Thr Arg Gly Val Leu Lys Ile Phe Leu Glu
50     55     60
Asn Val Ile Arg Asp Ala Val Thr Tyr Thr Glu His Ala Arg Arg Lys
65     70     75     80
Thr Val Thr Ala Met Asp Val Val Tyr Ala Leu Lys Arg Gln Gly Arg
85     90     95
Thr Leu Tyr Gly Phe Gly Gly

```

100

&lt;210&gt; 1215

&lt;211&gt; 900

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1215

```

atggagactc agtatccgaa actaatcgaa ccatccaaga cccgaattgg atggattggg      60
atcgggataa tgggatcagc gatggtttct catatcctcg ccgcaggcta ttcagtcacc      120
gtttatgctc gcgatcttcg taaaacaaag gatctgcaaa ccaaaggagg tcgtaccgcc      180
aatagcccca aagagttagg ggagatgagc gacgttggtg tcaatgatcg tggaactctt      240
aacgatgtta gatcgttgct tcttggggat gatggtgtac tctctgggtc taaacccggt      300
ggagtaacag tggacatgac tagtagcaag ccaggattgg cgcgtgagat atacgcggag      360
gcgaggcgga gggattgctg ggcggtggat gcgcctgtat cgggtggaga cgctggagca      420
cgtgagggga agctaacgat attcgccggc ggagattccg agattgtgga gtggttggct      480
ccggtgatga aaacgatggg aattgtgagg tttatgggag gagctgggag tggacagagc      540
tgtaaaattg ggaatcagat ttgtgttgga agcaacatga ttggattagc tgaagggatt      600
gtgtttgctg agaaggcggg tttagatccg gtgaaatggc ttgaggcggg taaggacggg      660
gcagctggat cggcggttat gcggcttttc ggggagatga tggcggtgag ggactataag      720
gcgacggggg ttgcggagta tatggtgaaa gatttgggaa tggcggcgga ggcggcaatg      780
gcgatgcctg gaactgcttt gaacaagcag ttgttcactg taatggtggc aaatggagat      840
gggaagttag gatttcaagg cgtcgtcgat gttattagga gacttaacgg cttatcctga      900

```

&lt;210&gt; 1216

&lt;211&gt; 299

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1216

```

Met Glu Thr Gln Tyr Pro Lys Leu Ile Glu Pro Ser Lys Thr Arg Ile
1           5           10           15

```

```

Gly Trp Ile Gly Ile Gly Ile Met Gly Ser Ala Met Val Ser His Ile
20           25           30

```

047-E2F-PCT.ST25.txt

Leu Ala Ala Gly Tyr Ser Val Thr Val Tyr Ala Arg Asp Leu Arg Lys  
 35 40 45  
 Thr Lys Asp Leu Gln Thr Lys Gly Gly Arg Thr Ala Asn Ser Pro Lys  
 50 55 60  
 Glu Leu Gly Glu Met Ser Asp Val Val Phe Thr Ile Val Gly Asn Ser  
 65 70 75 80  
 Asn Asp Val Arg Ser Leu Leu Leu Gly Asp Asp Gly Val Leu Ser Gly  
 85 90 95  
 Leu Lys Pro Gly Gly Val Thr Val Asp Met Thr Ser Ser Lys Pro Gly  
 100 105 110  
 Leu Ala Arg Glu Ile Tyr Ala Glu Ala Arg Arg Arg Asp Cys Trp Ala  
 115 120 125  
 Val Asp Ala Pro Val Ser Gly Gly Asp Ala Gly Ala Arg Glu Gly Lys  
 130 135 140  
 Leu Thr Ile Phe Ala Gly Gly Asp Ser Glu Ile Val Glu Trp Leu Ala  
 145 150 155 160  
 Pro Val Met Lys Thr Met Gly Ile Val Arg Phe Met Gly Gly Ala Gly  
 165 170 175  
 Ser Gly Gln Ser Cys Lys Ile Gly Asn Gln Ile Cys Val Gly Ser Asn  
 180 185 190  
 Met Ile Gly Leu Ala Glu Gly Ile Val Phe Ala Glu Lys Ala Gly Leu  
 195 200 205  
 Asp Pro Val Lys Trp Leu Glu Ala Val Lys Asp Gly Ala Ala Gly Ser  
 210 215 220  
 Ala Val Met Arg Leu Phe Gly Glu Met Met Ala Val Arg Asp Tyr Lys  
 225 230 235 240  
 Ala Thr Gly Phe Ala Glu Tyr Met Val Lys Asp Leu Gly Met Ala Ala  
 245 250 255  
 Glu Ala Ala Met Ala Met Pro Gly Thr Ala Leu Asn Lys Gln Leu Phe  
 260 265 270

Thr Val Met Val Ala Asn Gly Asp Gly Lys Leu Gly Phe Gln Gly Val  
 Page 1897

Val Asp Val Ile Arg Arg Leu Asn Gly Leu Ser  
290 295

<210> 1217  
<211> 3012  
<212> DNA  
<213> Arabidopsis thaliana

<400> 1217  
atgagattag tgaaggcagc ttctcttctg atttcttcaa ccaaacctcc gtctaggggtt 60  
ttttactctt cccatctccg ccgccctttt ttctctcact tccgtttttc ttcctcttcg 120  
tcgacgtctt cctccgtcgc agtcatgccg ggttccgaac catcggagac tcagtggcca 180  
gcaaagagag tccgggatac ttatgtcgat ttcttcagag gcaaaggcca caagttcttg 240  
ccatcaagcc ccgttggtcc tcataatgat cctactcttc tcttcgctaa cgctggaatg 300  
aaccagtata agccaatatt tttgggtacg gccgatccaa atactgagct tagcaagcta 360  
tctcgggcat gtaacacca aaagtgtatt cgtgctggtg gaaagcataa tgatttggtat 420  
gatgtcggca aagatacgta ccatcacacc ttctttgaaa tgcttggtaa ctggtccttt 480  
ggagattatt tcaagaagga agctatcgaa tgggcttggg agctcttaac caaggtctat 540  
gggctaccga ctgatcgaat ctacgctaca ttttttggcg gtgatgagaa agctggcctt 600  
caacctgata atgaggctag ggatatatgg ttgaagggtc ttccatctgg acgtgtgctg 660  
ccatttggtt gcaaagacaa tttctgggaa atgggcgaca cagggtccgtg tggaccttgt 720  
actgaaatac attatgatcg catttggtaac cgtgatgctg catccttagt taacaatgac 780  
gatccaacat gtttagaaat atggaatctt gtctttattc agttcaaccg agaaagtgat 840  
ggctcgctaa aacctctgcc tgctaagcat gttgataccg ggatgggctt cgagagggtg 900  
acttctgttc ttcaaaacaa aatgagcaac tatgatacag atgtgttcat gcctatcttt 960  
gatgacatcc aaaaggcaac gggagctagg ccatattctg gaaaagttgg tccggaagat 1020  
gttgacagag ttgacatggc atatagagtg gttgctgac atattagaac cctatcattt 1080  
gcaattgcgg atggctctcg tcctggtaat gagggccgtg agtatgttct gcggcgtatt 1140  
cttcgtcgag cggttcgcta tggaaaggag atcctaaaag ctgaagaagg atttttcaac 1200  
gggcttgtaa gttctgtcat tcgggtgatg ggcgatgtct ttacagagtt gaaggaacat 1260  
gagaaaaaga tcacagatat aattaaagaa gaggaagcaa gcttttgcaa gaccttggca 1320  
aagggaattg agaaatttcg gaaagctgga caggcggttc aggggaatac actgagtgga 1380



## 047-E2F-PCT.ST25.txt

gatgatgctt ttatcttatg ggatacatat ggtttcccgt tagatttaac tcagttgatg 1440  
gctgaagaaa gagggttact ggttgatgtt gatggtttca acaaagccat ggaagaggcg 1500  
agggaaagat cgagaagtgc ccagaataag caagctggtg gtgccattgt tatggatgct 1560  
gatgctacat caacattgca caaggctggt gtttcagcaa cagatgattc ttttaaatac 1620  
at ttgggttcc aggaccacga gagtgaacta aaggcaatct atactggctc tactttccta 1680  
gaaagttagc ctgctagtga taacgtggga ctagtattgg ggtctacaag cttctatgct 1740  
gagcaggggtg gtcagat tttt tgacactgga cttatagaag gctcgtttgg gacattcaat 1800  
gtatgcaatg tacaaatatt tgggggcttt gttcttcaca ttggttatct ctctaaagaa 1860  
actggagagg tatctgtggg tgataaagtg atttgcaagg ttgactatga gaggcgtaaa 1920  
ctcatcgctc ctaatcatac ttgcacacat atgttgaatt atgccctgaa ggaagtgtc 1980  
ggggatcata ttgatcagaa gggatcaatt gttcttcctg aaaaactgcg atttgat tttt 2040  
tctcatggca agccggttga tcctgaagat ttgagaagga tcgaatccat agtgaataaa 2100  
cagatcaagg atgaattaga tgtgttttcc aaggaagctg tgctttctga agccaagcgc 2160  
atcaaaggct taagagcagt gtttggagaa gtctaccccg atcccgctcag agtggtgtca 2220  
attgggagga aggttgagga tctcttggt gatcctgaaa acaatgaatg gtcattgctt 2280  
tcttccgagt tttgtggagg aaccacata acaaacacc gcgaagcaa agcatttgct 2340  
cttctatcgg aggagggaaat tgctaaagg attcgtaggg taactgctgt gactactgaa 2400  
tgtgcttttg atgcattgaa tgcggcgctc ttacttgaaa gagaagtaga ggatgcctcc 2460  
agagcggagg gaagtgcatt ggaaaagaaa gtttctgctt tgaaaagccg agtagatgca 2520  
gcaattatcc cagcagctaa aaaggcagat attaggacta agattgcttc gcttcagaat 2580  
gaagtaagaa aagctcagaa gaaaatagcg gaacaaaacc tgaaaaaatc tgtcaaatta 2640  
gcaacagagg cagctgagtc cgcagcatca gatgggaaga ctttctgcat aatccagctg 2700  
gatgtgggtc ttgatgcagc agctgtgcga gagggcgttt caaaagtc at ggaaaagaag 2760  
ggtatgtcga taatggtgtt cagcacagat gaaagcacia acaaggcggt tgtgtgtgca 2820  
ggagtgccag aaaaatcaga ccagtttaag ccgttagacg tctactgaatg gttgacaact 2880  
gcattgggtc ctctaaaagg aagggtgcggg aaaggggaaag gtggtcttgc atcagggcag 2940  
ggaacggatg cttctcaagt gcaggcggct ttggatatgg cttcatcatt tgcataatg 3000  
aagctcaact ga 3012

&lt;210&gt; 1218

&lt;211&gt; 1003

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1218

```

Met Arg Leu Val Lys Ala Ala Ser Leu Leu Ile Ser Ser Thr Lys Pro
 1      5      10      15
Pro Ser Arg Val Phe Tyr Ser Ser His Leu Arg Arg Pro Phe Phe Ser
 20      25      30
His Phe Arg Phe Ser Ser Ser Ser Ser Thr Ser Ser Ser Val Ala Val
 35      40      45
Met Pro Gly Ser Glu Pro Ser Glu Thr Gln Trp Pro Ala Lys Arg Val
 50      55      60
Arg Asp Thr Tyr Val Asp Phe Phe Arg Gly Lys Gly His Lys Phe Trp
 65      70      75      80
Pro Ser Ser Pro Val Val Pro His Asn Asp Pro Thr Leu Leu Phe Ala
 85      90      95
Asn Ala Gly Met Asn Gln Tyr Lys Pro Ile Phe Leu Gly Thr Ala Asp
100      105      110
Pro Asn Thr Glu Leu Ser Lys Leu Ser Arg Ala Cys Asn Thr Gln Lys
115      120      125
Cys Ile Arg Ala Gly Gly Lys His Asn Asp Leu Asp Asp Val Gly Lys
130      135      140
Asp Thr Tyr His His Thr Phe Phe Glu Met Leu Gly Asn Trp Ser Phe
145      150      155      160
Gly Asp Tyr Phe Lys Lys Glu Ala Ile Glu Trp Ala Trp Glu Leu Leu
165      170      175
Thr Lys Val Tyr Gly Leu Pro Thr Asp Arg Ile Tyr Ala Thr Tyr Phe
180      185      190
Gly Gly Asp Glu Lys Ala Gly Leu Gln Pro Asp Asn Glu Ala Arg Asp
195      200      205
Ile Trp Leu Lys Val Leu Pro Ser Gly Arg Val Leu Pro Phe Gly Cys
210      215      220

```

Lys Asp Asn Phe Trp Glu Met Gly Asp Thr Gly Pro Cys Gly Pro Cys  
 225 230 235 240  
 Thr Glu Ile His Tyr Asp Arg Ile Gly Asn Arg Asp Ala Ala Ser Leu  
 245 250 255  
 Val Asn Asn Asp Asp Pro Thr Cys Leu Glu Ile Trp Asn Leu Val Phe  
 260 265 270  
 Ile Gln Phe Asn Arg Glu Ser Asp Gly Ser Leu Lys Pro Leu Pro Ala  
 275 280 285  
 Lys His Val Asp Thr Gly Met Gly Phe Glu Arg Leu Thr Ser Val Leu  
 290 295 300  
 Gln Asn Lys Met Ser Asn Tyr Asp Thr Asp Val Phe Met Pro Ile Phe  
 305 310 315 320  
 Asp Asp Ile Gln Lys Ala Thr Gly Ala Arg Pro Tyr Ser Gly Lys Val  
 325 330 335  
 Gly Pro Glu Asp Val Asp Arg Val Asp Met Ala Tyr Arg Val Val Ala  
 340 345 350  
 Asp His Ile Arg Thr Leu Ser Phe Ala Ile Ala Asp Gly Ser Arg Pro  
 355 360 365  
 Gly Asn Glu Gly Arg Glu Tyr Val Leu Arg Arg Ile Leu Arg Arg Ala  
 370 375 380  
 Val Arg Tyr Gly Lys Glu Ile Leu Lys Ala Glu Glu Gly Phe Phe Asn  
 385 390 395 400  
 Gly Leu Val Ser Ser Val Ile Arg Val Met Gly Asp Val Phe Thr Glu  
 405 410 415  
 Leu Lys Glu His Glu Lys Lys Ile Thr Asp Ile Ile Lys Glu Glu Glu  
 420 425 430  
 Ala Ser Phe Cys Lys Thr Leu Ala Lys Gly Ile Glu Lys Phe Arg Lys  
 435 440 445  
 Ala Gly Gln Ala Val Gln Gly Asn Thr Leu Ser Gly Asp Asp Ala Phe  
 450 455 460  
 Ile Leu Trp Asp Thr Tyr Gly Phe Pro Leu Asp Leu Thr Gln Leu Met  
 465 470 475 480

047-E2F-PCT.ST25.txt

Ala Glu Glu Arg Gly Leu Leu Val Asp Val Asp Gly Phe Asn Lys Ala  
485 490 495

Met Glu Glu Ala Arg Glu Arg Ser Arg Ser Ala Gln Asn Lys Gln Ala  
500 505 510

Gly Gly Ala Ile Val Met Asp Ala Asp Ala Thr Ser Thr Leu His Lys  
515 520 525

Ala Gly Val Ser Ala Thr Asp Asp Ser Phe Lys Tyr Ile Trp Phe Gln  
530 535 540

Asp His Glu Ser Glu Leu Lys Ala Ile Tyr Thr Gly Ser Thr Phe Leu  
545 550 555 560

Glu Ser Ser Ala Ala Ser Asp Asn Val Gly Leu Val Leu Gly Ser Thr  
565 570 575

Ser Phe Tyr Ala Glu Gln Gly Gly Gln Ile Phe Asp Thr Gly Leu Ile  
580 585 590

Glu Gly Ser Phe Gly Thr Phe Asn Val Cys Asn Val Gln Ile Phe Gly  
595 600 605

Gly Phe Val Leu His Ile Gly Tyr Leu Ser Lys Glu Thr Gly Glu Val  
610 615 620

Ser Val Gly Asp Lys Val Ile Cys Lys Val Asp Tyr Glu Arg Arg Lys  
625 630 635 640

Leu Ile Ala Pro Asn His Thr Cys Thr His Met Leu Asn Tyr Ala Leu  
645 650 655

Lys Glu Val Leu Gly Asp His Ile Asp Gln Lys Gly Ser Ile Val Leu  
660 665 670

Pro Glu Lys Leu Arg Phe Asp Phe Ser His Gly Lys Pro Val Asp Pro  
675 680 685

Glu Asp Leu Arg Arg Ile Glu Ser Ile Val Asn Lys Gln Ile Lys Asp  
690 695 700

Glu Leu Asp Val Phe Ser Lys Glu Ala Val Leu Ser Glu Ala Lys Arg  
705 710 715 720

Ile Lys Gly Leu Arg Ala Val Phe Gly Glu Val Tyr Pro Asp Pro Val  
725 730 735

047-E2F-PCT.ST25.txt

Arg Val Val Ser Ile Gly Arg Lys Val Glu Asp Leu Leu Ala Asp Pro  
740 745 750

Glu Asn Asn Glu Trp Ser Leu Leu Ser Ser Glu Phe Cys Gly Gly Thr  
755 760 765

His Ile Thr Asn Thr Arg Glu Ala Lys Ala Phe Ala Leu Leu Ser Glu  
770 775 780

Glu Gly Ile Ala Lys Gly Ile Arg Arg Val Thr Ala Val Thr Thr Glu  
785 790 795 800

Cys Ala Phe Asp Ala Leu Asn Ala Ala Ser Leu Leu Glu Arg Glu Val  
805 810 815

Glu Asp Ala Ser Arg Ala Glu Gly Ser Ala Leu Glu Lys Lys Val Ser  
820 825 830

Ala Leu Lys Ser Arg Val Asp Ala Ala Ile Ile Pro Ala Ala Lys Lys  
835 840 845

Ala Asp Ile Arg Thr Lys Ile Ala Ser Leu Gln Asn Glu Val Arg Lys  
850 855 860

Ala Gln Lys Lys Ile Ala Glu Gln Asn Leu Lys Lys Ser Val Lys Leu  
865 870 875 880

Ala Thr Glu Ala Ala Glu Ser Ala Ala Ser Asp Gly Lys Thr Phe Cys  
885 890 895

Ile Ile Gln Leu Asp Val Gly Leu Asp Ala Ala Ala Val Arg Glu Ala  
900 905 910

Val Ser Lys Val Met Glu Lys Lys Gly Met Ser Ile Met Val Phe Ser  
915 920 925

Thr Asp Glu Ser Thr Asn Lys Ala Val Val Cys Ala Gly Val Pro Glu  
930 935 940

Lys Ser Asp Gln Phe Lys Pro Leu Asp Val Thr Glu Trp Leu Thr Thr  
945 950 955 960

Ala Leu Gly Pro Leu Lys Gly Arg Cys Gly Lys Gly Lys Gly Gly Leu  
965 970 975

Ala Ser Gly Gln Gly Thr Asp Ala Ser Gln Val Gln Ala Ala Leu Asp

980

047-E2F-PCT.ST25.txt  
985 990Met Ala Ser Ser Phe Ala Ser Met Lys Leu Asn  
995 1000

&lt;210&gt; 1219

&lt;211&gt; 2106

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1219

atggcttctg aagatactct ctcctcgaat cctctattgc agaattttga cttccctccg	60
tttgactccg ttgatgctca ccatgtcaga cctgggattc gtgctctggt gcagcagctc	120
gaagctgaat tggagcagct agaaaaagct gtagagcctt catggccaaa actagtggag	180
ccattagaga agattattga tcggttatct gttgtttggg gaatgatcaa tcattttaag	240
gctgtcaagg acacacctga gcttcgtgct gccattgaag aagttcagcc ggagaagggtg	300
aagttccagc tcaggttggg acagagcaaa cccattttaca atgcatttaa ggctattcga	360
gaatctccag actggaattc attgagcgaa gctcgtcaac gattagttga agcccaaata	420
aaggaggcgg ttctgagtggt tattgctctt gaagatgata agagggaaga atttaacaaa	480
attgaacagg aacttgaaaa actttctcat aagttttctg agaatgtttt ggacgctaca	540
aagaagtttg aaaagttgat aacagacaag aaagagattg aggggttgcc accatctgca	600
cttggaattgt tcgcacaagc agctgtttcc aaggggccatg aaactgcaac tgctgacact	660
ggaccatggc tcattacact cgatgctcct agttatcttc ccgttatgca acatgccaaa	720
aaccgagctc tgcgcgagga agtctaccgt gcttacttat cccgtgcctc ttcgggtgat	780
ttagataata cagcaattat cgaccaaadc ttgaagcttc gactggaaaa ggctaagctt	840
cttggttaca gaaattatgc tgaggtaagc atggccacga aaatggctac tgtggagaaa	900
gcagatgagc tactagaaaa gcttcgcagt gcttcatggg atccggctgt tcaagacata	960
gaagacctta agagttttgc gaagaaccaa ggtgctgcag aggctgacag tttgactcac	1020
tgggacatca ctttctggag tgagaggctt cgtgaatcca aatacgatat taatgaggaa	1080
gaactgcgac cttactttctc attgccaaag gttatggatg cgttattcgg tctagctaag	1140
acactatttg gaattgatgt tgtgccagca gacgggtgtg cgccgggtctg gaacagcgat	1200
gttaggttct actgtgtcaa agattcttct ggaaatccaa ctgcttattt ctactttgat	1260
ccctactctc gcccttcaga aaagagagac ggcgcttgga tggatgaagt tttttctcgt	1320
agccgagtca tggcccagaa gggttcctcc gttagactcc ctgttgctca aatgggtctgc	1380

047-E2F-PCT.ST25.txt

aaccaaactc cacctgttgg tgacaagcca agccttatga cattccgtga ggtagagact 1440  
 gtgttccatg aatttggcca tgctcttcag catatgctta ccaaagagga tgaggggcta 1500  
 gtggctggta tccggaatat cgagtgggat gcagttgaat taccgtcaca gtttatggag 1560  
 aactggtgct accacagggg taccttaatg agcattgcta agcattatca aacaggagaa 1620  
 actcttcccg agaatgtata caagaagcta ctggctgcaa gaacattccg tgcaggggtcc 1680  
 cttagtcttc gccagttgaa gtttgctaca gttgatctgg agctgcacac aaaatacatg 1740  
 ccaggtgggg cagagaccat ctacgaagtt gatcaaaggg tgtccataaa aacacaagtg 1800  
 atccctccac ttcctgaaga tagattcctc tgtagcttca gtcatatatt tgcaggtggg 1860  
 tatgcagctg gatactacag ttacaagtg gcgagggttt tgtctgcaga tgcgttttca 1920  
 gcttttgaag atgctgggtt ggatgacatt aaggctgtca aagaaacagg acagagattc 1980  
 agaaacacta tacttgctct gggaggagga aaagctcctc taaaagtgtt tgtggagttc 2040  
 agaggacgag aaccttcccc agagcctctg ctacagacaca atggactctt ggctgcttct 2100  
 gcttga 2106

<210> 1220

<211> 701

<212> PRT

<213> Arabidopsis thaliana

<400> 1220

Met Ala Ser Glu Asp Thr Leu Ser Ser Asn Pro Leu Leu Gln Asn Phe  
 1 5 10 15

Asp Phe Pro Pro Phe Asp Ser Val Asp Ala His His Val Arg Pro Gly  
 20 25 30

Ile Arg Ala Leu Leu Gln Gln Leu Glu Ala Glu Leu Glu Gln Leu Glu  
 35 40 45

Lys Ala Val Glu Pro Ser Trp Pro Lys Leu Val Glu Pro Leu Glu Lys  
 50 55 60

Ile Ile Asp Arg Leu Ser Val Val Trp Gly Met Ile Asn His Leu Lys  
 65 70 75 80

Ala Val Lys Asp Thr Pro Glu Leu Arg Ala Ala Ile Glu Glu Val Gln  
 85 90 95

047-E2F-PCT.ST25.txt

Pro Glu Lys Val Lys Phe Gln Leu Arg Leu Gly Gln Ser Lys Pro Ile  
100 105 110

Tyr Asn Ala Phe Lys Ala Ile Arg Glu Ser Pro Asp Trp Asn Ser Leu  
115 120 125

Ser Glu Ala Arg Gln Arg Leu Val Glu Ala Gln Ile Lys Glu Ala Val  
130 135 140

Leu Ser Gly Ile Ala Leu Glu Asp Asp Lys Arg Glu Glu Phe Asn Lys  
145 150 155 160

Ile Glu Gln Glu Leu Glu Lys Leu Ser His Lys Phe Ser Glu Asn Val  
165 170 175

Leu Asp Ala Thr Lys Lys Phe Glu Lys Leu Ile Thr Asp Lys Lys Glu  
180 185 190

Ile Glu Gly Leu Pro Pro Ser Ala Leu Gly Leu Phe Ala Gln Ala Ala  
195 200 205

Val Ser Lys Gly His Glu Thr Ala Thr Ala Asp Thr Gly Pro Trp Leu  
210 215 220

Ile Thr Leu Asp Ala Pro Ser Tyr Leu Pro Val Met Gln His Ala Lys  
225 230 235 240

Asn Arg Ala Leu Arg Glu Glu Val Tyr Arg Ala Tyr Leu Ser Arg Ala  
245 250 255

Ser Ser Gly Asp Leu Asp Asn Thr Ala Ile Ile Asp Gln Ile Leu Lys  
260 265 270

Leu Arg Leu Glu Lys Ala Lys Leu Leu Gly Tyr Arg Asn Tyr Ala Glu  
275 280 285

Val Ser Met Ala Thr Lys Met Ala Thr Val Glu Lys Ala Asp Glu Leu  
290 295 300

Leu Glu Lys Leu Arg Ser Ala Ser Trp Asp Pro Ala Val Gln Asp Ile  
305 310 315 320

Glu Asp Leu Lys Ser Phe Ala Lys Asn Gln Gly Ala Ala Glu Ala Asp  
325 330 335

Ser Leu Thr His Trp Asp Ile Thr Phe Trp Ser Glu Arg Leu Arg Glu  
340 345 350



047-E2F-PCT.ST25.txt

Ser Lys Tyr Asp Ile Asn Glu Glu Glu Leu Arg Pro Tyr Phe Ser Leu  
355 360 365

Pro Lys Val Met Asp Ala Leu Phe Gly Leu Ala Lys Thr Leu Phe Gly  
370 375 380

Ile Asp Val Val Pro Ala Asp Gly Val Ala Pro Val Trp Asn Ser Asp  
385 390 395 400

Val Arg Phe Tyr Cys Val Lys Asp Ser Ser Gly Asn Pro Thr Ala Tyr  
405 410 415

Phe Tyr Phe Asp Pro Tyr Ser Arg Pro Ser Glu Lys Arg Asp Gly Ala  
420 425 430

Trp Met Asp Glu Val Phe Ser Arg Ser Arg Val Met Ala Gln Lys Gly  
435 440 445

Ser Ser Val Arg Leu Pro Val Ala Gln Met Val Cys Asn Gln Thr Pro  
450 455 460

Pro Val Gly Asp Lys Pro Ser Leu Met Thr Phe Arg Glu Val Glu Thr  
465 470 475 480

Val Phe His Glu Phe Gly His Ala Leu Gln His Met Leu Thr Lys Glu  
485 490 495

Asp Glu Gly Leu Val Ala Gly Ile Arg Asn Ile Glu Trp Asp Ala Val  
500 505 510

Glu Leu Pro Ser Gln Phe Met Glu Asn Trp Cys Tyr His Arg Asp Thr  
515 520 525

Leu Met Ser Ile Ala Lys His Tyr Gln Thr Gly Glu Thr Leu Pro Glu  
530 535 540

Asn Val Tyr Lys Lys Leu Leu Ala Ala Arg Thr Phe Arg Ala Gly Ser  
545 550 555 560

Leu Ser Leu Arg Gln Leu Lys Phe Ala Thr Val Asp Leu Glu Leu His  
565 570 575

Thr Lys Tyr Met Pro Gly Gly Ala Glu Thr Ile Tyr Glu Val Asp Gln  
580 585 590

Arg Val Ser Ile Lys Thr Gln Val Ile Pro Pro Leu Pro Glu Asp Arg

595

600

605

Phe Leu Cys Ser Phe Ser His Ile Phe Ala Gly Gly Tyr Ala Ala Gly  
 610 615 620  
 Tyr Tyr Ser Tyr Lys Trp Ala Glu Val Leu Ser Ala Asp Ala Phe Ser  
 625 630 635 640  
 Ala Phe Glu Asp Ala Gly Leu Asp Asp Ile Lys Ala Val Lys Glu Thr  
 645 650 655  
 Gly Gln Arg Phe Arg Asn Thr Ile Leu Ala Leu Gly Gly Gly Lys Ala  
 660 665 670  
 Pro Leu Lys Val Phe Val Glu Phe Arg Gly Arg Glu Pro Ser Pro Glu  
 675 680 685  
 Pro Leu Leu Arg His Asn Gly Leu Leu Ala Ala Ser Ala  
 690 695 700

&lt;210&gt; 1221

&lt;211&gt; 2046

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1221

atgaggaagc ccaagttgtc aaaactcgag aggttagaga aattcgacat tttcgtttct 60  
 ctaagcaagc agagatcggt tcagatacta atggcgggtt ggttactcta catgcttctt 120  
 atcacattcg aaatcccttt cgtcttcaaa accgggctta gttctttatc tcaggatccg 180  
 ttaacccgac ccgagaagca caatagtcag agagagttac aagagagacg agctccgact 240  
 cgacctttaa agagtctgct ttaccaggaa tcacaatcgg aatcaccggc tcagggttta 300  
 agaagaagga ctcggatcct ttctagtttg agattcgacc cggaaacggt taacccgagt 360  
 agcaaagatg ggtctgtgga gcttcataaa tctgctaagg tagcttgga agttgggtcga 420  
 aagatatggg aagagcttga gtctgggaaa acgttgaaag ctttgagaa ggagaagaag 480  
 aagaagattg aggaacatgg gacaaactcg tgttctctct ctgtttcctt aaccgggtct 540  
 gatcttttga aacgtgggaa tatcatggag cttccatgtg gtttaactct tgggtcacat 600  
 attacagtgg ttgggaagcc acgagctgct cattcggaaggaggacctaa gatatcgatg 660  
 ttaaaggaag gagatgaagc tgtgaagggt tcacagttta agttggagct tcagggtttg 720  
 aaagcagtgg aaggagaaga gccacctcgg atactccact tgaatccaag gcttaagggt 780

047-E2F-PCT.ST25.txt

gattggagtg gtaagcctgt gattgagcag aacacttgct atagaatgca atggggctca 840  
gcacaaagat gtgaaggatg gagatctagg gatgatgaag agactggtga tggtcagggtt 900  
aagtgcgaga aatgggctcg ggatgatagc attacatcta aagaagaaga gtctagcaag 960  
gcggtttcat ggtggcttag tcgattaata ggtcggagca agaaagtaac tgttgaatgg 1020  
ccattttccat tcacagttga caagcttttc gtgcttactc ttagtgctgg attggaaggc 1080  
taccatgtta gtgtcgatgg gaagcatgtc acttcctttc cataccgaac tggattttacg 1140  
cttgaggatg ctactggtct aaccattaac ggggacatag atgttcactc tgttttcgct 1200  
ggctctctcc caacctcgca tcctagtttt tctcctcaga ggcattctga gctctcgagc 1260  
aattggcaag ccccatcact tcctgatgag caagttgata tgttcattgg tatcctttct 1320  
gctggttaacc attttgctga gaggatggct gtgaggaggt cgtggatgca acataaactc 1380  
gttaaattctt ccaaagtagt ggctcggttc tttgttgac tgcactcaag gaaagaagta 1440  
aatgtggagc taaagaagga agctgaattc tttggggaca tagttatagt cccttacatg 1500  
gacagttatg accttgctgt cctcaaaacc gttgcaattt gcgagtacgg ggctcatcaa 1560  
cttgagctta aattcatcat gaagtgtgat gacgatacat ttgtacaagt ggatgcgggtt 1620  
cttagtgaag caaagaaaac acccacagat agaagtctat acattggcaa catcaattat 1680  
tatcaciaac cacttcgcca gggtaaattg tctgttacat atgaggaatg gccagaggaa 1740  
gactatccac cttatgctaa tggccccgga tacatattat caaacgatat atctcgcttt 1800  
atcgtgaaag agtttgagaa acacaaatta aggatgttca aaatggaaga tgtaagcgtg 1860  
ggaatgtggg tagaacaatt caacaatggt acaaaaccgg tggactacat tcacagcctc 1920  
aggttttgtc agtttggttg catagagaat tacttgacgg cgcattatca gtcgccgaga 1980  
cagatgattt gcttgtggga taagctggtg ttgacaggca aacctcagtg ctgcaacatg 2040  
agatga 2046

<210> 1222

<211> 681

<212> PRT

<213> Arabidopsis thaliana

<400> 1222

Met Arg Lys Pro Lys Leu Ser Lys Leu Glu Arg Leu Glu Lys Phe Asp  
1 5 10 15

Ile Phe Val Ser Leu Ser Lys Gln Arg Ser Val Gln Ile Leu Met Ala  
Page 1909

Val Gly Leu Leu Tyr Met Leu Leu Ile Thr Phe Glu Ile Pro Phe Val  
 35 40 45  
 Phe Lys Thr Gly Leu Ser Ser Leu Ser Gln Asp Pro Leu Thr Arg Pro  
 50 55 60  
 Glu Lys His Asn Ser Gln Arg Glu Leu Gln Glu Arg Arg Ala Pro Thr  
 65 70 75 80  
 Arg Pro Leu Lys Ser Leu Leu Tyr Gln Glu Ser Gln Ser Glu Ser Pro  
 85 90 95  
 Ala Gln Gly Leu Arg Arg Arg Thr Arg Ile Leu Ser Ser Leu Arg Phe  
 100 105 110  
 Asp Pro Glu Thr Phe Asn Pro Ser Ser Lys Asp Gly Ser Val Glu Leu  
 115 120 125  
 His Lys Ser Ala Lys Val Ala Trp Glu Val Gly Arg Lys Ile Trp Glu  
 130 135 140  
 Glu Leu Glu Ser Gly Lys Thr Leu Lys Ala Leu Glu Lys Glu Lys Lys  
 145 150 155 160  
 Lys Lys Ile Glu Glu His Gly Thr Asn Ser Cys Ser Leu Ser Val Ser  
 165 170 175  
 Leu Thr Gly Ser Asp Leu Leu Lys Arg Gly Asn Ile Met Glu Leu Pro  
 180 185 190  
 Cys Gly Leu Thr Leu Gly Ser His Ile Thr Val Val Gly Lys Pro Arg  
 195 200 205  
 Ala Ala His Ser Glu Lys Asp Pro Lys Ile Ser Met Leu Lys Glu Gly  
 210 215 220  
 Asp Glu Ala Val Lys Val Ser Gln Phe Lys Leu Glu Leu Gln Gly Leu  
 225 230 235 240  
 Lys Ala Val Glu Gly Glu Glu Pro Pro Arg Ile Leu His Leu Asn Pro  
 245 250 255  
 Arg Leu Lys Gly Asp Trp Ser Gly Lys Pro Val Ile Glu Gln Asn Thr  
 260 265 270

Cys Tyr Arg Met Gln Trp Gly Ser Ala Gln Arg Cys Glu Gly Trp Arg  
 275 280 285  
 Ser Arg Asp Asp Glu Glu Thr Val Asp Gly Gln Val Lys Cys Glu Lys  
 290 295 300  
 Trp Ala Arg Asp Asp Ser Ile Thr Ser Lys Glu Glu Glu Ser Ser Lys  
 305 310 315 320  
 Ala Ala Ser Trp Trp Leu Ser Arg Leu Ile Gly Arg Ser Lys Lys Val  
 325 330 335  
 Thr Val Glu Trp Pro Phe Pro Phe Thr Val Asp Lys Leu Phe Val Leu  
 340 345 350  
 Thr Leu Ser Ala Gly Leu Glu Gly Tyr His Val Ser Val Asp Gly Lys  
 355 360 365  
 His Val Thr Ser Phe Pro Tyr Arg Thr Gly Phe Thr Leu Glu Asp Ala  
 370 375 380  
 Thr Gly Leu Thr Ile Asn Gly Asp Ile Asp Val His Ser Val Phe Ala  
 385 390 395 400  
 Gly Ser Leu Pro Thr Ser His Pro Ser Phe Ser Pro Gln Arg His Leu  
 405 410 415  
 Glu Leu Ser Ser Asn Trp Gln Ala Pro Ser Leu Pro Asp Glu Gln Val  
 420 425 430  
 Asp Met Phe Ile Gly Ile Leu Ser Ala Gly Asn His Phe Ala Glu Arg  
 435 440 445  
 Met Ala Val Arg Arg Ser Trp Met Gln His Lys Leu Val Lys Ser Ser  
 450 455 460  
 Lys Val Val Ala Arg Phe Phe Val Ala Leu His Ser Arg Lys Glu Val  
 465 470 475 480  
 Asn Val Glu Leu Lys Lys Glu Ala Glu Phe Phe Gly Asp Ile Val Ile  
 485 490 495  
 Val Pro Tyr Met Asp Ser Tyr Asp Leu Val Val Leu Lys Thr Val Ala  
 500 505 510  
 Ile Cys Glu Tyr Gly Ala His Gln Leu Ala Ala Lys Phe Ile Met Lys  
 515 520 525

047-E2F-PCT.ST25.txt

Cys Asp Asp Asp Thr Phe Val Gln Val Asp Ala Val Leu Ser Glu Ala  
530 535 540

Lys Lys Thr Pro Thr Asp Arg Ser Leu Tyr Ile Gly Asn Ile Asn Tyr  
545 550 555 560

Tyr His Lys Pro Leu Arg Gln Gly Lys Trp Ser Val Thr Tyr Glu Glu  
565 570 575

Trp Pro Glu Glu Asp Tyr Pro Pro Tyr Ala Asn Gly Pro Gly Tyr Ile  
580 585 590

Leu Ser Asn Asp Ile Ser Arg Phe Ile Val Lys Glu Phe Glu Lys His  
595 600 605

Lys Leu Arg Met Phe Lys Met Glu Asp Val Ser Val Gly Met Trp Val  
610 615 620

Glu Gln Phe Asn Asn Gly Thr Lys Pro Val Asp Tyr Ile His Ser Leu  
625 630 635 640

Arg Phe Cys Gln Phe Gly Cys Ile Glu Asn Tyr Leu Thr Ala His Tyr  
645 650 655

Gln Ser Pro Arg Gln Met Ile Cys Leu Trp Asp Lys Leu Val Leu Thr  
660 665 670

Gly Lys Pro Gln Cys Cys Asn Met Arg  
675 680

<210> 1223

<211> 1587

<212> DNA

<213> Arabidopsis thaliana

<400> 1223

atgtcagctc cgaaatcggg tggatgatcca ctaccacatc cgccgaaaga acagcttcca	60
gatatctctt actgcattac aagtcctcct ccatggcctg aggctgttct gcttggggtt	120
caacactacc ttgtgatgct tggaacaaca gttctgattc catcggctct tgttccacaa	180
atgggaggta gaaatgaaga gaaggcaaag ctgatccaga caatattgtt tgtagctgga	240
ttgaacacac tgctccaaac tgtgttttga actagattac ctgctgttat tggagcatct	300
tatacatttg tcccggttac tatctcaatc atgctttctg ggagattcaa tgacgttgca	360

047-E2F-PCT.ST25.txt

gatccagttg agcgatttaa gaggataatt cgggcaaccc aaggtgctct tattgttgct 420  
tcaactcttc aaattatcct tggcttcagt ggcctttggc gtaatgttgt aaggttctta 480  
agtcactat ctgctgctcc tttggttgga ttagttggtt atggcctgta cgagttaggt 540  
tttcccgggtg ttgctaagtg tattgagatt ggactgcctg ggcttattat tctcatacta 600  
atatcacagt acatgccccca tgttataaaa ggaggaaaac atgtgtttgc tcgctttgct 660  
gtcatatttt ctgtggcgat agtatggctt tatgctttct ttcttacact tgggtggtgcc 720  
tataatggtg ttgggacaga tactcaaaga agctgtcgga ctgatcgcg tggtggtgata 780  
agtgtgtctc catggataag agttccgtgg cctttccaat ggggagcacc attgtttgat 840  
gctggtgaag catttgccat gatgatggct tcttttgttg ctcttggtga gtccacaggt 900  
gcttttattg ccgtctcaag atatgctagt gccacaatgc cgccaccttc tgttatcagc 960  
cgcgggggttg gttggcaggg agttgcaatt ttaatctcag gggtgttcgg aactggtata 1020  
gggtcttcag tttctgtcga gaatgcgggt ctgctggcac taacaaaaat tggtagcagg 1080  
agagttgttc aaatatctgc aggctttatg atattcttct caattcttgg gaagttcggg 1140  
gcagtatttg catccatacc ttctcctatc atagctgcct tgtactgtct cttctttgcy 1200  
tatgtaggtg ctggaggact gagtttgctg caattctgca acctgaatag cttcaggaca 1260  
ttattcatac tgggcttctc aatcttccta ggcctatcaa ttccacaata tttcaacgag 1320  
cacacagcca tcaaaggcta tgggtccagtt cataccgggg caagatgggt caacgacatg 1380  
gtcaatgtgc ccttctcgtc caaggccttt gtgggaggat gtgtggctta cttgttggtgac 1440  
acgacgcttc acaagaaaga tggttcgatc aggaaagacc gaggtaaaca ctggtgggac 1500  
agattctgga ctttcaagaa cgacccgaga acagaagagt tctatgctct tccgttcaac 1560  
ctcaacaaat atttcccttc tgtctga 1587

<210> 1224

<211> 528

<212> PRT

<213> Arabidopsis thaliana

<400> 1224

Met Ser Ala Pro Lys Ser Gly Gly Asp Pro Leu Pro His Pro Pro Lys  
1 5 10 15

Glu Gln Leu Pro Asp Ile Ser Tyr Cys Ile Thr Ser Pro Pro Pro Trp  
20 25 30

047-E2F-PCT.ST25.txt

Pro Glu Ala Val Leu Leu Gly Phe Gln His Tyr Leu Val Met Leu Gly  
35 40 45

Thr Thr Val Leu Ile Pro Ser Ala Leu Val Pro Gln Met Gly Gly Arg  
50 55 60

Asn Glu Glu Lys Ala Lys Leu Ile Gln Thr Ile Leu Phe Val Ala Gly  
65 70 75 80

Leu Asn Thr Leu Leu Gln Thr Val Phe Gly Thr Arg Leu Pro Ala Val  
85 90 95

Ile Gly Ala Ser Tyr Thr Phe Val Pro Val Thr Ile Ser Ile Met Leu  
100 105 110

Ser Gly Arg Phe Asn Asp Val Ala Asp Pro Val Glu Arg Phe Lys Arg  
115 120 125

Ile Ile Arg Ala Thr Gln Gly Ala Leu Ile Val Ala Ser Thr Leu Gln  
130 135 140

Ile Ile Leu Gly Phe Ser Gly Leu Trp Arg Asn Val Val Arg Phe Leu  
145 150 155 160

Ser Pro Leu Ser Ala Ala Pro Leu Val Gly Leu Val Gly Tyr Gly Leu  
165 170 175

Tyr Glu Leu Gly Phe Pro Gly Val Ala Lys Cys Ile Glu Ile Gly Leu  
180 185 190

Pro Gly Leu Ile Ile Leu Ile Leu Ile Ser Gln Tyr Met Pro His Val  
195 200 205

Ile Lys Gly Gly Lys His Val Phe Ala Arg Phe Ala Val Ile Phe Ser  
210 215 220

Val Ala Ile Val Trp Leu Tyr Ala Phe Phe Leu Thr Leu Gly Gly Ala  
225 230 235 240

Tyr Asn Gly Val Gly Thr Asp Thr Gln Arg Ser Cys Arg Thr Asp Arg  
245 250 255

Ala Gly Leu Ile Ser Ala Ala Pro Trp Ile Arg Val Pro Trp Pro Phe  
260 265 270

Gln Trp Gly Ala Pro Leu Phe Asp Ala Gly Glu Ala Phe Ala Met Met  
275 280 285



047-E2F-PCT.ST25.txt

Met Ala Ser Phe Val Ala Leu Val Glu Ser Thr Gly Ala Phe Ile Ala  
290 295 300

Val Ser Arg Tyr Ala Ser Ala Thr Met Pro Pro Pro Ser Val Ile Ser  
305 310 315 320

Arg Gly Val Gly Trp Gln Gly Val Ala Ile Leu Ile Ser Gly Leu Phe  
325 330 335

Gly Thr Gly Ile Gly Ser Ser Val Ser Val Glu Asn Ala Gly Leu Leu  
340 345 350

Ala Leu Thr Lys Ile Gly Ser Arg Arg Val Val Gln Ile Ser Ala Gly  
355 360 365

Phe Met Ile Phe Phe Ser Ile Leu Gly Lys Phe Gly Ala Val Phe Ala  
370 375 380

Ser Ile Pro Ser Pro Ile Ile Ala Ala Leu Tyr Cys Leu Phe Phe Ala  
385 390 395 400

Tyr Val Gly Ala Gly Gly Leu Ser Leu Leu Gln Phe Cys Asn Leu Asn  
405 410 415

Ser Phe Arg Thr Leu Phe Ile Leu Gly Phe Ser Ile Phe Leu Gly Leu  
420 425 430

Ser Ile Pro Gln Tyr Phe Asn Glu His Thr Ala Ile Lys Gly Tyr Gly  
435 440 445

Pro Val His Thr Gly Ala Arg Trp Phe Asn Asp Met Val Asn Val Pro  
450 455 460

Phe Ser Ser Lys Ala Phe Val Gly Gly Cys Val Ala Tyr Leu Leu Asp  
465 470 475 480

Thr Thr Leu His Lys Lys Asp Gly Ser Ile Arg Lys Asp Arg Gly Lys  
485 490 495

His Trp Trp Asp Arg Phe Trp Thr Phe Lys Asn Asp Pro Arg Thr Glu  
500 505 510

Glu Phe Tyr Ala Leu Pro Phe Asn Leu Asn Lys Tyr Phe Pro Ser Val  
515 520 525

<210> 1225

&lt;211&gt; 1284

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1225

```

atgggagacg ctagagacaa cgaagcctac gaggaggagc tcttggacta tgaagaagaa      60
gacgagaagg tcccagattc tggaaacaaa gttaacggcg aagctgtgaa aaaagggtag      120
gtgggaatac acagtctctg attcagagac ttccttttga aaccggagct tctcagagct      180
attgttgact caggatttga acatccatct gaagtgaac acgaatgtat ccctcaagct      240
atcttgggta tggatgttat ctgccaaagca aagtctggta tggggaagac tgctgtgttt      300
gtcctgtcta ctctacaaca gattgaacca tctcctggcc aggtttctgc acttgtcttg      360
tgccatacaa gagagctagc ttaccagatc tgcaatgagt ttgtgagatt cagtacctat      420
ctgcctgata caaaagtttc ggtgttctat ggtggagtca acattaaaat tcacaaagac      480
ttgctgaaga atgaatgtcc tcacattggt gttggtaccc ctggtcgagt gcttgacttt      540
gccagggaga aagatctctc tttgaagaat gtgaggcatt ttattcttga tgagtgtgat      600
aaaatgctcg agtcacttga catgcgaagg gatgtgcagg agattttcaa gatgactcct      660
catgacaaac aagtaatgat gttctcagca acgctcagca aagagatacg cccagtctgc      720
aagaagttta tgcaagatcc aatggaaata tatgttgatg atgaagccaa gttgactctt      780
catggacttg tccagcacta catcaactg agcgagatgg agaaaaatcg caagttgaat      840
gaccttcttg atgcgttgga cttcaatcaa gttgtcattt ttgtgaagag cgtgagcagg      900
gctgcggagc tgaacaagtt actggtggaa tgcaatttcc cctcaatatg catacactct      960
ggcatgtctc aagaagagag gttgactcga tacaaaagtt tcaaggaagg gcacaagagg     1020
atccttgtgg cgactgactt ggtaggaaga gggattgaca tagagcgtgt caacattggt     1080
atcaactatg acatgccaga ttctgcggat acctatcttc atagggtttg gagagctggg     1140
agatttggaa ccaaggggtct tgcaatcaca tttgttgcac ctgcttcaga ttcagaggtc     1200
cttaatcagg ttcaagagag gtttgaggtc gatataaagg agcttcctga gcagattgat     1260
acatcgactt acatgccgtc ttaa                                             1284

```

&lt;210&gt; 1226

&lt;211&gt; 427

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1226

```

Met Gly Asp Ala Arg Asp Asn Glu Ala Tyr Glu Glu Glu Leu Leu Asp
1      5      10      15
Tyr Glu Glu Glu Asp Glu Lys Val Pro Asp Ser Gly Asn Lys Val Asn
20      25      30
Gly Glu Ala Val Lys Lys Gly Tyr Val Gly Ile His Ser Ser Gly Phe
35      40      45
Arg Asp Phe Leu Leu Lys Pro Glu Leu Leu Arg Ala Ile Val Asp Ser
50      55      60
Gly Phe Glu His Pro Ser Glu Val Gln His Glu Cys Ile Pro Gln Ala
65      70      75      80
Ile Leu Gly Met Asp Val Ile Cys Gln Ala Lys Ser Gly Met Gly Lys
85      90      95
Thr Ala Val Phe Val Leu Ser Thr Leu Gln Gln Ile Glu Pro Ser Pro
100     105
Gly Gln Val Ser Ala Leu Val Leu Cys His Thr Arg Glu Leu Ala Tyr
115     120     125
Gln Ile Cys Asn Glu Phe Val Arg Phe Ser Thr Tyr Leu Pro Asp Thr
130     135     140
Lys Val Ser Val Phe Tyr Gly Gly Val Asn Ile Lys Ile His Lys Asp
145     150     155     160
Leu Leu Lys Asn Glu Cys Pro His Ile Val Val Gly Thr Pro Gly Arg
165     170     175
Val Leu Ala Leu Ala Arg Glu Lys Asp Leu Ser Leu Lys Asn Val Arg
180     185     190
His Phe Ile Leu Asp Glu Cys Asp Lys Met Leu Glu Ser Leu Asp Met
195     200     205
Arg Arg Asp Val Gln Glu Ile Phe Lys Met Thr Pro His Asp Lys Gln
210     215     220
Val Met Met Phe Ser Ala Thr Leu Ser Lys Glu Ile Arg Pro Val Cys
225     230     235     240

```

047-E2F-PCT.ST25.txt

Lys Lys Phe Met Gln Asp Pro Met Glu Ile Tyr Val Asp Asp Glu Ala  
245 250 255

Lys Leu Thr Leu His Gly Leu Val Gln His Tyr Ile Lys Leu Ser Glu  
260 265 270

Met Glu Lys Asn Arg Lys Leu Asn Asp Leu Leu Asp Ala Leu Asp Phe  
275 280 285

Asn Gln Val Val Ile Phe Val Lys Ser Val Ser Arg Ala Ala Glu Leu  
290 295 300

Asn Lys Leu Leu Val Glu Cys Asn Phe Pro Ser Ile Cys Ile His Ser  
305 310 315 320

Gly Met Ser Gln Glu Glu Arg Leu Thr Arg Tyr Lys Ser Phe Lys Glu  
325 330 335

Gly His Lys Arg Ile Leu Val Ala Thr Asp Leu Val Gly Arg Gly Ile  
340 345 350

Asp Ile Glu Arg Val Asn Ile Val Ile Asn Tyr Asp Met Pro Asp Ser  
355 360 365

Ala Asp Thr Tyr Leu His Arg Val Gly Arg Ala Gly Arg Phe Gly Thr  
370 375 380

Lys Gly Leu Ala Ile Thr Phe Val Ala Ser Ala Ser Asp Ser Glu Val  
385 390 395 400

Leu Asn Gln Val Gln Glu Arg Phe Glu Val Asp Ile Lys Glu Leu Pro  
405 410 415

Glu Gln Ile Asp Thr Ser Thr Tyr Met Pro Ser  
420 425

<210> 1227

<211> 1524

<212> DNA

<213> Arabidopsis thaliana

<400> 1227

atggcgatgg cgagcttagc taggagaaaa gcgtactttc tcaccagaaa catctctaataat 60

tctcccactg atgcttttcag attctcttttc tccctcactc gcggcttcgc ttcgtcagga 120

047-E2F-PCT.ST25.txt

```

tccgacgaca acgacgtcgt catcatcggc ggcggtcctg gaggttatgt ggcggcgatt 180
aaagcggcac agctcgggtct taagactacc tgtatcgaaa agcgaggcgc tctcggtggt 240
acttgtctta acgtcgggtg tattccttca aaggcccttc ttcactcttc tcacatgtac 300
catgaagcaa agcacgtttt tgctaaccat ggtgttaagg tctcttcggg tgaggtagat 360
cttcctgcta tgttggcgca gaaagacaca gccgtcaaga atttaacccg tggagtcgaa 420
ggctctgttca agaagaacaa ggtaaactat gttaagggct atggtaagtt tctgtcccca 480
tcggaagtct ctgtggacac aatcgatgga gaaaacgtgg ttgtgaaagg caaacatatc 540
atagttgcaa ctggctcgga tgtcaagtct ttgcctggaa tcaccatcga tgaaaagaag 600
attgtctcat caaccggggc actgtctctg acagagatcc caaagaaact cattgtcatt 660
ggtgctggct atattgggct agagatgggt tctgtatggg gacggctagg atcagaggtc 720
acagttgttg agtttgcagc ggatatcgta ccagcaatgg atggtgaaat ccgcaagcag 780
tttcaacgct cactagagaa gcagaagatg aaatttatgc tcaaaactaa agtcgttggg 840
gtagattcat ctggagatgg tgttaaactc atagtggaac ctgctgaagg tggagaacag 900
accactctag aagctgatgt ggtcctcgtc tcagctggta gaactccgtt cacatctgga 960
cttgatctag agaaaatcgg agttgagaca gacaaaggcg ggagaattct ggtgaacgag 1020
agattctcga caaatgtttc aggcgtttat gcaattggag atgtgattcc aggaccaatg 1080
ctggctcaca aagccgaaga agatggtggt gcatgtgttg agtttatagc aggcaaacac 1140
gggcatgtgg attacgacaa agtccctggg gttgtctaca cgtaccctga agttgcgtcg 1200
gttggtaaaa ccgaggagca gctgaagaaa gaagggtgta gctacaatgt tggaaaattc 1260
ccattcatgg ccaatagcag agccaaggcc atagacacag cagaggggaat ggtcaagatt 1320
ttggctgata aagagacaga caagatcttg ggagttcaca ttatgtcacc aaacgcagga 1380
gaattgatcc atgaggcggg tctagctatc aactatgatg catcaagtga agacattgct 1440
cgagtctgtc acgtcatcc caccatgagt gaggctatca aggaagctgc catggctacc 1500
tatgacaagc ccattcacat gtag 1524

```

<210> 1228

<211> 507

<212> PRT

<213> Arabidopsis thaliana

<400> 1228

Met Ala Met Ala Ser Leu Ala Arg Arg Lys Ala Tyr Phe Leu Thr Arg

1 5 15  
Asn Ile Ser Asn Ser Pro Thr Asp Ala Phe Arg Phe Ser Phe Ser Leu  
20 25 30  
Thr Arg Gly Phe Ala Ser Ser Gly Ser Asp Asp Asn Asp Val Val Ile  
35 40 45  
Ile Gly Gly Gly Pro Gly Gly Tyr Val Ala Ala Ile Lys Ala Ala Gln  
50 55 60  
Leu Gly Leu Lys Thr Thr Cys Ile Glu Lys Arg Gly Ala Leu Gly Gly  
65 70 75 80  
Thr Cys Leu Asn Val Gly Cys Ile Pro Ser Lys Ala Leu Leu His Ser  
85 90 95  
Ser His Met Tyr His Glu Ala Lys His Val Phe Ala Asn His Gly Val  
100 105 110  
Lys Val Ser Ser Val Glu Val Asp Leu Pro Ala Met Leu Ala Gln Lys  
115 120 125  
Asp Thr Ala Val Lys Asn Leu Thr Arg Gly Val Glu Gly Leu Phe Lys  
130 135 140  
Lys Asn Lys Val Asn Tyr Val Lys Gly Tyr Gly Lys Phe Leu Ser Pro  
145 150 155 160  
Ser Glu Val Ser Val Asp Thr Ile Asp Gly Glu Asn Val Val Val Lys  
165 170 175  
Gly Lys His Ile Ile Val Ala Thr Gly Ser Asp Val Lys Ser Leu Pro  
180 185 190  
Gly Ile Thr Ile Asp Glu Lys Lys Ile Val Ser Ser Thr Gly Ala Leu  
195 200 205  
Ser Leu Thr Glu Ile Pro Lys Lys Leu Ile Val Ile Gly Ala Gly Tyr  
210 215 220  
Ile Gly Leu Glu Met Gly Ser Val Trp Gly Arg Leu Gly Ser Glu Val  
225 230 235 240  
Thr Val Val Glu Phe Ala Ala Asp Ile Val Pro Ala Met Asp Gly Glu  
245 250 255

Ile Arg Lys Gln Phe Gln Arg Ser Leu Glu Lys Gln Lys Met Lys Phe  
 260 265 270  
 Met Leu Lys Thr Lys Val Val Gly Val Asp Ser Ser Gly Asp Gly Val  
 275 280 285  
 Lys Leu Ile Val Glu Pro Ala Glu Gly Gly Glu Gln Thr Thr Leu Glu  
 290 295 300  
 Ala Asp Val Val Leu Val Ser Ala Gly Arg Thr Pro Phe Thr Ser Gly  
 305 310 315 320  
 Leu Asp Leu Glu Lys Ile Gly Val Glu Thr Asp Lys Gly Gly Arg Ile  
 325 330 335  
 Leu Val Asn Glu Arg Phe Ser Thr Asn Val Ser Gly Val Tyr Ala Ile  
 340 345 350  
 Gly Asp Val Ile Pro Gly Pro Met Leu Ala His Lys Ala Glu Glu Asp  
 355 360 365  
 Gly Val Ala Cys Val Glu Phe Ile Ala Gly Lys His Gly His Val Asp  
 370 375 380  
 Tyr Asp Lys Val Pro Gly Val Val Tyr Thr Tyr Pro Glu Val Ala Ser  
 385 390 395 400  
 Val Gly Lys Thr Glu Glu Gln Leu Lys Lys Glu Gly Val Ser Tyr Asn  
 405 410 415  
 Val Gly Lys Phe Pro Phe Met Ala Asn Ser Arg Ala Lys Ala Ile Asp  
 420 425 430  
 Thr Ala Glu Gly Met Val Lys Ile Leu Ala Asp Lys Glu Thr Asp Lys  
 435 440 445  
 Ile Leu Gly Val His Ile Met Ser Pro Asn Ala Gly Glu Leu Ile His  
 450 455 460  
 Glu Ala Val Leu Ala Ile Asn Tyr Asp Ala Ser Ser Glu Asp Ile Ala  
 465 470 475 480  
 Arg Val Cys His Ala His Pro Thr Met Ser Glu Ala Ile Lys Glu Ala  
 485 490 495  
 Ala Met Ala Thr Tyr Asp Lys Pro Ile His Met  
 500 505

&lt;210&gt; 1229

&lt;211&gt; 1446

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1229

```

atgggagacg cagagagcac taaggatcgc ttgctgctgc cggtagagag agtcgagaac   60
gtgacatgga gcgatctgcg agatggttca ttcaccgtag aactcaaaag gcttatcttc   120
ttcgccgctc ctatggctgc tgttggtatc gctcagttca tgttaciaat cgtttcaatg   180
atgatggttg gtcacctcgg caatctctcc ctcgctagcg cctctctcgc ctctctcttc   240
tgcaacgtca ctggcttcag cttcatcata ggattgtcat gtgccttaga tactttgagt   300
ggtcaagctt atggagctaa gctataccgg aaactaggag ttcagactta cactgctatg   360
ttctgtcttg cattagtgtg tctccctctt tctctcattt ggttcaacat ggaaaagctt   420
cttttgatcc ttggccaaga cccttctatt gctcacgaag ccggaaaata tgccacctgg   480
cttatccag gactgtttgc ttacgctgtt ctacagccgc tctctgcta ctttcaaaac   540
cagagtttga tcacacctct cctcatcacc tcctatgttg tgttctgtat ccacgttcct   600
ctctgctggt ttttggttta caactcaggg cttggtaatc ttggaggagc tttggctatc   660
agtttgtcaa actggctcta tgccattttc cttggatctt tcatgtacta ctctctgcc   720
tgttctgaga cacgtgcgcc gctctccatg gagatattcg atggcattgg agagttcttc   780
aaatatgctc ttccttctgc ggctatgatt tgcctagagt ggtggtctta tgaacttata   840
atattactct ctgggtctctt acccaaccca caactggaga cttctgtgct ctctgtctgt   900
cttcagacaa tttcaacaat gtattcgata ccactagcaa tcgcggtcgc agcaagcaca   960
agaatctcaa atgaattagg tgctggaaac tctcgagcag cacatatcgt ggtctatgcg  1020
gcaatgtctc ttgcagttat tgatgcattg atagttagta tgtctctact aatcggcagg  1080
aatcttttcg ggcacatttt cagcagtgac aaggaaacta tcgactatgt tgcaaagatg  1140
gctccattgg tctctatttc tctcatgctt gacgctttac aaggggtcct ctcaggattt  1200
gcaaggggat gcggatggca acatatagga gcttacataa acttaggagc tttctatctc  1260
tggggggatac ccattgctgc atcttttagcc ttctggattc atctgaaagg tgttggcctt  1320
tggaattggaa tccaagccgg tgccgttctg caaacgcttc tgcttgctct tgtcacgggc  1380
tgtacaaact gggaaagcca ggccgataaa gcgaggaatc gaatggcttt ggcctatgga  1440
acataa                                           1446

```



&lt;210&gt; 1230

&lt;211&gt; 481

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1230

Met Gly Asp Ala Glu Ser Thr Lys Asp Arg Leu Leu Leu Pro Val Glu  
 1 5 10 15

Arg Val Glu Asn Val Thr Trp Ser Asp Leu Arg Asp Gly Ser Phe Thr  
 20 25 30

Val Glu Leu Lys Arg Leu Ile Phe Phe Ala Ala Pro Met Ala Ala Val  
 35 40 45

Val Ile Ala Gln Phe Met Leu Gln Ile Val Ser Met Met Met Val Gly  
 50 55 60

His Leu Gly Asn Leu Ser Leu Ala Ser Ala Ser Leu Ala Ser Ser Phe  
 65 70 75 80

Cys Asn Val Thr Gly Phe Ser Phe Ile Ile Gly Leu Ser Cys Ala Leu  
 85 90 95

Asp Thr Leu Ser Gly Gln Ala Tyr Gly Ala Lys Leu Tyr Arg Lys Leu  
 100 105 110

Gly Val Gln Thr Tyr Thr Ala Met Phe Cys Leu Ala Leu Val Cys Leu  
 115 120 125

Pro Leu Ser Leu Ile Trp Phe Asn Met Glu Lys Leu Leu Leu Ile Leu  
 130 135 140

Gly Gln Asp Pro Ser Ile Ala His Glu Ala Gly Lys Tyr Ala Thr Trp  
 145 150 155 160

Leu Ile Pro Gly Leu Phe Ala Tyr Ala Val Leu Gln Pro Leu Thr Arg  
 165 170 175

Tyr Phe Gln Asn Gln Ser Leu Ile Thr Pro Leu Leu Ile Thr Ser Tyr  
 180 185 190

Val Val Phe Cys Ile His Val Pro Leu Cys Trp Phe Leu Val Tyr Asn  
 195 200 205

047-E2F-PCT.ST25.txt

Ser Gly Leu Gly Asn Leu Gly Gly Ala Leu Ala Ile Ser Leu Ser Asn  
210 215 220

Trp Leu Tyr Ala Ile Phe Leu Gly Ser Phe Met Tyr Tyr Ser Ser Ala  
225 230 235 240

Cys Ser Glu Thr Arg Ala Pro Leu Ser Met Glu Ile Phe Asp Gly Ile  
245 250 255

Gly Glu Phe Phe Lys Tyr Ala Leu Pro Ser Ala Ala Met Ile Cys Leu  
260 265 270

Glu Trp Trp Ser Tyr Glu Leu Ile Ile Leu Leu Ser Gly Leu Leu Pro  
275 280 285

Asn Pro Gln Leu Glu Thr Ser Val Leu Ser Val Cys Leu Gln Thr Ile  
290 295 300

Ser Thr Met Tyr Ser Ile Pro Leu Ala Ile Ala Ala Ala Ala Ser Thr  
305 310 315 320

Arg Ile Ser Asn Glu Leu Gly Ala Gly Asn Ser Arg Ala Ala His Ile  
325 330 335

Val Val Tyr Ala Ala Met Ser Leu Ala Val Ile Asp Ala Leu Ile Val  
340 345 350

Ser Met Ser Leu Leu Ile Gly Arg Asn Leu Phe Gly His Ile Phe Ser  
355 360 365

Ser Asp Lys Glu Thr Ile Asp Tyr Val Ala Lys Met Ala Pro Leu Val  
370 375 380

Ser Ile Ser Leu Met Leu Asp Ala Leu Gln Gly Val Leu Ser Gly Ile  
385 390 395 400

Ala Arg Gly Cys Gly Trp Gln His Ile Gly Ala Tyr Ile Asn Leu Gly  
405 410 415

Ala Phe Tyr Leu Trp Gly Ile Pro Ile Ala Ala Ser Leu Ala Phe Trp  
420 425 430

Ile His Leu Lys Gly Val Gly Leu Trp Ile Gly Ile Gln Ala Gly Ala  
435 440 445

Val Leu Gln Thr Leu Leu Leu Ala Leu Val Thr Gly Cys Thr Asn Trp  
450 455 460

Glu Ser Gln Ala Asp Lys Ala Arg Asn Arg Met Ala Leu Ala Tyr Gly  
465 470 475 480

Thr

<210> 1231

<211> 861

<212> DNA

<213> Arabidopsis thaliana

<400> 1231

atggcgatga tcagttactc caccattgtg gttgctctgc ttgcttcttt tatgatttgc	60
tctgttttccg ccaattttca acgagacgta gagataactt ggggagacgg acgtggacag	120
atcacaaaca acggcgatct tcttactctc tctctcgaca aagcttcagg ctcaggattc	180
caatccaaga acgaatattt gttcggtaaa atcgacatgc agatcaaact cgttgccgga	240
aactccgctg gaactgtcac cgcttactat ttgaaatccc ctggatctac atgggacgag	300
attgactttg agttcttggg aaacctaatg ggtgatcctt acacacttca tactaatgtc	360
tttacgcaag gaaaaggcga tagagaacaa caattcaaac tctgggttcga tcccactagt	420
gattttccaca cttactctat cctctggaac ccacaacgca tcatattctc cgtggatgga	480
actcccataa gagaattcaa gaacatggaa tctcaaggaa ctctgtttcc taagaaccag	540
ccaatgagaa tgtactctag tctatggaac gctgaagaat gggccacaag ggggtggtctc	600
gtcaaaaccg actggtctaa agctcccttc actgcttcct accgcggctt caacgaagaa	660
gcttgcgctg tgatcaacgg ccagtcttca tgccctaacg tgtcaggaca agggagtact	720
ggttcgtggt tgtctcagga gctagactcg acgggtcaag aacagatgag atgggtacag	780
aataactaca tgattttaca ttactgtacg gacgctaaaa ggttccctca aggtctttcca	840
cgcgagtgtc tagctgctga a	861

<210> 1232

<211> 286

<212> PRT

<213> Arabidopsis thaliana

<400> 1232

047-E2F-PCT.ST25.txt

Met Ala Met Ile Ser Tyr Ser Thr Ile Val Val Ala Leu Leu Ala Ser  
1 5 10 15  
Phe Met Ile Cys Ser Val Ser Ala Asn Phe Gln Arg Asp Val Glu Ile  
20 25 30  
Thr Trp Gly Asp Gly Arg Gly Gln Ile Thr Asn Asn Gly Asp Leu Leu  
35 40 45  
Thr Leu Ser Leu Asp Lys Ala Ser Gly Ser Gly Phe Gln Ser Lys Asn  
50 55 60  
Glu Tyr Leu Phe Gly Lys Ile Asp Met Gln Ile Lys Leu Val Ala Gly  
65 70 75 80  
Asn Ser Ala Gly Thr Val Thr Ala Tyr Tyr Leu Lys Ser Pro Gly Ser  
85 90 95  
Thr Trp Asp Glu Ile Asp Phe Glu Phe Leu Gly Asn Leu Ser Gly Asp  
100 105 110  
Pro Tyr Thr Leu His Thr Asn Val Phe Thr Gln Gly Lys Gly Asp Arg  
115 120 125  
Glu Gln Gln Phe Lys Leu Trp Phe Asp Pro Thr Ser Asp Phe His Thr  
130 135 140  
Tyr Ser Ile Leu Trp Asn Pro Gln Arg Ile Ile Phe Ser Val Asp Gly  
145 150 155 160  
Thr Pro Ile Arg Glu Phe Lys Asn Met Glu Ser Gln Gly Thr Leu Phe  
165 170 175  
Pro Lys Asn Gln Pro Met Arg Met Tyr Ser Ser Leu Trp Asn Ala Glu  
180 185 190  
Glu Trp Ala Thr Arg Gly Gly Leu Val Lys Thr Asp Trp Ser Lys Ala  
195 200 205  
Pro Phe Thr Ala Ser Tyr Arg Gly Phe Asn Glu Glu Ala Cys Val Val  
210 215 220  
Ile Asn Gly Gln Ser Ser Cys Pro Asn Val Ser Gly Gln Gly Ser Thr  
225 230 235 240  
Gly Ser Trp Leu Ser Gln Glu Leu Asp Ser Thr Gly Gln Glu Gln Met  
245 250 255

047-E2F-PCT.ST25.txt

Arg Trp Val Gln Asn Asn Tyr Met Ile Tyr Asn Tyr Cys Thr Asp Ala  
260 265 270

Lys Arg Phe Pro Gln Gly Leu Pro Arg Glu Cys Leu Ala Ala  
275 280 285

<210> 1233

<211> 438

<212> DNA

<213> Arabidopsis thaliana

<400> 1233

atggcgaagg cagataagaa accagcggag aagaaaccgg cagagaaaac tccggcagcc	60
gaaccagcag cagcggcaga gaagaaacca aaagccggaa agaaactccc gaaggaacca	120
gccggcgccg gagacaagaa gaagaagaga tcaaagaaga acgttgagac atacaagatc	180
tacatcttca aggtgttgaa gcaagttcat ccagatatcg gaatctccag caaagccatg	240
ggaatcatga acagtttcat caatgatatc tttgagaaac ttgctggtga gtcttcgaag	300
cttgcgaggt acaacaagaa gccgacgatt acttctaggg agattcagac tgcggtgaga	360
cttgtgttgc ctggagagtt ggcgaaacat gctgtttctg aagggactaa ggcggttacg	420
aagtttacga gttcttag	438

<210> 1234

<211> 145

<212> PRT

<213> Arabidopsis thaliana

<400> 1234

Met Ala Lys Ala Asp Lys Lys Pro Ala Glu Lys Lys Pro Ala Glu Lys  
1 5 10 15

Thr Pro Ala Ala Glu Pro Ala Ala Ala Glu Lys Lys Pro Lys Ala  
20 25 30

Gly Lys Lys Leu Pro Lys Glu Pro Ala Gly Ala Gly Asp Lys Lys Lys  
35 40 45

Lys Arg Ser Lys Lys Asn Val Glu Thr Tyr Lys Ile Tyr Ile Phe Lys  
Page 1927

50

55

Val Leu Lys Gln Val His Pro Asp Ile Gly Ile Ser Ser Lys Ala Met  
65 70 75 80

Gly Ile Met Asn Ser Phe Ile Asn Asp Ile Phe Glu Lys Leu Ala Gly  
85 90 95

Glu Ser Ser Lys Leu Ala Arg Tyr Asn Lys Lys Pro Thr Ile Thr Ser  
100 105 110

Arg Glu Ile Gln Thr Ala Val Arg Leu Val Leu Pro Gly Glu Leu Ala  
115 120 125

Lys His Ala Val Ser Glu Gly Thr Lys Ala Val Thr Lys Phe Thr Ser  
130 135 140

Ser  
145

<210> 1235

<211> 2247

<212> DNA

<213> Arabidopsis thaliana

<400> 1235

atgggttctc tttcttggtc aataatccat ctggttctta ttctgcaact acaaacattt	60
ttcgtttttt ctcaaaacat cagaaacggc tctgttcctg tcggagaatc tctcaccgct	120
tcagagtccc acaaattctc tagttcatgg cgttcacctt ccggtgactt tgctttcggg	180
ttccgcaaga tccaaccaa cgacggtttc actctctcca tttggttcga caagatttct	240
gacaagacca tcgtgtggca cgcacaagcc gtcaacacaa ccaccggtct tgtcccta	300
ggttcgaagg ttacattaac tgcagatggc ggtctgggtta tcgctgacct tcgaggtcag	360
gagctgtgga gagcggtgag tgggtggctct gtttctcgag ggcgatttac tgacgacgga	420
aacttcgttc ttttcagaga tgggtcagaa gattctgacg aggttctatg gtcgagcttt	480
gaaaatccca ccgacactct gttaccta	540
at cagaatatag aagttggaag gaatctgtca	540
gcctacgtct agaggatgac	600
ggaagattca	600
ggaatcttc agcttcactc tctcaacgcc gagactgcct cagaatcaga catatactct	660
cagtactacg aaagtaatac caacgatcca aacaaccccg ggattcaatt agttttcaac	720
cagtcagggg aaatatatgt tcttcaaagg aacaattcaa gattcgtcgt caaagataga	780

047-E2F-PCT.ST25.txt

gatccggatt	tttctatcgc	cgcgccgttc	tacatttcga	cgggccccga	tgatgcactt	840
gggaatatgg	cttgtgggta	taataatata	tgtagtttag	gaaacaacaa	gaggccaaaa	900
tgtgagtgtc	ctgagagggt	tgtgttaaag	gatccgagca	atgagtatgg	tgattgtttg	960
ccagattttg	agatgcagac	ttgtagacca	gagaaccaa	ccgcaaactc	agatgtgaat	1020
ctttacgagt	tcattacttt	agagaagacg	aattggccgt	ttggggatta	tgagagttat	1080
gccaaactatg	atgaagaaag	atgtaaagct	tcttgtctta	gcgattgttt	atgtgctgcg	1140
gttatttttg	gaacaaatcg	ggatctaaaa	tgttggaaga	agaagtttcc	cttgtctcac	1200
ggtgaaagat	ctccacgtgg	tgatagtgat	acattcatta	aggttcgaaa	ccgctccatc	1260
gcggatgttc	cagttaccgg	aaacagagcg	aaaaaacttg	actgggtctt	tacatatgga	1320
gagcttgag	aggctacaag	agatttcacg	gaagagcttg	gaagaggagc	ctttggtata	1380
gtttacaaag	gatatttaga	agttgccggt	ggttctgaag	ttaccgtggc	tgtgaagaaa	1440
ctagatcgtc	ttgatattaga	taacgaaaaa	gagttcaaga	atgaggttaa	agtgataggt	1500
cagattcacc	acaagaacct	agtgaggctc	attggcttct	gcaacgaagg	acagagccag	1560
atgatcgtct	atgagttttt	accacaaggg	acgctagcca	atcttctctt	caggcgtccg	1620
aggccgagct	gggaagatag	aaagaatatt	gcggtggcca	ttgctcgtgg	aatcttgtat	1680
ctacatgaag	agtgcagcga	gcagatcata	cactgtgaca	taaaaccgca	gaacatactc	1740
ctagatgagt	attacactcc	tcggatctcg	gatttttggtc	tagcaaagct	tttgttgatg	1800
aaccaaactg	atagctcac	taacatccgt	ggaacaaaag	ggtatgtggc	ccctgaatgg	1860
ttcaggaata	gccccattac	atccaaagta	gatgtttata	gctatggagt	aatgctttta	1920
gaaatcgtgt	gctgcaagaa	agccgtcgac	cttgaggata	acgtgattct	catcaattgg	1980
gcttacgatt	gttttcgaca	aggaagggtg	gaagatctga	ctgaggacga	ttcagaggca	2040
atgaatgaca	tggaaactgt	ggagagatat	gtgaaaatag	cgatatggtg	tatacaagaa	2100
gagcatggga	tgagacctaa	catgagaaat	gttacacaga	tgcttgaagg	tgtgattcaa	2160
gtttttgatc	ctccaaatcc	gtctccttat	agcactttca	cttggtctga	tgaatctttg	2220
tctagtgatc	cagtgtcact	tgtttga				2247

<210> 1236

<211> 748

<212> PRT

<213> Arabidopsis thaliana

<400> 1236

## 047-E2F-PCT.ST25.txt

Met Gly Ser Leu Ser Cys Ser Ile Ile His Leu Val Leu Ile Leu Gln  
 1 5 10 15  
 Leu Gln Thr Phe Phe Val Phe Ser Gln Asn Ile Arg Asn Gly Ser Val  
 20 25 30  
 Pro Val Gly Glu Ser Leu Thr Ala Ser Glu Ser Gln Gln Ile Ser Ser  
 35 40 45  
 Ser Trp Arg Ser Pro Ser Gly Asp Phe Ala Phe Gly Phe Arg Lys Ile  
 50 55 60  
 Gln Pro Asn Asp Gly Phe Thr Leu Ser Ile Trp Phe Asp Lys Ile Ser  
 65 70 75 80  
 Asp Lys Thr Ile Val Trp His Ala Gln Ala Val Asn Thr Thr Thr Gly  
 85 90 95  
 Leu Val Pro Asn Gly Ser Lys Val Thr Leu Thr Ala Asp Gly Gly Leu  
 100 105 110  
 Val Ile Ala Asp Pro Arg Gly Gln Glu Leu Trp Arg Ala Leu Ser Gly  
 115 120 125  
 Gly Ser Val Ser Arg Gly Arg Phe Thr Asp Asp Gly Asn Phe Val Leu  
 130 135 140  
 Phe Arg Asp Gly Ser Glu Asp Ser Asp Glu Val Leu Trp Ser Ser Phe  
 145 150 155 160  
 Glu Asn Pro Thr Asp Thr Leu Leu Pro Asn Gln Asn Ile Glu Val Gly  
 165 170 175  
 Arg Asn Leu Ser Ser Arg Arg Thr Glu Thr Ser Phe Lys Lys Gly Arg  
 180 185 190  
 Phe Ser Leu Arg Leu Glu Asp Asp Gly Asn Leu Gln Leu His Ser Leu  
 195 200 205  
 Asn Ala Glu Thr Ala Ser Glu Ser Asp Ile Tyr Ser Gln Tyr Tyr Glu  
 210 215 220  
 Ser Asn Thr Asn Asp Pro Asn Asn Pro Gly Ile Gln Leu Val Phe Asn  
 225 230 235 240  
 Gln Ser Gly Glu Ile Tyr Val Leu Gln Arg Asn Asn Ser Arg Phe Val  
 245 250 255



047-E2F-PCT.ST25.txt

Val Lys Asp Arg Asp Pro Asp Phe Ser Ile Ala Ala Pro Phe Tyr Ile  
 260 265 270  
 Ser Thr Gly Pro Asp Asp Ala Leu Gly Asn Met Ala Cys Gly Tyr Asn  
 275 280 285  
 Asn Ile Cys Ser Leu Gly Asn Asn Lys Arg Pro Lys Cys Glu Cys Pro  
 290 295 300  
 Glu Arg Phe Val Leu Lys Asp Pro Ser Asn Glu Tyr Gly Asp Cys Leu  
 305 310 315 320  
 Pro Asp Phe Glu Met Gln Thr Cys Arg Pro Glu Asn Gln Thr Ala Asn  
 325 330 335  
 Ser Asp Val Asn Leu Tyr Glu Phe Ile Thr Leu Glu Lys Thr Asn Trp  
 340 345 350  
 Pro Phe Gly Asp Tyr Glu Ser Tyr Ala Asn Tyr Asp Glu Glu Arg Cys  
 355 360 365  
 Lys Ala Ser Cys Leu Ser Asp Cys Leu Cys Ala Ala Val Ile Phe Gly  
 370 375 380  
 Thr Asn Arg Asp Leu Lys Cys Trp Lys Lys Lys Phe Pro Leu Ser His  
 385 390 395 400  
 Gly Glu Arg Ser Pro Arg Gly Asp Ser Asp Thr Phe Ile Lys Val Arg  
 405 410 415  
 Asn Arg Ser Ile Ala Asp Val Pro Val Thr Gly Asn Arg Ala Lys Lys  
 420 425 430  
 Leu Asp Trp Val Phe Thr Tyr Gly Glu Leu Ala Glu Ala Thr Arg Asp  
 435 440 445  
 Phe Thr Glu Glu Leu Gly Arg Gly Ala Phe Gly Ile Val Tyr Lys Gly  
 450 455 460  
 Tyr Leu Glu Val Ala Gly Gly Ser Glu Val Thr Val Ala Val Lys Lys  
 465 470 475 480  
 Leu Asp Arg Leu Asp Leu Asp Asn Glu Lys Glu Phe Lys Asn Glu Val  
 485 490 495

Lys Val Ile Gly Gln Ile His His Lys Asn Leu Val Arg Leu Ile Gly  
 Page 1931

500  
 505  
 510  
 Phe Cys Asn Glu Gly Gln Ser Gln Met Ile Val Tyr Glu Phe Leu Pro  
 515 520 525  
 Gln Gly Thr Leu Ala Asn Phe Leu Phe Arg Arg Pro Arg Pro Ser Trp  
 530 535 540  
 Glu Asp Arg Lys Asn Ile Ala Val Ala Ile Ala Arg Gly Ile Leu Tyr  
 545 550 555 560  
 Leu His Glu Glu Cys Ser Glu Gln Ile Ile His Cys Asp Ile Lys Pro  
 565 570 575  
 Gln Asn Ile Leu Leu Asp Glu Tyr Tyr Thr Pro Arg Ile Ser Asp Phe  
 580 585 590  
 Gly Leu Ala Lys Leu Leu Leu Met Asn Gln Thr Tyr Thr Leu Thr Asn  
 595 600 605  
 Ile Arg Gly Thr Lys Gly Tyr Val Ala Pro Glu Trp Phe Arg Asn Ser  
 610 615 620  
 Pro Ile Thr Ser Lys Val Asp Val Tyr Ser Tyr Gly Val Met Leu Leu  
 625 630 635 640  
 Glu Ile Val Cys Cys Lys Lys Ala Val Asp Leu Glu Asp Asn Val Ile  
 645 650 655  
 Leu Ile Asn Trp Ala Tyr Asp Cys Phe Arg Gln Gly Arg Leu Glu Asp  
 660 665 670  
 Leu Thr Glu Asp Asp Ser Glu Ala Met Asn Asp Met Glu Thr Val Glu  
 675 680 685  
 Arg Tyr Val Lys Ile Ala Ile Trp Cys Ile Gln Glu Glu His Gly Met  
 690 695 700  
 Arg Pro Asn Met Arg Asn Val Thr Gln Met Leu Glu Gly Val Ile Gln  
 705 710 715 720  
 Val Phe Asp Pro Pro Asn Pro Ser Pro Tyr Ser Thr Phe Thr Trp Ser  
 725 730 735  
 Asp Glu Ser Leu Ser Ser Asp Pro Val Ser Leu Val  
 740 745

&lt;210&gt; 1237

&lt;211&gt; 777

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1237

```

atggggtcgtg tcatcagagc tcaacgtaag ggtgcggggtt ccgtcttcaa atcccacact    60
caccaccgca aaggtccggc taagttccgt agcctcgatt tcggcgagag aaatggttac    120
ctcaagggcg tcgtgacgga gatcatccac gatcctggtc gtggtgctcc tcttgctcgt    180
gtcactttcc gtcatccttt ccgtttcaag aaacaaaagg agctcttcgt cgccgccgaa    240
ggatatgtaca ccggtcagtt cttgtactgc ggtaagaaag ctactctcgt cgttggaaat    300
gttctccctc ttagatctat tcctgaagga gctgttgtct gcaacgtcga gcatcacgtc    360
ggatgatcgtg gtgtcctcgc tagagcttct ggtgattacg ccattgttat cgctcacaac    420
cctgacagcg acactactag gattaagttg ccatcggggtt cgaagaagat tgtcccaagt    480
ggatgcaggg ctatgattgg acaagttgct ggaggtggaa gaactgagaa gccgatgctc    540
aaggcaggaa acgcgtacca caagtaccgt gtgaagagga actcatggcc taaggttcgt    600
gggtgtggcta tgaatccagt ggagcatcct catggaggag gtaaccatca gcacattggt    660
cacgccagta ctgttaggcg tgatgcacct cctggacaga aggttggtct tattgctgca    720
aggaggactg gtcgtctcag aggtcaagct gctgcttcag ctgccaaggc agactag      777

```

&lt;210&gt; 1238

&lt;211&gt; 258

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1238

```

Met Gly Arg Val Ile Arg Ala Gln Arg Lys Gly Ala Gly Ser Val Phe
1           5           10          15

Lys Ser His Thr His His Arg Lys Gly Pro Ala Lys Phe Arg Ser Leu
          20          25          30

Asp Phe Gly Glu Arg Asn Gly Tyr Leu Lys Gly Val Val Thr Glu Ile
          35          40          45

Ile His Asp Pro Gly Arg Gly Ala Pro Leu Ala Arg Val Thr Phe Arg

```

50

55

His Pro Phe Arg Phe Lys Lys Gln Lys Glu Leu Phe Val Ala Ala Glu  
65 70 75 80

Gly Met Tyr Thr Gly Gln Phe Leu Tyr Cys Gly Lys Lys Ala Thr Leu  
85 90 95

Val Val Gly Asn Val Leu Pro Leu Arg Ser Ile Pro Glu Gly Ala Val  
100 105 110

Val Cys Asn Val Glu His His Val Gly Asp Arg Gly Val Leu Ala Arg  
115 120 125

Ala Ser Gly Asp Tyr Ala Ile Val Ile Ala His Asn Pro Asp Ser Asp  
130 135 140

Thr Thr Arg Ile Lys Leu Pro Ser Gly Ser Lys Lys Ile Val Pro Ser  
145 150 155 160

Gly Cys Arg Ala Met Ile Gly Gln Val Ala Gly Gly Gly Arg Thr Glu  
165 170 175

Lys Pro Met Leu Lys Ala Gly Asn Ala Tyr His Lys Tyr Arg Val Lys  
180 185 190

Arg Asn Ser Trp Pro Lys Val Arg Gly Val Ala Met Asn Pro Val Glu  
195 200 205

His Pro His Gly Gly Gly Asn His Gln His Ile Gly His Ala Ser Thr  
210 215 220

Val Arg Arg Asp Ala Pro Pro Gly Gln Lys Val Gly Leu Ile Ala Ala  
225 230 235 240

Arg Arg Thr Gly Arg Leu Arg Gly Gln Ala Ala Ala Ser Ala Ala Lys  
245 250 255

Ala Asp

<210> 1239

<211> 1839

<212> DNA

<213> Arabidopsis thaliana

```

<400> 1239
atggccggag gaatcgctct accggcctct ctactcgacc taatcgctga tatcgctgag    60
attccactca acaccggaat gttcaagaag gattgcgcag atctcactcg acgagtttgt    120
ctcttaacgc atttgttaga ggagattaga gactcaactc ctatcgattc cgccgcttcg    180
tcgtcgtcgg agaattgatt gtggtctgat ctcgtggtcg gacttcaagc cgcaagcgt    240
cttctctcca cagctcgatt ccaagctcgc gattcctctg atggtgctgc gaagagaatc    300
tcatttcagt tccaatgtgt tacatggaag cttgagaaag cattgagcaa tcttccatat    360
gatctttatg atatctctga cgaagtggga gaacaagtgg agctagcgag atcacagttg    420
cgaagagcaa tgcagagata tggatcgttg aattcgaaca agttctcgag tgctttatct    480
gagccaatgg agagagatgg ttttagtaat gttataaaga tcaaagctga ggaaaagctt    540
gagagtgttt cagaaacact tcattttggt gaggaggagg agaaacaaag ttcgccgcct    600
ctaaggagaa gctcttccat ttctttggct tattatttgt ccaaagatgc tgatactgat    660
agattagaca aaatggttaa caagaacact gatgaatcga agaaatctga taaactcacg    720
attccggttg attttctttg tccggtgtcg cttgaactga tgaaggatcc tgtcattggt    780
gccacaggac agacttacga gagggcatac atacagagat ggatcgactg tgggaatcta    840
acatgtccta agactcagca gaaactcgaa aactttacgc ttacaccaa ctatgttctc    900
agaagtctca tctctcggtg gtgcgctgaa cacaacattg agcaacctgc aggttacatt    960
aacggcagga caaaaaacag tggagatatg tcggtgatcc gggccttggt tcagagactc   1020
tcaagccggt caacagagga tcgaaggaat gcggtttctg aaatccgctc tctgtcaaag   1080
agaagtacgg ataatcgc atctgattgca gaagcaggag caatccctgt tttggtgaat   1140
cttttaacct cagaggatgt tgcaacgcag gaaaacgcaa tcacatgtgt tctcaacctc   1200
tctatatatg aaaacaacaa agagctgata atgtttgctg gtgcagtcac ctcaattggt   1260
caagtcctta gagccggaac catggaagca agagaaaacg cagcagcgac acttttttagc   1320
ctgtcgttag ccgatgagaa caagatcata ataggcgggt caggtgcat acctgcctta   1380
gttgatctgc tcgagaacgg gaccccgaga ggaagaaaag atgcagcaac ggcattgttc   1440
aatctctgca tttatcatgg aaacaaaggt agagcagtca gagccggtat agtaactgca   1500
ttggttaaga tgctcagtga ttccacccgc caccggatgg ttgatgaagc tttgacaatt   1560
ctctcagttc ttgcaaataa tcaagacgcg aaatccgcga tagtaaaagc gaatactcta   1620
cccgcgttga taggtattct ccaaaccgat caaactagaa accgagagaa cgcagcagcg   1680
atattgcttt cgctgtgtaa aagagacact gagaaactga tcactatcgg tagactcggt   1740
gcggttgtcc cgttaatgga tttatcgaag aatggaacag agagaggcaa aaggaaagcc   1800

```

atatctttgt tagagcttct tcgtaaagca tgccaataa

1839

<210> 1240

<211> 612

<212> PRT

<213> Arabidopsis thaliana

<400> 1240

Met Ala Gly Gly Ile Val Ser Pro Ala Ser Leu Leu Asp Leu Ile Ala  
1 5 10 15

Asp Ile Val Glu Ile Pro Leu Asn Thr Gly Met Phe Lys Lys Asp Cys  
20 25 30

Ala Asp Leu Thr Arg Arg Val Cys Leu Leu Thr His Leu Leu Glu Glu  
35 40 45

Ile Arg Asp Ser Thr Pro Ile Asp Ser Ala Ala Ser Ser Ser Ser Glu  
50 55 60

Asn Asp Trp Trp Ser Asp Leu Val Val Gly Leu Gln Ala Ala Lys Arg  
65 70 75 80

Leu Leu Ser Thr Ala Arg Phe Gln Ala Arg Asp Ser Ser Asp Gly Ala  
85 90 95

Ala Lys Arg Ile Ser Phe Gln Phe Gln Cys Val Thr Trp Lys Leu Glu  
100 105 110

Lys Ala Leu Ser Asn Leu Pro Tyr Asp Leu Tyr Asp Ile Ser Asp Glu  
115 120 125

Val Gly Glu Gln Val Glu Leu Ala Arg Ser Gln Leu Arg Arg Ala Met  
130 135 140

Gln Arg Tyr Gly Ser Leu Asn Ser Asn Lys Phe Ser Ser Ala Leu Ser  
145 150 155 160

Glu Pro Met Glu Arg Asp Gly Phe Ser Asn Val Ile Lys Ile Lys Ala  
165 170 175

Glu Glu Lys Leu Glu Ser Val Ser Glu Thr Leu His Phe Gly Glu Glu  
180 185 190

Glu Glu Lys Gln Ser Ser Pro Pro Leu Arg Arg Ser Ser Ser Ile Ser  
 195 200 205  
 Leu Ala Tyr Tyr Leu Ser Lys Asp Ala Asp Thr Asp Arg Leu Asp Lys  
 210 215 220  
 Met Val Asn Lys Asn Thr Asp Glu Ser Lys Lys Ser Asp Lys Leu Thr  
 225 230 235 240  
 Ile Pro Val Asp Phe Leu Cys Pro Val Ser Leu Glu Leu Met Lys Asp  
 245 250 255  
 Pro Val Ile Val Ala Thr Gly Gln Thr Tyr Glu Arg Ala Tyr Ile Gln  
 260 265 270  
 Arg Trp Ile Asp Cys Gly Asn Leu Thr Cys Pro Lys Thr Gln Gln Lys  
 275 280 285  
 Leu Glu Asn Phe Thr Leu Thr Pro Asn Tyr Val Leu Arg Ser Leu Ile  
 290 295 300  
 Ser Arg Trp Cys Ala Glu His Asn Ile Glu Gln Pro Ala Gly Tyr Ile  
 305 310 315 320  
 Asn Gly Arg Thr Lys Asn Ser Gly Asp Met Ser Val Ile Arg Ala Leu  
 325 330 335  
 Val Gln Arg Leu Ser Ser Arg Ser Thr Glu Asp Arg Arg Asn Ala Val  
 340 345 350  
 Ser Glu Ile Arg Ser Leu Ser Lys Arg Ser Thr Asp Asn Arg Ile Leu  
 355 360 365  
 Ile Ala Glu Ala Gly Ala Ile Pro Val Leu Val Asn Leu Leu Thr Ser  
 370 375 380  
 Glu Asp Val Ala Thr Gln Glu Asn Ala Ile Thr Cys Val Leu Asn Leu  
 385 390 395 400  
 Ser Ile Tyr Glu Asn Asn Lys Glu Leu Ile Met Phe Ala Gly Ala Val  
 405 410 415  
 Thr Ser Ile Val Gln Val Leu Arg Ala Gly Thr Met Glu Ala Arg Glu  
 420 425 430  
 Asn Ala Ala Ala Thr Leu Phe Ser Leu Ser Leu Ala Asp Glu Asn Lys  
 435 440 445

047-E2F-PCT.ST25.txt

Ile Ile Ile Gly Gly Ser Gly Ala Ile Pro Ala Leu Val Asp Leu Leu  
450 455 460

Glu Asn Gly Thr Pro Arg Gly Lys Lys Asp Ala Ala Thr Ala Leu Phe  
465 470 475 480

Asn Leu Cys Ile Tyr His Gly Asn Lys Gly Arg Ala Val Arg Ala Gly  
485 490 495

Ile Val Thr Ala Leu Val Lys Met Leu Ser Asp Ser Thr Arg His Arg  
500 505 510

Met Val Asp Glu Ala Leu Thr Ile Leu Ser Val Leu Ala Asn Asn Gln  
515 520 525

Asp Ala Lys Ser Ala Ile Val Lys Ala Asn Thr Leu Pro Ala Leu Ile  
530 535 540

Gly Ile Leu Gln Thr Asp Gln Thr Arg Asn Arg Glu Asn Ala Ala Ala  
545 550 555 560

Ile Leu Leu Ser Leu Cys Lys Arg Asp Thr Glu Lys Leu Ile Thr Ile  
565 570 575

Gly Arg Leu Gly Ala Val Val Pro Leu Met Asp Leu Ser Lys Asn Gly  
580 585 590

Thr Glu Arg Gly Lys Arg Lys Ala Ile Ser Leu Leu Glu Leu Leu Arg  
595 600 605

Lys Ala Cys Gln  
610

<210> 1241

<211> 1500

<212> DNA

<213> Arabidopsis thaliana

<400> 1241

atggaaactg aagacgattt gtgcaacacc aattggggaa gctcttcttc gaaatcgcga	60
gagccgggtt catcagactg tgggaattcg acattcgcag gttttacgtc ccagcagaag	120
tgggaagatg cttcaatctt ggattatgag atgggtgtgg agcctggatt gcaagagagc	180
attcaagcaa atgttgattt cttacaaggt gttagggtc aagcgtggga tccaaggacg	240



047-E2F-PCT.ST25.txt

```

atgttgagta acctttcttt tatggagcag aagattcacc agctgcagga tcttgttcat 300
cttcttggtg gtcgtggtgg gcagcttcaa ggtcgtcaag acgagctcgc ggctcagcag 360
cagcagctta taacgacgga tcttacttcc attatcatac agcttatttc aactgcaggt 420
agtcttcttc catctgttaa gcataatatg tcaacagctc cgggtccatt cactgggcag 480
cccggttcag ccgtgttccc ttatgtaagg gaggctaata acgttgcttc acagagtcag 540
aacaataaca actgtggtgc tcgagagttc gatttgccta agccggttct tgttgatgag 600
aggggaaggtc atgttggtga ggaacatgag atgaaagatg aagatgatgt ggaagaagga 660
gagaaccttc ctcccgggtc gtatgagata ttgcagcttg agaaagaaga gattctcgca 720
ccgcatactc acttctgcac gatatgtggc aagggtttca agagagacgc gaatttgagg 780
atgcatatga gagggcatgg agatgagtac aaaacagcag ctgctctggc gaaaccgaac 840
aaagaatccg taccgggtc tgagccgatg ctgatcaaga ggtactcgtg ccatttcctt 900
ggttgcaaac gtaacaagga gcacaaaaag ttccagcctt tgaaaacgat tctatgcgtg 960
aagaatcact ataaacgcac cactgcgat aaaagcttca cttgcagccg gtgccatacc 1020
aagaaattct ctgtcattgc agatcttaaa acccacgaga agcactgcgg gaaaaacaag 1080
tggctttggt cctgtggtac aacattttca aggaaagaca agttgtttgg tcacatagct 1140
ctgttccagg gacacacgcc tgcaatccct cttgaagaga caaaaccatc agccagtaca 1200
tctactcaga gagggagctc tgaaggcggg aacaacaacc aaggaatggt tggcttcaat 1260
cttggttctg catcaaagtc taaccaagaa accacacagc ctggaatgac tgatgggagg 1320
atatgttttg aggagtcgtt ctcaccaatg aactttgata catgtaattt tggagggttc 1380
cacgagtttc cgcgactgat gtttgatgat tcagagagtt cttttcaaat gcttattgcg 1440
aatgcctgtg gtttctcgcc caggaatggt ggtgagtctg tttcagatac tagtctctaa 1500

```

<210> 1242

<211> 499

<212> PRT

<213> Arabidopsis thaliana

<400> 1242

Met Glu Thr Glu Asp Asp Leu Cys Asn Thr Asn Trp Gly Ser Ser Ser  
1 5 10 15

Ser Lys Ser Arg Glu Pro Gly Ser Ser Asp Cys Gly Asn Ser Thr Phe  
20 25 30

047-E2F-PCT.ST25.txt

Ala Gly Phe Thr Ser Gln Gln Lys Trp Glu Asp Ala Ser Ile Leu Asp  
35 40 45

Tyr Glu Met Gly Val Glu Pro Gly Leu Gln Glu Ser Ile Gln Ala Asn  
50 55 60

Val Asp Phe Leu Gln Gly Val Arg Ala Gln Ala Trp Asp Pro Arg Thr  
65 70 75 80

Met Leu Ser Asn Leu Ser Phe Met Glu Gln Lys Ile His Gln Leu Gln  
85 90 95

Asp Leu Val His Leu Leu Val Gly Arg Gly Gly Gln Leu Gln Gly Arg  
100 105 110

Gln Asp Glu Leu Ala Ala Gln Gln Gln Gln Leu Ile Thr Thr Asp Leu  
115 120 125

Thr Ser Ile Ile Ile Gln Leu Ile Ser Thr Ala Gly Ser Leu Leu Pro  
130 135 140

Ser Val Lys His Asn Met Ser Thr Ala Pro Gly Pro Phe Thr Gly Gln  
145 150 155 160

Pro Gly Ser Ala Val Phe Pro Tyr Val Arg Glu Ala Asn Asn Val Ala  
165 170 175

Ser Gln Ser Gln Asn Asn Asn Asn Cys Gly Ala Arg Glu Phe Asp Leu  
180 185 190

Pro Lys Pro Val Leu Val Asp Glu Arg Glu Gly His Val Val Glu Glu  
195 200 205

His Glu Met Lys Asp Glu Asp Asp Val Glu Glu Gly Glu Asn Leu Pro  
210 215 220

Pro Gly Ser Tyr Glu Ile Leu Gln Leu Glu Lys Glu Glu Ile Leu Ala  
225 230 235 240

Pro His Thr His Phe Cys Thr Ile Cys Gly Lys Gly Phe Lys Arg Asp  
245 250 255

Ala Asn Leu Arg Met His Met Arg Gly His Gly Asp Glu Tyr Lys Thr  
260 265 270

Ala Ala Ala Leu Ala Lys Pro Asn Lys Glu Ser Val Pro Gly Ser Glu  
275 280 285

047-E2F-PCT.ST25.txt

Pro Met Leu Ile Lys Arg Tyr Ser Cys Pro Phe Leu Gly Cys Lys Arg  
290 295 300

Asn Lys Glu His Lys Lys Phe Gln Pro Leu Lys Thr Ile Leu Cys Val  
305 310 315 320

Lys Asn His Tyr Lys Arg Thr His Cys Asp Lys Ser Phe Thr Cys Ser  
325 330 335

Arg Cys His Thr Lys Lys Phe Ser Val Ile Ala Asp Leu Lys Thr His  
340 345 350

Glu Lys His Cys Gly Lys Asn Lys Trp Leu Cys Ser Cys Gly Thr Thr  
355 360 365

Phe Ser Arg Lys Asp Lys Leu Phe Gly His Ile Ala Leu Phe Gln Gly  
370 375 380

His Thr Pro Ala Ile Pro Leu Glu Glu Thr Lys Pro Ser Ala Ser Thr  
385 390 395 400

Ser Thr Gln Arg Gly Ser Ser Glu Gly Gly Asn Asn Asn Gln Gly Met  
405 410 415

Val Gly Phe Asn Leu Gly Ser Ala Ser Asn Ala Asn Gln Glu Thr Thr  
420 425 430

Gln Pro Gly Met Thr Asp Gly Arg Ile Cys Phe Glu Glu Ser Phe Ser  
435 440 445

Pro Met Asn Phe Asp Thr Cys Asn Phe Gly Gly Phe His Glu Phe Pro  
450 455 460

Arg Leu Met Phe Asp Asp Ser Glu Ser Ser Phe Gln Met Leu Ile Ala  
465 470 475 480

Asn Ala Cys Gly Phe Ser Pro Arg Asn Val Gly Glu Ser Val Ser Asp  
485 490 495

Thr Ser Leu

<210> 1243

<211> 1434

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1243

```

atgaaatcga atcaaaaaaa acaaaaatcc ccaaattacc aaaatcctcg gcgacaaaga      60
ggagagatag agagagagaa agaggcgaaa ataatggcgt cgatccctcc gccggagctt      120
gacaacgact cactggcgtc atcgccgaga tcggagtacg atagtcagcc acgcgtacgg      180
ttcatgtgta cttttggagg aaggatcttg ccacgtccgc cggataatca gctctgttac      240
gtcggcgggc ataatcgcat ggtcgtctgt catcgtcaca ctactttcgc ctctctcctt      300
agtaaacttg ctaaactctc cggtaaaagc aacataagcg tgaagtacca gctaccaaac      360
gaagatcttg acgcgttgat ttccgtatca acggacgaag atgtagagaa catgatggac      420
gaatacgacc gcgtcgaca gaatcaaaac ccacgcgcct ctcgtcttcg tctttttctc      480
ttcacaaaaa acgtcgccgg agaagaagat aacgatagtc gagctagcag tatcagctct      540
ctcctcgata gctctgttaa tcgggagcaa tggttcctcg acgctcttaa cctcggttct      600
tccgccgccg caaccgcggt atctaacggt ggggtccggt gagtctttga gcgagttaga      660
tctgaagtct cgtcgattgt ttctgaagtt cctgattatc tctttggatt ggataatttc      720
gatgaaactg ctccgccgca tgagcttcgt gatcgtgatc cgagagctaa gatccaacga      780
gaagtctcga cgctttcggg tcctggttcg cctcgtcgcg atgttccttc gccgtatggt      840
tcgacgtctt cggctcctgt gatgcgaata tctacaccgg aacttccacc accagttttt      900
attaaaccgg aaagtccaga accggtttcg actccgaaat ccaatcctca accggaacaa      960
gtaatgcaac agagtaatct cccggttaac tcgcaatggc aatatgcccc tggcccaggc     1020
caacaggttc attaccaggg tcataccatt caccaatcac cggtttatta cgttcctggt     1080
tcggttccgg gtaatcatat ggtccagcaa ggaaatcata tggttcaacc gggtaatcat     1140
atggtacaac cggttcaaat gccgggtcag tatcttcaac aataccatca tgtaccaatg     1200
ggataccacc aacctcagac tcatcagatg gctgggtccg gtcaagtata tgggtggaacg     1260
gttaggccgg ttatgatggc agttgatgga atgaaccgga cgggttatta tggaatgaaa     1320
acaccgggtc cggttcaaat gtatcagcat cacactggta tggttgttcc tgggtgtagaa     1380
gaacaacaac aatacagaac cgaaacggat tcggatacgg gtcgggcttc ttag              1434

```

&lt;210&gt; 1244

&lt;211&gt; 477

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1244

```

Met Lys Ser Asn Gln Lys Lys Gln Lys Ser Pro Asn Tyr Gln Asn Pro
 1      5      10      15

Arg Arg Gln Arg Gly Glu Ile Glu Arg Glu Lys Glu Ala Lys Ile Met
 20      25      30

Ala Ser Ile Pro Pro Pro Glu Leu Asp Asn Asp Ser Leu Ala Ser Ser
 35      40      45

Pro Arg Ser Glu Tyr Asp Ser Gln Pro Arg Val Arg Phe Met Cys Thr
 50      55      60

Phe Gly Gly Arg Ile Leu Pro Arg Pro Pro Asp Asn Gln Leu Cys Tyr
 65      70      75      80

Val Gly Gly Asp Asn Arg Met Val Ala Val His Arg His Thr Thr Phe
 85      90      95

Ala Ser Leu Leu Ser Lys Leu Ala Lys Leu Ser Gly Lys Ser Asn Ile
100      105      110

Ser Val Lys Tyr Gln Leu Pro Asn Glu Asp Leu Asp Ala Leu Ile Ser
115      120      125

Val Ser Thr Asp Glu Asp Val Glu Asn Met Met Asp Glu Tyr Asp Arg
130      135      140

Val Ala Gln Asn Gln Asn Pro Arg Ala Ser Arg Leu Arg Leu Phe Leu
145      150      155      160

Phe Thr Lys Asn Val Ala Gly Glu Glu Asp Asn Asp Ser Arg Ala Ser
165      170      175

Ser Ile Ser Ser Leu Leu Asp Ser Ser Val Asn Arg Glu Gln Trp Phe
180      185      190

Leu Asp Ala Leu Asn Leu Gly Ser Ser Ala Ala Ala Thr Ala Val Ser
195      200      205

Asn Gly Gly Ser Gly Arg Val Phe Glu Arg Val Arg Ser Glu Val Ser
210      215      220

Ser Ile Val Ser Glu Val Pro Asp Tyr Leu Phe Gly Leu Asp Asn Phe
225      230      235      240

```

047-E2F-PCT.ST25.txt

Asp Glu Thr Ala Pro His Glu Leu Arg Asp Arg Asp Pro Arg Ala  
 245 250 255  
 Lys Ile Gln Arg Glu Val Ser Thr Leu Ser Asp Pro Gly Ser Pro Arg  
 260 265 270  
 Arg Asp Val Pro Ser Pro Tyr Gly Ser Thr Ser Ser Ala Pro Val Met  
 275 280 285  
 Arg Ile Ser Thr Pro Glu Leu Pro Pro Pro Val Phe Ile Lys Pro Glu  
 290 295 300  
 Ser Pro Glu Pro Val Ser Thr Pro Lys Ser Asn Pro Gln Pro Glu Gln  
 305 310 315 320  
 Val Met Gln Gln Ser Asn Leu Pro Val Asn Ser Gln Trp Gln Tyr Ala  
 325 330 335  
 Pro Gly Pro Gly Gln Gln Val His Tyr Gln Gly His Thr Ile His Gln  
 340 345 350  
 Ser Pro Val Tyr Tyr Val Pro Gly Ser Val Pro Gly Asn His Met Val  
 355 360 365  
 Gln Gln Gly Asn His Met Val Gln Pro Gly Asn His Met Val Gln Pro  
 370 375 380  
 Val Gln Met Pro Gly Gln Tyr Leu Gln Gln Tyr His His Val Pro Met  
 385 390 395 400  
 Gly Tyr His Gln Pro Gln Thr His Gln Met Ala Gly Pro Gly Gln Val  
 405 410 415  
 Tyr Gly Gly Thr Val Arg Pro Val Met Met Ala Val Asp Gly Met Asn  
 420 425 430  
 Arg Thr Gly Tyr Tyr Gly Met Lys Thr Pro Gly Pro Val Gln Met Tyr  
 435 440 445  
 Gln His His Thr Gly Met Val Val Pro Gly Val Glu Glu Gln Gln Gln  
 450 455 460  
 Tyr Arg Thr Glu Thr Asp Ser Asp Thr Gly Arg Ala Ser  
 465 470 475

<210> 1245

&lt;211&gt; 1077

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1245

```

atggtgaaga agcaatcgcc attacacggt gtcggtgtgt ctgttttgat ggtgttggtta      60
tgcagtgtta attacagtct ctgtgaaaag atcaaaacgt ataagctcac aagaggaagc      120
ttaagtgtta ctttactaa ctatggtgct gtcattgacct ctcttctcct ccctgacaga      180
catggaaaac aagacgatgt tgttcttgga tttgatactg ttgatgggtta caagaatgat      240
acaacatatt ttggagcaat tgtgggaaga gtggctaata gaataggagg tgctaaattc      300
aagttaaattg gtcattctta caaaaccgat cccaacgaag gccgtaacac tctccatggt      360
ggttcaaagg gatttagtga tgtgatttgg tcagtccaaa agtatgttcc cactagtcac      420
attactttca catacgatag cttcgacggt gaagaagggt ttccgggcaa tgtgacggtg      480
aaagtgacgt acatgttgat cggagaaaac aaactcgggt taaaaatgga agcaaagcca      540
ctcaacaaac ctacaccaat caacttagct ctccacactt actggaacct ccacagccac      600
aactccggga acatcctctc ccacaaaatt caactcctcg ccggaaaaat cactcccgtc      660
gacgacaaac tcattcccac cggagaaatc acctccatta ccggaactcc ttacgatttc      720
ctcgagccac gtgagatcgg tagccggatc cacgaattac ccggcgggtta cgacatcaat      780
tacgtgatcg acggaccgat cgggaaacat ctgaggaaaa ctgcggttgt gacggagcaa      840
gtcaccggga ggaagatgga gctgtggacg aatcagcctg gtgttcagtt ttacacgagt      900
aatatgatga aacgtgtcgt cggtaaagggt aaagccgttt atgagaaata cgggtggcttg      960
tgtttgagaga ctcaaggctt cccagattcc gtcaatcaca agaactttcc gtcgcagatt     1020
gttaatcccg gcgagagtta tttgcatggt atgctcttca gattcactgc tcactaa         1077

```

&lt;210&gt; 1246

&lt;211&gt; 358

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1246

```

Met Val Lys Lys Gln Ser Pro Leu His Val Val Gly Val Ser Val Leu
1          5          10          15

```

```

Met Val Leu Leu Cys Ser Val Asn Tyr Ser Leu Cys Glu Lys Ile Lys
Page 1945

```

Thr Tyr Lys<sub>35</sub> Leu Thr Arg Gly<sub>40</sub> Ser<sub>40</sub> Leu Ser Val Thr Phe<sub>45</sub> Thr Asn Tyr  
 Gly<sub>50</sub> Ala<sub>50</sub> Val Met Thr Ser<sub>55</sub> Leu<sub>55</sub> Leu Pro Asp<sub>60</sub> Arg<sub>60</sub> His Gly Lys Gln  
 Asp<sub>65</sub> Asp<sub>65</sub> Val Val Leu Gly<sub>70</sub> Phe<sub>70</sub> Asp Thr Val Asp<sub>75</sub> Gly<sub>75</sub> Tyr Lys Asn Asp<sub>80</sub>  
 Thr Thr Tyr Phe<sub>85</sub> Gly<sub>85</sub> Ala Ile Val Gly<sub>90</sub> Arg<sub>90</sub> Val Ala Asn Arg Ile<sub>95</sub> Gly<sub>95</sub>  
 Gly Ala Lys<sub>100</sub> Phe<sub>100</sub> Lys Leu Asn Gly<sub>105</sub> His<sub>105</sub> Leu Tyr Lys Thr Asp<sub>110</sub> Pro Asn  
 Glu Gly Arg<sub>115</sub> Asn Thr Leu His Gly<sub>120</sub> Gly Ser Lys Gly<sub>125</sub> Phe<sub>125</sub> Ser Asp Val  
 Ile Trp<sub>130</sub> Ser Val Gln Lys Tyr<sub>135</sub> Val Pro Thr Ser His<sub>140</sub> Ile Thr Phe Thr  
 Tyr<sub>145</sub> Asp Ser Phe Asp Gly<sub>150</sub> Glu Glu Gly Phe<sub>155</sub> Pro<sub>155</sub> Gly Asn Val Thr Val<sub>160</sub>  
 Lys Val Thr Tyr Met<sub>165</sub> Leu Ile Gly Glu Asn<sub>170</sub> Lys Leu Gly Val Lys<sub>175</sub> Met<sub>175</sub>  
 Glu Ala Lys Pro<sub>180</sub> Leu Asn Lys Pro Thr<sub>185</sub> Pro Ile Asn Leu Ala<sub>190</sub> Leu His  
 Thr Tyr Trp<sub>195</sub> Asn Leu His Ser His<sub>200</sub> Asn Ser Gly Asn Ile<sub>205</sub> Leu Ser His  
 Lys Ile<sub>210</sub> Gln Leu Leu Ala Gly<sub>215</sub> Lys Ile Thr Pro Val<sub>220</sub> Asp Asp Lys Leu  
 Ile<sub>225</sub> Pro Thr Gly Glu Ile<sub>230</sub> Thr Ser Ile Thr Gly<sub>235</sub> Thr Pro Tyr Asp Phe<sub>240</sub>  
 Leu Glu Pro Arg Gly<sub>245</sub> Ile Gly Ser Arg Ile<sub>250</sub> His Glu Leu Pro Gly<sub>255</sub> Gly  
 Tyr Asp Ile Asn<sub>260</sub> Tyr Val Ile Asp Gly<sub>265</sub> Pro Ile Gly Lys His<sub>270</sub> Leu Arg



Lys Thr Ala Val Val Thr Glu Gln Val Thr Gly Arg Lys Met Glu Leu  
 275 280 285

Trp Thr Asn Gln Pro Gly Val Gln Phe Tyr Thr Ser Asn Met Met Lys  
 290 295 300

Arg Val Val Gly Lys Gly Lys Ala Val Tyr Glu Lys Tyr Gly Gly Leu  
 305 310 315 320

Cys Leu Glu Thr Gln Gly Phe Pro Asp Ser Val Asn His Lys Asn Phe  
 325 330 335

Pro Ser Gln Ile Val Asn Pro Gly Glu Ser Tyr Leu His Val Met Leu  
 340 345 350

Phe Arg Phe Thr Ala His  
 355

<210> 1247

<211> 975

<212> DNA

<213> Arabidopsis thaliana

<400> 1247

atgttaacgg acgagagaga agtagtctgt gtcaccggcg ccagtggctg catcggctcg	60
tggctggtcc atcagctcct cctccgcggc tactccgtcc acgccaccgt gaaaaacctc	120
caggatgaga aagagacgaa acatctagaa ggtctcgaag gtgcagccac acgcctccat	180
ctattcgaga tggatctcct acaatacgac accgtttccg ccgccatcaa tggttgctcc	240
ggcgtattcc acctcgcac accttgtatc gtcgatgaag tccaagatcc ccagaagcaa	300
ctacttgacc cggcgggttaa aggaaccata aatgtttctga cggcggcaaa agaagccagt	360
gttaagagag ttgtttgtgac gtcttcgata tcggcgatta ctccaagtcc caactggcct	420
gctgataaga tcaagaatga ggaatgttgg gctgctgaag actactgcag gcaaaatgga	480
ttgtggtatc cactgtcgaa gacgcttgct gagaaggcag cttgggaatt tgcagaggag	540
aaaggattgg atgtggttgt ggtgaatcca ggcactgtca tggggcctgt gattcctccg	600
tctcttaacg ctagcatgca catgcttcta cgccttcttc aggggtgcac ggagacatac	660
gagaacttct ttatggggtc tgtgcatttc aaggatgtgg ctttagctca tattcttgta	720
tacgaggatc catattcgaa aggaaggcac ttgtgcgttg aggctatctc tcactacggt	780
gattttgtag ccaaagttgc tgagctctat cccaattaca atgtcccaa gttaccgaga	840

gagactcaac cgggtttact tcgagataag aatgcatcaa agaagctcat agatttgggg 900  
 ttaaagttca tttccatgga ggaaatcatc aaggaaggtg tggagagtct taaaagcaaa 960  
 ggatttatct cttaa 975

<210> 1248

<211> 324

<212> PRT

<213> Arabidopsis thaliana

<400> 1248

Met Leu Thr Asp Glu Arg Glu Val Val Cys Val Thr Gly Ala Ser Gly  
 1 5 10 15  
 Cys Ile Gly Ser Trp Leu Val His Gln Leu Leu Leu Arg Gly Tyr Ser  
 20 25 30  
 Val His Ala Thr Val Lys Asn Leu Gln Asp Glu Lys Glu Thr Lys His  
 35 40 45  
 Leu Glu Gly Leu Glu Gly Ala Ala Thr Arg Leu His Leu Phe Glu Met  
 50 55 60  
 Asp Leu Leu Gln Tyr Asp Thr Val Ser Ala Ala Ile Asn Gly Cys Ser  
 65 70 75 80  
 Gly Val Phe His Leu Ala Ser Pro Cys Ile Val Asp Glu Val Gln Asp  
 85 90 95  
 Pro Gln Lys Gln Leu Leu Asp Pro Ala Val Lys Gly Thr Ile Asn Val  
 100 105 110  
 Leu Thr Ala Ala Lys Glu Ala Ser Val Lys Arg Val Val Val Thr Ser  
 115 120 125  
 Ser Ile Ser Ala Ile Thr Pro Ser Pro Asn Trp Pro Ala Asp Lys Ile  
 130 135 140  
 Lys Asn Glu Glu Cys Trp Ala Ala Glu Asp Tyr Cys Arg Gln Asn Gly  
 145 150 155 160  
 Leu Trp Tyr Pro Leu Ser Lys Thr Leu Ala Glu Lys Ala Ala Trp Glu  
 165 170 175

Phe Ala Glu Glu Lys Gly Leu Asp Val Val Val Val Asn Pro Gly Thr  
 180 185 190  
 Val Met Gly Pro Val Ile Pro Pro Ser Leu Asn Ala Ser Met His Met  
 195 200 205  
 Leu Leu Arg Leu Leu Gln Gly Cys Thr Glu Thr Tyr Glu Asn Phe Phe  
 210 215 220  
 Met Gly Ser Val His Phe Lys Asp Val Ala Leu Ala His Ile Leu Val  
 225 230 235 240  
 Tyr Glu Asp Pro Tyr Ser Lys Gly Arg His Leu Cys Val Glu Ala Ile  
 245 250 255  
 Ser His Tyr Gly Asp Phe Val Ala Lys Val Ala Glu Leu Tyr Pro Asn  
 260 265 270  
 Tyr Asn Val Pro Lys Leu Pro Arg Glu Thr Gln Pro Gly Leu Leu Arg  
 275 280 285  
 Asp Lys Asn Ala Ser Lys Lys Leu Ile Asp Leu Gly Leu Lys Phe Ile  
 290 295 300  
 Ser Met Glu Glu Ile Ile Lys Glu Gly Val Glu Ser Leu Lys Ser Lys  
 305 310 315 320  
 Gly Phe Ile Ser

<210> 1249

<211> 1491

<212> DNA

<213> Arabidopsis thaliana

<400> 1249

atggccggga ctggattggt tgctgagatt cttgatggag aagtatacaa atactacgct	60
gatggtgagt ggaaaacttc ttcctcaggt aagagtgttg ccatcatgaa cccggccacg	120
aggaagacac agtacaaggt tcaagcatgc acgcaagaag aagtgaacgc ggtgatggaa	180
ctggcgaaat cagctcagaa atcgtgggcg aaaactcctc tttggaaaag agctgagctt	240
cttcacaagg ctgcagcaat ccttaaggac acaaagctc ccatggctga gtctcttggt	300
aaagaaatcg ctaaaccgcg caaagattct gttactgagg ttgtgaggtc tggagatttg	360

```

atctcttatt gtgctgaaga aggtgttagg atcttaggtg aagggaggtt tcttctctcc 420
gatagcttcc ccggtaatga ccgtactaag tactgcctca cttccaagat tccactcggt 480
gtggttttgg ctattcctcc attcaattat ccagttaatc tcgctgtatc gaagatcgct 540
cctgctttga tcgccggaaa ctcccttgtc ctcaaacctc caactcaagg agctgtttct 600
tgccttcaca tgggtacattg ctttcactta gccgggttcc caaaagggtct tatcagctgc 660
atcaccggaa aaggatctga gatcggcgat ttcctcacta tgcaccctgc tgttaactgc 720
attagtttca cgggtggtga taccggaatc tcaatctcaa agaaagctgg tatgatccct 780
cttcaaatgg aacttgagg taaagatgca tgcattgttc tagatgatgc tgatcttgat 840
ttagttgctt ccaatatcat caaaggagga ttctcttaca gcgggcagag atgcactgcg 900
gttaaggtag tcctagtgat ggaatcagta gcggatgagc ttgttgagaa agtgaaagct 960
aaagtggcca aactcacggt gggaccgcc gaagagaact ccgatatcac ggcagtgggtg 1020
tcggaatctt cagctaattt cattgaagga ttggtgatgg atgctaagga gaaaggagca 1080
acgttttgtc aagagtataa aagagaggggt aacttgattt ggccgttgct tttggataat 1140
gttagaccgg acatgaggat cgcgtgggag gaaccattcg gtcctgttgt gccggtcttg 1200
aggatcaatt ctgttgaaga agggattaat cattgcaatg caagcaactt tggccttcag 1260
ggatgtgtat tcactaaaga catcaacaag gcaatactga tcagtgatgc aatggagaca 1320
ggaaccgttc agatcaactc tgcgccagct cgtggaccgg accacttccc tttccaggga 1380
cttaaggaca gtggaatagg gtcacaaggt gtgacaaata gcatcaattt gatgactaaa 1440
gtgaagacca ctgtcattaa cttgcctaca ctttcttact ctatgggtta g 1491

```

&lt;210&gt; 1250

&lt;211&gt; 496

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1250

```

Met Ala Gly Thr Gly Leu Phe Ala Glu Ile Leu Asp Gly Glu Val Tyr
1           5           10          15

```

```

Lys Tyr Tyr Ala Asp Gly Glu Trp Lys Thr Ser Ser Ser Gly Lys Ser
          20          25          30

```

```

Val Ala Ile Met Asn Pro Ala Thr Arg Lys Thr Gln Tyr Lys Val Gln
          35          40          45

```

Ala Cys Thr Gln Glu Glu Val Asn Ala Val Met Glu Leu Ala Lys Ser  
 50 55 60  
 Ala Gln Lys Ser Trp Ala Lys Thr Pro Leu Trp Lys Arg Ala Glu Leu  
 65 70 75 80  
 Leu His Lys Ala Ala Ala Ile Leu Lys Asp Asn Lys Ala Pro Met Ala  
 85 90 95  
 Glu Ser Leu Val Lys Glu Ile Ala Lys Pro Ala Lys Asp Ser Val Thr  
 100 105 110  
 Glu Val Val Arg Ser Gly Asp Leu Ile Ser Tyr Cys Ala Glu Glu Gly  
 115 120 125  
 Val Arg Ile Leu Gly Glu Gly Lys Phe Leu Leu Ser Asp Ser Phe Pro  
 130 135 140  
 Gly Asn Asp Arg Thr Lys Tyr Cys Leu Thr Ser Lys Ile Pro Leu Gly  
 145 150 155 160  
 Val Val Leu Ala Ile Pro Pro Phe Asn Tyr Pro Val Asn Leu Ala Val  
 165 170 175  
 Ser Lys Ile Ala Pro Ala Leu Ile Ala Gly Asn Ser Leu Val Leu Lys  
 180 185 190  
 Pro Pro Thr Gln Gly Ala Val Ser Cys Leu His Met Val His Cys Phe  
 195 200 205  
 His Leu Ala Gly Phe Pro Lys Gly Leu Ile Ser Cys Ile Thr Gly Lys  
 210 215 220  
 Gly Ser Glu Ile Gly Asp Phe Leu Thr Met His Pro Ala Val Asn Cys  
 225 230 235 240  
 Ile Ser Phe Thr Gly Gly Asp Thr Gly Ile Ser Ile Ser Lys Lys Ala  
 245 250 255  
 Gly Met Ile Pro Leu Gln Met Glu Leu Gly Gly Lys Asp Ala Cys Ile  
 260 265 270  
 Val Leu Asp Asp Ala Asp Leu Asp Leu Val Ala Ser Asn Ile Ile Lys  
 275 280 285  
 Gly Gly Phe Ser Tyr Ser Gly Gln Arg Cys Thr Ala Val Lys Val Val  
 290 295 300

047-E2F-PCT.ST25.txt

Leu Val Met Glu Ser Val Ala Asp Glu Leu Val Glu Lys Val Lys Ala  
305 310 315 320

Lys Val Ala Lys Leu Thr Val Gly Pro Pro Glu Glu Asn Ser Asp Ile  
325 330 335

Thr Ala Val Val Ser Glu Ser Ser Ala Asn Phe Ile Glu Gly Leu Val  
340 345 350

Met Asp Ala Lys Glu Lys Gly Ala Thr Phe Cys Gln Glu Tyr Lys Arg  
355 360 365

Glu Gly Asn Leu Ile Trp Pro Leu Leu Leu Asp Asn Val Arg Pro Asp  
370 375 380

Met Arg Ile Ala Trp Glu Glu Pro Phe Gly Pro Val Val Pro Val Leu  
385 390 395 400

Arg Ile Asn Ser Val Glu Glu Gly Ile Asn His Cys Asn Ala Ser Asn  
405 410 415

Phe Gly Leu Gln Gly Cys Val Phe Thr Lys Asp Ile Asn Lys Ala Ile  
420 425 430

Leu Ile Ser Asp Ala Met Glu Thr Gly Thr Val Gln Ile Asn Ser Ala  
435 440 445

Pro Ala Arg Gly Pro Asp His Phe Pro Phe Gln Gly Leu Lys Asp Ser  
450 455 460

Gly Ile Gly Ser Gln Gly Val Thr Asn Ser Ile Asn Leu Met Thr Lys  
465 470 475 480

Val Lys Thr Thr Val Ile Asn Leu Pro Thr Pro Ser Tyr Ser Met Gly  
485 490 495

<210> 1251

<211> 1914

<212> DNA

<213> Arabidopsis thaliana

<400> 1251

atgcagatcg ctggtttgcc catcggaag ttcattggctc ggactcttcc caccattct 60

cacaaccttc ttgggtggag ttttagcctc aatcctggtc cttttaacat caaggagcat 120

## 047-E2F-PCT.ST25.txt

gtcattatca ccatctttgc taattgtggc gttgcttacg gtggtggtga tgcttactct	180
attggggcta tcaactgttat gaaagcttac tataaacaga gccttagctt catctgtggt	240
ctcttcatcg tcttgaccac tcagattttg gggttatggtt gggctgggat tctaaggagg	300
taccttgttg atcctgttga catgtggtgg ccttcaaadc tcgctcaagt ttctctcttc	360
agagcgttgc acgagaagga aaacaagtct aaaggcttga cgaggatgaa gttctttcta	420
gtagctcttg gtgctagctt tatttactat gcacttccag gctatctatt cccaatcttg	480
actttctcct catgggtttg ttgggcttgg ccaaacagca tcacggctca gcaggttggt	540
tcagggtacc atggccttgg gggttgagcc ttcactcttg actgggctgg catctctgct	600
taccatggta gtccattggt ggctccatgg tcctctatcc tcaacgttgg tgttggtttc	660
atcatgttta tatacatcat cgtccctggt tgttactgga agttcaacac tttcgatgcc	720
agaaagttcc ccatttcctc caaccagcta ttcactacta gtggccagaa gtatgacaca	780
accaagatct tgacaccgca gtttgatctg gatattggtg cttataacaa ctacgggaaa	840
ctttacctca gccctctttt cgcactctct atcggatccg ggtttgcgag attcactgca	900
acactaactc atgtggcatt gttcaacggc agggacatat ggaagcagac ttggtctgca	960
gtgaacacca cgaagctgga catccatgga aaattgatgc aaagctacaa aaaagtgcct	1020
gagtgggtgt tttatatatt gctggcagga agtgtagcca tgtctctcct aatgtctttt	1080
gtgtggaagg agtcagtgca gcttccatgg tggggaatgc tctttgcttt tgcattggcc	1140
ttcattgtca cactccctat cgggtgtcatt caagcaacta caaatcagca accaggatat	1200
gatataatag ggcagttcat tatcggttat atcctgcctg gaaaacccat tgcaaacctg	1260
atcttcaaga ttacggggag aatcagcaca gtccatgctc tctcattttt ggcagacctt	1320
aagcttggcc attacatgaa aatcccaccg ccctgcatgt acacggctca gctggtgggc	1380
actgtggtag ctggtgtggt gaatctggga gtggcctggt ggatgttgga gagcattcaa	1440
gacatatgag acatcgaagg agaccaccct aatagcccct ggacttgccc caagtataga	1500
gtgacgttcg atgcttcagt tatttggggg ttgataggac caagacggct ctttggacca	1560
ggaggcatgt accgtaacct tggtgggttc ttcctcattg gagctgtcct gcctgttccc	1620
cgtgtgggag ctgagcaaga tcttcccaaa caagaagtgg atccctctca tcaacattcc	1680
agttatctcc tacggctttg cagggatgcc tccagccact ccaaccaaca ttgccagctg	1740
gttggtcaca ggaacctct tcaactactt tgtgttcaat taccacaaga gatggtggca	1800
gaagtacaat tacgtactct ctgcagcgtc cgatgcaggg accgcgttca tgggggtgct	1860
cttgttcttc gccctgcaga atgctggaca cgacctcaaa tggtggggca ctga	1914

&lt;211&gt; 637

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1252

Met Gln Ile Ala Gly Leu Pro Ile Gly Lys Phe Met Ala Arg Thr Leu  
 1 5 10 15

Pro Thr Thr Ser His Asn Leu Leu Gly Trp Ser Phe Ser Leu Asn Pro  
 20 25 30

Gly Pro Phe Asn Ile Lys Glu His Val Ile Ile Thr Ile Phe Ala Asn  
 35 40 45

Cys Gly Val Ala Tyr Gly Gly Gly Asp Ala Tyr Ser Ile Gly Ala Ile  
 50 55 60

Thr Val Met Lys Ala Tyr Tyr Lys Gln Ser Leu Ser Phe Ile Cys Gly  
 65 70 75 80

Leu Phe Ile Val Leu Thr Thr Gln Ile Leu Gly Tyr Gly Trp Ala Gly  
 85 90 95

Ile Leu Arg Arg Tyr Leu Val Asp Pro Val Asp Met Trp Trp Pro Ser  
 100 105 110

Asn Leu Ala Gln Val Ser Leu Phe Arg Ala Leu His Glu Lys Glu Asn  
 115 120 125

Lys Ser Lys Gly Leu Thr Arg Met Lys Phe Phe Leu Val Ala Leu Gly  
 130 135 140

Ala Ser Phe Ile Tyr Tyr Ala Leu Pro Gly Tyr Leu Phe Pro Ile Leu  
 145 150 155 160

Thr Phe Ser Ser Trp Val Cys Trp Ala Trp Pro Asn Ser Ile Thr Ala  
 165 170 175

Gln Gln Val Gly Ser Gly Tyr His Gly Leu Gly Val Gly Ala Phe Thr  
 180 185 190

Leu Asp Trp Ala Gly Ile Ser Ala Tyr His Gly Ser Pro Leu Val Ala  
 195 200 205



Pro Trp Ser Ser Ile Leu Asn Val Gly Val Gly Phe Ile Met Phe Ile  
 210 215 220  
 Tyr Ile Ile Val Pro Val Cys Tyr Trp Lys Phe Asn Thr Phe Asp Ala  
 225 230 235 240  
 Arg Lys Phe Pro Ile Ser Ser Asn Gln Leu Phe Thr Thr Ser Gly Gln  
 245 250 255  
 Lys Tyr Asp Thr Thr Lys Ile Leu Thr Pro Gln Phe Asp Leu Asp Ile  
 260 265 270  
 Gly Ala Tyr Asn Asn Tyr Gly Lys Leu Tyr Leu Ser Pro Leu Phe Ala  
 275 280 285  
 Leu Ser Ile Gly Ser Gly Phe Ala Arg Phe Thr Ala Thr Leu Thr His  
 290 295 300  
 Val Ala Leu Phe Asn Gly Arg Asp Ile Trp Lys Gln Thr Trp Ser Ala  
 305 310 315 320  
 Val Asn Thr Thr Lys Leu Asp Ile His Gly Lys Leu Met Gln Ser Tyr  
 325 330 335  
 Lys Lys Val Pro Glu Trp Trp Phe Tyr Ile Leu Leu Ala Gly Ser Val  
 340 345 350  
 Ala Met Ser Leu Leu Met Ser Phe Val Trp Lys Glu Ser Val Gln Leu  
 355 360 365  
 Pro Trp Trp Gly Met Leu Phe Ala Phe Ala Leu Ala Phe Ile Val Thr  
 370 375 380  
 Leu Pro Ile Gly Val Ile Gln Ala Thr Thr Asn Gln Gln Pro Gly Tyr  
 385 390 395 400  
 Asp Ile Ile Gly Gln Phe Ile Ile Gly Tyr Ile Leu Pro Gly Lys Pro  
 405 410 415  
 Ile Ala Asn Leu Ile Phe Lys Ile Tyr Gly Arg Ile Ser Thr Val His  
 420 425 430  
 Ala Leu Ser Phe Leu Ala Asp Leu Lys Leu Gly His Tyr Met Lys Ile  
 435 440 445  
 Pro Pro Pro Cys Met Tyr Thr Ala Gln Leu Val Gly Thr Val Val Ala  
 450 455 460

047-E2F-PCT.ST25.txt

Gly Val Val Asn Leu Gly Val Ala Trp Trp Met Leu Glu Ser Ile Gln  
465 470 475 480

Asp Ile Cys Asp Ile Glu Gly Asp His Pro Asn Ser Pro Trp Thr Cys  
485 490 495

Pro Lys Tyr Arg Val Thr Phe Asp Ala Ser Val Ile Trp Gly Leu Ile  
500 505 510

Gly Pro Arg Arg Leu Phe Gly Pro Gly Gly Met Tyr Arg Asn Leu Val  
515 520 525

Gly Phe Phe Leu Ile Gly Ala Val Leu Pro Val Pro Arg Val Gly Ala  
530 535 540

Glu Gln Asp Leu Pro Lys Gln Glu Val Asp Pro Ser His Gln His Ser  
545 550 555 560

Ser Tyr Leu Leu Arg Leu Cys Arg Asp Ala Ser Ser His Ser Asn Gln  
565 570 575

His Cys Gln Leu Val Gly His Arg Asn His Leu Gln Leu Leu Cys Val  
580 585 590

Gln Leu Pro Gln Glu Met Val Ala Glu Val Gln Leu Arg Thr Leu Cys  
595 600 605

Ser Ala Arg Cys Arg Asp Arg Val His Gly Gly Ala Leu Val Leu Arg  
610 615 620

Pro Ala Glu Cys Trp Thr Arg Pro Gln Met Val Gly His  
625 630 635

<210> 1253

<211> 3090

<212> DNA

<213> Arabidopsis thaliana

<400> 1253  
atgccgcgaa gcagagacga agacgatgaa ttagacggtg actacgaagc attagattta 60  
gaggaagaag aggaagaaga cgaagaagaa gaagaagaga gaggaagagg tggcggcggt 120  
tctagacgga agagaggaag atcgaatttt atcgatgatt atgctgagga agattctcag 180  
gaagaagatg atgacgatga agattatggt agtagccgtg gaggtaaagg agctgctagt 240

## 047-E2F-PCT.ST25.txt

aagagaaaga	agccatctgc	ttctattttc	ttagaccgag	aagctcatca	agttgatgat	300
gaagacgaag	aggaagaaga	tgaagcagaa	gatgatttta	ttgtggataa	tggaacggac	360
cttccggatg	agcgtggtga	tagacggtac	gaacggaggt	ttcttcctcg	agacgaaaat	420
gatgaggatg	tggaagatct	cgagagaaga	attcaagagc	ggttctcctc	taggcatcat	480
gaagaatatg	atgaagaagc	tacagaagtt	gagcaacaag	cgcttttgcc	atcagtcctg	540
gatccgaaat	tgtggatggt	gaaatgtgcg	attggccgtg	aaagggaggt	tgctgtttgt	600
cttatgcaaa	aatttataga	tcgaggagct	gatttgcaga	ttagatctgt	tgttgccctt	660
gaccatctta	agaattttat	atatgttgaa	gcagacaagg	aagctcatgt	gaaagaggca	720
atcaagggca	tgaggaatat	atatgcta	cagaagatct	tacttgtccc	gataagagaa	780
atgacagatg	ttctttctgt	tgagagcaaa	gccattgatc	tatcacggga	tacctgggtt	840
agaatgaaaa	tcgggacgta	taaaggtgat	cttgcaaagg	tagttgatgt	tgataatgtg	900
cgtcagaggg	tcacagtcaa	gttaatccca	agaattgatc	tgcaggcact	agccagtaag	960
ctggacggaa	gagaagtttc	aaagaaaaaa	gcctttgttc	cacctccacg	tttcatgaac	1020
attgatgaag	cgagggaact	gcacatacgt	gttgagcgtc	ggcgtgatca	catgactggg	1080
gattactttg	aaaatattgg	tggcatgctt	ttcaaagatg	ggtttcatta	caaacaagta	1140
tcattgaagt	ccatcactgt	tcagaatgtt	acaccaactt	ttgacgaact	tgaaaaattc	1200
aataaaccaa	gtgaaaatgg	agagggcgac	tttggtggtc	tgtcaacatt	atttgcaaac	1260
agaaagaaag	gtcattttcat	gaaggggtgat	gcagttattg	ttatcaaggg	ggatctgaaa	1320
aacttgaagg	gttggttgga	gaaagtagat	gaagaaaatg	tccttatcag	atcagaagtg	1380
aaaggtctcc	ctgatcctct	tgctgtaaat	gagagagagc	tttgcaagta	ctttgaacct	1440
ggaaatcatg	tgaaggttgt	ctctgggacc	catgaaggag	caacaggcat	ggttgtcaaa	1500
gttgatcaac	acgtccgagt	gtttgctgat	catgttggtg	agagttcaga	agtgacaact	1560
ggtgttacca	aaattgggga	ctatgaactt	catgatcttg	tgcttctgga	taacctgagc	1620
tttgaggtaa	ttatacgact	agagaatgaa	gcttttcagg	ttcttaaagg	ggttcctgac	1680
agaccagagg	ttgctcttgt	caaactcaga	gaaatcaa	gcaaacttga	gaagaaaatc	1740
aatgttcaag	atcgctacaa	aaatgtcatt	gctgtgaaag	atgacgtcag	agtgatcgag	1800
ggtcctagca	aaggtaaaca	aggtcctgta	aagcatatct	acaaaggagt	cttattttata	1860
tatgatcgac	atcaccttga	gcatgctgga	tttatctgcg	ctaaatgcac	atcatgcatt	1920
gttggttggtg	gatcacgttc	tggtgcta	agaaatggtg	gtgattcgct	ttcaaggtat	1980
ggcaatttca	aggcacctgc	cccagtaccc	tcatctccag	gaagatttca	acgtggcaga	2040
ggcggaggat	ataataactc	tggagggagg	catgggggtg	gaagaggacg	gggagacgat	2100

047-E2F-PCT.ST25.txt

tctttattgg gtactactgt taaaatccgt ctaggacctt tcaaggggta taggggacct 2160  
 gtagtagaag tgaaaggaaa ttcagtgcgt gtagaacttg agatgaagat tgtgacagtt 2220  
 gatcgggggtg caatatcaga taatgttgcg acaacaccgt ttagagatac atctcggtat 2280  
 agtatgggaa gcgaaacacc tatgcatcct tcacggactc cacttcatcc ttatatgact 2340  
 ccaatgcggg actctggagc tacaccaatc catgatggaa tgaggacacc catgcgtgat 2400  
 agagcttgga atccttacac gcctatgagt ccacctaggg ataactggga agatggaaat 2460  
 ccgggatcctt ggggaacgag tcctcaatat cagccgggaa gtcctccttc acgggcatat 2520  
 gaagcaccaa cgcctggctc aggatgggct agtactcctg gtggtagtta ctcggatgcg 2580  
 gggacaccta gagaccatgg ttcagcttat gctaatgcc caagtcctta cctgccatca 2640  
 acacctgggc aacccatgac accaagctcg gcttcatact tacctggtag tcccggagga 2700  
 caaccaatga ctcttgaac tggcctcgat gtcattgtct ctgttatagg tggggatgct 2760  
 gaagcatggt tcatgcccga tattttgggt gacatacaca aggctggaga ggacaccgat 2820  
 gtgggcgtca tccgagatgt ttccgatgga acgtgtaaag tgtctctcgg gtccagcggg 2880  
 gaaggtgaca ctataatggc cctcccaagc gaactggaga taattcctcc gaggaaatcc 2940  
 gatcgtgtca aaatagttgg cggtcagtat cgtgggtcta caggtaagct gatcggaatc 3000  
 gacgggtctg acggtatcgt taagatagat gataatcttg acgtcaagat tctggacctg 3060  
 gccttattag ccaagtttgt gcaaccgtga 3090

<210> 1254

<211> 1029

<212> PRT

<213> Arabidopsis thaliana

<400> 1254

Met Pro Arg Ser Arg Asp Glu Asp Asp Glu Leu Asp Gly Asp Tyr Glu  
 1 5 10 15  
 Ala Leu Asp Leu Glu Glu Glu Glu Glu Glu Asp Glu Glu Glu Glu Glu  
 20 25 30  
 Glu Arg Gly Arg Gly Gly Gly Gly Ser Arg Arg Lys Arg Gly Arg Ser  
 35 40 45  
 Asn Phe Ile Asp Asp Tyr Ala Glu Glu Asp Ser Gln Glu Glu Asp Asp  
 50 55 60

Asp Asp Glu Asp Tyr Gly Ser Ser Arg Gly Gly Lys Gly Ala Ala Ser  
 65 70 75 80  
 Lys Arg Lys Lys Pro Ser Ala Ser Ile Phe Leu Asp Arg Glu Ala His  
 85 90 95  
 Gln Val Asp Asp Glu Asp Glu Glu Glu Glu Asp Glu Ala Glu Asp Asp  
 100 105 110  
 Phe Ile Val Asp Asn Gly Thr Asp Leu Pro Asp Glu Arg Gly Asp Arg  
 115 120 125  
 Arg Tyr Glu Arg Arg Phe Leu Pro Arg Asp Glu Asn Asp Glu Asp Val  
 130 135 140  
 Glu Asp Leu Glu Arg Arg Ile Gln Glu Arg Phe Ser Ser Arg His His  
 145 150 155 160  
 Glu Glu Tyr Asp Glu Glu Ala Thr Glu Val Glu Gln Gln Ala Leu Leu  
 165 170 175  
 Pro Ser Val Arg Asp Pro Lys Leu Trp Met Val Lys Cys Ala Ile Gly  
 180 185 190  
 Arg Glu Arg Glu Val Ala Val Cys Leu Met Gln Lys Phe Ile Asp Arg  
 195 200 205  
 Gly Ala Asp Leu Gln Ile Arg Ser Val Val Ala Leu Asp His Leu Lys  
 210 215 220  
 Asn Phe Ile Tyr Val Glu Ala Asp Lys Glu Ala His Val Lys Glu Ala  
 225 230 235 240  
 Ile Lys Gly Met Arg Asn Ile Tyr Ala Asn Gln Lys Ile Leu Leu Val  
 245 250 255  
 Pro Ile Arg Glu Met Thr Asp Val Leu Ser Val Glu Ser Lys Ala Ile  
 260 265 270  
 Asp Leu Ser Arg Asp Thr Trp Val Arg Met Lys Ile Gly Thr Tyr Lys  
 275 280 285  
 Gly Asp Leu Ala Lys Val Val Asp Val Asp Asn Val Arg Gln Arg Val  
 290 295 300  
 Thr Val Lys Leu Ile Pro Arg Ile Asp Leu Gln Ala Leu Ala Ser Lys  
 305 310 315 320

047-E2F-PCT.ST25.txt

Leu Asp Gly Arg Glu Val Ser Lys Lys Lys Ala Phe Val Pro Pro Pro  
 325 330 335  
 Arg Phe Met Asn Ile Asp Glu Ala Arg Glu Leu His Ile Arg Val Glu  
 340 345 350  
 Arg Arg Arg Asp His Met Thr Gly Asp Tyr Phe Glu Asn Ile Gly Gly  
 355 360 365  
 Met Leu Phe Lys Asp Gly Phe His Tyr Lys Gln Val Ser Leu Lys Ser  
 370 375 380  
 Ile Thr Val Gln Asn Val Thr Pro Thr Phe Asp Glu Leu Glu Lys Phe  
 385 390 395 400  
 Asn Lys Pro Ser Glu Asn Gly Glu Gly Asp Phe Gly Gly Leu Ser Thr  
 405 410 415  
 Leu Phe Ala Asn Arg Lys Lys Gly His Phe Met Lys Gly Asp Ala Val  
 420 425 430  
 Ile Val Ile Lys Gly Asp Leu Lys Asn Leu Lys Gly Trp Val Glu Lys  
 435 440 445  
 Val Asp Glu Glu Asn Val Leu Ile Arg Ser Glu Val Lys Gly Leu Pro  
 450 455 460  
 Asp Pro Leu Ala Val Asn Glu Arg Glu Leu Cys Lys Tyr Phe Glu Pro  
 465 470 475 480  
 Gly Asn His Val Lys Val Val Ser Gly Thr His Glu Gly Ala Thr Gly  
 485 490 495  
 Met Val Val Lys Val Asp Gln His Val Arg Val Phe Ala Asp His Val  
 500 505 510  
 Val Glu Ser Ser Glu Val Thr Thr Gly Val Thr Lys Ile Gly Asp Tyr  
 515 520 525  
 Glu Leu His Asp Leu Val Leu Leu Asp Asn Leu Ser Phe Gly Val Ile  
 530 535 540  
 Ile Arg Leu Glu Asn Glu Ala Phe Gln Val Leu Lys Gly Val Pro Asp  
 545 550 555 560  
 Arg Pro Glu Val Ala Leu Val Lys Leu Arg Glu Ile Lys Cys Lys Leu  
 565 570 575

047-E2F-PCT.ST25.txt

Glu Lys Lys Ile Asn Val Gln Asp Arg Tyr Lys Asn Val Ile Ala Val  
 580 585 590  
 Lys Asp Asp Val Arg Val Ile Glu Gly Pro Ser Lys Gly Lys Gln Gly  
 595 600 605  
 Pro Val Lys His Ile Tyr Lys Gly Val Leu Phe Ile Tyr Asp Arg His  
 610 615 620  
 His Leu Glu His Ala Gly Phe Ile Cys Ala Lys Cys Thr Ser Cys Ile  
 625 630 635 640  
 Val Val Gly Gly Ser Arg Ser Gly Ala Asn Arg Asn Gly Gly Asp Ser  
 645 650 655  
 Leu Ser Arg Tyr Gly Asn Phe Lys Ala Pro Ala Pro Val Pro Ser Ser  
 660 665 670  
 Pro Gly Arg Phe Gln Arg Gly Arg Gly Gly Gly Tyr Asn Asn Ser Gly  
 675 680 685  
 Gly Arg His Gly Gly Gly Arg Gly Arg Gly Asp Asp Ser Leu Leu Gly  
 690 695 700  
 Thr Thr Val Lys Ile Arg Leu Gly Pro Phe Lys Gly Tyr Arg Gly Pro  
 705 710 715 720  
 Val Val Glu Val Lys Gly Asn Ser Val Arg Val Glu Leu Glu Met Lys  
 725 730 735  
 Ile Val Thr Val Asp Arg Gly Ala Ile Ser Asp Asn Val Ala Thr Thr  
 740 745 750  
 Pro Phe Arg Asp Thr Ser Arg Tyr Ser Met Gly Ser Glu Thr Pro Met  
 755 760 765  
 His Pro Ser Arg Thr Pro Leu His Pro Tyr Met Thr Pro Met Arg Asp  
 770 775 780  
 Ser Gly Ala Thr Pro Ile His Asp Gly Met Arg Thr Pro Met Arg Asp  
 785 790 795 800  
 Arg Ala Trp Asn Pro Tyr Thr Pro Met Ser Pro Pro Arg Asp Asn Trp  
 805 810 815

Glu Asp Gly Asn Pro Gly Ser Trp Gly Thr Ser Pro Gln Tyr Gln Pro  
 Page 1961

820

825

830

Gly Ser Pro Pro Ser Arg Ala Tyr Glu Ala Pro Thr Pro Gly Ser Gly  
           835                          840                          845

Trp Ala Ser Thr Pro Gly Gly Ser Tyr Ser Asp Ala Gly Thr Pro Arg  
       850                          855                          860

Asp His Gly Ser Ala Tyr Ala Asn Ala Pro Ser Pro Tyr Leu Pro Ser  
  865                          870                          875                          880

Thr Pro Gly Gln Pro Met Thr Pro Ser Ser Ala Ser Tyr Leu Pro Gly  
                           885                          890                          895

Thr Pro Gly Gly Gln Pro Met Thr Pro Gly Thr Gly Leu Asp Val Met  
                           900                          905                          910

Ser Pro Val Ile Gly Gly Asp Ala Glu Ala Trp Phe Met Pro Asp Ile  
           915                          920                          925

Leu Val Asp Ile His Lys Ala Gly Glu Asp Thr Asp Val Gly Val Ile  
       930                          935                          940

Arg Asp Val Ser Asp Gly Thr Cys Lys Val Ser Leu Gly Ser Ser Gly  
  945                          950                          955                          960

Glu Gly Asp Thr Ile Met Ala Leu Pro Ser Glu Leu Glu Ile Ile Pro  
                           965                          970                          975

Pro Arg Lys Ser Asp Arg Val Lys Ile Val Gly Gly Gln Tyr Arg Gly  
           980                          985                          990

Ser Thr Gly Lys Leu Ile Gly Ile Asp Gly Ser Asp Gly Ile Val Lys  
       995                          1000                          1005

Ile Asp Asp Asn Leu Asp Val Lys Ile Leu Asp Leu Ala Leu Leu  
  1010                          1015                          1020

Ala Lys Phe Val Gln Pro  
  1025

&lt;210&gt; 1255

&lt;211&gt; 486

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana



<400> 1255  
 atgtcatcga agaacggagt tgttcgtagc tgtttaggat caatggacga catcaaaaaa 60  
 gtctttccaac gattcgacaa aaacggcgac gggaaaatct ccgtcgacga gctcaaagaa 120  
 gtgatccgcg ctctctcacc aacagcatca ccagaagaaa cagtaacgat gatgaaacaa 180  
 ttcgatctag acggtaacgg attcatagat ctggacgaat tcgtcgcgct tttccaaatc 240  
 ggaatcggag gaggaggtaa caatcgaaac gacgtaagcg atttgaaaga agcgtttgag 300  
 ttatatgatt tggatggtaa tggaaggatc tcggcgaaag agcttcattc agtgatgaag 360  
 aatttgggtg agaagtgtc tgtgcaagat tgtaagaaga tgattagtaa agttgatatt 420  
 gatggtgatg gttgtgttaa ttttgatgag ttttaagaaga tgatgagtaa tgggtggtggt 480  
 gcttga 486

<210> 1256

<211> 161

<212> PRT

<213> *Arabidopsis thaliana*

<400> 1256

Met Ser Ser Lys Asn Gly Val Val Arg Ser Cys Leu Gly Ser Met Asp  
 1 5 10 15

Asp Ile Lys Lys Val Phe Gln Arg Phe Asp Lys Asn Gly Asp Gly Lys  
 20 25 30

Ile Ser Val Asp Glu Leu Lys Glu Val Ile Arg Ala Leu Ser Pro Thr  
 35 40 45

Ala Ser Pro Glu Glu Thr Val Thr Met Met Lys Gln Phe Asp Leu Asp  
 50 55 60

Gly Asn Gly Phe Ile Asp Leu Asp Glu Phe Val Ala Leu Phe Gln Ile  
 65 70 75 80

Gly Ile Gly Gly Gly Gly Asn Asn Arg Asn Asp Val Ser Asp Leu Lys  
 85 90 95

Glu Ala Phe Glu Leu Tyr Asp Leu Asp Gly Asn Gly Arg Ile Ser Ala  
 100 105 110

Lys Glu Leu His Ser Val Met Lys Asn Leu Gly Glu Lys Cys Ser Val  
 Page 1963

115

120

125

Gln Asp Cys Lys Lys Met Ile Ser Lys Val Asp Ile Asp Gly Asp Gly  
 130 135 140  
 Cys Val Asn Phe Asp Glu Phe Lys Lys Met Met Ser Asn Gly Gly Gly  
 145 150 155 160

Ala

&lt;210&gt; 1257

&lt;211&gt; 753

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1257

```

atggctagat acgatcgagc aattactgtc ttctcccccg acggtcacct ctttcaagtc      60
gaatacgccc ttgaagccgt ccgcaagggt aacgccgccg tcggtgtccg cggtaccgac      120
accgttgtcc tcgccgtcga gaagaagtcc accccaagc ttcaggattc tagatcagcc      180
agaaaaattg tgagccttga caatcacatt gccttggcat gcgcggggct caaggctgat      240
gcccgagtct tgattaacaa agcaaggatc gagtgtcaaa gccacaggct tacacttgag      300
gaccctgtca ctgttgagta catcactcgc tacattgctg gccttcaaca gaagtatacc      360
caaagtgggtg gtgtcagacc cttcgggtctt tctactctta tcgttggctt tgacccttac      420
tctcgcctcc cttccctata tcagactgat ctttctggga ctttctctgc ttggaaagct      480
aatgctaccg gcagaaactc caactctatt aggggaattcc tcgagaagaa ctacaaagaa      540
tcctctggcc aagaaactat taaactcgct atccgtgctc tgcttgaggt agttgagagt      600
ggcggaagaa acattgaggt tgccgtaatg acacgggagg aaactgggct gcgccagcta      660
gaagaagctg aaattgatgc aatcgtggcc aagatcgaag ctgaaaaggc ggccgcagaa      720
gcagccaaga aaggccctcc aaaggaaact tga                                     753

```

&lt;210&gt; 1258

&lt;211&gt; 250

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1258

```

Met Ala Arg Tyr Asp Arg Ala Ile Thr Val Phe Ser Pro Asp Gly His
 1          5          10          15

Leu Phe Gln Val Glu Tyr Ala Leu Glu Ala Val Arg Lys Gly Asn Ala
      20          25          30

Ala Val Gly Val Arg Gly Thr Asp Thr Val Val Leu Ala Val Glu Lys
      35          40          45

Lys Ser Thr Pro Lys Leu Gln Asp Ser Arg Ser Ala Arg Lys Ile Val
 50          55          60

Ser Leu Asp Asn His Ile Ala Leu Ala Cys Ala Gly Leu Lys Ala Asp
65          70          75          80

Ala Arg Val Leu Ile Asn Lys Ala Arg Ile Glu Cys Gln Ser His Arg
      85          90          95

Leu Thr Leu Glu Asp Pro Val Thr Val Glu Tyr Ile Thr Arg Tyr Ile
      100          105          110

Ala Gly Leu Gln Gln Lys Tyr Thr Gln Ser Gly Gly Val Arg Pro Phe
      115          120          125

Gly Leu Ser Thr Leu Ile Val Gly Phe Asp Pro Tyr Ser Arg Leu Pro
      130          135          140

Ser Leu Tyr Gln Thr Asp Pro Ser Gly Thr Phe Ser Ala Trp Lys Ala
145          150          155          160

Asn Ala Thr Gly Arg Asn Ser Asn Ser Ile Arg Glu Phe Leu Glu Lys
      165          170          175

Asn Tyr Lys Glu Ser Ser Gly Gln Glu Thr Ile Lys Leu Ala Ile Arg
      180          185          190

Ala Leu Leu Glu Val Val Glu Ser Gly Gly Lys Asn Ile Glu Val Ala
      195          200          205

Val Met Thr Arg Glu Glu Thr Gly Leu Arg Gln Leu Glu Glu Ala Glu
      210          215          220

Ile Asp Ala Ile Val Ala Lys Ile Glu Ala Glu Lys Ala Ala Ala Glu
225          230          235          240

Ala Ala Lys Lys Gly Pro Pro Lys Glu Thr

```

&lt;210&gt; 1259

&lt;211&gt; 2766

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1259

```

atgagatctc ttctctttgt actatcactc atttgctttt gctctcaaac agcactttca    60
tggaagaagg aagagtttcg cagctgtgac caaactccat ttgttaaacy cgctcgatct    120
cgtactcccg gcgctgtgtt tctaattgtc ggcgatgttt ccatcactga tggagatctc    180
gtagcgaagc ttctaccgaa agcgccctaat caaggcgatg gggatcagat caagccgttg    240
attctttctc tctcagttta caaggatggg atcgtgcggc ttaaaatcga tgaggaccat    300
tcgttgaacc cgccgaagaa gaggttccaa gttcctgatg tggtagtgct tgagtttgag    360
gagaagaaga tctggctgca gaaagtagcg acggagacga tctctggaga cactagtccg    420
tcttcagtag tttatgtatc cgatggttac gaggcggttg tgcgacacga tccgtttgag    480
gtgtatgtgc gtgagaaatc aggtgatcgc cgtcgcgttg tgtcattgaa ttctcatgga    540
ttatttgatt ttgagcagtt ggggaggaaa actgaaggag ataactggga agagaaattt    600
aggactcata cagattctag accatctggt cctcaatcta ttagtttcga tgtttcgttt    660
tatgattcca gtttcgttta tggaattcct gaacacgcca ctagcttcgc gttgaagcct    720
accaagggtc ctggagttga ggaatctgaa ccctacaggc tttttaatct agatgtgttt    780
gaatacgatc atgaatcacc gtttgggctt tacgggtcga ttccgttcat ggtttcgcac    840
gggaagtctg gtaaaacttc aggatttttc tggttgaatg ctgcggaaat gcagattgat    900
gtgttggtta atggttggtg tgcagagagt ggtattttct tgccttctag tcacagtagg    960
atcgacacat tctggatgag cgaggcaggg attgtggata cattcttttt cgttgggcct   1020
gagccaaagg atgttgtaaa gcagtatgca agtgtgacag gtacttcagc catgcctcag   1080
ttgtttgcca ctggttatca tcaatgtagg tggaactaca aagatgagga ggatgtggca   1140
caggtggact cgaaattcga tgaacacgat attccttatg atgttctctg gcttgacatt   1200
gagcatacag atgggaagag atactttaca tgggatagtg tgttgtttcc tcatccagag   1260
gagatgcaaa agaaattggc tgcaaagggg aggaagatgg tgaccattgt ggatcctcat   1320
atcaagaggg atgactcata cttcttacac aaagaggcta ctcagatggg atactatggt   1380
aaggattcat ctggaaaaga ctttgatggt tgggtgctggc ctggttcacg atcttacatt   1440
gatatgttga gccagagat tagaaaatgg tgggggtggga ggttctcgta taagaactat   1500

```

047-E2F-PCT.ST25.txt

gttggttcaa ctccatcatt gtacacctgg aatgacatga atgagccttc tgtattcaat 1560  
 ggtcccgagg ttactatgcc aagagatgca ttacatgttg ggggtggtga acacagagaa 1620  
 gttcataacg catatggata ttacttccac atggcgactt ccgatggact tgttatgcgt 1680  
 gaagaaggaa aggataggcc ttttgtattg tcaagagcaa tctttcccg cactcaaaga 1740  
 tacggagcaa tttggactgg agataacaca gccgaatggg aacaccttag agtctccatt 1800  
 ccaatgatat tgacacttgg tcttactgga attacattct ctggagctga tattggtggg 1860  
 ttttttgaa atcctgaacc agaacttcta gttagggtgg accaagtggg tgcttactat 1920  
 ccatttttca ggggtcatgc tcatcacgat accaaaagac gagagccttg gttgtttggt 1980  
 gaacggaaca cagaactcat gagagatgcc atacacactc gttacacact gctcccatac 2040  
 ttctacacgt tgttcagaga agcaaacgtt acgggtgttc ctgttgtagc cccattatgg 2100  
 atggaattcc cgcaagatga agctactttt agcaacgatg aagccttcat ggtcggtagt 2160  
 ggtctactgg ttcaaggagt ttacaccaag ggaacaacgc aagcttccgt gtatttgcct 2220  
 ggcaaagaat catggtatga cttgagaaac ggtaagactt acgttggagg caagactcac 2280  
 aagatggatg ctccagagga gagtattcct gcgtttcaaa aggaggaac catcatccca 2340  
 aggaaggacc ggtttaggcg aagttcctct caaatggaca atgacctta tactttggtg 2400  
 gtagctttga acagttctca agaagcagaa ggtgaactct acatcgatga cggcaaaagc 2460  
 tttgaattca gacgaggctc ttacatccat cgtcgttcg tcttctcaaa ggggtgttctt 2520  
 acatcaacga acttagctcc tccagaagct cgtctctctt cccaatgctt gatcgacaga 2580  
 attatcctct tgggacacag ctcaggtcca aaatctgcgt tgggtgaacc gttgaatcaa 2640  
 aaggcagaga ttgagatggg acctctgcga atgggtgggc ttgtagcttc ctcgggtaca 2700  
 aagggtgttg ctatccgcaa accgggtggt cgagtggacc aagactggac cgtaaagatt 2760  
 ctgtga 2766

<210> 1260

<211> 921

<212> PRT

<213> Arabidopsis thaliana

<400> 1260

Met Arg Ser Leu Leu Phe Val Leu Ser Leu Ile Cys Phe Cys Ser Gln  
 1 5 10 15

Thr Ala Leu Ser Trp Lys Lys Glu Glu Phe Arg Ser Cys Asp Gln Thr  
 Page 1967

Pro Phe Cys Lys Arg Ala Arg Ser Arg Thr Pro Gly Ala Cys Ser Leu  
           35                                  40                                  45  
 Ile Val Gly Asp Val Ser Ile Thr Asp Gly Asp Leu Val Ala Lys Leu  
       50                                  55                                  60  
 Leu Pro Lys Ala Pro Asn Gln Gly Asp Gly Asp Gln Ile Lys Pro Leu  
   65                                  70                                  75                                  80  
 Ile Leu Ser Leu Ser Val Tyr Lys Asp Gly Ile Val Arg Leu Lys Ile  
                                   85                                  90                                  95  
 Asp Glu Asp His Ser Leu Asn Pro Pro Lys Lys Arg Phe Gln Val Pro  
                                  100                                 105                                 110  
 Asp Val Val Val Ser Glu Phe Glu Glu Lys Lys Ile Trp Leu Gln Lys  
                                  115                                 120                                 125  
 Val Ala Thr Glu Thr Ile Ser Gly Asp Thr Ser Pro Ser Ser Val Val  
      130                                 135                                 140  
 Tyr Val Ser Asp Gly Tyr Glu Ala Val Val Arg His Asp Pro Phe Glu  
  145                                 150                                 155                                 160  
 Val Tyr Val Arg Glu Lys Ser Gly Asp Arg Arg Arg Val Val Ser Leu  
                                  165                                 170                                 175  
 Asn Ser His Gly Leu Phe Asp Phe Glu Gln Leu Gly Arg Lys Thr Glu  
                                  180                                 185                                 190  
 Gly Asp Asn Trp Glu Glu Lys Phe Arg Thr His Thr Asp Ser Arg Pro  
                                  195                                 200                                 205  
 Ser Gly Pro Gln Ser Ile Ser Phe Asp Val Ser Phe Tyr Asp Ser Ser  
      210                                 215                                 220  
 Phe Val Tyr Gly Ile Pro Glu His Ala Thr Ser Phe Ala Leu Lys Pro  
  225                                 230                                 235                                 240  
 Thr Lys Gly Pro Gly Val Glu Glu Ser Glu Pro Tyr Arg Leu Phe Asn  
                                  245                                 250                                 255  
 Leu Asp Val Phe Glu Tyr Asp His Glu Ser Pro Phe Gly Leu Tyr Gly  
                                  260                                 265                                 270

Ser Ile Pro Phe Met Val Ser His Gly Lys Ser Gly Lys Thr Ser Gly  
 275 280 285  
 Phe Phe Trp Leu Asn Ala Ala Glu Met Gln Ile Asp Val Leu Ala Asn  
 290 300  
 Gly Trp Asp Ala Glu Ser Gly Ile Ser Leu Pro Ser Ser His Ser Arg  
 305 310 315 320  
 Ile Asp Thr Phe Trp Met Ser Glu Ala Gly Ile Val Asp Thr Phe Phe  
 325 330 335  
 Phe Val Gly Pro Glu Pro Lys Asp Val Val Lys Gln Tyr Ala Ser Val  
 340 345 350  
 Thr Gly Thr Ser Ala Met Pro Gln Leu Phe Ala Thr Gly Tyr His Gln  
 355 360 365  
 Cys Arg Trp Asn Tyr Lys Asp Glu Glu Asp Val Ala Gln Val Asp Ser  
 370 375 380  
 Lys Phe Asp Glu His Asp Ile Pro Tyr Asp Val Leu Trp Leu Asp Ile  
 385 390 395 400  
 Glu His Thr Asp Gly Lys Arg Tyr Phe Thr Trp Asp Ser Val Leu Phe  
 405 410 415  
 Pro His Pro Glu Glu Met Gln Lys Lys Leu Ala Ala Lys Gly Arg Lys  
 420 425 430  
 Met Val Thr Ile Val Asp Pro His Ile Lys Arg Asp Asp Ser Tyr Phe  
 435 440 445  
 Leu His Lys Glu Ala Thr Gln Met Gly Tyr Tyr Val Lys Asp Ser Ser  
 450 455 460  
 Gly Lys Asp Phe Asp Gly Trp Cys Trp Pro Gly Ser Ser Ser Tyr Ile  
 465 470 475 480  
 Asp Met Leu Ser Pro Glu Ile Arg Lys Trp Trp Gly Gly Arg Phe Ser  
 485 490 495  
 Tyr Lys Asn Tyr Val Gly Ser Thr Pro Ser Leu Tyr Thr Trp Asn Asp  
 500 505 510  
 Met Asn Glu Pro Ser Val Phe Asn Gly Pro Glu Val Thr Met Pro Arg  
 515 520 525

047-E2F-PCT.ST25.txt

Asp Ala Leu His Val Gly Gly Val Glu His Arg Glu Val His Asn Ala  
 530 535 540  
 Tyr Gly Tyr Tyr Phe His Met Ala Thr Ser Asp Gly Leu Val Met Arg  
 545 550 555 560  
 Glu Glu Gly Lys Asp Arg Pro Phe Val Leu Ser Arg Ala Ile Phe Pro  
 565 570 575  
 Gly Thr Gln Arg Tyr Gly Ala Ile Trp Thr Gly Asp Asn Thr Ala Glu  
 580 585 590  
 Trp Glu His Leu Arg Val Ser Ile Pro Met Ile Leu Thr Leu Gly Leu  
 595 600 605  
 Thr Gly Ile Thr Phe Ser Gly Ala Asp Ile Gly Gly Phe Phe Gly Asn  
 610 615 620  
 Pro Glu Pro Glu Leu Leu Val Arg Trp Tyr Gln Val Gly Ala Tyr Tyr  
 625 630 635 640  
 Pro Phe Phe Arg Gly His Ala His His Asp Thr Lys Arg Arg Glu Pro  
 645 650 655  
 Trp Leu Phe Gly Glu Arg Asn Thr Glu Leu Met Arg Asp Ala Ile His  
 660 665 670  
 Thr Arg Tyr Thr Leu Leu Pro Tyr Phe Tyr Thr Leu Phe Arg Glu Ala  
 675 680 685  
 Asn Val Thr Gly Val Pro Val Val Arg Pro Leu Trp Met Glu Phe Pro  
 690 695 700  
 Gln Asp Glu Ala Thr Phe Ser Asn Asp Glu Ala Phe Met Val Gly Ser  
 705 710 715 720  
 Gly Leu Leu Val Gln Gly Val Tyr Thr Lys Gly Thr Thr Gln Ala Ser  
 725 730 735  
 Val Tyr Leu Pro Gly Lys Glu Ser Trp Tyr Asp Leu Arg Asn Gly Lys  
 740 745 750  
 Thr Tyr Val Gly Gly Lys Thr His Lys Met Asp Ala Pro Glu Glu Ser  
 755 760 765  
 Ile Pro Ala Phe Gln Lys Ala Gly Thr Ile Ile Pro Arg Lys Asp Arg  
 770 775 780



047-E2F-PCT.ST25.txt

Phe Arg Arg Ser Ser Ser Gln Met Asp Asn Asp Pro Tyr Thr Leu Val  
785 790 795 800

Val Ala Leu Asn Ser Ser Gln Glu Ala Glu Gly Glu Leu Tyr Ile Asp  
805 810 815

Asp Gly Lys Ser Phe Glu Phe Arg Arg Gly Ser Tyr Ile His Arg Arg  
820 825 830

Phe Val Phe Ser Lys Gly Val Leu Thr Ser Thr Asn Leu Ala Pro Pro  
835 840 845

Glu Ala Arg Leu Ser Ser Gln Cys Leu Ile Asp Arg Ile Ile Leu Leu  
850 855 860

Gly His Ser Ser Gly Pro Lys Ser Ala Leu Val Glu Pro Leu Asn Gln  
865 870 875 880

Lys Ala Glu Ile Glu Met Gly Pro Leu Arg Met Gly Gly Leu Val Ala  
885 890 895

Ser Ser Gly Thr Lys Val Leu Thr Ile Arg Lys Pro Gly Val Arg Val  
900 905 910

Asp Gln Asp Trp Thr Val Lys Ile Leu  
915 920

<210> 1261

<211> 609

<212> DNA

<213> Arabidopsis thaliana

<400> 1261

atgagaccac caatgagagg cggcgggggt ttccgtggaa ggggaggacg agacggtggt	60
ggtggcggta ggttcggtgg aggaggcggg agattcgggtg gaggaggagg acgctttggt	120
ggtggaggcg gtcgctttgg tggttttaga gacgaagggtc ctcctagcga agtcgtggag	180
gttgcaactt tcgttcatgc ttgcgaggga gatgctgtga ccaaactctc acaggagaag	240
attcctcatt ttaacgctcc gatctaccta gagaacaaga ctcagattgg gaaagtagat	300
gaaatctttg gcccaattaa tgaatctttg ttttctatca aaatgatgga aggtattgta	360
gccacctcgt attctccagg agataagttc ttcatcgacc cttacaagct tttgccactc	420

gctcgattcc ttcctcagcc aaagggtcag tcaacgggtg gacgtggagg tgcaggtcgt 480  
 ggaagaggtg atagtagagg tcgtggaaga ggtggatcat ttagtagagg tagaggtgct 540  
 ccaagaggtg gtagatttcc accacgcggt ggctctcgtg gaagctttag aggccgagga 600  
 agatttttag 609

<210> 1262

<211> 202

<212> PRT

<213> Arabidopsis thaliana

<400> 1262

Met Arg Pro Pro Met Arg Gly Gly Gly Gly Phe Arg Gly Arg Gly Gly  
 1 5 10 15  
 Arg Asp Gly Gly Gly Gly Arg Phe Gly Gly Gly Gly Gly Arg Phe  
 20 25 30  
 Gly Gly Gly Gly Gly Arg Phe Gly Gly Gly Gly Gly Arg Phe Gly Gly  
 35 40 45  
 Phe Arg Asp Glu Gly Pro Pro Ser Glu Val Val Glu Val Ala Thr Phe  
 50 55 60  
 Val His Ala Cys Glu Gly Asp Ala Val Thr Lys Leu Ser Gln Glu Lys  
 65 70 75 80  
 Ile Pro His Phe Asn Ala Pro Ile Tyr Leu Glu Asn Lys Thr Gln Ile  
 85 90 95  
 Gly Lys Val Asp Glu Ile Phe Gly Pro Ile Asn Glu Ser Leu Phe Ser  
 100 105 110  
 Ile Lys Met Met Glu Gly Ile Val Ala Thr Ser Tyr Ser Pro Gly Asp  
 115 120 125  
 Lys Phe Phe Ile Asp Pro Tyr Lys Leu Leu Pro Leu Ala Arg Phe Leu  
 130 135 140  
 Pro Gln Pro Lys Gly Gln Ser Thr Gly Gly Arg Gly Gly Ala Gly Arg  
 145 150 155 160  
 Gly Arg Gly Asp Ser Arg Gly Arg Gly Arg Gly Gly Ser Phe Ser Arg  
 165 170 175

Gly Arg Gly Ala Pro Arg Gly Gly Arg Phe Pro Pro Arg Gly Gly Ser  
 180 185 190

Arg Gly Ser Phe Arg Gly Arg Gly Arg Phe  
 195 200

<210> 1263

<211> 2757

<212> DNA

<213> Arabidopsis thaliana

<400> 1263

atgagtgggtg ttccaaagag atctcacgaa gaggggtgtta ctcattccatc ttctttcttca	60
tcagtagcaa aataccctca cgaggattct ggatcttacc ctaaatcgcc gcatcagcct	120
gtgacgccac caccggctca ggttcatcat aaccatcaac agcccatca gcatcccaa	180
tctcaatctc aatctcagcc tcaacctcac ctccaggcgc ttcttcaccc tcatttctcat	240
tctcactccc attcaccact tgctgctgct gcttctgctt ctgctcctta tgaggttgaa	300
tctagaacgg tggttaaggt tgcgagaagc gagcctagag atggagagag acgctctcct	360
ctgcctcttg tctatcggtc tccgtcgctg cccacaactg tttcttctag tgatcctcat	420
ttgactcacg cccctgtgcc gatggagccg agagatgggtg ctaaggatgg cagggaaatt	480
agggttgaga gtagagaaaa taggagtgat gggagagaga tatatggtga gacaaagagg	540
gagattcagg gtcctaaggg agacagagat gtgaaatttg agagatcagt agatgacttt	600
agcggaaaag gtaataccgg aagctatact aggaatgatg ggagagagat gtatggtgag	660
actaagaggg agattcaggg tcctaagagt gacagggatg ccaagtttga gcgtccaggg	720
gatgatttta gcgggaaaag taatgccggt agctatacta gggatacaaa atttgatagg	780
gagaatcaaa attataatga acaaaagggg gagattaaga tggaaaagga agggcatgct	840
cacttggtt ggaaagagca gaaggattac catagaggga agagagttgc tgaaggttcg	900
actgcaaagt tggaccctg ggttggtatc cgcggtaatc cgcaaggccc aactgaggtt	960
gggcctaaag atctctctgc gcctgtggag gggctctcatt tggaaggacg tgaaaccgtc	1020
ggagaaaaca aggttgatgc caaaaacgaa gatagattta aggaaaaaga taagaaaaga	1080
aaagagttaa agcatcgaga atggggggac cgagacaagg atagaaatga ccgtcgagta	1140
tctgtgcttg ttggtagtgt catgagtga cccaaagaga ttggaagaga agaaagggaa	1200
tccgataggt gggaacggga gaggatggag cagaaagatc gagaaagaaa taaagagaaa	1260

047-E2F-PCT.ST25.txt

gataaagatc	atatcaaaag	agagccaagg	actggtgctg	agaaagagat	ctcgcagaac	1320
gagaaagagc	tgggagaagc	atctgccaaa	ccctcagagc	aggaatatgt	ggcaccagag	1380
cagaagaagc	agaacgaacc	ggataattgt	gaaaaagacg	aaagagaaac	aaaggaaaaa	1440
aggagagaga	gggatggtga	ttcagaggca	gaaagagctg	aaaagcgcag	cagaatcagt	1500
gaaaaagaat	ctgaagatgg	gtgttttagag	ggtgaaggag	ctaccgagag	ggaaaaggat	1560
gccttcaatt	atgggggttca	gcagaggaag	agagcgctga	gaccgagagg	cagcccacaa	1620
accactaatc	gcgacaatgt	ccgctcacgg	agtcaggaca	acgaaggagt	acaaggcaag	1680
tcagaggtgt	cgattgttgt	ttacaaagtt	ggcgaatgta	tgcaagaact	gattaagttg	1740
tggaaagaat	atgatttgtc	tcatcctgat	aaaagcggtg	atttcgctaa	taatggcccc	1800
actcttgaag	ttaggattcc	agctgagcat	gttactgcta	caaatcgcca	agtaagaggt	1860
ggccaactat	ggggaacaga	tatatacaca	gacgattccg	atcttggtgc	tgttctcatg	1920
catacagggt	actgtcgtcc	cacagcttct	cctcctccac	cgacaatgca	agagctgcgc	1980
actactatta	gagtcttgcc	gtcacaagat	tactacacct	ccaagctaag	gaacaatgtc	2040
cgttctcgag	catggggagc	tggaatcgga	tgagttata	gagttgagcg	gtgctatata	2100
ctgaagaaag	gaggtgggac	tattgaactg	gaaccttccc	ttacacactc	ctcaactgtg	2160
gagccaactc	ttgcaccaat	ggctgttgaa	agatctatga	ccaccagagc	tgcagcttcg	2220
aatgctctgc	ggcaacaaag	gtttgtacga	gaagtcacaa	tacaatacaa	tctctgcaat	2280
gaaccttgga	ttaaatatag	cataagcatt	gttgctgata	aagggtctcaa	gaagcctctt	2340
ttcacctctg	cccgcttgaa	gaaaggggaa	gttttgtact	tagaaaactca	ttcatgcagg	2400
tatgagctct	gtttcgcagg	agagaagacc	atcaaagcaa	tccaagcctc	acaacaacaa	2460
tcatcacatg	aagctatgga	gacagataat	aataataaca	agtcacagaa	ccatctgaca	2520
aacggtgaca	aaacagattc	agacaacagt	ttaattgatg	ttttccgctg	gtcacgatgt	2580
aagaaacctc	tcccacagaa	gcttatgcgg	tctatcgggg	ttccactccc	agcagatcat	2640
atcgaggtgt	tggaggagaa	tcttgattgg	gaagatgtac	agtgggcaca	aactgggtgtt	2700
tggattgctg	gaaaagagta	cactcttgct	cgtgttcatt	ttctctcccc	caactaa	2757

<210> 1264

<211> 918

<212> PRT

<213> *Arabidopsis thaliana*

<400> 1264

Met Ser Gly Val Pro Lys Arg Ser His Glu Glu Gly Val Thr His Pro  
 1 5 10 15  
 Ser Ser Ser Ser Ser Val Ala Lys Tyr Pro His Glu Asp Ser Gly Ser  
 20 25 30  
 Tyr Pro Lys Ser Pro His Gln Pro Val Thr Pro Pro Pro Ala Gln Val  
 35 40 45  
 His His Asn His Gln Gln Pro His Gln His Pro Gln Ser Gln Ser Gln  
 50 55 60  
 Ser Gln Pro Gln Pro His Leu Gln Ala Leu Pro His Pro His Ser His  
 65 70 75 80  
 Ser His Ser His Ser Pro Leu Ala Ala Ala Ala Ser Ala Ser Ala Pro  
 85 90 95  
 Tyr Glu Val Glu Ser Arg Thr Val Val Lys Val Ala Arg Ser Glu Pro  
 100 105 110  
 Arg Asp Gly Glu Arg Arg Ser Pro Leu Pro Leu Val Tyr Arg Ser Pro  
 115 120 125  
 Ser Leu Pro Thr Thr Val Ser Ser Ser Asp Pro His Leu Thr His Ala  
 130 135 140  
 Pro Val Pro Met Glu Pro Arg Asp Gly Ala Lys Asp Gly Arg Glu Ile  
 145 150 155 160  
 Arg Val Glu Ser Arg Glu Asn Arg Ser Asp Gly Arg Glu Ile Tyr Gly  
 165 170 175  
 Glu Thr Lys Arg Glu Ile Gln Gly Pro Lys Gly Asp Arg Asp Val Lys  
 180 185 190  
 Phe Glu Arg Ser Val Asp Asp Phe Ser Gly Lys Gly Asn Thr Gly Ser  
 195 200 205  
 Tyr Thr Arg Asn Asp Gly Arg Glu Met Tyr Gly Glu Thr Lys Arg Glu  
 210 215 220  
 Ile Gln Gly Pro Lys Ser Asp Arg Asp Ala Lys Phe Glu Arg Pro Gly  
 225 230 235 240  
 Asp Asp Phe Ser Gly Lys Ser Asn Ala Gly Ser Tyr Thr Arg Asp Thr  
 245 250 255

047-E2F-PCT.ST25.txt

Lys Phe Asp Arg Glu Asn Gln Asn Tyr Asn Glu Gln Lys Gly Glu Ile  
 260 265 270  
 Lys Met Glu Lys Glu Gly His Ala His Leu Ala Trp Lys Glu Gln Lys  
 275 280 285  
 Asp Tyr His Arg Gly Lys Arg Val Ala Glu Gly Ser Thr Ala Asn Val  
 290 295 300  
 Asp Pro Trp Val Val Ser Arg Gly Asn Pro Gln Gly Pro Thr Glu Val  
 305 310 315 320  
 Gly Pro Lys Asp Leu Ser Ala Pro Val Glu Gly Ser His Leu Glu Gly  
 325 330 335  
 Arg Glu Thr Val Gly Glu Asn Lys Val Asp Ala Lys Asn Glu Asp Arg  
 340 345 350  
 Phe Lys Glu Lys Asp Lys Lys Arg Lys Glu Leu Lys His Arg Glu Trp  
 355 360 365  
 Gly Asp Arg Asp Lys Asp Arg Asn Asp Arg Arg Val Ser Val Leu Val  
 370 375 380  
 Gly Ser Val Met Ser Glu Pro Lys Glu Ile Gly Arg Glu Glu Arg Glu  
 385 390 395 400  
 Ser Asp Arg Trp Glu Arg Glu Arg Met Glu Gln Lys Asp Arg Glu Arg  
 405 410 415  
 Asn Lys Glu Lys Asp Lys Asp His Ile Lys Arg Glu Pro Arg Thr Gly  
 420 425 430  
 Ala Glu Lys Glu Ile Ser Gln Asn Glu Lys Glu Leu Gly Glu Ala Ser  
 435 440 445  
 Ala Lys Pro Ser Glu Gln Glu Tyr Val Ala Pro Glu Gln Lys Lys Gln  
 450 455 460  
 Asn Glu Pro Asp Asn Cys Glu Lys Asp Glu Arg Glu Thr Lys Glu Lys  
 465 470 475 480  
 Arg Arg Glu Arg Asp Gly Asp Ser Glu Ala Glu Arg Ala Glu Lys Arg  
 485 490 495  
 Ser Arg Ile Ser Glu Lys Glu Ser Glu Asp Gly Cys Leu Glu Gly Glu  
 500 505 510

047-E2F-PCT.ST25.txt

Gly Ala Thr Glu Arg Glu Lys Asp Ala Phe Asn Tyr Gly Val Gln Gln  
 515 520 525  
 Arg Lys Arg Ala Leu Arg Pro Arg Gly Ser Pro Gln Thr Thr Asn Arg  
 530 535 540  
 Asp Asn Val Arg Ser Arg Ser Gln Asp Asn Glu Gly Val Gln Gly Lys  
 545 550 555 560  
 Ser Glu Val Ser Ile Val Val Tyr Lys Val Gly Glu Cys Met Gln Glu  
 565 570 575  
 Leu Ile Lys Leu Trp Lys Glu Tyr Asp Leu Ser His Pro Asp Lys Ser  
 580 585 590  
 Gly Asp Phe Ala Asn Asn Gly Pro Thr Leu Glu Val Arg Ile Pro Ala  
 595 600 605  
 Glu His Val Thr Ala Thr Asn Arg Gln Val Arg Gly Gly Gln Leu Trp  
 610 615 620  
 Gly Thr Asp Ile Tyr Thr Asp Asp Ser Asp Leu Val Ala Val Leu Met  
 625 630 635 640  
 His Thr Gly Tyr Cys Arg Pro Thr Ala Ser Pro Pro Pro Pro Thr Met  
 645 650 655  
 Gln Glu Leu Arg Thr Thr Ile Arg Val Leu Pro Ser Gln Asp Tyr Tyr  
 660 665 670  
 Thr Ser Lys Leu Arg Asn Asn Val Arg Ser Arg Ala Trp Gly Ala Gly  
 675 680 685  
 Ile Gly Cys Ser Tyr Arg Val Glu Arg Cys Tyr Ile Leu Lys Lys Gly  
 690 695 700  
 Gly Gly Thr Ile Glu Leu Glu Pro Ser Leu Thr His Ser Ser Thr Val  
 705 710 715 720  
 Glu Pro Thr Leu Ala Pro Met Ala Val Glu Arg Ser Met Thr Thr Arg  
 725 730 735  
 Ala Ala Ala Ser Asn Ala Leu Arg Gln Gln Arg Phe Val Arg Glu Val  
 740 745 750

Thr Ile Gln Tyr Asn Leu Cys Asn Glu Pro Trp Ile Lys Tyr Ser Ile  
 Page 1977

755

760

765

Ser Ile Val Ala Asp Lys Gly Leu Lys Lys Pro Leu Phe Thr Ser Ala  
 770 775 780

Arg Leu Lys Lys Gly Glu Val Leu Tyr Leu Glu Thr His Ser Cys Arg  
 785 790 795 800

Tyr Glu Leu Cys Phe Ala Gly Glu Lys Thr Ile Lys Ala Ile Gln Ala  
 805 810 815

Ser Gln Gln Gln Ser Ser His Glu Ala Met Glu Thr Asp Asn Asn Asn  
 820 825 830

Asn Lys Ser Gln Asn His Leu Thr Asn Gly Asp Lys Thr Asp Ser Asp  
 835 840 845

Asn Ser Leu Ile Asp Val Phe Arg Trp Ser Arg Cys Lys Lys Pro Leu  
 850 855 860

Pro Gln Lys Leu Met Arg Ser Ile Gly Phe Pro Leu Pro Ala Asp His  
 865 870 875 880

Ile Glu Val Leu Glu Glu Asn Leu Asp Trp Glu Asp Val Gln Trp Ser  
 885 890 895

Gln Thr Gly Val Trp Ile Ala Gly Lys Glu Tyr Thr Leu Ala Arg Val  
 900 905 910

His Phe Leu Ser Pro Asn  
 915

<210> 1265

<211> 1236

<212> DNA

<213> Arabidopsis thaliana

<400> 1265  
 atgaatgctt tagcagcaac aaacagaaac ttcaagttag ctgctaggct tcttggtctg 60  
 gattctaagc tcgagaaaag tcttctcatc cccttccgag aaatcaaggt ggaatgtacc 120  
 ataccgaaag acgatggtac actagcatca ttcgttgggt tcagagttca acacgacaat 180  
 gcaagagggtc ccatgaaagg tggaatcaga tatcatcctg aggttgatcc ggatgaagtg 240  
 aacgcattgg ctcagctcat gacatggaaa acagcagtggt ctaagattcc ttacggagga 300



047-E2F-PCT.ST25.txt

```

gctaaaggag ggattggttg tgatcctagc aagctcagta tctccgagct cgagcggttg 360
actcgagttt tctactcagaa gattcatgat ctcatggga ttcatactga tgttccagct 420
ccagatatgg gcaactggtcc tcagacaatg gcttggattc ttgatgaata ctctaagttt 480
catggatact cgcctgcagt tgtgactgga aaaccattg atcttgggtg atcgctaggg 540
agagacgcgg ctactggaag aggagtgatg tttggtaccg aagctttgct taacgagcac 600
ggaaagacca tatcagggca gcgttttgtc atccagggat ttggtaatgt gggttcttgg 660
gcggaacagc tgataagtga aaaggggtggg aagattggtg ccgtgagtga cattaccgga 720
gcaatcaaga acaaggatgg tatcgatata ccggccttgc tcaagcatac taaagaacac 780
agaggtgtca aagggtttga tgggtgcagat ccgatcgatc caaactccat actggttgag 840
gattgtgata tcctcgtccc tgcagcactt ggtggtgtca tcaacaggga gaatgcgaat 900
gagattaaag caaagttcat catagaagca gctaatacct caactgatcc ggacgcggat 960
gagatcctaa gtaagaaagg tgtggttatt ctcccggaca tatatgcaa ctctggagga 1020
gtcactgtaa gttacttcga atgggttcag aacattcaag gctttatgtg ggaggaagag 1080
aaggtgaacg atgagctaaa gacttacatg actcgtctt tcaaggactt gaaagagatg 1140
tgcaaaactc actcttgca tctccggatg ggagctttca cactcggtgt taatcgtgtg 1200
gctcaagcta ccattctcag aggctgggga gcttaa 1236

```

<210> 1266

<211> 411

<212> PRT

<213> *Arabidopsis thaliana*

<400> 1266

Met Asn Ala Leu Ala Ala Thr Asn Arg Asn Phe Lys Leu Ala Ala Arg  
1 5 10 15

Leu Leu Gly Leu Asp Ser Lys Leu Glu Lys Ser Leu Leu Ile Pro Phe  
20 25 30

Arg Glu Ile Lys Val Glu Cys Thr Ile Pro Lys Asp Asp Gly Thr Leu  
35 40 45

Ala Ser Phe Val Gly Phe Arg Val Gln His Asp Asn Ala Arg Gly Pro  
50 55 60

Met Lys Gly Gly Ile Arg Tyr His Pro Glu Val Asp Pro Asp Glu Val  
Page 1979

65		70		75		80									
Asn	Ala	Leu	Ala	Gln 85	Leu	Met	Thr	Trp	Lys 90	Thr	Ala	Val	Ala	Lys 95	Ile
Pro	Tyr	Gly	Gly 100	Ala	Lys	Gly	Gly	Ile 105	Gly	Cys	Asp	Pro	Ser 110	Lys	Leu
Ser	Ile	Ser 115	Glu	Leu	Glu	Arg	Leu 120	Thr	Arg	Val	Phe	Thr 125	Gln	Lys	Ile
His	Asp 130	Leu	Ile	Gly	Ile	His 135	Thr	Asp	Val	Pro	Ala 140	Pro	Asp	Met	Gly
Thr 145	Gly	Pro	Gln	Thr	Met 150	Ala	Trp	Ile	Leu	Asp 155	Glu	Tyr	Ser	Lys	Phe 160
His	Gly	Tyr	Ser	Pro 165	Ala	Val	Val	Thr	Gly 170	Lys	Pro	Ile	Asp	Leu 175	Gly
Gly	Ser	Leu	Gly 180	Arg	Asp	Ala	Ala	Thr 185	Gly	Arg	Gly	Val	Met 190	Phe	Gly
Thr	Glu	Ala 195	Leu	Leu	Asn	Glu	His 200	Gly	Lys	Thr	Ile	Ser 205	Gly	Gln	Arg
Phe	Val 210	Ile	Gln	Gly	Phe	Gly 215	Asn	Val	Gly	Ser	Trp 220	Ala	Ala	Lys	Leu
Ile 225	Ser	Glu	Lys	Gly	Gly 230	Lys	Ile	Val	Ala	Val 235	Ser	Asp	Ile	Thr	Gly 240
Ala	Ile	Lys	Asn	Lys 245	Asp	Gly	Ile	Asp	Ile 250	Pro	Ala	Leu	Leu	Lys 255	His
Thr	Lys	Glu	His 260	Arg	Gly	Val	Lys	Gly 265	Phe	Asp	Gly	Ala	Asp 270	Pro	Ile
Asp	Pro	Asn 275	Ser	Ile	Leu	Val	Glu 280	Asp	Cys	Asp	Ile	Leu 285	Val	Pro	Ala
Ala	Leu 290	Gly	Gly	Val	Ile	Asn 295	Arg	Glu	Asn	Ala	Asn 300	Glu	Ile	Lys	Ala
Lys 305	Phe	Ile	Ile	Glu	Ala 310	Ala	Asn	His	Pro	Thr 315	Asp	Pro	Asp	Ala	Asp 320

Glu Ile Leu Ser Lys Lys Gly Val Val Ile Leu Pro Asp Ile Tyr Ala  
                   325                  330                  335

Asn Ser Gly Gly Val Thr Val Ser Tyr Phe Glu Trp Val Gln Asn Ile  
                   340                  345                  350

Gln Gly Phe Met Trp Glu Glu Glu Lys Val Asn Asp Glu Leu Lys Thr  
                   355                  360                  365

Tyr Met Thr Arg Ser Phe Lys Asp Leu Lys Glu Met Cys Lys Thr His  
                   370                  375                  380

Ser Cys Asp Leu Arg Met Gly Ala Phe Thr Leu Gly Val Asn Arg Val  
                   385                  390                  395                  400

Ala Gln Ala Thr Ile Leu Arg Gly Trp Gly Ala  
                   405                  410

<210> 1267

<211> 591

<212> DNA

<213> Arabidopsis thaliana

<400> 1267

atggccaccg cgatacctct cttcgctctt ttcaagtatg ccgatagtct caccgtcggt	60
ggaatctctt tctgcacggc gttggtctgc gaagcaatct catggatcct aatctatcgc	120
acaagctctt acaaatcggt gaaatcttcc attgacaaag cctctaagaa gcttgagacg	180
atgaagacag ataatccttc ctcgaagcta acaaacaaga aatcgaagac gaagaagata	240
gatcgcgttg aatccagctt aaaggaatcg agcagagatc tatcactctt caagtttaaa	300
tctggtgccg ttgtggcttt ggttctcttt gtcgtgtttg gattgttgaa ttcgcttttc	360
gaagggaaaag tggtagcgaa gcttccgttt catccgatta cgattgtgag gaagatgagt	420
catagaggat tgaaaggcga tgattccact gattgttcca tggcttttct ttatctgctt	480
tgttctatta gtataaggac taatctgcag aagttcttgg gtttctctcc acctagagga	540
gctgctggtg ctggtggttt gttcccaatg cctgatccaa agaccaattg a	591

<210> 1268

<211> 196

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 1268

Met Ala Thr Ala Ile Pro Leu Phe Ala Ser Phe Lys Tyr Ala Asp Ser  
 1 5 10 15

Leu Thr Val Val Gly Ile Ser Phe Cys Thr Ala Leu Val Cys Glu Ala  
 20 25 30

Ile Ser Trp Ile Leu Ile Tyr Arg Thr Ser Ser Tyr Lys Ser Leu Lys  
 35 40 45

Ser Ser Ile Asp Lys Ala Ser Lys Lys Leu Glu Thr Met Lys Thr Asp  
 50 55 60

Asn Pro Ser Ser Lys Leu Thr Asn Lys Lys Ser Lys Thr Lys Lys Ile  
 65 70 75 80

Asp Arg Val Glu Ser Ser Leu Lys Glu Ser Ser Arg Asp Leu Ser Leu  
 85 90 95

Phe Lys Phe Lys Ser Gly Ala Val Val Ala Leu Val Leu Phe Val Val  
 100 105 110

Phe Gly Leu Leu Asn Ser Leu Phe Glu Gly Lys Val Val Ala Lys Leu  
 115 120 125

Pro Phe His Pro Ile Thr Ile Val Arg Lys Met Ser His Arg Gly Leu  
 130 135 140

Lys Gly Asp Asp Ser Thr Asp Cys Ser Met Ala Phe Leu Tyr Leu Leu  
 145 150 155 160

Cys Ser Ile Ser Ile Arg Thr Asn Leu Gln Lys Phe Leu Gly Phe Ser  
 165 170 175

Pro Pro Arg Gly Ala Ala Gly Ala Gly Gly Leu Phe Pro Met Pro Asp  
 180 185 190

Pro Lys Thr Asn  
 195

&lt;210&gt; 1269

&lt;211&gt; 2496

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1269

atggcgcaac ccctcgtgaa gaaagacgat gatcacgacg atgagttgga gtattctcca	60
ttcatgggaa ttgagaaagg agcgggttctt caagaggcta gagtctttaa tgaccctcag	120
gttgatccta gacgatgctc ccagggtcatt acgaagcttc tttatttgct taaccaaggg	180
gagtcattca ccaaggttga agcaacggaa gttttctttt cagttacaaa gctttttcaa	240
tcaaaagaca cgggtttgag gagaatggtc tacttgatca ttaaggagtt atctccatca	300
tctgatgagg ttatcatcgt aacaagctct ctgatgaagg atatgaatag taaaattgat	360
atgtatcgag caaatgctat ccgtgtcctc tgccggataa tagacggaac ccttctcact	420
cagattgagc gatacttgaa acaagccatt gtggataaga atcccgttgt ttcaagtgca	480
gcttttagtca gtgggcttca cttgctcaag acaaaccag aaattgttaa aagatggagc	540
aatgaagttc aagaaggtat tcaatccaga tcagcccttg ttcagttcca tgccctagct	600
ttgctccatc agatacgcca aaatgatcgc ttggctgtta gcaaattggg ttgtagcttg	660
accaggggat ctgtccgctc tcccttggct cagtgtcttt tgatacaacg tccgttctat	720
gaatTTTTTgg agagttgcct gcgccataag gcagaaatgg tgatccttga ggctgccagg	780
gcaattactg agcttgatgg tgtgacaagc cgagaactga ctccagcaat cactgttctt	840
cagctctttt tgagttcccc cagaccagtg ttgagatttg ccgctgtccg gactctgaac	900
aaggttgcaa tgactcatcc tatggctgtc accaactgca acattgatat ggagagttta	960
atctctgatc aaaatagaag cattgctaca ctgcataa ccacactatt gaaaacaggg	1020
aacgaatcaa gtgtagaacg tttgatgaag cagataacta attttatgtc agatattgct	1080
gatgagttca aaattgtggg cgtggacgca ataagatcgt tgtgtgtgaa attcccactg	1140
aaatacagat ccttgatgac cttcttaagc aacattctta gggagaagg tggatttgag	1200
tataaaagag caatagtaga ttctattgtg accattatca gagatattcc ggatgcaaag	1260
gaaagtggac tgcttcatct atgtgaattc attgaagatt gtgaattcac atatctttca	1320
acacagatcc ttcattttct gggaaattgag gggcctaaca cctcagatcc aagcaagtat	1380
atacgatata tatataatcg tgtgcatcta gaaaacgcca ctgtccgggc tgctgctgtt	1440
tccacacttg caaagtttgg gtttatgggt gaatccttga agccccggat tactgttcta	1500
ttgaagcggt gcatctatga cagtgatgat gaggtccgtg atagggaac actatatttg	1560
agtgagccct ctgaagaagc ttttgatatc aactccgtac ctaaggaagt taaatctcag	1620
ccccttgagc agaagaaagc ccagggtaaa aagcccactg gtcttggtgc accaccagct	1680
gcacctgctt ctggttttga tggctatgaa agacttctct catccattcc agagtttgcc	1740

gccttttgaa aacttttcaa gtcttcttta cctgtggagc taactgaagc agaaacagaa 1800  
 tacgctgtca atgttggtta gcatatcttt gacagtcattg tgggtgtttca gtacaactgc 1860  
 actaacacaa taccagagca gttgttggag aggggtactga acattgaagc tgaggaattc 1920  
 agtgaagtaa cttcaaaggc cctaaactca cttccttacg attcacccgg tcaagccttt 1980  
 gtgggtttttg agaagccagc tgggggtccct gctgttggaa agttctccaa cacattgact 2040  
 ttcgttggtta aggaggtaca tgttgaccca agcacagggtg aagcagaaga tgatggagta 2100  
 gaagatgagt accagctaga ggatcttgag gttgttagctg gagattacat ggtgaaagtg 2160  
 ggtgtctcca atttcaggaa tgcgtgggaa agcatggatg aagaagatga gcgtgtagac 2220  
 gaatatggcc ttggccaaag agagagtttg ggagaagctg taaaggctgt catggatctt 2280  
 cttggcatgc agacttggtga ggggacggag acaattccgc tcaatgcaag gtcacacacg 2340  
 tgtctattgt cagggtgtgta cataggcaac gtgaaagtgt tagtgagggc acagtttgga 2400  
 atggacagct caaaggacat tgcaatgaag ctgacagtta gagctgaaga cgtttctgtc 2460  
 gccgaggcca ttcacgagat tgttgccagc ggctaa 2496

<210> 1270

<211> 831

<212> PRT

<213> *Arabidopsis thaliana*

<400> 1270

Met Ala Gln Pro Leu Val Lys Lys Asp Asp Asp His Asp Asp Glu Leu  
1 5 10 15

Glu Tyr Ser Pro Phe Met Gly Ile Glu Lys Gly Ala Val Leu Gln Glu  
20 25 30

Ala Arg Val Phe Asn Asp Pro Gln Val Asp Pro Arg Arg Cys Ser Gln  
35 40 45

Val Ile Thr Lys Leu Leu Tyr Leu Leu Asn Gln Gly Glu Ser Phe Thr  
50 55 60

Lys Val Glu Ala Thr Glu Val Phe Phe Ser Val Thr Lys Leu Phe Gln  
65 70 75 80

Ser Lys Asp Thr Gly Leu Arg Arg Met Val Tyr Leu Ile Ile Lys Glu  
85 90 95

047-E2F-PCT.ST25.txt

Leu	Ser	Pro	Ser	Ser	Asp	Glu	Val	Ile	Ile	Val	Thr	Ser	Ser	Leu	Met
			100					105					110		
Lys	Asp	Met	Asn	Ser	Lys	Ile	Asp	Met	Tyr	Arg	Ala	Asn	Ala	Ile	Arg
		115					120					125			
Val	Leu	Cys	Arg	Ile	Ile	Asp	Gly	Thr	Leu	Leu	Thr	Gln	Ile	Glu	Arg
	130					135					140				
Tyr	Leu	Lys	Gln	Ala	Ile	Val	Asp	Lys	Asn	Pro	Val	Val	Ser	Ser	Ala
145					150					155					160
Ala	Leu	Val	Ser	Gly	Leu	His	Leu	Leu	Lys	Thr	Asn	Pro	Glu	Ile	Val
				165					170					175	
Lys	Arg	Trp	Ser	Asn	Glu	Val	Gln	Glu	Gly	Ile	Gln	Ser	Arg	Ser	Ala
			180					185					190		
Leu	Val	Gln	Phe	His	Ala	Leu	Ala	Leu	Leu	His	Gln	Ile	Arg	Gln	Asn
		195					200					205			
Asp	Arg	Leu	Ala	Val	Ser	Lys	Leu	Val	Gly	Ser	Leu	Thr	Arg	Gly	Ser
	210					215					220				
Val	Arg	Ser	Pro	Leu	Ala	Gln	Cys	Leu	Leu	Ile	Gln	Arg	Pro	Phe	Tyr
225					230					235					240
Glu	Phe	Leu	Glu	Ser	Cys	Leu	Arg	His	Lys	Ala	Glu	Met	Val	Ile	Leu
				245					250					255	
Glu	Ala	Ala	Arg	Ala	Ile	Thr	Glu	Leu	Asp	Gly	Val	Thr	Ser	Arg	Glu
			260					265					270		
Leu	Thr	Pro	Ala	Ile	Thr	Val	Leu	Gln	Leu	Phe	Leu	Ser	Ser	Pro	Arg
		275					280					285			
Pro	Val	Leu	Arg	Phe	Ala	Ala	Val	Arg	Thr	Leu	Asn	Lys	Val	Ala	Met
	290					295					300				
Thr	His	Pro	Met	Ala	Val	Thr	Asn	Cys	Asn	Ile	Asp	Met	Glu	Ser	Leu
305					310					315					320
Ile	Ser	Asp	Gln	Asn	Arg	Ser	Ile	Ala	Thr	Leu	Ala	Ile	Thr	Thr	Leu
				325					330					335	
Leu	Lys	Thr	Gly	Asn	Glu	Ser	Ser	Val	Glu	Arg	Leu	Met	Lys	Gln	Ile
			340					345					350		

## 047-E2F-PCT.ST25.txt

Thr Asn Phe Met Ser Asp Ile Ala Asp Glu Phe Lys Ile Val Val Val  
 355 360 365  
 Asp Ala Ile Arg Ser Leu Cys Val Lys Phe Pro Leu Lys Tyr Arg Ser  
 370 375 380  
 Leu Met Thr Phe Leu Ser Asn Ile Leu Arg Glu Glu Gly Gly Phe Glu  
 385 390 395 400  
 Tyr Lys Arg Ala Ile Val Asp Ser Ile Val Thr Ile Ile Arg Asp Ile  
 405 410 415  
 Pro Asp Ala Lys Glu Ser Gly Leu Leu His Leu Cys Glu Phe Ile Glu  
 420 425 430  
 Asp Cys Glu Phe Thr Tyr Leu Ser Thr Gln Ile Leu His Phe Leu Gly  
 435 440 445  
 Ile Glu Gly Pro Asn Thr Ser Asp Pro Ser Lys Tyr Ile Arg Tyr Ile  
 450 455 460  
 Tyr Asn Arg Val His Leu Glu Asn Ala Thr Val Arg Ala Ala Ala Val  
 465 470 475 480  
 Ser Thr Leu Ala Lys Phe Gly Phe Met Val Glu Ser Leu Lys Pro Arg  
 485 490 495  
 Ile Thr Val Leu Leu Lys Arg Cys Ile Tyr Asp Ser Asp Asp Glu Val  
 500 505 510  
 Arg Asp Arg Ala Thr Leu Tyr Leu Ser Glu Pro Ser Glu Glu Ala Phe  
 515 520 525  
 Asp Ile Asn Ser Val Pro Lys Glu Val Lys Ser Gln Pro Leu Ala Glu  
 530 535 540  
 Lys Lys Ala Gln Gly Lys Lys Pro Thr Gly Leu Gly Ala Pro Pro Ala  
 545 550 555 560  
 Ala Pro Ala Ser Gly Phe Asp Gly Tyr Glu Arg Leu Leu Ser Ser Ile  
 565 570 575  
 Pro Glu Phe Ala Ala Phe Gly Lys Leu Phe Lys Ser Ser Leu Pro Val  
 580 585 590  
 Glu Leu Thr Glu Ala Glu Thr Glu Tyr Ala Val Asn Val Val Lys His  
 595 600 605



Ile Phe Asp Ser His Val Val Phe Gln Tyr Asn Cys Thr Asn Thr Ile  
 610 615 620  
 Pro Glu Gln Leu Leu Glu Arg Val Leu Asn Ile Glu Ala Glu Glu Phe  
 625 630 635 640  
 Ser Glu Val Thr Ser Lys Ala Leu Asn Ser Leu Pro Tyr Asp Ser Pro  
 645 650 655  
 Gly Gln Ala Phe Val Val Phe Glu Lys Pro Ala Gly Val Pro Ala Val  
 660 665 670  
 Gly Lys Phe Ser Asn Thr Leu Thr Phe Val Val Lys Glu Val His Val  
 675 680 685  
 Asp Pro Ser Thr Gly Glu Ala Glu Asp Asp Gly Val Glu Asp Glu Tyr  
 690 695 700  
 Gln Leu Glu Asp Leu Glu Val Val Ala Gly Asp Tyr Met Val Lys Val  
 705 710 715 720  
 Gly Val Ser Asn Phe Arg Asn Ala Trp Glu Ser Met Asp Glu Glu Asp  
 725 730 735  
 Glu Arg Val Asp Glu Tyr Gly Leu Gly Gln Arg Glu Ser Leu Gly Glu  
 740 745 750  
 Ala Val Lys Ala Val Met Asp Leu Leu Gly Met Gln Thr Cys Glu Gly  
 755 760 765  
 Thr Glu Thr Ile Pro Leu Asn Ala Arg Ser His Thr Cys Leu Leu Ser  
 770 775 780  
 Gly Val Tyr Ile Gly Asn Val Lys Val Leu Val Arg Ala Gln Phe Gly  
 785 790 795 800  
 Met Asp Ser Ser Lys Asp Ile Ala Met Lys Leu Thr Val Arg Ala Glu  
 805 810 815  
 Asp Val Ser Val Ala Glu Ala Ile His Glu Ile Val Ala Ser Gly  
 820 825 830

&lt;210&gt; 1271

&lt;211&gt; 1059

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1271

```

atggagagag attttctcgg gttgggttcg aaaaattctc cgatcactgt caaggaggaa      60
accagcgaaa gctctagaga ttcagctccc aacagaggaa tgaactgggtc tttctcaaac     120
aaagtatcag cttcttcttc tcagtttcta tccttcaggc caactcaaga agatagacat     180
agaaagtctg gaaattatca tcttcctcac tctggttcct tcatgccatc atcagtagct     240
gatgtttatg attcaacccg caaagctcct tacagttctg tacagggagt gaggatgttc     300
cctaattcca atcaacacga agaaactaac gcagtttcca tgtcgatgcc gggtttccag     360
tctcatcatt atgcaccagg aggaagaagc ttcatgaaca ataacaataa ctcacaacct     420
ttggtaggag ttcctatcat ggcacctcca atttcaatcc ttctcctcc aggttccatt     480
gtagggacta ctgatattag atcttcttcc aagccaatag gttcacctgc gcagttgacg     540
atcttttatg ccggttcagt ttgtgtttac gatgacatat ctctgaaaa ggcaaaggcg     600
ataatgttgc tagctgggaa cggttcctct atgcctcaag tcttttcgcc gcctcaaact     660
catcaacaag tgggtccatca tactcgtgcc tctgtcgatt cttcagctat gcctcctagc     720
ttcatgccta caatatctta tcttagccct gaagctggaa gtagcacaaa cggactcgga     780
gccacaaaag cgacaagagg cttgacgtca acatatcaca acaaccaagc taatggatcc     840
aatattaact gcccagtacc agtttcttgt tctaccaatg taatggctcc aacagtggca     900
ttacctctgg ctcgcaaagc atccctggct aggttttttag agaaacgcaa agaaagggtc     960
acgagcgtat ccccatattg cttagacaag aagtcatcga cagattgtcg cagatcaatg    1020
tctgaatgca ttagttcttc tctcagctct gcaacctaa                          1059

```

&lt;210&gt; 1272

&lt;211&gt; 352

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1272

```

Met Glu Arg Asp Phe Leu Gly Leu Gly Ser Lys Asn Ser Pro Ile Thr
1           5           10           15

```

```

Val Lys Glu Glu Thr Ser Glu Ser Ser Arg Asp Ser Ala Pro Asn Arg
          20           25           30

```

Gly Met Asn Trp Ser Phe Ser Asn Lys Val Ser Ala Ser Ser Ser Gln  
 35 40 45  
 Phe Leu Ser Phe Arg Pro Thr Gln Glu Asp Arg His Arg Lys Ser Gly  
 50 55 60  
 Asn Tyr His Leu Pro His Ser Gly Ser Phe Met Pro Ser Ser Val Ala  
 65 70 75 80  
 Asp Val Tyr Asp Ser Thr Arg Lys Ala Pro Tyr Ser Ser Val Gln Gly  
 85 90 95  
 Val Arg Met Phe Pro Asn Ser Asn Gln His Glu Glu Thr Asn Ala Val  
 100 105 110  
 Ser Met Ser Met Pro Gly Phe Gln Ser His His Tyr Ala Pro Gly Gly  
 115 120 125  
 Arg Ser Phe Met Asn Asn Asn Asn Asn Ser Gln Pro Leu Val Gly Val  
 130 135 140  
 Pro Ile Met Ala Pro Pro Ile Ser Ile Leu Pro Pro Pro Gly Ser Ile  
 145 150 155 160  
 Val Gly Thr Thr Asp Ile Arg Ser Ser Ser Lys Pro Ile Gly Ser Pro  
 165 170 175  
 Ala Gln Leu Thr Ile Phe Tyr Ala Gly Ser Val Cys Val Tyr Asp Asp  
 180 185 190  
 Ile Ser Pro Glu Lys Ala Lys Ala Ile Met Leu Leu Ala Gly Asn Gly  
 195 200 205  
 Ser Ser Met Pro Gln Val Phe Ser Pro Pro Gln Thr His Gln Gln Val  
 210 215 220  
 Val His His Thr Arg Ala Ser Val Asp Ser Ser Ala Met Pro Pro Ser  
 225 230 235 240  
 Phe Met Pro Thr Ile Ser Tyr Leu Ser Pro Glu Ala Gly Ser Ser Thr  
 245 250 255  
 Asn Gly Leu Gly Ala Thr Lys Ala Thr Arg Gly Leu Thr Ser Thr Tyr  
 260 265 270  
 His Asn Asn Gln Ala Asn Gly Ser Asn Ile Asn Cys Pro Val Pro Val  
 275 280 285

047-E2F-PCT.ST25.txt

Ser Cys Ser Thr Asn Val Met Ala Pro Thr Val Ala Leu Pro Leu Ala  
290 295 300

Arg Lys Ala Ser Leu Ala Arg Phe Leu Glu Lys Arg Lys Glu Arg Val  
305 310 315 320

Thr Ser Val Ser Pro Tyr Cys Leu Asp Lys Lys Ser Ser Thr Asp Cys  
325 330 335

Arg Arg Ser Met Ser Glu Cys Ile Ser Ser Ser Leu Ser Ser Ala Thr  
340 345 350

<210> 1273

<211> 588

<212> DNA

<213> Arabidopsis thaliana

<400> 1273

atgttccttt tgattctcct tgtgttctgt ataacagttt ttgcctttgt tgttactaac	60
aaaggagctg gtgaagctat tgaaggaaaa gggtataaag agtataaact tgggtgattac	120
tctacttggt tacagaaacg tgttgagaat ggtaaaaatt ggaataagat taggagttgt	180
cttgtggaga gcaaagtttg ttctaagctt gaagccaagt ttgttaatgt tcctgtcaat	240
agtttctaca aggaacatct tactgctctt cagtctgggt gctgcaaacc ttcagatgaa	300
tgtggtttcg agtacgtaaa cccaacaacc tggaccaaga acacaacggg aacacacact	360
aatccagact gccaaacctg ggacaacgca aaagaaaagc tctgcttcga ttgtcaatct	420
tgtaaagcgg gtctactcga caacgtcaaa agcgcttgga agaaagttgc aatcgttaac	480
atcgtcttcc ttgtcttcct catcattgtc tactctgttg gttgctgtgc tttcaggaac	540
aacaagaggg atgacagtta ttcccgtacc tacggatata agccttga	588

<210> 1274

<211> 195

<212> PRT

<213> Arabidopsis thaliana

<400> 1274

Met Phe Leu Leu Ile Leu Leu Val Phe Cys Ile Thr Val Phe Ala Phe  
1 5 10 15

047-E2F-PCT.ST25.txt

Val Val Thr Asn Lys Gly Ala Gly Glu Ala Ile Glu Gly Lys Gly Tyr  
20 25 30

Lys Glu Tyr Lys Leu Gly Asp Tyr Ser Thr Trp Leu Gln Lys Arg Val  
35 40 45

Glu Asn Gly Lys Asn Trp Asn Lys Ile Arg Ser Cys Leu Val Glu Ser  
50 55 60

Lys Val Cys Ser Lys Leu Glu Ala Lys Phe Val Asn Val Pro Val Asn  
65 70 75 80

Ser Phe Tyr Lys Glu His Leu Thr Ala Leu Gln Ser Gly Cys Cys Lys  
85 90 95

Pro Ser Asp Glu Cys Gly Phe Glu Tyr Val Asn Pro Thr Thr Trp Thr  
100 105 110

Lys Asn Thr Thr Gly Thr His Thr Asn Pro Asp Cys Gln Thr Trp Asp  
115 120 125

Asn Ala Lys Glu Lys Leu Cys Phe Asp Cys Gln Ser Cys Lys Ala Gly  
130 135 140

Leu Leu Asp Asn Val Lys Ser Ala Trp Lys Lys Val Ala Ile Val Asn  
145 150 155 160

Ile Val Phe Leu Val Phe Leu Ile Ile Val Tyr Ser Val Gly Cys Cys  
165 170 175

Ala Phe Arg Asn Asn Lys Arg Asp Asp Ser Tyr Ser Arg Thr Tyr Gly  
180 185 190

Tyr Lys Pro  
195

<210> 1275

<211> 1530

<212> DNA

<213> Arabidopsis thaliana

<400> 1275

atgagcgggtt ctaggataaaa agttgctggg agatttttac cctgtgtgca catgggctgt

60

047-E2F-PCT.ST25.txt

tttgaccttg atgtgtttgt ggagttgaat caacgttcca gaaagtggca gtgccctatt	120
tgtctgaaga actactcagt ggagcatgta atcgtcgcgc cttattttta cgtatcacg	180
tctaagatga agcattgtga tgaagaggtg actgaaattg aagtgaaacc tgatgggttct	240
tggcgtgtaa agttcaaaaag agagagtgag cgaaggggaac tggggggaact ctcacagtgg	300
catgcacctg atggttagcct ttgccccctc gctgttgata ttaaacggaa gatggaaatg	360
ttaccggtta agcaagaagg ttactcagat ggtccagccc cgctaaaact tggaataagg	420
aagaatcgta atggcatttg ggaagtttagc aaacctaata caaatggatt atcttccagt	480
aataggcaag aaaagggttg gtatcaggag aagaatatta taccaatgag tagtagtgct	540
actggaagtg gtagggatgg tgatgatgca agcgtaaacc aggatgctat tggaactttt	600
gactttgtag ccaacggcat ggaacttgat tccattttcca tgaatgttga ttcaggttat	660
aactttcctg acagaaacca atctggcgag ggtggaaata atgaagtcac cgttctgagt	720
gattctgatg acgagaatga tttagtgcgc actccagggc ctgcatacag tggttgtcaa	780
acagatggtg gacttacttt tccactgaac cctcctggaa taattaactc atataatgag	840
gaccacaca gcatagctgg gggaggttca ggcttaggtc ttttcaatga tgatgatgaa	900
tttgatacgc ccctttggtc atttccttct gaaactccag aagcccctgg gttccaacta	960
tttagatctg atgctgacgt ttcaggaggt ttagttgggt tgcacatca tagtccacta	1020
aactgttctc ctgaaataaa tggagggttat accatggctc ctgagacatc aatggcatct	1080
gttcctgtgg ttcctggctc tactggccga tctgaagcaa acgatggcct agttgacaat	1140
cctcttgcat ttggtagaga cgatccctca cttcaaata ttttgccaac aaaaccagat	1200
gcttcagctc agtcgggttt taaaaaccaa gctgatatgt caaatggctc ccgtagtgaa	1260
gactggatct cgcttaggct aggcgatagc gcctctggga atcatggaga tcctgcaact	1320
acaaacggga ttaactcaag ccatcagatg tctacgaggg aagggttctat ggatactaca	1380
acagagactg cgtcgttgct tctgggtatg aatgacagta gacaagacaa ggcaaagaag	1440
caaagatcag ataatccatt ttcatttctc cgccagaagc gttctgtaag acctcggatg	1500
tacctctcca ttgactcgga ttctgagtaa	1530

<210> 1276

<211> 509

<212> PRT

<213> Arabidopsis thaliana

<400> 1276

Met Ser Gly Ser Arg Ile Lys Val Ala Gly Arg Phe Leu Pro Cys Val  
 1 5 10 15  
 His Met Gly Cys Phe Asp Leu Asp Val Phe Val Glu Leu Asn Gln Arg  
 20 25 30  
 Ser Arg Lys Trp Gln Cys Pro Ile Cys Leu Lys Asn Tyr Ser Val Glu  
 35 40 45  
 His Val Ile Val Asp Pro Tyr Phe Asn Arg Ile Thr Ser Lys Met Lys  
 50 55 60  
 His Cys Asp Glu Glu Val Thr Glu Ile Glu Val Lys Pro Asp Gly Ser  
 65 70 75 80  
 Trp Arg Val Lys Phe Lys Arg Glu Ser Glu Arg Arg Glu Leu Gly Glu  
 85 90 95  
 Leu Ser Gln Trp His Ala Pro Asp Gly Ser Leu Cys Pro Ser Ala Val  
 100 105 110  
 Asp Ile Lys Arg Lys Met Glu Met Leu Pro Val Lys Gln Glu Gly Tyr  
 115 120 125  
 Ser Asp Gly Pro Ala Pro Leu Lys Leu Gly Ile Arg Lys Asn Arg Asn  
 130 135 140  
 Gly Ile Trp Glu Val Ser Lys Pro Asn Thr Asn Gly Leu Ser Ser Ser  
 145 150 155 160  
 Asn Arg Gln Glu Lys Val Gly Tyr Gln Glu Lys Asn Ile Ile Pro Met  
 165 170 175  
 Ser Ser Ser Ala Thr Gly Ser Gly Arg Asp Gly Asp Asp Ala Ser Val  
 180 185 190  
 Asn Gln Asp Ala Ile Gly Thr Phe Asp Phe Val Ala Asn Gly Met Glu  
 195 200 205  
 Leu Asp Ser Ile Ser Met Asn Val Asp Ser Gly Tyr Asn Phe Pro Asp  
 210 215 220  
 Arg Asn Gln Ser Gly Glu Gly Gly Asn Asn Glu Val Ile Val Leu Ser  
 225 230 235 240  
 Asp Ser Asp Asp Glu Asn Asp Leu Val Ile Thr Pro Gly Pro Ala Tyr  
 245 250 255

047-E2F-PCT.ST25.txt

Ser Gly Cys Gln Thr Asp Gly Gly Leu Thr Phe Pro Leu Asn Pro Pro  
260 265 270

Gly Ile Ile Asn Ser Tyr Asn Glu Asp Pro His Ser Ile Ala Gly Gly  
275 280 285

Ser Ser Gly Leu Gly Leu Phe Asn Asp Asp Asp Glu Phe Asp Thr Pro  
290 295 300

Leu Trp Ser Phe Pro Ser Glu Thr Pro Glu Ala Pro Gly Phe Gln Leu  
305 310 315 320

Phe Arg Ser Asp Ala Asp Val Ser Gly Gly Leu Val Gly Leu His His  
325 330 335

His Ser Pro Leu Asn Cys Ser Pro Glu Ile Asn Gly Gly Tyr Thr Met  
340 345 350

Ala Pro Glu Thr Ser Met Ala Ser Val Pro Val Val Pro Gly Ser Thr  
355 360 365

Gly Arg Ser Glu Ala Asn Asp Gly Leu Val Asp Asn Pro Leu Ala Phe  
370 375 380

Gly Arg Asp Asp Pro Ser Leu Gln Ile Phe Leu Pro Thr Lys Pro Asp  
385 390 395 400

Ala Ser Ala Gln Ser Gly Phe Lys Asn Gln Ala Asp Met Ser Asn Gly  
405 410 415

Leu Arg Ser Glu Asp Trp Ile Ser Leu Arg Leu Gly Asp Ser Ala Ser  
420 425 430

Gly Asn His Gly Asp Pro Ala Thr Thr Asn Gly Ile Asn Ser Ser His  
435 440 445

Gln Met Ser Thr Arg Glu Gly Ser Met Asp Thr Thr Thr Glu Thr Ala  
450 455 460

Ser Leu Leu Leu Gly Met Asn Asp Ser Arg Gln Asp Lys Ala Lys Lys  
465 470 475 480

Gln Arg Ser Asp Asn Pro Phe Ser Phe Pro Arg Gln Lys Arg Ser Val  
485 490 495

Arg Pro Arg Met Tyr Leu Ser Ile Asp Ser Asp Ser Glu  
500 505



&lt;210&gt; 1277

&lt;211&gt; 2643

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1277

```

atggaagcta attcagctga tcagaaacaa aaacctaact ttcttggtga ggtaataaac      60
attgagaaac agctatggac attaatccat tcaaagacta tattgcatac cgatgtttca      120
gaattatacg cgaaagctgg ttcgacctac gagcaaattct ttaaaagcaa tctccaacac      180
gaagagcttc aagaagtaga gttctgtctc tggaaactcc actataaaca catcgatgag      240
tttcgtaaag gccttaaaac aaatgatcat gccaaagcata tgaaagcatt caagttgttt      300
ctgtcaaaag cagctgagtt ttaccagaat ctgatttcca aagtcagagg atattaccac      360
agactctccg aggaatcagg agagcaaaaa agcagattct tatgccatcg tttctacatt      420
tgtcttggag atcttcaaag gtatcaagaa caatatctga aagcacatga acatcctaatt      480
tggtaactg cagctactta ctatcttgaa gctgcaaaat cttggcctga tagtggaat      540
cctcataacc agctagctgt attggccaca tatgttagtg atgagttatt ggctctgtat      600
cactgcgtaa gaagcttagc tgtgaaagag ctttttctg gtgcttcgaa caatcttctt      660
ttgttgtttg agaagaacag gtcattctca ttgcagtctc tgtctactga tgcagagttt      720
aactacttaa acccatcaga gaaaaaagtt tctgtgaagg aacgagattt gtcaaaagca      780
aaaggagaac tagttgccgg aattgattta tggcccctgg ttgttcgaac aactagcttc      840
tttttcctta aatccagttt tgatgagttt ggtcgggcat ttgcatcaac tataagagaa      900
ctggatgcag cgtttgcagc agatgataga aatctagaag ccatgttgga gtcttatcaa      960
tttatggaca cggcgagaaa gggaccttat aaaatcctcc aaattgttgc ggtttttatc     1020
tacatcttcc acaatttagc agaggctaatt ggatccgaca tcgtgaaaga ggaagttaag     1080
ctaacaaatt tagcattaac tatggtgttt atcgatcatg ggcgagttgt tgagagatgt     1140
ttgaagacaa ctcccttggg ttcttgccct ctcttacctg ctctacttgt atttctagac     1200
tacttaccgt ttctgcttga caaggtagaa gaagaagaag aagaatgcag gtttgatgag     1260
aagagcaaga gtgcaatatc ttacttcttt ggcaaaactc ttgatattct gaaccagtta     1320
aagggtgaaag acaaaaaactg ccctgctaaa acgttggttag ctctctggga agatcatgaa     1380
ctgaagtcct tggctcctct ggctcccata catgcacttt tggatttctc aagtaatatg     1440
gatcttagag agagttttga tagagggaag gagcttcgtc ttcaacggat tattagttca     1500

```

047-E2F-PCT.ST25.txt

gcaattgata tcacaactag gcagaagaag ggttctcaaa agtggctatt ctttgacaat 1560  
 caacggactc atttctacac aacttcgggt gaattgcaaa gcaacggaga gctctttcat 1620  
 ggaaatggag agggtagaaa cagaaaatgc gttactattg gaccagttga aatcattcct 1680  
 ttggagaatg aaagatctgt tcctgtagaa gaggaagaag tcattcttct caagccgctc 1740  
 gtaaggtgtc aatctgctcc aatatattct tctggcattg cagcaaagcc acttagctct 1800  
 gattgcacaa cttcaggaaa tcaaacaact acatccaatg acagcctaag acgtacctta 1860  
 tcactcattg ggtctgaaag tttcagcttt acgcaaggctc ttaaggacac ggatccacaa 1920  
 catttgcatc tcgaagaagg cactgtctca ggaagacctc catcgctgag cgcgtgggtg 1980  
 gttgacaaga acaaagagaa aggacgactc ggtttaagta aaccaaacgg attgggccct 2040  
 attgatgaaa caggtcctgt ctacgccttt gatagtctct ccatcaatag cagcaccgag 2100  
 catcctgcgt cttcctattc gcctcctact ccgtctgctc cactactgcc tgaagacgct 2160  
 tcttggtttc ataatgacgc tagtactaac aaagcagaga gcttctatga tcagacacga 2220  
 tatatggaac tccccggtat catgaagcca tacacaaacc caccctttgt tgggatttct 2280  
 tcttctgaat ggttacgtcg gtacagagaa agtaggaatc ttggaccagc ctattcctat 2340  
 caagctcagg gaacaaacaa tttgagaaac tttatggctc atggctcttc caagttcagt 2400  
 ctcttagcta ggtacgggac accaaacgat tcttctcaaa actcaacggt tcaccctcag 2460  
 ctctacatgg aagaccatga atctagagga gagaagctcg gcaacgttca acaaagcaca 2520  
 acaaatcctt atggcttcag tgacgatccc ggaccgtttc ttagatttct gagagaaaaa 2580  
 gagtggctga atgagaacgg tcagaggcta agaggacctc ctctgcata tatgaacaac 2640  
 taa 2643

<210> 1278

<211> 880

<212> PRT

<213> Arabidopsis thaliana

<400> 1278

Met Glu Ala Asn Ser Ala Asp Gln Lys Gln Lys Pro Asn Phe Leu Val  
 1 5 10 15

Glu Val Asn Asn Ile Glu Lys Gln Leu Trp Thr Leu Ile His Ser Lys  
 20 25 30

Thr Ile Leu His Thr Asp Val Ser Glu Leu Tyr Ala Lys Ala Gly Ser  
 35 40 45

047-E2F-PCT.ST25.txt

Thr Tyr Glu Gln Ile Phe Lys Ser Asn Leu Gln His Glu Glu Leu Gln  
50 55 60

Glu Val Glu Phe Cys Leu Trp Lys Leu His Tyr Lys His Ile Asp Glu  
65 70 75 80

Phe Arg Lys Gly Leu Lys Thr Asn Asp His Ala Lys His Met Lys Ala  
85 90 95

Phe Lys Leu Phe Leu Ser Lys Ala Ala Glu Phe Tyr Gln Asn Leu Ile  
100 105 110

Ser Lys Val Arg Gly Tyr Tyr His Arg Leu Ser Glu Glu Ser Gly Glu  
115 120 125

Gln Lys Ser Arg Phe Leu Cys His Arg Phe Tyr Ile Cys Leu Gly Asp  
130 135 140

Leu Gln Arg Tyr Gln Glu Gln Tyr Leu Lys Ala His Glu His Pro Asn  
145 150 155 160

Trp Ser Thr Ala Ala Thr Tyr Tyr Leu Glu Ala Ala Lys Ser Trp Pro  
165 170 175

Asp Ser Gly Asn Pro His Asn Gln Leu Ala Val Leu Ala Thr Tyr Val  
180 185 190

Ser Asp Glu Leu Leu Ala Leu Tyr His Cys Val Arg Ser Leu Ala Val  
195 200 205

Lys Glu Pro Phe Pro Gly Ala Ser Asn Asn Leu Leu Leu Phe Glu  
210 215 220

Lys Asn Arg Ser Ser Pro Leu Gln Ser Leu Ser Thr Asp Ala Glu Phe  
225 230 235 240

Asn Tyr Leu Asn Pro Ser Glu Lys Lys Val Ser Val Lys Glu Arg Asp  
245 250 255

Leu Ser Lys Ala Lys Gly Glu Leu Val Ala Gly Ile Asp Leu Trp Pro  
260 265 270

Leu Val Val Arg Thr Thr Ser Phe Phe Phe Leu Lys Ser Ser Phe Asp  
275 280 285

Glu Phe Gly Arg Ala Phe Ala Ser Thr Ile Arg Glu Leu Asp Ala Ala

290

295

Phe Ala Ala Asp Asp Arg Asn Leu Glu Ala Met Leu Glu Ser Tyr Gln  
305 310 315 320

Phe Met Asp Thr Ala Arg Lys Gly Pro Tyr Lys Ile Leu Gln Ile Val  
325 330 335

Ala Val Phe Ile Tyr Ile Phe His Asn Leu Ala Glu Ala Asn Gly Ser  
340 345 350

Asp Ile Val Lys Glu Glu Val Lys Leu Thr Asn Leu Ala Leu Thr Met  
355 360 365

Val Phe Ile Val Met Gly Arg Val Val Glu Arg Cys Leu Lys Thr Thr  
370 375 380

Pro Leu Asp Ser Cys Pro Leu Leu Pro Ala Leu Leu Val Phe Leu Asp  
385 390 395 400

Tyr Leu Pro Phe Leu Leu Asp Lys Val Glu Glu Glu Glu Glu Cys  
405 410 415

Arg Phe Asp Glu Lys Ser Lys Ser Ala Ile Ser Tyr Phe Phe Gly Lys  
420 425 430

Leu Val Asp Ile Leu Asn Gln Leu Lys Val Lys Asp Lys Asn Cys Pro  
435 440 445

Ala Lys Thr Leu Leu Ala Leu Trp Glu Asp His Glu Leu Lys Ser Leu  
450 455 460

Ala Pro Leu Ala Pro Ile His Ala Leu Leu Asp Phe Ser Ser Asn Met  
465 470 475 480

Asp Leu Arg Glu Ser Phe Asp Arg Gly Lys Glu Leu Arg Leu Gln Arg  
485 490 495

Ile Ile Ser Ser Ala Ile Asp Ile Thr Thr Arg Gln Lys Lys Gly Ser  
500 505 510

Gln Lys Trp Leu Phe Phe Asp Asn Gln Arg Thr His Phe Tyr Thr Thr  
515 520 525

Ser Gly Glu Leu Gln Ser Asn Gly Glu Leu Phe His Gly Asn Gly Glu  
530 535 540

Gly Arg Asn Arg Lys Cys Val Thr Ile Gly Pro Val Glu Ile Ile Pro  
 545 550 555 560  
 Leu Glu Asn Glu Arg Ser Val Pro Val Glu Glu Glu Glu Val Ile Leu  
 565 570 575  
 Leu Lys Pro Leu Val Arg Cys Gln Ser Ala Pro Ile Tyr Ser Ser Gly  
 580 585 590  
 Ile Ala Ala Lys Pro Leu Ser Ser Asp Cys Thr Thr Ser Gly Asn Gln  
 595 600 605  
 Thr Thr Thr Ser Asn Asp Ser Leu Arg Arg Thr Leu Ser Leu Ile Gly  
 610 615 620  
 Ser Glu Ser Phe Ser Phe Thr Gln Gly Leu Lys Asp Thr Asp Pro Gln  
 625 630 635 640  
 His Leu His Leu Glu Glu Gly Thr Val Ser Gly Arg Pro Pro Ser Leu  
 645 650 655  
 Ser Ala Trp Val Val Asp Lys Asn Lys Glu Lys Gly Arg Leu Gly Leu  
 660 665 670  
 Ser Lys Pro Asn Gly Leu Gly Pro Ile Asp Glu Thr Gly Pro Val Ser  
 675 680 685  
 Ala Phe Asp Ser Leu Ser Ile Asn Ser Ser Thr Glu His Pro Ala Ser  
 690 695 700  
 Ser Tyr Ser Pro Pro Thr Pro Ser Ala Pro Leu Leu Pro Glu Asp Ala  
 705 710 715 720  
 Ser Trp Phe His Asn Asp Ala Ser Thr Asn Lys Ala Glu Ser Phe Tyr  
 725 730 735  
 Asp Gln Thr Arg Tyr Met Glu Leu Pro Gly Ile Met Lys Pro Tyr Thr  
 740 745 750  
 Asn Pro Pro Phe Val Gly Ile Ser Ser Ser Glu Trp Leu Arg Arg Tyr  
 755 760 765  
 Arg Glu Ser Arg Asn Leu Gly Pro Ala Tyr Ser Tyr Gln Ala Gln Gly  
 770 775 780  
 Thr Asn Asn Leu Arg Asn Phe Met Ala His Gly Ser Ser Lys Phe Ser  
 785 790 795 800

047-E2F-PCT.ST25.txt

Leu Leu Ala Arg Tyr Gly Thr Pro Asn Asp Ser Ser Gln Asn Ser Thr  
805 810 815

Phe His Pro Gln Leu Tyr Met Glu Asp His Glu Ser Arg Gly Glu Lys  
820 825 830

Leu Gly Asn Val Gln Gln Ser Thr Thr Asn Pro Tyr Gly Phe Ser Asp  
835 840 845

Asp Pro Gly Pro Phe Leu Arg Phe Leu Arg Glu Lys Glu Trp Leu Asn  
850 855 860

Glu Asn Gly Gln Arg Leu Arg Gly Pro Pro Pro Ala Tyr Met Asn Asn  
865 870 875 880

<210> 1279

<211> 1143

<212> DNA

<213> Arabidopsis thaliana

<400> 1279

atggctgatg ataaggagat gcctgctgct gtagttgatg gacatgatca agtcactggt	60
catattatatt ccaccacaat cggtaggcaaa aatggtgaac caaacacagac aattagttac	120
atggcgggagc gagttgttgg tacaggctcg ttcgggatcg ttttccaagc aaaatgtttg	180
gagactggag aaaccgtggc gataaagaag gttttgcaag atagaagata caagaaccga	240
gaacttcagt tgatgcgtgt gatggatcat ccgaatgtgg tttgtttgaa gcattgcttc	300
ttttcgacta caagtaaaga cgagcttttc ttgaacttgg ttatggagta tgtccctgag	360
agcttgtatc gagttctgaa acattatagt agtgcaaacc aaagaatgcc tcttgtctat	420
gttaaacttt acatgtatca gatcttccgg ggacttgctt acattcacia tgttgctgga	480
gtttgtcaca gagatctaaa gcctcaaaat cttctggttg atcctcttac tcatcaagtc	540
aaaatctgtg actttggcag tgcgaaacag ctcgttaaag gtgaagccaa ctttcttac	600
atctgctcac gattctaccg tgcacccgag ctcatatttg gtgccactga gtacacaact	660
tctattgata tctggtctgc tggttgtgtt cttgctgagc ttcttcttgg tcagccatta	720
tttcccggag aaaatgctgt ggatcagctc gttgaaatta taaaagttct tggtagacca	780
actcgagaag aaatccgttg tatgaatcca cattacacag atttcagggt tccacagata	840
aaggcacatc cctggcacia gatcttccac aaaaggatgc cccagaagc gattgatttt	900
gcatcaaggc tgcttcaata ctctccaagt ctaagatgca cagcgctcga agcttgtgca	960

047-E2F-PCT.ST25.txt

catccgttct ttgatgaact cagagaacca aacgctcggt taccaaattgg acggcctttc 1020  
ccgcctctct tcaacttcaa acaagaagta gctggatcat cacctgaact ggtcaacaag 1080  
ttgattccag accatatcaa gagacaattg ggtctaagct tcttgaatca atctggaact 1140  
taa 1143

<210> 1280

<211> 380

<212> PRT

<213> Arabidopsis thaliana

<400> 1280

Met Ala Asp Asp Lys Glu Met Pro Ala Ala Val Val Asp Gly His Asp  
1 5 10 15

Gln Val Thr Gly His Ile Ile Ser Thr Thr Ile Gly Gly Lys Asn Gly  
20 25 30

Glu Pro Lys Gln Thr Ile Ser Tyr Met Ala Glu Arg Val Val Gly Thr  
35 40 45

Gly Ser Phe Gly Ile Val Phe Gln Ala Lys Cys Leu Glu Thr Gly Glu  
50 55 60

Thr Val Ala Ile Lys Lys Val Leu Gln Asp Arg Arg Tyr Lys Asn Arg  
65 70 75 80

Glu Leu Gln Leu Met Arg Val Met Asp His Pro Asn Val Val Cys Leu  
85 90 95

Lys His Cys Phe Phe Ser Thr Thr Ser Lys Asp Glu Leu Phe Leu Asn  
100 105 110

Leu Val Met Glu Tyr Val Pro Glu Ser Leu Tyr Arg Val Leu Lys His  
115 120 125

Tyr Ser Ser Ala Asn Gln Arg Met Pro Leu Val Tyr Val Lys Leu Tyr  
130 135 140

Met Tyr Gln Ile Phe Arg Gly Leu Ala Tyr Ile His Asn Val Ala Gly  
145 150 155 160

Val Cys His Arg Asp Leu Lys Pro Gln Asn Leu Leu Val Asp Pro Leu  
Page 2001

165

175

Thr His Gln Val Lys Ile Cys Asp Phe Gly Ser Ala Lys Gln Leu Val  
180 185 190

Lys Gly Glu Ala Asn Ile Ser Tyr Ile Cys Ser Arg Phe Tyr Arg Ala  
195 200 205

Pro Glu Leu Ile Phe Gly Ala Thr Glu Tyr Thr Thr Ser Ile Asp Ile  
210 215 220

Trp Ser Ala Gly Cys Val Leu Ala Glu Leu Leu Leu Gly Gln Pro Leu  
225 230 235 240

Phe Pro Gly Glu Asn Ala Val Asp Gln Leu Val Glu Ile Ile Lys Val  
245 250 255

Leu Gly Thr Pro Thr Arg Glu Glu Ile Arg Cys Met Asn Pro His Tyr  
260 265 270

Thr Asp Phe Arg Phe Pro Gln Ile Lys Ala His Pro Trp His Lys Ile  
275 280 285

Phe His Lys Arg Met Pro Pro Glu Ala Ile Asp Phe Ala Ser Arg Leu  
290 295 300

Leu Gln Tyr Ser Pro Ser Leu Arg Cys Thr Ala Leu Glu Ala Cys Ala  
305 310 315 320

His Pro Phe Phe Asp Glu Leu Arg Glu Pro Asn Ala Arg Leu Pro Asn  
325 330 335

Gly Arg Pro Phe Pro Pro Leu Phe Asn Phe Lys Gln Glu Val Ala Gly  
340 345 350

Ser Ser Pro Glu Leu Val Asn Lys Leu Ile Pro Asp His Ile Lys Arg  
355 360 365

Gln Leu Gly Leu Ser Phe Leu Asn Gln Ser Gly Thr  
370 375 380

<210> 1281

<211> 1272

<212> DNA

<213> Arabidopsis thaliana



```

<400> 1281
atggcaacgg cgatggcgga ggatacgagc ttcgagggag accaactagc ttccatgact    60
actgatgaca tcggttagagc ttctcgtctc ttagccaacg agattcgcac cctcaaggaa    120
gaatcgcaga ggacaaacct tgatttggaa tcagtgaagg agaaaataaa ggagaaccag    180
gagaagatta agcttaacaa acagcttcct tacttagttg gcaatatcgt tgagattctt    240
gagatgagtc cagaggatga tgcagaggaa gatggagcga atatcgatct ggactctcag    300
aggaagggaa agtgtgtcgt tctaaaaaca tcaactcgtc agaccatctt cctccctggt    360
gttggacttg ttgatccaga tacattgaag cctggggact tagttggagt taacaaagat    420
agttacttga ttctggatac tttaccttct gagtatgatt caagagtaaa agcaatggag    480
gtcgacgaaa aacctactga agactacaat gatatagggg gactagaaaa acagatacaa    540
gaacttggtg aagccattgt gttgccaatg actcataaag agcagttcga aaagttgggt    600
atccgtccac caaaaggtgt actcttgtat ggtcctcctg gaaccggaaa gacgttgatg    660
gcccagagctt gtgcagcaca gacaaatgca actttcctca aactagcagg gccacaactt    720
gttcagatgt tcatcggaga tggagcaaaa cttgtccgtg atgctttcct gcttgcaaaa    780
gagaaatccc cttgtattat attcatagat gagattgacg caataggagc aaagcgtttt    840
gatagcgaag ttagtgagga ccgtgaggta caaaggacaa tgttggagct gctcaaccag    900
cttgatggat tcagcagcga tgatcgcatt aagggttattg cagcgacaaa tcgtgctgat    960
atactagatc ctgcccttat gcgttctggt cgtttgatc gtaaaatcga gtttccgcac   1020
cccactgaag aagctagagg caggatctta cagatacatt caaggaaaat gaatgtgaat   1080
gcagacgtca attttgaaga gcttgctcgg tcaacggatg atttcaatgg agctcaactc   1140
aaagcagtgt gtgttgaagc ggggtatgctt gccctgcgcc gggatgcaac tgaggtgaac   1200
catgaggatt tcaatgaagg tataattcaa gtacaagcca agaagaaagc aagcttgaat   1260
tactacgcct aa                                     1272

```

<210> 1282

<211> 423

<212> PRT

<213> *Arabidopsis thaliana*

<400> 1282

```

Met Ala Thr Ala Met Ala Glu Asp Thr Ser Phe Glu Gly Asp Gln Leu
1           5           10           15

```

047-E2F-PCT.ST25.txt

Ala Ser Met Thr Thr Asp Asp Ile Gly Arg Ala Ser Arg Leu Leu Ala  
20 25 30

Asn Glu Ile Arg Ile Leu Lys Glu Glu Ser Gln Arg Thr Asn Leu Asp  
35 40 45

Leu Glu Ser Val Lys Glu Lys Ile Lys Glu Asn Gln Glu Lys Ile Lys  
50 55 60

Leu Asn Lys Gln Leu Pro Tyr Leu Val Gly Asn Ile Val Glu Ile Leu  
65 70 75 80

Glu Met Ser Pro Glu Asp Asp Ala Glu Glu Asp Gly Ala Asn Ile Asp  
85 90 95

Leu Asp Ser Gln Arg Lys Gly Lys Cys Val Val Leu Lys Thr Ser Thr  
100 105 110

Arg Gln Thr Ile Phe Leu Pro Val Val Gly Leu Val Asp Pro Asp Thr  
115 120 125

Leu Lys Pro Gly Asp Leu Val Gly Val Asn Lys Asp Ser Tyr Leu Ile  
130 135 140

Leu Asp Thr Leu Pro Ser Glu Tyr Asp Ser Arg Val Lys Ala Met Glu  
145 150 155 160

Val Asp Glu Lys Pro Thr Glu Asp Tyr Asn Asp Ile Gly Gly Leu Glu  
165 170 175

Lys Gln Ile Gln Glu Leu Val Glu Ala Ile Val Leu Pro Met Thr His  
180 185 190

Lys Glu Gln Phe Glu Lys Leu Gly Ile Arg Pro Pro Lys Gly Val Leu  
195 200 205

Leu Tyr Gly Pro Pro Gly Thr Gly Lys Thr Leu Met Ala Arg Ala Cys  
210 215 220

Ala Ala Gln Thr Asn Ala Thr Phe Leu Lys Leu Ala Gly Pro Gln Leu  
225 230 235 240

Val Gln Met Phe Ile Gly Asp Gly Ala Lys Leu Val Arg Asp Ala Phe  
245 250 255

Leu Leu Ala Lys Glu Lys Ser Pro Cys Ile Ile Phe Ile Asp Glu Ile  
260 265 270

047-E2F-PCT.ST25.txt

Asp Ala Ile Gly Thr Lys Arg Phe Asp Ser Glu Val Ser Gly Asp Arg  
 275 280 285  
 Glu Val Gln Arg Thr Met Leu Glu Leu Leu Asn Gln Leu Asp Gly Phe  
 290 295 300  
 Ser Ser Asp Asp Arg Ile Lys Val Ile Ala Ala Thr Asn Arg Ala Asp  
 305 310 315 320  
 Ile Leu Asp Pro Ala Leu Met Arg Ser Gly Arg Leu Asp Arg Lys Ile  
 325 330 335  
 Glu Phe Pro His Pro Thr Glu Glu Ala Arg Gly Arg Ile Leu Gln Ile  
 340 345 350  
 His Ser Arg Lys Met Asn Val Asn Ala Asp Val Asn Phe Glu Glu Leu  
 355 360 365  
 Ala Arg Ser Thr Asp Asp Phe Asn Gly Ala Gln Leu Lys Ala Val Cys  
 370 375 380  
 Val Glu Ala Gly Met Leu Ala Leu Arg Arg Asp Ala Thr Glu Val Asn  
 385 390 395 400  
 His Glu Asp Phe Asn Glu Gly Ile Ile Gln Val Gln Ala Lys Lys Lys  
 405 410 415  
 Ala Ser Leu Asn Tyr Tyr Ala  
 420

<210> 1283

<211> 1164

<212> DNA

<213> Arabidopsis thaliana

<400> 1283

atggaagctc tcttcacttc aacacacaca cccaatttac agactaagcc tctcctcaaa	60
tctccgctgc ccacttcttc ccagtcttcg tgttggtttt gtaattcgct acccaaaacg	120
caattcccga agctgagact cagtaatgga tcaagtcacg ggcttcgtat acaagctctc	180
ttacgtaacg agacgccaag tgaagggtgaa gataataatg ggtttggttt ttttcctggg	240
gatattcttct ctttatcaca ggaaaagctc gggagtaata gcaatggtga aacttctcat	300

047-E2F-PCT.ST25.txt

```

agtgtaatcg atgtggaggc atctcttgca catcctcaag gtggtggagg aaatcgagct 360
gggcttttta gaactccaat atctggtggt gttcaaaatg ctacatcagc tcatgcttta 420
cctcggcctg ctttagctgt acggaacttg ttggaacagg ctaggtttgc tcatctgtgc 480
acagtgatgt ccaaaatgca ccaccgcagg gaaggggtacc catttggttc attggttagat 540
tttgcacctg atcggatggg gcatccaata tttttgtttt caccgctggc catccacaca 600
cgaaatctct tgaatgaacc tagatgcagc ctcgttggtc agatacccg atggagtggc 660
ttatcgaatg caagagtgc attatttggg gatgtgtacc cattgtcaga ggatgaacag 720
gagtgggccc ataagcaata tattgcaaag caccgcacg ggccttcaga gcaatgggga 780
aactttcatt attttagaat gcagaacata agtgatatat atttcattgg aggctttggc 840
acggtcgctt gggttgatgt caaagagtat gaagggttac aaccagataa gatagctgtt 900
gatggtggtg agcggaacct caaggaacta aatgccatct tctcgaaacc gctgagagag 960
ctactgtcta ctgaatcaga ggtagacgat gctgctctca tttcaataga tagcaaagga 1020
atagatgtac gggttcgtca aggtgctcag tttaacatac aaaggctagc atttgaggaa 1080
ggtcatggtg ttgagacact agaagaagct aagtctgcat tatggaaagt gttggagaag 1140
gtcaagctga atttgcagaa atga 1164

```

<210> 1284

<211> 387

<212> PRT

<213> Arabidopsis thaliana

<400> 1284

Met Glu Ala Leu Phe Thr Ser Thr His Thr Pro Asn Leu Gln Thr Lys  
1 5 10 15

Pro Leu Leu Lys Ser Pro Leu Pro Thr Ser Ser Gln Ser Ser Cys Trp  
20 25 30

Phe Cys Asn Ser Leu Pro Lys Thr Gln Phe Pro Lys Leu Arg Leu Ser  
35 40 45

Asn Gly Ser Ser His Gly Leu Arg Ile Gln Ala Leu Leu Arg Asn Glu  
50 55 60

Thr Pro Ser Glu Gly Glu Asp Asn Asn Gly Phe Gly Phe Phe Pro Gly  
65 70 75 80

Asp Ile Phe Ser Leu Ser Gln Glu Lys Leu Gly Ser Asn Ser Asn Gly  
 85 90 95  
 Glu Thr Ser His Ser Val Ile Asp Val Glu Ala Ser Leu Ala His Pro  
 100 105 110  
 Gln Gly Gly Gly Gly Asn Arg Ala Gly Leu Phe Arg Thr Pro Ile Ser  
 115 120 125  
 Gly Gly Val Gln Asn Ala Thr Ser Ala His Ala Leu Pro Arg Pro Ala  
 130 135 140  
 Leu Ala Val Arg Asn Leu Leu Glu Gln Ala Arg Phe Ala His Leu Cys  
 145 150 155 160  
 Thr Val Met Ser Lys Met His His Arg Arg Glu Gly Tyr Pro Phe Gly  
 165 170 175  
 Ser Leu Val Asp Phe Ala Pro Asp Arg Met Gly His Pro Ile Phe Leu  
 180 185 190  
 Phe Ser Pro Leu Ala Ile His Thr Arg Asn Leu Leu Asn Glu Pro Arg  
 195 200 205  
 Cys Ser Leu Val Val Gln Ile Pro Gly Trp Ser Gly Leu Ser Asn Ala  
 210 215 220  
 Arg Val Thr Leu Phe Gly Asp Val Tyr Pro Leu Ser Glu Asp Glu Gln  
 225 230 235 240  
 Glu Trp Ala His Lys Gln Tyr Ile Ala Lys His Pro His Gly Pro Ser  
 245 250 255  
 Glu Gln Trp Gly Asn Phe His Tyr Phe Arg Met Gln Asn Ile Ser Asp  
 260 265 270  
 Ile Tyr Phe Ile Gly Gly Phe Gly Thr Val Ala Trp Val Asp Val Lys  
 275 280 285  
 Glu Tyr Glu Gly Leu Gln Pro Asp Lys Ile Ala Val Asp Gly Gly Glu  
 290 295 300  
 Arg Asn Leu Lys Glu Leu Asn Ala Ile Phe Ser Lys Pro Leu Arg Glu  
 305 310 315 320  
 Leu Leu Ser Thr Glu Ser Glu Val Asp Asp Ala Ala Leu Ile Ser Ile  
 325 330 335

047-E2F-PCT.ST25.txt

Asp Ser Lys Gly Ile Asp Val Arg Val Arg Gln Gly Ala Gln Phe Asn  
 340 345 350

Ile Gln Arg Leu Ala Phe Glu Glu Gly His Gly Val Glu Thr Leu Glu  
 355 360 365

Glu Ala Lys Ser Ala Leu Trp Lys Val Leu Glu Lys Val Lys Leu Asn  
 370 375 380

Leu Gln Lys  
 385

<210> 1285

<211> 2343

<212> DNA

<213> Arabidopsis thaliana

<400> 1285

atgtccgtcg acgatctccc tccgtcgtcg gcctccgccg taacgccact aggcctctcc	60
gtgattccga ttgtgaacaa gctccaagac atattcgctc agctaggaag tcaatcgacg	120
atcgctcttc cgcaagtagc tgctcgtcga agtcaaagca gtggcaaadc cagcgttcta	180
gaagctctcg tcggccgtga ctttcttcct cgtggcaatg atatttgac ggcgcgacct	240
ctccgtctcc agcttggtca gacgaaacct agctctgatg gtggatccga tgaagagtgg	300
ggcgagtttc ttcaccacga tcctgttaga cgtatctacg atttctctga gattcgccgt	360
gagattgagg cggagactaa tagagtatca ggagagaaca aaggtgtatc agatattccg	420
attggtttga agatattttc acctaatggt ttggatatta gtcttggtga tcttcctggt	480
atcactaagg ttcctgttgg tgatcagcca agtgatatcg aagcgcgatc aagaacgatg	540
atcttgactt acattaagga acctagttgc ttgatacttg ctgttagccc tgctaatact	600
gatttagcaa attcagatgc attacaaatc gcaggaaatg ctgatcctga tggatcataga	660
accatagggtg taatcacaaa gttggatatt atggacagag gtactgatgc tcggaatcac	720
cttctgggaa aaacaattcc tcttcgactt ggatacgtgg gagttgtaaa tcgtagtcaa	780
gaggatattt tgatgaaccg tagcatcaag gatgctcttg ttgcagagga aaagtctttt	840
cgtagtcgtc cagtttacag cggcttcaca gatcgttttg gtgtccctca actggcaaag	900
aaattaaatc aggtccttgt tcaacacatc aaggcactgc ttcctagttt aaagtcacgt	960
atcaacaatg cattgtttgc tacagcaaag gagtatgaga gctatgggga tataacagag	1020
tctaggggtg gtcaaggagc tcttctcctc agttttatta caaaatactg cgaagcatac	1080

047-E2F-PCT.ST25.txt

```

tcctctaccc tggaagggaa aagtaaagaa atgtcaacat ctgagctctc ggggtggagca 1140
agaattctct acattttcca atcagtatct gttaagagct tagaggaggt tgatccatgt 1200
gaagacttaa cagctgatga tattcggact gcaatacaaa atgcaactgg tcccagatct 1260
gcattatttg ttccagatgt tccatttgaa gttcttgtca ggaggcaa atctcgttta 1320
ttagatccca gccttcagtg cgctagggtt atcttcgatg agctagtaaa gattagtc at 1380
cagtgtatga tgaaagagtt acagcgggtt ccagtcctgc aaaagcgc at ggatgaggtt 1440
attgggaact ttctgcgaga aggtcttgaa ccttcgcagg caatgatccg agatcttatt 1500
gaaatggaga tggattatat aaacacctca cacccaaatt ttatcggggg aactaaagcc 1560
gtggagcaag caatgcaa ac agtcaaatct tctaggattc cgcctcctgt tgcgcggcca 1620
agggatactg tggagcctga gaggacggct tcttcgggga gtcaaataaa aaccgatct 1680
tttctcggcc gacaagctaa tggaatcatc actgatcagg cagttccaac tgcagcagat 1740
gctgaaagac ctgcaccagc tggaagcaca agctggagtg gtttctcatc aatttttcgg 1800
gggagtgatg gtcaggcagc tgctaaaaac aacctattaa acaaaccatt cagcgaaact 1860
actcaagaag tgtatcagaa cttgtcaaca atctatttaa aggagcctcc aactattttg 1920
aagtcatctg aaactcattc agaacaggag tcagttgaga ttgagataac aaagctatta 1980
ttgaaatcct actatgacat tgtaaggaag aatgtcgagg acttggtccc aaaagcaatc 2040
atgcattttc tggtaaatta cacgaaacgt gagctgcaca atgttttcat cgagaagctt 2100
tacagggaga acttaattga agaactgttg aaagagcccg atgagttagc gataaagagg 2160
aaacgcacgc aagagactct tcgcattctt cagcaggcta atcggacgtt agacgagctg 2220
ccgttagaag ctgaatcggg cgagagaggt tacaaaattg gttcagaagc gaaacatgag 2280
gagttaccgg gcacaagaag atcaaggaca gaaactaatg ggaacggacg gcttcatatg 2340
taa 2343

```

<210> 1286

<211> 780

<212> PRT

<213> Arabidopsis thaliana

<400> 1286

Met Ser Val Asp Asp Leu Pro Pro Ser Ser Ala Ser Ala Val Thr Pro  
1 5 10 15

Leu Gly Ser Ser Val Ile Pro Ile Val Asn Lys Leu Gln Asp Ile Phe  
Page 2009

Ala Gln Leu Gly Ser Gln Ser Thr Ile Ala Leu Pro Gln Val Ala Val  
 35 40 45  
 Val Gly Ser Gln Ser Ser Gly Lys Ser Ser Val Leu Glu Ala Leu Val  
 50 55 60  
 Gly Arg Asp Phe Leu Pro Arg Gly Asn Asp Ile Cys Thr Arg Arg Pro  
 65 70 75 80  
 Leu Arg Leu Gln Leu Val Gln Thr Lys Pro Ser Ser Asp Gly Gly Ser  
 85 90 95  
 Asp Glu Glu Trp Gly Glu Phe Leu His His Asp Pro Val Arg Arg Ile  
 100 105 110  
 Tyr Asp Phe Ser Glu Ile Arg Arg Glu Ile Glu Ala Glu Thr Asn Arg  
 115 120 125  
 Val Ser Gly Glu Asn Lys Gly Val Ser Asp Ile Pro Ile Gly Leu Lys  
 130 135 140  
 Ile Phe Ser Pro Asn Val Leu Asp Ile Ser Leu Val Asp Leu Pro Gly  
 145 150 155 160  
 Ile Thr Lys Val Pro Val Gly Asp Gln Pro Ser Asp Ile Glu Ala Arg  
 165 170 175  
 Ile Arg Thr Met Ile Leu Thr Tyr Ile Lys Glu Pro Ser Cys Leu Ile  
 180 185 190  
 Leu Ala Val Ser Pro Ala Asn Thr Asp Leu Ala Asn Ser Asp Ala Leu  
 195 200 205  
 Gln Ile Ala Gly Asn Ala Asp Pro Asp Gly His Arg Thr Ile Gly Val  
 210 215 220  
 Ile Thr Lys Leu Asp Ile Met Asp Arg Gly Thr Asp Ala Arg Asn His  
 225 230 235 240  
 Leu Leu Gly Lys Thr Ile Pro Leu Arg Leu Gly Tyr Val Gly Val Val  
 245 250 255  
 Asn Arg Ser Gln Glu Asp Ile Leu Met Asn Arg Ser Ile Lys Asp Ala  
 260 265 270



Leu Val Ala Glu Glu Lys Phe Phe Arg Ser Arg Pro Val Tyr Ser Gly  
 275 280 285  
 Leu Thr Asp Arg Leu Gly Val Pro Gln Leu Ala Lys Lys Leu Asn Gln  
 290 295 300  
 Val Leu Val Gln His Ile Lys Ala Leu Leu Pro Ser Leu Lys Ser Arg  
 305 310 315 320  
 Ile Asn Asn Ala Leu Phe Ala Thr Ala Lys Glu Tyr Glu Ser Tyr Gly  
 325 330 335  
 Asp Ile Thr Glu Ser Arg Gly Gly Gln Gly Ala Leu Leu Leu Ser Phe  
 340 345 350  
 Ile Thr Lys Tyr Cys Glu Ala Tyr Ser Ser Thr Leu Glu Gly Lys Ser  
 355 360 365  
 Lys Glu Met Ser Thr Ser Glu Leu Ser Gly Gly Ala Arg Ile Leu Tyr  
 370 375 380  
 Ile Phe Gln Ser Val Phe Val Lys Ser Leu Glu Glu Val Asp Pro Cys  
 385 390 395 400  
 Glu Asp Leu Thr Ala Asp Asp Ile Arg Thr Ala Ile Gln Asn Ala Thr  
 405 410 415  
 Gly Pro Arg Ser Ala Leu Phe Val Pro Asp Val Pro Phe Glu Val Leu  
 420 425 430  
 Val Arg Arg Gln Ile Ser Arg Leu Leu Asp Pro Ser Leu Gln Cys Ala  
 435 440 445  
 Arg Phe Ile Phe Asp Glu Leu Val Lys Ile Ser His Gln Cys Met Met  
 450 455 460  
 Lys Glu Leu Gln Arg Phe Pro Val Leu Gln Lys Arg Met Asp Glu Val  
 465 470 475 480  
 Ile Gly Asn Phe Leu Arg Glu Gly Leu Glu Pro Ser Gln Ala Met Ile  
 485 490 495  
 Arg Asp Leu Ile Glu Met Glu Met Asp Tyr Ile Asn Thr Ser His Pro  
 500 505 510  
 Asn Phe Ile Gly Gly Thr Lys Ala Val Glu Gln Ala Met Gln Thr Val  
 515 520 525

047-E2F-PCT.ST25.txt

Lys Ser Ser Arg Ile Pro His Pro Val Ala Arg Pro Arg Asp Thr Val  
 530 535 540  
 Glu Pro Glu Arg Thr Ala Ser Ser Gly Ser Gln Ile Lys Thr Arg Ser  
 545 550 555 560  
 Phe Leu Gly Arg Gln Ala Asn Gly Ile Ile Thr Asp Gln Ala Val Pro  
 565 570 575  
 Thr Ala Ala Asp Ala Glu Arg Pro Ala Pro Ala Gly Ser Thr Ser Trp  
 580 585 590  
 Ser Gly Phe Ser Ser Ile Phe Arg Gly Ser Asp Gly Gln Ala Ala Ala  
 595 600 605  
 Lys Asn Asn Leu Leu Asn Lys Pro Phe Ser Glu Thr Thr Gln Glu Val  
 610 615 620  
 Tyr Gln Asn Leu Ser Thr Ile Tyr Leu Lys Glu Pro Pro Thr Ile Leu  
 625 630 635 640  
 Lys Ser Ser Glu Thr His Ser Glu Gln Glu Ser Val Glu Ile Glu Ile  
 645 650 655  
 Thr Lys Leu Leu Leu Lys Ser Tyr Tyr Asp Ile Val Arg Lys Asn Val  
 660 665 670  
 Glu Asp Leu Val Pro Lys Ala Ile Met His Phe Leu Val Asn Tyr Thr  
 675 680 685  
 Lys Arg Glu Leu His Asn Val Phe Ile Glu Lys Leu Tyr Arg Glu Asn  
 690 695 700  
 Leu Ile Glu Glu Leu Leu Lys Glu Pro Asp Glu Leu Ala Ile Lys Arg  
 705 710 715 720  
 Lys Arg Thr Gln Glu Thr Leu Arg Ile Leu Gln Gln Ala Asn Arg Thr  
 725 730 735  
 Leu Asp Glu Leu Pro Leu Glu Ala Glu Ser Val Glu Arg Gly Tyr Lys  
 740 745 750  
 Ile Gly Ser Glu Ala Lys His Glu Glu Leu Pro Gly Thr Arg Arg Ser  
 755 760 765  
 Arg Thr Glu Thr Asn Gly Asn Gly Arg Leu His Met  
 770 775 780

&lt;210&gt; 1287

&lt;211&gt; 1782

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1287

```

atggtggaac aaactgtggt tagagaacat atcaaagcga gagtcatgtc attagtgagg      60
tctgcagagc catcctcata taggaacccg aagctttaca cgttgaatga gaatggtaat      120
aacaatggtg tcagttctgc tcaaatcttt gatccagata ggtcaaagaa tccttgtctg      180
actgatgatt cttacccaag ccaaagttat gagaagtact ttcttgattc gccaaactgat      240
gagtttgttc aacatcctat tggctctggt gcctcgggta gctcatttgg ctcttttagac      300
tcatttcctt atcagtcaag accagttcct ggatgttcca tggaatttca gttaccgttg      360
gattcaacct ctacttcata tacaaggctt ttgggagatt accaagcggg ttcttacagt      420
ccgagcatgg atgtagtgga ggagtttgat gatgagcaaa tgagatcaaa gattcaagag      480
cttgaaagag cgcttctcgg cgatgaagat gataaaatgg ttggaataga taacctcatg      540
gagattgaca gcgaatggtc gtacccaaac gaaagcgaac agcatcaaga ctcgccccaa      600
gaatcatcgt ctgcagattc caactctcat gtaagtagca aagaagtggg gtctcaagcc      660
actccaaagc aaatcttgat atcttgtgct cgtgcgctat ctgaaggaaa attagaagaa      720
gctttgtcaa tggtaaata gctgaggcag atagtttcta tccaaggaga cccttctcag      780
agaatcgag cttacatggt ggaagggtcta gctgcaagaa tggccgcttc aggaaaattc      840
atctacagag cattgaaatg caaagagcct ccttcggatg agaggcttgc agctatgcaa      900
gtcctgtttg aagtctgccc ttgtttcaag ttcgggtttt tagcagctaa tgggtgcgata      960
cttgaagcaa tcaaagggtg agaagaagtt cacataatcg atttcgatat aaaccaaggg      1020
aaccaataca tgacactgat acgaagcatt gctgagttgc ctggtaaacg acctcgcttg      1080
aggttaacag gaattgatga ccctgaatca gtccaacgct ccattggagg gctaagaatc      1140
atcgggtctaa gactcgagca actcgagag gataatggag tatccttcaa attcaaagca      1200
atgccttcaa agacttcgat tgtctctcca tcaacactcg gttgcaaacc aggagaaacc      1260
ttaatagtga actttgcatt ccaacttcac cacatgcctg acgagagtgt cacaacagta      1320
aaccagcggg acgagctact tcacatgggtc aaaagcttaa acccaaagct tgtcacggtc      1380
gttgaacaag acgtgaacac aaacacttca ccgttctttc ccagattcat agaggcttac      1440
gaatactact cagcagtttt cgagttctta gacatgacac ttccaagaga aagccaagag      1500

```

aggatgaatg tagaaagaca gtgtctcgct agagacatag tcaacattgt tgcttgcgaa 1560  
 ggagaagaac ggatagagag atacgaggct gcgggaaaat ggagagcaag gatgatgatg 1620  
 gctggattca atccaaaacc aatgagtgtt aaagtaacca acaatataca aaacctgata 1680  
 aagcaacaat attgcaataa gtacaagctt aaagaagaaa tgggtgagct ccatttttgc 1740  
 tgggaggaga aaagcttaat cgttgcttca gcttggaggt aa 1782

<210> 1288

<211> 593

<212> PRT

<213> Arabidopsis thaliana

<400> 1288

Met Val Glu Gln Thr Val Val Arg Glu His Ile Lys Ala Arg Val Met  
 1 5 10 15

Ser Leu Val Arg Ser Ala Glu Pro Ser Ser Tyr Arg Asn Pro Lys Leu  
 20 25 30

Tyr Thr Leu Asn Glu Asn Gly Asn Asn Gly Val Ser Ser Ala Gln  
 35 40 45

Ile Phe Asp Pro Asp Arg Ser Lys Asn Pro Cys Leu Thr Asp Asp Ser  
 50 55 60

Tyr Pro Ser Gln Ser Tyr Glu Lys Tyr Phe Leu Asp Ser Pro Thr Asp  
 65 70 75 80

Glu Phe Val Gln His Pro Ile Gly Ser Gly Ala Ser Val Ser Ser Phe  
 85 90 95

Gly Ser Leu Asp Ser Phe Pro Tyr Gln Ser Arg Pro Val Leu Gly Cys  
 100 105 110

Ser Met Glu Phe Gln Leu Pro Leu Asp Ser Thr Ser Thr Ser Ser Thr  
 115 120 125

Arg Leu Leu Gly Asp Tyr Gln Ala Val Ser Tyr Ser Pro Ser Met Asp  
 130 135 140

Val Val Glu Glu Phe Asp Asp Glu Gln Met Arg Ser Lys Ile Gln Glu  
 145 150 155 160

Leu Glu Arg Ala Leu Leu Gly Asp Glu Asp Asp Lys Met Val Gly Ile  
 165 170 175  
 Asp Asn Leu Met Glu Ile Asp Ser Glu Trp Ser Tyr Gln Asn Glu Ser  
 180 185 190  
 Glu Gln His Gln Asp Ser Pro Lys Glu Ser Ser Ser Ala Asp Ser Asn  
 195 200 205  
 Ser His Val Ser Ser Lys Glu Val Val Ser Gln Ala Thr Pro Lys Gln  
 210 215 220  
 Ile Leu Ile Ser Cys Ala Arg Ala Leu Ser Glu Gly Lys Leu Glu Glu  
 225 230 235 240  
 Ala Leu Ser Met Val Asn Glu Leu Arg Gln Ile Val Ser Ile Gln Gly  
 245 250 255  
 Asp Pro Ser Gln Arg Ile Ala Ala Tyr Met Val Glu Gly Leu Ala Ala  
 260 265 270  
 Arg Met Ala Ala Ser Gly Lys Phe Ile Tyr Arg Ala Leu Lys Cys Lys  
 275 280 285  
 Glu Pro Pro Ser Asp Glu Arg Leu Ala Ala Met Gln Val Leu Phe Glu  
 290 295 300  
 Val Cys Pro Cys Phe Lys Phe Gly Phe Leu Ala Ala Asn Gly Ala Ile  
 305 310 315 320  
 Leu Glu Ala Ile Lys Gly Glu Glu Glu Val His Ile Ile Asp Phe Asp  
 325 330 335  
 Ile Asn Gln Gly Asn Gln Tyr Met Thr Leu Ile Arg Ser Ile Ala Glu  
 340 345 350  
 Leu Pro Gly Lys Arg Pro Arg Leu Arg Leu Thr Gly Ile Asp Asp Pro  
 355 360 365  
 Glu Ser Val Gln Arg Ser Ile Gly Gly Leu Arg Ile Ile Gly Leu Arg  
 370 375 380  
 Leu Glu Gln Leu Ala Glu Asp Asn Gly Val Ser Phe Lys Phe Lys Ala  
 385 390 395 400  
 Met Pro Ser Lys Thr Ser Ile Val Ser Pro Ser Thr Leu Gly Cys Lys  
 405 410 415

047-E2F-PCT.ST25.txt

Pro Gly Glu Thr Leu Ile Val Asn Phe Ala Phe Gln Leu His His Met  
420 425 430

Pro Asp Glu Ser Val Thr Thr Val Asn Gln Arg Asp Glu Leu Leu His  
435 440 445

Met Val Lys Ser Leu Asn Pro Lys Leu Val Thr Val Val Glu Gln Asp  
450 455 460

Val Asn Thr Asn Thr Ser Pro Phe Phe Pro Arg Phe Ile Glu Ala Tyr  
465 470 475 480

Glu Tyr Tyr Ser Ala Val Phe Glu Ser Leu Asp Met Thr Leu Pro Arg  
485 490 495

Glu Ser Gln Glu Arg Met Asn Val Glu Arg Gln Cys Leu Ala Arg Asp  
500 505 510

Ile Val Asn Ile Val Ala Cys Glu Gly Glu Glu Arg Ile Glu Arg Tyr  
515 520 525

Glu Ala Ala Gly Lys Trp Arg Ala Arg Met Met Met Ala Gly Phe Asn  
530 535 540

Pro Lys Pro Met Ser Ala Lys Val Thr Asn Asn Ile Gln Asn Leu Ile  
545 550 555 560

Lys Gln Gln Tyr Cys Asn Lys Tyr Lys Leu Lys Glu Glu Met Gly Glu  
565 570 575

Leu His Phe Cys Trp Glu Glu Lys Ser Leu Ile Val Ala Ser Ala Trp  
580 585 590

Arg

<210> 1289

<211> 1590

<212> DNA

<213> Arabidopsis thaliana

<400> 1289

atggaagtct caaatcagac cagaaaacgg aaagcaatcg acgccggaca tggctcgcag 60

ccgacggcgt atcgaggctc agatggtgta gatctttctc tccttgaagc acttgagaag 120

047-E2F-PCT.ST25.txt

tcttcgcata atggagtaga agcgcttgat cttaaaaccc taaaaaagct tgtcctctcc	180
ttcgagcggc gtcttagaga caacatagct gctcgtctca agtatgtgga gaatccagaa	240
aagttcgctg actcagaggt tgacctacac gacgatcttc agaagctcaa ggtgctcgct	300
ggagctccgg aactttaccc ggaccttggt gcttccaata cggttccttc gattgtcaat	360
ctcctctctc atgaaaactc cgatatcgcc aacgatgttg ttcagcttct tcaggatctg	420
actgacgaag atgccttaga ggataacgat gagcctgcgc gtgtgttagt cgacgccttg	480
gttgaaaaca atgtgctcga gctcttggtt cagaatatga atcgtttgtc tgaggctgac	540
cctgacgaag ctacggctat atacgcaact ttgacgggtga ttgagaatth ggtggaagta	600
aagccggctg ttgctcaatt ggtgtgtgaa aggacgaagc tattgcggtg gcttctgacg	660
aagattaagg tgagggaatt cgaaggaatc aagcagtacg cgtctgagat tcttgcaatt	720
ctgctgcaaa acagtacggc gaatcagaaa cggctaggtc agatgaatgg tgtagacgct	780
gtgcttgaag gtgtggcgat gtataagtca aaggatccta aaactcctga tgaggaagag	840
atgttagaga atctgtttga ttgtttgtgt tgcctcttga tgccattgga gaacaaggag	900
aggtttgtga atgcggaagg tgtagagctg atgattatta tcatgaaaca gaagaaatat	960
gcttacgggt ctgctattcg agctctagac ttcgccatga ccaattatcc accagcatgt	1020
gagaggtttg tggatgttat gggactgaaa acagcatttg ctgctttcat gggtaagatt	1080
ccgctaaaca agagaatcaa aaggagcgg tataaggagg agctagagga gcggtttatt	1140
tccctgattg cgtcattatt tgctgggata ttaaggggtt ctaggagaga tcgattgttg	1200
agtaaattcg tggagaatga atttgagaag attgaccggc tcatggaatt atatttgaga	1260
tactctgata gggttagatc agaggcggaa aggttagacc agcttgagct tgatgacctt	1320
gagttggatg aagatgagaa atataatcgg aagctagaat caggtctcta cagtcttcag	1380
cttgttgctg ttatcctggg gcatatttg tgttctgagc attctggaat gagagcgcgg	1440
gtggagctgc tactgaagca acagaagctt agtaaaaccg atgtcaagca gattcttcag	1500
gagtatcacg acaacattgg agatcttgat ggagcagagg agaaggaacg aggacaggcg	1560
agaattcagt tgttcatatc agcgatgtga	1590

<210> 1290

<211> 529

<212> PRT

<213> Arabidopsis thaliana

<400> 1290

047-E2F-PCT.ST25.txt

Met Glu Val Ser Asn Gln Thr Arg Lys Arg Lys Ala Ile Asp Ala Gly  
1 5 10 15  
His Gly Ser Gln Pro Thr Ala Tyr Arg Gly Ser Asp Gly Val Asp Leu  
20 25 30  
Ser Leu Leu Glu Ala Leu Glu Lys Ser Ser His Asn Gly Val Glu Ala  
35 40 45  
Leu Asp Leu Lys Thr Leu Lys Lys Leu Val Leu Ser Phe Glu Arg Arg  
50 55 60  
Leu Arg Asp Asn Ile Ala Ala Arg Leu Lys Tyr Val Glu Asn Pro Glu  
65 70 75 80  
Lys Phe Ala Asp Ser Glu Val Asp Leu His Asp Asp Leu Gln Lys Leu  
85 90 95  
Lys Val Leu Ala Gly Ala Pro Glu Leu Tyr Pro Asp Leu Val Ala Ser  
100 105 110  
Asn Thr Val Pro Ser Ile Val Asn Leu Leu Ser His Glu Asn Ser Asp  
115 120 125  
Ile Ala Asn Asp Val Val Gln Leu Leu Gln Asp Leu Thr Asp Glu Asp  
130 135 140  
Ala Leu Glu Asp Asn Asp Glu Pro Ala Arg Val Leu Val Asp Ala Leu  
145 150 155 160  
Val Glu Asn Asn Val Leu Glu Leu Leu Val Gln Asn Met Asn Arg Leu  
165 170 175  
Ser Glu Ala Asp Pro Asp Glu Ala Thr Ala Ile Tyr Ala Thr Leu Thr  
180 185 190  
Val Ile Glu Asn Leu Val Glu Val Lys Pro Ala Val Ala Gln Leu Val  
195 200 205  
Cys Glu Arg Thr Lys Leu Leu Arg Trp Leu Leu Thr Lys Ile Lys Val  
210 215 220  
Arg Glu Phe Glu Gly Ile Lys Gln Tyr Ala Ser Glu Ile Leu Ala Ile  
225 230 235 240  
Leu Leu Gln Asn Ser Thr Ala Asn Gln Lys Arg Leu Gly Gln Met Asn  
245 250 255



047-E2F-PCT.ST25.txt

Gly Val Asp Ala Val Leu Glu Gly Val Ala Met Tyr Lys Ser Lys Asp  
 260 265 270  
 Pro Lys Thr Pro Asp Glu Glu Glu Met Leu Glu Asn Leu Phe Asp Cys  
 275 280 285  
 Leu Cys Cys Leu Leu Met Pro Leu Glu Asn Lys Glu Arg Phe Val Asn  
 290 295 300  
 Ala Glu Gly Val Glu Leu Met Ile Ile Ile Met Lys Gln Lys Lys Tyr  
 305 310 315 320  
 Ala Tyr Gly Ser Ala Ile Arg Ala Leu Asp Phe Ala Met Thr Asn Tyr  
 325 330 335  
 Pro Pro Ala Cys Glu Arg Phe Val Asp Val Met Gly Leu Lys Thr Ala  
 340 345 350  
 Phe Ala Ala Phe Met Gly Lys Ile Pro Leu Asn Lys Arg Ile Lys Arg  
 355 360 365  
 Glu Arg Tyr Lys Glu Glu Leu Glu Glu Arg Val Ile Ser Leu Ile Ala  
 370 375 380  
 Ser Leu Phe Ala Gly Ile Leu Arg Gly Ser Arg Arg Asp Arg Leu Leu  
 385 390 395 400  
 Ser Lys Phe Val Glu Asn Glu Phe Glu Lys Ile Asp Arg Leu Met Glu  
 405 410 415  
 Leu Tyr Leu Arg Tyr Ser Asp Arg Val Arg Ser Glu Ala Glu Arg Leu  
 420 425 430  
 Asp Gln Leu Glu Leu Asp Asp Leu Glu Leu Asp Glu Asp Glu Lys Tyr  
 435 440 445  
 Asn Arg Lys Leu Glu Ser Gly Leu Tyr Ser Leu Gln Leu Val Ala Val  
 450 455 460  
 Ile Leu Gly His Ile Trp Cys Ser Glu His Ser Gly Met Arg Ala Arg  
 465 470 475 480  
 Val Glu Leu Leu Leu Lys Gln Gln Lys Leu Ser Lys Thr Asp Val Lys  
 485 490 495  
 Gln Ile Leu Gln Glu Tyr His Asp Asn Ile Gly Asp Leu Asp Gly Ala

500

047-E2F-PCT.ST25.txt  
505 510

Glu Glu Lys Glu Arg Gly Gln Ala Arg Ile Gln Leu Phe Ile Ser Ala  
515 520 525

Met

&lt;210&gt; 1291

&lt;211&gt; 1080

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1291

```

atggactgga atttcaaact tagctctggt tatttatctg gattcgatca agaaccagat    60
ttatcaccaa tggatggttc gatctcgttt ggtgggtcgt cacagtcaaa agcggatttt    120
tcatttgatc taaaacttgg aagaaacatt ggaaactctt cctctgtttt tggatgataca    180
gagcaagtga ttagtcttag taagtggaaa gatagtgcct tagctaaacc agaaggttca    240
agaagctcga gttcaaagag aacaagaggg aatggtgttg gaaccaacca gatgccgatt    300
tgtcttgttg atggatgtga ttctgatttt agtaattgta gagagtatca taagagacat    360
aaagtttggt atgttcattc aaaaactcct gtgggttacta ttaatggtca taaacagagg    420
ttttgtcaac aatgcagcag gtttcattgt ttggaggagt ttgatgaagg gaagagaagt    480
tgtaggaaac gtcttgatgg acataatcga agacgacgga agccgcagcc tgaacatatc    540
ggtcgtcctg ccaacttctt tacgggtttt caaggtagca aattgctaga gttttctggt    600
ggttcacatg tgtttccaac tacatctgtg ttgaaccgga gctggggaaa tagtcttgta    660
agcgttgctg tagccgcaa tggttcgagt tatgggcaga gccagagcta tgttgttggt    720
tcttctcctg caaagacagg gataatgttt ccaatctctt cttctccaaa cagtaccaga    780
agcatagcaa aacaattccc tttcttgcaa gaagaagaaa gctcgagaac cgcattcgtt    840
tgtgagagaa tgacgagttg catccatgac tctgattgtg ctctctctct tctgtcatcc    900
tcctcgtcgt cagtccctca tttgcttcaa ccaccacttt ctttgtccca agaagcagtt    960
gagacagttt ttacgggtc gggattgttt gagaatgcga gtgcagtctc tgatggatcg   1020
gttatatccg gtaacgaggc tgtccgtctt ccgcagacat tcccgtttca ttgggagtag   1080

```

&lt;210&gt; 1292

&lt;211&gt; 359

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1292

Met Asp Trp Asn Phe Lys Leu Ser Ser Gly Tyr Leu Ser Gly Phe Asp  
 1 5 10 15

Gln Glu Pro Asp Leu Ser Pro Met Asp Gly Ser Ile Ser Phe Gly Gly  
 20 25 30

Ser Ser Gln Ser Lys Ala Asp Phe Ser Phe Asp Leu Lys Leu Gly Arg  
 35 40 45

Asn Ile Gly Asn Ser Ser Ser Val Phe Gly Asp Thr Glu Gln Val Ile  
 50 55 60

Ser Leu Ser Lys Trp Lys Asp Ser Ala Leu Ala Lys Pro Glu Gly Ser  
 65 70 75 80

Arg Ser Ser Ser Ser Lys Arg Thr Arg Gly Asn Gly Val Gly Thr Asn  
 85 90 95

Gln Met Pro Ile Cys Leu Val Asp Gly Cys Asp Ser Asp Phe Ser Asn  
 100 105 110

Cys Arg Glu Tyr His Lys Arg His Lys Val Cys Asp Val His Ser Lys  
 115 120 125

Thr Pro Val Val Thr Ile Asn Gly His Lys Gln Arg Phe Cys Gln Gln  
 130 135 140

Cys Ser Arg Phe His Ala Leu Glu Glu Phe Asp Glu Gly Lys Arg Ser  
 145 150 155 160

Cys Arg Lys Arg Leu Asp Gly His Asn Arg Arg Arg Arg Lys Pro Gln  
 165 170 175

Pro Glu His Ile Gly Arg Pro Ala Asn Phe Phe Thr Gly Phe Gln Gly  
 180 185 190

Ser Lys Leu Leu Glu Phe Ser Gly Gly Ser His Val Phe Pro Thr Thr  
 195 200 205

Ser Val Leu Asn Pro Ser Trp Gly Asn Ser Leu Val Ser Val Ala Val  
 210 215 220

047-E2F-PCT.ST25.txt

Ala Ala Asn Gly Ser Ser Tyr Gly Gln Ser Gln Ser Tyr Val Val Gly  
 225 230 235 240

Ser Ser Pro Ala Lys Thr Gly Ile Met Phe Pro Ile Ser Ser Ser Pro  
 245 250 255

Asn Ser Thr Arg Ser Ile Ala Lys Gln Phe Pro Phe Leu Gln Glu Glu  
 260 265 270

Glu Ser Ser Arg Thr Ala Ser Leu Cys Glu Arg Met Thr Ser Cys Ile  
 275 280 285

His Asp Ser Asp Cys Ala Leu Ser Leu Leu Ser Ser Ser Ser Ser  
 290 295 300

Val Pro His Leu Leu Gln Pro Pro Leu Ser Leu Ser Gln Glu Ala Val  
 305 310 315 320

Glu Thr Val Phe Tyr Gly Ser Gly Leu Phe Glu Asn Ala Ser Ala Val  
 325 330 335

Ser Asp Gly Ser Val Ile Ser Gly Asn Glu Ala Val Arg Leu Pro Gln  
 340 345 350

Thr Phe Pro Phe His Trp Glu  
 355

<210> 1293

<211> 6687

<212> DNA

<213> Arabidopsis thaliana

<400> 1293  
 atgaagcaga aacgaagaaa acttccgtct atactagata tattagacca aaaagtggat 60  
 agttctatgg cttttgattc cccggaatac acttcttcct ctaaaccaag taagcagcgg 120  
 cttaagactg attcgactcc tgaaaggaac tcctctaaga ggaaaggaaa tgatgggaat 180  
 tattttgaat gtgtgatctg tgaccttggg ggtgatttat tgtgttgtga tagttgtcct 240  
 cggacctatc ataccgcatg cctcaatcca cctcttaagc ggattccaaa tggttaagtgg 300  
 atctgcccac aatgttcccc aaacagtga gactcaagc ctgtcaatcg tttagatgcc 360  
 attgctaagc gagcaagaac aaaaaccaag aaaagaaatt caaaagccgg accaaagtgc 420  
 gaaagagctt ctcagattta ttgcagttct ataatttctg gagaacaatc ttcagagaaa 480

## 047-E2F-PCT.ST25.txt

gggaaatcta	tatcggccga	agagagcaaa	tccacaggaa	aggaagttta	ttcttccccg	540
atggatggct	gttcaactgc	tgagcttggt	catgcatctg	cggatgaccg	acctgattca	600
tcgtctcatg	gagaagatga	tttggggaaa	cccgtcatac	ccactgcaga	tttaccatct	660
gatgcaggat	taacgttgct	gtcctgtgaa	gatctctccg	aatctaaact	atcagatacg	720
gagaaaactc	atgaagcacc	cgtggagaag	ttggaacatg	cttccagtga	gatcgtggag	780
aacaagacag	ttgctgaaat	ggagactgga	aaaggtaaaa	ggaaaaaacg	gaagcgtgaa	840
ctaaatgatg	gggaaagtct	tgaaagggtgc	aagactgata	agaaacgcgc	gaagaaaagt	900
ttgtccaaag	tgggttccag	ttctcagact	accaaatacac	cggagtcttc	gaaaaaaaag	960
aaaaagaaaa	atcgtgtgac	tttaaaatcc	ttgtccaaac	ctcagtccaa	gacagaaaca	1020
ccagaaaaag	tgaagaagct	tcccaaggag	gaacgtcgtg	cagtacgtgc	cactaataaa	1080
tcttctagtt	gtttggaaga	tacaaactct	cttccggttg	gaaacctcca	ggttcatcgt	1140
gttttaggat	gccgaatcca	aggtctgact	aaaacctcgc	tgtgtagtgc	tctttcagat	1200
gacttgtgtt	cggataatth	acaagctact	gaccaacggg	atagcttagt	acaagatacg	1260
aatgctgaat	tagtagttgc	tgaggacaga	atagattctt	cttctgagac	aggtaaaagt	1320
tcgagggatt	cacgactgag	ggataaagat	atggatgatt	ctgctttagg	taccgagggt	1380
atggttgagg	tgaaagaaga	gatgctttct	gaagacattt	ccaatgccac	attgagtaga	1440
catgtggatg	atgaagatat	gaaagttagt	gaaacgcatg	tatctgttga	gagggagttt	1500
cttgaagaag	cacatcagga	aacaggggaa	aaaagcactg	tggctgatga	agaaattgag	1560
gagcctgttg	ctgctaaaac	ttcagatctt	attggtgaga	ctgtatcata	tgagtttctt	1620
gttaaatggg	tggataaatc	taatatcat	aatacttggg	tttctgaggc	ggagctgaaa	1680
ggtctagcta	aaagaaaact	agagaactac	aaagcaaagt	acggaacagc	tgtaataaac	1740
atctgtgaag	ataaatggaa	acagcctcag	cgaatagttg	ctctccgggt	ttcaaaagaa	1800
ggtaaccaag	aagcttacgt	aaagtggaca	ggcttagctt	atgatgaatg	cacgtgggag	1860
agcttgaggg	agcctattct	taaacattca	tcccatttaa	tagatctttt	tcatcagtat	1920
gagcagaaaa	cattggaaaag	gaatagtaag	ggtaatccca	caagggaaaag	gggtgaagtc	1980
gttaccctca	cagaacaacc	tcaagagctc	agaggagggtg	ccttgtttgc	ccatcagctt	2040
gaggctttga	attggctgctg	tagatgctgg	cataaatcaa	aaaatgtaat	acttgctgat	2100
gagatggggc	ttggaaaaac	tgtgtctgct	agtgcattcc	tctcctccct	ttattttgaa	2160
tttggagttg	caagaccttg	tttagtcctg	gttccacttt	caacaatgcc	aaactggcta	2220
tcagagtttt	ctctttgggc	tccactcctt	aatgtttgtg	agtatcatgg	aagtgcaaag	2280
ggacgagcca	taattcgaga	ctatgagtgg	catgctaaga	attctactgg	gacgaccaag	2340

aagccgacat	cctacaaatt	taatgtcctt	ttaactactt	atgaaatggt	tctggctgac	2400
tcatctcatc	tacgtggggt	tccatgggaa	gttcttgttg	ttgatgaagg	gcatcgtcta	2460
aagaattcag	aaagtaagct	gttttagcttg	ctcaacacat	tctcttttca	acaccgtgtg	2520
ctcttgactg	gcacccctct	tcagaataac	attggtgaga	tgtataatct	gctcaacttc	2580
ttgcaaccat	cttcattccc	ttctttgtct	tcttttgagg	agaggttcca	tgatttgaca	2640
agtgtgaga	aagtagaaga	actgaagaaa	cttggtgctc	ctcatatgct	tcgccggcctt	2700
aaaaaagatg	cgatgcagaa	tattcctcca	aagacagaga	ggatggtccc	tgtcgagttg	2760
acatcgatcc	aggcggaata	ttatcgtgca	atgctaacta	agaactatca	gatactacga	2820
aatatcgga	aaggggtagc	gcaacaatca	atgcttaaca	tagtgatgca	gttgagaaaag	2880
gtttgcaatc	accatatact	cataccaggt	actgagccag	agtctgggtc	attggagttt	2940
cttcacgata	tgagaataaa	agcgtcagcc	aagttgactc	tgttgcactc	tatgcttaag	3000
gtgctacata	aggaaggcca	tagagtcttg	atattttcac	agatgacaaa	gcttctagac	3060
attctggagg	actacctgaa	catagaatct	gggcctaaaa	catttgaaag	ggtagatggt	3120
tctgttgctg	tagctgatcg	tcaggcagct	atagcacgtt	tcaaccaaga	caaaaatcgg	3180
ttcgtttttc	tgttatcaac	tcgtgcctgt	ggtcttggtg	tcaatctggc	aacagctgat	3240
actgttatta	tctatgactc	tgatttcaac	cctcacgctg	atatccaagc	catgaataga	3300
gctcatcgaa	ttggacagtc	caaacgactt	ttggtataca	gacttgttgt	ccgtgccagc	3360
gttgaagagc	gcattttgca	gctggccaag	aagaagttga	tgctcgatca	gctttttgta	3420
aacaagtcgg	gatcccagaa	ggaatttgaa	gatattctac	gctgggggtac	tgaagaactt	3480
ttcaacgact	ccgctggtga	gaacaagaaa	gatacagctg	aaagtaatgg	aaacttagat	3540
gtaatcatgg	atttagaaaag	caagagtagg	aaaaaagggtg	gtggcctcgg	agatgtttat	3600
caagacaaat	gtacagaagg	aaatgggaag	attgtttggg	atgatattgc	aattatgaag	3660
ttgcttgatc	ggtcaaactt	tcaatctgcc	tccactgatg	ccgctgatac	tgagttggat	3720
aatgatatgc	tcggctccgt	gaagcctgtg	gaatggaatg	aggaaacagc	tgaagaacaa	3780
gttggagctg	aatcacctgc	actggtgact	gatgatactg	gtgaaccgag	ttcagagagg	3840
aaagatgatg	atgtcgttaa	ttttactgaa	gaaaatgaat	gggacaggct	tctgcgtatg	3900
aggttggagt	tccctctttc	tctgagttca	gcgtcttggc	tttggtcttg	gcagcatata	3960
tgggagaaat	atcagagcga	ggaagaagca	gcgcttggca	gaggggaagcg	tttgagaaaag	4020
gctgtttcgt	ataggggaagc	atatgccccca	cataccagtg	gacctgtaaa	tgagagtgggt	4080
ggtgaagatg	agaaagaacc	agaaccagaa	cttaagaagg	aatatacacc	ggcagggcga	4140
gccctaaaag	aaaagttttac	caaactgcga	gagaggcaaaa	agaacctgat	tgcgagaagg	4200
aattctgttg	aagagtctct	tcctagcggc	aatgtggatc	aggtaactga	agtagctaata	4260

## 047-E2F-PCT.ST25.txt

caggacgaag	aaagccctac	atcaatggac	ttggacgata	gcaaagctag	ccagcaatgt	4320
gatgcacaga	aaagaaaagc	cagttcttca	gacctaatac	cagatcttct	aagccaacat	4380
catcatggcg	cagaatgtct	gccatcttta	cccccaaaca	acctgccagt	ccttggactg	4440
tgtgctccta	attttactca	gtcagaatcc	tcccggagaa	attattctcg	tccaggtagt	4500
agacagaaca	gacccataac	aggaccccat	tttcccttca	atctacccca	aacatcgaac	4560
ttggttgaga	gggaagcaaa	tgaccaggaa	cctcctatgg	gtaaactaaa	accacagaac	4620
ataaaggaag	aaccttttca	gcagcctctt	agtaatatgg	atggttggct	tccacatcgt	4680
cagtttcctc	cgtcagggga	ttttgagcgt	cctcgaagtt	ctggtgctgc	ttttgctgat	4740
ttccaggaga	agtttccggt	gcttaacctt	ccatttgatg	ataagctgct	tcctcgattt	4800
ccatttcagc	cgagaacaat	gggaacttcg	catcaagaca	taatggccaa	tctttcgatg	4860
aggaaaagat	ttgaagggtac	tggtcattct	atgcaagacc	tatttggcgg	aacaccaatg	4920
ccgtttctac	ccaatatgaa	aatccctcct	atggatccac	ctgtcttcaa	ccaacaagag	4980
aaggacttac	cgcttttggg	tttgatcag	tttccatcag	ctctttcatc	tatcccagag	5040
aaccatcgaa	aggtgctgga	gaatataatg	ctaagaactg	gctctggaat	tgggcacgta	5100
cagaaaaaga	aaacaagagt	agatgcatgg	tccgaggatg	aactagattc	tctctggatt	5160
gggattcgca	gacatgggta	tggaaactgg	gagacaattc	tcagagatcc	aaggctcaaa	5220
ttttcgaaat	ttaaaacacc	agagtacttg	gcagctaggt	gggaagaaga	gcaacgtaaa	5280
ttcttgata	gtctttcatc	tctgccatct	aaatcaagca	ggactgataa	gtccacaaaa	5340
tcttccttgt	ttcctggctt	tccccaaagg	ataatgaatc	gggccttaca	tggtaaatat	5400
gccactcctc	caaggttcca	atcccctctc	acagacataa	aactcggatt	cggcgatcta	5460
gcatctcccc	ttccgttatt	tgaaccatct	gatcacctgg	gatttcgaag	tgagcatttt	5520
cctcccatgg	caaatctgtg	cactgacaat	cttcccgggg	agccttctgc	tggaccatct	5580
gaacgagcag	ggacatcgac	aaatattccc	aacgagaagc	cttttccact	caactctctt	5640
ggaatgggca	acttaggttc	attggggttg	gatagtttaa	gttccttaaa	cacactgaga	5700
gcagaggaaa	aacgggatgc	tattaagcgc	gggaaactac	ccttgttttt	agatatgccg	5760
ttacctcaga	tgcttgattc	aagcaacaac	gtattcttgg	gaagatcagc	caatccatct	5820
ttccttcacc	caaatcgagg	gttgaatccc	tccaatccca	tggggagaga	cataatggga	5880
attagctctt	cagagaacaa	gctacctcat	tggttacgga	atgttgtgac	tgttcctacc	5940
gtgaagtcac	ctgaaccacc	cactctacct	ccaactgtgt	cagctatagc	tcaatcagtc	6000
cgcgttttat	atggtgaaga	ctctacaacc	attccaccgt	ttgtgatacc	agagccgcca	6060
cctcctgctc	ccagagatcc	aagacacagt	ctgcgtaaga	aaaggaaacg	taaattgcat	6120

```

tcatcgagtc aaaagactac agacattggt agtagcagcc acaatgctgt agaaagcagc 6180
tctcaaggca atccacaaac atctgcaact cctcctttgc ctccaccgtc tctggcgggt 6240
gaaacttcag ggtctttctca acccaaatta cctcctcaca acctaaatag cacagaacca 6300
ctgtcctctg aagcaatcat aattccacca cctgaagaag attctgtgat agcagcagcg 6360
ccatctgaag caccagggcc tagtctagag ggaatcactg gtacaacaaa gtcaatctcg 6420
ctagagagcc aaagctctga accagaaact attaataag atggagactt agatccagaa 6480
actgatgaga aagttgagtc tgaacgaacc ccgcttcatt cagatgagaa acaagaggag 6540
caagaatctg aaaatgcatt gaacaagcag tgtgagccca tagaggctga aagtcaaaac 6600
accaatgcag aagaagaagc agaggcacia gaagaagatg aagaatccat gaagatggtg 6660
actggtaatt ctcttagtga cgactga 6687

```

&lt;210&gt; 1294

&lt;211&gt; 2228

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1294

```

Met Lys Gln Lys Arg Arg Lys Leu Pro Ser Ile Leu Asp Ile Leu Asp
1      5      10      15

```

```

Gln Lys Val Asp Ser Ser Met Ala Phe Asp Ser Pro Glu Tyr Thr Ser
20      25      30

```

```

Ser Ser Lys Pro Ser Lys Gln Arg Leu Lys Thr Asp Ser Thr Pro Glu
35      40      45

```

```

Arg Asn Ser Ser Lys Arg Lys Gly Asn Asp Gly Asn Tyr Phe Glu Cys
50      55      60

```

```

Val Ile Cys Asp Leu Gly Gly Asp Leu Leu Cys Cys Asp Ser Cys Pro
65      70      75      80

```

```

Arg Thr Tyr His Thr Ala Cys Leu Asn Pro Pro Leu Lys Arg Ile Pro
85      90      95

```

```

Asn Gly Lys Trp Ile Cys Pro Lys Cys Ser Pro Asn Ser Glu Ala Leu
100     105     110

```

```

Lys Pro Val Asn Arg Leu Asp Ala Ile Ala Lys Arg Ala Arg Thr Lys
115     120     125

```



047-E2F-PCT.ST25.txt

Thr Lys Lys Arg Asn Ser Lys Ala Gly Pro Lys Cys Glu Arg Ala Ser  
130 135 140

Gln Ile Tyr Cys Ser Ser Ile Ile Ser Gly Glu Gln Ser Ser Glu Lys  
145 150 155 160

Gly Lys Ser Ile Ser Ala Glu Glu Ser Lys Ser Thr Gly Lys Glu Val  
165 170 175

Tyr Ser Ser Pro Met Asp Gly Cys Ser Thr Ala Glu Leu Gly His Ala  
180 185 190

Ser Ala Asp Asp Arg Pro Asp Ser Ser Ser His Gly Glu Asp Asp Leu  
195 200 205

Gly Lys Pro Val Ile Pro Thr Ala Asp Leu Pro Ser Asp Ala Gly Leu  
210 215 220

Thr Leu Leu Ser Cys Glu Asp Leu Ser Glu Ser Lys Leu Ser Asp Thr  
225 230 235 240

Glu Lys Thr His Glu Ala Pro Val Glu Lys Leu Glu His Ala Ser Ser  
245 250 255

Glu Ile Val Glu Asn Lys Thr Val Ala Glu Met Glu Thr Gly Lys Gly  
260 265 270

Lys Arg Lys Lys Arg Lys Arg Glu Leu Asn Asp Gly Glu Ser Leu Glu  
275 280 285

Arg Cys Lys Thr Asp Lys Lys Arg Ala Lys Lys Ser Leu Ser Lys Val  
290 295 300

Gly Ser Ser Ser Gln Thr Thr Lys Ser Pro Glu Ser Ser Lys Lys Lys  
305 310 315 320

Lys Lys Lys Asn Arg Val Thr Leu Lys Ser Leu Ser Lys Pro Gln Ser  
325 330 335

Lys Thr Glu Thr Pro Glu Lys Val Lys Lys Leu Pro Lys Glu Glu Arg  
340 345 350

Arg Ala Val Arg Ala Thr Asn Lys Ser Ser Ser Cys Leu Glu Asp Thr  
355 360 365

Asn Ser Leu Pro Val Gly Asn Leu Gln Val His Arg Val Leu Gly Cys

370

375

Arg Ile Gln Gly Leu Thr Lys Thr Ser Leu Cys Ser Ala Leu Ser Asp  
385 390 395 400

Asp Leu Cys Ser Asp Asn Leu Gln Ala Thr Asp Gln Arg Asp Ser Leu  
405 410 415

Val Gln Asp Thr Asn Ala Glu Leu Val Val Ala Glu Asp Arg Ile Asp  
420 425 430

Ser Ser Ser Glu Thr Gly Lys Ser Ser Arg Asp Ser Arg Leu Arg Asp  
435 440 445

Lys Asp Met Asp Asp Ser Ala Leu Gly Thr Glu Gly Met Val Glu Val  
450 455 460

Lys Glu Glu Met Leu Ser Glu Asp Ile Ser Asn Ala Thr Leu Ser Arg  
465 470 475 480

His Val Asp Asp Glu Asp Met Lys Val Ser Glu Thr His Val Ser Val  
485 490 495

Glu Arg Glu Leu Leu Glu Glu Ala His Gln Glu Thr Gly Glu Lys Ser  
500 505 510

Thr Val Ala Asp Glu Glu Ile Glu Glu Pro Val Ala Ala Lys Thr Ser  
515 520 525

Asp Leu Ile Gly Glu Thr Val Ser Tyr Glu Phe Leu Val Lys Trp Val  
530 535 540

Asp Lys Ser Asn Ile His Asn Thr Trp Ile Ser Glu Ala Glu Leu Lys  
545 550 555 560

Gly Leu Ala Lys Arg Lys Leu Glu Asn Tyr Lys Ala Lys Tyr Gly Thr  
565 570 575

Ala Val Ile Asn Ile Cys Glu Asp Lys Trp Lys Gln Pro Gln Arg Ile  
580 585 590

Val Ala Leu Arg Val Ser Lys Glu Gly Asn Gln Glu Ala Tyr Val Lys  
595 600 605

Trp Thr Gly Leu Ala Tyr Asp Glu Cys Thr Trp Glu Ser Leu Glu Glu  
610 615 620

Pro Ile Leu Lys His Ser Ser His Leu Ile Asp Leu Phe His Gln Tyr  
 625 630 635 640  
 Glu Gln Lys Thr Leu Glu Arg Asn Ser Lys Gly Asn Pro Thr Arg Glu  
 645 650 655  
 Arg Gly Glu Val Val Thr Leu Thr Glu Gln Pro Gln Glu Leu Arg Gly  
 660 665 670  
 Gly Ala Leu Phe Ala His Gln Leu Glu Ala Leu Asn Trp Leu Arg Arg  
 675 680 685  
 Cys Trp His Lys Ser Lys Asn Val Ile Leu Ala Asp Glu Met Gly Leu  
 690 695 700  
 Gly Lys Thr Val Ser Ala Ser Ala Phe Leu Ser Ser Leu Tyr Phe Glu  
 705 710 715 720  
 Phe Gly Val Ala Arg Pro Cys Leu Val Leu Val Pro Leu Ser Thr Met  
 725 730 735  
 Pro Asn Trp Leu Ser Glu Phe Ser Leu Trp Ala Pro Leu Leu Asn Val  
 740 745 750  
 Val Glu Tyr His Gly Ser Ala Lys Gly Arg Ala Ile Ile Arg Asp Tyr  
 755 760 765  
 Glu Trp His Ala Lys Asn Ser Thr Gly Thr Thr Lys Lys Pro Thr Ser  
 770 775 780  
 Tyr Lys Phe Asn Val Leu Leu Thr Thr Tyr Glu Met Val Leu Ala Asp  
 785 790 795 800  
 Ser Ser His Leu Arg Gly Val Pro Trp Glu Val Leu Val Val Asp Glu  
 805 810 815  
 Gly His Arg Leu Lys Asn Ser Glu Ser Lys Leu Phe Ser Leu Leu Asn  
 820 825 830  
 Thr Phe Ser Phe Gln His Arg Val Leu Leu Thr Gly Thr Pro Leu Gln  
 835 840 845  
 Asn Asn Ile Gly Glu Met Tyr Asn Leu Leu Asn Phe Leu Gln Pro Ser  
 850 855 860  
 Ser Phe Pro Ser Leu Ser Ser Phe Glu Glu Arg Phe His Asp Leu Thr  
 865 870 875 880

047-E2F-PCT.ST25.txt

Ser Ala Glu Lys Val Glu Glu Leu Lys Lys Leu Val Ala Pro His Met  
885 890 895

Leu Arg Arg Leu Lys Lys Asp Ala Met Gln Asn Ile Pro Pro Lys Thr  
900 905 910

Glu Arg Met Val Pro Val Glu Leu Thr Ser Ile Gln Ala Glu Tyr Tyr  
915 920 925

Arg Ala Met Leu Thr Lys Asn Tyr Gln Ile Leu Arg Asn Ile Gly Lys  
930 935 940

Gly Val Ala Gln Gln Ser Met Leu Asn Ile Val Met Gln Leu Arg Lys  
945 950 955 960

Val Cys Asn His Pro Tyr Leu Ile Pro Gly Thr Glu Pro Glu Ser Gly  
965 970 975

Ser Leu Glu Phe Leu His Asp Met Arg Ile Lys Ala Ser Ala Lys Leu  
980 985 990

Thr Leu Leu His Ser Met Leu Lys Val Leu His Lys Glu Gly His Arg  
995 1000 1005

Val Leu Ile Phe Ser Gln Met Thr Lys Leu Leu Asp Ile Leu Glu  
1010 1015 1020

Asp Tyr Leu Asn Ile Glu Phe Gly Pro Lys Thr Phe Glu Arg Val  
1025 1030 1035

Asp Gly Ser Val Ala Val Ala Asp Arg Gln Ala Ala Ile Ala Arg  
1040 1045 1050

Phe Asn Gln Asp Lys Asn Arg Phe Val Phe Leu Leu Ser Thr Arg  
1055 1060 1065

Ala Cys Gly Leu Gly Ile Asn Leu Ala Thr Ala Asp Thr Val Ile  
1070 1075 1080

Ile Tyr Asp Ser Asp Phe Asn Pro His Ala Asp Ile Gln Ala Met  
1085 1090 1095

Asn Arg Ala His Arg Ile Gly Gln Ser Lys Arg Leu Leu Val Tyr  
1100 1105 1110

Arg Leu Val Val Arg Ala Ser Val Glu Glu Arg Ile Leu Gln Leu  
1115 1120 1125

047-E2F-PCT.ST25.txt

Ala	Lys	Lys	Lys	Leu	Met	Leu	Asp	Gln	Leu	Phe	Val	Asn	Lys	Ser
	1130					1135					1140			
Gly	Ser	Gln	Lys	Glu	Phe	Glu	Asp	Ile	Leu	Arg	Trp	Gly	Thr	Glu
	1145					1150					1155			
Glu	Leu	Phe	Asn	Asp	Ser	Ala	Gly	Glu	Asn	Lys	Lys	Asp	Thr	Ala
	1160					1165					1170			
Glu	Ser	Asn	Gly	Asn	Leu	Asp	Val	Ile	Met	Asp	Leu	Glu	Ser	Lys
	1175					1180					1185			
Ser	Arg	Lys	Lys	Gly	Gly	Gly	Leu	Gly	Asp	Val	Tyr	Gln	Asp	Lys
	1190					1195					1200			
Cys	Thr	Glu	Gly	Asn	Gly	Lys	Ile	Val	Trp	Asp	Asp	Ile	Ala	Ile
	1205					1210					1215			
Met	Lys	Leu	Leu	Asp	Arg	Ser	Asn	Leu	Gln	Ser	Ala	Ser	Thr	Asp
	1220					1225					1230			
Ala	Ala	Asp	Thr	Glu	Leu	Asp	Asn	Asp	Met	Leu	Gly	Ser	Val	Lys
	1235					1240					1245			
Pro	Val	Glu	Trp	Asn	Glu	Glu	Thr	Ala	Glu	Glu	Gln	Val	Gly	Ala
	1250					1255					1260			
Glu	Ser	Pro	Ala	Leu	Val	Thr	Asp	Asp	Thr	Gly	Glu	Pro	Ser	Ser
	1265					1270					1275			
Glu	Arg	Lys	Asp	Asp	Asp	Val	Val	Asn	Phe	Thr	Glu	Glu	Asn	Glu
	1280					1285					1290			
Trp	Asp	Arg	Leu	Leu	Arg	Met	Arg	Leu	Glu	Phe	Pro	Leu	Ser	Leu
	1295					1300					1305			
Ser	Ser	Ala	Ser	Trp	Leu	Trp	Ser	Trp	Gln	His	Ile	Trp	Glu	Lys
	1310					1315					1320			
Tyr	Gln	Ser	Glu	Glu	Glu	Ala	Ala	Leu	Gly	Arg	Gly	Lys	Arg	Leu
	1325					1330					1335			
Arg	Lys	Ala	Val	Ser	Tyr	Arg	Glu	Ala	Tyr	Ala	Pro	His	Thr	Ser
	1340					1345					1350			
Gly	Pro	Val	Asn	Glu	Ser	Gly	Gly	Glu	Asp	Glu	Lys	Glu	Pro	Glu

1355						1360						1365
Pro	Glu	Leu	Lys	Lys	Glu	Tyr	Thr	Pro	Ala	Gly	Arg	Ala
	1370					1375					1380	Leu
												Lys
Glu	Lys	Phe	Thr	Lys	Leu	Arg	Glu	Arg	Gln	Lys	Asn	Leu
	1385					1390					1395	Ile
												Ala
Arg	Arg	Asn	Ser	Val	Glu	Glu	Ser	Leu	Pro	Ser	Gly	Asn
	1400					1405					1410	Val
												Asp
Gln	Val	Thr	Glu	Val	Ala	Asn	Gln	Asp	Glu	Glu	Ser	Pro
	1415					1420					1425	Thr
												Ser
Met	Asp	Leu	Asp	Asp	Ser	Lys	Ala	Ser	Gln	Gln	Cys	Asp
	1430					1435					1440	Ala
												Gln
Lys	Arg	Lys	Ala	Ser	Ser	Ser	Asp	Pro	Lys	Pro	Asp	Leu
	1445					1450					1455	Leu
												Ser
Gln	His	His	His	Gly	Ala	Glu	Cys	Leu	Pro	Ser	Leu	Pro
	1460					1465					1470	Pro
												Asn
Asn	Leu	Pro	Val	Leu	Gly	Leu	Cys	Ala	Pro	Asn	Phe	Thr
	1475					1480					1485	Gln
												Ser
Glu	Ser	Ser	Arg	Arg	Asn	Tyr	Ser	Arg	Pro	Gly	Ser	Arg
	1490					1495					1500	Gln
												Asn
Arg	Pro	Ile	Thr	Gly	Pro	His	Phe	Pro	Phe	Asn	Leu	Pro
	1505					1510					1515	Gln
												Thr
Ser	Asn	Leu	Val	Glu	Arg	Glu	Ala	Asn	Asp	Gln	Glu	Pro
	1520					1525					1530	Pro
												Met
Gly	Lys	Leu	Lys	Pro	Gln	Asn	Ile	Lys	Glu	Glu	Pro	Phe
	1535					1540					1545	Gln
												Gln
Pro	Leu	Ser	Asn	Met	Asp	Gly	Trp	Leu	Pro	His	Arg	Gln
	1550					1555					1560	Phe
												Pro
Pro	Ser	Gly	Asp	Phe	Glu	Arg	Pro	Arg	Ser	Ser	Gly	Ala
	1565					1570					1575	Ala
												Phe
Ala	Asp	Phe	Gln	Glu	Lys	Phe	Pro	Leu	Leu	Asn	Leu	Pro
	1580					1585					1590	Phe
												Asp

Asp	Lys	Leu	Leu	Pro	Arg	Phe	Pro	Phe	Gln	Pro	Arg	Thr	Met	Gly
	1595					1600					1605			
Thr	Ser	His	Gln	Asp	Ile	Met	Ala	Asn	Leu	Ser	Met	Arg	Lys	Arg
	1610					1615					1620			
Phe	Glu	Gly	Thr	Gly	His	Ser	Met	Gln	Asp	Leu	Phe	Gly	Gly	Thr
	1625					1630					1635			
Pro	Met	Pro	Phe	Leu	Pro	Asn	Met	Lys	Ile	Pro	Pro	Met	Asp	Pro
	1640					1645					1650			
Pro	Val	Phe	Asn	Gln	Gln	Glu	Lys	Asp	Leu	Pro	Pro	Leu	Gly	Leu
	1655					1660					1665			
Asp	Gln	Phe	Pro	Ser	Ala	Leu	Ser	Ser	Ile	Pro	Glu	Asn	His	Arg
	1670					1675					1680			
Lys	Val	Leu	Glu	Asn	Ile	Met	Leu	Arg	Thr	Gly	Ser	Gly	Ile	Gly
	1685					1690					1695			
His	Val	Gln	Lys	Lys	Lys	Thr	Arg	Val	Asp	Ala	Trp	Ser	Glu	Asp
	1700					1705					1710			
Glu	Leu	Asp	Ser	Leu	Trp	Ile	Gly	Ile	Arg	Arg	His	Gly	Tyr	Gly
	1715					1720					1725			
Asn	Trp	Glu	Thr	Ile	Leu	Arg	Asp	Pro	Arg	Leu	Lys	Phe	Ser	Lys
	1730					1735					1740			
Phe	Lys	Thr	Pro	Glu	Tyr	Leu	Ala	Ala	Arg	Trp	Glu	Glu	Glu	Gln
	1745					1750					1755			
Arg	Lys	Phe	Leu	Asp	Ser	Leu	Ser	Ser	Leu	Pro	Ser	Lys	Ser	Ser
	1760					1765					1770			
Arg	Thr	Asp	Lys	Ser	Thr	Lys	Ser	Ser	Leu	Phe	Pro	Gly	Leu	Pro
	1775					1780					1785			
Gln	Gly	Ile	Met	Asn	Arg	Ala	Leu	His	Gly	Lys	Tyr	Ala	Thr	Pro
	1790					1795					1800			
Pro	Arg	Phe	Gln	Ser	His	Leu	Thr	Asp	Ile	Lys	Leu	Gly	Phe	Gly
	1805					1810					1815			
Asp	Leu	Ala	Ser	Pro	Leu	Pro	Leu	Phe	Glu	Pro	Ser	Asp	His	Leu
	1820					1825					1830			

## 047-E2F-PCT.ST25.txt

Gly	Phe 1835	Arg	Ser	Glu	His	Phe 1840	Pro	Pro	Met	Ala	Asn 1845	Leu	Cys	Thr
Asp	Asn 1850	Leu	Pro	Gly	Glu	Pro 1855	Ser	Ala	Gly	Pro	Ser 1860	Glu	Arg	Ala
Gly	Thr 1865	Ser	Thr	Asn	Ile	Pro 1870	Asn	Glu	Lys	Pro	Phe 1875	Pro	Leu	Asn
Ser	Leu 1880	Gly	Met	Gly	Asn	Leu 1885	Gly	Ser	Leu	Gly	Leu 1890	Asp	Ser	Leu
Ser	Ser 1895	Leu	Asn	Thr	Leu	Arg 1900	Ala	Glu	Glu	Lys	Arg 1905	Asp	Ala	Ile
Lys	Arg 1910	Gly	Lys	Leu	Pro	Leu 1915	Phe	Leu	Asp	Met	Pro 1920	Leu	Pro	Gln
Met	Leu 1925	Asp	Ser	Ser	Asn	Asn 1930	Val	Phe	Leu	Gly	Arg 1935	Ser	Ala	Asn
Pro	Ser 1940	Phe	Leu	His	Pro	Asn 1945	Arg	Gly	Leu	Asn	Pro 1950	Ser	Asn	Pro
Met	Gly 1955	Arg	Asp	Ile	Met	Gly 1960	Ile	Ser	Ser	Ser	Glu 1965	Asn	Lys	Leu
Pro	His 1970	Trp	Leu	Arg	Asn	Val 1975	Val	Thr	Val	Pro	Thr 1980	Val	Lys	Ser
Pro	Glu 1985	Pro	Pro	Thr	Leu	Pro 1990	Pro	Thr	Val	Ser	Ala 1995	Ile	Ala	Gln
Ser	Val 2000	Arg	Val	Leu	Tyr	Gly 2005	Glu	Asp	Ser	Thr	Thr 2010	Ile	Pro	Pro
Phe	Val 2015	Ile	Pro	Glu	Pro	Pro 2020	Pro	Pro	Ala	Pro	Arg 2025	Asp	Pro	Arg
His	Ser 2030	Leu	Arg	Lys	Lys	Arg 2035	Lys	Arg	Lys	Leu	His 2040	Ser	Ser	Ser
Gln	Lys 2045	Thr	Thr	Asp	Ile	Gly 2050	Ser	Ser	Ser	His	Asn 2055	Ala	Val	Glu
Ser	Ser 2060	Ser	Gln	Gly	Asn	Pro 2065	Gln	Thr	Ser	Ala	Thr 2070	Pro	Pro	Leu



047-E2F-PCT.ST25.txt

Pro Pro Pro Ser Leu Ala Gly Glu Thr Ser Gly Ser Ser Gln Pro  
 2075 2080 2085

Lys Leu Pro Pro His Asn Leu Asn Ser Thr Glu Pro Leu Ser Ser  
 2090 2100

Glu Ala Ile Ile Ile Pro Pro Pro Glu Glu Asp Ser Val Ile Ala  
 2105 2110 2115

Ala Ala Pro Ser Glu Ala Pro Gly Pro Ser Leu Glu Gly Ile Thr  
 2120 2125 2130

Gly Thr Thr Lys Ser Ile Ser Leu Glu Ser Gln Ser Ser Glu Pro  
 2135 2140 2145

Glu Thr Ile Asn Gln Asp Gly Asp Leu Asp Pro Glu Thr Asp Glu  
 2150 2155 2160

Lys Val Glu Ser Glu Arg Thr Pro Leu His Ser Asp Glu Lys Gln  
 2165 2170 2175

Glu Glu Gln Glu Ser Glu Asn Ala Leu Asn Lys Gln Cys Glu Pro  
 2180 2185 2190

Ile Glu Ala Glu Ser Gln Asn Thr Asn Ala Glu Glu Glu Ala Glu  
 2195 2200 2205

Ala Gln Glu Glu Asp Glu Glu Ser Met Lys Met Val Thr Gly Asn  
 2210 2215 2220

Ser Leu Ser Asp Asp  
 2225

<210> 1295

<211> 1875

<212> DNA

<213> Arabidopsis thaliana

<400> 1295

atgacgacta tggagagttt gattgggtta gttaatagga tacagagagc atgtaccgta 60

ctcggtgact atggtggtgg aactggaagt aacgctttca attctctctg ggaagctctt 120

ccaaccgtcg ccgtcgtcgg tggtcagagt tctgggaaat cttcggttct tgagagtata 180

gttgggagag attttcttcc tagaggatct ggtatcggtta cgagacggcc tttagtgttg 240  
 cagcttcata agactgatga tggaacagag gagtatgcag agttccttca tcttcccaag 300  
 aagcaattca cagattttgc tttgggttcgc agggagattc aggatgagac tgatagaatc 360  
 acagggaaaa acaaacagat atctccagtt cctattcacc tcagtatcta ctctccaaat 420  
 gttgtgaatt tgacactcat tgatttgccc ggtttaacta aagtggctgt tgagggacag 480  
 ccggaaacca ttgctgagga tatcgaatcc atgggttcgca catatgttga taagcccaat 540  
 tgtatcatat tggctatatc tcctgccaac caagacattg ccacatcaga tgcaattaag 600  
 ctcgcaaaag atgtcgatcc aacaggtgag aggacatttg gtgttcttac caagttagac 660  
 ttgatggaca aaggaactaa tgcgttagaa gttcttgaag gaagatctta caggctgcaa 720  
 catccttggg ttgggatagt gaaccgttca caagcagata ttaataagaa tgtcgatatg 780  
 atgcttgcaa gacgcaagga acgagaatat tttgatacca gtcctgacta tggtcactta 840  
 gccagcaaaa tgggttcaga atatctggca aagctgctct ctaagcactt ggagtctgtt 900  
 atcaggaccc gtattccaag tatactatcc ttaataaaca aaagcattga agaacttgaa 960  
 agagagttag accgaatggg tcggcctgtc gcagttgatg ctggggctca actatacact 1020  
 atattggaga tgtgccgtgc attcgataag atattcaagg aacatcttga tggcgggcgt 1080  
 cctggagggtg accgtatcta tggagtcttt gacaaccaac ttccagctgc acttaaaaag 1140  
 cttccttttg atcgccatct ttctctacaa agcgtgaaga aaatcgtgtc cgaggcagat 1200  
 ggttatcaac ctcaattgat tgcaccagaa cagggttatc gccgtctaata cgaaggggca 1260  
 ctgggttact ttagagggtc agctgaagct tctgtggatg ctgttacta tgtcttga 1320  
 gagcttgtga ggaaatcaat atcagaaact gaggagctaa agcgtttccc ttactgcaa 1380  
 gtcgagcttg ctgcagcagc caacagctcc ttggagaaat tcagggaaga aagcaagaag 1440  
 tcggttattc gacttgttga catggaatct gcgtatctaa ccgctgagtt cttccggaaa 1500  
 cttcctcaag aaatagaaag accagtaacc aacagcaaaa accaaaccgc ttctccttcg 1560  
 tctgcaacat tagaccagta tggagacgga catttcagaa ggatagcatc aaatgtatct 1620  
 gcgtatgtta atatggtttc ggacacactt cgtaacacca ttccaaaagc ttgtgtgtac 1680  
 tgtcaggtta gacaagccaa gctcgcattg ctcaattact tctactctca gatcagcaag 1740  
 agagagggga aacagttggg acagttacta gatgaagatc cggcattgat ggaccggaga 1800  
 ctagagtgcg cgaagaggct agagttatac aagaaagcaa gagatgagat tgatgctgtt 1860  
 gcttgggtaa gatga 1875

&lt;210&gt; 1296

&lt;211&gt; 624

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1296

```

Met Thr Thr Met Glu Ser Leu Ile Gly Leu Val Asn Arg Ile Gln Arg
1      5      10      15

Ala Cys Thr Val Leu Gly Asp Tyr Gly Gly Gly Thr Gly Ser Asn Ala
20      25      30

Phe Asn Ser Leu Trp Glu Ala Leu Pro Thr Val Ala Val Val Gly Gly
35      40      45

Gln Ser Ser Gly Lys Ser Ser Val Leu Glu Ser Ile Val Gly Arg Asp
50      55      60

Phe Leu Pro Arg Gly Ser Gly Ile Val Thr Arg Arg Pro Leu Val Leu
65      70      75      80

Gln Leu His Lys Thr Asp Asp Gly Thr Glu Glu Tyr Ala Glu Phe Leu
85      90      95

His Leu Pro Lys Lys Gln Phe Thr Asp Phe Ala Leu Val Arg Arg Glu
100     105     110

Ile Gln Asp Glu Thr Asp Arg Ile Thr Gly Lys Asn Lys Gln Ile Ser
115     120     125

Pro Val Pro Ile His Leu Ser Ile Tyr Ser Pro Asn Val Val Asn Leu
130     135     140

Thr Leu Ile Asp Leu Pro Gly Leu Thr Lys Val Ala Val Glu Gly Gln
145     150     155     160

Pro Glu Thr Ile Ala Glu Asp Ile Glu Ser Met Val Arg Thr Tyr Val
165     170     175

Asp Lys Pro Asn Cys Ile Ile Leu Ala Ile Ser Pro Ala Asn Gln Asp
180     185     190

Ile Ala Thr Ser Asp Ala Ile Lys Leu Ala Lys Asp Val Asp Pro Thr
195     200     205

Gly Glu Arg Thr Phe Gly Val Leu Thr Lys Leu Asp Leu Met Asp Lys
210     215     220

```

## 047-E2F-PCT.ST25.txt

Gly Thr Asn Ala Leu Glu Val Leu Glu Gly Arg Ser Tyr Arg Leu Gln  
 225 230 235 240  
 His Pro Trp Val Gly Ile Val Asn Arg Ser Gln Ala Asp Ile Asn Lys  
 245 250 255  
 Asn Val Asp Met Met Leu Ala Arg Arg Lys Glu Arg Glu Tyr Phe Asp  
 260 265 270  
 Thr Ser Pro Asp Tyr Gly His Leu Ala Ser Lys Met Gly Ser Glu Tyr  
 275 280 285  
 Leu Ala Lys Leu Leu Ser Lys His Leu Glu Ser Val Ile Arg Thr Arg  
 290 295 300  
 Ile Pro Ser Ile Leu Ser Leu Ile Asn Lys Ser Ile Glu Glu Leu Glu  
 305 310 315 320  
 Arg Glu Leu Asp Arg Met Gly Arg Pro Val Ala Val Asp Ala Gly Ala  
 325 330 335  
 Gln Leu Tyr Thr Ile Leu Glu Met Cys Arg Ala Phe Asp Lys Ile Phe  
 340 345 350  
 Lys Glu His Leu Asp Gly Gly Arg Pro Gly Gly Asp Arg Ile Tyr Gly  
 355 360 365  
 Val Phe Asp Asn Gln Leu Pro Ala Ala Leu Lys Lys Leu Pro Phe Asp  
 370 375 380  
 Arg His Leu Ser Leu Gln Ser Val Lys Lys Ile Val Ser Glu Ala Asp  
 385 390 395 400  
 Gly Tyr Gln Pro His Leu Ile Ala Pro Glu Gln Gly Tyr Arg Arg Leu  
 405 410 415  
 Ile Glu Gly Ala Leu Gly Tyr Phe Arg Gly Pro Ala Glu Ala Ser Val  
 420 425 430  
 Asp Ala Val His Tyr Val Leu Lys Glu Leu Val Arg Lys Ser Ile Ser  
 435 440 445  
 Glu Thr Glu Glu Leu Lys Arg Phe Pro Ser Leu Gln Val Glu Leu Ala  
 450 455 460  
 Ala Ala Ala Asn Ser Ser Leu Glu Lys Phe Arg Glu Glu Ser Lys Lys  
 465 470 475 480

047-E2F-PCT.ST25.txt

Ser Val Ile Arg Leu Val Asp Met Glu Ser Ala Tyr Leu Thr Ala Glu  
485 490 495

Phe Phe Arg Lys Leu Pro Gln Glu Ile Glu Arg Pro Val Thr Asn Ser  
500 505 510

Lys Asn Gln Thr Ala Ser Pro Ser Ser Ala Thr Leu Asp Gln Tyr Gly  
515 520 525

Asp Gly His Phe Arg Arg Ile Ala Ser Asn Val Ser Ala Tyr Val Asn  
530 535 540

Met Val Ser Asp Thr Leu Arg Asn Thr Ile Pro Lys Ala Cys Val Tyr  
545 550 555 560

Cys Gln Val Arg Gln Ala Lys Leu Ala Leu Leu Asn Tyr Phe Tyr Ser  
565 570 575

Gln Ile Ser Lys Arg Glu Gly Lys Gln Leu Gly Gln Leu Leu Asp Glu  
580 585 590

Asp Pro Ala Leu Met Asp Arg Arg Leu Glu Cys Ala Lys Arg Leu Glu  
595 600 605

Leu Tyr Lys Lys Ala Arg Asp Glu Ile Asp Ala Val Ala Trp Val Arg  
610 615 620

<210> 1297

<211> 519

<212> DNA

<213> Arabidopsis thaliana

<400> 1297

atgtgtcacg cagctctcaa gtatcttaag aaaggagcgc ctggaagaga ctcacatcaagc	60
ggtggagggtt cgattattaa cattagcgcg actttgcact acacggcttc ttggtaccaa	120
atacatgtct ctgcagccaa ggctgcagtt gatgctacca caagaaactt ggcattggag	180
tggggaactg actatgatat tagagtgaac gggattgctc caggctctat tggaggtaca	240
cctggaatga gtaaacttgt acctgaggag attgaaaaca aaaccagaga gtacatgcct	300
ctttataaag ttggagagaa gtgggatatc gctatggctg cactctacct cagctgtgat	360
tctgggaaat atgtgagcgg actaacaatg gtggtagatg gaggactgtg gcttagcaaa	420

cctcgccact tgcctaaaga agcgggtgaag caactctctc gtgcggtgga gaagaggtct 480  
 agggccaagc ctgttgggtct cccaaccagc aagctgtag 519

<210> 1298

<211> 172

<212> PRT

<213> Arabidopsis thaliana

<400> 1298

Met Cys His Ala Ala Leu Lys Tyr Leu Lys Lys Gly Ala Pro Gly Arg  
 1 5 10 15  
 Asp Ser Ser Ser Gly Gly Gly Ser Ile Ile Asn Ile Ser Ala Thr Leu  
 20 25 30  
 His Tyr Thr Ala Ser Trp Tyr Gln Ile His Val Ser Ala Ala Lys Ala  
 35 40 45  
 Ala Val Asp Ala Thr Thr Arg Asn Leu Ala Leu Glu Trp Gly Thr Asp  
 50 55 60  
 Tyr Asp Ile Arg Val Asn Gly Ile Ala Pro Gly Pro Ile Gly Gly Thr  
 65 70 75 80  
 Pro Gly Met Ser Lys Leu Val Pro Glu Glu Ile Glu Asn Lys Thr Arg  
 85 90 95  
 Glu Tyr Met Pro Leu Tyr Lys Val Gly Glu Lys Trp Asp Ile Ala Met  
 100 105 110  
 Ala Ala Leu Tyr Leu Ser Cys Asp Ser Gly Lys Tyr Val Ser Gly Leu  
 115 120 125  
 Thr Met Val Val Asp Gly Gly Leu Trp Leu Ser Lys Pro Arg His Leu  
 130 135 140  
 Pro Lys Glu Ala Val Lys Gln Leu Ser Arg Ala Val Glu Lys Arg Ser  
 145 150 155 160  
 Arg Ala Lys Pro Val Gly Leu Pro Thr Ser Lys Leu  
 165 170

<210> 1299

&lt;211&gt; 1221

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1299

```

atgtccttca agagtctcat tcaggacatg agaggagagc ttgggagtat atccagaaag      60
ggattcgatg tcagattcgg gtatggtaga tccaggtctc aacgtgttgt tcaggatact      120
tctgttcctg ttgatgcttt caagcagagc tgctgggcta gtatgcctcc ggagctcctg      180
agagatgttc ttatgaggat tgagcaatcc gaagacactt ggccgtctag gaaaaatggt      240
gtttcttgcg ctggtgtctg caggaactgg cgagaaatcg tcaaagagat cgtcagagtt      300
cctgagcttt ctagcaaact cacttttcct atctccctca aacagccggg tcctagagga      360
tcacttgttc aatgctatat tatgagaaac cgcagcaatc aaacctacta tctatacctc      420
gggttaaacc aagcagcttc aaatgatgat ggaaagtctc ttcttgctgc caagaggttt      480
cggaggccaa cttgactga ctacatcatc tccttaaact gcgatgatgt ctctcgagga      540
agcaatacct atatcggaag gcttagatct aactttctgg ggaccaagtt cactgtctat      600
gacgctcagc cgacgaatcc tggaactcag gttaccagaa cccgttcaag cagacttctc      660
agtttgaaac aagtgagccc gagaattcca tctggcaact atcctgtagc acatatctca      720
tatgagctta acgtcttggg ttccagagga ccgaggagga tgcagtgtgt catggatgcc      780
atccctgcat cagctgtaga acctggagga acagctccaa ctcagacgga acttgtccat      840
agcaatcttg atagtttccc ctcatctctc ttcttcaggt cgaaatcaat tcgtgcagag      900
agtctccctt ctggtccatc atctgctgct cagaaggaag gactgcttgt cctgaaaaac      960
aaagcgccca gatggcacga acagctccag tgctggtgcc tcaacttcaa tgggagagtc     1020
acagttgctt ccgtcaaaaa ctttcagctg gtagctgctc ctgagaatgg acctgcagga     1080
cctgagcacg aaaacgtgat tctccagttt ggaaaagtgc gaaaagatgt gttcacaatg     1140
gattatcagt accctatctc tgccttcag gccttcacca tttgcctcag cagtttcgac     1200
accaagatag catgtgaatg a                                             1221

```

&lt;210&gt; 1300

&lt;211&gt; 406

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1300

## 047-E2F-PCT.ST25.txt

Met Ser Phe Lys Ser Leu Ile Gln Asp Met Arg Gly Glu Leu Gly Ser  
 1 5 10 15  
 Ile Ser Arg Lys Gly Phe Asp Val Arg Phe Gly Tyr Gly Arg Ser Arg  
 20 25 30  
 Ser Gln Arg Val Val Gln Asp Thr Ser Val Pro Val Asp Ala Phe Lys  
 35 40 45  
 Gln Ser Cys Trp Ala Ser Met Pro Pro Glu Leu Leu Arg Asp Val Leu  
 50 55 60  
 Met Arg Ile Glu Gln Ser Glu Asp Thr Trp Pro Ser Arg Lys Asn Val  
 65 70 75 80  
 Val Ser Cys Ala Gly Val Cys Arg Asn Trp Arg Glu Ile Val Lys Glu  
 85 90 95  
 Ile Val Arg Val Pro Glu Leu Ser Ser Lys Leu Thr Phe Pro Ile Ser  
 100 105 110  
 Leu Lys Gln Pro Gly Pro Arg Gly Ser Leu Val Gln Cys Tyr Ile Met  
 115 120 125  
 Arg Asn Arg Ser Asn Gln Thr Tyr Tyr Leu Tyr Leu Gly Leu Asn Gln  
 130 135 140  
 Ala Ala Ser Asn Asp Asp Gly Lys Phe Leu Leu Ala Ala Lys Arg Phe  
 145 150 155 160  
 Arg Arg Pro Thr Cys Thr Asp Tyr Ile Ile Ser Leu Asn Cys Asp Asp  
 165 170 175  
 Val Ser Arg Gly Ser Asn Thr Tyr Ile Gly Lys Leu Arg Ser Asn Phe  
 180 185 190  
 Leu Gly Thr Lys Phe Thr Val Tyr Asp Ala Gln Pro Thr Asn Pro Gly  
 195 200 205  
 Thr Gln Val Thr Arg Thr Arg Ser Ser Arg Leu Leu Ser Leu Lys Gln  
 210 215 220  
 Val Ser Pro Arg Ile Pro Ser Gly Asn Tyr Pro Val Ala His Ile Ser  
 225 230 235 240  
 Tyr Glu Leu Asn Val Leu Gly Ser Arg Gly Pro Arg Arg Met Gln Cys  
 245 250 255



047-E2F-PCT.ST25.txt

Val Met Asp Ala Ile Pro Ala Ser Ala Val Glu Pro Gly Gly Thr Ala  
260 265 270

Pro Thr Gln Thr Glu Leu Val His Ser Asn Leu Asp Ser Phe Pro Ser  
275 280 285

Phe Ser Phe Phe Arg Ser Lys Ser Ile Arg Ala Glu Ser Leu Pro Ser  
290 295 300

Gly Pro Ser Ser Ala Ala Gln Lys Glu Gly Leu Leu Val Leu Lys Asn  
305 310 315 320

Lys Ala Pro Arg Trp His Glu Gln Leu Gln Cys Trp Cys Leu Asn Phe  
325 330 335

Asn Gly Arg Val Thr Val Ala Ser Val Lys Asn Phe Gln Leu Val Ala  
340 345 350

Ala Pro Glu Asn Gly Pro Ala Gly Pro Glu His Glu Asn Val Ile Leu  
355 360 365

Gln Phe Gly Lys Val Gly Lys Asp Val Phe Thr Met Asp Tyr Gln Tyr  
370 375 380

Pro Ile Ser Ala Phe Gln Ala Phe Thr Ile Cys Leu Ser Ser Phe Asp  
385 390 395 400

Thr Lys Ile Ala Cys Glu  
405

<210> 1301

<211> 1194

<212> DNA

<213> Arabidopsis thaliana

<400> 1301

atggattacc gaccttctga tagtagtggt acagatgatg acctgcctcc atctcatcaa	60
ggtagatatc aaagaaacgc cagacctacc gggaatggaa ggccttcagt tctcaattct	120
gctcctttat cacgggtgca caatgaaatg gaaactcaaa ttcattctcat tgagcaagaa	180
gcttatagct cgatactccg cgcatttaaa gccagatccg atgctattac ctgggagaaa	240
gaaagtttga tcaactgaact cagaaaagaa cttcgagtgt ctgatgagga acacagagag	300

047-E2F-PCT.ST25.txt

ctgttatcaa gggttaacgc tgatgaaatg atcaggcgaa taagggaatg gagaaaggca 360  
aacagccttc agtctagtgt tcctcagctg gttcatgatg ctccgagtcc ggctgtatca 420  
ggatcacgta agaagcaaaa gacatcacaa tcaatcgctt cattagcgat gggcccacca 480  
tctccttctt tgcacccttc aatgcaacca tcgtcatctg cactaagaag gggaggtcct 540  
ccaccaggtc caaagaccaa gaagccaaag acatcgatgc agtaccatc tacaggcatt 600  
gctggaaggc cccaggctgg cgctttaaca aatgaaccag gtgaatcggg atcatatgac 660  
ccgttggttg gaaggaaggt atggacgaag tggcctgatg acaaccaata ctacgaagct 720  
gttataactg actacaacc tgttgagggg cgctatgctt tagtgtatga tattaactct 780  
gcgaatgaaa cctgggaatg ggtaaatctt aaagagatat ctccgggaga tatcagatgg 840  
gaaggtgaag atcctgggat ttctcgtaaa ggaggacatc ctgggcaagg ccgtggaaca 900  
aaaaccatgg ctctggttg tcctgcaagc aatgcgggtg gtagaggtag gggaagcatg 960  
aggatgcagc aacctaagac acagaatggc atcggaaga aagctttagg cgaaatcgaa 1020  
attctccaca ctgagacatt gttaaaagag gtggaaaaag tttttgggtc agttaacccc 1080  
aaccagcag aggtagagaa ggcaaagaga gtgctgagag atcatgaact agctcttatg 1140  
gatgccatcg caaagcttga agaaatatca gatggagaaa gcggtaatat ttga 1194

<210> 1302

<211> 397

<212> PRT

<213> Arabidopsis thaliana

<400> 1302

Met Asp Tyr Arg Pro Ser Asp Ser Ser Gly Thr Asp Asp Asp Leu Pro  
1 5 10 15

Pro Ser His Gln Gly Arg Tyr Gln Arg Asn Ala Arg Pro Thr Gly Asn  
20 25 30

Gly Arg Pro Ser Val Leu Asn Ser Ala Pro Leu Ser Arg Val His Asn  
35 40 45

Glu Met Glu Thr Gln Ile His Leu Ile Glu Gln Glu Ala Tyr Ser Ser  
50 55 60

Ile Leu Arg Ala Phe Lys Ala Gln Ser Asp Ala Ile Thr Trp Glu Lys  
65 70 75 80

Glu Ser Leu Ile Thr Glu Leu Arg Lys Glu Leu Arg Val Ser Asp Glu  
 85 90 95  
 Glu His Arg Glu Leu Leu Ser Arg Val Asn Ala Asp Glu Met Ile Arg  
 100 105 110  
 Arg Ile Arg Glu Trp Arg Lys Ala Asn Ser Leu Gln Ser Ser Val Pro  
 115 120 125  
 Gln Leu Val His Asp Ala Pro Ser Pro Ala Val Ser Gly Ser Arg Lys  
 130 135 140  
 Lys Gln Lys Thr Ser Gln Ser Ile Ala Ser Leu Ala Met Gly Pro Pro  
 145 150 155 160  
 Ser Pro Ser Leu His Pro Ser Met Gln Pro Ser Ser Ser Ala Leu Arg  
 165 170 175  
 Arg Gly Gly Pro Pro Pro Gly Pro Lys Thr Lys Lys Pro Lys Thr Ser  
 180 185 190  
 Met Gln Tyr Pro Ser Thr Gly Ile Ala Gly Arg Pro Gln Ala Gly Ala  
 195 200 205  
 Leu Thr Asn Glu Pro Gly Glu Ser Gly Ser Tyr Asp Pro Leu Val Gly  
 210 215 220  
 Arg Lys Val Trp Thr Lys Trp Pro Asp Asp Asn Gln Tyr Tyr Glu Ala  
 225 230 235 240  
 Val Ile Thr Asp Tyr Asn Pro Val Glu Gly Arg His Ala Leu Val Tyr  
 245 250 255  
 Asp Ile Asn Ser Ala Asn Glu Thr Trp Glu Trp Val Asn Leu Lys Glu  
 260 265 270  
 Ile Ser Pro Gly Asp Ile Arg Trp Glu Gly Glu Asp Pro Gly Ile Ser  
 275 280 285  
 Arg Lys Gly Gly His Pro Gly Gln Gly Arg Gly Thr Lys Thr Met Ala  
 290 295 300  
 Arg Gly Gly Pro Ala Ser Asn Ala Gly Gly Arg Gly Arg Gly Ser Met  
 305 310 315 320  
 Arg Met Gln Gln Pro Lys Thr Gln Asn Gly Ile Gly Lys Lys Ala Leu  
 325 330 335

047-E2F-PCT.ST25.txt

Gly Glu Ile Glu Ile Leu His Thr Glu Thr Leu Leu Lys Glu Val Glu  
340 345 350

Lys Val Phe Gly Ser Val Asn Pro Asn Pro Ala Glu Val Glu Lys Ala  
355 360 365

Lys Arg Val Leu Arg Asp His Glu Leu Ala Leu Met Asp Ala Ile Ala  
370 375 380

Lys Leu Glu Glu Ile Ser Asp Gly Glu Ser Gly Asn Ile  
385 390 395

<210> 1303

<211> 1020

<212> DNA

<213> Arabidopsis thaliana

<400> 1303

atgacagatg gtgcaagtcc aggggttcat atgatgatgc aacttctcat aacttcagag	60
aaagatggaa tcctttgtcc tattcctcag tatccattgt actcagcttc aattgccctt	120
cacggtggaa ctttggttcc atactacctt gatgaagcat caggatgggg tcttgaaata	180
tctgagctga agaaacaact tgaagatgct aggtcaaagg gcatcactgt gagagctttg	240
gctgtcatta accctggaaa cccgacaggg caggttcttt cggaagaaaa ccagcgtgac	300
gttggttaagt tctgcaagca agagggttta gttcttttag cagacgaggt ttatcaagag	360
aatgtctatg tccctgacaa aaagttccat tccttcaaga aagtagcccg ctctatgggc	420
tacggtgaga aggatcttgc cttagtctct ttccaatctg tctccaaagg gtactatgga	480
gagtgtggga aaagaggtgg ttacatggag gttactggat tcacttctga tgtaagagag	540
cagatataca aaatggcttc tgtgaatctt tgttccaaca tctctggtca aattcttgct	600
agcctcatca tgagcccacc caagcctggt gacgactcct atgaatcata catagcagag	660
aaggatggaa ttctctcatc tttggcaaga cgtgcaaaga ctcttgaaga ggctctgaac	720
aagctagagg gagttacatg caatagagca gaaggagcta tgtatctatt cccttgccctt	780
caccttcac aaaaggcaat tgcagctgct gaggcggaaa agacagcacc agacaatttc	840
tactgcaaac gccttctaaa agctactgga atagtcgttg tccctggttc tggctttaga	900
caggtacctg gaacatggca tttcaggtgc actatacttc cccaagagga taagattcca	960
gcgattgttg atcgtctaac tgcgttcac cagagcttca tggacgagtt ccgcgactaa	1020

&lt;210&gt; 1304

&lt;211&gt; 339

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1304

Met Thr Asp Gly Ala Ser Pro Gly Val His Met Met Met Gln Leu Leu  
 1 5 10 15

Ile Thr Ser Glu Lys Asp Gly Ile Leu Cys Pro Ile Pro Gln Tyr Pro  
 20 25 30

Leu Tyr Ser Ala Ser Ile Ala Leu His Gly Gly Thr Leu Val Pro Tyr  
 35 40 45

Tyr Leu Asp Glu Ala Ser Gly Trp Gly Leu Glu Ile Ser Glu Leu Lys  
 50 55 60

Lys Gln Leu Glu Asp Ala Arg Ser Lys Gly Ile Thr Val Arg Ala Leu  
 65 70 75 80

Ala Val Ile Asn Pro Gly Asn Pro Thr Gly Gln Val Leu Ser Glu Glu  
 85 90 95

Asn Gln Arg Asp Val Val Lys Phe Cys Lys Gln Glu Gly Leu Val Leu  
 100 105 110

Leu Ala Asp Glu Val Tyr Gln Glu Asn Val Tyr Val Pro Asp Lys Lys  
 115 120 125

Phe His Ser Phe Lys Lys Val Ala Arg Ser Met Gly Tyr Gly Glu Lys  
 130 135 140

Asp Leu Ala Leu Val Ser Phe Gln Ser Val Ser Lys Gly Tyr Tyr Gly  
 145 150 155 160

Glu Cys Gly Lys Arg Gly Gly Tyr Met Glu Val Thr Gly Phe Thr Ser  
 165 170 175

Asp Val Arg Glu Gln Ile Tyr Lys Met Ala Ser Val Asn Leu Cys Ser  
 180 185 190

Asn Ile Ser Gly Gln Ile Leu Ala Ser Leu Ile Met Ser Pro Pro Lys  
 195 200 205

047-E2F-PCT.ST25.txt

Pro Gly Asp Asp Ser Tyr Glu Ser Tyr Ile Ala Glu Lys Asp Gly Ile  
 210 215 220  
 Leu Ser Ser Leu Ala Arg Arg Ala Lys Thr Leu Glu Glu Ala Leu Asn  
 225 230 235 240  
 Lys Leu Glu Gly Val Thr Cys Asn Arg Ala Glu Gly Ala Met Tyr Leu  
 245 250 255  
 Phe Pro Cys Leu His Leu Pro Gln Lys Ala Ile Ala Ala Ala Glu Ala  
 260 265 270  
 Glu Lys Thr Ala Pro Asp Asn Phe Tyr Cys Lys Arg Leu Leu Lys Ala  
 275 280 285  
 Thr Gly Ile Val Val Val Pro Gly Ser Gly Phe Arg Gln Val Pro Gly  
 290 295 300  
 Thr Trp His Phe Arg Cys Thr Ile Leu Pro Gln Glu Asp Lys Ile Pro  
 305 310 315 320  
 Ala Ile Val Asp Arg Leu Thr Ala Phe His Gln Ser Phe Met Asp Glu  
 325 330 335

Phe Arg Asp

<210> 1305

<211> 1461

<212> DNA

<213> Arabidopsis thaliana

<400> 1305

atgaaaatcc ctgcatcatc tcctcaagac acgaccaaca acaacaacaa cactaatagt	60
actgatagta atcacttatac aatggacgaa catgtcatgc gttcaatgga ttgggattcc	120
atcatgaaag aattggagct tgatgacgat tctgctccta actcacttaa aaccgggtttc	180
accacaacca caacagattc tactatTTTTg cctctttacg ccgtcgattc aaatctccct	240
ggctttcccg atcagattca accgtcggat ttcgaatcgt cttccgatgt ttatcctggt	300
cagaaccaaaa caactgggta cggttttaat tctcttgata gtgtcgacaa tggaggattt	360
gatttcattg aagatctcat ccgagtcgtg gattgtgttg aatcggacga gttacaactc	420
gctcaggtgg ttttatcacg gcttaatcaa cgcttgagat ctccggcggg tagaccgtta	480

047-E2F-PCT.ST25.txt

cagagagctg cgttttactt taaggaagct ctcggttcgt ttttaaccgg atcaaaccgg 540  
aatccaatcc ggttatcttc ttggtccgag attgttcaga ggatccgagc gattaaggaa 600  
tattccggga tttctccgat ccctctcttc tctcatttca cggcgaatca agcgatactc 660  
gattcgttga gctcgcagtc gtcttctccg tttgttcacg tgggtggattt tgagattgga 720  
ttcgggtggcc aatacgcata gcttatgaga gaaatcactg agaaatctgt aagcgggtgga 780  
tttttaagag ttacggcagt ggtggcggag gagtgcgccg tagagacgcg actagtgaag 840  
gaaaacctaa ctcaattcgc ggcggagatg aaaattcggt tccagattga gtttgtgctg 900  
atgaagactt ttgagatggt atctttcaaa gcgattaggt ttgttgaggg ggagaggacc 960  
gtcgttttga tttccccggc gatatttcgt cgtctaagtg gaatcactga ttttgttaac 1020  
aatttacgga gagtatcacc taaggctcgt gtattcgtgg atagtgaagg atggacggag 1080  
atcgccggat ctggatcatt ccggcgagag tttgttagcg ctcttgagtt ctacacgatg 1140  
gtgctggagt cgctcgacgc tgcagctcct cccggagatt tggatgaagaa gatagtggaa 1200  
gcgttcgttc tacgaccgaa gatctccgct gcggtagaaa cggcggctga caggagacac 1260  
accggcgaaa tgacttggcg ggaagcggtt tgcgccgccg ggatgaggcc gatacagcaa 1320  
agccagttcg ccgactttca agctgagtgt ttattggaga aagcgcaagt tagaggattc 1380  
cacgtggcga aacgacaagg agaattggtg ctgtgctggc atggaagagc acttgttgcc 1440  
acatcagctt ggcgggtttta g 1461

<210> 1306

<211> 486

<212> PRT

<213> Arabidopsis thaliana

<400> 1306

Met Lys Ile Pro Ala Ser Ser Pro Gln Asp Thr Thr Asn Asn Asn Asn  
1 5 10 15

Asn Thr Asn Ser Thr Asp Ser Asn His Leu Ser Met Asp Glu His Val  
20 25 30

Met Arg Ser Met Asp Trp Asp Ser Ile Met Lys Glu Leu Glu Leu Asp  
35 40 45

Asp Asp Ser Ala Pro Asn Ser Leu Lys Thr Gly Phe Thr Thr Thr Thr  
50 55 60

## 047-E2F-PCT.ST25.txt

Thr Asp Ser Thr Ile Leu Pro Leu Tyr Ala Val Asp Ser Asn Leu Pro  
 65 70 75 80  
 Gly Phe Pro Asp Gln Ile Gln Pro Ser Asp Phe Glu Ser Ser Ser Asp  
 85 90 95  
 Val Tyr Pro Gly Gln Asn Gln Thr Thr Gly Tyr Gly Phe Asn Ser Leu  
 100 105 110  
 Asp Ser Val Asp Asn Gly Gly Phe Asp Phe Ile Glu Asp Leu Ile Arg  
 115 120 125  
 Val Val Asp Cys Val Glu Ser Asp Glu Leu Gln Leu Ala Gln Val Val  
 130 135 140  
 Leu Ser Arg Leu Asn Gln Arg Leu Arg Ser Pro Ala Gly Arg Pro Leu  
 145 150 155 160  
 Gln Arg Ala Ala Phe Tyr Phe Lys Glu Ala Leu Gly Ser Phe Leu Thr  
 165 170 175  
 Gly Ser Asn Arg Asn Pro Ile Arg Leu Ser Ser Trp Ser Glu Ile Val  
 180 185 190  
 Gln Arg Ile Arg Ala Ile Lys Glu Tyr Ser Gly Ile Ser Pro Ile Pro  
 195 200 205  
 Leu Phe Ser His Phe Thr Ala Asn Gln Ala Ile Leu Asp Ser Leu Ser  
 210 215 220  
 Ser Gln Ser Ser Ser Pro Phe Val His Val Val Asp Phe Glu Ile Gly  
 225 230 235 240  
 Phe Gly Gly Gln Tyr Ala Ser Leu Met Arg Glu Ile Thr Glu Lys Ser  
 245 250 255  
 Val Ser Gly Gly Phe Leu Arg Val Thr Ala Val Val Ala Glu Glu Cys  
 260 265 270  
 Ala Val Glu Thr Arg Leu Val Lys Glu Asn Leu Thr Gln Phe Ala Ala  
 275 280 285  
 Glu Met Lys Ile Arg Phe Gln Ile Glu Phe Val Leu Met Lys Thr Phe  
 290 295 300  
 Glu Met Leu Ser Phe Lys Ala Ile Arg Phe Val Glu Gly Glu Arg Thr  
 305 310 315 320



047-E2F-PCT.ST25.txt

Val Val Leu Ile Ser Pro Ala Ile Phe Arg Arg Leu Ser Gly Ile Thr  
325 330  
Asp Phe Val Asn Asn Leu Arg Arg Val Ser Pro Lys Val Val Val Phe  
340 345 350  
Val Asp Ser Glu Gly Trp Thr Glu Ile Ala Gly Ser Gly Ser Phe Arg  
355 360 365  
Arg Glu Phe Val Ser Ala Leu Glu Phe Tyr Thr Met Val Leu Glu Ser  
370 375 380  
Leu Asp Ala Ala Ala Pro Pro Gly Asp Leu Val Lys Lys Ile Val Glu  
385 390 395 400  
Ala Phe Val Leu Arg Pro Lys Ile Ser Ala Ala Val Glu Thr Ala Ala  
405 410 415  
Asp Arg Arg His Thr Gly Glu Met Thr Trp Arg Glu Ala Phe Cys Ala  
420 425 430  
Ala Gly Met Arg Pro Ile Gln Gln Ser Gln Phe Ala Asp Phe Gln Ala  
435 440 445  
Glu Cys Leu Leu Glu Lys Ala Gln Val Arg Gly Phe His Val Ala Lys  
450 455 460  
Arg Gln Gly Glu Leu Val Leu Cys Trp His Gly Arg Ala Leu Val Ala  
465 470 475 480  
Thr Ser Ala Trp Arg Phe  
485

<210> 1307

<211> 1383

<212> DNA

<213> Arabidopsis thaliana

<400> 1307

atgatagaga agtgtatagg agcgcacggt tttcggagat tacagagatt catgcgtcaa	60
gggaaagtga cgattctttg tctcgttctc accgtcatcg tcttacgtgg cacaatcgga	120
gccggttaagt ttggtacgcc ggagaaagat atcgaggaga tccgtgagca tttcttctac	180

047-E2F-PCT.ST25.txt

```

acgcgtaaac gcggcgagcc tcaccgtgtc ctcgtcgagg tctcttccaa aacgacgtcg 240
tccgaagacg gaggaaatgg tggtaacagc tacgagacct tcgatatcaa caagctattc 300
gttgatgaag gagacgaaga gaaatctcga gaccggacta ataaacctta ttctcttggt 360
cccaagatct ctgattggga tgagcagaga cgtgattggc tcaaacaaaa ccctagcttc 420
cctaatttcg tggcgccaaa caagcctagg gttcttcttg tcacaggttc agctcctaaa 480
ccgtgtgaga atcctgtagg agaccattac ctcttgaaat cgattaagaa caaaatcgat 540
tactgtagaa tacacggaat cgagatcttc tacaacatgg cgttgctcga tgctgagatg 600
gctggattct gggctaagct tccgttgatt aggaagttac tcttgtcaca tcctgagatt 660
gagtttctat ggtggatgga tagtgatgcc atgttcacgg acatggtggt cgagcttcca 720
tgggagaggt acaaagatta caacttggtg atgcatggtt ggaacgagat ggtttatgac 780
cagaagaatt ggattggtct caacacggga agtttcttgc tcaggaactc acagtggtcg 840
cttgatcttc ttgacgcttg ggctcctatg ggcccaaaag ggaagatccg agaagaagcg 900
ggtaaagtct tgacccggga acttaaagac cgacccgctt tcgaagctga cgatcaatcg 960
gcgatggttt atctgctggc gacggagaga gagaatggg gaggcaaagt ttatctagag 1020
agtggttatt acttgacagg ttattggggg attttggtag accggtacga ggagatgatt 1080
gagaatcata aaccggggtt tggagaccat cgggtggccat tggttacgca tttcgtcggg 1140
tgtaaaccgt gcgggaaatt tggagattat ccggtggaac ggtgtctacg gcagatggat 1200
agagcgttta atttcggaga caatcagatc cttcaaagt atggtttcac gcataaatcg 1260
cttgggagcc ggcgcgtgaa acccacgcgc aatcagacgg ataggccgct cgatgccaag 1320
gacgagtttg ggctgcttca tccgccgttc aaagcggcca agcttagtac gacgacgacg 1380
tga 1383

```

<210> 1308

<211> 460

<212> PRT

<213> Arabidopsis thaliana

<400> 1308

Met Ile Glu Lys Cys Ile Gly Ala His Arg Phe Arg Arg Leu Gln Arg  
1 5 10 15

Phe Met Arg Gln Gly Lys Val Thr Ile Leu Cys Leu Val Leu Thr Val  
20 25 30

Ile Val Leu Arg Gly Thr Ile Gly Ala Gly Lys Phe Gly Thr Pro Glu  
 35 40 45  
 Lys Asp Ile Glu Glu Ile Arg Glu His Phe Phe Tyr Thr Arg Lys Arg  
 50 55 60  
 Gly Glu Pro His Arg Val Leu Val Glu Val Ser Ser Lys Thr Thr Ser  
 65 70 75 80  
 Ser Glu Asp Gly Gly Asn Gly Gly Asn Ser Tyr Glu Thr Phe Asp Ile  
 85 90 95  
 Asn Lys Leu Phe Val Asp Glu Gly Asp Glu Glu Lys Ser Arg Asp Arg  
 100 105 110  
 Thr Asn Lys Pro Tyr Ser Leu Gly Pro Lys Ile Ser Asp Trp Asp Glu  
 115 120 125  
 Gln Arg Arg Asp Trp Leu Lys Gln Asn Pro Ser Phe Pro Asn Phe Val  
 130 135 140  
 Ala Pro Asn Lys Pro Arg Val Leu Leu Val Thr Gly Ser Ala Pro Lys  
 145 150 155 160  
 Pro Cys Glu Asn Pro Val Gly Asp His Tyr Leu Leu Lys Ser Ile Lys  
 165 170 175  
 Asn Lys Ile Asp Tyr Cys Arg Ile His Gly Ile Glu Ile Phe Tyr Asn  
 180 185 190  
 Met Ala Leu Leu Asp Ala Glu Met Ala Gly Phe Trp Ala Lys Leu Pro  
 195 200 205  
 Leu Ile Arg Lys Leu Leu Leu Ser His Pro Glu Ile Glu Phe Leu Trp  
 210 215 220  
 Trp Met Asp Ser Asp Ala Met Phe Thr Asp Met Val Phe Glu Leu Pro  
 225 230 235 240  
 Trp Glu Arg Tyr Lys Asp Tyr Asn Leu Val Met His Gly Trp Asn Glu  
 245 250 255  
 Met Val Tyr Asp Gln Lys Asn Trp Ile Gly Leu Asn Thr Gly Ser Phe  
 260 265 270  
 Leu Leu Arg Asn Ser Gln Trp Ser Leu Asp Leu Leu Asp Ala Trp Ala  
 275 280 285

047-E2F-PCT.ST25.txt

Pro Met Gly Pro Lys Gly Lys Ile Arg Glu Glu Ala Gly Lys Val Leu  
 290 295 300  
 Thr Arg Glu Leu Lys Asp Arg Pro Ala Phe Glu Ala Asp Asp Gln Ser  
 305 310 315 320  
 Ala Met Val Tyr Leu Leu Ala Thr Glu Arg Glu Lys Trp Gly Gly Lys  
 325 330 335  
 Val Tyr Leu Glu Ser Gly Tyr Tyr Leu His Gly Tyr Trp Gly Ile Leu  
 340 345 350  
 Val Asp Arg Tyr Glu Glu Met Ile Glu Asn His Lys Pro Gly Phe Gly  
 355 360 365  
 Asp His Arg Trp Pro Leu Val Thr His Phe Val Gly Cys Lys Pro Cys  
 370 375 380  
 Gly Lys Phe Gly Asp Tyr Pro Val Glu Arg Cys Leu Arg Gln Met Asp  
 385 390 395 400  
 Arg Ala Phe Asn Phe Gly Asp Asn Gln Ile Leu Gln Met Tyr Gly Phe  
 405 410 415  
 Thr His Lys Ser Leu Gly Ser Arg Arg Val Lys Pro Thr Arg Asn Gln  
 420 425 430  
 Thr Asp Arg Pro Leu Asp Ala Lys Asp Glu Phe Gly Leu Leu His Pro  
 435 440 445  
 Pro Phe Lys Ala Ala Lys Leu Ser Thr Thr Thr Thr  
 450 455 460

<210> 1309

<211> 2043

<212> DNA

<213> Arabidopsis thaliana

<400> 1309

atgtttttgca gaaacgtatc ggtgaggcgg aagaagaatt ctggtacggt accggtttat	60
ctgaatgttt acgatcttac cccaatgaat gtttatgggt actggctcgg aattgggatc	120
tatcactctg gtctcgaagt tcatgggggt gagtatggat acggggcaca cgagaaatcg	180
agctcgggga tttttgaggt ggagccaaag aagtgtcctg gtttcacatt caggaaatcg	240

## 047-E2F-PCT.ST25.txt

attcttgttg gtgaaacaga gatgaaggct aaagaagttc gaagctttat ggagaaatta 300  
 tcagaagagt atcagggtaa caagtaccat ctcatcacia ggaactgcaa ccatttctgc 360  
 aaccatgttt ctttgaaact tactcaciaa tcaatcccta gttgggtcaa ccgtcttgct 420  
 cgcttaggtt tcctctgcaa ctgtgtcttg ccggcttgct tgaacgagac taaagtgaag 480  
 cgggtaggaa aagacgggaa gctgctcttg gaaggagaaa atacgaagaa gaagaagagg 540  
 aagaagaaaa tacgaagaag ccgatcaggt cctttatctt cgtcttcttc aaatgcaaga 600  
 ttagataata ctctacaca taacagatca atatcaacgg gtaatcctcc tctttctgct 660  
 tctccatctt gtcctttgag acctcgactt ccttctgttg catctggagc tgaagatcaa 720  
 aatcctcaa gcagatacct caacgccagc ttctgcagtg aagtgcaatg tcaccggctt 780  
 tgctttgcat atgagaggat gaatcagaat gaagggtgacg cccttgctga ttccatcaaa 840  
 gcgaagttag cttttttatc ttctctttcc accaaatgct gtatatacaa ggtacctaat 900  
 aagctccgca gactcaatcc tgatgcatat acgcctcggc ttgtgtcttt tggcccgcctt 960  
 catcgtggta aagaagagct tcaagctatg gaagatcaga aatacaggta tttgctgagt 1020  
 tttatcccta gaacgaactc tagtctagag gaccttgta gacttgctag gacttgggaa 1080  
 caaatgctc gcagctgtta tgcagaagat gtgaaacttc atagcgatga gtttgttgag 1140  
 atgttagttg tagatggtag cttcttggtt gaacttcttt tgaggtctca ttatcctcga 1200  
 cttagaggcg agaattgatc catatttggc aattcaatga tgatcaccga cgtgtgccgt 1260  
 gacatgattt tgatagaaaa tcagttaccc tttttcgttg tgaaggagat atttcttctc 1320  
 ttgttgaatt actaccaaca aggaacacct tcaatcatac agctcgcgca acgccacttc 1380  
 agttatttct tgagccgcat tgatgatgag aagtttatta cagagccaga acattttggt 1440  
 gatcttctga ggtcttgta tctgccacag tttccaatta aattagaata cactacagtg 1500  
 aaagtggaca atgcacctga agcaacagag cttcacactg ctggtgttag gttcaagcca 1560  
 gcagagacca gtagttgttt acttgacatt agttttgctg atggagtact gaagattcca 1620  
 accattgtcg tcgatgatct cacggaatcc ctctacaaaa acatcattgg gtttgaacaa 1680  
 tgctgttgct caaataaaaa cttctcgac tacatcatgc tgctcggttg cttcattaaa 1740  
 tcccctacag atgctgactt gctcatccac agtgggatca tcgtaaacta tctcggaac 1800  
 tcagtagatg tttcaaactt gttcaatagc atcagcaaag aggttatcta tgacagaaga 1860  
 ttctactttt cgatgctctc tgagaacctt caagcttact gcaacacacc atggaacagg 1920  
 tggaaggcga ttctgagacg tgactacttc cacaatcctt gggcagttgc ttctgttttt 1980  
 gcagctttac ttcttctcct tctcactttc atacagtccg tatgctctat cttggctctg 2040  
 taa 2043

&lt;210&gt; 1310

&lt;211&gt; 680

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1310

Met Phe Cys Arg Asn Val Ser Val Arg Arg Lys Lys Asn Ser Gly Thr  
 1 5 10 15

Val Pro Val Tyr Leu Asn Val Tyr Asp Leu Thr Pro Met Asn Val Tyr  
 20 25 30

Gly Tyr Trp Leu Gly Ile Gly Ile Tyr His Ser Gly Leu Glu Val His  
 35 40 45

Gly Val Glu Tyr Gly Tyr Gly Ala His Glu Lys Ser Ser Ser Gly Ile  
 50 55 60

Phe Glu Val Glu Pro Lys Lys Cys Pro Gly Phe Thr Phe Arg Lys Ser  
 65 70 75 80

Ile Leu Val Gly Glu Thr Glu Met Lys Ala Lys Glu Val Arg Ser Phe  
 85 90 95

Met Glu Lys Leu Ser Glu Glu Tyr Gln Gly Asn Lys Tyr His Leu Ile  
 100 105 110

Thr Arg Asn Cys Asn His Phe Cys Asn His Val Ser Leu Lys Leu Thr  
 115 120 125

His Lys Ser Ile Pro Ser Trp Val Asn Arg Leu Ala Arg Leu Gly Phe  
 130 135 140

Leu Cys Asn Cys Val Leu Pro Ala Cys Leu Asn Glu Thr Lys Val Lys  
 145 150 155 160

Arg Val Gly Lys Asp Gly Lys Leu Leu Leu Glu Gly Glu Asn Thr Lys  
 165 170 175

Lys Lys Lys Arg Lys Lys Lys Ile Arg Arg Ser Arg Ser Gly Pro Leu  
 180 185 190

Ser Ser Ser Ser Ser Asn Ala Arg Leu Asp Asn Thr Pro Thr His Asn  
 195 200 205

047-E2F-PCT.ST25.txt

Arg Ser Ile Ser Thr Gly Asn Pro Pro Leu Ser Ala Ser Pro Ser Cys  
210 215 220

Pro Leu Arg Pro Arg Leu Pro Ser Val Ala Ser Gly Ala Glu Asp Gln  
225 230 235 240

Asn Pro Pro Ser Arg Tyr Leu Asn Ala Ser Phe Cys Ser Glu Val Gln  
245 250 255

Cys His Arg Leu Cys Phe Ala Tyr Glu Arg Met Asn Gln Asn Glu Gly  
260 265 270

Asp Ala Leu Val Asp Ser Ile Lys Ala Lys Leu Ala Phe Leu Ser Ser  
275 280 285

Leu Ser Thr Lys Cys Cys Ile Tyr Lys Val Pro Asn Lys Leu Arg Arg  
290 295 300

Leu Asn Pro Asp Ala Tyr Thr Pro Arg Leu Val Ser Phe Gly Pro Leu  
305 310 315 320

His Arg Gly Lys Glu Glu Leu Gln Ala Met Glu Asp Gln Lys Tyr Arg  
325 330 335

Tyr Leu Leu Ser Phe Ile Pro Arg Thr Asn Ser Ser Leu Glu Asp Leu  
340 345 350

Val Arg Leu Ala Arg Thr Trp Glu Gln Asn Ala Arg Ser Cys Tyr Ala  
355 360 365

Glu Asp Val Lys Leu His Ser Asp Glu Phe Val Glu Met Leu Val Val  
370 375 380

Asp Gly Ser Phe Leu Val Glu Leu Leu Leu Arg Ser His Tyr Pro Arg  
385 390 395 400

Leu Arg Gly Glu Asn Asp Arg Ile Phe Gly Asn Ser Met Met Ile Thr  
405 410 415

Asp Val Cys Arg Asp Met Ile Leu Ile Glu Asn Gln Leu Pro Phe Phe  
420 425 430

Val Val Lys Glu Ile Phe Leu Leu Leu Leu Asn Tyr Tyr Gln Gln Gly  
435 440 445

Thr Pro Ser Ile Ile Gln Leu Ala Gln Arg His Phe Ser Tyr Phe Leu

450

455

Ser Arg Ile Asp Asp Glu Lys Phe Ile Thr Glu Pro Glu His Phe Val  
465 470 475 480

Asp Leu Leu Arg Ser Cys Tyr Leu Pro Gln Phe Pro Ile Lys Leu Glu  
485 490 495

Tyr Thr Thr Val Lys Val Asp Asn Ala Pro Glu Ala Thr Glu Leu His  
500 505 510

Thr Ala Gly Val Arg Phe Lys Pro Ala Glu Thr Ser Ser Cys Leu Leu  
515 520 525

Asp Ile Ser Phe Ala Asp Gly Val Leu Lys Ile Pro Thr Ile Val Val  
530 535 540

Asp Asp Leu Thr Glu Ser Leu Tyr Lys Asn Ile Ile Gly Phe Glu Gln  
545 550 555 560

Cys Arg Cys Ser Asn Lys Asn Phe Leu Asp Tyr Ile Met Leu Leu Gly  
565 570 575

Cys Phe Ile Lys Ser Pro Thr Asp Ala Asp Leu Leu Ile His Ser Gly  
580 585 590

Ile Ile Val Asn Tyr Leu Gly Asn Ser Val Asp Val Ser Asn Leu Phe  
595 600 605

Asn Ser Ile Ser Lys Glu Val Ile Tyr Asp Arg Arg Phe Tyr Phe Ser  
610 615 620

Met Leu Ser Glu Asn Leu Gln Ala Tyr Cys Asn Thr Pro Trp Asn Arg  
625 630 635 640

Trp Lys Ala Ile Leu Arg Arg Asp Tyr Phe His Asn Pro Trp Ala Val  
645 650 655

Ala Ser Val Phe Ala Ala Leu Leu Leu Leu Leu Leu Thr Phe Ile Gln  
660 665 670

Ser Val Cys Ser Ile Leu Ala Leu  
675 680

<210> 1311

<211> 1473



&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1311

```

atgacgaaag tgtgtcctga aatagaaggg acattatctt tatcagtggg tccagtatca    60
gtagatgtga gctttgcttc tgatcacttt ccaacatata aattaggacc tgataatcag   120
atagtagagg aaccaaagga agatgaaaaa ggtccatctg tgaaggagac tgtcgagaaa   180
gagagcgagt tgttgtctga tcagcacaag cggctttcgg tccgtgacct cgctagtaaa   240
ttcgacaaga atcttgctgc agctgttagt ttggctaatt aggctaagtt aagagaggtg   300
gcttcttttg agggacatgt tatgttgaag aagctaaggg atgctttaga atacatgaga   360
ggacgcacgg atgggcaaaa caaacaggat gtggagacag ctatctccat ggtggaagct   420
ctagctgtga agttaactca gaatgaaggt gaattgattc aggagaagtt tgaagtgaag   480
aaactaggaa acttcctcaa gcagacttca gaagatgcaa agaaactggg aaatcaagaa   540
aagtcattct cttgtgctga gatcgaaact gcaagggccg ttgtgctgag acttgagag   600
gcttttgaag aacaagaacg gatttctgaa gcttctagag ctcagggggc ggatgtggag   660
aaattggttg aggaagttca agaggctagg caaatcaaac ggatgcatca cccaacaaag   720
gtgatgggca tgcaacacga gcttcatggt ttaaggaatc gaatccaaga gaagtatatg   780
aattctgtta aacttcataa agagatagca ataataaga gagttgagga atccaagtct   840
tgtccatttg ttcttgaagg caaacaaggt ctcggctctt gcttaagaat ccgtgtcaat   900
gctcaagaca atgctccaga tctttccaac tgttctattc agtggtatcg tgcagcatgt   960
gaaactagtc gcaggggaagc tatatctggt gccatccaat cgatgtatgc tccagaacca  1020
tttgatgttg ggaggatatt acaggcagac attctttcaa atgggtcaaaa gttcacagtt  1080
acaaccgatg atccagttga tcctgattct ggcttgccat cccgcgtaga gtcgctgatg  1140
cgaaagtcta acagtgaatt cagtgtgggt atatcgaga tgaatggaca agactatgca  1200
tctcgatcgc acgtttttac cgttggaaag acgaggataa agctgtctcg aggatggatc  1260
acaaaggcga gagaattata ttcgacatcc atgcagctct gtggagttag aggcaatatt  1320
aaggctccta ccaaggcagt gttctggcaa ccaagaaaga gtctaacttt catactaacc  1380
tttgagtcag aacacgaacg taacgcagcc atagcccttg ctcgaaaata cgctttcgat  1440
tgcagtgtta cactgcttgg tccagatgat taa                                1473

```

&lt;210&gt; 1312

&lt;211&gt; 490

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1312

```

Met Thr Lys Val Cys Pro Glu Ile Glu Gly Thr Leu Ser Leu Ser Val
 1      5      10      15

Val Pro Val Ser Val Asp Val Ser Phe Ala Ser Asp His Phe Pro Thr
 20      25      30

Tyr Lys Leu Gly Pro Asp Asn Gln Ile Val Glu Glu Pro Lys Glu Asp
 35      40      45

Glu Lys Gly Pro Ser Val Lys Glu Thr Val Glu Lys Glu Ser Glu Leu
 50      55      60

Leu Ser Asp Gln His Lys Arg Leu Ser Val Arg Asp Leu Ala Ser Lys
 65      70      75      80

Phe Asp Lys Asn Leu Ala Ala Ala Val Ser Leu Ala Asn Glu Ala Lys
 85      90      95

Leu Arg Glu Val Ala Ser Leu Glu Gly His Val Met Leu Lys Lys Leu
100      105      110

Arg Asp Ala Leu Glu Tyr Met Arg Gly Arg Thr Asp Gly Gln Asn Lys
115      120      125

Gln Asp Val Glu Thr Ala Ile Ser Met Val Glu Ala Leu Ala Val Lys
130      135      140

Leu Thr Gln Asn Glu Gly Glu Leu Ile Gln Glu Lys Phe Glu Val Lys
145      150      155      160

Lys Leu Gly Asn Phe Leu Lys Gln Thr Ser Glu Asp Ala Lys Lys Leu
165      170      175

Val Asn Gln Glu Lys Ser Phe Ser Cys Ala Glu Ile Glu Thr Ala Arg
180      185      190

Ala Val Val Leu Arg Leu Gly Glu Ala Phe Glu Glu Gln Glu Arg Ile
195      200      205

Ser Glu Ala Ser Arg Ala Gln Gly Pro Asp Val Glu Lys Leu Val Glu
210      215      220

```

## 047-E2F-PCT.ST25.txt

Glu Val Gln Glu Ala Arg Gln Ile Lys Arg Met His His Pro Thr Lys  
 225 230 235 240  
 Val Met Gly Met Gln His Glu Leu His Gly Leu Arg Asn Arg Ile Gln  
 245 250 255  
 Glu Lys Tyr Met Asn Ser Val Lys Leu His Lys Glu Ile Ala Ile Ile  
 260 265 270  
 Lys Arg Val Glu Glu Ser Lys Ser Cys Pro Phe Val Leu Glu Gly Lys  
 275 280 285  
 Gln Ser Leu Gly Ser Cys Leu Arg Ile Arg Val Asn Ala Gln Asp Asn  
 290 295 300  
 Ala Pro Asp Leu Ser Asn Cys Ser Ile Gln Trp Tyr Arg Ala Ala Cys  
 305 310 315 320  
 Glu Thr Ser Arg Arg Glu Ala Ile Ser Gly Ala Ile Gln Ser Met Tyr  
 325 330 335  
 Ala Pro Glu Pro Phe Asp Val Gly Arg Ile Leu Gln Ala Asp Ile Leu  
 340 345 350  
 Ser Asn Gly Gln Lys Phe Thr Val Thr Thr Asp Asp Pro Val Asp Pro  
 355 360 365  
 Asp Ser Gly Leu Pro Ser Arg Val Glu Ser Leu Met Arg Lys Ser Asn  
 370 375 380  
 Ser Glu Phe Ser Val Val Ile Ser Gln Met Asn Gly Gln Asp Tyr Ala  
 385 390 395 400  
 Ser Arg Ser His Val Phe Thr Val Gly Lys Thr Arg Ile Lys Leu Ser  
 405 410 415  
 Arg Gly Trp Ile Thr Lys Ala Arg Glu Leu Tyr Ser Thr Ser Met Gln  
 420 425 430  
 Leu Cys Gly Val Arg Gly Asn Ile Lys Ala Pro Thr Lys Ala Val Phe  
 435 440 445  
 Trp Gln Pro Arg Lys Ser Leu Thr Phe Ile Leu Thr Phe Glu Ser Glu  
 450 455 460  
 His Glu Arg Asn Ala Ala Ile Ala Leu Ala Arg Lys Tyr Ala Phe Asp  
 465 470 475 480

Cys Ser Val Thr Leu Leu Gly Pro Asp Asp  
 485 490

<210> 1313

<211> 1404

<212> DNA

<213> Arabidopsis thaliana

<400> 1313

```

atggttcaga agcagcaagc ctccgccggt ccgggtaccg agcctaagaa gcgtcgccgt      60
gtcggatttt ctcccgccga tactggtgtc gaggctaacg agtgcacaa aatttatctc     120
gtttcaagca aagaggaagt tgattcctct gatatttcca gcgtgaagcc agttgacttg     180
aatgatttct ttgatggaga tggcaagatt tatggttacc aaggtttgaa gataaatgta     240
tggatcaata gcatctcatt acattcatat gctgatatca cataccagag caccattaac     300
ggagacaaag gcatcacgga cctcaaactt gctttacaga acatatttgc tgagaccatt     360
gttgatacca aggatgagtt tctgcaaacc ttttcgacac agagagattt tatcagaaat     420
atggtctcga atggagaggt aatgcatgct ggagcaacag atggaagcag caagaatgct     480
gaagtggttc cttctgatcc ccagggtata cggatggaaa ttggttctcc aaatgctgga     540
ctcctctata gccgattggt accccttggt cttctttttg tcgatggcag caatccgatt     600
gatgtcactg atcctgactg gcatttatat ctcttaatcc agaagaaaga ggaaaaagaa     660
gatcctttgt atcgaattgt gggctttacc gcaatttata agttctatcg ttatcctgac     720
aggctgcgga tgcgactcag ccagatcttg gtcttaccat ccttccaagg aaaaggactc     780
ggaagctatc ttatggaggt agtaaacaac gtggccataa cagaaaacgt ttacgatttg     840
acagttgagg agccatctga aaagttccaa cacatccgca cttgcataga cataaaccgc     900
ttgcgcagtt tcgatccaat caaaccagac attgattcag ctgttcagac tctcacaaaa     960
ggaaagctat caaagaaagc tcagatacct cgattcacc cgcctctgaa cgccattgag    1020
aaagtccgcg aatctctgaa gatcaacaag aaacagttcc tcaaattgctg ggagattttg    1080
atataccttg ctcttgatcc tattgacaag tacatggaag attacacatc agtcacacg    1140
aaccatgtga gaaccgacat tctgggaaaa gatatagaaa ctccaaagaa acaagtcggt    1200
gatgttccaa gctctttcga gccagaagca tcgtttgtgg ttttcaagtc tgtaaacgga    1260
gaagaggcta ataccaatgt tcaagttgat gaaaacaaac cggatcaaga gcagcagctg    1320
aagcaacttg ttgaggaaag gattcgtgag atcaagttgg ttgctgagaa agtctccaag    1380
agtgttcaaa cgctaaaagt ctga                                           1404

```

&lt;210&gt; 1314

&lt;211&gt; 467

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1314

Met Val Gln Lys Gln Gln Ala Ser Ala Gly Pro Gly Thr Glu Pro Lys  
1 5 10 15

Lys Arg Arg Arg Val Gly Phe Ser Pro Ala Asp Thr Gly Val Glu Ala  
20 25 30

Asn Glu Cys Ile Lys Ile Tyr Leu Val Ser Ser Lys Glu Glu Val Asp  
35 40 45

Ser Ser Asp Ile Ser Ser Val Lys Pro Val Asp Leu Asn Asp Phe Phe  
50 55 60

Asp Gly Asp Gly Lys Ile Tyr Gly Tyr Gln Gly Leu Lys Ile Asn Val  
65 70 75 80

Trp Ile Asn Ser Ile Ser Leu His Ser Tyr Ala Asp Ile Thr Tyr Gln  
85 90 95

Ser Thr Ile Asn Gly Asp Lys Gly Ile Thr Asp Leu Lys Ser Ala Leu  
100 105 110

Gln Asn Ile Phe Ala Glu Thr Ile Val Asp Thr Lys Asp Glu Phe Leu  
115 120 125

Gln Thr Phe Ser Thr Gln Arg Asp Phe Ile Arg Asn Met Val Ser Asn  
130 135 140

Gly Glu Val Met His Ala Gly Ala Thr Asp Gly Ser Ser Lys Asn Ala  
145 150 155 160

Glu Val Val Pro Ser Asp Pro Gln Val Ile Arg Met Glu Ile Gly Ser  
165 170 175

Pro Asn Ala Gly Leu Leu Tyr Ser Arg Leu Val Pro Leu Val Leu Leu  
180 185 190

Phe Val Asp Gly Ser Asn Pro Ile Asp Val Thr Asp Pro Asp Trp His  
Page 2063

195

200

205

Leu Tyr Leu Leu Ile Gln Lys Lys Glu Glu Lys Glu Asp Pro Leu Tyr  
 210 215 220  
 Arg Ile Val Gly Phe Thr Ala Ile Tyr Lys Phe Tyr Arg Tyr Pro Asp  
 225 230 235 240  
 Arg Leu Arg Met Arg Leu Ser Gln Ile Leu Val Leu Pro Ser Phe Gln  
 245 250 255  
 Gly Lys Gly Leu Gly Ser Tyr Leu Met Glu Val Val Asn Asn Val Ala  
 260 265 270  
 Ile Thr Glu Asn Val Tyr Asp Leu Thr Val Glu Glu Pro Ser Glu Lys  
 275 280 285  
 Phe Gln His Ile Arg Thr Cys Ile Asp Ile Asn Arg Leu Arg Ser Phe  
 290 295 300  
 Asp Pro Ile Lys Pro Asp Ile Asp Ser Ala Val Gln Thr Leu Thr Lys  
 305 310 315 320  
 Gly Lys Leu Ser Lys Lys Ala Gln Ile Pro Arg Phe Thr Pro Pro Leu  
 325 330 335  
 Asn Ala Ile Glu Lys Val Arg Glu Ser Leu Lys Ile Asn Lys Lys Gln  
 340 345 350  
 Phe Leu Lys Cys Trp Glu Ile Leu Ile Tyr Leu Ala Leu Asp Pro Ile  
 355 360 365  
 Asp Lys Tyr Met Glu Asp Tyr Thr Ser Val Ile Thr Asn His Val Arg  
 370 375 380  
 Thr Asp Ile Leu Gly Lys Asp Ile Glu Thr Pro Lys Lys Gln Val Val  
 385 390 395 400  
 Asp Val Pro Ser Ser Phe Glu Pro Glu Ala Ser Phe Val Val Phe Lys  
 405 410 415  
 Ser Val Asn Gly Glu Glu Ala Asn Thr Asn Val Gln Val Asp Glu Asn  
 420 425 430  
 Lys Pro Asp Gln Glu Gln Gln Leu Lys Gln Leu Val Glu Glu Arg Ile  
 435 440 445

Arg Glu Ile Lys Leu Val Ala Glu Lys Val Ser Lys Ser Gly Gln Thr  
 450 455 460

Leu Lys Val  
 465

<210> 1315

<211> 1185

<212> DNA

<213> Arabidopsis thaliana

<400> 1315

```

atggcgtcta ttgttcaacc atcgccact ttcccggcgc taaatctccg gcgttcttct 60
ctgattcgtc cgccttcttc cgttcgattt cctcttaagt gtaacgcggc ggatccgtac 120
aagttcgacg gcggaactc tgccggtttc catctgctta ctggcgacac cgttccggct 180
agcttttcga ggacacgttt ggaagattcg atttatcaga acaccacacg acttcgtatc 240
ttttccggca ctgctaattc tttttggct caggagattt cttgctattt gggctctggac 300
cttgggaaaa tcaagattaa acgctttgct gatggtgaga tctatgttca gctacaagag 360
agtgtaaggg gatgtgatgt gttccttgta cagcctacat gcccacctgc aaatgaaaac 420
cttatggaat tgctcgttat gattgatgct tgtcggagag catcagccaa aactatcacg 480
gctgtgattc cttacttttg ttatgcacga gctgatagaa agactcaagg acgtgaatct 540
attgcagcca agcttggtgc caatttgatt acacagtctg gtgcagaccg tgccttgct 600
tgtgatcttc actccggaca gtctatgggc tactttgata ttccagtcga tcatgtttat 660
ggccagcctg tcatacttga ttacctagca agtaaggcca ttcctctga agatttggtg 720
gtagtttcac ctgatgttg tggcgtcgca agagctcgcg cttttgcgaa gaagtatatct 780
gatgcacctt tagcaatagt tgataaaaga cgtcatgggc acaatgttgc agaggtgatg 840
aacttaattg gggatgttaa agggaaagta gccataatgg tggatgacat gattgacaca 900
gcaggaacca taagcaaagg tgcggctctg ttacaccaag aaggagcaag agaagtatac 960
gcttgtagca ctcatgccgt ttttagccct cctgcaatca gtcgactatc gagcggactg 1020
tttcaagagg tgatcataac caacacgatt ccattgtcag agaagaacta ttttcctcag 1080
cttacagttc tctcagtagc aaaccttctt ggggagacca tatggcgtgt tcatgatgat 1140
tgctcgggag ccattgagcc attttcgacg ttggggattg attga 1185

```

<210> 1316

<211> 394

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1316

```

Met Ala Ser Ile Val Gln Pro Ser Pro Thr Phe Pro Ala Leu Asn Leu
 1      5      10      15

Arg Arg Ser Ser Leu Ile Arg Pro Pro Ser Ser Val Arg Phe Pro Leu
      20      25      30

Lys Cys Asn Ala Ala Asp Pro Tyr Lys Phe Asp Gly Gly Asn Ser Ala
      35      40      45

Gly Phe His Leu Leu Thr Gly Asp Thr Val Pro Ala Ser Phe Ser Arg
      50      55      60

Thr Arg Leu Glu Asp Ser Ile Tyr Gln Asn Thr Thr Arg Leu Arg Ile
65      70      75      80

Phe Ser Gly Thr Ala Asn Pro Ile Leu Ala Gln Glu Ile Ser Cys Tyr
      85      90      95

Leu Gly Leu Asp Leu Gly Lys Ile Lys Ile Lys Arg Phe Ala Asp Gly
      100      105      110

Glu Ile Tyr Val Gln Leu Gln Glu Ser Val Arg Gly Cys Asp Val Phe
      115      120      125

Leu Val Gln Pro Thr Cys Pro Pro Ala Asn Glu Asn Leu Met Glu Leu
      130      135      140

Leu Val Met Ile Asp Ala Cys Arg Arg Ala Ser Ala Lys Thr Ile Thr
      145      150      155      160

Ala Val Ile Pro Tyr Phe Gly Tyr Ala Arg Ala Asp Arg Lys Thr Gln
      165      170      175

Gly Arg Glu Ser Ile Ala Ala Lys Leu Val Ala Asn Leu Ile Thr Gln
      180      185      190

Ser Gly Ala Asp Arg Val Leu Ala Cys Asp Leu His Ser Gly Gln Ser
      195      200      205

Met Gly Tyr Phe Asp Ile Pro Val Asp His Val Tyr Gly Gln Pro Val
      210      215      220

```



047-E2F-PCT.ST25.txt

Ile Leu Asp Tyr Leu Ala Ser Lys Ala Ile Ser Ser Glu Asp Leu Val  
 225 230 235 240  
 Val Val Ser Pro Asp Val Gly Gly Val Ala Arg Ala Arg Ala Phe Ala  
 245 250 255  
 Lys Lys Leu Ser Asp Ala Pro Leu Ala Ile Val Asp Lys Arg Arg His  
 260 265 270  
 Gly His Asn Val Ala Glu Val Met Asn Leu Ile Gly Asp Val Lys Gly  
 275 280 285  
 Lys Val Ala Ile Met Val Asp Asp Met Ile Asp Thr Ala Gly Thr Ile  
 290 295 300  
 Ser Lys Gly Ala Ala Leu Leu His Gln Glu Gly Ala Arg Glu Val Tyr  
 305 310 315 320  
 Ala Cys Thr Thr His Ala Val Phe Ser Pro Pro Ala Ile Ser Arg Leu  
 325 330 335  
 Ser Ser Gly Leu Phe Gln Glu Val Ile Ile Thr Asn Thr Ile Pro Leu  
 340 345 350  
 Ser Glu Lys Asn Tyr Phe Pro Gln Leu Thr Val Leu Ser Val Ala Asn  
 355 360 365  
 Leu Leu Gly Glu Thr Ile Trp Arg Val His Asp Asp Cys Ser Gly Ala  
 370 375 380  
 Ile Glu Pro Phe Ser Thr Leu Gly Ile Asp  
 385 390

<210> 1317

<211> 1062

<212> DNA

<213> Arabidopsis thaliana

<400> 1317

atggccaacg atcagaagaa tagtgagtct tttccagcga aggaagatca taagaaggat	60
gatgcggcag ctccagcaga agtagaccat aaggatgaat tctcggcatc acagccacat	120
ccggtcgaaa acatagtttt agttgggcgt acagggaaacg gcaaaagcgc cacggggaac	180

047-E2F-PCT.ST25.txt

```

agcatcgtca gatcaaaggt gtttaagtcg aaaacaaaat catcaggtgt tacgatggaa 240
tgccatgcag ttaaagcagt gacaccagaa ggccctatac tcaatgtgat tgacactcct 300
gggtctatttg atttgtcggg atctgctgaa tttatcggta aagaaatagt taaatgccta 360
actctagcgg atggaggggct acacgctgtg ctcttagttt tatctgtaag gactcgaatt 420
agtcaagagg aagagatggg acttagtacc ttgcaggttc ttttcggtag taagattggt 480
gattacctta tcggtgtttt cacgggggga gatgtattgg aagatgacgg tatgacattg 540
gaggattact tgggtgataa catgccggac ttcctaaaga gagttctcat attgtgtggc 600
caacgaatga ttctgtttga taacaaaacc aaggatgatg agaaaaagac aaagcaagtc 660
catgaacttc tcaaacttat cgacttggtc agaaagcaga acaacaatat tccgtatacc 720
gatgagatgt accatatgat aaaggaagaa aatgaaaggc acaagaaaga acaagaggag 780
ctagaatcaa aagggcattc agaagagcag ctgcgagcat tgatgaagga gttacagata 840
atgaatgaac gaaacctcaa ggcaatggca gagatgatgg agaaaaatat gaaaatagct 900
atggaggcgc aggagaagct ctttgagcaa agagaaaaag ctcaggagat gagctaccag 960
caaaaaatgg aaatgcagga gaagttaaag cagatggaag gacgtatgcg tgctgaaatg 1020
gaagcgcaaa tgctcagccg tcagcagtgc agcattctct ga 1062

```

<210> 1318

<211> 353

<212> PRT

<213> Arabidopsis thaliana

<400> 1318

Met Ala Asn Asp Gln Lys Asn Ser Glu Ser Phe Pro Ala Lys Glu Asp  
1 5 10 15

His Lys Lys Asp Asp Ala Ala Ala Pro Ala Glu Val Asp His Lys Asp  
20 25 30

Glu Phe Ser Ala Ser Gln Pro His Pro Val Glu Asn Ile Val Leu Val  
35 40 45

Gly Arg Thr Gly Asn Gly Lys Ser Ala Thr Gly Asn Ser Ile Val Arg  
50 55 60

Ser Lys Val Phe Lys Ser Lys Thr Lys Ser Ser Gly Val Thr Met Glu  
65 70 75 80

Cys His Ala Val Lys Ala Val Thr Pro Glu Gly Pro Ile Leu Asn Val  
 85 90 95  
 Ile Asp Thr Pro Gly Leu Phe Asp Leu Ser Val Ser Ala Glu Phe Ile  
 100 105 110  
 Gly Lys Glu Ile Val Lys Cys Leu Thr Leu Ala Asp Gly Gly Leu His  
 115 120 125  
 Ala Val Leu Leu Val Leu Ser Val Arg Thr Arg Ile Ser Gln Glu Glu  
 130 135 140  
 Glu Met Val Leu Ser Thr Leu Gln Val Leu Phe Gly Ser Lys Ile Val  
 145 150 155 160  
 Asp Tyr Leu Ile Val Val Phe Thr Gly Gly Asp Val Leu Glu Asp Asp  
 165 170 175  
 Gly Met Thr Leu Glu Asp Tyr Leu Gly Asp Asn Met Pro Asp Phe Leu  
 180 185 190  
 Lys Arg Val Leu Ile Leu Cys Gly Gln Arg Met Ile Leu Phe Asp Asn  
 195 200 205  
 Lys Thr Lys Asp Asp Glu Lys Lys Thr Lys Gln Val His Glu Leu Leu  
 210 215 220  
 Lys Leu Ile Asp Leu Val Arg Lys Gln Asn Asn Asn Ile Pro Tyr Thr  
 225 230 235 240  
 Asp Glu Met Tyr His Met Ile Lys Glu Glu Asn Glu Arg His Lys Lys  
 245 250 255  
 Glu Gln Glu Glu Leu Glu Ser Lys Gly His Ser Glu Glu Gln Leu Ala  
 260 265 270  
 Ala Leu Met Lys Glu Leu Gln Ile Met Asn Glu Arg Asn Leu Lys Ala  
 275 280 285  
 Met Ala Glu Met Met Glu Lys Asn Met Lys Ile Ala Met Glu Ala Gln  
 290 295 300  
 Glu Lys Leu Phe Glu Gln Arg Glu Lys Ala Gln Glu Met Ser Tyr Gln  
 305 310 315 320  
 Gln Lys Met Glu Met Gln Glu Lys Leu Lys Gln Met Glu Gly Arg Met  
 325 330 335

Arg Ala Glu Met Glu Ala Gln Met Leu Ser Arg Gln Gln Cys Ser Ile  
 340 345 350

Leu

<210> 1319

<211> 1164

<212> DNA

<213> Arabidopsis thaliana

<400> 1319

```

atgtgttatg taccacaaac tctgcatata tggtcacact gcacctgctc atcatctttt    60
ctctctctaa cgaattcatt aatttattat cttcttcttc ttcttcgacc ttccaaaact    120
ctctctctct ctctgtcgtc aacaatggat agtccgacga gcatacgtag taaaccacta    180
ccggagactc tttctccatg cggtagtcaa cgacggagaa gcagctgcga ctctaaccga    240
cctgagttcg agttctggcg ttttaactaac tcttcatttc ctcaagctga ttcagatctc    300
ctctccgccg acgagctttt tcacgacggg gttcttctcc ctcttgacct cctctccggt    360
aaatcagagc ttcagtccga cccgaatatc gcagaatgcg acccggatcc atctccttcg    420
actggtagtt tgattacaga gcaaaaaagt gatcttgaac ccggttttagg atccgagttg    480
acccgagaaa caacggtttc gaagcgggtg agagatattt tcaggaagag cgaaacaaaa    540
ccgccgggga agaaagagaa ggtgaaagag aataagaagg agaagaagaa aaccgggtcg    600
ggtccaagtt cgggttcggg ttcaggagcg gagctgaata tcaacatttg gccgttttca    660
agaagtagat ccgctggtaa caacgtgacc cgaccgagaa tgtcgtttgg agctccgacg    720
acccggaaag taagcagtg cccgtgttca cgtagcaact ccaccggaga atccaaatcg    780
aggaagtggc cgagtagtcc cagtcgtaac ggcgtgcata ttggtcggaa tagtccggtt    840
tggcaagtcc ggcgtggagg aggagctccg gttgggaaaa cgataccgga accgatgggt    900
cgggttgttg gtaaaaggga gattcccag acgcgtaagg gtaaaacagt aattgagagc    960
aataaagcaa aagtcttgaa cttgaacgtg cctatgtgca tcggttatcg gagccgggta   1020
agctgcagaa ccgaagagag tagtggtggt ggtaatagta acattgggag tgacaacaat   1080
aataataata acgccaacgc taataatcct aatcctaata gtttatttgg ctttcgtaat   1140
ctcttcatta agaaagtgtt ttga                                     1164

```

<210> 1320

&lt;211&gt; 387

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1320

Met Cys Tyr Val Pro Gln Thr Leu His Ile Trp Ser His Cys Thr Cys  
 1 5 10 15

Ser Ser Ser Phe Leu Ser Leu Thr Asn Ser Leu Ile Tyr Tyr Leu Leu  
 20 25 30

Leu Leu Leu Arg Pro Ser Lys Thr Leu Ser Leu Ser Leu Ser Ser Thr  
 35 40 45

Met Asp Ser Pro Thr Ser Ile Arg Ser Lys Pro Leu Pro Glu Thr Leu  
 50 55 60

Ser Pro Cys Gly Ser Gln Arg Arg Arg Ser Ser Cys Asp Ser Asn Pro  
 65 70 75 80

Pro Glu Phe Glu Phe Trp Arg Leu Thr Asn Ser Ser Phe Pro Gln Ala  
 85 90 95

Asp Ser Asp Leu Leu Ser Ala Asp Glu Leu Phe His Asp Gly Val Leu  
 100 105 110

Leu Pro Leu Asp Leu Leu Ser Val Lys Ser Glu Leu Gln Ser Asp Pro  
 115 120 125

Asn Ile Ala Glu Cys Asp Pro Asp Pro Ser Pro Ser Thr Gly Ser Leu  
 130 135 140

Ile Thr Glu Gln Lys Ser Asp Leu Glu Pro Gly Leu Gly Ser Glu Leu  
 145 150 155 160

Thr Arg Glu Thr Thr Val Ser Lys Arg Trp Arg Asp Ile Phe Arg Lys  
 165 170 175

Ser Glu Thr Lys Pro Pro Gly Lys Lys Glu Lys Val Lys Glu Asn Lys  
 180 185 190

Lys Glu Lys Lys Lys Thr Gly Ser Gly Pro Ser Ser Gly Ser Gly Ser  
 195 200 205

Gly Ala Glu Leu Asn Ile Asn Ile Trp Pro Phe Ser Arg Ser Arg Ser  
 Page 2071

210

215

Ala Gly Asn Asn Val Thr Arg Pro Arg Met Ser Phe Gly Ala Pro Thr  
225 230 235 240

Thr Arg Lys Val Ser Ser Ala Pro Cys Ser Arg Ser Asn Ser Thr Gly  
245 250 255

Glu Ser Lys Ser Arg Lys Trp Pro Ser Ser Pro Ser Arg Asn Gly Val  
260 265 270

His Leu Gly Arg Asn Ser Pro Val Trp Gln Val Arg Arg Gly Gly Gly  
275 280 285

Ala Pro Val Gly Lys Thr Ile Pro Glu Pro Met Gly Arg Val Val Gly  
290 295 300

Lys Arg Glu Ile Pro Glu Thr Arg Lys Gly Lys Thr Val Ile Glu Ser  
305 310 315 320

Asn Lys Ala Lys Val Leu Asn Leu Asn Val Pro Met Cys Ile Gly Tyr  
325 330 335

Arg Ser Arg Leu Ser Cys Arg Thr Glu Glu Ser Ser Gly Gly Gly Asn  
340 345 350

Ser Asn Ile Gly Ser Asp Asn Asn Asn Asn Asn Ala Asn Ala Asn  
355 360 365

Asn Pro Asn Pro Asn Gly Leu Phe Gly Phe Arg Asn Leu Phe Ile Lys  
370 375 380

Lys Val Tyr  
385

<210> 1321

<211> 870

<212> DNA

<213> Arabidopsis thaliana

<400> 1321

atgaatctcc tcaagacgat tcattaccag tctaccatta ctcgatttta ccgttttgcc 60

cctacacgct cctttgcttc ttctgtgtca ctctctccac agagacacat aatctctctc 120

gtttctatct ctaatcgtgg aagggtgcttc gcattctcga gcgtctctgg tgcttcgctt 180

047-E2F-PCT.ST25.txt

tataataatc aagaggatgg gaagaaagaa gaatccgaga gaaattacgc ttcgacgaag 240  
gaaggagatg aagtgggttta ccagaaaacg ctgagattag tagaatgtgc catgttcgct 300  
gctgtgacag gcctcgttta ctttctcagc aattctctcg ccattgagaa ctactttggg 360  
tgtttcttct cactaccaat tgtgatttct tcgataagat ggaacattgc aggtggcagg 420  
aagacaatgg ttgctactgt catgctgttg ttcattattat cagggtccgg caaggcatta 480  
acttactttc ttactcatgg tcttggtggg cttgcactgg gatcattgtg gagtatgggg 540  
gcaagctggc gtctctcgat tttcttgtgc acaatgggtc gagcattggg tctcataggc 600  
tatgttctga catcatcctt ctttaataaga gaaaatattc tcgctgtgat cacaattaac 660  
atccacgctt ctctctctta tgttttcacg gccatgggcc tgaacataat gccttcgatg 720  
agcctcattt atatgatatt tgggacagtg ctgttactta acagtggatt ctttgtgttg 780  
ttgctgcatc tgctatactc gatcttccta acaagactag gaatgaaatc ttcgttgaga 840  
ttaccagcct gggttgacaa agctatatga 870

<210> 1322

<211> 289

<212> PRT

<213> Arabidopsis thaliana

<400> 1322

Met Asn Leu Leu Lys Thr Ile His Tyr Gln Ser Thr Ile Thr Arg Phe  
1 5 10 15

Tyr Arg Phe Ala Pro Thr Arg Ser Phe Ala Ser Ser Val Ser Leu Ser  
20 25 30

Pro Gln Arg His Ile Ile Ser Leu Val Ser Ile Ser Asn Arg Gly Arg  
35 40 45

Cys Phe Ala Phe Ser Ser Val Ser Gly Ala Ser Leu Tyr Asn Asn Gln  
50 55 60

Glu Asp Gly Lys Lys Glu Glu Ser Glu Arg Asn Tyr Ala Ser Thr Lys  
65 70 75 80

Glu Gly Asp Glu Val Val Tyr Gln Lys Thr Leu Arg Leu Val Glu Cys  
85 90 95

Ala Met Phe Ala Ala Val Thr Gly Leu Val Tyr Phe Leu Ser Asn Ser

100

105

110

Leu Ala Ile Glu Asn Tyr Phe Gly Cys Phe Phe Ser Leu Pro Ile Val  
 115 120 125  
 Ile Ser Ser Ile Arg Trp Asn Ile Ala Gly Gly Arg Lys Thr Met Val  
 130 135 140  
 Ala Thr Val Met Leu Leu Phe Ile Leu Ser Gly Pro Val Lys Ala Leu  
 145 150 155 160  
 Thr Tyr Phe Leu Thr His Gly Leu Val Gly Leu Ala Leu Gly Ser Leu  
 165 170 175  
 Trp Ser Met Gly Ala Ser Trp Arg Leu Ser Ile Phe Leu Cys Thr Met  
 180 185 190  
 Val Arg Ala Leu Gly Leu Ile Gly Tyr Val Leu Thr Ser Ser Phe Leu  
 195 200 205  
 Ile Arg Glu Asn Ile Leu Ala Val Ile Thr Ile Asn Ile His Ala Ser  
 210 215 220  
 Leu Ser Tyr Val Phe Thr Ala Met Gly Leu Asn Ile Met Pro Ser Met  
 225 230 235 240  
 Ser Leu Ile Tyr Met Ile Phe Gly Thr Val Leu Leu Leu Asn Ser Gly  
 245 250 255  
 Phe Phe Val Leu Leu Leu His Leu Leu Tyr Ser Ile Phe Leu Thr Arg  
 260 265 270  
 Leu Gly Met Lys Ser Ser Leu Arg Leu Pro Ala Trp Leu Asp Lys Ala  
 275 280 285

Ile

&lt;210&gt; 1323

&lt;211&gt; 696

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1323

atgccttctt ttgcttttgg atctcatcac catttggcga atcctacaga ctcgccgccg

60



047-E2F-PCT.ST25.txt

tactccgtcg aaattagcat cgacggtgac tcctccgact gggattcttt gtctcaggtc 120  
gatttagagt ccggcggtgt accggcgccg gagaaacagc tacattccgg tggtagaag 180  
aggagaacta ggaggagaaa gaggaggaag aagaagaaga agaagaaagg tggaagagat 240  
tgcaggatct gtcattcttc tttagagact aacaaagaag ctgaagatga agatgaagaa 300  
gaagaagatg attctgatga tgatgaagat gaagaagatg aagaagaaga agaagaagaa 360  
gaagaagaag aatattatgg ttgaccttg caattagggt gctcttgtaa aggtgatttg 420  
ggtgttgctc atagtaagtg tgctgagact tggtttaaga tcaaaggaaa catgacatgt 480  
gagatatgcg gcgcaatggc tctaaacgtg gctggtgaac aatctaatacc ggagagcact 540  
gcttctacac attcacaagc agctgcggga caatctctaa ctacagacaga gccacgagga 600  
atctggcatg gtcgccctgt tatgaacttc ttacttgctg ctatggtctt cgccttcggt 660  
gtttcttggc tttttcactt caaagtcctc aagtga 696

<210> 1324

<211> 231

<212> PRT

<213> Arabidopsis thaliana

<400> 1324

Met	Pro	Ser	Phe	Ala	Phe	Gly	Ser	His	His	His	Leu	Ala	Asn	Pro	Thr
1				5				10					15		
Asp	Ser	Pro	Pro	Tyr	Ser	Val	Glu	Ile	Ser	Ile	Asp	Gly	Asp	Ser	Ser
			20					25					30		
Asp	Trp	Asp	Ser	Leu	Ser	Gln	Val	Asp	Leu	Glu	Ser	Gly	Gly	Val	Pro
		35					40					45			
Ala	Pro	Glu	Lys	Gln	Leu	His	Ser	Gly	Gly	Lys	Lys	Arg	Arg	Thr	Arg
		50				55					60				
Arg	Arg	Lys	Arg	Arg	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Gly	Gly	Arg	Asp
65					70					75				80	
Cys	Arg	Ile	Cys	His	Leu	Pro	Leu	Glu	Thr	Asn	Lys	Glu	Ala	Glu	Asp
				85					90					95	
Glu	Asp	Glu	Glu	Glu	Glu	Asp	Asp	Ser	Asp	Asp	Asp	Glu	Asp	Glu	Glu
			100					105					110		

047-E2F-PCT.ST25.txt

Asp Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Tyr Tyr Gly Leu  
115 120 125

Pro Leu Gln Leu Gly Cys Ser Cys Lys Gly Asp Leu Gly Val Ala His  
130 135 140

Ser Lys Cys Ala Glu Thr Trp Phe Lys Ile Lys Gly Asn Met Thr Cys  
145 150 155 160

Glu Ile Cys Gly Ala Met Ala Leu Asn Val Ala Gly Glu Gln Ser Asn  
165 170 175

Pro Glu Ser Thr Ala Ser Thr His Ser Gln Ala Ala Ala Gly Gln Ser  
180 185 190

Leu Thr Gln Thr Glu Pro Arg Gly Ile Trp His Gly Arg Pro Val Met  
195 200 205

Asn Phe Leu Leu Ala Ala Met Val Phe Ala Phe Val Val Ser Trp Leu  
210 215 220

Phe His Phe Lys Val Leu Lys  
225 230

<210> 1325

<211> 2157

<212> DNA

<213> Arabidopsis thaliana

<400> 1325

atggggaagc caacgactca aaacaatagc tttattaacc atttcagcca cccccaccgc	60
cttcaactaa ccccggcgac gtcacaccca ccgtgctccg cctgcaaact caccggaggt	120
aacggccggg tttactcatg taggcatgc aacttctctc tccatgagtc gtgtagcaag	180
atgaagcagg taataacaca tccctctcac ccttcgcata cgcttagcct gctcgtggct	240
cctgtctacg atggtggata cttcaactgt gacggttgtg gcatccacgg gacgggtttt	300
agttaccaat gctctgtatg cgacttcgac atccacgcgc tttgtgctta caagccgctc	360
tcaatcatcc acaagtctca tccgcaacac aatcttaaac tcgcgtttca atctccatat	420
ggcgctaata aaggtttctc ttgcgacatc tgtcgtaaga ttgggaagaa ccagtggctt	480
taccggtgca tcccctgcga attcgatgct catgtcgggt gtatcactgg tcctaatacct	540
cacctccttc aacatagtac ttccgcacct aatcctcata ctcatcatgc cggtcaccct	600

## 047-E2F-PCT.ST25.txt

caacatcaaa	actcgttcc	tgtgccta	caaggcagta	acagggtcag	gccccatgcct	660
atgacaaggc	ccaataggac	cattaatcct	aataggccta	tagctcaaaa	cgcggtgtc	720
aatggaccaa	gaagacagaa	caacaacttg	ggttataatg	ctcaggttg	gcctaattgga	780
ccaaatgaac	ttactggtca	aggatcaatg	gatgggagtg	gttacaatgg	tagtgcaagt	840
gcaacgaata	aagagtttga	tgttgatgtc	gatgttgatg	ttgatgttga	tgttgatgtc	900
gatgtcgatg	tcgaggttga	atatgaaggt	gatgtgtatg	ttgaagaggc	taatgacgag	960
ggagaagacg	ttgatggtaa	cgacgagga	gaagatgttg	atggtaacgg	gcttgaaatt	1020
gtggcttgtg	tcgataat	aagtgttgct	tatagtgaga	gtgattttgg	aagcagtagt	1080
gatgctcgta	gccaatgtaa	tgatttgtct	gatgctgata	tatatccact	gtctctggat	1140
aacacacaag	gaccaagacc	ggttcgtatg	aaccaaggct	cgggtggcgg	aaggaagaaa	1200
aacacgaacc	agaatggtca	ggcttctcgg	tctaagaaaa	tagttggtaa	tggcccacgt	1260
ggtgggcttc	aaggatccaa	cagtccaata	caaagcccta	gaggacctca	aactagaagg	1320
gtacaaaatg	ttcgtaataa	tccaacaaga	ggctgtggtg	gggctgtgag	tgtaagagtt	1380
aatagacctc	gtgacctatc	tgcatttatt	gcacctcaag	gatttaattg	gccgagtgg	1440
ggacctcca	atgcaataga	tagtggtgcc	aacaatgata	actacaacga	agtcgaaggc	1500
actgatgtct	atgttggtga	agataatgtt	ggttacgagg	agagttatgg	tggtggtgat	1560
ggtgattgtg	actttgaagt	tggaggtgac	ttcgggtgatg	agggttatga	tcagtcttat	1620
gatgacaatt	atggtgaaaa	tgatttcgaa	agctatagcg	acatcactgg	aggaagtgag	1680
tctatgtatg	aagatggtga	atcttacggg	actatgaatg	attcacaata	tagtggtttc	1740
aatgaagagc	ccaataacca	gtatgcaccc	atgggtgggc	cgggttggtg	accaggaatg	1800
aataaccaga	accaatacgg	tcaaatggt	aggccgagga	atgtgggcat	gtatggaaga	1860
ggtggtacaa	acatgaacag	atatgggaac	gtgaaccaag	gtgcaaatag	gatgcaaccg	1920
agaactatgg	gtggtcgacc	tctccaatat	aggcccaatg	gaagacctaa	catggcaa	1980
ggaggagtac	ccaatggacc	tctaggactt	ggcactccaa	tgttgatgaa	tacaatggtg	2040
caaggtttat	gccaaagctt	tgggatgaac	atgctcattg	gtggtggcgg	tgatgcta	2100
ggtggagcgg	gtgatggtg	tggaggaggc	tttttgggtg	gtgaaacaga	attctaa	2157

&lt;210&gt; 1326

&lt;211&gt; 718

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1326

```

Met Gly Lys Pro Thr Thr Gln Asn Asn Ser Phe Ile Asn His Phe Ser
 1      5      10      15

His Pro His Arg Leu Gln Leu Thr Pro Ala Thr Ser Ser Pro Pro Cys
 20      25      30

Ser Ala Cys Lys Leu Thr Gly Gly Asn Gly Arg Val Tyr Ser Cys Arg
 35      40      45

Pro Cys Asn Phe Ser Leu His Glu Ser Cys Ser Lys Met Lys Gln Val
 50      55      60

Ile Thr His Pro Ser His Pro Ser His Thr Leu Ser Leu Leu Val Ala
 65      70      75      80

Pro Val Tyr Asp Gly Gly Tyr Phe Asn Cys Asp Gly Cys Gly Ile His
 85      90      95

Gly Thr Gly Phe Ser Tyr Gln Cys Ser Val Cys Asp Phe Asp Ile His
 100     105     110

Ala Leu Cys Ala Tyr Lys Pro Leu Ser Ile Ile His Lys Ser His Pro
 115     120     125

Gln His Asn Leu Lys Leu Ala Phe Gln Ser Pro Tyr Gly Ala Asn Lys
 130     135     140

Gly Phe Ser Cys Asp Ile Cys Arg Lys Ile Gly Lys Asn Gln Trp Leu
 145     150     155     160

Tyr Arg Cys Ile Pro Cys Glu Phe Asp Ala His Val Gly Cys Ile Thr
 165     170     175

Gly Pro Asn Pro His Leu Leu Gln His Ser Thr Ser Ala Pro Asn Pro
 180     185     190

His Thr His His Ala Gly His Pro Gln His Gln Asn Ser Leu Pro Val
 195     200     205

Pro Asn Gln Gly Ser Asn Arg Val Arg Pro Met Pro Met Thr Arg Pro
 210     215     220

Asn Arg Thr Ile Asn Pro Asn Arg Pro Ile Ala Gln Asn Ala Ala Val
 225     230     235     240

```

Asn Gly Pro Arg Arg Gln Asn Asn Asn Leu Gly Tyr Asn Ala Gln Val  
 245 250 255  
 Gly Pro Asn Gly Pro Asn Glu Leu Thr Gly Gln Gly Ser Met Asp Gly  
 260 265 270  
 Ser Gly Tyr Asn Gly Ser Ala Ser Ala Thr Asn Lys Glu Phe Asp Val  
 275 280 285  
 Asp Val Asp Val Asp Val Asp Val Asp Val Asp Val Asp Val Asp Val  
 290 295 300  
 Glu Val Glu Tyr Glu Gly Asp Val Tyr Val Glu Glu Ala Asn Asp Glu  
 305 310 315 320  
 Gly Glu Asp Val Asp Gly Asn Asp Glu Gly Glu Asp Val Asp Gly Asn  
 325 330 335  
 Gly Leu Glu Ile Val Ala Cys Val Asp Asn Leu Ser Val Ala Tyr Ser  
 340 345 350  
 Glu Ser Asp Phe Gly Ser Ser Ser Asp Ala Arg Ser Gln Cys Asn Asp  
 355 360 365  
 Leu Ser Asp Ala Asp Leu Tyr Pro Leu Ser Leu Asp Asn Thr Gln Gly  
 370 375 380  
 Pro Arg Pro Val Arg Met Asn Gln Gly Ser Gly Gly Gly Arg Lys Lys  
 385 390 395 400  
 Asn Thr Asn Gln Asn Gly Gln Ala Ser Arg Ser Lys Lys Ile Val Gly  
 405 410 415  
 Asn Gly Pro Arg Gly Gly Leu Gln Gly Ser Asn Ser Pro Ile Gln Ser  
 420 425 430  
 Pro Arg Gly Pro Gln Thr Arg Arg Val Gln Asn Val Arg Asn Asn Pro  
 435 440 445  
 Thr Arg Gly Arg Gly Gly Ala Val Ser Val Arg Val Asn Arg Pro Arg  
 450 455 460  
 Asp Pro Ser Ala Phe Ile Ala Pro Gln Gly Phe Asn Gly Pro Ser Gly  
 465 470 475 480  
 Gly Pro Ser Asn Ala Ile Asp Ser Gly Ala Asn Asn Asp Asn Tyr Asn  
 485 490 495

047-E2F-PCT.ST25.txt

Glu Val Glu Gly Thr Asp Val Tyr Val Gly Glu Asp Asn Val Gly Tyr  
 500 505 510  
 Glu Glu Ser Tyr Gly Gly Gly Asp Gly Asp Cys Asp Phe Glu Val Gly  
 515 520 525  
 Gly Asp Phe Gly Asp Glu Gly Tyr Asp Gln Ser Tyr Asp Asp Asn Tyr  
 530 535 540  
 Gly Glu Asn Asp Phe Glu Ser Tyr Ser Asp Ile Thr Gly Gly Ser Glu  
 545 550 555 560  
 Ser Met Tyr Glu Asp Gly Glu Ser Tyr Gly Thr Met Asn Asp Ser Gln  
 565 570 575  
 Tyr Ser Gly Phe Asn Glu Glu Pro Asn Asn Gln Tyr Ala Pro Met Val  
 580 585 590  
 Gly Pro Val Gly Gly Pro Gly Met Asn Asn Gln Asn Gln Tyr Gly Gln  
 595 600 605  
 Asn Gly Arg Pro Arg Asn Val Gly Met Tyr Gly Arg Gly Gly Thr Asn  
 610 615 620  
 Met Asn Arg Tyr Gly Asn Val Asn Gln Gly Ala Asn Arg Met Gln Pro  
 625 630 635 640  
 Arg Thr Met Gly Gly Arg Pro Leu Gln Tyr Arg Pro Asn Gly Arg Pro  
 645 650 655  
 Asn Met Ala Asn Gly Gly Val Pro Asn Gly Pro Leu Gly Leu Gly Thr  
 660 665 670  
 Pro Met Leu Met Asn Thr Met Val Gln Gly Leu Cys Gln Ser Phe Gly  
 675 680 685  
 Met Asn Met Leu Ile Gly Gly Gly Gly Asp Ala Asn Gly Gly Ala Gly  
 690 695 700  
 Asp Gly Gly Gly Gly Gly Phe Phe Gly Gly Glu Thr Glu Phe  
 705 710 715

<210> 1327

<211> 2346

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1327

```

atggagaaat tgaaatcact gattcctgaa gatcttcttc aaacggtgaa aagcagcagc      60
gtcgatgatac ttctttccac ttcttcttcg cttctccggt tgtttctggg tcttcccca      120
tttcaccaag cgggtgagtga gttagcgaat cctgaattgg gatgctgtgg gaagaacgag      180
gagacatctt tggatttgaa acgtagagga aatcactggt tccgtagccg agattttgac      240
gaagctttgc gattatactc caaggcttta cgtgttgctc ctctagatgc tattgacgga      300
gataagagct tacttgcttc tctgtttctg aatagagcta atgtccttca taatcttggt      360
cttctcaaag agagtttgcg ggactgccat cgtgctcttc ggattgatcc ttattatgca      420
aaggcgtggt ataggagagg caaacttaat actcttcttg gaaactataa agatgcattt      480
cgtgacatta cagtttctat gtcgcttgag tcatcacttg tggggaagaa gcagctacaa      540
aatgagctta aggctatacc tgactaccaa aataaccaa cattggaaca cgatgaatat      600
cgtccaagca atgatgctgg cgtggatcat ctgccgagtg tgcaaagga agtaaagctg      660
cgttgtgtgt cgacaaaaga gaaaggaagg ggtatggtat cagaatgtga tatcgaagaa      720
gcttctgtga tacatgttga agaacctttt agtgtgttgc ctgctgatac tgtcccatgt      780
ccatcatgct caatacctgt gtactgctca gagtcctgcc aaatccaatc aggtggaatg      840
ctgtctacaa atgagatgga taagcatcac atttttcaaa aactacctga tgatattggt      900
gagcatataa aaggcgttac atcagctgat atttattatt ttgcgactga tctcattcaa      960
gaacaccagc atgagtgtag gggagccaat tggcctgctg tactgccatc tgatgctggt      1020
ttagctgggtc gaattataat gaagttaata aatcaaggga aagcagctac tgatctttct      1080
aaccttcagg agatattaga actttcccat acctactcta agatgaatcc agagaacaag      1140
ttggagctgc atctactttc catagtattg atttggtgcc ttagtaaadc tagctgccct      1200
aatctttcgg ttgtgaagc ttctgtgacg cagactatca tactgctgtc acaaatacag      1260
gtgaactcta tagctgttgc ccgtatgaaa tccagcggcg attctttcaa gtgcctccca      1320
tctggaacaa tctcaacaaa agagccaatt cagagtttag agcagataag agttggccag      1380
gctctttata aaactggtag ttgtttcaat cattcctgca aaccaaacad ccatttgtat      1440
ttcctttccc gtggactgat tatgcaaact acagagtttg ttcccacggg ttgtcccctt      1500
gagctgtcat atggtcctga ggttgggaaa tgggactgca aaaatcgcat tagatttctt      1560
gaagaggagt actttttcca ttgtcgggtg cgtggctgtg ctcaaattaa catatcagac      1620
cttgtcatca atgggtatgg ctgtgtcaat acaaactgta ctggtgtagt tttagatagt      1680
aatgtggcca catgtgagtc cgagaagcta aaccattttt ttactgctcc aagaaacgtg      1740

```

047-E2F-PCT.ST25.txt

gatcagcaag ttcagatgag agagaagggtt tatgctgatg ttggggaagt ggcttcgagt 1800  
 ttgctaagta aacctagtgg ttccctacat atagaacctg agatatgttt gaaatgtggt 1860  
 tcccgctgtg acatagaaaa ttctcatgca gaggtgaaca aagcttgga tcacatgaga 1920  
 aggggtggaag agttgatgaa ttcaggacgg gcccaattatt ctgtattatc agattgttca 1980  
 aggtccatcg ccgtgctcag aactttcctg cacatgtata acaaagacat cgctgatgcg 2040  
 gaggataagg ttgctcaggc gtgctattta gctggggaac tgggtggatgc aagaaagcat 2100  
 tgtgaagcat ccattaagat tctgaagagg ctgtatgagg atgaacacgt ggtgattgga 2160  
 aatgaaatgg tgaagcttgc gtcgattcag cttgcatcag gtgattccag tggagcttgg 2220  
 gacactacaa agagatcgtc tcagatatcc tcaaagtatt acgggtcaca tgctgagact 2280  
 ctcttctctt atctcccatg tcttaagcaa gaaactgcc aagctgtgaa tttgtcaact 2340  
 tcttaa 2346

<210> 1328

<211> 781

<212> PRT

<213> Arabidopsis thaliana

<400> 1328

Met Glu Lys Leu Lys Ser Leu Ile Pro Glu Asp Leu Leu Gln Thr Val  
 1 5 10 15  
 Lys Ser Ser Ser Val Asp Asp Leu Leu Ser Thr Ser Ser Ser Leu Leu  
 20 25 30  
 Arg Leu Phe Leu Gly Leu Pro Gln Phe His Gln Ala Val Ser Glu Leu  
 35 40 45  
 Ala Asn Pro Glu Leu Gly Cys Cys Gly Lys Asn Glu Glu Thr Ser Leu  
 50 55 60  
 Asp Leu Lys Arg Arg Gly Asn His Cys Phe Arg Ser Arg Asp Phe Asp  
 65 70 75 80  
 Glu Ala Leu Arg Leu Tyr Ser Lys Ala Leu Arg Val Ala Pro Leu Asp  
 85 90 95  
 Ala Ile Asp Gly Asp Lys Ser Leu Leu Ala Ser Leu Phe Leu Asn Arg  
 100 105 110



Ala Asn Val Leu His Asn Leu Gly Leu Leu Lys Glu Ser Leu Arg Asp  
 115 120 125  
 Cys His Arg Ala Leu Arg Ile Asp Pro Tyr Tyr Ala Lys Ala Trp Tyr  
 130 135 140  
 Arg Arg Gly Lys Leu Asn Thr Leu Leu Gly Asn Tyr Lys Asp Ala Phe  
 145 150 155 160  
 Arg Asp Ile Thr Val Ser Met Ser Leu Glu Ser Ser Leu Val Gly Lys  
 165 170 175  
 Lys Gln Leu Gln Asn Glu Leu Lys Ala Ile Pro Asp Tyr Gln Asn Asn  
 180 185 190  
 Gln Thr Leu Glu His Asp Glu Tyr Arg Pro Ser Asn Asp Ala Gly Val  
 195 200 205  
 Asp His Leu Pro Ser Val Gln Met Glu Val Lys Leu Arg Cys Val Ser  
 210 215 220  
 Thr Lys Glu Lys Gly Arg Gly Met Val Ser Glu Cys Asp Ile Glu Glu  
 225 230 235 240  
 Ala Ser Val Ile His Val Glu Glu Pro Phe Ser Val Leu Pro Ala Asp  
 245 250 255  
 Thr Val Pro Cys Pro Ser Cys Ser Ile Pro Val Tyr Cys Ser Glu Ser  
 260 265 270  
 Cys Gln Ile Gln Ser Gly Gly Met Leu Ser Thr Asn Glu Met Asp Lys  
 275 280 285  
 His His Ile Phe Gln Lys Leu Pro Asp Asp Ile Val Glu His Ile Lys  
 290 295 300  
 Gly Val Thr Ser Ala Asp Ile Tyr Tyr Phe Ala Thr Asp Leu Ile Gln  
 305 310 315 320  
 Glu His Gln His Glu Cys Arg Gly Ala Asn Trp Pro Ala Val Leu Pro  
 325 330 335  
 Ser Asp Ala Val Leu Ala Gly Arg Ile Ile Met Lys Leu Ile Asn Gln  
 340 345 350  
 Gly Lys Ala Ala Thr Asp Leu Ser Asn Leu Gln Glu Ile Leu Glu Leu  
 355 360 365

047-E2F-PCT.ST25.txt

Ser His Thr Tyr Ser Lys Met Asn Pro Glu Asn Lys Leu Glu Leu His  
370 375 380

Leu Leu Ser Ile Val Leu Ile Trp Cys Leu Ser Lys Ser Ser Cys Pro  
385 390 395 400

Asn Leu Ser Val Cys Glu Ala Ser Val Thr Gln Thr Ile Ile Leu Leu  
405 410 415

Ser Gln Ile Lys Val Asn Ser Ile Ala Val Ala Arg Met Lys Ser Ser  
420 425 430

Gly Asp Ser Phe Lys Cys Leu Pro Ser Gly Asn Ile Ser Thr Lys Glu  
435 440 445

Pro Ile Gln Ser Leu Glu Gln Ile Arg Val Gly Gln Ala Leu Tyr Lys  
450 455 460

Thr Gly Ser Leu Phe Asn His Ser Cys Lys Pro Asn Ile His Leu Tyr  
465 470 475 480

Phe Leu Ser Arg Gly Leu Ile Met Gln Thr Thr Glu Phe Val Pro Thr  
485 490 495

Gly Cys Pro Leu Glu Leu Ser Tyr Gly Pro Glu Val Gly Lys Trp Asp  
500 505 510

Cys Lys Asn Arg Ile Arg Phe Leu Glu Glu Glu Tyr Phe Phe His Cys  
515 520 525

Arg Cys Arg Gly Cys Ala Gln Ile Asn Ile Ser Asp Leu Val Ile Asn  
530 535 540

Gly Tyr Gly Cys Val Asn Thr Asn Cys Thr Gly Val Val Leu Asp Ser  
545 550 555 560

Asn Val Ala Thr Cys Glu Ser Glu Lys Leu Asn His Phe Phe Thr Ala  
565 570 575

Pro Arg Asn Val Asp Gln Gln Val Gln Met Arg Glu Lys Val Tyr Ala  
580 585 590

Asp Val Gly Glu Val Ala Ser Ser Leu Leu Ser Lys Pro Ser Gly Ser  
595 600 605

Leu His Ile Glu Pro Glu Ile Cys Leu Lys Cys Gly Ser Arg Cys Asp  
610 615 620

047-E2F-PCT.ST25.txt

Ile Glu Asn Ser His Ala Glu Val Asn Lys Ala Trp Asn His Met Arg  
625 630 635 640

Arg Val Glu Glu Leu Met Asn Ser Gly Arg Ala Asn Tyr Ser Val Leu  
645 650 655

Ser Asp Cys Ser Arg Ser Ile Ala Val Leu Arg Thr Phe Leu His Met  
660 665 670

Tyr Asn Lys Asp Ile Ala Asp Ala Glu Asp Lys Val Ala Gln Ala Cys  
675 680 685

Tyr Leu Ala Gly Glu Leu Val Asp Ala Arg Lys His Cys Glu Ala Ser  
690 695 700

Ile Lys Ile Leu Lys Arg Leu Tyr Glu Asp Glu His Val Val Ile Gly  
705 710 715 720

Asn Glu Met Val Lys Leu Ala Ser Ile Gln Leu Ala Ser Gly Asp Ser  
725 730 735

Ser Gly Ala Trp Asp Thr Thr Lys Arg Ser Ser Gln Ile Phe Ser Lys  
740 745 750

Tyr Tyr Gly Ser His Ala Glu Thr Leu Phe Ser Tyr Leu Pro Cys Leu  
755 760 765

Lys Gln Glu Thr Ala Lys Ala Val Asn Leu Ser Thr Ser  
770 775 780

<210> 1329

<211> 6687

<212> DNA

<213> Arabidopsis thaliana

<400> 1329  
atgaagcaga aacgaagaaa acttccgtct atactagata tattagacca aaaagtggat 60  
agttctatgg cttttgattc cccggaatac acttcttcct ctaaaccaag taagcagcgg 120  
cttaagactg attcgactcc tgaaaggaac tcctctaaga ggaaaggaaa tgatgggaat 180  
tattttgaat gtgtgatctg tgaccttggt ggtgatttat tgtgttgatga tagttgtcct 240  
cggacctatc ataccgcatg cctcaatcca cctcttaagc ggattccaaa tggtaagtgg 300

atctgccc	aatgttccc	aaacagtga	gcactcaagc	ctgtcaatcg	tttagatgcc	360
attgctaagc	gagcaagaac	aaaaaccaag	aaaagaaatt	caaaagccgg	accaaagtgc	420
gaaagagctt	ctcagattta	ttgcagttct	ataattttctg	gagaacaatc	ttcagagaaa	480
gggaaatcta	tatcggccga	agagagcaaa	tccacaggaa	aggaagttta	ttcttccccg	540
atggatggct	gttcaactgc	tgagcttggg	catgcatctg	cggatgaccg	acctgattca	600
tcgtctcatg	gagaagatga	tttggggaaa	cccgtcatac	ccactgcaga	tttaccatct	660
gatgcaggat	taacgttgct	gtcctgtgaa	gatctctccg	aatctaaact	atcagatacg	720
gagaaaactc	atgaagcacc	cgtggagaag	ttggaacatg	cttccagtga	gatcgtggag	780
aacaagacag	ttgctgaaat	ggagactgga	aaaggtaaaa	ggaaaaaacg	gaagcgtgaa	840
ctaaatgatg	gggaaagtct	tgaaagggtgc	aagactgata	agaaacgcgc	gaagaaaagt	900
ttgtccaaag	tgggttccag	ttctcagact	accaaatacac	cggagtcttc	gaaaaaaaag	960
aaaaagaaaa	atcgtgtgac	tttaaaatcc	ttgtccaaac	ctcagtccaa	gacagaaaca	1020
ccagaaaaag	tgaagaagct	tccaaggag	gaacgtcgtg	cagtacgtgc	cactaataaa	1080
tcttctagtt	gtttggaaga	tacaaactct	cttccggttg	gaaacctcca	ggttcacgt	1140
gttttaggat	gccgaatcca	aggtctgact	aaaacctcgc	tgtgtagtgc	tctttcagat	1200
gacttgtgtt	cggataat	acaagctact	gaccaacggg	atagcttagt	acaagatacg	1260
aatgctgaat	tagtagttgc	tgaggacaga	atagattctt	cttctgagac	aggtaaaagt	1320
tcgagggatt	cacgactgag	ggataaagat	atggatgatt	ctgctttagg	taccgagggg	1380
atggttgagg	tgaaagaaga	gatgctttct	gaagacattt	ccaatgccac	attgagtaga	1440
catgtggatg	atgaagatat	gaaagttagt	gaaacgcatg	tatctgttga	gagggagtta	1500
cttgaagaag	cacatcagga	aacaggggaa	aaaagcactg	tggctgatga	agaaattgag	1560
gagcctgttg	ctgctaaaac	ttcagatctt	attggtgaga	ctgtatcata	tgagtttctt	1620
gttaaattggg	tggataaatc	taatattcat	aatacttgga	tttctgaggg	ggagctgaaa	1680
ggtctagcta	aaagaaaact	agagaactac	aaagcaaagt	acggaacagc	tgtaataaac	1740
atctgtgaag	ataaatggaa	acagcctcag	cgaatagttg	ctctccgggt	ttcaaaagaa	1800
ggtaaccaag	aagcttacgt	aaagtggaca	ggcttagctt	atgatgaatg	cacgtgggag	1860
agcttgagg	agcctattct	taaacattca	tcccatttaa	tagatctttt	tcatcagtat	1920
gagcagaaaa	cattggaaaag	gaatagtaag	ggtaatccca	caagggaaaag	gggtgaagtc	1980
gttaccctca	cagaacaacc	tcaagagctc	agaggaggtg	ccttgtttgc	ccatcagctt	2040
gaggctttga	attggctgcg	tagatgctgg	cataaatcaa	aaaatgtaat	acttgctgat	2100
gagatggggc	ttggaaaaac	tgtgtctgct	agtgcattcc	tctcctccct	ttattttgaa	2160
tttggagttg	caagaccttg	tttagtcctg	gttccacttt	caacaatgcc	aaactggcta	2220

tcagagtttt	ctctttgggc	tccactcctt	aatgtttgtg	agtatcatgg	aagtgcaaag	2280
ggacgagcca	taattcgaga	ctatgagtgg	catgctaaga	attctactgg	gacgaccaag	2340
aagccgacat	cctacaaatt	taatgtcctt	ttaactactt	atgaaatggg	tctggctgac	2400
tcattctcatc	tacgtggggg	tccatgggaa	gttctttgtg	ttgatgaagg	gcatcgtcta	2460
aagaattcag	aaagtaagct	gttttagcttg	ctcaacacat	tctcttttca	acaccgtgtg	2520
ctcttgactg	gcacccctct	tcagaataac	attgggtgaga	tgtataatct	gctcaacttc	2580
ttgcaaccat	cttcattccc	ttctttgtct	tcttttgagg	agaggttcca	tgatttgaca	2640
agtgtcgaga	aagtagaaga	actgaagaaa	cttggtgctc	ctcatatgct	tcgccggcctt	2700
aaaaaagatg	cgatgcagaa	tattcctcca	aagacagaga	ggatgggtccc	tgtcgagttg	2760
acatcgatcc	aggcggaata	ttatcgtgca	atgctaacta	agaactatca	gatactacga	2820
aatatcgga	aaggggtagc	gcaacaatca	atgcttaaca	tagtgatgca	gttgagaaaag	2880
gtttgcaatc	acccatatct	cataccaggt	actgagccag	agtctggggtc	attggagttt	2940
cttcacgata	tgagaataaa	agcgtcagcc	aagttgactc	tgttgactc	tatgcttaag	3000
gtgctacata	aggaaggcca	tagagtcttg	atattttcac	agatgacaaa	gcttctagac	3060
attctggagg	actacctgaa	catagaatth	gggcctaaaa	catttgaaag	ggtagatggg	3120
tctgttgctg	tagctgatcg	tcaggcagct	atagcacgtt	tcaaccaaga	caaaaatcgg	3180
ttcgthtttc	tgthtatcaac	tcgtgcctgt	ggctttggta	tcaatctggc	aacagctgat	3240
actgttatta	tctatgactc	tgattttcaac	cctcacgctg	atatccaagc	catgaataga	3300
gctcatcgaa	ttggacagtc	caaacgactt	ttggtataca	gacttgthgt	ccgtgccagc	3360
gttggaagagc	gcattttgca	gctggccaag	aagaagttga	tgctcgatca	gctttttgta	3420
aacaagtcgg	gatcccagaa	ggaatttgaa	gatattctac	gctgggggtac	tgaagaactt	3480
ttcaacgact	ccgctgggtga	gaacaagaaa	gatacagctg	aaagtaatgg	aaacttagat	3540
gtaatcatgg	atttagaaaag	caagagtagg	aaaaaagggtg	gtggcctcgg	agatgtttat	3600
caagacaaat	gtacagaagg	aaatgggaag	attgtttggg	atgatattgc	aattatgaag	3660
ttgcttgatc	ggtcaaactt	tcaatctgcc	tccactgatg	ccgctgatac	tgagttggat	3720
aatgatatgc	tcggctccgt	gaagcctgtg	gaatggaatg	aggaaacagc	tgaagaacaa	3780
gttggaagctg	aatcacctgc	actggtgact	gatgatactg	gtgaaccgag	ttcagagagg	3840
aaagatgatg	atgtcgttaa	ttttactgaa	gaaaatgaat	gggacaggct	tctgcgtatg	3900
aggttggagt	tccctctttc	tctgagttca	gcgtcttggc	tttggctttg	gcagcatata	3960
tgggagaaat	atcagagcga	ggaagaagca	gcgcttggca	gaggggaagcg	tttgagaaaag	4020
gctgtttcgt	ataggggaagc	atatgcccc	cataccagtg	gacctgtaaa	tgagagtggg	4080

ggtgaagatg	agaaagaacc	agaaccagaa	cttaagaagg	aatatacacc	ggcagggcga	4140
gccctaaaag	aaaagtttac	caaactgcga	gagaggcaaa	agaacctgat	tgcgagaagg	4200
aattctgttg	aagagtctct	tcctagcggc	aatgtggatc	aggtaactga	agtagctaata	4260
caggacgaag	aaagccctac	atcaatggac	ttggacgata	gcaaagctag	ccagcaatgt	4320
gatgcacaga	aaagaaaagc	cagttcttca	gacctaatac	cagatcttct	aagccaacat	4380
catcatggcg	cagaatgtct	gccatcttta	cccccaaca	acctgccagt	ccttggactg	4440
tgtgctccta	attttactca	gtcagaatcc	tcccggagaa	attattctcg	tccaggtagt	4500
agacagaaca	gaccataaac	aggaccccat	tttcccttca	atctaccca	aacatcgaac	4560
ttggttgaga	gggaagcaaa	tgaccaggaa	cctcctatgg	gtaaactaaa	accacagaac	4620
ataaaggaag	aaccttttca	gcagcctctt	agtaatatgg	atggttggct	tccacatcgt	4680
cagtttcctc	cgtcagggga	ttttgagcgt	cctcgaagtt	ctggtgctgc	ttttgctgat	4740
ttccaggaga	agtttccgtt	gcttaacctt	ccatttgatg	ataagctgct	tcctcgattt	4800
ccatttcagc	cgagaacaat	gggaacttcg	catcaagaca	taatggccaa	tctttcgaatg	4860
aggaaaagat	ttgaagggtac	tggtcattct	atgcaagacc	tatttggcgg	aacaccaatg	4920
ccgtttctac	ccaatatgaa	aatccctcct	atggatccac	ctgtcttcaa	ccaacaagag	4980
aaggacttac	cgcctttggg	tttggatcag	tttccatcag	ctctttcatc	tatcccagag	5040
aaccatcgaa	aggtgctgga	gaatataatg	ctaagaactg	gctctggaat	tgggcacgta	5100
cagaaaaaga	aaacaagagt	agatgcatgg	tccgaggatg	aactagattc	tctctggatt	5160
gggattcgca	gacatgggta	tggaacttgg	gagacaattc	tcagagatcc	aaggctcaaa	5220
ttttcgaaat	ttaaaacacc	agagtacttg	gcagctaggt	gggaagaaga	gcaacgtaaa	5280
ttcttgata	gtctttcatc	tctgccatct	aaatcaagca	ggactgataa	gtccacaaaa	5340
tcttccttgt	ttcctgggtc	tccccaggga	ataatgaatc	gggccttaca	tggtaaatat	5400
gccactcctc	caagggttcca	atcccatctc	acagacataa	aactcggatt	cggcgatcta	5460
gcatctcccc	ttccgttatt	tgaaccatct	gatcacctgg	gatttcgaag	tgagcatttt	5520
cctcccatgg	caaatctgtg	cactgacaat	cttcccgggg	agccttctgc	tggaccatct	5580
gaacgagcag	ggacatcgac	aaatattccc	aacgagaagc	cttttccact	caactctctt	5640
ggaatgggca	acttaggttc	attgggtttg	gatagtttaa	gttccttaaa	cacactgaga	5700
gcagaggaaa	aacgggatgc	tattaagcgc	gggaaactac	ccttgttttt	agatatgccg	5760
ttacctcaga	tgcttgattc	aagcaacaac	gtattcttgg	gaagatcagc	caatccatct	5820
ttccttcacc	caaatcgagg	gttgaatccc	tccaatccca	tggggagaga	cataatggga	5880
attagctctt	cagagaacaa	gctacctcat	tggttacgga	atgttgtgac	tgttcctacc	5940
gtgaagtcac	ctgaaccacc	cactctacct	ccaactgtgt	cagctatagc	tcaatcagtc	6000

047-E2F-PCT.ST25.txt

cgcgttttat atggtgaaga ctctacaacc attccaccgt ttgtgatacc agagccgcca 6060  
 cctcctgctc ccagagatcc aagacacagt ctgcgtaaga aaaggaaacg taaattgcat 6120  
 tcatcgagtc aaaagactac agacattggt agtagcagcc acaatgctgt agaaagcagc 6180  
 tctcaaggca atccacaaac atctgcaact cctcctttgc ctccaccgtc tctggcgggt 6240  
 gaaacttcag ggtctttctca acccaaatta cctcctcaca acctaaatag cacagaacca 6300  
 ctgtcctctg aagcaatcat aattccacca cctgaagaag attctgtgat agcagcagcg 6360  
 ccatctgaag caccagggcc tagtctagag ggaatcactg gtacaacaaa gtcaatctcg 6420  
 ctagagagcc aaagctctga accagaaact attaatcaag atggagactt agatccagaa 6480  
 actgatgaga aagttgagtc tgaacgaacc ccgcttcatt cagatgagaa acaagaggag 6540  
 caagaatctg aaaatgcatt gaacaagcag tgtgagccca tagaggctga aagtcaaaac 6600  
 accaatgcag aagaagaagc agaggcacia gaagaagatg aagaatccat gaagatggtg 6660  
 actggttaatt ctcttagtga cgactga 6687

<210> 1330

<211> 2228

<212> PRT

<213> Arabidopsis thaliana

<400> 1330

Met Lys Gln Lys Arg Arg Lys Leu Pro Ser Ile Leu Asp Ile Leu Asp  
 1 5 10 15

Gln Lys Val Asp Ser Ser Met Ala Phe Asp Ser Pro Glu Tyr Thr Ser  
 20 25 30

Ser Ser Lys Pro Ser Lys Gln Arg Leu Lys Thr Asp Ser Thr Pro Glu  
 35 40 45

Arg Asn Ser Ser Lys Arg Lys Gly Asn Asp Gly Asn Tyr Phe Glu Cys  
 50 55 60

Val Ile Cys Asp Leu Gly Gly Asp Leu Leu Cys Cys Asp Ser Cys Pro  
 65 70 75 80

Arg Thr Tyr His Thr Ala Cys Leu Asn Pro Pro Leu Lys Arg Ile Pro  
 85 90 95

Asn Gly Lys Trp Ile Cys Pro Lys Cys Ser Pro Asn Ser Glu Ala Leu  
 Page 2089

100

105

110

Lys Pro Val Asn Arg Leu Asp Ala Ile Ala Lys Arg Ala Arg Thr Lys  
 115 120 125  
 Thr Lys Lys Arg Asn Ser Lys Ala Gly Pro Lys Cys Glu Arg Ala Ser  
 130 135 140  
 Gln Ile Tyr Cys Ser Ser Ile Ile Ser Gly Glu Gln Ser Ser Glu Lys  
 145 150 155 160  
 Gly Lys Ser Ile Ser Ala Glu Glu Ser Lys Ser Thr Gly Lys Glu Val  
 165 170 175  
 Tyr Ser Ser Pro Met Asp Gly Cys Ser Thr Ala Glu Leu Gly His Ala  
 180 185 190  
 Ser Ala Asp Asp Arg Pro Asp Ser Ser Ser His Gly Glu Asp Asp Leu  
 195 200 205  
 Gly Lys Pro Val Ile Pro Thr Ala Asp Leu Pro Ser Asp Ala Gly Leu  
 210 215 220  
 Thr Leu Leu Ser Cys Glu Asp Leu Ser Glu Ser Lys Leu Ser Asp Thr  
 225 230 235 240  
 Glu Lys Thr His Glu Ala Pro Val Glu Lys Leu Glu His Ala Ser Ser  
 245 250 255  
 Glu Ile Val Glu Asn Lys Thr Val Ala Glu Met Glu Thr Gly Lys Gly  
 260 265 270  
 Lys Arg Lys Lys Arg Lys Arg Glu Leu Asn Asp Gly Glu Ser Leu Glu  
 275 280 285  
 Arg Cys Lys Thr Asp Lys Lys Arg Ala Lys Lys Ser Leu Ser Lys Val  
 290 295 300  
 Gly Ser Ser Ser Gln Thr Thr Lys Ser Pro Glu Ser Ser Lys Lys Lys  
 305 310 315 320  
 Lys Lys Lys Asn Arg Val Thr Leu Lys Ser Leu Ser Lys Pro Gln Ser  
 325 330 335  
 Lys Thr Glu Thr Pro Glu Lys Val Lys Lys Leu Pro Lys Glu Glu Arg  
 340 345 350



Arg Ala Val Arg Ala Thr Asn Lys Ser Ser Ser Cys Leu Glu Asp Thr  
 355 360 365  
 Asn Ser Leu Pro Val Gly Asn Leu Gln Val His Arg Val Leu Gly Cys  
 370 375 380  
 Arg Ile Gln Gly Leu Thr Lys Thr Ser Leu Cys Ser Ala Leu Ser Asp  
 385 390 395 400  
 Asp Leu Cys Ser Asp Asn Leu Gln Ala Thr Asp Gln Arg Asp Ser Leu  
 405 410 415  
 Val Gln Asp Thr Asn Ala Glu Leu Val Val Ala Glu Asp Arg Ile Asp  
 420 425 430  
 Ser Ser Ser Glu Thr Gly Lys Ser Ser Arg Asp Ser Arg Leu Arg Asp  
 435 440 445  
 Lys Asp Met Asp Asp Ser Ala Leu Gly Thr Glu Gly Met Val Glu Val  
 450 455 460  
 Lys Glu Glu Met Leu Ser Glu Asp Ile Ser Asn Ala Thr Leu Ser Arg  
 465 470 475 480  
 His Val Asp Asp Glu Asp Met Lys Val Ser Glu Thr His Val Ser Val  
 485 490 495  
 Glu Arg Glu Leu Leu Glu Glu Ala His Gln Glu Thr Gly Glu Lys Ser  
 500 505 510  
 Thr Val Ala Asp Glu Glu Ile Glu Glu Pro Val Ala Ala Lys Thr Ser  
 515 520 525  
 Asp Leu Ile Gly Glu Thr Val Ser Tyr Glu Phe Leu Val Lys Trp Val  
 530 535 540  
 Asp Lys Ser Asn Ile His Asn Thr Trp Ile Ser Glu Ala Glu Leu Lys  
 545 550 555 560  
 Gly Leu Ala Lys Arg Lys Leu Glu Asn Tyr Lys Ala Lys Tyr Gly Thr  
 565 570 575  
 Ala Val Ile Asn Ile Cys Glu Asp Lys Trp Lys Gln Pro Gln Arg Ile  
 580 585 590  
 Val Ala Leu Arg Val Ser Lys Glu Gly Asn Gln Glu Ala Tyr Val Lys  
 595 600 605

047-E2F-PCT.ST25.txt

Trp Thr Gly Leu Ala Tyr Asp Glu Cys Thr Trp Glu Ser Leu Glu Glu  
 610 615 620  
 Pro Ile Leu Lys His Ser Ser His Leu Ile Asp Leu Phe His Gln Tyr  
 625 630 635 640  
 Glu Gln Lys Thr Leu Glu Arg Asn Ser Lys Gly Asn Pro Thr Arg Glu  
 645 650 655  
 Arg Gly Glu Val Val Thr Leu Thr Glu Gln Pro Gln Glu Leu Arg Gly  
 660 665 670  
 Gly Ala Leu Phe Ala His Gln Leu Glu Ala Leu Asn Trp Leu Arg Arg  
 675 680 685  
 Cys Trp His Lys Ser Lys Asn Val Ile Leu Ala Asp Glu Met Gly Leu  
 690 695 700  
 Gly Lys Thr Val Ser Ala Ser Ala Phe Leu Ser Ser Leu Tyr Phe Glu  
 705 710 715 720  
 Phe Gly Val Ala Arg Pro Cys Leu Val Leu Val Pro Leu Ser Thr Met  
 725 730 735  
 Pro Asn Trp Leu Ser Glu Phe Ser Leu Trp Ala Pro Leu Leu Asn Val  
 740 745 750  
 Val Glu Tyr His Gly Ser Ala Lys Gly Arg Ala Ile Ile Arg Asp Tyr  
 755 760 765  
 Glu Trp His Ala Lys Asn Ser Thr Gly Thr Thr Lys Lys Pro Thr Ser  
 770 775 780  
 Tyr Lys Phe Asn Val Leu Leu Thr Thr Tyr Glu Met Val Leu Ala Asp  
 785 790 795 800  
 Ser Ser His Leu Arg Gly Val Pro Trp Glu Val Leu Val Val Asp Glu  
 805 810 815  
 Gly His Arg Leu Lys Asn Ser Glu Ser Lys Leu Phe Ser Leu Leu Asn  
 820 825 830  
 Thr Phe Ser Phe Gln His Arg Val Leu Leu Thr Gly Thr Pro Leu Gln  
 835 840 845  
 Asn Asn Ile Gly Glu Met Tyr Asn Leu Leu Asn Phe Leu Gln Pro Ser  
 850 855 860

047-E2F-PCT.ST25.txt

Ser Phe Pro Ser Leu Ser Ser Phe Glu Glu Arg Phe His Asp Leu Thr  
865 870 875 880

Ser Ala Glu Lys Val Glu Glu Leu Lys Lys Leu Val Ala Pro His Met  
885 890 895

Leu Arg Arg Leu Lys Lys Asp Ala Met Gln Asn Ile Pro Pro Lys Thr  
900 905 910

Glu Arg Met Val Pro Val Glu Leu Thr Ser Ile Gln Ala Glu Tyr Tyr  
915 920 925

Arg Ala Met Leu Thr Lys Asn Tyr Gln Ile Leu Arg Asn Ile Gly Lys  
930 935 940

Gly Val Ala Gln Gln Ser Met Leu Asn Ile Val Met Gln Leu Arg Lys  
945 950 955 960

Val Cys Asn His Pro Tyr Leu Ile Pro Gly Thr Glu Pro Glu Ser Gly  
965 970 975

Ser Leu Glu Phe Leu His Asp Met Arg Ile Lys Ala Ser Ala Lys Leu  
980 985 990

Thr Leu Leu His Ser Met Leu Lys Val Leu His Lys Glu Gly His Arg  
995 1000 1005

Val Leu Ile Phe Ser Gln Met Thr Lys Leu Leu Asp Ile Leu Glu  
1010 1015 1020

Asp Tyr Leu Asn Ile Glu Phe Gly Pro Lys Thr Phe Glu Arg Val  
1025 1030 1035

Asp Gly Ser Val Ala Val Ala Asp Arg Gln Ala Ala Ile Ala Arg  
1040 1045 1050

Phe Asn Gln Asp Lys Asn Arg Phe Val Phe Leu Leu Ser Thr Arg  
1055 1060 1065

Ala Cys Gly Leu Gly Ile Asn Leu Ala Thr Ala Asp Thr Val Ile  
1070 1075 1080

Ile Tyr Asp Ser Asp Phe Asn Pro His Ala Asp Ile Gln Ala Met  
1085 1090 1095

Asn Arg Ala His Arg Ile Gly Gln Ser Lys Arg Leu Leu Val Tyr  
Page 2093

1100						1105						1110
Arg	Leu	Val	Val	Arg	Ala	Ser	Val	Glu	Glu	Arg	Ile	Leu Gln Leu
1115						1120					1125	
Ala	Lys	Lys	Lys	Leu	Met	Leu	Asp	Gln	Leu	Phe	Val	Asn Lys Ser
1130						1135					1140	
Gly	Ser	Gln	Lys	Glu	Phe	Glu	Asp	Ile	Leu	Arg	Trp	Gly Thr Glu
1145						1150					1155	
Glu	Leu	Phe	Asn	Asp	Ser	Ala	Gly	Glu	Asn	Lys	Lys	Asp Thr Ala
1160						1165					1170	
Glu	Ser	Asn	Gly	Asn	Leu	Asp	Val	Ile	Met	Asp	Leu	Glu Ser Lys
1175						1180					1185	
Ser	Arg	Lys	Lys	Gly	Gly	Gly	Leu	Gly	Asp	Val	Tyr	Gln Asp Lys
1190						1195					1200	
Cys	Thr	Glu	Gly	Asn	Gly	Lys	Ile	Val	Trp	Asp	Asp	Ile Ala Ile
1205						1210					1215	
Met	Lys	Leu	Leu	Asp	Arg	Ser	Asn	Leu	Gln	Ser	Ala	Ser Thr Asp
1220						1225					1230	
Ala	Ala	Asp	Thr	Glu	Leu	Asp	Asn	Asp	Met	Leu	Gly	Ser Val Lys
1235						1240					1245	
Pro	Val	Glu	Trp	Asn	Glu	Glu	Thr	Ala	Glu	Glu	Gln	Val Gly Ala
1250						1255					1260	
Glu	Ser	Pro	Ala	Leu	Val	Thr	Asp	Asp	Thr	Gly	Glu	Pro Ser Ser
1265						1270					1275	
Glu	Arg	Lys	Asp	Asp	Asp	Val	Val	Asn	Phe	Thr	Glu	Glu Asn Glu
1280						1285					1290	
Trp	Asp	Arg	Leu	Leu	Arg	Met	Arg	Leu	Glu	Phe	Pro	Leu Ser Leu
1295						1300					1305	
Ser	Ser	Ala	Ser	Trp	Leu	Trp	Ser	Trp	Gln	His	Ile	Trp Glu Lys
1310						1315					1320	
Tyr	Gln	Ser	Glu	Glu	Glu	Ala	Ala	Leu	Gly	Arg	Gly	Lys Arg Leu
1325						1330					1335	

Arg	Lys	Ala	Val	Ser	Tyr	Arg	Glu	Ala	Tyr	Ala	Pro	His	Thr	Ser
1340						1345					1350			
Gly	Pro	Val	Asn	Glu	Ser	Gly	Gly	Glu	Asp	Glu	Lys	Glu	Pro	Glu
1355						1360					1365			
Pro	Glu	Leu	Lys	Lys	Glu	Tyr	Thr	Pro	Ala	Gly	Arg	Ala	Leu	Lys
1370						1375					1380			
Glu	Lys	Phe	Thr	Lys	Leu	Arg	Glu	Arg	Gln	Lys	Asn	Leu	Ile	Ala
1385						1390					1395			
Arg	Arg	Asn	Ser	Val	Glu	Glu	Ser	Leu	Pro	Ser	Gly	Asn	Val	Asp
1400						1405					1410			
Gln	Val	Thr	Glu	Val	Ala	Asn	Gln	Asp	Glu	Glu	Ser	Pro	Thr	Ser
1415						1420					1425			
Met	Asp	Leu	Asp	Asp	Ser	Lys	Ala	Ser	Gln	Gln	Cys	Asp	Ala	Gln
1430						1435					1440			
Lys	Arg	Lys	Ala	Ser	Ser	Ser	Asp	Pro	Lys	Pro	Asp	Leu	Leu	Ser
1445						1450					1455			
Gln	His	His	His	Gly	Ala	Glu	Cys	Leu	Pro	Ser	Leu	Pro	Pro	Asn
1460						1465					1470			
Asn	Leu	Pro	Val	Leu	Gly	Leu	Cys	Ala	Pro	Asn	Phe	Thr	Gln	Ser
1475						1480					1485			
Glu	Ser	Ser	Arg	Arg	Asn	Tyr	Ser	Arg	Pro	Gly	Ser	Arg	Gln	Asn
1490						1495					1500			
Arg	Pro	Ile	Thr	Gly	Pro	His	Phe	Pro	Phe	Asn	Leu	Pro	Gln	Thr
1505						1510					1515			
Ser	Asn	Leu	Val	Glu	Arg	Glu	Ala	Asn	Asp	Gln	Glu	Pro	Pro	Met
1520						1525					1530			
Gly	Lys	Leu	Lys	Pro	Gln	Asn	Ile	Lys	Glu	Glu	Pro	Phe	Gln	Gln
1535						1540					1545			
Pro	Leu	Ser	Asn	Met	Asp	Gly	Trp	Leu	Pro	His	Arg	Gln	Phe	Pro
1550						1555					1560			
Pro	Ser	Gly	Asp	Phe	Glu	Arg	Pro	Arg	Ser	Ser	Gly	Ala	Ala	Phe
1565						1570					1575			

## 047-E2F-PCT.ST25.txt

Ala	Asp 1580	Phe	Gln	Glu	Lys	Phe 1585	Pro	Leu	Leu	Asn	Leu 1590	Pro	Phe	Asp
Asp	Lys 1595	Leu	Leu	Pro	Arg	Phe 1600	Pro	Phe	Gln	Pro	Arg 1605	Thr	Met	Gly
Thr	Ser 1610	His	Gln	Asp	Ile	Met 1615	Ala	Asn	Leu	Ser	Met 1620	Arg	Lys	Arg
Phe	Glu 1625	Gly	Thr	Gly	His	Ser 1630	Met	Gln	Asp	Leu	Phe 1635	Gly	Gly	Thr
Pro	Met 1640	Pro	Phe	Leu	Pro	Asn 1645	Met	Lys	Ile	Pro	Pro 1650	Met	Asp	Pro
Pro	Val 1655	Phe	Asn	Gln	Gln	Glu 1660	Lys	Asp	Leu	Pro	Pro 1665	Leu	Gly	Leu
Asp	Gln 1670	Phe	Pro	Ser	Ala	Leu 1675	Ser	Ser	Ile	Pro	Glu 1680	Asn	His	Arg
Lys	Val 1685	Leu	Glu	Asn	Ile	Met 1690	Leu	Arg	Thr	Gly	Ser 1695	Gly	Ile	Gly
His	Val 1700	Gln	Lys	Lys	Lys	Thr 1705	Arg	Val	Asp	Ala	Trp 1710	Ser	Glu	Asp
Glu	Leu 1715	Asp	Ser	Leu	Trp	Ile 1720	Gly	Ile	Arg	Arg	His 1725	Gly	Tyr	Gly
Asn	Trp 1730	Glu	Thr	Ile	Leu	Arg 1735	Asp	Pro	Arg	Leu	Lys 1740	Phe	Ser	Lys
Phe	Lys 1745	Thr	Pro	Glu	Tyr	Leu 1750	Ala	Ala	Arg	Trp	Glu 1755	Glu	Glu	Gln
Arg	Lys 1760	Phe	Leu	Asp	Ser	Leu 1765	Ser	Ser	Leu	Pro	Ser 1770	Lys	Ser	Ser
Arg	Thr 1775	Asp	Lys	Ser	Thr	Lys 1780	Ser	Ser	Leu	Phe	Pro 1785	Gly	Leu	Pro
Gln	Gly 1790	Ile	Met	Asn	Arg	Ala 1795	Leu	His	Gly	Lys	Tyr 1800	Ala	Thr	Pro
Pro	Arg 1805	Phe	Gln	Ser	His	Leu 1810	Thr	Asp	Ile	Lys	Leu 1815	Gly	Phe	Gly

047-E2F-PCT.ST25.txt

Asp Leu Ala Ser Pro Leu Pro Leu Phe Glu Pro Ser Asp His Leu  
 1820 1825 1830  
 Gly Phe Arg Ser Glu His Phe Pro Pro Met Ala Asn Leu Cys Thr  
 1835 1840 1845  
 Asp Asn Leu Pro Gly Glu Pro Ser Ala Gly Pro Ser Glu Arg Ala  
 1850 1855 1860  
 Gly Thr Ser Thr Asn Ile Pro Asn Glu Lys Pro Phe Pro Leu Asn  
 1865 1870 1875  
 Ser Leu Gly Met Gly Asn Leu Gly Ser Leu Gly Leu Asp Ser Leu  
 1880 1885 1890  
 Ser Ser Leu Asn Thr Leu Arg Ala Glu Glu Lys Arg Asp Ala Ile  
 1895 1900 1905  
 Lys Arg Gly Lys Leu Pro Leu Phe Leu Asp Met Pro Leu Pro Gln  
 1910 1915 1920  
 Met Leu Asp Ser Ser Asn Asn Val Phe Leu Gly Arg Ser Ala Asn  
 1925 1930 1935  
 Pro Ser Phe Leu His Pro Asn Arg Gly Leu Asn Pro Ser Asn Pro  
 1940 1945 1950  
 Met Gly Arg Asp Ile Met Gly Ile Ser Ser Ser Glu Asn Lys Leu  
 1955 1960 1965  
 Pro His Trp Leu Arg Asn Val Val Thr Val Pro Thr Val Lys Ser  
 1970 1975 1980  
 Pro Glu Pro Pro Thr Leu Pro Pro Thr Val Ser Ala Ile Ala Gln  
 1985 1990 1995  
 Ser Val Arg Val Leu Tyr Gly Glu Asp Ser Thr Thr Ile Pro Pro  
 2000 2005 2010  
 Phe Val Ile Pro Glu Pro Pro Pro Pro Ala Pro Arg Asp Pro Arg  
 2015 2020 2025  
 His Ser Leu Arg Lys Lys Arg Lys Arg Lys Leu His Ser Ser Ser  
 2030 2035 2040  
 Gln Lys Thr Thr Asp Ile Gly Ser Ser Ser His Asn Ala Val Glu

2045

2050

2055

Ser Ser Ser Gln Gly Asn Pro Gln Thr Ser Ala Thr Pro Pro Leu  
 2060 2065 2070  
 Pro Pro Pro Ser Leu Ala Gly Glu Thr Ser Gly Ser Ser Gln Pro  
 2075 2080 2085  
 Lys Leu Pro Pro His Asn Leu Asn Ser Thr Glu Pro Leu Ser Ser  
 2090 2095 2100  
 Glu Ala Ile Ile Ile Pro Pro Pro Glu Glu Asp Ser Val Ile Ala  
 2105 2110 2115  
 Ala Ala Pro Ser Glu Ala Pro Gly Pro Ser Leu Glu Gly Ile Thr  
 2120 2125 2130  
 Gly Thr Thr Lys Ser Ile Ser Leu Glu Ser Gln Ser Ser Glu Pro  
 2135 2140 2145  
 Glu Thr Ile Asn Gln Asp Gly Asp Leu Asp Pro Glu Thr Asp Glu  
 2150 2155 2160  
 Lys Val Glu Ser Glu Arg Thr Pro Leu His Ser Asp Glu Lys Gln  
 2165 2170 2175  
 Glu Glu Gln Glu Ser Glu Asn Ala Leu Asn Lys Gln Cys Glu Pro  
 2180 2185 2190  
 Ile Glu Ala Glu Ser Gln Asn Thr Asn Ala Glu Glu Glu Ala Glu  
 2195 2200 2205  
 Ala Gln Glu Glu Asp Glu Glu Ser Met Lys Met Val Thr Gly Asn  
 2210 2215 2220  
 Ser Leu Ser Asp Asp  
 2225

&lt;210&gt; 1331

&lt;211&gt; 768

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1331

atgggatgagc aggtccaaga acctctttct gatcaggtgt ttatcaactt ccgaggagat

60



047-E2F-PCT.ST25.txt

gagctgcgcg aaatctttgt caaccatcta gagctgcaat taagaaacgc agggatcaac 120  
gtcttcatag aactaaaga gcagaaaggg agaagactac aatatctctt cacaaggatc 180  
aagaagtcaa aaatcgcgct tgctatcttc tccaagaggt actgtgagtc aaagtgggtgt 240  
ttggatgagc ttgtgacgat gaatgaacag atgaaggaaa agaaactcgt ggtgattcca 300  
atcttctata acgtaagatc ggacgatgta aaaagagcag ccaatcccga tggagaaggc 360  
aatcttgatg gagagttttc ctttcctttt aagcaactga agcaaaacca tgcaggggag 420  
cctgagaggg tcgaggggtt ggagcgtgcc ctgagatctg tgacaaaaag aataggggtt 480  
tcccggtcaa actcaaagta caaacacgat accgattttg ttttggatat tgttaaggag 540  
gttaagaaac agctaaacat accaactgac aacagttggt cagctatagg agttgctttc 600  
ttggctataa ccatcaactt gatctttagt ttcttcattg cccctaagta tctccctgat 660  
cagaagtttt tccagactcc tgaatggttc ataggtactc tggcagttgt tcttgcgtcg 720  
tggttttgggt acaaaaataa ccagaacaaa gcaccacctc cttcataa 768

<210> 1332

<211> 255

<212> PRT

<213> Arabidopsis thaliana

<400> 1332

Met Asp Glu Gln Val Gln Glu Pro Leu Ser Asp Gln Val Phe Ile Asn  
1 5 10 15

Phe Arg Gly Asp Glu Leu Arg Glu Ile Phe Val Asn His Leu Glu Leu  
20 25 30

Gln Leu Arg Asn Ala Gly Ile Asn Val Phe Ile Asp Thr Lys Glu Gln  
35 40 45

Lys Gly Arg Arg Leu Gln Tyr Leu Phe Thr Arg Ile Lys Lys Ser Lys  
50 55 60

Ile Ala Leu Ala Ile Phe Ser Lys Arg Tyr Cys Glu Ser Lys Trp Cys  
65 70 75 80

Leu Asp Glu Leu Val Thr Met Asn Glu Gln Met Lys Glu Lys Lys Leu  
85 90 95

Val Val Ile Pro Ile Phe Tyr Asn Val Arg Ser Asp Asp Val Lys Arg

100

105

110

Ala Ala Asn Pro Asp Gly Glu Gly Asn Leu Asp Gly Glu Phe Ser Leu  
 115 120 125

Pro Phe Lys Gln Leu Lys Gln Asn His Ala Gly Glu Pro Glu Arg Val  
 130 135 140

Glu Gly Trp Glu Arg Ala Leu Arg Ser Val Thr Lys Arg Ile Gly Phe  
 145 150 155 160

Ser Arg Ser Asn Ser Lys Tyr Lys His Asp Thr Asp Phe Val Leu Asp  
 165 170 175

Ile Val Lys Glu Val Lys Lys Gln Leu Asn Ile Pro Thr Asp Asn Ser  
 180 185 190

Trp Ser Ala Ile Gly Val Ala Phe Leu Ala Ile Thr Ile Asn Leu Ile  
 195 200 205

Phe Ser Phe Phe Ile Ala Pro Lys Tyr Leu Pro Asp Gln Lys Phe Phe  
 210 215 220

Gln Thr Pro Glu Trp Phe Ile Gly Thr Leu Ala Val Val Leu Ala Ser  
 225 230 235 240

Trp Phe Trp Tyr Lys Asn Asn Gln Asn Lys Ala Pro Pro Pro Ser  
 245 250 255

&lt;210&gt; 1333

&lt;211&gt; 750

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1333

atggcgaggag gaatagggct gggagacacg acatacacga aggtgtttgt gggaggatta 60

gcttgggaga cgcataagga gacgatgaag aagcactttg agcagtttgg agagattttg 120

gaagccgtag tcatcaccga caaggcctcc ggtagatcca agggctacgg attcgtgaca 180

ttcagggaa gggaggcggc gaggagtgt tgtgtggatg ctactccggt gatcgacggg 240

agaagagcaa attgcaacct cgcctctctc ggtcttcaaa gatccaaacc ctccactcct 300

aaccatggag gaggaggcag gattaacaat atgagagtga tgatgagcac aatgcagact 360

ggtttttgac cacctccacc accacaacca cccaccttca ctactatcc ccatctccct 420

047-E2F-PCT.ST25.txt

ctcaatctct ttgggtactc tccatactcg ccagactact catcattccc tacgaactta 480  
 tacggcatgt acggctgcac ttctggagga caatacggag tctatggaaa cagaaacagc 540  
 ggaggcgggtg gactaaccgc agcagccgca tccgctactc ctttttatcc ttgtggtgga 600  
 ggacatggtg ggggtccagtt ctctcaacca caaccatttt atcatcactt gtcttcttat 660  
 aaccctcacc attactctcc tccgaccttt tctatgcaac aaggcgtaac aggctttccg 720  
 cttcaaccac ctcttattcc ttaccgtaa 750

<210> 1334

<211> 249

<212> PRT

<213> Arabidopsis thaliana

<400> 1334

Met Ala Gly Gly Ile Gly Leu Gly Asp Thr Thr Tyr Thr Lys Val Phe  
 1 5 10 15

Val Gly Gly Leu Ala Trp Glu Thr His Lys Glu Thr Met Lys Lys His  
 20 25 30

Phe Glu Gln Phe Gly Glu Ile Leu Glu Ala Val Val Ile Thr Asp Lys  
 35 40 45

Ala Ser Gly Arg Ser Lys Gly Tyr Gly Phe Val Thr Phe Arg Glu Ala  
 50 55 60

Glu Ala Ala Arg Ser Ala Cys Val Asp Ala Thr Pro Val Ile Asp Gly  
 65 70 75 80

Arg Arg Ala Asn Cys Asn Leu Ala Ser Leu Gly Leu Gln Arg Ser Lys  
 85 90 95

Pro Ser Thr Pro Asn His Gly Gly Gly Gly Arg Ile Asn Asn Met Arg  
 100 105 110

Val Met Met Ser Thr Met Gln Thr Gly Phe Gly Pro Pro Pro Pro  
 115 120 125

Gln Pro Pro Thr Phe Thr His Tyr Pro His Leu Pro Leu Asn Leu Phe  
 130 135 140

Gly Tyr Ser Pro Tyr Ser Pro Asp Tyr Ser Ser Phe Pro Thr Asn Leu  
 Page 2101

145                      150                      155                      160  
 Tyr Gly Met Tyr Gly Cys Thr Ser Gly Gly Gln Tyr Gly Val Tyr Gly  
                                  165                                   170                                   175  
 Asn Arg Asn Ser Gly Gly Gly Gly Leu Thr Ala Ala Ala Ala Ser Ala  
                                  180                                   185                                   190  
 Thr Pro Phe Tyr Pro Cys Gly Gly Gly His Gly Gly Val Gln Phe Ser  
                                  195                                   200                                   205  
 Gln Pro Gln Pro Phe Tyr His His Leu Ser Ser Tyr Asn Pro His His  
                                  210                                   215                                   220  
 Tyr Ser Pro Pro Thr Phe Ser Met Gln Gln Gly Val Thr Gly Phe Pro  
                                  225                                   230                                   235                                   240  
 Leu Gln Pro Pro Leu Ile Pro Tyr Arg  
    245

<210> 1335

<211> 1284

<212> DNA

<213> Arabidopsis thaliana

<400> 1335

```

atggcggata agaagaagcg aaagcgatca aaagatgacg aggcggagga acttcctttc      60
aaaagcattc tggaatcaga cgacgttatc acggagcttc tcaaatcgta tatttcctct      120
tctatcaaag ccgccgccgg agccggcggg gcctcctcct cttcatcgaa acctctaacc      180
ctagctgacc tctctctatc atcttcctgt cgtgaagtcg cagatctctc actctcctcc      240
gtgcagacag agatagagac agtcatcgtc cagatcgccc gttctattct cgccggtgat      300
ggcttctcct tcagtgttcc ttcacgcgcc gcctcgaatc agctgtatgt tcctgagctc      360
gaccgtatag tgctaaaaga caaatctacc ctccgtccat ttgcctccgt ttcttctgtc      420
aggaaaacca ccatcaccac tcgtatcctc gcccttatcc accaactctg cctcaggaac      480
attcacgtta ctaagcgtga tctcttctac accgacgtta agctttttcca ggaccagaca      540
cagagtgatg ctgtgttgga tgatgtctca tgtatgctcg gttgcacaag gtcaagtctc      600
aatgtcattg cagcagagaa aggtgtggtg gtgggaaggc ttatattcag tgacaatgga      660
gacatgatag attgcacaaa gatgggaatg ggtgggaaag ccattccacc aaacattgac      720
cgggttgag atatgcagag tgatgctatg ttcatactct tagttgaaaa agatgcagct      780

```

047-E2F-PCT.ST25.txt

tatatgaggt tagctgaaga cagattctat aaccggttcc cttgtatcat cgtgactgca 840  
aaaggccagc ctgatgtagc tacaaggctc ttcttgagga aaatgaaaat ggagcttaag 900  
cttccggtac ttgccttggt ggatagtgat ccttacggat tgaagatctt gtcggtgtat 960  
ggatgtgggt cgaagaacat gtcatatgat agtgcaaact tgactacgcc tgatattaag 1020  
tggcttgga ttaggccgag tgatttggac aagtataaga tacctgaaca gtgtaggttg 1080  
ccgatgactg agcaggatat taagaccggg aaggatatgc tagaggagga tttcgtgaag 1140  
aaaaatcccg ggtgggtcga ggaacttaac ctgatggtga aaacgaagca aaaggctgag 1200  
attcaggcgt tgagctcttt tggtttccag tatttatcgg aagtttactt gccctgaaa 1260  
ctgcagcagc aggattggct ctga 1284

<210> 1336

<211> 427

<212> PRT

<213> Arabidopsis thaliana

<400> 1336

Met Ala Asp Lys Lys Lys Arg Lys Arg Ser Lys Asp Asp Glu Ala Glu  
1 5 10 15

Glu Leu Pro Phe Lys Ser Ile Leu Glu Ser Asp Asp Val Ile Thr Glu  
20 25 30

Leu Leu Lys Ser Tyr Ile Ser Ser Ser Ile Lys Ala Ala Ala Gly Ala  
35 40 45

Gly Gly Ala Ser Ser Ser Ser Ser Lys Pro Leu Thr Leu Ala Asp Leu  
50 55 60

Ser Leu Ser Ser Ser Cys Arg Glu Val Ala Asp Leu Ser Leu Ser Ser  
65 70 75 80

Val Gln Thr Glu Ile Glu Thr Val Ile Val Gln Ile Ala Arg Ser Ile  
85 90 95

Leu Ala Gly Asp Gly Phe Ser Phe Ser Val Pro Ser Arg Ala Ala Ser  
100 105 110

Asn Gln Leu Tyr Val Pro Glu Leu Asp Arg Ile Val Leu Lys Asp Lys  
115 120 125

047-E2F-PCT.ST25.txt

Ser Thr Leu Arg Pro Phe Ala Ser Val Ser Ser Val Arg Lys Thr Thr  
130 135 140

Ile Thr Thr Arg Ile Leu Ala Leu Ile His Gln Leu Cys Leu Arg Asn  
145 150 155 160

Ile His Val Thr Lys Arg Asp Leu Phe Tyr Thr Asp Val Lys Leu Phe  
165 170 175

Gln Asp Gln Thr Gln Ser Asp Ala Val Leu Asp Asp Val Ser Cys Met  
180 185 190

Leu Gly Cys Thr Arg Ser Ser Leu Asn Val Ile Ala Ala Glu Lys Gly  
195 200 205

Val Val Val Gly Arg Leu Ile Phe Ser Asp Asn Gly Asp Met Ile Asp  
210 215 220

Cys Thr Lys Met Gly Met Gly Gly Lys Ala Ile Pro Pro Asn Ile Asp  
225 230 235 240

Arg Val Gly Asp Met Gln Ser Asp Ala Met Phe Ile Leu Leu Val Glu  
245 250 255

Lys Asp Ala Ala Tyr Met Arg Leu Ala Glu Asp Arg Phe Tyr Asn Arg  
260 265 270

Phe Pro Cys Ile Ile Val Thr Ala Lys Gly Gln Pro Asp Val Ala Thr  
275 280 285

Arg Leu Phe Leu Arg Lys Met Lys Met Glu Leu Lys Leu Pro Val Leu  
290 295 300

Ala Leu Val Asp Ser Asp Pro Tyr Gly Leu Lys Ile Leu Ser Val Tyr  
305 310 315 320

Gly Cys Gly Ser Lys Asn Met Ser Tyr Asp Ser Ala Asn Leu Thr Thr  
325 330 335

Pro Asp Ile Lys Trp Leu Gly Ile Arg Pro Ser Asp Leu Asp Lys Tyr  
340 345 350

Lys Ile Pro Glu Gln Cys Arg Leu Pro Met Thr Glu Gln Asp Ile Lys  
355 360 365

Thr Gly Lys Asp Met Leu Glu Glu Asp Phe Val Lys Lys Asn Pro Gly  
370 375 380

047-E2F-PCT.ST25.txt

Trp Val Glu Glu Leu Asn Leu Met Val Lys Thr Lys Gln Lys Ala Glu  
385 390 395 400

Ile Gln Ala Leu Ser Ser Phe Gly Phe Gln Tyr Leu Ser Glu Val Tyr  
405 410 415

Leu Pro Leu Lys Leu Gln Gln Gln Asp Trp Leu  
420 425

<210> 1337

<211> 1458

<212> DNA

<213> Arabidopsis thaliana

<400> 1337

atgctgaata agctcacgca cggcgttttc acgtaccgtg ccagcctcac cgccatgtta	60
tcttcttcaa cctctgctgg tttatcgtct tcgttcgttt cttcgagatt tcttagttcc	120
ggtatattct ctagtggcgc ttcgaggaat cgcgtgactt ttcccgttca gtttcatcgc	180
gcatcagctg ttcgatgttt tgcttcttca ggcggttctg atagaattca ggttcagaat	240
cctatcgttg aaatggatgg cgatgaaatg acgaggggtga tatggagtat gataaaggag	300
aaacttattc ttccttatct ggatttggac attaagtact tcgacttggg gattctgaat	360
cgcgatgcta ctgatgacaa ggttacagtt gaaagtgcag aagcagctct taagtacaat	420
gttgctatca aatgtgccac tataactcct gatgagggta gagtgaagga gtttggactg	480
aaatcaatgt ggaggagtcc taatgggacg atcagaaaca ttctagatgg aaccgtattc	540
cgtgaaccta ttatgtgcag caatatcccc cggcttggtc ctggttggga aaagcctata	600
tgcattggta gacatgcctt tggtgaccag tatcgtgcc a tgatacagt aattaaagg	660
ccaggaaagt tgaaaatggt ttttgtccca gaagatggaa acgcacctgt ggagctagat	720
gtatatgatt tcaagggcc aggtgtcgca cttgctatgt acaacgtaga tgagtcaatt	780
agagcttttg ctgagtcatc tatggcgatg gcattaacta agaaatggcc attatacttg	840
agcaccaaga acacaattct caagaaatat gatggcagat ttaaggacat atttcaagaa	900
gtttatgagg cgaattggaa gcaaaagttt gaagagcact caatctggta cgagcaccgg	960
ttgattgatg acatggtggc ttacgcagtc aaaagtgaag gtggctatgt ctgggcttgc	1020
aaaaactacg acggtgatgt tcaaagcgat cttcttgccc aagggttttg ctcattaggc	1080
ctcatgacct ccgttttgct gtccgctgat gggaaaacac tcgagtcgga agcggctcat	1140

047-E2F-PCT.ST25.txt

ggaacagtaa ctcggcattt ccgactgcac caaaaggac aagaaaccag tactaacagc 1200  
 atagcctcaa ttttgcattg gacacgcggc ttagaacaca gggcgaaact ggataagaac 1260  
 gagaaattaa tggatttcgt gaagaagctc gagtcgtcat gtgtaaacac tgttgagaca 1320  
 gggaaaatga ccaaggatct tgccctttta atccatggtc ccaagggtgag tagggatttg 1380  
 tttttgaaca cggaagagtt cattgatgca gtagcctcca agctcaaaac acagttcaaa 1440  
 gagcttcctc ttgtctga 1458

<210> 1338

<211> 485

<212> PRT

<213> Arabidopsis thaliana

<400> 1338

Met Leu Asn Lys Leu Thr His Gly Val Phe Thr Tyr Arg Ala Ser Leu  
 1 5 10 15

Thr Ala Met Leu Ser Ser Ser Thr Ser Ala Gly Leu Ser Ser Ser Phe  
 20 25 30

Val Ser Ser Arg Phe Leu Ser Ser Gly Ile Phe Ser Ser Gly Ala Ser  
 35 40 45

Arg Asn Arg Val Thr Phe Pro Val Gln Phe His Arg Ala Ser Ala Val  
 50 55 60

Arg Cys Phe Ala Ser Ser Gly Gly Ser Asp Arg Ile Gln Val Gln Asn  
 65 70 75 80

Pro Ile Val Glu Met Asp Gly Asp Glu Met Thr Arg Val Ile Trp Ser  
 85 90 95

Met Ile Lys Glu Lys Leu Ile Leu Pro Tyr Leu Asp Leu Asp Ile Lys  
 100 105 110

Tyr Phe Asp Leu Gly Ile Leu Asn Arg Asp Ala Thr Asp Asp Lys Val  
 115 120 125

Thr Val Glu Ser Ala Glu Ala Ala Leu Lys Tyr Asn Val Ala Ile Lys  
 130 135 140

Cys Ala Thr Ile Thr Pro Asp Glu Gly Arg Val Lys Glu Phe Gly Leu  
 145 150 155 160



047-E2F-PCT.ST25.txt

Lys Ser Met Trp Arg Ser Pro Asn Gly Thr Ile Arg Asn Ile Leu Asp  
 165 170 175  
 Gly Thr Val Phe Arg Glu Pro Ile Met Cys Ser Asn Ile Pro Arg Leu  
 180 185 190  
 Val Pro Gly Trp Glu Lys Pro Ile Cys Ile Gly Arg His Ala Phe Gly  
 195 200 205  
 Asp Gln Tyr Arg Ala Thr Asp Thr Val Ile Lys Gly Pro Gly Lys Leu  
 210 215 220  
 Lys Met Val Phe Val Pro Glu Asp Gly Asn Ala Pro Val Glu Leu Asp  
 225 230 235 240  
 Val Tyr Asp Phe Lys Gly Pro Gly Val Ala Leu Ala Met Tyr Asn Val  
 245 250 255  
 Asp Glu Ser Ile Arg Ala Phe Ala Glu Ser Ser Met Ala Met Ala Leu  
 260 265 270  
 Thr Lys Lys Trp Pro Leu Tyr Leu Ser Thr Lys Asn Thr Ile Leu Lys  
 275 280 285  
 Lys Tyr Asp Gly Arg Phe Lys Asp Ile Phe Gln Glu Val Tyr Glu Ala  
 290 295 300  
 Asn Trp Lys Gln Lys Phe Glu Glu His Ser Ile Trp Tyr Glu His Arg  
 305 310 315 320  
 Leu Ile Asp Asp Met Val Ala Tyr Ala Val Lys Ser Glu Gly Gly Tyr  
 325 330 335  
 Val Trp Ala Cys Lys Asn Tyr Asp Gly Asp Val Gln Ser Asp Leu Leu  
 340 345 350  
 Ala Gln Gly Phe Gly Ser Leu Gly Leu Met Thr Ser Val Leu Leu Ser  
 355 360 365  
 Ala Asp Gly Lys Thr Leu Glu Ser Glu Ala Ala His Gly Thr Val Thr  
 370 375 380  
 Arg His Phe Arg Leu His Gln Lys Gly Gln Glu Thr Ser Thr Asn Ser  
 385 390 395 400  
 Ile Ala Ser Ile Phe Ala Trp Thr Arg Gly Leu Glu His Arg Ala Lys  
 Page 2107

405

410

415

Leu Asp Lys Asn Glu Lys Leu Met Asp Phe Val Lys Lys Leu Glu Ser  
 420 425 430

Ser Cys Val Asn Thr Val Glu Thr Gly Lys Met Thr Lys Asp Leu Ala  
 435 440 445

Leu Leu Ile His Gly Pro Lys Val Ser Arg Asp Leu Phe Leu Asn Thr  
 450 455 460

Glu Glu Phe Ile Asp Ala Val Ala Ser Lys Leu Lys Thr Gln Phe Lys  
 465 470 475 480

Glu Leu Pro Leu Val  
 485

&lt;210&gt; 1339

&lt;211&gt; 1857

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1339

atggaaggtc tgattcaaac cagaggaatt ctctctttac ccgcgaagcc catcggagtg 60  
 agaaggcttc tccaaccctc acatggctta aagcaaagac ttttcaccac aaacttacct 120  
 gccttgctct tatcctctaa tggtcacaag aaatttcaag cctttcagca aatcccactt 180  
 gggatttcgg tttcccacaa ggagagaagc agaggattca tctgcaaggc ggaagctgcg 240  
 gcggccggag gcggaaatgt gttcgacgaa ggagacacag cggcgatggc ggtgtcgcct 300  
 aagattttcg gtgtggaggt tacgactctg aagaagattg ttcctttagg gctaattgtt 360  
 ttttgcattc ttttcaatta cacaatcctt agggacacga aggatgtttt ggtggtgacg 420  
 gctaaaggaa gttctgctga gattataccc tttttgaaga catgggtgaa tcttccgatg 480  
 gctattgggt ttatgttgct atacaccaa ctttccaatg ttctctcaa aaaggctctc 540  
 ttttacactg ttattgttcc tttcattgtc tactttggag cttttggttt cgtgatgtac 600  
 cctctcagca atttgattca tcctgaagct cttgctgata agcttcttgc aacactcggc 660  
 cccagattca tgggtcctct cgcaatcatg aggatttgga gtttctgttt gttctatgtc 720  
 atggctgagc tttggggtag tggtgtcggt tcagttctct tctggggatt tgccaaccag 780  
 attacaactg ttgacgaagc caaaaagttc tatcctctgt ttggacttgg ggccaatgtt 840  
 gcacttatct tctcaggaag aactgtgaaa tttttctcta atatgagaaa gaatcttggt 900

047-E2F-PCT.ST25.txt

```

cctggagttg atggctgggc tgtttcatta aaagctatga tgagtattgt cgtgggggatg 960
ggctctcgcca tctgtttcct ctactggtgg gtgaatagat atgtgccctt cccaacccgt 1020
agcaagaaga agaaggtgaa accacagatg ggaacaatgg agagcttgaa gttcttggtg 1080
tcatacccat acattaggga tcttgctact ttggtggttg catatggaat tagtatcaac 1140
cttgttgaag tcacatggaa atcaaagctt aaagctcagt tccctagccc gaacgaatac 1200
tcagcattta tgggcgactt ctcaacctgc acaggtattg caacattcac aatgatgctt 1260
ctaagccaat acgtgtttta gaagtatggt tggggagtag ctgcaaagat cacaccaacc 1320
gttctgctat tgaccggtgt tgccttcttc tctctgatac tgtttggtgg cccattcgca 1380
ccattggttg ccaagcttgg tatgacaccg ctactcgcag cagtgtacgt tggtgccctc 1440
cagaatatct tcagcaagag tgccaagtac agcttggtcg atccttgcaa agaaatggct 1500
tatatcccat tggatgagga caccaagggt aaaggcaaag ctgcaattga tgtggtctgc 1560
aaccatttg ggaaatcagg cggtgctcta atccagcagt tcatgatcct tacattcggc 1620
tactcgcca attccacacc ttaccttga gtcactctgc tcggtatagt cactgcatgg 1680
ttagcagcag ctaaatacgct ggaggggacag tttaacactc tcatgtctga ggaagagctt 1740
gagagggaaa tggagagagc ttcatcagtc aagattcctg ttgtatctca ggaggatgcg 1800
ccatcaggag aaactacgag ccaactatcg gagaaatcta ctctactgg catttag 1857

```

<210> 1340

<211> 618

<212> PRT

<213> Arabidopsis thaliana

<400> 1340

Met Glu Gly Leu Ile Gln Thr Arg Gly Ile Leu Ser Leu Pro Ala Lys  
1 5 10 15

Pro Ile Gly Val Arg Arg Leu Leu Gln Pro Ser His Gly Leu Lys Gln  
20 25 30

Arg Leu Phe Thr Thr Asn Leu Pro Ala Leu Ser Leu Ser Ser Asn Gly  
35 40 45

His Lys Lys Phe Gln Ala Phe Gln Gln Ile Pro Leu Gly Ile Ser Val  
50 55 60

Ser His Lys Glu Arg Ser Arg Gly Phe Ile Cys Lys Ala Glu Ala Ala  
Page 2109

65					70										80
Ala	Ala	Gly	Gly	Gly	Asn	Val	Phe	Asp	Glu	Gly	Asp	Thr	Ala	Ala	Met
				85					90					95	
Ala	Val	Ser	Pro	Lys	Ile	Phe	Gly	Val	Glu	Val	Thr	Thr	Leu	Lys	Lys
			100					105					110		
Ile	Val	Pro	Leu	Gly	Leu	Met	Phe	Phe	Cys	Ile	Leu	Phe	Asn	Tyr	Thr
		115					120					125			
Ile	Leu	Arg	Asp	Thr	Lys	Asp	Val	Leu	Val	Val	Thr	Ala	Lys	Gly	Ser
	130					135					140				
Ser	Ala	Glu	Ile	Ile	Pro	Phe	Leu	Lys	Thr	Trp	Val	Asn	Leu	Pro	Met
145					150					155					160
Ala	Ile	Gly	Phe	Met	Leu	Leu	Tyr	Thr	Lys	Leu	Ser	Asn	Val	Leu	Ser
				165					170					175	
Lys	Lys	Ala	Leu	Phe	Tyr	Thr	Val	Ile	Val	Pro	Phe	Ile	Val	Tyr	Phe
			180					185					190		
Gly	Ala	Phe	Gly	Phe	Val	Met	Tyr	Pro	Leu	Ser	Asn	Leu	Ile	His	Pro
		195					200					205			
Glu	Ala	Leu	Ala	Asp	Lys	Leu	Leu	Ala	Thr	Leu	Gly	Pro	Arg	Phe	Met
	210					215					220				
Gly	Pro	Leu	Ala	Ile	Met	Arg	Ile	Trp	Ser	Phe	Cys	Leu	Phe	Tyr	Val
225					230					235					240
Met	Ala	Glu	Leu	Trp	Gly	Ser	Val	Val	Val	Ser	Val	Leu	Phe	Trp	Gly
				245					250					255	
Phe	Ala	Asn	Gln	Ile	Thr	Thr	Val	Asp	Glu	Ala	Lys	Lys	Phe	Tyr	Pro
			260					265					270		
Leu	Phe	Gly	Leu	Gly	Ala	Asn	Val	Ala	Leu	Ile	Phe	Ser	Gly	Arg	Thr
		275					280					285			
Val	Lys	Tyr	Phe	Ser	Asn	Met	Arg	Lys	Asn	Leu	Gly	Pro	Gly	Val	Asp
	290					295					300				
Gly	Trp	Ala	Val	Ser	Leu	Lys	Ala	Met	Met	Ser	Ile	Val	Val	Gly	Met
305					310					315					320

Gly Leu Ala Ile Cys Phe Leu Tyr Trp Trp Val Asn Arg Tyr Val Pro  
 325 330 335  
 Leu Pro Thr Arg Ser Lys Lys Lys Lys Val Lys Pro Gln Met Gly Thr  
 340 345 350  
 Met Glu Ser Leu Lys Phe Leu Val Ser Ser Pro Tyr Ile Arg Asp Leu  
 355 360 365  
 Ala Thr Leu Val Val Ala Tyr Gly Ile Ser Ile Asn Leu Val Glu Val  
 370 375 380  
 Thr Trp Lys Ser Lys Leu Lys Ala Gln Phe Pro Ser Pro Asn Glu Tyr  
 385 390 395 400  
 Ser Ala Phe Met Gly Asp Phe Ser Thr Cys Thr Gly Ile Ala Thr Phe  
 405 410 415  
 Thr Met Met Leu Leu Ser Gln Tyr Val Phe Lys Lys Tyr Gly Trp Gly  
 420 425 430  
 Val Ala Ala Lys Ile Thr Pro Thr Val Leu Leu Leu Thr Gly Val Ala  
 435 440 445  
 Phe Phe Ser Leu Ile Leu Phe Gly Gly Pro Phe Ala Pro Leu Val Ala  
 450 455 460  
 Lys Leu Gly Met Thr Pro Leu Leu Ala Ala Val Tyr Val Gly Ala Leu  
 465 470 475 480  
 Gln Asn Ile Phe Ser Lys Ser Ala Lys Tyr Ser Leu Phe Asp Pro Cys  
 485 490 495  
 Lys Glu Met Ala Tyr Ile Pro Leu Asp Glu Asp Thr Lys Val Lys Gly  
 500 505 510  
 Lys Ala Ala Ile Asp Val Val Cys Asn Pro Leu Gly Lys Ser Gly Gly  
 515 520 525  
 Ala Leu Ile Gln Gln Phe Met Ile Leu Thr Phe Gly Ser Leu Ala Asn  
 530 535 540  
 Ser Thr Pro Tyr Leu Gly Val Ile Leu Leu Gly Ile Val Thr Ala Trp  
 545 550 555 560  
 Leu Ala Ala Ala Lys Ser Leu Glu Gly Gln Phe Asn Thr Leu Met Ser  
 565 570 575

047-E2F-PCT.ST25.txt

Glu Glu Glu Leu Glu Arg Glu Met Glu Arg Ala Ser Ser Val Lys Ile  
580 585 590

Pro Val Val Ser Gln Glu Asp Ala Pro Ser Gly Glu Thr Thr Ser Gln  
595 600 605

Leu Ser Glu Lys Ser Thr Pro Thr Gly Ile  
610 615

<210> 1341

<211> 645

<212> DNA

<213> Arabidopsis thaliana

<400> 1341  
atggtgaaac taacaatagt tggtaggggt gaagatggat tgcctcttgc acaagatcaa 60  
acctatgtca accaagagga caatactagt ttcttgctgt acaagcaaca agcagaattt 120  
cttcttaaac aagtctccaa agactcatta ttacatccaa agatgaccat cttgctcgat 180  
catcattctt tccacttcct ggtggagaag aagatatgtt acatcgcgct atctgattct 240  
tcatatccaa gaaagctatt gtttaattac ttgcagaatc tgaacaagga gcttgataag 300  
ctggacgaga aagcactgat ccagaaaatc tcaaagccct atagcttcat taggtttggt 360  
aagatcatag ggagaataag aaaacaatat atagacacga gaacacaagc taatctatcg 420  
aagctgaatg cattgcggaa acaagaactc gatgtagtta ctgagcattt gaatgatata 480  
atacaaagac aacaaatttt aggcgtcctc agatcctcca atgattgttt caaccatttg 540  
gagctcacga tgtcttcagg atatttcggt aaaatggaca ccagtgcga ttattattct 600  
cgttattctt gttcttttca aagcaagctt gattatgaca gatga 645

<210> 1342

<211> 214

<212> PRT

<213> Arabidopsis thaliana

<400> 1342

Met Val Lys Leu Thr Ile Val Gly Arg Val Glu Asp Gly Leu Pro Leu  
1 5 10 15

Ala Gln Asp Gln Thr Tyr Val Asn Gln Glu Asp Asn Thr Ser Phe Leu  
 20 25 30  
 Leu Tyr Lys Gln Gln Ala Glu Phe Leu Leu Lys Gln Val Ser Lys Asp  
 35 40 45  
 Ser Leu Leu His Pro Lys Met Thr Ile Leu Leu Asp His His Ser Phe  
 50 55 60  
 His Phe Leu Val Glu Lys Lys Ile Cys Tyr Ile Ala Leu Ser Asp Ser  
 65 70 75 80  
 Ser Tyr Pro Arg Lys Leu Leu Phe Asn Tyr Leu Gln Asn Leu Asn Lys  
 85 90 95  
 Glu Leu Asp Lys Leu Asp Glu Lys Ala Leu Ile Gln Lys Ile Ser Lys  
 100 105 110  
 Pro Tyr Ser Phe Ile Arg Phe Gly Lys Ile Ile Gly Arg Ile Arg Lys  
 115 120 125  
 Gln Tyr Ile Asp Thr Arg Thr Gln Ala Asn Leu Ser Lys Leu Asn Ala  
 130 135 140  
 Leu Arg Lys Gln Glu Leu Asp Val Val Thr Glu His Leu Asn Asp Ile  
 145 150 155 160  
 Ile Gln Arg Gln Gln Ile Leu Gly Val Leu Arg Ser Ser Asn Asp Cys  
 165 170 175  
 Phe Asn His Leu Glu Leu Thr Met Ser Ser Gly Tyr Phe Val Lys Met  
 180 185 190  
 Asp Thr Ser Asp Asp Tyr Tyr Ser Arg Tyr Ser Cys Ser Phe Gln Ser  
 195 200 205  
 Lys Leu Asp Tyr Asp Arg  
 210

&lt;210&gt; 1343

&lt;211&gt; 2256

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1343

atgtcaatgg	agaagccacc	tttggcctcc	ggtttagctc	gaacacgatc	ggagcagcta	60
tatgagacgg	ttgcagcaga	cataaggtca	cctcacggct	ccatggacgc	taatggtgtg	120
cctgcgacgg	ctccagcagc	cgttggagga	ggaggaacgt	tgtcgaggaa	atcaagccgg	180
aggttgatgg	ggatgtctcc	ggggaggagt	agcggcgccg	gaacacacat	aaggaagtct	240
aggagcgctc	agcttaagct	cgagctagag	gaagtgagta	gcggcgacgc	tttgagccgt	300
gcgtctagcg	catcgctcgg	tctttcat	tccttcaccg	ggtttgctat	gccgccggag	360
gaaatctccg	actctaaacc	gttcagcgac	gacgagatga	tacccaaga	tattgaagcg	420
ggaaagaaga	agcctaagtt	tcaagcagaa	ccaacattgc	ccatctttct	caagttcagg	480
gatgttacat	acaaagtgg	gatcaagaaa	ttgacttcat	ctgtggagaa	agagatatta	540
actgggataa	gtgggagtg	gaatcctgg	gaagttcttg	ctctcatggg	accctcaggg	600
agtggcaaaa	caactcttct	tagcttactt	gctggctgaa	tctctcaatc	ctctactgga	660
ggctctgtta	cttacaacga	caagccttac	tctaaatact	tgaaaagcaa	gattggggtt	720
gtgactcaag	atgatgttct	gtttcctcat	cttaccgtga	aagaaacgct	aacctatgct	780
gctcgtctgc	gcttacccaa	gactcttacg	agagagcaga	agaagcaacg	agcttttagac	840
gttatccaag	agttggggtt	agagagatgc	caagacacta	tgattgggtg	agcattcgtg	900
cgtggtgtat	caggtggaga	gaggaaaaga	gtttctattg	gaaacgagat	catcattaat	960
ccttctctat	tacttcttga	tgaaccaacc	tctggtttag	attccaccac	tgctcttaga	1020
accattctga	tgctccatga	catcgccgag	gcggggaaaa	ccgtgatcac	aacgatacat	1080
cagccctcga	gtaggctctt	ccatagggtt	gacaagctga	ttctactagg	aagaggaagt	1140
cttctctact	ttggaaaatc	atcagaagct	ttagattact	tctcttccat	tggtatgctct	1200
cctcttatcg	ccatgaatcc	tgacagagtt	ttgctcgatc	ttgccaacgg	taacatcaac	1260
gatatctctg	taccttctga	gttagatgat	agagttcaag	ttggcaattc	aggtagagaa	1320
actcaaactg	gcaagccatc	tcctgctgct	gttcatgagt	atctagtgga	ggcctacgag	1380
actaggggtg	cagaacagga	gaagaagaaa	ctattggatc	ctgtgccact	cgatgaagaa	1440
gctaaggcca	aaagtacg	tctaaagcgc	caatggggaa	cgtgctggtg	ggagcaatat	1500
tgatactat	tctgcagagg	actcaaagaa	cggcgacacg	aatacttcag	ttggttgctg	1560
gttacgcaag	ttctttccac	agctgtcatt	ttaggtcttc	tctggtggca	gtcggacatt	1620
aggactccaa	tgggactaca	agatcaggct	ggtttgctct	tcttcatagc	agttttttgg	1680
ggattcttcc	ctgttttcac	agcgatcttt	gcgtttccgc	aagagcgagc	gatgttaa	1740
aaggagagag	cagcggat	gtacagatta	agcgcatatt	tcctagctcg	aaccacgagt	1800
gatctccctc	tcgactttat	tctaccttct	ctcttccttc	ttgtcgtcta	tttcatgaca	1860
ggtcttcgga	tcagcccata	tcccttcttc	ttgagcatgc	tcacagtttt	cctttgcac	1920



047-E2F-PCT.ST25.txt

atcgcagctc agggactcgg acttgcaatt ggtgccattt taatggattt aaagaaggct 1980  
acgacttttg cttcagtaac tgtcatgaca ttcattgctcg ccggaggatt cttcgtcaag 2040  
aaagtgccgg ttttcatatc gtggatacgt tatctatctt tcaattacca cacctacaag 2100  
cttctttctta aagtacaata tcaggacttc gctgtgtcca tcaacgggat gagaatagac 2160  
aacggactaa ctgaagtagc cgcactcgtt gtcattgatat tcggttatcg cctcctcgcg 2220  
tatctgtctc taaggcaaat gaagatcgta acataa 2256

<210> 1344

<211> 751

<212> PRT

<213> Arabidopsis thaliana

<400> 1344

Met Ser Met Glu Lys Pro Pro Leu Ala Ser Gly Leu Ala Arg Thr Arg  
1 5 10 15

Ser Glu Gln Leu Tyr Glu Thr Val Ala Ala Asp Ile Arg Ser Pro His  
20 25 30

Gly Ser Met Asp Ala Asn Gly Val Pro Ala Thr Ala Pro Ala Ala Val  
35 40 45

Gly Gly Gly Gly Thr Leu Ser Arg Lys Ser Ser Arg Arg Leu Met Gly  
50 55 60

Met Ser Pro Gly Arg Ser Ser Gly Ala Gly Thr His Ile Arg Lys Ser  
65 70 75 80

Arg Ser Ala Gln Leu Lys Leu Glu Leu Glu Glu Val Ser Ser Gly Ala  
85 90 95

Ala Leu Ser Arg Ala Ser Ser Ala Ser Leu Gly Leu Ser Phe Ser Phe  
100 105 110

Thr Gly Phe Ala Met Pro Pro Glu Glu Ile Ser Asp Ser Lys Pro Phe  
115 120 125

Ser Asp Asp Glu Met Ile Pro Glu Asp Ile Glu Ala Gly Lys Lys Lys  
130 135 140

Pro Lys Phe Gln Ala Glu Pro Thr Leu Pro Ile Phe Leu Lys Phe Arg  
Page 2115

145                      150                      155                      160  
 Asp Val Thr Tyr Lys Val Val Ile Lys Lys Leu Thr Ser Ser Val Glu  
                          165                      170  
 Lys Glu Ile Leu Thr Gly Ile Ser Gly Ser Val Asn Pro Gly Glu Val  
                          180                      185                      190  
 Leu Ala Leu Met Gly Pro Ser Gly Ser Gly Lys Thr Thr Leu Leu Ser  
                          195                      200                      205  
 Leu Leu Ala Gly Arg Ile Ser Gln Ser Ser Thr Gly Gly Ser Val Thr  
                          210                      215                      220  
 Tyr Asn Asp Lys Pro Tyr Ser Lys Tyr Leu Lys Ser Lys Ile Gly Phe  
                          225                      230                      235                      240  
 Val Thr Gln Asp Asp Val Leu Phe Pro His Leu Thr Val Lys Glu Thr  
                          245                      250                      255  
 Leu Thr Tyr Ala Ala Arg Leu Arg Leu Pro Lys Thr Leu Thr Arg Glu  
                          260                      265                      270  
 Gln Lys Lys Gln Arg Ala Leu Asp Val Ile Gln Glu Leu Gly Leu Glu  
                          275                      280                      285  
 Arg Cys Gln Asp Thr Met Ile Gly Gly Ala Phe Val Arg Gly Val Ser  
                          290                      295                      300  
 Gly Gly Glu Arg Lys Arg Val Ser Ile Gly Asn Glu Ile Ile Ile Asn  
                          305                      310                      315                      320  
 Pro Ser Leu Leu Leu Leu Asp Glu Pro Thr Ser Gly Leu Asp Ser Thr  
                          325                      330                      335  
 Thr Ala Leu Arg Thr Ile Leu Met Leu His Asp Ile Ala Glu Ala Gly  
                          340                      345                      350  
 Lys Thr Val Ile Thr Thr Ile His Gln Pro Ser Ser Arg Leu Phe His  
                          355                      360                      365  
 Arg Phe Asp Lys Leu Ile Leu Leu Gly Arg Gly Ser Leu Leu Tyr Phe  
                          370                      375                      380  
 Gly Lys Ser Ser Glu Ala Leu Asp Tyr Phe Ser Ser Ile Gly Cys Ser  
                          385                      390                      395                      400

Pro Leu Ile Ala Met Asn Pro Ala Glu Phe Leu Leu Asp Leu Ala Asn  
 405 410 415  
 Gly Asn Ile Asn Asp Ile Ser Val Pro Ser Glu Leu Asp Asp Arg Val  
 420 425 430  
 Gln Val Gly Asn Ser Gly Arg Glu Thr Gln Thr Gly Lys Pro Ser Pro  
 435 440 445  
 Ala Ala Val His Glu Tyr Leu Val Glu Ala Tyr Glu Thr Arg Val Ala  
 450 455 460  
 Glu Gln Glu Lys Lys Lys Leu Leu Asp Pro Val Pro Leu Asp Glu Glu  
 465 470 475 480  
 Ala Lys Ala Lys Ser Thr Arg Leu Lys Arg Gln Trp Gly Thr Cys Trp  
 485 490 495  
 Trp Glu Gln Tyr Cys Ile Leu Phe Cys Arg Gly Leu Lys Glu Arg Arg  
 500 505 510  
 His Glu Tyr Phe Ser Trp Leu Arg Val Thr Gln Val Leu Ser Thr Ala  
 515 520 525  
 Val Ile Leu Gly Leu Leu Trp Trp Gln Ser Asp Ile Arg Thr Pro Met  
 530 535 540  
 Gly Leu Gln Asp Gln Ala Gly Leu Leu Phe Phe Ile Ala Val Phe Trp  
 545 550 555 560  
 Gly Phe Phe Pro Val Phe Thr Ala Ile Phe Ala Phe Pro Gln Glu Arg  
 565 570 575  
 Ala Met Leu Asn Lys Glu Arg Ala Ala Asp Met Tyr Arg Leu Ser Ala  
 580 585 590  
 Tyr Phe Leu Ala Arg Thr Thr Ser Asp Leu Pro Leu Asp Phe Ile Leu  
 595 600 605  
 Pro Ser Leu Phe Leu Leu Val Val Tyr Phe Met Thr Gly Leu Arg Ile  
 610 615 620  
 Ser Pro Tyr Pro Phe Phe Leu Ser Met Leu Thr Val Phe Leu Cys Ile  
 625 630 635 640  
 Ile Ala Ala Gln Gly Leu Gly Leu Ala Ile Gly Ala Ile Leu Met Asp  
 645 650 655

047-E2F-PCT.ST25.txt

Leu Lys Lys Ala Thr Thr Leu Ala Ser Val Thr Val Met Thr Phe Met  
660 665 670

Leu Ala Gly Gly Phe Phe Val Lys Lys Val Pro Val Phe Ile Ser Trp  
675 680 685

Ile Arg Tyr Leu Ser Phe Asn Tyr His Thr Tyr Lys Leu Leu Leu Lys  
690 695 700

Val Gln Tyr Gln Asp Phe Ala Val Ser Ile Asn Gly Met Arg Ile Asp  
705 710 715 720

Asn Gly Leu Thr Glu Val Ala Ala Leu Val Val Met Ile Phe Gly Tyr  
725 730 735

Arg Leu Leu Ala Tyr Leu Ser Leu Arg Gln Met Lys Ile Val Thr  
740 745 750

<210> 1345

<211> 444

<212> DNA

<213> Arabidopsis thaliana

<400> 1345  
atggatataa aatcggaaac agagcaatac aaaagaaaag cagagataga gaaacacaca 60  
aaggagccaa ataaacacag agacgaagca gtgctccaaa atagagctgg gaggcacaga 120  
gaccgagccg taatagatca caaaagcgaa gaaagagaga gagaaagcgt acagaatggt 180  
acagagatga gtgggattga gagatctgag ggtgagtggc cgccgccggt ggaaggaatt 240  
accgacgagg agctgccgtc tcaactcgccg atggatgatc tagggtttgc tttgttcgcg 300  
agttggggga gaaagacaga gagacagaga atgggatctc ctgacataag gatttatatt 360  
tttaatccga taaaaaagat aataataatg gaaactagaa tccggtttgg tctagaatgg 420  
aaaccaagcg gttttggttc ttga 444

<210> 1346

<211> 147

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 1346

Met Asp Ile Lys Ser Glu Thr Glu Gln Tyr Lys Arg Lys Ala Glu Ile  
 1 5 10 15  
 Glu Lys His Thr Lys Glu Pro Asn Lys His Arg Asp Glu Ala Val Leu  
 20 25 30  
 Gln Asn Arg Ala Gly Arg His Arg Asp Arg Ala Val Ile Asp His Lys  
 35 40 45  
 Ser Glu Glu Arg Glu Arg Glu Ser Val Gln Asn Val Thr Glu Met Ser  
 50 55 60  
 Gly Ile Glu Arg Ser Glu Gly Glu Trp Ser Pro Val Glu Gly Ile  
 65 70 75 80  
 Thr Asp Glu Glu Leu Pro Ser His Ser Pro Met Asp Asp Leu Gly Phe  
 85 90 95  
 Ala Leu Phe Ala Ser Trp Gly Arg Lys Thr Glu Arg Gln Arg Met Gly  
 100 105 110  
 Ser Pro Asp Ile Arg Ile Tyr Ile Phe Asn Pro Ile Lys Lys Ile Ile  
 115 120 125  
 Ile Met Glu Thr Arg Ile Arg Phe Gly Leu Glu Trp Lys Pro Ser Gly  
 130 135 140  
 Phe Gly Ser  
 145

&lt;210&gt; 1347

&lt;211&gt; 963

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1347

atggctacgg ctgttggtgg cggaagcgat gtggaggttg gatttgcgaa gcttcaaggt 60  
 gaggatttcg agtactatat gcagtcttac tccattatac tcggccggaa ttctaagaaa 120  
 gccaccgtcg acgttgatct ctcatccctc ggcggtggga tgaacatctc gcgcaaccac 180  
 gctcggatct tctatgactt cactagacga cgcttctctc tcgaggtcct tggcaaaaat 240  
 ggctgcctcg ttgaaggtgt tcttcatctc cctgggaatc ctaacgtcaa gctcgattca 300

047-E2F-PCT.ST25.txt

caagaccttt tgcagatcgg agacaaagag ttctactttc tcctaccggt tcggagcatc	360
ttaggcgggc cgttgggacc taggcaccac gtctctgggc aaacaagtgt tgttccatac	420
cataattatc agtcgggtcc aggttctggg tcgggtaaga agggcgtcag gagtagagag	480
ttgtatgagt acgatgatga agatgatgat gacgacgacg atgaggagga cgatatgaga	540
ggaagtggaa agaaaacaag gagagatgga catgaagtag tatatgcttc cggagagaag	600
aagagagagg gaagatcaaa ggtagatcgt gaagctgatg atcaacaatt tttgcagctg	660
gaggaaaaag atgttgtatc gtctgttgcc actgtgcttt ccgatttgtg tgggccggga	720
gagtggatgc ctatggaaaa acttcattcg gtgatattaa aggagtatgg aaacgtatgg	780
catcacagtc gagtaagaag atacctatca caagaagact gggctatccc tgaagcaaaa	840
ggtaaaccat ggtacggttt gctgatgctg ctgagaaaat acccgagca tttcgtcatc	900
aacacgagat caaagggaag agttaccctt gaattcgttt ccctcgttac cctactctca	960
tga	963

<210> 1348

<211> 320

<212> PRT

<213> Arabidopsis thaliana

<400> 1348

Met	Ala	Thr	Ala	Val	Gly	Gly	Gly	Ser	Asp	Val	Glu	Val	Gly	Phe	Ala
1				5					10					15	
Lys	Leu	Gln	Gly	Glu	Asp	Phe	Glu	Tyr	Tyr	Met	Gln	Ser	Tyr	Ser	Ile
			20					25					30		
Ile	Leu	Gly	Arg	Asn	Ser	Lys	Lys	Ala	Thr	Val	Asp	Val	Asp	Leu	Ser
		35					40				45				
Ser	Leu	Gly	Gly	Gly	Met	Asn	Ile	Ser	Arg	Asn	His	Ala	Arg	Ile	Phe
	50					55					60				
Tyr	Asp	Phe	Thr	Arg	Arg	Arg	Phe	Ser	Leu	Glu	Val	Leu	Gly	Lys	Asn
65					70					75					80
Gly	Cys	Leu	Val	Glu	Gly	Val	Leu	His	Leu	Pro	Gly	Asn	Pro	Asn	Val
				85					90					95	
Lys	Leu	Asp	Ser	Gln	Asp	Leu	Leu	Gln	Ile	Gly	Asp	Lys	Glu	Phe	Tyr
			100					105					110		

047-E2F-PCT.ST25.txt

Phe Leu Leu Pro Val Arg Ser Ile Leu Gly Gly Pro Leu Gly Pro Arg  
 115 120 125  
 His His Val Ser Gly Gln Thr Ser Val Val Pro Tyr His Asn Tyr Gln  
 130 135 140  
 Ser Gly Pro Gly Ser Gly Ser Gly Lys Lys Gly Val Arg Ser Arg Glu  
 145 150 155 160  
 Leu Tyr Glu Tyr Asp Asp Glu Asp Asp Asp Asp Asp Asp Glu Glu  
 165 170 175  
 Asp Asp Met Arg Gly Ser Gly Lys Lys Thr Arg Arg Asp Gly His Glu  
 180 185 190  
 Val Val Tyr Ala Ser Gly Glu Lys Lys Arg Glu Gly Arg Ser Lys Val  
 195 200 205  
 Asp Arg Glu Ala Asp Asp Gln Gln Phe Leu Gln Leu Glu Glu Lys Asp  
 210 215 220  
 Val Val Ser Ser Val Ala Thr Val Leu Ser Asp Leu Cys Gly Pro Gly  
 225 230 235 240  
 Glu Trp Met Pro Met Glu Lys Leu His Ser Val Ile Leu Lys Glu Tyr  
 245 250 255  
 Gly Asn Val Trp His His Ser Arg Val Arg Arg Tyr Leu Ser Gln Glu  
 260 265 270  
 Asp Trp Ala Ile Pro Glu Ala Lys Gly Lys Pro Trp Tyr Gly Leu Leu  
 275 280 285  
 Met Leu Leu Arg Lys Tyr Pro Glu His Phe Val Ile Asn Thr Arg Ser  
 290 295 300  
 Lys Gly Arg Val Thr Leu Glu Phe Val Ser Leu Val Thr Leu Leu Ser  
 305 310 315 320

<210> 1349

<211> 510

<212> DNA

<213> Arabidopsis thaliana

047-E2F-PCT.ST25.txt

<400> 1349  
atggcggatg aatctccaaa gtctatctac gacttcaccg tcaaggatat cggaggtaac 60  
gatgtgagtt tggaccaata caaaggcaaa actcttttgg ttgtaaacgt tgcttccaaa 120  
tgtggtctga cggatgcgaa ctacaaggaa ctgaatgttc tgtacgagaa atacaaggag 180  
caagggttgg agatattagc attcccgtgt aatcagttct taggacaaga accaggaaac 240  
aatgaagaga ttcaacaaac tgtctgcacc aggttcaaag ctgaattccc catctttgac 300  
aaggtggatg tgaacggtaa gaacacggca ccattataca agtacttgaa agcagagaaa 360  
ggaggtttgc tcattgatgc tatcaaatgg aacttcacca aattcttggt ttctcctgat 420  
ggcaaggtct tacagagata ttctcccaga acctctcttc ttcaattcga gaaggacatt 480  
caaactgcgt tgggacaggc ctcttcttaa 510

<210> 1350

<211> 169

<212> PRT

<213> Arabidopsis thaliana

<400> 1350

Met	Ala	Asp	Glu	Ser	Pro	Lys	Ser	Ile	Tyr	Asp	Phe	Thr	Val	Lys	Asp
1				5					10					15	
Ile	Gly	Gly	Asn	Asp	Val	Ser	Leu	Asp	Gln	Tyr	Lys	Gly	Lys	Thr	Leu
			20					25					30		
Leu	Val	Val	Asn	Val	Ala	Ser	Lys	Cys	Gly	Leu	Thr	Asp	Ala	Asn	Tyr
		35					40					45			
Lys	Glu	Leu	Asn	Val	Leu	Tyr	Glu	Lys	Tyr	Lys	Glu	Gln	Gly	Leu	Glu
	50					55					60				
Ile	Leu	Ala	Phe	Pro	Cys	Asn	Gln	Phe	Leu	Gly	Gln	Glu	Pro	Gly	Asn
65					70					75					80
Asn	Glu	Glu	Ile	Gln	Gln	Thr	Val	Cys	Thr	Arg	Phe	Lys	Ala	Glu	Phe
				85					90					95	
Pro	Ile	Phe	Asp	Lys	Val	Asp	Val	Asn	Gly	Lys	Asn	Thr	Ala	Pro	Leu
			100					105					110		
Tyr	Lys	Tyr	Leu	Lys	Ala	Glu	Lys	Gly	Gly	Leu	Leu	Ile	Asp	Ala	Ile
		115					120					125			



Lys Trp Asn Phe Thr Lys Phe Leu Val Ser Pro Asp Gly Lys Val Leu  
 130 135 140

Gln Arg Tyr Ser Pro Arg Thr Ser Pro Leu Gln Phe Glu Lys Asp Ile  
 145 150 155 160

Gln Thr Ala Leu Gly Gln Ala Ser Ser  
 165

<210> 1351

<211> 2178

<212> DNA

<213> Arabidopsis thaliana

<400> 1351

atggagatta acggggcaca caagagcaac ggaggaggag tggacgctat gttatgcggc	60
ggagacatca agacaaagaa catggtgatc aacgcggagg atcctctcaa ctggggagct	120
gcagcggagc aaatgaaagg tagccatttg gatgaagtga agagaatggt tgctgagttt	180
aggaagccag ttgtgaatct tgggtggtgag actctgacca ttggacaagt ggctgcgatc	240
tcaactattg gtaacagtgt gaagggtggag ctatcggaga cagctagagc cgggtgtgaat	300
gctagtagtg attgggttat ggagagtatg aacaaaggca ctgatagtta tgggtgttact	360
actggttttg gtgctacttc tcatcggaga accaaaaacg gtgtcgcact tcagaaggaa	420
cttattagat tccttaacgc cggaatatcc ggaagcacga aagaaacaag ccacacattg	480
ccacactccg ccacaagagc cgccatgctt gtacgaatca acactctcct ccaaggattt	540
tccggtatcc gatttgagat tctcgaagca attaccagtt tcctcaacaa caacatcact	600
ccatctctcc ccctccgtgg tacaatcacc gcctccggag atctcgttcc tctctcctac	660
atcgccggac ttctcaccgg tcgtcccaat tccaaagcta ctggtcccaa cgggtgaagct	720
ttaacagcag aggaagcttt caaattagca ggaatcagct ccggattctt tgatctccag	780
cctaaggaag gtctcgcgct agtcaatggc acggcggttg gatctggaat ggcgtcaatg	840
gtgttattcg aaacgaatgt tctctctggt ttggctgaga ttttgtcggc ggttttcgca	900
gaggtgatga gtggttaagcc tgagttcacc gatcatctca ctcacagact taaacatcat	960
cccgtcaaaa tcgaagcggc ggcgataatg gagcatatcc tcgacggaag ctcgtacatg	1020
aaattagctc agaagcttca cgagatggat ccgttacaga aacctaaca agatcgttac	1080
gctcttcgta cttctcctca atgggttaggt cctcaaatac aagtgatccg ttacgcaacg	1140

```

aaatcgatcg agcgtgagat taactccgctc aacgataatc cgttgatcga tgtttcgagg 1200
aacaaggcga ttcacggtgg taacttccaa ggaacaccaa tcggagtttc aatggataac 1260
acgagattgg cgatagcagc gattggtaaa ctcatgtttg ctcaattctc agagcttgtg 1320
aatgatttct acaacaatgg tttaccctcg aatctaaccg cttcgaggaa tccaagtttg 1380
gattatggat tcaagggagc tgagattgca atggcttctt attgttcaga gcttcaatac 1440
ttagctaatc ctgtgactag ccatgttcaa tcagcagagc aacataacca agatgtcaac 1500
tctttgggac taatctcgtc tcgcaaaact tctgaagctg ttgatattct caagcttatg 1560
tcaacaacgt tcctcgttgc gatttgtcaa gctgtggatt tgagacattt ggaggagaat 1620
ttgagacaga ctgtgaagaa cactgtctct caagtggcga agaaagttct tactactgga 1680
gtcaatggtg agcttcatcc ttctcgcttc tgcgaaaagg atttactcaa agttgtagac 1740
cgtgaacaag tctacacata cgcggatgat ccttgtagcg caacgtaccc gttgattcag 1800
aagctgagac aagttattgt tgaccatgct ttgatcaatg gtgagagtga gaagaatgca 1860
gtgacttcaa tcttccataa gattggagct ttcgaggagg agcttaaggc agtgctaccg 1920
aaagaagtgg aagcagcaag agcagcctac gataacggaa catcggctat cccgaacagg 1980
atcaaggaat gtaggtcgta tccattgtat agattcgtga gggaagagct tggaacagag 2040
cttttgaccg gagagaaagt gacgtcgcct ggagaagagt tcgacaaggt tttcacggcg 2100
at ttgtgaag gtaaaatcat tgatccgatg atggaatgtc tcaacgagtg gaacggagct 2160
cccattccaa tatgttaa 2178

```

&lt;210&gt; 1352

&lt;211&gt; 725

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1352

```

Met Glu Ile Asn Gly Ala His Lys Ser Asn Gly Gly Gly Val Asp Ala
1           5           10           15

```

```

Met Leu Cys Gly Gly Asp Ile Lys Thr Lys Asn Met Val Ile Asn Ala
20           25           30

```

```

Glu Asp Pro Leu Asn Trp Gly Ala Ala Ala Glu Gln Met Lys Gly Ser
35           40           45

```

```

His Leu Asp Glu Val Lys Arg Met Val Ala Glu Phe Arg Lys Pro Val
50           55           60

```

047-E2F-PCT.ST25.txt

Val Asn Leu Gly Gly Glu Thr Leu Thr Ile Gly Gln Val Ala Ala Ile  
 65 70 75 80  
 Ser Thr Ile Gly Asn Ser Val Lys Val Glu Leu Ser Glu Thr Ala Arg  
 85 90 95  
 Ala Gly Val Asn Ala Ser Ser Asp Trp Val Met Glu Ser Met Asn Lys  
 100 105 110  
 Gly Thr Asp Ser Tyr Gly Val Thr Thr Gly Phe Gly Ala Thr Ser His  
 115 120 125  
 Arg Arg Thr Lys Asn Gly Val Ala Leu Gln Lys Glu Leu Ile Arg Phe  
 130 135 140  
 Leu Asn Ala Gly Ile Phe Gly Ser Thr Lys Glu Thr Ser His Thr Leu  
 145 150 155 160  
 Pro His Ser Ala Thr Arg Ala Ala Met Leu Val Arg Ile Asn Thr Leu  
 165 170 175  
 Leu Gln Gly Phe Ser Gly Ile Arg Phe Glu Ile Leu Glu Ala Ile Thr  
 180 185 190  
 Ser Phe Leu Asn Asn Asn Ile Thr Pro Ser Leu Pro Leu Arg Gly Thr  
 195 200 205  
 Ile Thr Ala Ser Gly Asp Leu Val Pro Leu Ser Tyr Ile Ala Gly Leu  
 210 215 220  
 Leu Thr Gly Arg Pro Asn Ser Lys Ala Thr Gly Pro Asn Gly Glu Ala  
 225 230 235 240  
 Leu Thr Ala Glu Glu Ala Phe Lys Leu Ala Gly Ile Ser Ser Gly Phe  
 245 250 255  
 Phe Asp Leu Gln Pro Lys Glu Gly Leu Ala Leu Val Asn Gly Thr Ala  
 260 265 270  
 Val Gly Ser Gly Met Ala Ser Met Val Leu Phe Glu Thr Asn Val Leu  
 275 280 285  
 Ser Val Leu Ala Glu Ile Leu Ser Ala Val Phe Ala Glu Val Met Ser  
 290 295 300  
 Gly Lys Pro Glu Phe Thr Asp His Leu Thr His Arg Leu Lys His His  
 Page 2125

305 310 320  
Pro Gly Gln Ile Glu Ala Ala Ala Ile Met Glu His Ile Leu Asp Gly  
325 330 335  
Ser Ser Tyr Met Lys Leu Ala Gln Lys Leu His Glu Met Asp Pro Leu  
340 345 350  
Gln Lys Pro Lys Gln Asp Arg Tyr Ala Leu Arg Thr Ser Pro Gln Trp  
355 360 365  
Leu Gly Pro Gln Ile Glu Val Ile Arg Tyr Ala Thr Lys Ser Ile Glu  
370 375 380  
Arg Glu Ile Asn Ser Val Asn Asp Asn Pro Leu Ile Asp Val Ser Arg  
385 390 395 400  
Asn Lys Ala Ile His Gly Gly Asn Phe Gln Gly Thr Pro Ile Gly Val  
405 410 415  
Ser Met Asp Asn Thr Arg Leu Ala Ile Ala Ala Ile Gly Lys Leu Met  
420 425 430  
Phe Ala Gln Phe Ser Glu Leu Val Asn Asp Phe Tyr Asn Asn Gly Leu  
435 440 445  
Pro Ser Asn Leu Thr Ala Ser Arg Asn Pro Ser Leu Asp Tyr Gly Phe  
450 455 460  
Lys Gly Ala Glu Ile Ala Met Ala Ser Tyr Cys Ser Glu Leu Gln Tyr  
465 470 475 480  
Leu Ala Asn Pro Val Thr Ser His Val Gln Ser Ala Glu Gln His Asn  
485 490 495  
Gln Asp Val Asn Ser Leu Gly Leu Ile Ser Ser Arg Lys Thr Ser Glu  
500 505 510  
Ala Val Asp Ile Leu Lys Leu Met Ser Thr Thr Phe Leu Val Ala Ile  
515 520 525  
Cys Gln Ala Val Asp Leu Arg His Leu Glu Glu Asn Leu Arg Gln Thr  
530 535 540  
Val Lys Asn Thr Val Ser Gln Val Ala Lys Lys Val Leu Thr Thr Gly  
545 550 555 560

Val Asn Gly Glu Leu His Pro Ser Arg Phe Cys Glu Lys Asp Leu Leu  
 565 570 575  
 Lys Val Val Asp Arg Glu Gln Val Tyr Thr Tyr Ala Asp Asp Pro Cys  
 580 585 590  
 Ser Ala Thr Tyr Pro Leu Ile Gln Lys Leu Arg Gln Val Ile Val Asp  
 595 600 605  
 His Ala Leu Ile Asn Gly Glu Ser Glu Lys Asn Ala Val Thr Ser Ile  
 610 615 620  
 Phe His Lys Ile Gly Ala Phe Glu Glu Glu Leu Lys Ala Val Leu Pro  
 625 630 635 640  
 Lys Glu Val Glu Ala Ala Arg Ala Ala Tyr Asp Asn Gly Thr Ser Ala  
 645 650 655  
 Ile Pro Asn Arg Ile Lys Glu Cys Arg Ser Tyr Pro Leu Tyr Arg Phe  
 660 665 670  
 Val Arg Glu Glu Leu Gly Thr Glu Leu Leu Thr Gly Glu Lys Val Thr  
 675 680 685  
 Ser Pro Gly Glu Glu Phe Asp Lys Val Phe Thr Ala Ile Cys Glu Gly  
 690 695 700  
 Lys Ile Ile Asp Pro Met Met Glu Cys Leu Asn Glu Trp Asn Gly Ala  
 705 710 715 720  
 Pro Ile Pro Ile Cys  
 725

&lt;210&gt; 1353

&lt;211&gt; 816

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1353

atggaccgaa ccatgtttct ttccctgaca atagcctcac tcttggtcgg agtcgtctca 60  
 gctggtgact ggaacatctt gaaccaactc agaggactcg gctcatcgtc aagccaaaat 120  
 ggtatcgttt ctaaaggtat caagacggac ctgaaaggat actgtgaaag ctggaggatc 180  
 aacgtggaag ttcacaacat cagaaagttc gatgtggtgc ctcaagagtg tgtatcgcac 240

047-E2F-PCT.ST25.txt

attaaggatt acatgacgtc atcgcagtag aaggatgacg tggcgagaac cgttgatgag 300  
gtcattcttc atttcgggag catgtgctgt agcaagtcta agtgtgacgg catggacgct 360  
tggatctttg atatcgatga cacgcttctc tctaccatcc cttaccacaa gaaaaatggc 420  
ttcttcggag gagagaaatt gaactcaacg aaattcgagg attggataca gaagaagaaa 480  
gcaccagcag tgccacacat gaagaaattg taccacgaca tcagagaaag aggcattaag 540  
atcttcttga tctcttcccg gaaagaatat ctccaggtctg ccaccgtcga caacctcatc 600  
caagccggtt actatggctg gtccaaccta atgctcaggg ggctagaaga tcagcaaaag 660  
gaagtgaaac aatacaagtc agagaagaga aaatggctaa tgagtcttgg ttacagagtc 720  
tggggagtga tgggtgacca atggagtagc tttgcaggct gtcctcttcc caggagaacc 780  
ttcaagctcc ctaactccat ctactatgtc gcctga 816

<210> 1354

<211> 271

<212> PRT

<213> Arabidopsis thaliana

<400> 1354

Met Asp Arg Thr Met Phe Leu Ser Leu Thr Ile Ala Ser Leu Leu Val  
1 5 10 15

Gly Val Val Ser Ala Gly Asp Trp Asn Ile Leu Asn Gln Leu Arg Gly  
20 25 30

Leu Gly Ser Ser Ser Ser Gln Asn Gly Ile Val Ser Lys Gly Ile Lys  
35 40 45

Thr Asp Leu Lys Gly Tyr Cys Glu Ser Trp Arg Ile Asn Val Glu Val  
50 55 60

His Asn Ile Arg Lys Phe Asp Val Val Pro Gln Glu Cys Val Ser His  
65 70 75 80

Ile Lys Asp Tyr Met Thr Ser Ser Gln Tyr Lys Asp Asp Val Ala Arg  
85 90 95

Thr Val Asp Glu Val Ile Leu His Phe Gly Ser Met Cys Cys Ser Lys  
100 105 110

Ser Lys Cys Asp Gly Met Asp Ala Trp Ile Phe Asp Ile Asp Asp Thr  
115 120 125

Leu Leu Ser Thr Ile Pro Tyr His Lys Lys Asn Gly Phe Phe Gly Gly  
 130 135 140  
 Glu Lys Leu Asn Ser Thr Lys Phe Glu Asp Trp Ile Gln Lys Lys Lys  
 145 150 155 160  
 Ala Pro Ala Val Pro His Met Lys Lys Leu Tyr His Asp Ile Arg Glu  
 165 170 175  
 Arg Gly Ile Lys Ile Phe Leu Ile Ser Ser Arg Lys Glu Tyr Leu Arg  
 180 185 190  
 Ser Ala Thr Val Asp Asn Leu Ile Gln Ala Gly Tyr Tyr Gly Trp Ser  
 195 200 205  
 Asn Leu Met Leu Arg Gly Leu Glu Asp Gln Gln Lys Glu Val Lys Gln  
 210 215 220  
 Tyr Lys Ser Glu Lys Arg Lys Trp Leu Met Ser Leu Gly Tyr Arg Val  
 225 230 235 240  
 Trp Gly Val Met Gly Asp Gln Trp Ser Ser Phe Ala Gly Cys Pro Leu  
 245 250 255  
 Pro Arg Arg Thr Phe Lys Leu Pro Asn Ser Ile Tyr Tyr Val Ala  
 260 265 270

<210> 1355

<211> 1434

<212> DNA

<213> Arabidopsis thaliana

<400> 1355

atgggattct ggggacttga agtgaaacct ggggaagcctc aagcttataa tccaaaaaat	60
gaacaaggaa agattcacgt gaccaggca actctaggta cgggtttgag caaagaaaag	120
agtgtgattc agtgttcaat aggagacaag gctcctattg ctttgtgttc attgttgcca	180
aacaaaatcg aatgttgccc tctgaatctt gagtttgacg atgatgatga gccagtggaa	240
ttcaccgtga ctggtgacag aagtatccac ttgtctggat tcttgagta ttatcaggac	300
gatgaagatg attatgagca tgatgaagat gattcagatg gtattgatgt tggtagtct	360
gaggaagacg attcgtgtga atatgatagt gaagaggatg agcaattgga tgaatttgaa	420

047-E2F-PCT.ST25.txt

gacttccttg atagcaatct tgaaaggtat cggaatgctg ctgccccaaa gagtggagtt 480  
 ataattgagg agatagaaga tgaagagaaa cctgccaaag ataataaggc aaaacaaacc 540  
 aagaagaaga gtcaagctag cgaaggtgag aatgcaaaga aacaaatcgt tgccatagag 600  
 ggtgccccatg ttccagtttt ggaaagcgaa gatgaagacg aagacggttt acctattcct 660  
 aaaggaaaat catctgaagt agagaatgcg tcaggtgaga agatggttgt agataatgac 720  
 gaacaaggta gtaacaagaa acggaaggcc aaggctgctg agcaagatga tggacaagaa 780  
 agtgcaaaca agagtaaaaa gaagaaaaat cagaaagaga agaagaaagg ggaaaatgtc 840  
 ttaaatgagg aagctggaca agttcagacg ggaaatgttc tgaagaagca ggatattagc 900  
 caaatttctt caaacacaaa agctcaagat ggaactgcaa acaatgccat gagtgaaagc 960  
 tccaagaccc cagataaatc tgctgagaag aaaactaaaa ataagaaaaa gaagaaacca 1020  
 agtgacgaag ctgcagaaat ttctggtact gttgagaagc aaaccccagc ggactccaag 1080  
 tcttctcaag tacggacata cccaaatggg ctcatgtttg aagagttgag catgggaaaa 1140  
 cccaacggca agagagctga tcctggaaaa acggtttctg tgcgctatat tggaaaactt 1200  
 cagaagaatg ggaagatfff cgattccaac attggaaaat caccatttaa gtttcgtcta 1260  
 ggtattggat cagtcattaa gggatgggat gttggagtta atggcatgcg cgttggtgac 1320  
 aaaaggaagc ttacaattcc tccatcaatg gggatatggtg tgaaggggtgc tgggtggccag 1380  
 attcctccta attcttggct gacttttgat gtcgaactga ttaatgttca ataa 1434

<210> 1356

<211> 477

<212> PRT

<213> Arabidopsis thaliana

<400> 1356

Met Gly Phe Trp Gly Leu Glu Val Lys Pro Gly Lys Pro Gln Ala Tyr  
 1 5 10 15

Asn Pro Lys Asn Glu Gln Gly Lys Ile His Val Thr Gln Ala Thr Leu  
 20 25 30

Gly Thr Gly Leu Ser Lys Glu Lys Ser Val Ile Gln Cys Ser Ile Gly  
 35 40 45

Asp Lys Ala Pro Ile Ala Leu Cys Ser Leu Leu Pro Asn Lys Ile Glu  
 50 55 60



047-E2F-PCT.ST25.txt

Cys Cys Pro Leu Asn Leu Glu Phe Asp Asp Asp Asp Glu Pro Val Glu  
 65 70 75 80  
 Phe Thr Val Thr Gly Asp Arg Ser Ile His Leu Ser Gly Phe Leu Glu  
 85 90 95  
 Tyr Tyr Gln Asp Asp Glu Asp Asp Tyr Glu His Asp Glu Asp Asp Ser  
 100 105 110  
 Asp Gly Ile Asp Val Gly Glu Ser Glu Glu Asp Asp Ser Cys Glu Tyr  
 115 120 125  
 Asp Ser Glu Glu Asp Glu Gln Leu Asp Glu Phe Glu Asp Phe Leu Asp  
 130 135 140  
 Ser Asn Leu Glu Arg Tyr Arg Asn Ala Ala Ala Pro Lys Ser Gly Val  
 145 150 155 160  
 Ile Ile Glu Glu Ile Glu Asp Glu Glu Lys Pro Ala Lys Asp Asn Lys  
 165 170 175  
 Ala Lys Gln Thr Lys Lys Lys Ser Gln Ala Ser Glu Gly Glu Asn Ala  
 180 185 190  
 Lys Lys Gln Ile Val Ala Ile Glu Gly Ala His Val Pro Val Leu Glu  
 195 200 205  
 Ser Glu Asp Glu Asp Glu Asp Gly Leu Pro Ile Pro Lys Gly Lys Ser  
 210 215 220  
 Ser Glu Val Glu Asn Ala Ser Gly Glu Lys Met Val Val Asp Asn Asp  
 225 230 235 240  
 Glu Gln Gly Ser Asn Lys Lys Arg Lys Ala Lys Ala Ala Glu Gln Asp  
 245 250 255  
 Asp Gly Gln Glu Ser Ala Asn Lys Ser Lys Lys Lys Lys Asn Gln Lys  
 260 265 270  
 Glu Lys Lys Lys Gly Glu Asn Val Leu Asn Glu Glu Ala Gly Gln Val  
 275 280 285  
 Gln Thr Gly Asn Val Leu Lys Lys Gln Asp Ile Ser Gln Ile Ser Ser  
 290 295 300  
 Asn Thr Lys Ala Gln Asp Gly Thr Ala Asn Asn Ala Met Ser Glu Ser  
 305 310 315 320

047-E2F-PCT.ST25.txt

Ser Lys Thr Pro Asp Lys Ser Ala Glu Lys Lys Thr Lys Asn Lys Lys  
325 330 335

Lys Lys Lys Pro Ser Asp Glu Ala Ala Glu Ile Ser Gly Thr Val Glu  
340 345 350

Lys Gln Thr Pro Ala Asp Ser Lys Ser Ser Gln Val Arg Thr Tyr Pro  
355 360 365

Asn Gly Leu Ile Val Glu Glu Leu Ser Met Gly Lys Pro Asn Gly Lys  
370 375 380

Arg Ala Asp Pro Gly Lys Thr Val Ser Val Arg Tyr Ile Gly Lys Leu  
385 390 395 400

Gln Lys Asn Gly Lys Ile Phe Asp Ser Asn Ile Gly Lys Ser Pro Phe  
405 410 415

Lys Phe Arg Leu Gly Ile Gly Ser Val Ile Lys Gly Trp Asp Val Gly  
420 425 430

Val Asn Gly Met Arg Val Gly Asp Lys Arg Lys Leu Thr Ile Pro Pro  
435 440 445

Ser Met Gly Tyr Gly Val Lys Gly Ala Gly Gly Gln Ile Pro Pro Asn  
450 455 460

Ser Trp Leu Thr Phe Asp Val Glu Leu Ile Asn Val Gln  
465 470 475

<210> 1357

<211> 864

<212> DNA

<213> Arabidopsis thaliana

<400> 1357

atggaaggca aagaagaaga cgtcaatgtt ggagccaaca agttcccaga gagacagccg	60
atcgggtacgg cggctcagac ggagagcaag gactataagg aaccaccacc ggcgccgttt	120
ttcgaacccg gcgagctcaa atcttgggtct ttctacagag cagggatagc tgagttcata	180
gccacttttc ttttcctcta cgtcaccgtt ttgacagtca tgggtgttaa gagagctccc	240
aatatgtgtg cctctgttgg aatccaaggc atcgcttggg cttttggtgg catgatcttt	300
gctcttgttt actgtactgc tggaatctca ggaggacata ttaatccggc ggtgactttt	360

047-E2F-PCT.ST25.txt

```

ggtttgttct tggcgaggaa gctatcttta accagagctc tgttctacat agtaatgcag 420
tgccttggag ctatatgtgg tgctggtgtg gttaaagggt ttcaaccagg gctgtaccag 480
acgaatggcg gtggagctaa tgtggtggct catggttaca caaaggggtc aggtcttggt 540
gcagagattg ttggaacttt tgttctggtt tacactgttt tctcagctac tgatgctaag 600
agaagtgcca gagactctca tgtccctatc ttggctccgc ttccaattgg gtttgctgtc 660
ttcttggtgc acttggttac catcccaatt actggaactg gcattaaccc ggccaggagt 720
ctcggagctg ccatcatcta caacaaggat catgcttggg atgaccattg gatcttctgg 780
gtcgggtccat tcattggtgc tgcgcttgct gctctgtacc atcagatagt catcagagct 840
attcctttca agtccaagac ataa 864

```

<210> 1358

<211> 287

<212> PRT

<213> Arabidopsis thaliana

<400> 1358

```

Met Glu Gly Lys Glu Glu Asp Val Asn Val Gly Ala Asn Lys Phe Pro
1          5          10          15

```

```

Glu Arg Gln Pro Ile Gly Thr Ala Ala Gln Thr Glu Ser Lys Asp Tyr
          20          25          30

```

```

Lys Glu Pro Pro Pro Ala Pro Phe Phe Glu Pro Gly Glu Leu Lys Ser
          35          40          45

```

```

Trp Ser Phe Tyr Arg Ala Gly Ile Ala Glu Phe Ile Ala Thr Phe Leu
50          55          60

```

```

Phe Leu Tyr Val Thr Val Leu Thr Val Met Gly Val Lys Arg Ala Pro
65          70          75          80

```

```

Asn Met Cys Ala Ser Val Gly Ile Gln Gly Ile Ala Trp Ala Phe Gly
85          90          95

```

```

Gly Met Ile Phe Ala Leu Val Tyr Cys Thr Ala Gly Ile Ser Gly Gly
100          105          110

```

```

His Ile Asn Pro Ala Val Thr Phe Gly Leu Phe Leu Ala Arg Lys Leu
115          120          125

```

047-E2F-PCT.ST25.txt

Ser Leu Thr Arg Ala Leu Phe Tyr Ile Val Met Gln Cys Leu Gly Ala  
130 135 140  
Ile Cys Gly Ala Gly Val Val Lys Gly Phe Gln Pro Gly Leu Tyr Gln  
145 150 155 160  
Thr Asn Gly Gly Gly Ala Asn Val Val Ala His Gly Tyr Thr Lys Gly  
165 170 175  
Ser Gly Leu Gly Ala Glu Ile Val Gly Thr Phe Val Leu Val Tyr Thr  
180 185 190  
Val Phe Ser Ala Thr Asp Ala Lys Arg Ser Ala Arg Asp Ser His Val  
195 200 205  
Pro Ile Leu Ala Pro Leu Pro Ile Gly Phe Ala Val Phe Leu Val His  
210 215 220  
Leu Ala Thr Ile Pro Ile Thr Gly Thr Gly Ile Asn Pro Ala Arg Ser  
225 230 235 240  
Leu Gly Ala Ala Ile Ile Tyr Asn Lys Asp His Ala Trp Asp Asp His  
245 250 255  
Trp Ile Phe Trp Val Gly Pro Phe Ile Gly Ala Ala Leu Ala Ala Leu  
260 265 270  
Tyr His Gln Ile Val Ile Arg Ala Ile Pro Phe Lys Ser Lys Thr  
275 280 285

<210> 1359

<211> 1479

<212> DNA

<213> Arabidopsis thaliana

<400> 1359  
atggatcctt acaagtatcg tccagctagt tcttacaact ctcccttctt caccaccaac 60  
tctggtgctc ctgtatggaa caacaactcc tccatgaccg ttggaccag aggtcctatc 120  
cttcttgagg attaccatct cgttgagaag cttgccaatt tcgacagga acggattcca 180  
gagcgtgtgg ttcattgccag aggagccagt gctaaagggt tctttgaggt cactcatgat 240  
atctctaacc tcaattgtgc tgactttctc cgagctcccg gtgttcagac tcctgtcatt 300  
gtccggttct ccaccgttat ccatgagcgt ggaagtccc agaccttgag agaccctcgt 360

047-E2F-PCT.ST25.txt

```

ggttttgcag tcaagttcta caccagagag gggaactttg atcttggttg aaacaacttt 420
cctgttttct tcatccgcga tgggatgaag ttccctgaca tgggccacgc tcttaagccg 480
aaccctaaat ctacatcca agagaactgg agaatccttg acttcttctc ccaccaccct 540
gaaagtttga acatgttcac tttcctcttc gatgatatcg gtatcccaca agattacagg 600
cacatggatg gttcaggtgt caatacatat atgttgatca acaaagctgg caaagctcac 660
tacgtgaagt tccattggaa accaacttgt ggagtcaagt ctcttttgga agaagatgca 720
attcgtgttg gaggaaccaa ccacagtcac gcgactcaag acttgatga ctctatagct 780
gctggaaact accctgaatg gaagctcttt atccaaatca ttgatcctgc tgatgaagac 840
aagttcgact ttgacctgct cgatgtgacc aagacctggc ctgaggatat cttgcctctt 900
caacctgttg gacgtatggt gttgaacaag aacattgaca acttctttgc agagaatgag 960
caacttgctt tctgtcctgc aattattgtc ccagggatac attactcaga tgataagctg 1020
cttcaaacc gtgtcttctc ctatgccgat actcagagac accgtcttg accaaactac 1080
cttcagctgc cagtcaatgc tccaaaatgt gctcaccaca acaaccacca tgagggattc 1140
atgaatttca tgcacaggga cgaggagggt aactacttcc cgtcgaggta tgaccagggt 1200
cgtcatgctg agaagtatcc aactccgcct gctgtctgtt ctggaaaacg tgagagggtg 1260
attattgaga aagagaacaa cttcaaggag cctggagaga gataccgtac ctttacacca 1320
gagaggcaag aacgattcat ccagagatgg attgatgcc tatccgacct acgcatcacg 1380
catgaaatcc gcagtatctg gatctcttac tgggtctcagg ctgataagtc tttgggacag 1440
aagctggcaa gccgtctgaa cgtgagacca agcatctaa 1479

```

<210> 1360

<211> 492

<212> PRT

<213> Arabidopsis thaliana

<400> 1360

Met Asp Pro Tyr Lys Tyr Arg Pro Ala Ser Ser Tyr Asn Ser Pro Phe  
1 5 10 15

Phe Thr Thr Asn Ser Gly Ala Pro Val Trp Asn Asn Asn Ser Ser Met  
20 25 30

Thr Val Gly Pro Arg Gly Pro Ile Leu Leu Glu Asp Tyr His Leu Val  
35 40 45

047-E2F-PCT.ST25.txt

Glu Lys Leu Ala Asn Phe Asp Arg Glu Arg Ile Pro Glu Arg Val Val  
 50 55 60  
 His Ala Arg Gly Ala Ser Ala Lys Gly Phe Phe Glu Val Thr His Asp  
 65 70 75 80  
 Ile Ser Asn Leu Thr Cys Ala Asp Phe Leu Arg Ala Pro Gly Val Gln  
 85 90 95  
 Thr Pro Val Ile Val Arg Phe Ser Thr Val Ile His Glu Arg Gly Ser  
 100 105 110  
 Pro Glu Thr Leu Arg Asp Pro Arg Gly Phe Ala Val Lys Phe Tyr Thr  
 115 120 125  
 Arg Glu Gly Asn Phe Asp Leu Val Gly Asn Asn Phe Pro Val Phe Phe  
 130 135 140  
 Ile Arg Asp Gly Met Lys Phe Pro Asp Met Val His Ala Leu Lys Pro  
 145 150 155 160  
 Asn Pro Lys Ser His Ile Gln Glu Asn Trp Arg Ile Leu Asp Phe Phe  
 165 170 175  
 Ser His His Pro Glu Ser Leu Asn Met Phe Thr Phe Leu Phe Asp Asp  
 180 185 190  
 Ile Gly Ile Pro Gln Asp Tyr Arg His Met Asp Gly Ser Gly Val Asn  
 195 200 205  
 Thr Tyr Met Leu Ile Asn Lys Ala Gly Lys Ala His Tyr Val Lys Phe  
 210 215 220  
 His Trp Lys Pro Thr Cys Gly Val Lys Ser Leu Leu Glu Glu Asp Ala  
 225 230 235 240  
 Ile Arg Val Gly Gly Thr Asn His Ser His Ala Thr Gln Asp Leu Tyr  
 245 250 255  
 Asp Ser Ile Ala Ala Gly Asn Tyr Pro Glu Trp Lys Leu Phe Ile Gln  
 260 265 270  
 Ile Ile Asp Pro Ala Asp Glu Asp Lys Phe Asp Phe Asp Pro Leu Asp  
 275 280 285  
 Val Thr Lys Thr Trp Pro Glu Asp Ile Leu Pro Leu Gln Pro Val Gly  
 290 295 300

047-E2F-PCT.ST25.txt

Arg Met Val Leu Asn Lys Asn Ile Asp Asn Phe Phe Ala Glu Asn Glu  
305 310 315 320

Gln Leu Ala Phe Cys Pro Ala Ile Ile Val Pro Gly Ile His Tyr Ser  
325 330 335

Asp Asp Lys Leu Leu Gln Thr Arg Val Phe Ser Tyr Ala Asp Thr Gln  
340 345 350

Arg His Arg Leu Gly Pro Asn Tyr Leu Gln Leu Pro Val Asn Ala Pro  
355 360 365

Lys Cys Ala His His Asn Asn His His Glu Gly Phe Met Asn Phe Met  
370 375 380

His Arg Asp Glu Glu Val Asn Tyr Phe Pro Ser Arg Tyr Asp Gln Val  
385 390 395 400

Arg His Ala Glu Lys Tyr Pro Thr Pro Pro Ala Val Cys Ser Gly Lys  
405 410 415

Arg Glu Arg Cys Ile Ile Glu Lys Glu Asn Asn Phe Lys Glu Pro Gly  
420 425 430

Glu Arg Tyr Arg Thr Phe Thr Pro Glu Arg Gln Glu Arg Phe Ile Gln  
435 440 445

Arg Trp Ile Asp Ala Leu Ser Asp Pro Arg Ile Thr His Glu Ile Arg  
450 455 460

Ser Ile Trp Ile Ser Tyr Trp Ser Gln Ala Asp Lys Ser Leu Gly Gln  
465 470 475 480

Lys Leu Ala Ser Arg Leu Asn Val Arg Pro Ser Ile  
485 490

<210> 1361

<211> 1206

<212> DNA

<213> Arabidopsis thaliana

<400> 1361

atggctctaa agtttaaccc tttggtggca tctcagcctt acaaattccc ttcctcgact

60

047-E2F-PCT.ST25.txt

```

cgtccgccaa ctccttcttt cagatctccc aagttcctct gcctcgcttc ttcttctccg 120
gctctcagct ccggcccca ggaggttgag agtttgaaga aaccatttac gccacccagg 180
gaagtgcattg ttcaagtctt gcactccatg ccacctcaaa agatcgagat cttcaaattct 240
atggaaaact gggccgagga gaaccttctg attcacctca aggatgtgga gaagtcttgg 300
caaccccagg atttcttgcc tgaccctgca tcagatgggt ttgaagatca ggtaagagag 360
ttaagagaga gggctagaga gctccctgat gattactttg ttgttttggg gggggacatg 420
atcacagaag aagcacttcc gacctatcaa actatgttga acactttgga tggagttagg 480
gatgaaacag gtgctagtcc tacttcatgg gctatttgga ccagagcttg gactgcagaa 540
gaaaaccgac atggcgatct tctgaataaa tacctttact tgtctggctg tgttgacatg 600
aggcagatcg aaaagaccat tcagtacttg attggatctg gaatggatcc gcggacagag 660
aataaccctt accttggctt catctatacg tcattccaag aaagagcgac attcatctct 720
cacggaaaca cagcccgcca agccaaagag cacggggaca tcaaactagc ccaaatatgt 780
ggcacaatag ctgcagacga gaagcgtcat gaaacagcat acaccaagat agttgaaaag 840
ctctttgaga ttgatcctga tggtagtctc atggcttttg cagacatgat gagaaagaaa 900
atctcaatgc ctgctcactt gatgtatgat gggcgcaacg acaacctctt tgacaacttc 960
tcttccgtgg ctcagaggct cgggtgtttac accgccaaag actatgcaga cattcttgag 1020
tttctggttg gtaggttgaa aatccaggac ttaaccgggc tttcaggtga aggaaacaaa 1080
gcacaagact atttatgcgg gttggctcca aggatcaaga gattggatga gagagctcaa 1140
gcaagagcca agaaaggacc caagattcct ttcagttgga tacacgacag agaagtgcag 1200
ctctaa 1206

```

<210> 1362

<211> 401

<212> PRT

<213> Arabidopsis thaliana

<400> 1362

Met Ala Leu Lys Phe Asn Pro Leu Val Ala Ser Gln Pro Tyr Lys Phe  
1 5 10 15

Pro Ser Ser Thr Arg Pro Pro Thr Pro Ser Phe Arg Ser Pro Lys Phe  
20 25 30

Leu Cys Leu Ala Ser Ser Ser Pro Ala Leu Ser Ser Gly Pro Lys Glu  
35 40 45



047-E2F-PCT.ST25.txt

Val Glu Ser Leu Lys Lys Pro Phe Thr Pro Pro Arg Glu Val His Val  
50 55 60

Gln Val Leu His Ser Met Pro Pro Gln Lys Ile Glu Ile Phe Lys Ser  
65 70 75 80

Met Glu Asn Trp Ala Glu Glu Asn Leu Leu Ile His Leu Lys Asp Val  
85 90 95

Glu Lys Ser Trp Gln Pro Gln Asp Phe Leu Pro Asp Pro Ala Ser Asp  
100 105 110

Gly Phe Glu Asp Gln Val Arg Glu Leu Arg Glu Arg Ala Arg Glu Leu  
115 120 125

Pro Asp Asp Tyr Phe Val Val Leu Val Gly Asp Met Ile Thr Glu Glu  
130 135 140

Ala Leu Pro Thr Tyr Gln Thr Met Leu Asn Thr Leu Asp Gly Val Arg  
145 150 155 160

Asp Glu Thr Gly Ala Ser Pro Thr Ser Trp Ala Ile Trp Thr Arg Ala  
165 170 175

Trp Thr Ala Glu Glu Asn Arg His Gly Asp Leu Leu Asn Lys Tyr Leu  
180 185 190

Tyr Leu Ser Gly Arg Val Asp Met Arg Gln Ile Glu Lys Thr Ile Gln  
195 200 205

Tyr Leu Ile Gly Ser Gly Met Asp Pro Arg Thr Glu Asn Asn Pro Tyr  
210 215 220

Leu Gly Phe Ile Tyr Thr Ser Phe Gln Glu Arg Ala Thr Phe Ile Ser  
225 230 235 240

His Gly Asn Thr Ala Arg Gln Ala Lys Glu His Gly Asp Ile Lys Leu  
245 250 255

Ala Gln Ile Cys Gly Thr Ile Ala Ala Asp Glu Lys Arg His Glu Thr  
260 265 270

Ala Tyr Thr Lys Ile Val Glu Lys Leu Phe Glu Ile Asp Pro Asp Gly  
275 280 285

Thr Val Met Ala Phe Ala Asp Met Met Arg Lys Lys Ile Ser Met Pro  
Page 2139

290

295

Ala His Leu Met Tyr Asp Gly Arg Asn Asp Asn Leu Phe Asp Asn Phe  
305 310 315 320

Ser Ser Val Ala Gln Arg Leu Gly Val Tyr Thr Ala Lys Asp Tyr Ala  
325 330 335

Asp Ile Leu Glu Phe Leu Val Gly Arg Trp Lys Ile Gln Asp Leu Thr  
340 345 350

Gly Leu Ser Gly Glu Gly Asn Lys Ala Gln Asp Tyr Leu Cys Gly Leu  
355 360 365

Ala Pro Arg Ile Lys Arg Leu Asp Glu Arg Ala Gln Ala Arg Ala Lys  
370 375 380

Lys Gly Pro Lys Ile Pro Phe Ser Trp Ile His Asp Arg Glu Val Gln  
385 390 395 400

Leu

<210> 1363

<211> 2301

<212> DNA

<213> Arabidopsis thaliana

<400> 1363

atggaagaat cagaacaagt tcttcctcta ttaacaaacc caaaagatct gacaaacca	60
tcatatgcgt catcatcttc atcttcatct gaaccaagag atgaaacaga ggatcttctt	120
ttaccaatct ccgacgagaa tgaggaggaa gaagaagaga actcaccaat cgcacaagta	180
gcactcactg ttccgacaac agatgatcct tcattacctg tcttaacatt tcgcatgtgg	240
gtcttaggaa ctctctcttg catcctcttg tcgtttctca atcagttctt ctggtataga	300
acagaacctc tactatctc tgccatctcc gctcaaactc cgcgcgtacc acttggtcgt	360
ctcatggctg ctaaaatcac cgatagagtc ttcttccaag gatcaaagtg gcagtttacg	420
ttgaatccag gtccgtttta tgtgaaagag catgtgttga tcaactatctt cgctaacgcg	480
ggagctggat ctgtttacgc aatacacgtt gttaccgtgg tcaaagcggt ttacatgaag	540
aacataacgt tctttgtgtc tttcatcgtt atcgttacca cccaagtgtt aggttttggg	600
tgggctggaa tatttaggaa ataccttggt gaaccggcgg cgatgtggtg gccggcgaat	660

## 047-E2F-PCT.ST25.txt

```

cttgttcaag tctcactatt tagagctttg cacgagaaag aagaacggac caaaggaggg 720
ctgacacgta cacaattctt cgtgatagca ttcgtttgca gtttcgctta ttatgtcttt 780
ccgggctact tatttcagat catgacgtcg ttgtcgtggg tttgttggtt ctttccatca 840
tcagttatgg cccaacagat cgggtctggg cttcacgggt taggtggttg ggccatagga 900
cttgactggg caaccatttc ctcttacttg ggtagtccac tcgctagtcc atggtttgct 960
acggctaata tgggtgtggg atttgtgctg gtgatatatg tcttggtacc aatatgctat 1020
tggctcgatg tgtacaaggc caagaccttc cccatatttt cgagctcact tttttcgagc 1080
cagggttcaa agtacaacat cacatccatt atagactcta atttccacct tgacctcca 1140
gcctacgagc gtcaaggccc tttgtatctt tgcactttct tcgccattag ttacggtggt 1200
ggttttgccg ctttaagcgc taccatcatg catgttgctc tcttccacgg aaggagata 1260
tgaggagcaga gtaaggagag ttttaaagaa aagaaattgg atgtacacgc gaggctaata 1320
caaaggtaca aacaagttcc agagtgggtg ttttgggtgca tactcggttac caacgttgga 1380
gccacaatct ttgcttgtga gtattacaat gaccaacttc aattaccatg gtggggtggt 1440
ctattggcat gtaccgtcgc cattatcttt acacttccta tcggtatcat caccgccatc 1500
accaatcagg cgccaggatt gaacattatt acagaatata tcataggata tatctatcca 1560
ggatatccag ttgcaaata gtgctttaaa gtatatggat acataagcat gcaacaagcc 1620
atcacgtttc ttcaagactt taagcttggg cactacatga agataccacc tagaaccatg 1680
ttcatggcac agattgttggt aacactcatc tcatgttttg tttacctcac aacggcttgg 1740
tggctaatag agaccatccc caacatatgt gattcgggta ctaactcggg ttggacatgt 1800
ccatcggata aagtctttta tgatgcatcg gtgatatggg gacttatttg acctcgtaga 1860
atctttggag atcttgggtt atacaaatcc gttaattggg tcttccttgt gggcgctata 1920
gccccatttc ttgtatgggt agcttcaagg atgtttccta gacaagagt gatcaagctt 1980
ataaacatgc cggttcttat aagcgcgaca agctcgatgc cgcccgaac agccgtgaac 2040
tacacaacat gggttcttgc tggattctta tccggatttg ttgtgttttag gtacaggcca 2100
aatctatggc agagggtataa ttatgttttg tcaggagcat tggatgctgg attagcattt 2160
atgggtgtgt tgctttatat gtgtttggga cttgagaatg tgagtttgga ttggtgggga 2220
aatgagcttg atggttgtcc tttggcctct tgtccaaccg cgcctggtat tattgttgaa 2280
ggatgcccgc tttatacgta a 2301

```

&lt;210&gt; 1364

&lt;211&gt; 766

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1364

```

Met Glu Glu Ser Glu Gln Val Leu Pro Leu Leu Thr Asn Pro Lys Asp
 1      5      10     15

Leu Thr Asn Pro Ser Tyr Ala Ser Ser Ser Ser Ser Ser Ser Glu Pro
 20     25     30

Arg Asp Glu Thr Glu Asp Leu Leu Leu Pro Ile Ser Asp Glu Asn Glu
 35     40     45

Glu Glu Glu Glu Glu Asn Ser Pro Ile Arg Gln Val Ala Leu Thr Val
 50     55     60

Pro Thr Thr Asp Asp Pro Ser Leu Pro Val Leu Thr Phe Arg Met Trp
 65     70     75     80

Val Leu Gly Thr Leu Ser Cys Ile Leu Leu Ser Phe Leu Asn Gln Phe
 85     90     95

Phe Trp Tyr Arg Thr Glu Pro Leu Thr Ile Ser Ala Ile Ser Ala Gln
100    105    110

Ile Ala Val Val Pro Leu Gly Arg Leu Met Ala Ala Lys Ile Thr Asp
115    120    125

Arg Val Phe Phe Gln Gly Ser Lys Trp Gln Phe Thr Leu Asn Pro Gly
130    135    140

Pro Phe Asn Val Lys Glu His Val Leu Ile Thr Ile Phe Ala Asn Ala
145    150    155    160

Gly Ala Gly Ser Val Tyr Ala Ile His Val Val Thr Val Val Lys Ala
165    170    175

Phe Tyr Met Lys Asn Ile Thr Phe Phe Val Ser Phe Ile Val Ile Val
180    185    190

Thr Thr Gln Val Leu Gly Phe Gly Trp Ala Gly Ile Phe Arg Lys Tyr
195    200    205

Leu Val Glu Pro Ala Ala Met Trp Trp Pro Ala Asn Leu Val Gln Val
210    215    220

```

## 047-E2F-PCT.ST25.txt

Ser Leu Phe Arg Ala Leu His Glu Lys Glu Glu Arg Thr Lys Gly Gly  
 225 230 235 240  
 Leu Thr Arg Thr Gln Phe Phe Val Ile Ala Phe Val Cys Ser Phe Ala  
 245 250 255  
 Tyr Tyr Val Phe Pro Gly Tyr Leu Phe Gln Ile Met Thr Ser Leu Ser  
 260 265 270  
 Trp Val Cys Trp Phe Phe Pro Ser Ser Val Met Ala Gln Gln Ile Gly  
 275 280 285  
 Ser Gly Leu His Gly Leu Gly Val Gly Ala Ile Gly Leu Asp Trp Ser  
 290 295 300  
 Thr Ile Ser Ser Tyr Leu Gly Ser Pro Leu Ala Ser Pro Trp Phe Ala  
 305 310 315 320  
 Thr Ala Asn Val Gly Val Gly Phe Val Leu Val Ile Tyr Val Leu Val  
 325 330 335  
 Pro Ile Cys Tyr Trp Leu Asp Val Tyr Lys Ala Lys Thr Phe Pro Ile  
 340 345 350  
 Phe Ser Ser Ser Leu Phe Ser Ser Gln Gly Ser Lys Tyr Asn Ile Thr  
 355 360 365  
 Ser Ile Ile Asp Ser Asn Phe His Leu Asp Leu Pro Ala Tyr Glu Arg  
 370 375 380  
 Gln Gly Pro Leu Tyr Leu Cys Thr Phe Phe Ala Ile Ser Tyr Gly Val  
 385 390 395 400  
 Gly Phe Ala Ala Leu Ser Ala Thr Ile Met His Val Ala Leu Phe His  
 405 410 415  
 Gly Arg Glu Ile Trp Glu Gln Ser Lys Glu Ser Phe Lys Glu Lys Lys  
 420 425 430  
 Leu Asp Val His Ala Arg Leu Met Gln Arg Tyr Lys Gln Val Pro Glu  
 435 440 445  
 Trp Trp Phe Trp Cys Ile Leu Val Thr Asn Val Gly Ala Thr Ile Phe  
 450 455 460  
 Ala Cys Glu Tyr Tyr Asn Asp Gln Leu Gln Leu Pro Trp Trp Gly Val  
 465 470 475 480

047-E2F-PCT.ST25.txt

Leu Leu Ala Cys Thr Val Ala Ile Ile Phe Thr Leu Pro Ile Gly Ile  
 485 490 495  
 Ile Thr Ala Ile Thr Asn Gln Ala Pro Gly Leu Asn Ile Ile Thr Glu  
 500 505 510  
 Tyr Ile Ile Gly Tyr Ile Tyr Pro Gly Tyr Pro Val Ala Asn Met Cys  
 515 520 525  
 Phe Lys Val Tyr Gly Tyr Ile Ser Met Gln Gln Ala Ile Thr Phe Leu  
 530 535 540  
 Gln Asp Phe Lys Leu Gly His Tyr Met Lys Ile Pro Pro Arg Thr Met  
 545 550 555 560  
 Phe Met Ala Gln Ile Val Gly Thr Leu Ile Ser Cys Phe Val Tyr Leu  
 565 570 575  
 Thr Thr Ala Trp Trp Leu Met Glu Thr Ile Pro Asn Ile Cys Asp Ser  
 580 585 590  
 Val Thr Asn Ser Val Trp Thr Cys Pro Ser Asp Lys Val Phe Tyr Asp  
 595 600 605  
 Ala Ser Val Ile Trp Gly Leu Ile Gly Pro Arg Arg Ile Phe Gly Asp  
 610 615 620  
 Leu Gly Leu Tyr Lys Ser Val Asn Trp Phe Phe Leu Val Gly Ala Ile  
 625 630 635 640  
 Ala Pro Ile Leu Val Trp Leu Ala Ser Arg Met Phe Pro Arg Gln Glu  
 645 650 655  
 Trp Ile Lys Leu Ile Asn Met Pro Val Leu Ile Ser Ala Thr Ser Ser  
 660 665 670  
 Met Pro Pro Ala Thr Ala Val Asn Tyr Thr Thr Trp Val Leu Ala Gly  
 675 680 685  
 Phe Leu Ser Gly Phe Val Val Phe Arg Tyr Arg Pro Asn Leu Trp Gln  
 690 695 700  
 Arg Tyr Asn Tyr Val Leu Ser Gly Ala Leu Asp Ala Gly Leu Ala Phe  
 705 710 715 720  
 Met Gly Val Leu Leu Tyr Met Cys Leu Gly Leu Glu Asn Val Ser Leu  
 725 730 735

Asp Trp Trp Gly Asn Glu Leu Asp Gly Cys Pro Leu Ala Ser Cys Pro  
740 745 750

Thr Ala Pro Gly Ile Ile Val Glu Gly Cys Pro Leu Tyr Thr  
755 760 765

<210> 1365

<211> 432

<212> DNA

<213> Arabidopsis thaliana

<400> 1365

atgacgacaa tggcgacaca aggcgcttgg ctacgaatga cctcatcagc caagtccatg	60
accaagtcaa ccgtgacttc aaaggagctt ggattcctca cctcccagct cagcggctta	120
agaatctcat atactcccag tgacgtcatc aaccgtatct cccttccttc gttccccggg	180
attcagccaa tcgtcgcacg tagaatctgc ctttttactg ggaagaaagc aaacagagca	240
aacaaagttt cattctctaa ccacaagacc aagaagttgc aattcgtcaa cttacaatac	300
aagagagttt ggtgggaagc tggcaaacgt tttgtcaaac ttcgtttatc aactaaggct	360
ttgaagacca ttgagaagaa cggactcgac gctgttgcca agaaagccgg cattgatctt	420
cgcaagaaat ag	432

<210> 1366

<211> 143

<212> PRT

<213> Arabidopsis thaliana

<400> 1366

Met Thr Thr Met Ala Thr Gln Gly Ala Trp Leu Arg Met Thr Ser Ser  
1 5 10 15

Ala Lys Ser Met Thr Lys Ser Thr Val Thr Ser Lys Glu Leu Gly Phe  
20 25 30

Leu Thr Ser Gln Leu Ser Gly Leu Arg Ile Ser Tyr Thr Pro Ser Asp  
35 40 45

Val Ile Asn Arg Ile Ser Leu Pro Ser Phe Pro Gly Ile Gln Pro Ile  
Page 2145

50

55

60

Val Ala Arg Arg Ile Cys Pro Phe Thr Gly Lys Lys Ala Asn Arg Ala  
65 70 75 80

Asn Lys Val Ser Phe Ser Asn His Lys Thr Lys Lys Leu Gln Phe Val  
85 90 95

Asn Leu Gln Tyr Lys Arg Val Trp Trp Glu Ala Gly Lys Arg Phe Val  
100 105 110

Lys Leu Arg Leu Ser Thr Lys Ala Leu Lys Thr Ile Glu Lys Asn Gly  
115 120 125

Leu Asp Ala Val Ala Lys Lys Ala Gly Ile Asp Leu Arg Lys Lys  
130 135 140

&lt;210&gt; 1367

&lt;211&gt; 1110

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1367

```

atggcgacta ccatgaatgc tgctgtttct ctcacatctt caaactcttc ttcttttccc      60
gctacaagtt gtgccattgc tcctgaaagg atcaggttta ctaaggggtgc tttttactac      120
aaaagcaaca atgtagtgac aggtaaaaga gtgttttcca taaaagcaca aatcacaaca      180
gaaacagata ctctactcc tgcaaagaaa gtagagaaag tgtcaaagaa gaacgaggaa      240
gggtgtgattg ttaacaggta cagacaaaaa gagccttaca ctggaaaatg ctttctcaac      300
acaaaaatca cagctgatga tgctcctgga gagacctggc acatgggtttt cagccatcaa      360
ggagaaatcc cgtacagaga aggacaatct gttgggtgtga ttgcagatgg aattgacaag      420
aatggaaagc ctcaaaaggc cagactttac tccattgcaa gcagcgctct tggagatctc      480
ggcaattctg aaaccgtttc tttgtgtgtt aaaagacttg tttatactaa tgaccaagga      540
gagactgtta aaggagtttg ctcaaatttc ttgtgtgatt tggcaccgga aagtgatggt      600
aagctgactg gtcctgtagg caaagaaatg cttatgccaa aggatccaaa cgccaccgtt      660
attatgcttg ccacagggac aggaattgct cttttcaggt ctttcttatg gaagatgttc      720
tttgagaaac atgatgacta caagttcaat ggcttagctt gggtgttctt ggggtgtacca      780
accactagct ctttgctcta ccaagaggag ttgataaga tgaaagcaaa ggcccccgag      840
aacttcaggg tggattacgc gataagcaga gaacaagcga acgataaagg agagaaaatg      900

```



047-E2F-PCT.ST25.txt

tatatccaga ctcggatggc gcaatacgca gctgagttat gggagttggt gaagaaagac 960  
aacacttttg ttacatgtg tggactcaag ggaatggaga aaggaattga tgacattatg 1020  
gtctcattgg ctgcaaatga cggatttgac tggtttgatt acaagaagca gttgaagaag 1080  
gcagagcaat ggaacgttga agtctactga 1110

<210> 1368

<211> 369

<212> PRT

<213> Arabidopsis thaliana

<400> 1368

Met Ala Thr Thr Met Asn Ala Ala Val Ser Leu Thr Ser Ser Asn Ser  
1 5 10 15

Ser Ser Phe Pro Ala Thr Ser Cys Ala Ile Ala Pro Glu Arg Ile Arg  
20 25 30

Phe Thr Lys Gly Ala Phe Tyr Tyr Lys Ser Asn Asn Val Val Thr Gly  
35 40 45

Lys Arg Val Phe Ser Ile Lys Ala Gln Ile Thr Thr Glu Thr Asp Thr  
50 55 60

Pro Thr Pro Ala Lys Lys Val Glu Lys Val Ser Lys Lys Asn Glu Glu  
65 70 75 80

Gly Val Ile Val Asn Arg Tyr Arg Pro Lys Glu Pro Tyr Thr Gly Lys  
85 90 95

Cys Leu Leu Asn Thr Lys Ile Thr Ala Asp Asp Ala Pro Gly Glu Thr  
100 105 110

Trp His Met Val Phe Ser His Gln Gly Glu Ile Pro Tyr Arg Glu Gly  
115 120 125

Gln Ser Val Gly Val Ile Ala Asp Gly Ile Asp Lys Asn Gly Lys Pro  
130 135 140

His Lys Val Arg Leu Tyr Ser Ile Ala Ser Ser Ala Leu Gly Asp Leu  
145 150 155 160

Gly Asn Ser Glu Thr Val Ser Leu Cys Val Lys Arg Leu Val Tyr Thr  
Page 2147

165

175

Asn Asp Gln Gly Glu Thr Val Lys Gly Val Cys Ser Asn Phe Leu Cys  
180 185 190

Asp Leu Ala Pro Gly Ser Asp Val Lys Leu Thr Gly Pro Val Gly Lys  
195 200 205

Glu Met Leu Met Pro Lys Asp Pro Asn Ala Thr Val Ile Met Leu Ala  
210 215 220

Thr Gly Thr Gly Ile Ala Pro Phe Arg Ser Phe Leu Trp Lys Met Phe  
225 230 235 240

Phe Glu Lys His Asp Asp Tyr Lys Phe Asn Gly Leu Ala Trp Leu Phe  
245 250 255

Leu Gly Val Pro Thr Thr Ser Ser Leu Leu Tyr Gln Glu Glu Phe Asp  
260 265 270

Lys Met Lys Ala Lys Ala Pro Glu Asn Phe Arg Val Asp Tyr Ala Ile  
275 280 285

Ser Arg Glu Gln Ala Asn Asp Lys Gly Glu Lys Met Tyr Ile Gln Thr  
290 295 300

Arg Met Ala Gln Tyr Ala Ala Glu Leu Trp Glu Leu Leu Lys Lys Asp  
305 310 315 320

Asn Thr Phe Val Tyr Met Cys Gly Leu Lys Gly Met Glu Lys Gly Ile  
325 330 335

Asp Asp Ile Met Val Ser Leu Ala Ala Asn Asp Gly Ile Asp Trp Phe  
340 345 350

Asp Tyr Lys Lys Gln Leu Lys Lys Ala Glu Gln Trp Asn Val Glu Val  
355 360 365

Tyr

<210> 1369

<211> 1173

<212> DNA

<213> Arabidopsis thaliana

```

<400> 1369
atgtcgccgg cagctacgga gacggagcga tgggtgcgttg ttaccggcgg tagaggattc    60
gcggcgaggc atcttggtga aatgctcgta cgctacgaaa tgttttgcgt ccgtatcgcc    120
gatttagctc cggcgataat gcttgatcct caggaaggga acggagttct cgacgaagga    180
ttaagatctg gtcgtgttca atatatctcc gctgatcttc gagataaatc tcaagtcggt    240
aaagcttttc agggagcgga ggtgggtgttt catatggcag ctccagattc ttctattaac    300
aatcatcagc ttcagtattc ggtgaatggt caagggacac aaaatgtgat tgatgcttgt    360
gttgatgttg gagtaaagag gcttattttac actagctctc ctagtgttgt gtttgatggg    420
gttcatggta ttttgaacgg tactgaatca atggccttacc caattaagca caatgactca    480
tattcagcaa ctaaagctga aggagaagag ttgatcatga aggctaattg tagaaatgga    540
ctactcactt gttgcatacg tccaagcagt atttttgggtc ccggtgatag attattgggt    600
ccgtcgcttg ttgctgctgc tagggctggg aaatctaagt ttattattgg tgatgggaat    660
aatctctatg atttcactta cgttgagaat gttgctcatg cccatgtttg tgctgagcgt    720
gctctagctt caggaggaga tgtttctaca aaagctgcag gacaggcata tttcattacc    780
aacatggagc caattaaatt ttgggaattt atgtcacagc tccttgatgg acttggttac    840
gagaggccaa gcataaagat ccctgcgttt atcatgatgc cgattgcgca tctggttgaa    900
ctgacatata aagtgttggg accatatggg atgacagtac cacaactaac accttcaaga    960
gttaggcttc tctcatgcag cagaactttc gattccacga aagcaaagga tcgactaggc   1020
tatgctcctg tgggtccact tcaggaagggt atacggagga cgatagactc attctctcac   1080
ctaacagctg gaagtcaatc caaaagagag ggcccatcca aggcttctag gattcttgga   1140
ggcggaaagg gtatgaccat atatttcaat tag                                1173

```

<210> 1370

<211> 390

<212> PRT

<213> Arabidopsis thaliana

<400> 1370

```

Met Ser Pro Ala Ala Thr Glu Thr Glu Arg Trp Cys Val Val Thr Gly
1          5          10          15

```

```

Gly Arg Gly Phe Ala Ala Arg His Leu Val Glu Met Leu Val Arg Tyr
          20          25          30

```

047-E2F-PCT.ST25.txt

Glu Met Phe Cys Val Arg Ile Ala Asp Leu Ala Pro Ala Ile Met Leu  
 35 40 45  
 Asp Pro Gln Glu Gly Asn Gly Val Leu Asp Glu Gly Leu Arg Ser Gly  
 50 55 60  
 Arg Val Gln Tyr Ile Ser Ala Asp Leu Arg Asp Lys Ser Gln Val Val  
 65 70 75 80  
 Lys Ala Phe Gln Gly Ala Glu Val Val Phe His Met Ala Ala Pro Asp  
 85 90 95  
 Ser Ser Ile Asn Asn His Gln Leu Gln Tyr Ser Val Asn Val Gln Gly  
 100 105 110  
 Thr Gln Asn Val Ile Asp Ala Cys Val Asp Val Gly Val Lys Arg Leu  
 115 120 125  
 Ile Tyr Thr Ser Ser Pro Ser Val Val Phe Asp Gly Val His Gly Ile  
 130 135 140  
 Leu Asn Gly Thr Glu Ser Met Ala Tyr Pro Ile Lys His Asn Asp Ser  
 145 150 155 160  
 Tyr Ser Ala Thr Lys Ala Glu Gly Glu Glu Leu Ile Met Lys Ala Asn  
 165 170 175  
 Gly Arg Asn Gly Leu Leu Thr Cys Cys Ile Arg Pro Ser Ser Ile Phe  
 180 185 190  
 Gly Pro Gly Asp Arg Leu Leu Val Pro Ser Leu Val Ala Ala Ala Arg  
 195 200 205  
 Ala Gly Lys Ser Lys Phe Ile Ile Gly Asp Gly Asn Asn Leu Tyr Asp  
 210 215 220  
 Phe Thr Tyr Val Glu Asn Val Ala His Ala His Val Cys Ala Glu Arg  
 225 230 235 240  
 Ala Leu Ala Ser Gly Gly Asp Val Ser Thr Lys Ala Ala Gly Gln Ala  
 245 250 255  
 Tyr Phe Ile Thr Asn Met Glu Pro Ile Lys Phe Trp Glu Phe Met Ser  
 260 265 270  
 Gln Leu Leu Asp Gly Leu Gly Tyr Glu Arg Pro Ser Ile Lys Ile Pro  
 275 280 285

047-E2F-PCT.ST25.txt

Ala Phe Ile Met Met Pro Ile Ala His Leu Val Glu Leu Thr Tyr Lys  
290 295 300

Val Leu Gly Pro Tyr Gly Met Thr Val Pro Gln Leu Thr Pro Ser Arg  
305 310 315 320

Val Arg Leu Leu Ser Cys Ser Arg Thr Phe Asp Ser Thr Lys Ala Lys  
325 330 335

Asp Arg Leu Gly Tyr Ala Pro Val Val Pro Leu Gln Glu Gly Ile Arg  
340 345 350

Arg Thr Ile Asp Ser Phe Ser His Leu Thr Ala Gly Ser Gln Ser Lys  
355 360 365

Arg Glu Gly Pro Ser Lys Ala Ser Arg Ile Leu Gly Gly Gly Lys Gly  
370 375 380

Met Thr Ile Tyr Phe Asn  
385 390

<210> 1371

<211> 1446

<212> DNA

<213> Arabidopsis thaliana

<400> 1371

atgtctctca aggcgttaga ctacgagtcc ttgaatgaaa acgtgaagaa ttgtcagtat	60
gcagtcagag gtgaacttta tcttcgtgct tctgagcttc agaaagaagg caaaaagatt	120
attttcacaa atgttggaac ccctcatgct ttaggacaga aacctctgac ttttcctcgt	180
caggtgggttt ctttatgcca agcaccatct ctggttagatg atccaaatgt tggatatgata	240
ttcccagcag atgctattgc aagagctaag cattatcttt ccttgacttc tgggtggtctt	300
ggtgcttaca gtgactcaag aggtcttccg ggagttcggg aagaagtcgc tgagttcatt	360
gaacggcgtg atggatatcc aagcgatcca gaactcatat ttctaactga tggagcgagc	420
aaaggtgtga tgcaaatctt gaattgtgtc atacgcggtc agaaagacgg aattctgggtt	480
ccagttccac agtatccact ctactcggct actatatctc tggttaggtgg tactcttggt	540
ccttactatc ttgaagagtc tgaaaactgg ggacttgatg ttaacaacct tcgccaatct	600
gttgctcaag ctcgctctca aggaataaca gtaagggcaa tgggtgattat taaccccgga	660

047-E2F-PCT.ST25.txt

aacccaactg gccagtgtct tagcgaagct aacataagag agatactacg gttctgttgt 720  
 gatgagagat tagttcttct cggagacgaa gtgtatcagc aaaatatata ccaagatgaa 780  
 cgtcccttta tcagttccaa gaagggttttg atggatatgg gagcaccgat cagcaaggaa 840  
 gttcagctca tatctttcca caccgtttcc aaaggatact ggggcgaatg tgggcaacgg 900  
 ggagggttact ttgagatgac aaatatccct ccaggaccg ttgaggagat atacaagggtg 960  
 gcctctatag ctctcagccc caacgtctct gcgcagatat ttatgggttt aatggtttagc 1020  
 ccaccaaagc ctggagacat ttcatatgac caattcgttc gtgagagcaa gggaataacta 1080  
 gaatcactga gaagaagagc aaggatgatg actgatggat tcaacagctg caaaaacgtc 1140  
 gtctgtaatt tcacagaagg tgctatgtat tcattccctc aaataaagtt gccgtcgaaa 1200  
 gcaatccaag cagcaaaaaca agccggaaaa gtccctgacg ttttctactg ccttaagctc 1260  
 ttagaagcca caggaatctc cacagttcca ggctctggat ttggacaaaa agaaggggtg 1320  
 tttcatTTaa ggacaacaat tctgccagca gaagaagaaa tgccagagat tatggacagt 1380  
 ttcaaaaagt tcaatgatga gtttatgtct cagtacgctg ataactttgg ttactccaga 1440  
 atgtga 1446

<210> 1372

<211> 481

<212> PRT

<213> Arabidopsis thaliana

<400> 1372

Met Ser Leu Lys Ala Leu Asp Tyr Glu Ser Leu Asn Glu Asn Val Lys  
 1 5 10 15

Asn Cys Gln Tyr Ala Val Arg Gly Glu Leu Tyr Leu Arg Ala Ser Glu  
 20 25 30

Leu Gln Lys Glu Gly Lys Lys Ile Ile Phe Thr Asn Val Gly Asn Pro  
 35 40 45

His Ala Leu Gly Gln Lys Pro Leu Thr Phe Pro Arg Gln Val Val Ser  
 50 55 60

Leu Cys Gln Ala Pro Phe Leu Leu Asp Asp Pro Asn Val Gly Met Ile  
 65 70 75 80

Phe Pro Ala Asp Ala Ile Ala Arg Ala Lys His Tyr Leu Ser Leu Thr  
 85 90 95

047-E2F-PCT.ST25.txt

Ser Gly Gly Leu Gly Ala Tyr Ser Asp Ser Arg Gly Leu Pro Gly Val  
100 105 110

Arg Lys Glu Val Ala Glu Phe Ile Glu Arg Arg Asp Gly Tyr Pro Ser  
115 120 125

Asp Pro Glu Leu Ile Phe Leu Thr Asp Gly Ala Ser Lys Gly Val Met  
130 135 140

Gln Ile Leu Asn Cys Val Ile Arg Gly Gln Lys Asp Gly Ile Leu Val  
145 150 155 160

Pro Val Pro Gln Tyr Pro Leu Tyr Ser Ala Thr Ile Ser Leu Leu Gly  
165 170 175

Gly Thr Leu Val Pro Tyr Tyr Leu Glu Glu Ser Glu Asn Trp Gly Leu  
180 185 190

Asp Val Asn Asn Leu Arg Gln Ser Val Ala Gln Ala Arg Ser Gln Gly  
195 200 205

Ile Thr Val Arg Ala Met Val Ile Ile Asn Pro Gly Asn Pro Thr Gly  
210 215 220

Gln Cys Leu Ser Glu Ala Asn Ile Arg Glu Ile Leu Arg Phe Cys Cys  
225 230 235 240

Asp Glu Arg Leu Val Leu Leu Gly Asp Glu Val Tyr Gln Gln Asn Ile  
245 250 255

Tyr Gln Asp Glu Arg Pro Phe Ile Ser Ser Lys Lys Val Leu Met Asp  
260 265 270

Met Gly Ala Pro Ile Ser Lys Glu Val Gln Leu Ile Ser Phe His Thr  
275 280 285

Val Ser Lys Gly Tyr Trp Gly Glu Cys Gly Gln Arg Gly Gly Tyr Phe  
290 295 300

Glu Met Thr Asn Ile Pro Pro Arg Thr Val Glu Glu Ile Tyr Lys Val  
305 310 315 320

Ala Ser Ile Ala Leu Ser Pro Asn Val Ser Ala Gln Ile Phe Met Gly  
325 330 335

Leu Met Val Ser Pro Pro Lys Pro Gly Asp Ile Ser Tyr Asp Gln Phe  
Page 2153

340

345

350

Val Arg Glu Ser Lys Gly Ile Leu Glu Ser Leu Arg Arg Arg Ala Arg  
 355 360 365

Met Met Thr Asp Gly Phe Asn Ser Cys Lys Asn Val Val Cys Asn Phe  
 370 375 380

Thr Glu Gly Ala Met Tyr Ser Phe Pro Gln Ile Lys Leu Pro Ser Lys  
 385 390 395 400

Ala Ile Gln Ala Ala Lys Gln Ala Gly Lys Val Pro Asp Val Phe Tyr  
 405 410 415

Cys Leu Lys Leu Leu Glu Ala Thr Gly Ile Ser Thr Val Pro Gly Ser  
 420 425 430

Gly Phe Gly Gln Lys Glu Gly Val Phe His Leu Arg Thr Thr Ile Leu  
 435 440 445

Pro Ala Glu Glu Glu Met Pro Glu Ile Met Asp Ser Phe Lys Lys Phe  
 450 455 460

Asn Asp Glu Phe Met Ser Gln Tyr Ala Asp Asn Phe Gly Tyr Ser Arg  
 465 470 475 480

Met

&lt;210&gt; 1373

&lt;211&gt; 3168

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1373

atggccttga aactcacttc tccgccttca gttttctcac aatcaaggag attatcttct 60  
 tcttcgttaa ttccgataag gtcaaaatcc acattcaccg gatttcgatac gagaaccggt 120  
 gtttatttaa gcaaaacgac ggcgccttcag tcgtctacaa aactgagtgt ggcggcggag 180  
 agtcctgcgg cgacaattgc gacggatgat tgggggaaag tatcggcggt tctgtttgat 240  
 atggacggtg tgctttgtaa cagtgaagat ctttctagac gcgccgccgt ggatgttttt 300  
 acggagatgg gagttgaagt cactgtggac gatttcgttc cttttatggg aacaggtgaa 360  
 gccaaagtttt taggaggtgt tgcttcagtc aaagaagtta aaggatttga tccagatgca 420



## 047-E2F-PCT.ST25.txt

gctaaagaga gattctttga aatatatctc gataagtatg cgaagccaga atctgggatt 480  
ggatttccag gagcattgga gcttggtact gagtgtaaga acaaaggcct taaagtcgct 540  
gttgcatcta gtgctgaccg tatcaaagtt gatgcgaatc tgaaagctgc tggtttgtct 600  
ttgaccatgt ttgatgccat tgtttcagca gatgcctttg agaatttgaa accagctcca 660  
gatattttcc tggctgctgc aaagatctta ggtgtgccta ccagcgagtg tgttgttatt 720  
gaagatgcgc ttgctggagt ccaagccgca caagctgcga acatgagatg tatagccgta 780  
aaaactactt tatctgaagc aattcttaag gatgctggtc cttctatgat acgagacgat 840  
attggaaaca tctcaatcaa tgacattctc actggtggct cagattctac cagaaattcc 900  
acagcaatgc ttgaagagaa cacggtcagc gacaaaacca gcgctaacgg gtttcagggc 960  
tctcgacgag atatactgag gtatgggagt cttggcattg ctctttcttg tgtctacttc 1020  
gccgccacca actggaaggc aatgcaatat gcttctccga aagctttgtg gaatgcattg 1080  
gttgagcaaa aaagcccttc ttttacacag aaccaagggtg aaggagagat gcaacagttc 1140  
gtcgattaca ttgctgatct agagagcaag caaacagcta caactgtgcc agaattccca 1200  
tctaaactcg actggctaaa cactgcccct ctccagtttc gccgggattt aaaaggga 1260  
gtggttatac ttgatttttg gacctattgc tgcataaact gtatgcatgt attaccggat 1320  
ctagagtttc ttgagaagaa gtacaaggat atgccattca ccgttggtgg tgtacactcg 1380  
gctaagttcg acaatgagaa agatttagat gccatacgaa atgcagttct tcgctatgat 1440  
attagccacc cggttggtgaa tgatggagac atgtacatgt ggagagagct tggcatcaac 1500  
tcgtggccta catttgctgt tgtttctcct aatggcaaag tcattgcaca aattgccgga 1560  
gaaggtcacc gcaaagatct tgatgacgtg gtggcggcag ctctgacata ttatggtgga 1620  
aagaatgtat tagacagtac tccgcttcca acacgtttgg agaaagacaa cgatccacgt 1680  
ttggccacgt ctccgttgaa atttccggga aagttggcta ttgatactct taataacagg 1740  
ctattcatct cagacagtaa ccataaccgt attattgtaa ctgatctcga aggaaatttc 1800  
atagtccaaa ttggcagcag tggagaagaa ggtttccaag atggttcctt cgaagatgct 1860  
gcatttaatc gtcctcaggg actagcttat aatgctaaga agaattctct ttatgttgct 1920  
gacaccgaga atcatgcttt gagagagatt gattttgtca acgagagagt acagactctg 1980  
gctggtaatg gaactaaagg ctgagactac caagggtgaa gaaaaggaa caaacagctt 2040  
ttgaattctc cttgggacgt atgctttgag ccggtgaatg agaaggata cattgcaatg 2100  
gcaggtcagc accagatttg ggaatacagt gtgcttgatg gtattactcg agttttcagt 2160  
ggaaatggtt atgaaagaaa cctcaacggt tccaccctc agactacatc atttgctcag 2220  
ccatcaggaa tctcattagg ccctgatttg aaagaagcat atattgctga tagcgagagc 2280

```

agttctattc gtgcccttga tcttcaaact ggaggatcaa gattacttgc ggggtggtgat 2340
ccgtatttct ctgagaatct tttcaagttt ggagacaatg atggcgtggg agcagaagtt 2400
ctcctacaac acccgctagg tgtattatgc gcaaagtatg gtcaaataata tctaactgat 2460
agctataacc acaagattaa gaagttggac cctgtaacca aacgtgttgt tactctcgct 2520
ggaacgggaa aagccggttt taaggatggg aaggtcaagg gtgctcagct ttcagagcct 2580
gcaggacttg ctataactga aaacgggagg ctgtttgtgg cggatacaaa taatagcctt 2640
atccgataca tagatttgaa caaaggagaa gactcagaga ttcttacatt ggagttaaaa 2700
gggtgttcaac caccaacgcc aaaggcaaaa tccctgaaac gtttgagaaa acgtgcctcg 2760
gctgatacaa agattgtcaa agtggattct gtaacgtccc gtgaaggaga tttgaatctc 2820
aaaatctcat taccagatgg ctaccatttc tccaaggaag cgcgagagtaa gtttgtggtt 2880
gatgtggagc ctgaaaacgc agtagcaatc gatccaacgg aaggaactct gagtcccgaa 2940
ggttcaacaa tgcttcattt tataacaatct tcaacttcgg cttctgttgg gaaaatcagt 3000
tgcaagggtg actattgcaa agaagacgag gtttgcctgt atcagtctgt acagtttgag 3060
gtccctttca aggtggaatc agaattatct gcttctccga caatcacatt cacggttaca 3120
ccgagagcac ccgatgctgg tgggttacag cttcaaggta ctcgctga 3168

```

&lt;210&gt; 1374

&lt;211&gt; 1055

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1374

```

Met Ala Leu Lys Leu Thr Ser Pro Pro Ser Val Phe Ser Gln Ser Arg
1           5           10           15

```

```

Arg Leu Ser Ser Ser Leu Ile Pro Ile Arg Ser Lys Ser Thr Phe
20           25           30

```

```

Thr Gly Phe Arg Ser Arg Thr Gly Val Tyr Leu Ser Lys Thr Thr Ala
35           40           45

```

```

Leu Gln Ser Ser Thr Lys Leu Ser Val Ala Ala Glu Ser Pro Ala Ala
50           55           60

```

```

Thr Ile Ala Thr Asp Asp Trp Gly Lys Val Ser Ala Val Leu Phe Asp
65           70           75           80

```

Met Asp Gly Val Leu Cys Asn Ser Glu Asp Leu Ser Arg Arg Ala Ala  
 85 90 95  
 Val Asp Val Phe Thr Glu Met Gly Val Glu Val Thr Val Asp Asp Phe  
 100 105 110  
 Val Pro Phe Met Gly Thr Gly Glu Ala Lys Phe Leu Gly Gly Val Ala  
 115 120 125  
 Ser Val Lys Glu Val Lys Gly Phe Asp Pro Asp Ala Ala Lys Glu Arg  
 130 135 140  
 Phe Phe Glu Ile Tyr Leu Asp Lys Tyr Ala Lys Pro Glu Ser Gly Ile  
 145 150 155 160  
 Gly Phe Pro Gly Ala Leu Glu Leu Val Thr Glu Cys Lys Asn Lys Gly  
 165 170 175  
 Leu Lys Val Ala Val Ala Ser Ser Ala Asp Arg Ile Lys Val Asp Ala  
 180 185 190  
 Asn Leu Lys Ala Ala Gly Leu Ser Leu Thr Met Phe Asp Ala Ile Val  
 195 200 205  
 Ser Ala Asp Ala Phe Glu Asn Leu Lys Pro Ala Pro Asp Ile Phe Leu  
 210 215 220  
 Ala Ala Ala Lys Ile Leu Gly Val Pro Thr Ser Glu Cys Val Val Ile  
 225 230 235 240  
 Glu Asp Ala Leu Ala Gly Val Gln Ala Ala Gln Ala Ala Asn Met Arg  
 245 250 255  
 Cys Ile Ala Val Lys Thr Thr Leu Ser Glu Ala Ile Leu Lys Asp Ala  
 260 265 270  
 Gly Pro Ser Met Ile Arg Asp Asp Ile Gly Asn Ile Ser Ile Asn Asp  
 275 280 285  
 Ile Leu Thr Gly Gly Ser Asp Ser Thr Arg Asn Ser Thr Ala Met Leu  
 290 295 300  
 Glu Glu Asn Thr Val Ser Asp Lys Thr Ser Ala Asn Gly Phe Gln Gly  
 305 310 315 320  
 Ser Arg Arg Asp Ile Leu Arg Tyr Gly Ser Leu Gly Ile Ala Leu Ser  
 325 330 335

047-E2F-PCT.ST25.txt

Cys Val Tyr Phe Ala Ala Thr Asn Trp Lys Ala Met Gln Tyr Ala Ser  
 340 345 350  
 Pro Lys Ala Leu Trp Asn Ala Leu Val Gly Ala Lys Ser Pro Ser Phe  
 355 360 365  
 Thr Gln Asn Gln Gly Glu Gly Arg Val Gln Gln Phe Val Asp Tyr Ile  
 370 375 380  
 Ala Asp Leu Glu Ser Lys Gln Thr Ala Thr Thr Val Pro Glu Phe Pro  
 385 390 395 400  
 Ser Lys Leu Asp Trp Leu Asn Thr Ala Pro Leu Gln Phe Arg Arg Asp  
 405 410 415  
 Leu Lys Gly Lys Val Val Ile Leu Asp Phe Trp Thr Tyr Cys Cys Ile  
 420 425 430  
 Asn Cys Met His Val Leu Pro Asp Leu Glu Phe Leu Glu Lys Lys Tyr  
 435 440 445  
 Lys Asp Met Pro Phe Thr Val Val Gly Val His Ser Ala Lys Phe Asp  
 450 455 460  
 Asn Glu Lys Asp Leu Asp Ala Ile Arg Asn Ala Val Leu Arg Tyr Asp  
 465 470 475 480  
 Ile Ser His Pro Val Val Asn Asp Gly Asp Met Tyr Met Trp Arg Glu  
 485 490 495  
 Leu Gly Ile Asn Ser Trp Pro Thr Phe Ala Val Val Ser Pro Asn Gly  
 500 505 510  
 Lys Val Ile Ala Gln Ile Ala Gly Glu Gly His Arg Lys Asp Leu Asp  
 515 520 525  
 Asp Val Val Ala Ala Ala Leu Thr Tyr Tyr Gly Gly Lys Asn Val Leu  
 530 535 540  
 Asp Ser Thr Pro Leu Pro Thr Arg Leu Glu Lys Asp Asn Asp Pro Arg  
 545 550 555 560  
 Leu Ala Thr Ser Pro Leu Lys Phe Pro Gly Lys Leu Ala Ile Asp Thr  
 565 570 575  
 Leu Asn Asn Arg Leu Phe Ile Ser Asp Ser Asn His Asn Arg Ile Ile  
 580 585 590

047-E2F-PCT.ST25.txt

Val Thr Asp Leu Glu Gly Asn Phe Ile Val Gln Ile Gly Ser Ser Gly  
595 600 605

Glu Glu Gly Phe Gln Asp Gly Ser Phe Glu Asp Ala Ala Phe Asn Arg  
610 615 620

Pro Gln Gly Leu Ala Tyr Asn Ala Lys Lys Asn Leu Leu Tyr Val Ala  
625 630 635 640

Asp Thr Glu Asn His Ala Leu Arg Glu Ile Asp Phe Val Asn Glu Arg  
645 650 655

Val Gln Thr Leu Ala Gly Asn Gly Thr Lys Gly Ser Asp Tyr Gln Gly  
660 665 670

Gly Arg Lys Gly Thr Lys Gln Leu Leu Asn Ser Pro Trp Asp Val Cys  
675 680 685

Phe Glu Pro Val Asn Glu Lys Val Tyr Ile Ala Met Ala Gly Gln His  
690 695 700

Gln Ile Trp Glu Tyr Ser Val Leu Asp Gly Ile Thr Arg Val Phe Ser  
705 710 715 720

Gly Asn Gly Tyr Glu Arg Asn Leu Asn Gly Ser Thr Pro Gln Thr Thr  
725 730 735

Ser Phe Ala Gln Pro Ser Gly Ile Ser Leu Gly Pro Asp Leu Lys Glu  
740 745 750

Ala Tyr Ile Ala Asp Ser Glu Ser Ser Ser Ile Arg Ala Leu Asp Leu  
755 760 765

Gln Thr Gly Gly Ser Arg Leu Leu Ala Gly Gly Asp Pro Tyr Phe Ser  
770 775 780

Glu Asn Leu Phe Lys Phe Gly Asp Asn Asp Gly Val Gly Ala Glu Val  
785 790 795 800

Leu Leu Gln His Pro Leu Gly Val Leu Cys Ala Asn Asp Gly Gln Ile  
805 810 815

Tyr Leu Thr Asp Ser Tyr Asn His Lys Ile Lys Lys Leu Asp Pro Val  
820 825 830

Thr Lys Arg Val Val Thr Leu Ala Gly Thr Gly Lys Ala Gly Phe Lys

835

840

845

Asp Gly Lys Val Lys Gly Ala Gln Leu Ser Glu Pro Ala Gly Leu Ala  
 850 855 860

Ile Thr Glu Asn Gly Arg Leu Phe Val Ala Asp Thr Asn Asn Ser Leu  
 865 870 875 880

Ile Arg Tyr Ile Asp Leu Asn Lys Gly Glu Asp Ser Glu Ile Leu Thr  
 885 890 895

Leu Glu Leu Lys Gly Val Gln Pro Pro Thr Pro Lys Ala Lys Ser Leu  
 900 905 910

Lys Arg Leu Arg Lys Arg Ala Ser Ala Asp Thr Lys Ile Val Lys Val  
 915 920 925

Asp Ser Val Thr Ser Arg Glu Gly Asp Leu Asn Leu Lys Ile Ser Leu  
 930 935 940

Pro Asp Gly Tyr His Phe Ser Lys Glu Ala Arg Ser Lys Phe Val Val  
 945 950 955 960

Asp Val Glu Pro Glu Asn Ala Val Ala Ile Asp Pro Thr Glu Gly Thr  
 965 970 975

Leu Ser Pro Glu Gly Ser Thr Met Leu His Phe Ile Gln Ser Ser Thr  
 980 985 990

Ser Ala Ser Val Gly Lys Ile Ser Cys Lys Val Tyr Tyr Cys Lys Glu  
 995 1000 1005

Asp Glu Val Cys Leu Tyr Gln Ser Val Gln Phe Glu Val Pro Phe  
 1010 1015 1020

Lys Val Glu Ser Glu Leu Ser Ala Ser Pro Thr Ile Thr Phe Thr  
 1025 1030 1035

Val Thr Pro Arg Ala Pro Asp Ala Gly Gly Leu Gln Leu Gln Gly  
 1040 1045 1050

Thr Arg  
 1055

<210> 1375

<211> 795

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1375

```

atggattgtg ttgaatctta tttatccgga gataattctg atgaatctcc ggtgatgcat    60
acttggtttt ctccgtctcc gtctccgtct gactcttcct cttctccttc atcttctgct    120
tcttcttcca ttgggaggaa tagcgacgac ggtgagaaat cgtcggagga cgggtggagat    180
gacgccggag agaatgaagt tgagtctccg tataaagggtc ctcttgaaat gatggaatct    240
ctcgaacaag tcttacctgt taggaaaggg atatcgaagt attacagtgg aaagtcaaag    300
tcttttacta atttaacggc ggaggcagct tcggcggttga cttcttcttc gtcgatgaaa    360
gatttagcga agccggagaa tccttacagt aggaggagga ggaatctcct ctgccatcag    420
at ttgggaaa ataacaagac gactccacgt ggtgggatct cgaagaaaca cgttatgagt    480
tctagcagaa gcgctttgac gctagctatg gctgttgagg ctggtgtgat gaccggagaa    540
ggatcttctt ccggagggtga ctgctcgccg ggatcaagtc cgacgacttc tggatctcct    600
ccgaggcagc tacatcatca tcaacatcag atgaagaagc ttcctccgtt gtatcctagg    660
agtcaagggg cttttggtaa tttgacttcg tctcagtcgt cgttggggtt ttgtgcctgg    720
agatcgtttt cgggtggctga ttttccgagg tgttttccgg cgacggcgag tgggattggg    780
tttaatgact cgtag                                         795

```

&lt;210&gt; 1376

&lt;211&gt; 264

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1376

```

Met Asp Cys Val Glu Ser Tyr Leu Ser Gly Asp Asn Ser Asp Glu Ser
1          5          10         15

Pro Val Met His Thr Trp Phe Ser Pro Ser Pro Ser Pro Ser Asp Ser
          20         25         30

Ser Ser Ser Pro Ser Ser Ser Ala Ser Ser Ser Ile Gly Arg Asn Ser
          35         40         45

Asp Asp Gly Glu Lys Ser Ser Glu Asp Gly Gly Asp Asp Ala Gly Glu
          50         55         60

```

047-E2F-PCT.ST25.txt

Asn Glu Val Glu Ser Pro Tyr Lys Gly Pro Leu Glu Met Met Glu Ser  
 65 70 75 80  
 Leu Glu Gln Val Leu Pro Val Arg Lys Gly Ile Ser Lys Tyr Tyr Ser  
 85 90 95  
 Gly Lys Ser Lys Ser Phe Thr Asn Leu Thr Ala Glu Ala Ala Ser Ala  
 100 105 110  
 Leu Thr Ser Ser Ser Ser Met Lys Asp Leu Ala Lys Pro Glu Asn Pro  
 115 120 125  
 Tyr Ser Arg Arg Arg Arg Asn Leu Leu Cys His Gln Ile Trp Glu Asn  
 130 135 140  
 Asn Lys Thr Thr Pro Arg Gly Gly Ile Ser Lys Lys His Val Met Ser  
 145 150 155 160  
 Ser Ser Arg Ser Ala Leu Thr Leu Ala Met Ala Val Ala Ala Gly Val  
 165 170 175  
 Met Thr Gly Glu Gly Ser Ser Ser Gly Gly Asp Ser Ser Pro Gly Ser  
 180 185 190  
 Ser Pro Thr Thr Ser Gly Ser Pro Pro Arg Gln Leu His His His Gln  
 195 200 205  
 His Gln Met Lys Lys Leu Pro Pro Leu Tyr Pro Arg Ser Gln Gly Ser  
 210 215 220  
 Phe Gly Asn Leu Thr Ser Ser Gln Ser Ser Leu Gly Phe Cys Ala Trp  
 225 230 235 240  
 Arg Ser Phe Ser Val Ala Asp Phe Pro Arg Cys Phe Pro Ala Thr Ala  
 245 250 255  
 Ser Gly Ile Gly Phe Asn Asp Ser  
 260

<210> 1377

<211> 327

<212> DNA

<213> Arabidopsis thaliana



047-E2F-PCT.ST25.txt

<400> 1377  
atggaagaag aaatattatc ttttgtctct atccaaagcc acgtgtcttc tgctggagag 60  
aaaccaatac acgtactgga tgagaatcca aagttttccc gacttcatcc ttcgccgtca 120  
aacatcgact ccggtgaaga ttcaacgtcg attaacaaat caaacatgga atcttatggg 180  
ttttcaccgg taaaaataat cgaagcccta attagagaaa caacagctca aggtaatggt 240  
aatatgcaac ggaaatcact tttttttcca actcaaactc ctgatttggt tcctgcaatt 300  
ctaaactcaa aaagaaaaac aggttag 327

<210> 1378

<211> 108

<212> PRT

<213> Arabidopsis thaliana

<400> 1378

Met Glu Glu Glu Ile Leu Ser Phe Val Ser Ile Gln Ser His Val Ser  
1 5 10 15

Ser Ala Gly Glu Lys Pro Ile His Val Leu Asp Glu Asn Pro Lys Phe  
20 25 30

Ser Arg Leu His Pro Ser Pro Ser Asn Ile Asp Ser Gly Glu Asp Ser  
35 40 45

Thr Ser Ile Asn Lys Ser Asn Met Glu Ser Tyr Gly Phe Ser Pro Val  
50 55 60

Lys Ile Ile Glu Ala Leu Ile Arg Glu Thr Thr Ala Gln Gly Asn Val  
65 70 75 80

Asn Met Gln Arg Lys Ser Leu Phe Phe Pro Thr Gln Ile Ser Asp Leu  
85 90 95

Phe Pro Ala Ile Leu Asn Ser Lys Arg Lys Thr Gly  
100 105

<210> 1379

<211> 420

<212> DNA

<213> Arabidopsis thaliana

047-E2F-PCT.ST25.txt

<400> 1379  
atggctaattg ctgcgtcagg aatggcagtc catgatgact gcaagctaag atttctggaa 60  
ctgaaggcga aaaggacaca ccgtttcatt gtctacaaga ttgaggagaa gcagaagcaa 120  
gtgattgttg agaaagttgg tgaacctatt ctaacttacg aggactttgc agcaagtctt 180  
ccagctgacg aatgccgata cgccatttat gatttcgact ttgtcactgc agagaattgc 240  
cagaagagca agattttctt cattgcatgg tgtcccgcag tagcaaaggt gagaagcaag 300  
atgatctatg cgagctctaa ggacaggttc aagcgtgaac ttgatggaat tcaagtggag 360  
cttcaagcaa ctgatccaac tgagatggat cttgatgttt tgaaaagccg cgtcaactaa 420

<210> 1380

<211> 139

<212> PRT

<213> Arabidopsis thaliana

<400> 1380

Met Ala Asn Ala Ala Ser Gly Met Ala Val His Asp Asp Cys Lys Leu  
1 5 10 15  
Arg Phe Leu Glu Leu Lys Ala Lys Arg Thr His Arg Phe Ile Val Tyr  
20 25 30  
Lys Ile Glu Glu Lys Gln Lys Gln Val Ile Val Glu Lys Val Gly Glu  
35 40 45  
Pro Ile Leu Thr Tyr Glu Asp Phe Ala Ala Ser Leu Pro Ala Asp Glu  
50 55 60  
Cys Arg Tyr Ala Ile Tyr Asp Phe Asp Phe Val Thr Ala Glu Asn Cys  
65 70 75 80  
Gln Lys Ser Lys Ile Phe Phe Ile Ala Trp Cys Pro Asp Val Ala Lys  
85 90 95  
Val Arg Ser Lys Met Ile Tyr Ala Ser Ser Lys Asp Arg Phe Lys Arg  
100 105 110  
Glu Leu Asp Gly Ile Gln Val Glu Leu Gln Ala Thr Asp Pro Thr Glu  
115 120 125  
Met Asp Leu Asp Val Leu Lys Ser Arg Val Asn  
130 135

&lt;210&gt; 1381

&lt;211&gt; 276

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1381

```

atggggataa actctaagca tgttgtggtt gttattatgg tgatgatggt cattataagc      60
tcattgtttgg ctgcaaggaa tataattccc cgggaaacta atcaagaaag cgaaaaagtg      120
tcccagagaga tgatcatagg gaaagaagaa gactctactg agaaaataga gcaccaaga      180
agcagcgtgg agaataacca ttatatccca agacaagatt tctacaacta tggacctgga      240
ggcgaaaata atggaggagg tgggtggtggt ggataa                                276

```

&lt;210&gt; 1382

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1382

```

Met Gly Ile Asn Ser Lys His Val Val Val Val Ile Met Val Met Met
1          5          10          15

Val Ile Ile Ser Ser Cys Leu Ala Ala Arg Asn Ile Ile Pro Arg Glu
20          25          30

Thr Asn Gln Glu Ser Glu Lys Val Ser Arg Glu Met Ile Ile Gly Lys
35          40          45

Glu Glu Asp Ser Thr Glu Lys Ile Glu His Pro Arg Ser Ser Val Glu
50          55          60

Asn His His Tyr Ile Pro Arg Gln Asp Phe Tyr Asn Tyr Gly Pro Gly
65          70          75          80

Gly Glu Asn Asn Gly Gly Gly Gly Gly Gly Gly
85          90

```

&lt;210&gt; 1383

&lt;211&gt; 1863

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1383

```

atggagcaca acaaggttga tacagaacct caagattcat atgatgatca acaaaaatgg      60
gttctcgatt cttcgaccga tagtagagga gagattccgc ttcgggctca aaccggagct      120
tgagagagctg cactcttcat catttggtatc gaattcagcg agaggctaag ttactttggg      180
atctccacga acttagtggt ctacttgact accattcttc accaagatct caagatggct      240
gtaaaaaata cgaactactg gtctggtgtc actactttga tgcctcttct tggaggcttc      300
gtcgcagatg cttatctcgg ccgttatgga actgtcctac ttgcaaccac catttacctt      360
atgggcttga ttctgttaac attgtcttgg ttataccgg gattgaaagc atgtcatgaa      420
gacatgtgtg ttgagccaag gaaagccac gagatagcct tcttcattgc aatctacttg      480
atctccatag gcaactggagg tcataagcca tcccttgaga gctttggagc tgaccaattc      540
gaagatggcc atccggaaga acgaaaaatg aaaatgtctt actttaactg gtggaatgct      600
ggtctatgcg ctggtatttt aaccgcggtg actgtaattg tctatatcga agaccggatt      660
ggttgggggtg tggctagcat catactcaca atagttatgg ctacttcggt ttttatcttc      720
cgtatcgga aaccgtttta ccgttataga gcaccttctg gtagccatt gacccaatg      780
ttgcaagtct ttgtcgccgc cattgccaaa agaaatcttc cttgtcccag tgattcttct      840
cttcttcatg agttaactaa tgaagagtat actaaaggcc ggcttctttc cagctcaaag      900
aatcttaaat ttctagacaa agcagcagtt attgaggacc gaaacgagaa cactaaagcc      960
gagaagcaga gtccatggcg actcgcaacg gttacgaaag tggaagaagt taagctactc     1020
atcaacatga ttccaatctg gttctttaca ttagcctttg gagtatgcg cactcaaagc     1080
tcaacactct ttatcaaaca agccataata atggaccgac acatcacagg gacaagcttc     1140
atagttcctc cagcttcatt gttctctctc atagctctct ccataatcat caccgtaaca     1200
atctacgaga aactcctcgt tcctcttttg agacgtgcca caggaaacga aagaggcatt     1260
agcattctac aaagaatcgg ggtcgggtatg gttttctcct tattcgctat gatcattgct     1320
gctctgattg agaagaaaag attagattat gctaaggaac accacatgaa taagaccatg     1380
accttgagtg ctatatggtt agctcctcaa ttcctagtct taggagttgc ggatgctttt     1440
acccttgtcg gtcttcaaga atatttctac gaccaagtcc cagattctat gagaagctta     1500
ggcatagcgt ttacctcag cgtgcttgga gcggctagct ttgtcaacaa tcttttgata     1560
acggttagtg atcatttagc cgaggaaatt tccgggaagg gctggtttgg gaaagacctt     1620
aatagcagcc gcttggaccg cttttactgg atgctagccg ccttgaccgc tgcaaatata     1680

```

047-E2F-PCT.ST25.txt

tgctgctttg tgatcgtggc catgagatac acttacaaga ctgtgcagcc gagtctggct 1740  
gttggttgctg acggcggtga tgacgttgag acagccacgg ggacgaataa cacgtccaag 1800  
tttacggctg gttcgggaaa gaccttaata gcagctgcat ggaccgcttt tactggatgc 1860  
tag 1863

<210> 1384

<211> 620

<212> PRT

<213> Arabidopsis thaliana

<400> 1384

Met Glu His Asn Lys Val Asp Thr Glu Pro Gln Asp Ser Tyr Asp Asp  
1 5 10 15

Gln Gln Lys Trp Val Leu Asp Ser Ser Thr Asp Ser Arg Gly Glu Ile  
20 25 30

Pro Leu Arg Ala Gln Thr Gly Ala Trp Arg Ala Ala Leu Phe Ile Ile  
35 40 45

Gly Ile Glu Phe Ser Glu Arg Leu Ser Tyr Phe Gly Ile Ser Thr Asn  
50 55 60

Leu Val Val Tyr Leu Thr Thr Ile Leu His Gln Asp Leu Lys Met Ala  
65 70 75 80

Val Lys Asn Thr Asn Tyr Trp Ser Gly Val Thr Thr Leu Met Pro Leu  
85 90 95

Leu Gly Gly Phe Val Ala Asp Ala Tyr Leu Gly Arg Tyr Gly Thr Val  
100 105 110

Leu Leu Ala Thr Thr Ile Tyr Leu Met Gly Leu Ile Leu Leu Thr Leu  
115 120 125

Ser Trp Phe Ile Pro Gly Leu Lys Ala Cys His Glu Asp Met Cys Val  
130 135 140

Glu Pro Arg Lys Ala His Glu Ile Ala Phe Phe Ile Ala Ile Tyr Leu  
145 150 155 160

Ile Ser Ile Gly Thr Gly Gly His Lys Pro Ser Leu Glu Ser Phe Gly  
Page 2167

Ala Asp Gln Phe Glu Asp Gly His Pro Glu Glu Arg Lys Met Lys Met  
180 185 190

Ser Tyr Phe Asn Trp Trp Asn Ala Gly Leu Cys Ala Gly Ile Leu Thr  
195 200 205

Ala Val Thr Val Ile Val Tyr Ile Glu Asp Arg Ile Gly Trp Gly Val  
210 215 220

Ala Ser Ile Ile Leu Thr Ile Val Met Ala Thr Ser Phe Phe Ile Phe  
225 230 235 240

Arg Ile Gly Lys Pro Phe Tyr Arg Tyr Arg Ala Pro Ser Gly Ser Pro  
245 250 255

Leu Thr Pro Met Leu Gln Val Phe Val Ala Ala Ile Ala Lys Arg Asn  
260 265 270

Leu Pro Cys Pro Ser Asp Ser Ser Leu Leu His Glu Leu Thr Asn Glu  
275 280 285

Glu Tyr Thr Lys Gly Arg Leu Leu Ser Ser Ser Lys Asn Leu Lys Phe  
290 295 300

Leu Asp Lys Ala Ala Val Ile Glu Asp Arg Asn Glu Asn Thr Lys Ala  
305 310 315 320

Glu Lys Gln Ser Pro Trp Arg Leu Ala Thr Val Thr Lys Val Glu Glu  
325 330 335

Val Lys Leu Leu Ile Asn Met Ile Pro Ile Trp Phe Phe Thr Leu Ala  
340 345 350

Phe Gly Val Cys Ala Thr Gln Ser Ser Thr Leu Phe Ile Lys Gln Ala  
355 360 365

Ile Ile Met Asp Arg His Ile Thr Gly Thr Ser Phe Ile Val Pro Pro  
370 375 380

Ala Ser Leu Phe Ser Leu Ile Ala Leu Ser Ile Ile Ile Thr Val Thr  
385 390 395 400

Ile Tyr Glu Lys Leu Leu Val Pro Leu Leu Arg Arg Ala Thr Gly Asn  
405 410 415

Glu Arg Gly Ile Ser Ile Leu Gln Arg Ile Gly Val Gly Met Val Phe  
 420 425 430  
 Ser Leu Phe Ala Met Ile Ile Ala Ala Leu Ile Glu Lys Lys Arg Leu  
 435 440 445  
 Asp Tyr Ala Lys Glu His His Met Asn Lys Thr Met Thr Leu Ser Ala  
 450 455 460  
 Ile Trp Leu Ala Pro Gln Phe Leu Val Leu Gly Val Ala Asp Ala Phe  
 465 470 475 480  
 Thr Leu Val Gly Leu Gln Glu Tyr Phe Tyr Asp Gln Val Pro Asp Ser  
 485 490 495  
 Met Arg Ser Leu Gly Ile Ala Phe Tyr Leu Ser Val Leu Gly Ala Ala  
 500 505 510  
 Ser Phe Val Asn Asn Leu Leu Ile Thr Val Ser Asp His Leu Ala Glu  
 515 520 525  
 Glu Ile Ser Gly Lys Gly Trp Phe Gly Lys Asp Leu Asn Ser Ser Arg  
 530 535 540  
 Leu Asp Arg Phe Tyr Trp Met Leu Ala Ala Leu Thr Ala Ala Asn Ile  
 545 550 555 560  
 Cys Cys Phe Val Ile Val Ala Met Arg Tyr Thr Tyr Lys Thr Val Gln  
 565 570 575  
 Pro Ser Leu Ala Val Val Ala Asp Gly Gly Asp Asp Val Glu Thr Ala  
 580 585 590  
 Thr Gly Thr Asn Asn Thr Ser Lys Phe Thr Ala Gly Ser Gly Lys Thr  
 595 600 605  
 Leu Ile Ala Ala Ala Trp Thr Ala Phe Thr Gly Cys  
 610 615 620

&lt;210&gt; 1385

&lt;211&gt; 963

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1385

047-E2F-PCT.ST25.txt

```

atggcttgcc aaaacaatct cgttgtgaag caaatcatcg acttgtagca ccaaattctca    60
aagctcaaga gcttaaaacc ttccaaaaat gtcgacactt tggttcggaca actcgtgtcc    120
acgtgcttac ccacggatac aaacatcgat gtcacaaata tgtgtgaaga agtcaaagac    180
atgagagcta atctcatcaa gctttgtggt gaagccgaag gttattttaga gcaacacttc    240
tccacaattt tgggatcttt acaagaagac caaaaccac ttgaccattt acacatcttt    300
ccttactact ccaactacct caagctaggc aagctcgagt tcgatctcct gagccaacac    360
tcaagccatg tccccaccaa gattgccttc gtgggttcgg gtccgatgcc tctcacatcc    420
atcgtattgg ccaagtttca cctccccaac acgacgttcc acaactttga catcgactca    480
cacgcaaaca cactcgcttc aaacctcgtc tctcgcgacc cggacctctc aaaacgcatg    540
atcttccaca caacggacgt actaaacgca accgaaggcc ttgaccaata tgacgtcgtt    600
ttcttagcgg cgctttagg gatggacaaa gagtcaaagg tcaaagccat cgagcacttg    660
gagaaacaca tggctcctgg agctgttctt atgctaagga gtgctcatgc tctcagagct    720
ttcttatatc caatcgttga ctcgtctgat ctcaaaggct ttcaactctt gaccatctat    780
catccaaccg atgacgtggt taactcggtt gtgatcgac gtaagctcgg tgggtccgacc    840
acgcccgggg ttaatggtac tcgtggatgc atgtttatgc cttgtaactg ctccaagatt    900
cacgcatca tgaacaaccg tggtagaag aatatgatcg aggagtttag tgccatcgag    960
taa                                                                    963

```

<210> 1386  
 <211> 320  
 <212> PRT  
 <213> Arabidopsis thaliana

<400> 1386

Met	Ala	Cys	Gln	Asn	Asn	Leu	Val	Val	Lys	Gln	Ile	Ile	Asp	Leu	Tyr
1				5					10					15	
Asp	Gln	Ile	Ser	Lys	Leu	Lys	Ser	Leu	Lys	Pro	Ser	Lys	Asn	Val	Asp
			20					25					30		
Thr	Leu	Phe	Gly	Gln	Leu	Val	Ser	Thr	Cys	Leu	Pro	Thr	Asp	Thr	Asn
		35					40					45			
Ile	Asp	Val	Thr	Asn	Met	Cys	Glu	Glu	Val	Lys	Asp	Met	Arg	Ala	Asn
	50					55					60				



047-E2F-PCT.ST25.txt

Leu Ile Lys Leu Cys Gly Glu Ala Glu Gly Tyr Leu Glu Gln His Phe  
 65 70 75 80  
 Ser Thr Ile Leu Gly Ser Leu Gln Glu Asp Gln Asn Pro Leu Asp His  
 85 90 95  
 Leu His Ile Phe Pro Tyr Tyr Ser Asn Tyr Leu Lys Leu Gly Lys Leu  
 100 105 110  
 Glu Phe Asp Leu Leu Ser Gln His Ser Ser His Val Pro Thr Lys Ile  
 115 120 125  
 Ala Phe Val Gly Ser Gly Pro Met Pro Leu Thr Ser Ile Val Leu Ala  
 130 135 140  
 Lys Phe His Leu Pro Asn Thr Thr Phe His Asn Phe Asp Ile Asp Ser  
 145 150 155 160  
 His Ala Asn Thr Leu Ala Ser Asn Leu Val Ser Arg Asp Pro Asp Leu  
 165 170 175  
 Ser Lys Arg Met Ile Phe His Thr Thr Asp Val Leu Asn Ala Thr Glu  
 180 185 190  
 Gly Leu Asp Gln Tyr Asp Val Val Phe Leu Ala Ala Leu Val Gly Met  
 195 200 205  
 Asp Lys Glu Ser Lys Val Lys Ala Ile Glu His Leu Glu Lys His Met  
 210 215 220  
 Ala Pro Gly Ala Val Leu Met Leu Arg Ser Ala His Ala Leu Arg Ala  
 225 230 235 240  
 Phe Leu Tyr Pro Ile Val Asp Ser Ser Asp Leu Lys Gly Phe Gln Leu  
 245 250 255  
 Leu Thr Ile Tyr His Pro Thr Asp Asp Val Val Asn Ser Val Val Ile  
 260 265 270  
 Ala Arg Lys Leu Gly Gly Pro Thr Thr Pro Gly Val Asn Gly Thr Arg  
 275 280 285  
 Gly Cys Met Phe Met Pro Cys Asn Cys Ser Lys Ile His Ala Ile Met  
 290 295 300  
 Asn Asn Arg Gly Lys Lys Asn Met Ile Glu Glu Phe Ser Ala Ile Glu  
 305 310 315 320

&lt;210&gt; 1387

&lt;211&gt; 1509

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1387

```

atggaagata tcatcatcgg cgtggtggct ctcgccgcgg ttctcctttt cttcctctac    60
caaaaaccga aaaccaaacg gtacaagcta cctccagggc catcaccact tccggtgata    120
ggaaacctcc ttcagcttca gaagcttaac ccacaacgct tcttcgctgg atgggcca    180
aaatacggtc caatcttgtc atacaggata ggaagcagaa caatggtggt gatatcttca    240
gctgagctag ctaaagagct tctcaagacg caagatgtca actttgcgga ccggcctcca    300
catcgtggcc atgagttcat atcctacggc aggcgtgaca tggcattaaa ccactacaca    360
ccgtattacc gagagataag gaagatgggg atgaaccact tgttctcacc aacacgtgtg    420
gccaccttta agcatgtacg agaggaagag gctaggagga tgatggataa gatcaacaag    480
gccgcggata aatccgaagt agtcgatata agtgagctta tgttgacctt cacgaactcg    540
gttgtgtgta gacaagcgtt cgggaagaag tacaatgaag atggagaaga gatgaagagg    600
ttcatcaaga ttctttatgg gactcaaagc gttttgggga agatcttttt ctctgatttt    660
ttcccatatt gtggctttct tgatgattta tcaggcctca cagcttatat gaaagagtgt    720
ttcgaaagac aagacactta tattcaagag gttgtcaatg agacgcttga tcctaagaga    780
gtcaagcccg aaaccgagag catgattgat ctcttgatgg ggatctacaa agaacaacct    840
ttcgcttctg agtttactgt agataatgtc aaagccgtca tcttgatat tgtagtggcg    900
ggaacagata ctgcagctgc ggcggttgtg tgggggatga cgtatctaata gaagtacca    960
caagtgttga agaaagctca agcagaagtg agagagtata tgaaagagaa aggttcaacg   1020
ttcgttactg aagacgatgt caagaacctt ccttacttca gagccttagt taaagaaacc   1080
ctaaggatcg aaccagtgat tcctctcctt atccctcgtg cttgcattca agataccaag   1140
atcgccggtt acgacatccc cgcaggaaca acggtcaacg tcaacgcgtg ggccgtgtca   1200
cgtgacgaga aagaatgggg accgaacctt gatgagttta ggcccagag gtttcttgag   1260
aaggaagttg acttcaaagg cacggactac gagtttatac cgttcgggtc aggccggaga   1320
atgtgcccgg gaatgctgtc tggggccgcg atgcttgagg ttctttatgc gaaccttctc   1380
ctcagcttca actttaaact tcctaattggg atgaaaccag atgatatcaa tatggatgtc   1440
atgactggtc ttgctatgca caagtcgcag catctcaagc ttgttccaga gaaagtgaac   1500
aagtattag                                     1509

```

&lt;210&gt; 1388

&lt;211&gt; 502

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1388

Met Glu Asp Ile Ile Ile Gly Val Val Ala Leu Ala Ala Val Leu Leu  
 1 5 10 15

Phe Phe Leu Tyr Gln Lys Pro Lys Thr Lys Arg Tyr Lys Leu Pro Pro  
 20 25 30

Gly Pro Ser Pro Leu Pro Val Ile Gly Asn Leu Leu Gln Leu Gln Lys  
 35 40 45

Leu Asn Pro Gln Arg Phe Phe Ala Gly Trp Ala Lys Lys Tyr Gly Pro  
 50 55 60

Ile Leu Ser Tyr Arg Ile Gly Ser Arg Thr Met Val Val Ile Ser Ser  
 65 70 75 80

Ala Glu Leu Ala Lys Glu Leu Leu Lys Thr Gln Asp Val Asn Phe Ala  
 85 90 95

Asp Arg Pro Pro His Arg Gly His Glu Phe Ile Ser Tyr Gly Arg Arg  
 100 105 110

Asp Met Ala Leu Asn His Tyr Thr Pro Tyr Tyr Arg Glu Ile Arg Lys  
 115 120 125

Met Gly Met Asn His Leu Phe Ser Pro Thr Arg Val Ala Thr Phe Lys  
 130 135 140

His Val Arg Glu Glu Glu Ala Arg Arg Met Met Asp Lys Ile Asn Lys  
 145 150 155 160

Ala Ala Asp Lys Ser Glu Val Val Asp Ile Ser Glu Leu Met Leu Thr  
 165 170 175

Phe Thr Asn Ser Val Val Cys Arg Gln Ala Phe Gly Lys Lys Tyr Asn  
 180 185 190

Glu Asp Gly Glu Glu Met Lys Arg Phe Ile Lys Ile Leu Tyr Gly Thr  
 Page 2173

195

200

205

Gln Ser Val Leu Gly Lys Ile Phe Phe Ser Asp Phe Phe Pro Tyr Cys  
 210 215 220  
 Gly Phe Leu Asp Asp Leu Ser Gly Leu Thr Ala Tyr Met Lys Glu Cys  
 225 230 235 240  
 Phe Glu Arg Gln Asp Thr Tyr Ile Gln Glu Val Val Asn Glu Thr Leu  
 245 250 255  
 Asp Pro Lys Arg Val Lys Pro Glu Thr Glu Ser Met Ile Asp Leu Leu  
 260 265 270  
 Met Gly Ile Tyr Lys Glu Gln Pro Phe Ala Ser Glu Phe Thr Val Asp  
 275 280 285  
 Asn Val Lys Ala Val Ile Leu Asp Ile Val Val Ala Gly Thr Asp Thr  
 290 295 300  
 Ala Ala Ala Ala Val Val Trp Gly Met Thr Tyr Leu Met Lys Tyr Pro  
 305 310 315 320  
 Gln Val Leu Lys Lys Ala Gln Ala Glu Val Arg Glu Tyr Met Lys Glu  
 325 330 335  
 Lys Gly Ser Thr Phe Val Thr Glu Asp Asp Val Lys Asn Leu Pro Tyr  
 340 345 350  
 Phe Arg Ala Leu Val Lys Glu Thr Leu Arg Ile Glu Pro Val Ile Pro  
 355 360 365  
 Leu Leu Ile Pro Arg Ala Cys Ile Gln Asp Thr Lys Ile Ala Gly Tyr  
 370 375 380  
 Asp Ile Pro Ala Gly Thr Thr Val Asn Val Asn Ala Trp Ala Val Ser  
 385 390 395 400  
 Arg Asp Glu Lys Glu Trp Gly Pro Asn Pro Asp Glu Phe Arg Pro Glu  
 405 410 415  
 Arg Phe Leu Glu Lys Glu Val Asp Phe Lys Gly Thr Asp Tyr Glu Phe  
 420 425 430  
 Ile Pro Phe Gly Ser Gly Arg Arg Met Cys Pro Gly Met Arg Leu Gly  
 435 440 445

Ala Ala Met Leu Glu Val Pro Tyr Ala Asn Leu Leu Leu Ser Phe Asn  
 450 455 460

Phe Lys Leu Pro Asn Gly Met Lys Pro Asp Asp Ile Asn Met Asp Val  
 465 470 475 480

Met Thr Gly Leu Ala Met His Lys Ser Gln His Leu Lys Leu Val Pro  
 485 490 495

Glu Lys Val Asn Lys Tyr  
 500

<210> 1389

<211> 1122

<212> DNA

<213> Arabidopsis thaliana

<400> 1389

```

atggcggctc gaaaactagg gtcgttggtta cgtcaatact ttttctctct atgcttcctc      60
ttcctcggtt gcttcttctt ccctaaagac gcagactata aacaaaagag aagaaagaag      120
aagcttagaa gagtttcttc ttcttctggt tcatctctat cctcttcttg gacgtattta      180
aaacgagttt tcttatccac gacaaggata tccaaatccc gtaaccaaac acatcctaac      240
gttactttta catccgcaag atcatctcaa aactccctcg tcaactctcg ccaacccgat      300
accacaaacc aacccgaccc ggaaacacgt attcatcagc aaaccgaatt cgagatctcc      360
tcttccgacg agattttccc ttgtaactcg tgtggcgaga ttttcccaa aatcaatctc      420
ctcgagaatc acatcgcgat caaacacgcc gtgtcggagc taatcgccgg agaatcaagc      480
acgaacatcg tcaagatcat attcaaatct gggtggccgg agcaaggtaa ttacaaatct      540
ccggtgatca atcgaatctt aaaaatccac aacagttcaa agattctcac cagattcgaa      600
gagtatcgtg agttcgtgaa agctaaagcc gtcgtagca acggcgggtg aagacgggtg      660
gacgatgaac gttgcgtcgc cgacggaaac gaacttttac gattttactg ctcgacgttt      720
atgtgtgatt tagggcaaaa cggtaaataa aatctctgtg gtcacagta ttgtagtata      780
tgtggtatca tcgatctggt attctcgccg aagctcgacg ggatcgcgac gttggcgacg      840
gggtggagag gacacgtggc gggtccggag gaggttgaag aagagtttgg gtttatgaat      900
gtgaaacggg ccatgttggt ttgtcggggt gtagcgggtc gggtcgggtg tgatttgatt      960
gatgatgatg acgtggataa gagtgatggt ggaggggatg attctctggt tgggcagagt     1020
gggaacaaga gtggggctct gttgaggatc gacgatgatg agcttttggt ttttaatcca     1080

```

agggctgtgc ttccttgttt tggtattgtg tatactgtgt aa

1122

<210> 1390

<211> 373

<212> PRT

<213> Arabidopsis thaliana

<400> 1390

Met Ala Ala Arg Lys Leu Gly Ser Leu Leu Arg Gln Tyr Phe Phe Ser  
1 5 10 15

Leu Cys Phe Leu Phe Leu Gly Cys Phe Phe Phe Pro Lys Asp Ala Asp  
20 25 30

Tyr Lys Gln Lys Arg Arg Lys Lys Lys Leu Arg Arg Val Ser Ser Ser  
35 40 45

Ser Gly Ser Ser Leu Ser Ser Ser Trp Thr Tyr Leu Lys Arg Val Phe  
50 55 60

Leu Ser Thr Thr Arg Ile Ser Lys Ser Arg Asn Gln Thr His Pro Asn  
65 70 75 80

Val Thr Leu Thr Ser Ala Arg Ser Ser Gln Asn Ser Leu Val Thr Leu  
85 90 95

Val Gln Pro Asp Thr Thr Asn Gln Pro Asp Pro Glu Thr Arg Ile His  
100 105 110

Gln Gln Thr Glu Phe Glu Ile Ser Ser Ser Asp Glu Ile Phe Pro Cys  
115 120 125

Asn Ser Cys Gly Glu Ile Phe Pro Lys Ile Asn Leu Leu Glu Asn His  
130 135 140

Ile Ala Ile Lys His Ala Val Ser Glu Leu Ile Ala Gly Glu Ser Ser  
145 150 155 160

Thr Asn Ile Val Lys Ile Ile Phe Lys Ser Gly Trp Pro Glu Gln Gly  
165 170 175

Asn Tyr Lys Ser Pro Val Ile Asn Arg Ile Leu Lys Ile His Asn Ser  
180 185 190

Ser Lys Ile Leu Thr Arg Phe Glu Glu Tyr Arg Glu Phe Val Lys Ala  
 195 200 205

Lys Ala Ala Arg Ser Asn Gly Gly Gly Arg Arg Trp Asp Asp Glu Arg  
 210 215 220

Cys Val Ala Asp Gly Asn Glu Leu Leu Arg Phe Tyr Cys Ser Thr Phe  
 225 230 235 240

Met Cys Asp Leu Gly Gln Asn Gly Lys Ser Asn Leu Cys Gly His Gln  
 245 250 255

Tyr Cys Ser Ile Cys Gly Ile Ile Gly Ser Gly Phe Ser Pro Lys Leu  
 260 265 270

Asp Gly Ile Ala Thr Leu Ala Thr Gly Trp Arg Gly His Val Ala Val  
 275 280 285

Pro Glu Glu Val Glu Glu Glu Phe Gly Phe Met Asn Val Lys Arg Ala  
 290 295 300

Met Leu Val Cys Arg Val Val Ala Gly Arg Val Gly Cys Asp Leu Ile  
 305 310 315 320

Asp Asp Asp Asp Val Asp Lys Ser Asp Gly Gly Gly Tyr Asp Ser Leu  
 325 330 335

Val Gly Gln Ser Gly Asn Lys Ser Gly Ala Leu Leu Arg Ile Asp Asp  
 340 345 350

Asp Glu Leu Leu Val Phe Asn Pro Arg Ala Val Leu Pro Cys Phe Val  
 355 360 365

Ile Val Tyr Thr Val  
 370

<210> 1391

<211> 1953

<212> DNA

<213> Arabidopsis thaliana

<400> 1391

atggcgggta aaggtgaagg tccagctatc ggtatcgatc tcggtacaac ctactcttgc 60

gtcgggtgttt ggcaacatga ccgcgtcgaa atcatcgcca acgatcaagg caaccgcacc 120

actccttcct acgttgcttt cactgacagc gagcgtctca tcggggatgc tgccaagaat	180
caagtcgcca tgaaccctac caacaccgtc ttcgatgcta agcgtctaata cggaagaaga	240
tacagtgatc cctctgttca agcggataag agtcactggc cttttaaggt tgtttccggt	300
ccaggtgaga agcctatgat tgtgggtaac cacaagggag aggagaaaca gttctctgct	360
gaggaaatct cgtcgatggg tcttattaag atgcgggaga ttgcagaagc tttccttggt	420
tctcctgtta agaacgctgt cgttacagtt cctgcttatt tcaacgactc tcagcgtcaa	480
gcgactaagg acgctggagt tatctctggg ctcaacgtga tgcgtatcat caatgagcca	540
actgctgctg ctattgctta cggctctgac aagaaggcgt cgagtgttg cgagaagaat	600
gttttgatct ttgatttggt aggtgggtact tttgatgtgt ctttgcttac gattgaggaa	660
ggatatcttg aagtcaaggc aactgctggg gacacgcata ttgggtgggga ggacttcgac	720
aacaggatgg ttaatcattt tggtcaggag ttttaagagga agaacaagaa ggatattact	780
gggaacccga gagctttgag gaggcctagg acagcttggt agcgggagaa gagaactctt	840
tcttcgactg ctcagacgac tatagagatt gactctcttt ttgaggggat tgatttctac	900
actaccatca ctcgtgctag gttcgaggag ctcaacatgg atttgttttag gaagtgtatg	960
gagccagtgg agaagtgttt gagggatgct aagatggaca agagcagtgt tcatgatgtt	1020
gttcttggtg gtggctctac aaggattccc aaagtgcagc agcttttgca agacttcttc	1080
aatgggaaag agctctgtaa aagcattaac ccggacgagg ctgttgctta cggagcagct	1140
gtgcaagctg caatcttgag cgggtgaagg aatgagaagg tccaggactt gttacttctt	1200
gatgtcactc ctctgtcctt gggtttgga actgccgggt gtgttatgac tgttttgatt	1260
ccgaggaaca ccacaattcc gaccaagaaa gagcagatat tctctaccta ttcagacaac	1320
cagcccggtg tactgatcca ggtctacgaa ggagagaggg cacgaacaaa ggacaacaac	1380
cttttgggaa agttcgagct cagtgggtata ccacctgctc cacgaggtgt accgcagatt	1440
actgtctgtt tcgacatcga cgccaatggg atcctgaatg tgtcggctga ggacaagacg	1500
actggtcaga agaacaagat cacaatcaca aacgacaagg gaaggttatc aaaggaagag	1560
atcgagaaga tgggtacaaga ggcagagaag tacaaggctg aggatgaaga acacaagaag	1620
aagggtgatg caaagaacgc tctcgagaac tatgcataca acatgaggaa cacgatcaag	1680
gacgagaaga tcgcatctaa gcttgacgca gctgacaaga agaagattga ggatgcaatc	1740
gaccaagcta ttgaatggtt agatgggaat caactggctg aggcagatga gttcgaggat	1800
aagatgaagg agctcgagtc tctttgcaac cctattattg caagaatgta ccaaggagct	1860
gggcctgata tgggtgggtg aggaggaatg gatgacgaca cacctgctgg tggtagcggc	1920
gggtgctggcc caaagattga agaagttgat taa	1953



&lt;210&gt; 1392

&lt;211&gt; 650

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1392

Met Ala Gly Lys Gly Glu Gly Pro Ala Ile Gly Ile Asp Leu Gly Thr  
 1 5 10 15

Thr Tyr Ser Cys Val Gly Val Trp Gln His Asp Arg Val Glu Ile Ile  
 20 25 30

Ala Asn Asp Gln Gly Asn Arg Thr Thr Pro Ser Tyr Val Ala Phe Thr  
 35 40 45

Asp Ser Glu Arg Leu Ile Gly Asp Ala Ala Lys Asn Gln Val Ala Met  
 50 55 60

Asn Pro Thr Asn Thr Val Phe Asp Ala Lys Arg Leu Ile Gly Arg Arg  
 65 70 75 80

Tyr Ser Asp Pro Ser Val Gln Ala Asp Lys Ser His Trp Pro Phe Lys  
 85 90 95

Val Val Ser Gly Pro Gly Glu Lys Pro Met Ile Val Val Asn His Lys  
 100 105 110

Gly Glu Glu Lys Gln Phe Ser Ala Glu Glu Ile Ser Ser Met Val Leu  
 115 120 125

Ile Lys Met Arg Glu Ile Ala Glu Ala Phe Leu Gly Ser Pro Val Lys  
 130 135 140

Asn Ala Val Val Thr Val Pro Ala Tyr Phe Asn Asp Ser Gln Arg Gln  
 145 150 155 160

Ala Thr Lys Asp Ala Gly Val Ile Ser Gly Leu Asn Val Met Arg Ile  
 165 170 175

Ile Asn Glu Pro Thr Ala Ala Ala Ile Ala Tyr Gly Leu Asp Lys Lys  
 180 185 190

Ala Ser Ser Val Gly Glu Lys Asn Val Leu Ile Phe Asp Leu Gly Gly  
 195 200 205

## 047-E2F-PCT.ST25.txt

Gly Thr Phe Asp Val Ser Leu Leu Thr Ile Glu Glu Gly Ile Phe Glu  
 210 215 220  
 Val Lys Ala Thr Ala Gly Asp Thr His Leu Gly Gly Glu Asp Phe Asp  
 225 230 235 240  
 Asn Arg Met Val Asn His Phe Val Gln Glu Phe Lys Arg Lys Asn Lys  
 245 250 255  
 Lys Asp Ile Thr Gly Asn Pro Arg Ala Leu Arg Arg Leu Arg Thr Ala  
 260 265 270  
 Cys Glu Arg Ala Lys Arg Thr Leu Ser Ser Thr Ala Gln Thr Thr Ile  
 275 280 285  
 Glu Ile Asp Ser Leu Phe Glu Gly Ile Asp Phe Tyr Thr Thr Ile Thr  
 290 295 300  
 Arg Ala Arg Phe Glu Glu Leu Asn Met Asp Leu Phe Arg Lys Cys Met  
 305 310 315 320  
 Glu Pro Val Glu Lys Cys Leu Arg Asp Ala Lys Met Asp Lys Ser Ser  
 325 330 335  
 Val His Asp Val Val Leu Val Gly Gly Ser Thr Arg Ile Pro Lys Val  
 340 345 350  
 Gln Gln Leu Leu Gln Asp Phe Phe Asn Gly Lys Glu Leu Cys Lys Ser  
 355 360 365  
 Ile Asn Pro Asp Glu Ala Val Ala Tyr Gly Ala Ala Val Gln Ala Ala  
 370 375 380  
 Ile Leu Ser Gly Glu Gly Asn Glu Lys Val Gln Asp Leu Leu Leu Leu  
 385 390 395 400  
 Asp Val Thr Pro Leu Ser Leu Gly Leu Glu Thr Ala Gly Gly Val Met  
 405 410 415  
 Thr Val Leu Ile Pro Arg Asn Thr Thr Ile Pro Thr Lys Lys Glu Gln  
 420 425 430  
 Ile Phe Ser Thr Tyr Ser Asp Asn Gln Pro Gly Val Leu Ile Gln Val  
 435 440 445  
 Tyr Glu Gly Glu Arg Ala Arg Thr Lys Asp Asn Asn Leu Leu Gly Lys  
 450 455 460

047-E2F-PCT.ST25.txt

Phe Glu Leu Ser Gly Ile Pro Pro Ala Pro Arg Gly Val Pro Gln Ile  
465 470 475 480

Thr Val Cys Phe Asp Ile Asp Ala Asn Gly Ile Leu Asn Val Ser Ala  
485 490 495

Glu Asp Lys Thr Thr Gly Gln Lys Asn Lys Ile Thr Ile Thr Asn Asp  
500 505 510

Lys Gly Arg Leu Ser Lys Glu Glu Ile Glu Lys Met Val Gln Glu Ala  
515 520 525

Glu Lys Tyr Lys Ala Glu Asp Glu Glu His Lys Lys Lys Val Asp Ala  
530 535 540

Lys Asn Ala Leu Glu Asn Tyr Ala Tyr Asn Met Arg Asn Thr Ile Lys  
545 550 555 560

Asp Glu Lys Ile Ala Ser Lys Leu Asp Ala Ala Asp Lys Lys Lys Ile  
565 570 575

Glu Asp Ala Ile Asp Gln Ala Ile Glu Trp Leu Asp Gly Asn Gln Leu  
580 585 590

Ala Glu Ala Asp Glu Phe Glu Asp Lys Met Lys Glu Leu Glu Ser Leu  
595 600 605

Cys Asn Pro Ile Ile Ala Arg Met Tyr Gln Gly Ala Gly Pro Asp Met  
610 615 620

Gly Gly Ala Gly Gly Met Asp Asp Asp Thr Pro Ala Gly Gly Ser Gly  
625 630 635 640

Gly Ala Gly Pro Lys Ile Glu Glu Val Asp  
645 650

<210> 1393

<211> 348

<212> DNA

<213> Arabidopsis thaliana

<400> 1393

atgtctagcg cagaggatgt gaaagagcaa ggaaacctca ccaacgaggc agagaagtca 60

atgccatcat cacagcagga ggaggctggt gtaaagaaga agtatggagg gctcatgcca 120  
aagaaaccac ctctcatttc caaggatcat gagcgagcat actttgactc agctgattgg 180  
gctctttggaa agcaaggtgt tgcgaagcca aagggacccc tggaagccct tcgtcccaag 240  
ttacagccaa cgcagcagca gacacgttac aggaagtctc catgtgctcc atctgagggt 300  
ggtgaagatg gaggagctgc tcaggccgag ggaggttcag gcaactga 348

<210> 1394

<211> 115

<212> PRT

<213> Arabidopsis thaliana

<400> 1394

Met Ser Ser Ala Glu Asp Val Lys Glu Gln Gly Asn Leu Thr Asn Glu  
1 5 10 15

Ala Glu Lys Ser Met Pro Ser Ser Gln Gln Glu Glu Ala Val Val Lys  
20 25 30

Lys Lys Tyr Gly Gly Leu Met Pro Lys Lys Pro Pro Leu Ile Ser Lys  
35 40 45

Asp His Glu Arg Ala Tyr Phe Asp Ser Ala Asp Trp Ala Leu Gly Lys  
50 55 60

Gln Gly Val Ala Lys Pro Lys Gly Pro Leu Glu Ala Leu Arg Pro Lys  
65 70 75 80

Leu Gln Pro Thr Gln Gln Gln Thr Arg Tyr Arg Lys Ser Pro Cys Ala  
85 90 95

Pro Ser Glu Gly Gly Glu Asp Gly Gly Ala Ala Gln Ala Glu Gly Gly  
100 105 110

Ser Gly Asn  
115

<210> 1395

<211> 819

<212> DNA

<213> Arabidopsis thaliana

```

<400> 1395
atggcgacca cacttcattg tctctccaca ctccatcttc ttctctgcac tcatcacctt    60
aaaaccctaa actctctcaa accaatcacc accaaatcac aaccatgtaa aaccccagaa    120
ataccctcca ctcccaacgc tcttcagctc cttaaatacat cctctctccc tctcgcagtc    180
atcgcattgc ctttcttcct cgaccacag gatgcagcag cagctggagg agaattcgga    240
atattagaag ggagatcatt tgcgttgata cacccaattg tgatgggagg tttatttgca    300
tacactcttt ggactggtta cttaggttgg caatggagac gtgtccgtac gatacagagt    360
gagattagtg atctcaagaa acagcttaaa ccaactcctg tttcccctga tggttccaca    420
gccgttgatt cttcgtcgcc tccttctacg actgagcttc agatccaacg gctaactgaa    480
gagaggaaag agttggtcaa agggctttac agagacaaac actttgacgc tggctctggt    540
ttgttagggt tcggtgtttt ggaagctgtc tttggtggtg ttaacactta tcttcgtact    600
ggtaaactct tccccggtcc tcatctttac gccggtgcag gaataacggt gttgtgggcg    660
gcggcggcag cattggtgcc ggcaatgcag aaaggaacg atacggcgag gagtctacat    720
atagcgttga atgcagtaaa tgttcttctt ttcatttggc aaatcccaac aggtcttgat    780
atcgttctta aggtctttga gttcactaaa tggccatag                                819

```

<210> 1396

<211> 272

<212> PRT

<213> Arabidopsis thaliana

<400> 1396

```

Met Ala Thr Thr Leu His Cys Leu Ser Thr Leu His Leu Leu Pro Arg
1          5          10          15

Thr His His Pro Lys Thr Leu Asn Ser Leu Lys Pro Ile Thr Thr Lys
        20          25          30

Ser Gln Pro Cys Lys Thr Pro Glu Ile Pro Ser Thr Pro Asn Ala Leu
        35          40          45

Gln Leu Leu Lys Ser Ser Ser Leu Pro Leu Ala Val Ile Ala Leu Pro
        50          55          60

Phe Phe Leu Asp Pro Gln Asp Ala Ala Ala Ala Gly Gly Glu Phe Gly
65          70          75          80

```

047-E2F-PCT.ST25.txt

Ile Leu Glu Gly Arg Ser Phe Ala Leu Ile His Pro Ile Val Met Gly  
85 90 95

Gly Leu Phe Ala Tyr Thr Leu Trp Thr Gly Tyr Leu Gly Trp Gln Trp  
100 105 110

Arg Arg Val Arg Thr Ile Gln Ser Glu Ile Ser Asp Leu Lys Lys Gln  
115 120 125

Leu Lys Pro Thr Pro Val Ser Pro Asp Gly Ser Thr Ala Val Asp Ser  
130 135 140

Ser Ser Pro Pro Ser Thr Thr Glu Leu Gln Ile Gln Arg Leu Thr Glu  
145 150 155 160

Glu Arg Lys Glu Leu Val Lys Gly Ser Tyr Arg Asp Lys His Phe Asp  
165 170 175

Ala Gly Ser Val Leu Leu Gly Phe Gly Val Leu Glu Ala Val Phe Gly  
180 185 190

Gly Val Asn Thr Tyr Leu Arg Thr Gly Lys Leu Phe Pro Gly Pro His  
195 200 205

Leu Tyr Ala Gly Ala Gly Ile Thr Val Leu Trp Ala Ala Ala Ala Ala  
210 215 220

Leu Val Pro Ala Met Gln Lys Gly Asn Asp Thr Ala Arg Ser Leu His  
225 230 235 240

Ile Ala Leu Asn Ala Val Asn Val Leu Leu Phe Ile Trp Gln Ile Pro  
245 250 255

Thr Gly Leu Asp Ile Val Leu Lys Val Phe Glu Phe Thr Lys Trp Pro  
260 265 270

<210> 1397

<211> 1077

<212> DNA

<213> Arabidopsis thaliana

<400> 1397

atgtctgctt ttgtcggcaa atacgcagat gagctgataa agacggctaa gtacattgcc 60

acaccgggaa agggcatttt ggcagcagac gagagcacgg gaactattgg gaaacgattc 120

047-E2F-PCT.ST25.txt

```

gccagcatca atgttgagaa cattgagtc aaccgccaag ctctccgtga gctcctcttc 180
acgtcccctg gcactttccc ttgcctctcc ggtgttatcc tcttcgagga aaccctctac 240
cagaaaacca cggatggcaa acccttcgtt gagctcctca tggaaaacgg agttatccct 300
ggaatcaaag tggacaaggg tgtggttgat ctagcaggaa ccaatggcga gaccactact 360
caggggtctag attcacttgg tgcacgttgc caggagtatt acaaggcagg agctcggttt 420
gcaaaatggc gtgcagtcct caagattggg gccaccgagc caagcgagct ctctatccaa 480
gagaacgcca aggggctagc ccgctatgcc atcatctgcc aggagaatgg actcgtccca 540
atcgtcgagc cagaggtact gaccgacggg agccatgaca tcaagaaatg tgcagcggtg 600
accgagaccg ttcttgctgc cgtgtacaag gccttgaacg accaccatgt cctcctcgaa 660
ggcactctgc ttaaaccgaa catggtcact cccggctctg acagcccaaa ggttgcaccg 720
gaagtgatag cggaatacac agtgactgct ctgcgccgca cagtcccacc tgcagttcca 780
ggaatcgtgt tcctctcagg cggacagagt gaagaggaag caacactaaa tctgaacgca 840
atgaacaagc tcgatgtgtt gaagccatgg actctcactt tctcatttgg ccgagccctc 900
caacaaagca ctctcaaggc ttgggcaggt aagacagaga atgtagccaa agctcaggcc 960
actttcctga ccaggtgcaa gggtaactcg gacgctaccc tcgggaaata caccggcggg 1020
gcttctggtg actcggccgc ctctgagagc ttgtatgagg aaggatacaa gtattag 1077

```

<210> 1398

<211> 358

<212> PRT

<213> Arabidopsis thaliana

<400> 1398

Met Ser Ala Phe Val Gly Lys Tyr Ala Asp Glu Leu Ile Lys Thr Ala  
1 5 10 15

Lys Tyr Ile Ala Thr Pro Gly Lys Gly Ile Leu Ala Ala Asp Glu Ser  
20 25 30

Thr Gly Thr Ile Gly Lys Arg Phe Ala Ser Ile Asn Val Glu Asn Ile  
35 40 45

Glu Ser Asn Arg Gln Ala Leu Arg Glu Leu Leu Phe Thr Ser Pro Gly  
50 55 60

Thr Phe Pro Cys Leu Ser Gly Val Ile Leu Phe Glu Glu Thr Leu Tyr  
Page 2185

65					70										80
Gln	Lys	Thr	Thr	Asp 85	Gly	Lys	Pro	Phe	Val 90	Glu	Leu	Leu	Met	Glu 95	Asn
Gly	Val	Ile	Pro 100	Gly	Ile	Lys	Val	Asp 105	Lys	Gly	Val	Val	Asp 110	Leu	Ala
Gly	Thr	Asn 115	Gly	Glu	Thr	Thr	Thr 120	Gln	Gly	Leu	Asp	Ser 125	Leu	Gly	Ala
Arg	Cys 130	Gln	Glu	Tyr	Tyr	Lys 135	Ala	Gly	Ala	Arg	Phe 140	Ala	Lys	Trp	Arg
Ala 145	Val	Leu	Lys	Ile	Gly 150	Ala	Thr	Glu	Pro	Ser 155	Glu	Leu	Ser	Ile	Gln 160
Glu	Asn	Ala	Lys	Gly 165	Leu	Ala	Arg	Tyr	Ala 170	Ile	Ile	Cys	Gln	Glu 175	Asn
Gly	Leu	Val	Pro 180	Ile	Val	Glu	Pro	Glu 185	Val	Leu	Thr	Asp	Gly 190	Ser	His
Asp	Ile	Lys 195	Lys	Cys	Ala	Ala	Val 200	Thr	Glu	Thr	Val	Leu 205	Ala	Ala	Val
Tyr	Lys 210	Ala	Leu	Asn	Asp	His 215	His	Val	Leu	Leu	Glu 220	Gly	Thr	Leu	Leu
Lys 225	Pro	Asn	Met	Val	Thr 230	Pro	Gly	Ser	Asp	Ser 235	Pro	Lys	Val	Ala	Pro 240
Glu	Val	Ile	Ala	Glu 245	Tyr	Thr	Val	Thr	Ala 250	Leu	Arg	Arg	Thr	Val 255	Pro
Pro	Ala	Val	Pro 260	Gly	Ile	Val	Phe	Leu 265	Ser	Gly	Gly	Gln	Ser 270	Glu	Glu
Glu	Ala	Thr 275	Leu	Asn	Leu	Asn	Ala 280	Met	Asn	Lys	Leu	Asp 285	Val	Leu	Lys
Pro	Trp 290	Thr	Leu	Thr	Phe	Ser 295	Phe	Gly	Arg	Ala	Leu 300	Gln	Gln	Ser	Thr
Leu 305	Lys	Ala	Trp	Ala	Gly 310	Lys	Thr	Glu	Asn	Val 315	Ala	Lys	Ala	Gln	Ala 320



Thr Phe Leu Thr Arg Cys Lys Gly Asn Ser Asp Ala Thr Leu Gly Lys  
 325 330 335

Tyr Thr Gly Gly Ala Ser Gly Asp Ser Ala Ala Ser Glu Ser Leu Tyr  
 340 345 350

Glu Glu Gly Tyr Lys Tyr  
 355

<210> 1399

<211> 741

<212> DNA

<213> Arabidopsis thaliana

<400> 1399

```

atgagcaaga aacattgctc agaattatta ccaaataaga tgtttagaaa ccaagactcg      60
aaatacttga tcccgggtgca gaaagaagcg ccaccgggtga caactttacc gatgaaagct    120
tcaacgggtga aatctccaca caactgtgag gccatttctca gagacgcaga tcctccgatc    180
tctctctcct ctgttaatct ctctgaacag ctacgggtctg gtgttttctt gaaaccaag     240
aaacagatca aatattgggt ggacgagaga aacagcaact gcttcatgct ctttgcaaag     300
aacctctcta taacttgggtc tgatgacgtc aactattgga cttgggtttac cgaaaaagag    360
tcaccaaacg agaatgtgga agctgtggga ttgaaaaacg tttgttggct cgacatcacg    420
ggaaaattcg acacgaggaa cctcactccg gggattgttt acgaggtagt ctttaagggtg    480
aagctagagg atccggccta tggatgggac acgccgggtga acctaaagct agtcttgcct    540
aacggtaagg agaaaccaca agagaaaaag gtgagtttga gggaacttcc aagggtataaa    600
tgggtcgatg tcagagttgg cgagttcgta cctgagaaat ccgctgccgg agagatcact    660
ttctcaatgt atgagcatgc ggctggtggt tggaagaaag ggctctccct caaaggtggt    720
gcaattcgtc ccaaacagta a                                     741

```

<210> 1400

<211> 246

<212> PRT

<213> Arabidopsis thaliana

<400> 1400

Met Ser Lys Lys His Cys Ser Glu Leu Leu Pro Asn Lys Met Phe Arg  
 Page 2187

1		5												15	
Asn	Gln	Asp	Ser	Lys	Tyr	Leu	Ile	Pro	Val	Gln	Lys	Glu	Ala	Pro	Pro
			20					25					30		
Val	Thr	Thr	Leu	Pro	Met	Lys	Ala	Ser	Thr	Val	Lys	Ser	Pro	His	Asn
		35					40					45			
Cys	Glu	Ala	Ile	Leu	Arg	Asp	Ala	Asp	Pro	Pro	Ile	Ser	Leu	Ser	Ser
	50					55					60				
Val	Asn	Leu	Ser	Glu	Gln	Leu	Arg	Ser	Gly	Val	Phe	Leu	Lys	Pro	Lys
65					70					75					80
Lys	Gln	Ile	Lys	Tyr	Trp	Val	Asp	Glu	Arg	Asn	Ser	Asn	Cys	Phe	Met
				85					90					95	
Leu	Phe	Ala	Lys	Asn	Leu	Ser	Ile	Thr	Trp	Ser	Asp	Asp	Val	Asn	Tyr
			100					105					110		
Trp	Thr	Trp	Phe	Thr	Glu	Lys	Glu	Ser	Pro	Asn	Glu	Asn	Val	Glu	Ala
		115					120					125			
Val	Gly	Leu	Lys	Asn	Val	Cys	Trp	Leu	Asp	Ile	Thr	Gly	Lys	Phe	Asp
	130					135					140				
Thr	Arg	Asn	Leu	Thr	Pro	Gly	Ile	Val	Tyr	Glu	Val	Val	Phe	Lys	Val
145					150					155					160
Lys	Leu	Glu	Asp	Pro	Ala	Tyr	Gly	Trp	Asp	Thr	Pro	Val	Asn	Leu	Lys
				165					170					175	
Leu	Val	Leu	Pro	Asn	Gly	Lys	Glu	Lys	Pro	Gln	Glu	Lys	Lys	Val	Ser
			180					185					190		
Leu	Arg	Glu	Leu	Pro	Arg	Tyr	Lys	Trp	Val	Asp	Val	Arg	Val	Gly	Glu
		195					200					205			
Phe	Val	Pro	Glu	Lys	Ser	Ala	Ala	Gly	Glu	Ile	Thr	Phe	Ser	Met	Tyr
	210					215					220				
Glu	His	Ala	Ala	Gly	Val	Trp	Lys	Lys	Gly	Leu	Ser	Leu	Lys	Gly	Val
225					230					235					240
Ala	Ile	Arg	Pro	Lys	Gln										
				245											

&lt;210&gt; 1401

&lt;211&gt; 843

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1401

```

atggcctcgc gtttgctatc gacgacgaca ctcgtcacac cgccggctta tttcaacaaa      60
tcgccggcgt ttttaacggc cagagttggg gtgagaagag gaagggctaa cgttaaggct      120
gtgagcaata gttcgcaagg agccgtcgat ggaaccgttt acaaagggtgt ttacggtcct      180
tggaaccattg accaagccga tgtcaaagag gttatTTTTgt acagatcagg actagtaact      240
gctgctgcat cttttgtagc tgcttcttct gctgcctttt taccaggaga ctcttggtta      300
agtgaacaaa tcaagcaaaa ccatgatctg ttttactttg ttggtgctag tggtttgggg      360
ctatctctgt ttctaataca tatatatggt acggagatta agaggactct tcaagcttta      420
tgggcacttg gttttgttgg ttctttcgct acttacgcag cccttgctag accagctggt      480
gataacttgg ttcattatgt cgttgatcat ccatccgctg tttggtttgt tgggtccccta      540
ttcgcatctc tcacaggact cgttttcaaa gaaggctctt gttatggaaa gctagaagct      600
ggccttctta cattcatcat accttcagtt cttcttgggc atttgagtgg tctgatgaat      660
gatgaggtaa aactggtggt gctaggaaca tggatggctc tctttctagt atttgctgga      720
agaaagttta ctcagcctat taaggatgat atcgagata aatctgtttt cacgttcatg      780
tccctttctg atgatgaaaa gaaggctata gttgaaaagc tcgagcaaga aaagttgggg      840
taa                                                                                   843

```

&lt;210&gt; 1402

&lt;211&gt; 280

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1402

```

Met Ala Ser Arg Leu Leu Ser Thr Thr Thr Leu Val Thr Pro Pro Ala
1           5           10           15

```

```

Tyr Phe Asn Lys Ser Pro Ala Phe Leu Thr Ala Arg Val Gly Val Arg
20           25           30

```

```

Arg Gly Arg Ala Asn Val Lys Ala Val Ser Asn Ser Ser Gln Gly Ala

```

35

40

45

Val Asp Gly Thr Val Tyr Lys Gly Val Tyr Gly Pro Trp Thr Ile Asp  
 50 55 60  
 Gln Ala Asp Val Lys Glu Val Ile Leu Tyr Arg Ser Gly Leu Val Thr  
 65 70 75 80  
 Ala Ala Ala Ser Phe Val Ala Ala Ser Ser Ala Ala Phe Leu Pro Gly  
 85 90 95  
 Asp Ser Trp Leu Ser Glu Thr Ile Lys Gln Asn His Asp Leu Phe Tyr  
 100 105 110  
 Phe Val Gly Ala Ser Gly Leu Gly Leu Ser Leu Phe Leu Ile His Ile  
 115 120 125  
 Tyr Val Thr Glu Ile Lys Arg Thr Leu Gln Ala Leu Trp Ala Leu Gly  
 130 135 140  
 Phe Val Gly Ser Phe Ala Thr Tyr Ala Ala Leu Ala Arg Pro Ala Gly  
 145 150 155 160  
 Asp Asn Leu Val His Tyr Val Val Asp His Pro Ser Ala Val Trp Phe  
 165 170 175  
 Val Gly Pro Leu Phe Ala Ser Leu Thr Gly Leu Val Phe Lys Glu Gly  
 180 185 190  
 Leu Cys Tyr Gly Lys Leu Glu Ala Gly Leu Leu Thr Phe Ile Ile Pro  
 195 200 205  
 Ser Val Leu Leu Gly His Leu Ser Gly Leu Met Asn Asp Glu Val Lys  
 210 215 220  
 Leu Val Leu Leu Gly Thr Trp Met Ala Leu Phe Leu Val Phe Ala Gly  
 225 230 235 240  
 Arg Lys Phe Thr Gln Pro Ile Lys Asp Asp Ile Gly Asp Lys Ser Val  
 245 250 255  
 Phe Thr Phe Met Ser Leu Ser Asp Asp Glu Lys Lys Ala Ile Val Glu  
 260 265 270  
 Lys Leu Glu Gln Glu Lys Leu Gly  
 275 280

&lt;210&gt; 1403

&lt;211&gt; 1920

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1403

```

atgaaagtaa ttacttcctt aatctcttct attttgctta aattcatcca caaagacttc      60
catgagatTT atgcaagaat gtccctcctc gatcggtttc ttcttcttat cgtgcatgga      120
gtggataaga tggttccatg gcataagctt ccagtattct tggggttaac ctatcttgaa      180
gtacgaagac atcttcacca acaatacaat cttctcaacg tcggtcaaac tccgactggg      240
atccggtttg atcctgctaa ttatccgtac cggactgctg acggaaaatt caatgatccc      300
tttaatgaag gcgctcggcag tcaaaatagt tttttcggga gaaattgtcc ccccgctgat      360
cagaaatcaa agttacggag gccagacccc atggtggttg cgacaaaact attaggaagg      420
aaaaagttta tcgacacggg aaaacaattc aacatgattg cagcttcttg gattcagttc      480
atgatccatg attggattga tcatcttgaa gacactcacc aaatcgaact tgtcgctcca      540
aaagaagtag cgagcaagtg tcccttaagc tcctttaggt tcttaaagac caaggaagtc      600
cctaccggtt tcttcgaaat caagactggc tcgcaaaata tccgtacacc ttggtgggat      660
tcgagcgtca tctatggaag caactcgaaa acattggata gagtaagaac ttacaaagac      720
gggaaactaa agatatcgga ggagacgggt ctcttctctc atgacgaaga cggtttagct      780
atctccggcg acattcgtaa cagttgggct ggtgtctccg ctttgcaagc tctcttcatc      840
aaagagcaca acgccgtatg cgacgccctc aaggatgagg atgatgattt ggaagacgaa      900
gatttgtagc ggtacgctag gctagtgacc tcagccgtgg tagccaagat tcacaccata      960
gattggacag tccagcttct caaaaccgac actttacttg ctgggatgcg agcaaattgg     1020
tacggactac taggaaagaa gtttaaagat tctttcggac atgcaggcag ttcgatcttg     1080
ggaggtgtcg tgggaatgaa gaaaccgcaa aatcatgggg tcccttactc tctaactgaa     1140
gatttcacca gcgtctatcg aatgcattct ctcttacctg atcaactcca tatacttgac     1200
attgatgatg taccaggaac taataaatca ctaccgttga ttcaagagat ttctatgaga     1260
gatttgattg gtcgcaaggg agaagaaacc atgtctcaca ttggattcac taagctaattg     1320
gtctcaatgg gtcaccaagc aagtgggtgc cttgaactga tgaattatcc gatgtgggta     1380
agagacattg ttccccacga cccaacggc caagctcgtc cagaccacgt cgacttagct     1440
gcttttagaga tctacagggg cagggagagg agcgtccac ggtacaacga gttcaggaga     1500
tctatgttta tgattccgat aaccaagtgg gaagatctaa cggaggatga ggaagctatt     1560

```

047-E2F-PCT.ST25.txt

gaagtgttgg atgacgtgta cgatggtgat gtggaggagc ttgatcttct cgtgggactt 1620  
atggcagaga agaaaatcaa aggttttgct atcagtgaga ctgcttttta ctttttcctc 1680  
atcatggcca caaggcgatt agaagcggat aggtttttca cgagtgattt caatgaaacg 1740  
atttacacga agaaggggct tgaatgggtg aatactacag agagtctcaa ggatgtgatt 1800  
gatcgtcatt atcctgatat gacagacaaa tggatgaact ctgaaagtgc attttcagta 1860  
tgggattcac ctccacttac caaaaatcca atccctctct atctccgaat tccctcttaa 1920

<210> 1404

<211> 639

<212> PRT

<213> Arabidopsis thaliana

<400> 1404

Met Lys Val Ile Thr Ser Leu Ile Ser Ser Ile Leu Leu Lys Phe Ile  
1 5 10 15

His Lys Asp Phe His Glu Ile Tyr Ala Arg Met Ser Leu Leu Asp Arg  
20 25 30

Phe Leu Leu Leu Ile Val His Gly Val Asp Lys Met Val Pro Trp His  
35 40 45

Lys Leu Pro Val Phe Leu Gly Leu Thr Tyr Leu Glu Val Arg Arg His  
50 55 60

Leu His Gln Gln Tyr Asn Leu Leu Asn Val Gly Gln Thr Pro Thr Gly  
65 70 75 80

Ile Arg Phe Asp Pro Ala Asn Tyr Pro Tyr Arg Thr Ala Asp Gly Lys  
85 90 95

Phe Asn Asp Pro Phe Asn Glu Gly Val Gly Ser Gln Asn Ser Phe Phe  
100 105 110

Gly Arg Asn Cys Pro Pro Val Asp Gln Lys Ser Lys Leu Arg Arg Pro  
115 120 125

Asp Pro Met Val Val Ala Thr Lys Leu Leu Gly Arg Lys Lys Phe Ile  
130 135 140

Asp Thr Gly Lys Gln Phe Asn Met Ile Ala Ala Ser Trp Ile Gln Phe  
145 150 155 160

047-E2F-PCT.ST25.txt

Met Ile His Asp Trp Ile Asp His Leu Glu Asp Thr His Gln Ile Glu  
165 170 175

Leu Val Ala Pro Lys Glu Val Ala Ser Lys Cys Pro Leu Ser Ser Phe  
180 185 190

Arg Phe Leu Lys Thr Lys Glu Val Pro Thr Gly Phe Phe Glu Ile Lys  
195 200 205

Thr Gly Ser Gln Asn Ile Arg Thr Pro Trp Trp Asp Ser Ser Val Ile  
210 215 220

Tyr Gly Ser Asn Ser Lys Thr Leu Asp Arg Val Arg Thr Tyr Lys Asp  
225 230 235 240

Gly Lys Leu Lys Ile Ser Glu Glu Thr Gly Leu Leu Leu His Asp Glu  
245 250 255

Asp Gly Leu Ala Ile Ser Gly Asp Ile Arg Asn Ser Trp Ala Gly Val  
260 265 270

Ser Ala Leu Gln Ala Leu Phe Ile Lys Glu His Asn Ala Val Cys Asp  
275 280 285

Ala Leu Lys Asp Glu Asp Asp Asp Leu Glu Asp Glu Asp Leu Tyr Arg  
290 295 300

Tyr Ala Arg Leu Val Thr Ser Ala Val Val Ala Lys Ile His Thr Ile  
305 310 315 320

Asp Trp Thr Val Gln Leu Leu Lys Thr Asp Thr Leu Leu Ala Gly Met  
325 330 335

Arg Ala Asn Trp Tyr Gly Leu Leu Gly Lys Lys Phe Lys Asp Ser Phe  
340 345 350

Gly His Ala Gly Ser Ser Ile Leu Gly Gly Val Val Gly Met Lys Lys  
355 360 365

Pro Gln Asn His Gly Val Pro Tyr Ser Leu Thr Glu Asp Phe Thr Ser  
370 375 380

Val Tyr Arg Met His Ser Leu Leu Pro Asp Gln Leu His Ile Leu Asp  
385 390 395 400

Ile Asp Asp Val Pro Gly Thr Asn Lys Ser Leu Pro Leu Ile Gln Glu

405

415

Ile Ser Met Arg Asp Leu Ile Gly Arg Lys Gly Glu Glu Thr Met Ser  
420 425 430

His Ile Gly Phe Thr Lys Leu Met Val Ser Met Gly His Gln Ala Ser  
435 440 445

Gly Ala Leu Glu Leu Met Asn Tyr Pro Met Trp Leu Arg Asp Ile Val  
450 455 460

Pro His Asp Pro Asn Gly Gln Ala Arg Pro Asp His Val Asp Leu Ala  
465 470 475 480

Ala Leu Glu Ile Tyr Arg Asp Arg Glu Arg Ser Val Pro Arg Tyr Asn  
485 490 495

Glu Phe Arg Arg Ser Met Phe Met Ile Pro Ile Thr Lys Trp Glu Asp  
500 505 510

Leu Thr Glu Asp Glu Glu Ala Ile Glu Val Leu Asp Asp Val Tyr Asp  
515 520 525

Gly Asp Val Glu Glu Leu Asp Leu Leu Val Gly Leu Met Ala Glu Lys  
530 535 540

Lys Ile Lys Gly Phe Ala Ile Ser Glu Thr Ala Phe Tyr Ile Phe Leu  
545 550 555 560

Ile Met Ala Thr Arg Arg Leu Glu Ala Asp Arg Phe Phe Thr Ser Asp  
565 570 575

Phe Asn Glu Thr Ile Tyr Thr Lys Lys Gly Leu Glu Trp Val Asn Thr  
580 585 590

Thr Glu Ser Leu Lys Asp Val Ile Asp Arg His Tyr Pro Asp Met Thr  
595 600 605

Asp Lys Trp Met Asn Ser Glu Ser Ala Phe Ser Val Trp Asp Ser Pro  
610 615 620

Pro Leu Thr Lys Asn Pro Ile Pro Leu Tyr Leu Arg Ile Pro Ser  
625 630 635

&lt;210&gt; 1405

&lt;211&gt; 1947



&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1405

atggcgagca cggaagctct cttacccgtc acgtccctac aagatccatt atctgagtca	60
agatccgacc agatccccgga gacccgtcgg agacgacca tcaaagttca tcttgagtc	120
tattccggtt tgctcttgat cgctttgtac gtcactctca tcgtcacaca cgacggctcc	180
aaggctgaaa tagcgacgga gtcacgtcct cgtatggccg gcgtgtcggga gaagagcaac	240
gacgggggtt ggatatcatc cgatgatggg aaagttgaag cgttcccgtg gaacaatact	300
atcttgtcgt ggcaacgcac ggcgtttcat ttccagcctg agaaaaattg gatgaacgat	360
cctaattggtc cattgttcta taagggatgg taccatttct tctatcaata caacccaaat	420
gcagctgtgt ggggtgacat tgtttggggg cacgccgtgt caaaagacct tatccactgg	480
ctttatctcc caatagccat ggttcctgac caatggtacg atgcaaacgg tgtctggacc	540
ggttcagcca cttttctaga tgatggctcc attgtcatgc tctacaccgg ttccactgac	600
gaattcgtac aggttcaaaa ctttgcctat cctgaagacc caagcgaccc acttttgttg	660
aaatgggtca agttctccgg taaccctgtc ctctgaccgc ctccaggtat tgggtgcaaag	720
gacttccgtg acccaacaac agcctggaag acatcttctg gaaaatggcg aatcaccatc	780
ggttcaaaaa tcaatagaac cggaatatct ctcatattatg acactaccga tttcaaaacc	840
tacgagaaac acgaaacctt gttgcaccaa gtccccaaca ccggaatgtg ggagtgcgtt	900
gatttttacc cgggtgtcgaa gactcagctc aatgggctcg atacttcggt caacggacca	960
gatgtcaagc atgtcatcaa ggctagcatg gacgatacta gaattgacca ttatgccatt	1020
gggacgtacg atgattcaaa cgctacatgg gtcccgata atccttctat cgatgtcggga	1080
atcagtaccg gtttgagata cgattacggg aaatattatg cgtcaaagac gttttacgat	1140
caaaataagg gacgaagaat cttatggggg tggatcgggtg aatctgacag tgaagctgct	1200
gatgtacaaa aggggttggtc ttctgttcag ggcattccaa gaactgttgt attggacaca	1260
aggacgcata aaaacttagt ccagtggcca gttgaggaaa tcaaatcatt gagactaagc	1320
agcaagaaat ttgacatgac tattggacca gggactgtgg ttccggtcga tgtgggttcc	1380
gccactcagc tagacataga ggctgagttc gagatcaaga ccgatgatct caagttattc	1440
tttgatgatg actctgtgga ggccgacaat aaattcagct gcgaaacaaa cggaggctcc	1500
acagcgcgtg gtgctttagg gccttttgga ttctcggttc tcgctgacga gggcttgtca	1560
gaacaaactc cggtttactt ctatgtgact aagggaacac attcaaaact caatactgtc	1620
ttctgcactg acacctcaag gtcgactttg gcaaacgatg tggtgaaacc aatctatgga	1680

agcttcgtac cggctcttaaa aggagagaaa ttgacaatga gaatcttggt tgatcattcg 1740  
 atcgtagaag gattcgcaca aggtggaaga tcatgtatta cctcaagagt atatcccaca 1800  
 aaagctatct atggagctac caagctcttc ttgttcaata acgccattga tgcgaccggt 1860  
 acggcgctcg ttacgggtctg gcaaatgaac aatgctttta ttcataccta ctcttcagac 1920  
 gatctcggtg ttccttccag cacctga 1947

<210> 1406

<211> 648

<212> PRT

<213> Arabidopsis thaliana

<400> 1406

Met Ala Ser Thr Glu Ala Leu Leu Pro Val Thr Ser Leu Gln Asp Pro  
 1 5 10 15

Leu Ser Glu Ser Arg Ser Asp Gln Ile Pro Glu Thr Arg Arg Arg Arg  
 20 25 30

Pro Ile Lys Val His Leu Ala Val Tyr Ser Gly Leu Leu Leu Ile Ala  
 35 40 45

Leu Tyr Val Thr Leu Ile Val Thr His Asp Gly Ser Lys Ala Glu Ile  
 50 55 60

Ala Thr Glu Ser Arg Pro Arg Met Ala Gly Val Ser Glu Lys Ser Asn  
 65 70 75 80

Asp Gly Val Trp Ile Ser Ser Asp Asp Gly Lys Val Glu Ala Phe Pro  
 85 90 95

Trp Asn Asn Thr Ile Leu Ser Trp Gln Arg Thr Ala Phe His Phe Gln  
 100 105 110

Pro Glu Lys Asn Trp Met Asn Asp Pro Asn Gly Pro Leu Phe Tyr Lys  
 115 120 125

Gly Trp Tyr His Phe Phe Tyr Gln Tyr Asn Pro Asn Ala Ala Val Trp  
 130 135 140

Gly Asp Ile Val Trp Gly His Ala Val Ser Lys Asp Leu Ile His Trp  
 145 150 155 160

Leu Tyr Leu Pro Ile Ala Met Val Pro Asp Gln Trp Tyr Asp Ala Asn  
 165 170 175  
 Gly Val Trp Thr Gly Ser Ala Thr Phe Leu Asp Asp Gly Ser Ile Val  
 180 185 190  
 Met Leu Tyr Thr Gly Ser Thr Asp Glu Phe Val Gln Val Gln Asn Leu  
 195 200 205  
 Ala Tyr Pro Glu Asp Pro Ser Asp Pro Leu Leu Leu Lys Trp Val Lys  
 210 215 220  
 Phe Ser Gly Asn Pro Val Leu Val Pro Pro Pro Gly Ile Gly Ala Lys  
 225 230 235 240  
 Asp Phe Arg Asp Pro Thr Thr Ala Trp Lys Thr Ser Ser Gly Lys Trp  
 245 250 255  
 Arg Ile Thr Ile Gly Ser Lys Ile Asn Arg Thr Gly Ile Ser Leu Ile  
 260 265 270  
 Tyr Asp Thr Thr Asp Phe Lys Thr Tyr Glu Lys His Glu Thr Leu Leu  
 275 280 285  
 His Gln Val Pro Asn Thr Gly Met Trp Glu Cys Val Asp Phe Tyr Pro  
 290 295 300  
 Val Ser Lys Thr Gln Leu Asn Gly Leu Asp Thr Ser Val Asn Gly Pro  
 305 310 315 320  
 Asp Val Lys His Val Ile Lys Ala Ser Met Asp Asp Thr Arg Ile Asp  
 325 330 335  
 His Tyr Ala Ile Gly Thr Tyr Asp Asp Ser Asn Ala Thr Trp Val Pro  
 340 345 350  
 Asp Asn Pro Ser Ile Asp Val Gly Ile Ser Thr Gly Leu Arg Tyr Asp  
 355 360 365  
 Tyr Gly Lys Tyr Tyr Ala Ser Lys Thr Phe Tyr Asp Gln Asn Lys Gly  
 370 375 380  
 Arg Arg Ile Leu Trp Gly Trp Ile Gly Glu Ser Asp Ser Glu Ala Ala  
 385 390 395 400  
 Asp Val Gln Lys Gly Trp Ser Ser Val Gln Gly Ile Pro Arg Thr Val  
 405 410 415

047-E2F-PCT.ST25.txt

Val Leu Asp Thr Arg Thr His Lys Asn Leu Val Gln Trp Pro Val Glu  
420 425 430

Glu Ile Lys Ser Leu Arg Leu Ser Ser Lys Lys Phe Asp Met Thr Ile  
435 440 445

Gly Pro Gly Thr Val Val Pro Val Asp Val Gly Ser Ala Thr Gln Leu  
450 455 460

Asp Ile Glu Ala Glu Phe Glu Ile Lys Thr Asp Asp Leu Lys Leu Phe  
465 470 475 480

Phe Asp Asp Asp Ser Val Glu Ala Asp Asn Lys Phe Ser Cys Glu Thr  
485 490 495

Asn Gly Gly Ser Thr Ala Arg Gly Ala Leu Gly Pro Phe Gly Phe Ser  
500 505 510

Val Leu Ala Asp Glu Gly Leu Ser Glu Gln Thr Pro Val Tyr Phe Tyr  
515 520 525

Val Thr Lys Gly Lys His Ser Lys Leu Asn Thr Val Phe Cys Thr Asp  
530 535 540

Thr Ser Arg Ser Thr Leu Ala Asn Asp Val Val Lys Pro Ile Tyr Gly  
545 550 555 560

Ser Phe Val Pro Val Leu Lys Gly Glu Lys Leu Thr Met Arg Ile Leu  
565 570 575

Val Asp His Ser Ile Val Glu Gly Phe Ala Gln Gly Gly Arg Ser Cys  
580 585 590

Ile Thr Ser Arg Val Tyr Pro Thr Lys Ala Ile Tyr Gly Ala Thr Lys  
595 600 605

Leu Phe Leu Phe Asn Asn Ala Ile Asp Ala Thr Val Thr Ala Ser Phe  
610 615 620

Thr Val Trp Gln Met Asn Asn Ala Phe Ile His Pro Tyr Ser Ser Asp  
625 630 635 640

Asp Leu Gly Val Pro Ser Ser Thr  
645

<210> 1407

&lt;211&gt; 465

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1407

```

atgggtggct gcgtgggttg ctacagagaa cacagatcaa ctgccgccag tctgaaggat    60
ccaccttcca attccattgc tcgaccgtgt aagaaaccga gtgtctctga agatttctgg    120
tcaacaagca cagttgatat ggacaacatc accttccctt cacaggggag cttatcatca    180
tccaatcaga cttttgattc tcaatctgct gctagaaact ctaatgctcc tcctgaatat    240
gtaaatcaag gtcttcttct ttggaatcag acacgggagc gttgggtggg aaaggataaa    300
cccaacaacc cgggtgatca caatcaagga gccaaagttaa attggaacac agcaacgtat    360
gatagcttgc tggggagcaa caagttatct cccaaccca ttcctctcac cgaaatggtg    420
gattttctag tggacatttg ggaacaagaa ggtctatatg actga                      465

```

&lt;210&gt; 1408

&lt;211&gt; 154

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1408

```

Met Gly Gly Cys Val Gly Cys Tyr Arg Glu His Arg Ser Thr Ala Ala
1      5      10     15
Ser Leu Lys Asp Pro Pro Ser Asn Ser Ile Ala Arg Pro Cys Lys Lys
20     25     30
Pro Ser Val Ser Glu Asp Phe Trp Ser Thr Ser Thr Val Asp Met Asp
35     40     45
Asn Ile Thr Phe Pro Ser Gln Gly Ser Leu Ser Ser Ser Asn Gln Thr
50     55     60
Phe Asp Ser Gln Ser Ala Ala Arg Asn Ser Asn Ala Pro Pro Glu Tyr
65     70     75     80
Val Asn Gln Gly Leu Leu Leu Trp Asn Gln Thr Arg Glu Arg Trp Val
85     90     95
Gly Lys Asp Lys Pro Asn Asn Pro Val Asp His Asn Gln Gly Ala Lys

```

100

105

110

Leu Asn Trp Asn Thr Ala Thr Tyr Asp Ser Leu Leu Gly Ser Asn Lys  
 115 120 125

Leu Phe Pro Gln Pro Ile Pro Leu Thr Glu Met Val Asp Phe Leu Val  
 130 135 140

Asp Ile Trp Glu Gln Glu Gly Leu Tyr Asp  
 145 150

&lt;210&gt; 1409

&lt;211&gt; 519

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1409

atggcggttcc ctaaggtata cttcgacatg accatcgacg gccagcccgcc gggaaggatc 60  
 gtgatggagc tgtacaccga taagactccc aggactgccg agaatttcag agctctctgc 120  
 accggagaga aaggtgttgg cggtagccga aaacccttc acttcaaggg atctaagttt 180  
 caccgtgtga tccctaactt catgtgccag ggaggagatt tcaccgccgg gaacggaaca 240  
 ggcggtgagt cgatctacgg gagcaagttc gaggacgaga atttcgagag gaagcacacc 300  
 ggaccgggga tcctgtcgat ggcgaacgcc ggtgcaaaca cgaacggatc tcagttcttc 360  
 atctgcaccg tgaagaccga ttggcttgat gggaagcacg tgggtgtttgg gcagggtcgtg 420  
 gaaggcttag acgtggtaaa ggccatcgag aaggttgat catcatctgg aaagccgacg 480  
 aagcctgtgg ttgttgccga ttgtggtcag ctctcttag 519

&lt;210&gt; 1410

&lt;211&gt; 172

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1410

Met Ala Phe Pro Lys Val Tyr Phe Asp Met Thr Ile Asp Gly Gln Pro  
 1 5 10 15

Ala Gly Arg Ile Val Met Glu Leu Tyr Thr Asp Lys Thr Pro Arg Thr  
 20 25 30

047-E2F-PCT.ST25.txt

Ala Glu Asn Phe Arg Ala Leu Cys Thr Gly Glu Lys Gly Val Gly Gly  
35 40 45

Thr Gly Lys Pro Leu His Phe Lys Gly Ser Lys Phe His Arg Val Ile  
50 55 60

Pro Asn Phe Met Cys Gln Gly Gly Asp Phe Thr Ala Gly Asn Gly Thr  
65 70 75 80

Gly Gly Glu Ser Ile Tyr Gly Ser Lys Phe Glu Asp Glu Asn Phe Glu  
85 90 95

Arg Lys His Thr Gly Pro Gly Ile Leu Ser Met Ala Asn Ala Gly Ala  
100 105 110

Asn Thr Asn Gly Ser Gln Phe Phe Ile Cys Thr Val Lys Thr Asp Trp  
115 120 125

Leu Asp Gly Lys His Val Val Phe Gly Gln Val Val Glu Gly Leu Asp  
130 135 140

Val Val Lys Ala Ile Glu Lys Val Gly Ser Ser Ser Gly Lys Pro Thr  
145 150 155 160

Lys Pro Val Val Val Ala Asp Cys Gly Gln Leu Ser  
165 170

<210> 1411

<211> 567

<212> DNA

<213> Arabidopsis thaliana

<400> 1411

atggagccgc cgagttcgag accggaggaa cctccgtcat gggaggacct ttacaaaatc	60
aatcttatgc catcgagct attccttaag ttccgcaaag agcttcaagg ccttcgcgtc	120
ggcgtcaatc tcgagttata taacgaaccc acgaatgatt accacgcaaa gcttggtttg	180
aagcctctat gtccagaaag gaagtggaag tttatatatg agccgctaca ccaagaagtt	240
cgtgttttat cgaagaagat tcctgtcacc agattttctaa acctccaggt tgggtgttga	300
cataactttc aaatgaatgc aattggttgg aaatggaagc ttacttcatg tttgggtgga	360
gatggtgtgt ctcggattcg aaataaaact actcttggtc ttagtcctgg tatcgatttc	420

cggttttgat ggagagctga ttttgtactc ccagaggtta ctggggccct tgggtactgag 480  
gaaccgttat tcaacatgag ctccgggcgt ttagaggcat cactagacag agtagaggcc 540  
attgtaaccc attcagatta tctatag 567

<210> 1412

<211> 188

<212> PRT

<213> Arabidopsis thaliana

<400> 1412

Met Glu Pro Pro Ser Ser Arg Pro Glu Glu Pro Pro Ser Trp Glu Asp  
1 5 10 15  
Leu Tyr Lys Ile Asn Leu Met Pro Ser Glu Leu Phe Leu Lys Phe Arg  
20 25 30  
Lys Glu Leu Gln Gly Leu Arg Val Gly Val Asn Leu Glu Leu Tyr Asn  
35 40 45  
Glu Pro Thr Asn Asp Tyr His Ala Lys Leu Val Leu Lys Pro Leu Cys  
50 55 60  
Pro Glu Arg Lys Trp Lys Phe Ile Tyr Glu Pro Leu His Gln Glu Val  
65 70 75 80  
Arg Val Leu Ser Lys Lys Ile Pro Val Thr Arg Phe Leu Asn Leu Gln  
85 90 95  
Val Gly Val Gly His Asn Phe Gln Met Asn Ala Ile Gly Trp Lys Trp  
100 105 110  
Lys Leu Thr Ser Cys Leu Gly Gly Asp Gly Val Ser Arg Ile Arg Asn  
115 120 125  
Lys Thr Thr Leu Gly Leu Ser Pro Gly Ile Asp Phe Arg Phe Gly Trp  
130 135 140  
Arg Ala Asp Phe Val Leu Pro Glu Val Thr Gly Ala Leu Gly Thr Glu  
145 150 155 160  
Glu Pro Leu Phe Asn Met Ser Ser Gly Arg Leu Glu Ala Ser Leu Asp  
165 170 175



Arg Val Glu Ala Ile Val Thr His 047-E2F-PCT.ST25.txt  
 180 Ser Asp Tyr Leu  
 185

<210> 1413

<211> 1494

<212> DNA

<213> Arabidopsis thaliana

<400> 1413

atgagaccaa tcattagggt atcatctctc agtagaatta gatgggctct aaggaacaat	60
caagaacggt attcttcaac tttctactcc aaaagccgca aacttttgat cgggtgtcaat	120
caaaatcaag ctctgctgaa tacaacact gataattcaa gtttgtattc aagggtcaagt	180
atcttttagag gcttatcagc agaagcagta gaagcagctg atcctgctac tactaggggtc	240
accgtctcag atgtgaatag aacaggctct cttgttgagt atgagagaag aatcagtaat	300
ggtgaactca tgactggtga tatctgcaa attagtgc atgagagagct tcagagacta	360
tatgatgagc ttgtggattc agtagataca tgtcgttttag atcgggtataa tactttctgat	420
aaatcctcaa gaagtcgttg gttttggtct cggctcatgc cacagacttc ttactcacc	480
gtcaaaggat tataccttta tggagggtga ggtacaggaa aaaccatggt gatggactta	540
ttctttgatc aactgccttg tacttggaag aagcagagga tacattttcca tgatttcatg	600
ttgagtgttc atagccgctt gcaaaagcac aagggtttat cagatccact tgaagttggt	660
gccaagaga tagctcatga tgcaatctta ctatgtctag atgagttcat ggtaactgat	720
gttgacagat ctctaatact aaaccgactc tttggacatc tgttttagcaa tgggtgttatt	780
cttgttgcta catcgaatcg gaatcctgat aaactctatg aaggaggact ccaaagagat	840
ctgttcctac ctttcatttc ttcatgaag gaacgaagtg tggttcatga gatcggttca	900
gcggttgatt accggaact aacttcggct gagcaaggat tctacttcat tggtaaagat	960
ctttcgaccc ttttgaaaca gaagttccga caattgattg gagacaatgt tgttgcccgt	1020
ccacaggtag tagaagtggg gatgggaaga aaattacaga ttccattagg tgccaatgga	1080
tgtgcatact ttctttttga agagctatgt gaccgacctc ttggagctgc ggattacttc	1140
ggtttgttca agaagtttca tactcttgcc ttggacgaaa ttccagtgtt tgggcttcat	1200
aaccgtactg ctgcatatag attcgtcacg ctagtcgatg taatgtatga gaacagagcg	1260
aggttgttgt gtacagctga agcaaactc caagaacttt tggaaaagat tataacaatc	1320
tcagaggcga aatcgaatgg tccaagaaca tcatcaagat caagaaagaa cgatgttact	1380
gagctctgcg tggataacga attagggttc gcaaaagaca gaaccatcag tagattaaca	1440

gaaatgaaca gcaaagaata cttggagcac catgccataa cacacaatct gtaa

1494

&lt;210&gt; 1414

&lt;211&gt; 497

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1414

Met Arg Pro Ile Ile Arg Leu Ser Ser Leu Ser Arg Ile Arg Trp Ala  
1 5 10 15Leu Arg Asn Asn Gln Glu Arg Tyr Ser Ser Thr Phe Tyr Ser Lys Ser  
20 25 30Arg Lys Leu Leu Ile Gly Val Asn Gln Asn Gln Ala Leu Leu Asn Thr  
35 40 45Asn Thr Asp Asn Ser Ser Leu Tyr Ser Arg Ser Ser Ile Phe Arg Gly  
50 55 60Leu Ser Ala Glu Ala Val Glu Ala Ala Asp Pro Ala Thr Thr Arg Val  
65 70 75 80Thr Val Ser Asp Val Asn Arg Thr Gly Pro Leu Val Glu Tyr Glu Arg  
85 90 95Arg Ile Ser Asn Gly Glu Leu Met Thr Gly Asp Ile Cys Gln Ile Ser  
100 105 110Ala Leu Arg Glu Leu Gln Arg Leu Tyr Asp Glu Leu Val Asp Ser Val  
115 120 125Asp Thr Cys Arg Leu Asp Arg Tyr Asn Thr Ser Asp Lys Ser Ser Arg  
130 135 140Ser Arg Trp Phe Trp Ser Arg Leu Met Pro Gln Thr Ser Tyr Ser Pro  
145 150 155 160Val Lys Gly Leu Tyr Leu Tyr Gly Gly Val Gly Thr Gly Lys Thr Met  
165 170 175Leu Met Asp Leu Phe Phe Asp Gln Leu Pro Cys Thr Trp Lys Lys Gln  
180 185 190

Arg Ile His Phe His Asp Phe Met Leu Ser Val His Ser Arg Leu Gln  
 195 200 205  
 Lys His Lys Gly Leu Ser Asp Pro Leu Glu Val Val Ala Gln Glu Ile  
 210 215 220  
 Ala His Asp Ala Ile Leu Leu Cys Leu Asp Glu Phe Met Val Thr Asp  
 225 230 235 240  
 Val Ala Asp Ala Leu Ile Leu Asn Arg Leu Phe Gly His Leu Phe Ser  
 245 250 255  
 Asn Gly Val Ile Leu Val Ala Thr Ser Asn Arg Asn Pro Asp Lys Leu  
 260 265 270  
 Tyr Glu Gly Gly Leu Gln Arg Asp Leu Phe Leu Pro Phe Ile Ser Ser  
 275 280 285  
 Leu Lys Glu Arg Ser Val Val His Glu Ile Gly Ser Ala Val Asp Tyr  
 290 295 300  
 Arg Lys Leu Thr Ser Ala Glu Gln Gly Phe Tyr Phe Ile Gly Lys Asp  
 305 310 315 320  
 Leu Ser Thr Leu Leu Lys Gln Lys Phe Arg Gln Leu Ile Gly Asp Asn  
 325 330 335  
 Val Val Ala Arg Pro Gln Val Val Glu Val Val Met Gly Arg Lys Leu  
 340 345 350  
 Gln Ile Pro Leu Gly Ala Asn Gly Cys Ala Tyr Phe Pro Phe Glu Glu  
 355 360 365  
 Leu Cys Asp Arg Pro Leu Gly Ala Ala Asp Tyr Phe Gly Leu Phe Lys  
 370 375 380  
 Lys Phe His Thr Leu Ala Leu Asp Glu Ile Pro Val Phe Gly Leu His  
 385 390 395 400  
 Asn Arg Thr Ala Ala Tyr Arg Phe Val Thr Leu Val Asp Val Met Tyr  
 405 410 415  
 Glu Asn Arg Ala Arg Leu Leu Cys Thr Ala Glu Ala Asn Pro Gln Glu  
 420 425 430  
 Leu Leu Glu Lys Ile Ile Thr Ile Ser Glu Ala Lys Ser Met Gly Pro  
 435 440 445

047-E2F-PCT.ST25.txt

Arg Thr Ser Ser Arg Ser Arg Lys Asn Asp Val Thr Glu Leu Cys Val  
450 455 460

Asp Asn Glu Leu Gly Phe Ala Lys Asp Arg Thr Ile Ser Arg Leu Thr  
465 470 475 480

Glu Met Asn Ser Lys Glu Tyr Leu Glu His His Ala Ile Thr His Asn  
485 490 495

Leu

<210> 1415

<211> 1230

<212> DNA

<213> Arabidopsis thaliana

<400> 1415

atggcggcgt ttttgcaaac gaacatcagt ctgaatgcga tcaagatcgt cccggggaaa	60
tacagttctc tcaccgatca tcagtttcgt gcgccgtatc gaattaggtg cgccgccgct	120
tcacctggga aaaaacggta taacatcgct ctgcttcccg gagacggtat cgggtccagaa	180
gttatctctg ttgctaagaa tgtgcttcag aaagctggat ctctcgaagg actggagttt	240
gatttcaagg agatgcctgt cggaggagca gccttggatt tggttggagt tccattgccg	300
gaggaaactt tcacggctgc aaaactatct gatgccattc ttcttggagc tattggaggg	360
tacaaatggg acaagaatga gaaacatctg agacctgaga tggctctggt ttaccttaga	420
agagatctca aagtctttgc taatttgaga cctgctacag ttttgccaca gctagttgat	480
gcttccacac tgaagaaaga agtagcagaa ggtgttgata tgatgattgt tagggagctc	540
acaggaggta tttacttttg agagccaaga ggcattacga tcaatgaaaa tggcgaagaa	600
gtcggcggtta gtacagagat ctacgctgct cacgagattg acagaattgc tcgtgtagca	660
ttcgagactg ctaggaaaag gcgtggcaaa ctttgttctg ttgacaaagc caatgtgttg	720
gatgcatcaa tattgtggag gaaaagagta acagcttttag cctctgaata tccagatggt	780
gaactatcac atatgtatgt cgataatgct gcaatgcagc ttattcgtga cccgaaacag	840
tttgacacaa tcgtttacaa taacatTTTT ggtgatatat tgtctgatga agcttcaatg	900
atcactggaa gcattggaat gcttccatct gctagtctcg gtgaatcggg acctggactc	960
tttgaaccta tacatggttc agcaccagat atagctggac aagacaaggc aaaccattg	1020
gccaccattc tcagcgcggc gatgcttctg aagtatggac ttggagaaga aaaggctgca	1080

aagaggattg aagacgctgt cgtggatgct ctgaacaaag ggttcagaac cggagacatc 1140  
 tactcccctg gaaataaact ggtgggatgc aaggaaatgg gtgaggaggt tctcaaata 1200  
 gtggaatcca aagttccagc tactgtttta 1230

<210> 1416

<211> 409

<212> PRT

<213> Arabidopsis thaliana

<400> 1416

Met Ala Ala Phe Leu Gln Thr Asn Ile Ser Leu Asn Ala Ile Lys Ile  
 1 5 10 15

Val Pro Gly Lys Tyr Ser Ser Leu Thr Asp His Gln Phe Arg Ala Pro  
 20 25 30

Tyr Arg Ile Arg Cys Ala Ala Ala Ser Pro Gly Lys Lys Arg Tyr Asn  
 35 40 45

Ile Ala Leu Leu Pro Gly Asp Gly Ile Gly Pro Glu Val Ile Ser Val  
 50 55 60

Ala Lys Asn Val Leu Gln Lys Ala Gly Ser Leu Glu Gly Leu Glu Phe  
 65 70 75 80

Asp Phe Lys Glu Met Pro Val Gly Gly Ala Ala Leu Asp Leu Val Gly  
 85 90 95

Val Pro Leu Pro Glu Glu Thr Phe Thr Ala Ala Lys Leu Ser Asp Ala  
 100 105 110

Ile Leu Leu Gly Ala Ile Gly Gly Tyr Lys Trp Asp Lys Asn Glu Lys  
 115 120 125

His Leu Arg Pro Glu Met Ala Leu Phe Tyr Leu Arg Arg Asp Leu Lys  
 130 135 140

Val Phe Ala Asn Leu Arg Pro Ala Thr Val Leu Pro Gln Leu Val Asp  
 145 150 155 160

Ala Ser Thr Leu Lys Lys Glu Val Ala Glu Gly Val Asp Met Met Ile  
 165 170 175

047-E2F-PCT.ST25.txt

Val Arg Glu Leu Thr Gly Gly Ile Tyr Phe Gly Glu Pro Arg Gly Ile  
180 185 190

Thr Ile Asn Glu Asn Gly Glu Glu Val Gly Val Ser Thr Glu Ile Tyr  
195 200 205

Ala Ala His Glu Ile Asp Arg Ile Ala Arg Val Ala Phe Glu Thr Ala  
210 215 220

Arg Lys Arg Arg Gly Lys Leu Cys Ser Val Asp Lys Ala Asn Val Leu  
225 230 235 240

Asp Ala Ser Ile Leu Trp Arg Lys Arg Val Thr Ala Leu Ala Ser Glu  
245 250 255

Tyr Pro Asp Val Glu Leu Ser His Met Tyr Val Asp Asn Ala Ala Met  
260 265 270

Gln Leu Ile Arg Asp Pro Lys Gln Phe Asp Thr Ile Val Thr Asn Asn  
275 280 285

Ile Phe Gly Asp Ile Leu Ser Asp Glu Ala Ser Met Ile Thr Gly Ser  
290 295 300

Ile Gly Met Leu Pro Ser Ala Ser Leu Gly Glu Ser Gly Pro Gly Leu  
305 310 315 320

Phe Glu Pro Ile His Gly Ser Ala Pro Asp Ile Ala Gly Gln Asp Lys  
325 330 335

Ala Asn Pro Leu Ala Thr Ile Leu Ser Ala Ala Met Leu Leu Lys Tyr  
340 345 350

Gly Leu Gly Glu Glu Lys Ala Ala Lys Arg Ile Glu Asp Ala Val Val  
355 360 365

Asp Ala Leu Asn Lys Gly Phe Arg Thr Gly Asp Ile Tyr Ser Pro Gly  
370 375 380

Asn Lys Leu Val Gly Cys Lys Glu Met Gly Glu Glu Val Leu Lys Ser  
385 390 395 400

Val Glu Ser Lys Val Pro Ala Thr Val  
405

<210> 1417

&lt;211&gt; 651

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1417

```

atggctgcc ccaacacaat cctcgcatc tcatctcctt ctgctcttct cattcctcct    60
tcctccaatc cttcaactct ccgttcctct ttccgcggcg tctctctcaa caacaacaat    120
ctccaccgtc tccaatctgt ttccttcgcc gttaaagctc cgtcgaaagc gttgacagtt    180
gtttccgcgg cgaagaaggc tgttgcagtg cttaaaggta cttctgatgt cgaaggagtt    240
gttactttga cccaagatga ctcaggctct acaactgtga atgttcgtat cactggctctc    300
actccagggc ctcatggatt tcatctccat gagtttggtg atacaactaa tggatgtatc    360
tcaacaggac cacatttcaa ccctaacaac atgacacacg gagctccaga agatgagtgc    420
cgtcatgcgg gtgacctggg aaacataaat gccaatgccg atggcgtggc agaaacaaca    480
atagtggaca atcagattcc tctgactggt cctaattctg ttgttggaag agcctttgtg    540
gttcacgagc ttaaggatga cctcggaaag ggtggccatg agcttagtct gaccactgga    600
aacgcaggcg ggagattggc atgtggtgtg attggcttga cgccgctcta a          651

```

&lt;210&gt; 1418

&lt;211&gt; 216

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1418

```

Met Ala Ala Thr Asn Thr Ile Leu Ala Phe Ser Ser Pro Ser Arg Leu
1          5          10          15

Leu Ile Pro Pro Ser Ser Asn Pro Ser Thr Leu Arg Ser Ser Phe Arg
          20          25          30

Gly Val Ser Leu Asn Asn Asn Asn Leu His Arg Leu Gln Ser Val Ser
          35          40          45

Phe Ala Val Lys Ala Pro Ser Lys Ala Leu Thr Val Val Ser Ala Ala
          50          55          60

Lys Lys Ala Val Ala Val Leu Lys Gly Thr Ser Asp Val Glu Gly Val
65          70          75          80

```

047-E2F-PCT.ST25.txt

Val Thr Leu Thr Gln Asp Asp Ser Gly Pro Thr Thr Val Asn Val Arg  
85 90 95

Ile Thr Gly Leu Thr Pro Gly Pro His Gly Phe His Leu His Glu Phe  
100 105 110

Gly Asp Thr Thr Asn Gly Cys Ile Ser Thr Gly Pro His Phe Asn Pro  
115 120 125

Asn Asn Met Thr His Gly Ala Pro Glu Asp Glu Cys Arg His Ala Gly  
130 135 140

Asp Leu Gly Asn Ile Asn Ala Asn Ala Asp Gly Val Ala Glu Thr Thr  
145 150 155 160

Ile Val Asp Asn Gln Ile Pro Leu Thr Gly Pro Asn Ser Val Val Gly  
165 170 175

Arg Ala Phe Val Val His Glu Leu Lys Asp Asp Leu Gly Lys Gly Gly  
180 185 190

His Glu Leu Ser Leu Thr Thr Gly Asn Ala Gly Gly Arg Leu Ala Cys  
195 200 205

Gly Val Ile Gly Leu Thr Pro Leu  
210 215

<210> 1419

<211> 1533

<212> DNA

<213> Arabidopsis thaliana

<400> 1419

atgttcatcg agagcttcaa agtagagagt ccaaatgtca aatacacaga gaatgagatc	60
aattcgggtgt acgattacga aacaacagag gtcgtccacg agaatcgtaa cggtagatat	120
caatgggtcg tgaagccaaa gactgtcaaa tacgatttca aaacagacac tcgtgtcccc	180
aaattagggg ttatgcttgt tggttgggga ggaaacaatg gatcaacact aaccgctggt	240
gtcattgcta acaaagaagg aatatcgtgg gcgactaaag acaaagtgc acaagcta	300
tactttgggt cacttactca agcttcatcg attcgtgttg gctcttaca tggtagaagag	360
atctatgctc ctttcaagag tcttcttcca atggtgaatc cagaggatgt tgtgtttggt	420
ggttgggata taagtacat gaatttagca gacgctatgg ctagagctag agttcttgat	480



047-E2F-PCT.ST25.txt

```

attgatctgc agaaacaact tagaccttac atggagaaca tgatcccact tcctggtatc 540
tatgaccctg atttcatcgc tgctaataca ggttcacgtg ctaatagcgt gatcaaaggt 600
accaagaagg aacaagttga tcacatcatc aaggacatga gggagtttaa ggagaagaac 660
aaagtggata agttggttgt gttatggact gcaaacacag agcgttatag caatgtgatt 720
gtaggactta acgatacgac ggagaatcta ttggcttctg ttgaaaagga cgagtctgag 780
atctcgccgt ctacgttgta tgcgattgct tgtgttcttg aaggcattcc tttcatcaat 840
gggagtcctc agaatacttt tgtccccggt cttatcgaat tggctatatc gaagaattgt 900
ttgattggtg gggatgattt caagagtggg cagactaaga tgaaatccgt tttggttgat 960
ttccttggtg gagctggcat taagcctact tcgattgtga gctataatca tttgggaaac 1020
aacgacggga tgaacctctc agcgccacag actttccgct ctaaggagat ttcaaagagc 1080
aatgttgtag acgacatggg agctagtaat ggcacacctt ttgagcctgg tgaacaccct 1140
gaccatgtcg ttgtcatcaa gtatgtgcca tatgttgagg atagtaaaag agcaatggat 1200
gagtacacgt ctgagatatt catgggaggg aggaacacta tagtgttgca taacacttgt 1260
gaggactctc tcttggtctc accaattatc ttggatcttg tccttctcgc tgaactcagc 1320
accagaatcc aatttaaagc tgaaggagag ggaagtttc actctttcca cccggtagct 1380
accatactca gttacctcac aaaggcacct cttgtaccgc ccggaacacc ggtggttaac 1440
gctctgtcga agcagcgggc aatgctggaa aacattctta gggcatgtgt tgggcttgcg 1500
ccagagaaca acatgatcat ggagtacaag tga 1533

```

<210> 1420

<211> 510

<212> PRT

<213> Arabidopsis thaliana

<400> 1420

```

Met Phe Ile Glu Ser Phe Lys Val Glu Ser Pro Asn Val Lys Tyr Thr
1           5           10

```

```

Glu Asn Glu Ile Asn Ser Val Tyr Asp Tyr Glu Thr Thr Glu Val Val
20           25           30

```

```

His Glu Asn Arg Asn Gly Thr Tyr Gln Trp Val Val Lys Pro Lys Thr
35           40           45

```

```

Val Lys Tyr Asp Phe Lys Thr Asp Thr Arg Val Pro Lys Leu Gly Val

```

50

55

Met Leu Val Gly Trp Gly Gly Asn Asn Gly Ser Thr Leu Thr Ala Gly  
65 70 75 80

Val Ile Ala Asn Lys Glu Gly Ile Ser Trp Ala Thr Lys Asp Lys Val  
85 90 95

Gln Gln Ala Asn Tyr Phe Gly Ser Leu Thr Gln Ala Ser Ser Ile Arg  
100 105 110

Val Gly Ser Tyr Asn Gly Glu Glu Ile Tyr Ala Pro Phe Lys Ser Leu  
115 120 125

Leu Pro Met Val Asn Pro Glu Asp Val Val Phe Gly Gly Trp Asp Ile  
130 135 140

Ser Asp Met Asn Leu Ala Asp Ala Met Ala Arg Ala Arg Val Leu Asp  
145 150 155 160

Ile Asp Leu Gln Lys Gln Leu Arg Pro Tyr Met Glu Asn Met Ile Pro  
165 170 175

Leu Pro Gly Ile Tyr Asp Pro Asp Phe Ile Ala Ala Asn Gln Gly Ser  
180 185 190

Arg Ala Asn Ser Val Ile Lys Gly Thr Lys Lys Glu Gln Val Asp His  
195 200 205

Ile Ile Lys Asp Met Arg Glu Phe Lys Glu Lys Asn Lys Val Asp Lys  
210 215 220

Leu Val Val Leu Trp Thr Ala Asn Thr Glu Arg Tyr Ser Asn Val Ile  
225 230 235 240

Val Gly Leu Asn Asp Thr Thr Glu Asn Leu Leu Ala Ser Val Glu Lys  
245 250 255

Asp Glu Ser Glu Ile Ser Pro Ser Thr Leu Tyr Ala Ile Ala Cys Val  
260 265 270

Leu Glu Gly Ile Pro Phe Ile Asn Gly Ser Pro Gln Asn Thr Phe Val  
275 280 285

Pro Gly Leu Ile Glu Leu Ala Ile Ser Lys Asn Cys Leu Ile Gly Gly  
290 295 300

Asp Asp Phe Lys Ser Gly Gln Thr Lys Met Lys Ser Val Leu Val Asp  
 305 310 315 320

Phe Leu Val Gly Ala Gly Ile Lys Pro Thr Ser Ile Val Ser Tyr Asn  
 325 330 335

His Leu Gly Asn Asn Asp Gly Met Asn Leu Ser Ala Pro Gln Thr Phe  
 340 345 350

Arg Ser Lys Glu Ile Ser Lys Ser Asn Val Val Asp Asp Met Val Ala  
 355 360 365

Ser Asn Gly Ile Leu Phe Glu Pro Gly Glu His Pro Asp His Val Val  
 370 375 380

Val Ile Lys Tyr Val Pro Tyr Val Ala Asp Ser Lys Arg Ala Met Asp  
 385 390 395 400

Glu Tyr Thr Ser Glu Ile Phe Met Gly Gly Arg Asn Thr Ile Val Leu  
 405 410 415

His Asn Thr Cys Glu Asp Ser Leu Leu Ala Ala Pro Ile Ile Leu Asp  
 420 425 430

Leu Val Leu Leu Ala Glu Leu Ser Thr Arg Ile Gln Phe Lys Ala Glu  
 435 440 445

Gly Glu Gly Lys Phe His Ser Phe His Pro Val Ala Thr Ile Leu Ser  
 450 455 460

Tyr Leu Thr Lys Ala Pro Leu Val Pro Pro Gly Thr Pro Val Val Asn  
 465 470 475 480

Ala Leu Ser Lys Gln Arg Ala Met Leu Glu Asn Ile Leu Arg Ala Cys  
 485 490 495

Val Gly Leu Ala Pro Glu Asn Asn Met Ile Met Glu Tyr Lys  
 500 505 510

<210> 1421

<211> 1428

<212> DNA

<213> Arabidopsis thaliana

<400> 1421

```

atgtctgtgc aagagtatTT agacaagcat atgctttctc ggaaaatcga agacgccgtt      60
aatgccgccg taagggctaa aacctcagat cccgttctct tcatcgctaa tcatctgaag    120
aaagctgtat catctgtgat aacgaagggt aaagcacgac agatccttga cagcagagga    180
attccaacag ttgaagttga tctgcacacg aacaaaggcg tttttcgtgc ttctgttccc    240
agtggtgatt cttctggaac gtatgaagct attgagctac gtgatggaga caaaggaatg    300
tatcttgga acagtgtggc taaagctggt aagaacataa atgaaaaaat ttctgaggcg    360
ttgattggta tggacccaaa acttcagggt cagatagatc aggctatgat agatttgat    420
aaaactgaaa agaagagtga acttggtgct aatgctatac ttgctgtgtc aattgcgga    480
tgcaaggctg gagctgtga gaaagaggct cctttgtgca agcatctttc tgatcttagt    540
ggcagagcaa acatggtggt acctgtacct gcgttcactg ttttgagtgg tgggaagcat    600
gcttcgaata cttttgccat tcaggaaatt atgattctcc caattggagc aagtagatTT    660
gaggaggccc tgcaatgggg atctgagaca tatcatcatt taaaggctgt catttcagaa    720
aagaatggtg gtttgggatg taatgttggg gaagatggtg gtcttgctcc agatatctcg    780
agcctcaagg aaggtttgga gcttgtaaaa gaagctatca accgaacagg gtacaatgat    840
aagataaaga tagccattga tattgccgcc actaattttt gtttaggtac caagtatgat    900
ttagatatca agtctccaaa taaatctggg caaaatttca agtcagcggg agatatgata    960
gatatgtaca aagaaatttg taatgattat ccaattgtgt ctatagaaga cccttttgac   1020
aaggaggact gggaacacac caagtatttt tcgagtcctt gaatatgtca ggtggtaggt   1080
gacgatttgt tgatgtcaaa ttcaaaacga gttgagcgtg ccatacagga gtcttcttgt   1140
aatgctcttc ttctcaagggt gaatcagatt ggtacagtaa cagaagccat tgaagtagtg   1200
aaaatggcaa gggatgccc a gtgggggtgtg gtgacatctc atagatgtgg agaaacagag   1260
gactctttca tctctgactt atctgtgggt ctcgcaacag gtgtgattaa agctggtgct   1320
ccttgcaagag gagaacgtac tatgaagtat aaccagttgc tacggataga ggaagagctt   1380
ggggatcaag cagtgtatgc tggagaagat tggaagctat ctctctaa                   1428

```

<210> 1422

<211> 475

<212> PRT

<213> *Arabidopsis thaliana*

<400> 1422

Met Ser Val Gln Glu Tyr Leu Asp Lys His Met Leu Ser Arg Lys Ile  
1 5 10 15

047-E2F-PCT.ST25.txt

Glu Asp Ala Val Asn Ala Ala Val Arg Ala Lys Thr Ser Asp Pro Val  
 20 25 30  
 Leu Phe Ile Ala Asn His Leu Lys Lys Ala Val Ser Ser Val Ile Thr  
 35 40 45  
 Lys Val Lys Ala Arg Gln Ile Leu Asp Ser Arg Gly Ile Pro Thr Val  
 50 55 60  
 Glu Val Asp Leu His Thr Asn Lys Gly Val Phe Arg Ala Ser Val Pro  
 65 70 75 80  
 Ser Gly Asp Ser Ser Gly Thr Tyr Glu Ala Ile Glu Leu Arg Asp Gly  
 85 90 95  
 Asp Lys Gly Met Tyr Leu Gly Asn Ser Val Ala Lys Ala Val Lys Asn  
 100 105 110  
 Ile Asn Glu Lys Ile Ser Glu Ala Leu Ile Gly Met Asp Pro Lys Leu  
 115 120 125  
 Gln Gly Gln Ile Asp Gln Ala Met Ile Asp Leu Asp Lys Thr Glu Lys  
 130 135 140  
 Lys Ser Glu Leu Gly Ala Asn Ala Ile Leu Ala Val Ser Ile Ala Ala  
 145 150 155 160  
 Cys Lys Ala Gly Ala Ala Glu Lys Glu Val Pro Leu Cys Lys His Leu  
 165 170 175  
 Ser Asp Leu Ser Gly Arg Ala Asn Met Val Leu Pro Val Pro Ala Phe  
 180 185 190  
 Thr Val Leu Ser Gly Gly Lys His Ala Ser Asn Thr Phe Ala Ile Gln  
 195 200 205  
 Glu Ile Met Ile Leu Pro Ile Gly Ala Ser Arg Phe Glu Glu Ala Leu  
 210 215 220  
 Gln Trp Gly Ser Glu Thr Tyr His His Leu Lys Ala Val Ile Ser Glu  
 225 230 235 240  
 Lys Asn Gly Gly Leu Gly Cys Asn Val Gly Glu Asp Gly Gly Leu Ala  
 245 250 255  
 Pro Asp Ile Ser Ser Leu Lys Glu Gly Leu Glu Leu Val Lys Glu Ala  
 Page 2215

260

265

270

Ile Asn Arg Thr Gly Tyr Asn Asp Lys Ile Lys Ile Ala Ile Asp Ile  
           275                          280                          285

Ala Ala Thr Asn Phe Cys Leu Gly Thr Lys Tyr Asp Leu Asp Ile Lys  
       290                          295                          300

Ser Pro Asn Lys Ser Gly Gln Asn Phe Lys Ser Ala Glu Asp Met Ile  
   305                          310                          315                          320

Asp Met Tyr Lys Glu Ile Cys Asn Asp Tyr Pro Ile Val Ser Ile Glu  
                           325                          330                          335

Asp Pro Phe Asp Lys Glu Asp Trp Glu His Thr Lys Tyr Phe Ser Ser  
                           340                          345                          350

Leu Gly Ile Cys Gln Val Val Gly Asp Asp Leu Leu Met Ser Asn Ser  
           355                          360                          365

Lys Arg Val Glu Arg Ala Ile Gln Glu Ser Ser Cys Asn Ala Leu Leu  
       370                          375                          380

Leu Lys Val Asn Gln Ile Gly Thr Val Thr Glu Ala Ile Glu Val Val  
   385                          390                          395                          400

Lys Met Ala Arg Asp Ala Gln Trp Gly Val Val Thr Ser His Arg Cys  
                           405                          410                          415

Gly Glu Thr Glu Asp Ser Phe Ile Ser Asp Leu Ser Val Gly Leu Ala  
                           420                          425                          430

Thr Gly Val Ile Lys Ala Gly Ala Pro Cys Arg Gly Glu Arg Thr Met  
           435                          440                          445

Lys Tyr Asn Gln Leu Leu Arg Ile Glu Glu Glu Leu Gly Asp Gln Ala  
       450                          455                          460

Val Tyr Ala Gly Glu Asp Trp Lys Leu Ser Leu  
   465                          470                          475

&lt;210&gt; 1423

&lt;211&gt; 639

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

```

<400> 1423
atggcaacgg tcacgattct ctcacccaaa tcgattccaa aggtcactga ttccaaattc      60
ggagctaggg tttctgatca gatcgtcaat gtcgtaaaat gcggcaaadc cggccggaga      120
ttgaagttag cgaagctggc ctcagcggct ggattgtcac agatcgaacc agacatcaac      180
gaagacccga ttggtcaatt cgagactaat agcattgaaa tggaagattt caagtatgga      240
tattacgatg gagctcatal ttactatgaa ggagaagttc aaaagggaac attttgggga      300
gcaattgctg atgacattgc tgctgtggat caaactaatg ggtttcaagg tttgatctct      360
tgtatgtttc ttcctgctat agctcttggg atgtattttg atgctccggg tgagtacttg      420
ttcataggtg cagcgttatt cacggtagtg ttctgtataa tagagatgga taaacctgac      480
cagccacaca acttcgagcc tcagatatac aaattggaga gaggagctcg tgacaagctc      540
attaatgact acaacacaaat gagcatttgg gactttaatg acaaatatgg tgatgtatgg      600
gatttcacca ttgagaaaga tgatatcgcc acacgataa      639

```

<210> 1424

<211> 212

<212> PRT

<213> Arabidopsis thaliana

<400> 1424

```

Met Ala Thr Val Thr Ile Leu Ser Pro Lys Ser Ile Pro Lys Val Thr
1          5          10         15

Asp Ser Lys Phe Gly Ala Arg Val Ser Asp Gln Ile Val Asn Val Val
20        25        30

Lys Cys Gly Lys Ser Gly Arg Arg Leu Lys Leu Ala Lys Leu Val Ser
35        40        45

Ala Ala Gly Leu Ser Gln Ile Glu Pro Asp Ile Asn Glu Asp Pro Ile
50        55        60

Gly Gln Phe Glu Thr Asn Ser Ile Glu Met Glu Asp Phe Lys Tyr Gly
65        70        75        80

Tyr Tyr Asp Gly Ala His Thr Tyr Tyr Glu Gly Glu Val Gln Lys Gly
85        90        95

Thr Phe Trp Gly Ala Ile Ala Asp Asp Ile Ala Ala Val Asp Gln Thr

```

100

105

110

Asn Gly Phe Gln Gly Leu Ile Ser Cys Met Phe Leu Pro Ala Ile Ala  
 115 120 125

Leu Gly Met Tyr Phe Asp Ala Pro Gly Glu Tyr Leu Phe Ile Gly Ala  
 130 135 140

Ala Leu Phe Thr Val Val Phe Cys Ile Ile Glu Met Asp Lys Pro Asp  
 145 150 155 160

Gln Pro His Asn Phe Glu Pro Gln Ile Tyr Lys Leu Glu Arg Gly Ala  
 165 170 175

Arg Asp Lys Leu Ile Asn Asp Tyr Asn Thr Met Ser Ile Trp Asp Phe  
 180 185 190

Asn Asp Lys Tyr Gly Asp Val Trp Asp Phe Thr Ile Glu Lys Asp Asp  
 195 200 205

Ile Ala Thr Arg  
 210

&lt;210&gt; 1425

&lt;211&gt; 1314

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1425

atggaccctg agagtatcat ggctgctgat gggactgatt ctgctcctgc aaatggtggt	60
ttagcaatgg aaaatgtatg tgtaaagaa aatggggctg tttctgtcga aaccgtggac	120
actacttcag aaagtcagaa tgagaattcg gcaaacagtt ccactttgga tacaattgaa	180
cacgtcaagg aggcagctga gggcacacaa gttgaacatg tagatgattc aaagtgtatg	240
aaaggcgaaa aagctcaacg gaagccaagg catgagaaac tatcaggtgg taagaataat	300
tcatcggttc acatcaaaaa gagcaaagag ggcaaaagtg cagatgctaa agtggcagca	360
tcaaatggtt ctgttgctcc taatgtacag acaacaaatc ctcttaagag caaatcattc	420
aatgggcgag aggcacaagt cacaaagcaa gggaagcatg actctgcacc tgctgaaagc	480
gctgatgggg agaaggtgaa accaaagtct caaaagaaac aagcccatga gacatctgaa	540
gatgatactc agtcttctaa tagtccgaaa gcagacgatg gaaaacctcg taaagttggt	600
gcacttccaa attatggatt cagtttcaaa tgtgaccaac gggctgaaaa gagaaaagag	660



047-E2F-PCT.ST25.txt

```

ttctatgtta agcttgagga gaagactcat gcaaaagaag aggaaattaa tagcatgcaa 720
gccaaagtcca aggaaacaca agaagctgag cttaggatgc taaggaagag tttgaacttc 780
aaagccacac ctatgcctag cttttatcaa gaacctcagc cgcctaaaac agagttaaag 840
aagataccac caacgagacc aaaatctcca aaactcgggc gaaagaagac tgcttctgga 900
gcagattctg aagaaactca aaccctcgc cttggtaggc taagcctaga tgagagagct 960
tctaaagata acccaactgc aaaggggaatt atgccaacag ttgatctgaa gaagcaacct 1020
gtgcgcaagt cacttccaag attgccatct cagaaaacag ttctccccga tggaaaaccc 1080
gccccagcaa aagctgccat aatcccagca aaggtaagac ctgagaaaaa gaaacttgaa 1140
aaagatgcag aaaccgtaaa ccagacttca catcccacag aagaggaagc acaagtgaca 1200
gtatcatcca atgctgatgt agaagattca catgagactg tatctccaag gatgaatgaa 1260
gacagagccg acaagtccat tgaggatatct gaagcggttg ctgttgagca ttaa 1314

```

<210> 1426

<211> 437

<212> PRT

<213> Arabidopsis thaliana

<400> 1426

```

Met Asp Pro Glu Ser Ile Met Ala Ala Asp Gly Thr Asp Ser Ala Pro
1          5          10          15

Ala Asn Gly Gly Leu Ala Met Glu Asn Val Cys Val Lys Glu Asn Gly
20          25          30

Ala Val Ser Val Glu Thr Val Asp Thr Thr Ser Glu Ser Gln Asn Glu
35          40          45

Asn Ser Ala Asn Ser Ser Thr Leu Asp Thr Ile Glu His Val Lys Glu
50          55          60

Ala Ala Glu Gly Thr Gln Val Glu His Val Asp Asp Ser Lys Cys Met
65          70          75          80

Lys Gly Glu Lys Ala Gln Arg Lys Pro Arg His Glu Lys Leu Ser Gly
85          90          95

Gly Lys Asn Asn Ser Ser Val His Ile Lys Lys Ser Lys Glu Gly Lys
100         105         110

```

047-E2F-PCT.ST25.txt

Ser Ala Asp Ala Lys Val Ala Ala Ser Asn Gly Ser Val Ala Pro Asn  
115 120 125

Val Gln Thr Thr Asn Pro Leu Lys Ser Lys Ser Phe Asn Gly Arg Glu  
130 135 140

Ala Gln Val Thr Lys Gln Gly Lys His Asp Ser Ala Pro Ala Glu Ser  
145 150 155 160

Ala Asp Gly Glu Lys Val Lys Pro Lys Ser Gln Lys Lys Gln Ala His  
165 170 175

Glu Thr Ser Glu Asp Asp Thr Gln Ser Ser Asn Ser Pro Lys Ala Asp  
180 185 190

Asp Gly Lys Pro Arg Lys Val Gly Ala Leu Pro Asn Tyr Gly Phe Ser  
195 200 205

Phe Lys Cys Asp Gln Arg Ala Glu Lys Arg Lys Glu Phe Tyr Val Lys  
210 215 220

Leu Glu Glu Lys Thr His Ala Lys Glu Glu Glu Ile Asn Ser Met Gln  
225 230 235 240

Ala Lys Ser Lys Glu Thr Gln Glu Ala Glu Leu Arg Met Leu Arg Lys  
245 250 255

Ser Leu Asn Phe Lys Ala Thr Pro Met Pro Ser Phe Tyr Gln Glu Pro  
260 265 270

Gln Pro Pro Lys Thr Glu Leu Lys Lys Ile Pro Pro Thr Arg Pro Lys  
275 280 285

Ser Pro Lys Leu Gly Arg Lys Lys Thr Ala Ser Gly Ala Asp Ser Glu  
290 295 300

Glu Thr Gln Thr Pro Arg Leu Gly Arg Leu Ser Leu Asp Glu Arg Ala  
305 310 315 320

Ser Lys Asp Asn Pro Thr Ala Lys Gly Ile Met Pro Thr Val Asp Leu  
325 330 335

Lys Lys Gln Pro Val Arg Lys Ser Leu Pro Arg Leu Pro Ser Gln Lys  
340 345 350

Thr Val Leu Pro Asp Gly Lys Pro Ala Pro Ala Lys Ala Ala Ile Ile  
355 360 365

047-E2F-PCT.ST25.txt

Pro Ala Lys Val Arg Pro Glu Lys Lys Lys Leu Glu Lys Asp Ala Glu  
370 375 380

Thr Val Asn Gln Thr Ser His Pro Thr Glu Glu Glu Ala Gln Val Thr  
385 390 395 400

Val Ser Ser Asn Ala Asp Val Glu Asp Ser His Glu Thr Val Ser Pro  
405 410 415

Arg Met Asn Glu Asp Arg Ala Asp Lys Ser Ile Glu Val Ser Glu Ala  
420 425 430

Val Ala Val Glu His  
435

<210> 1427

<211> 441

<212> DNA

<213> Arabidopsis thaliana

<400> 1427

atgaatcttc aagctgtttc ttgtagcttc ggattccttt cgagtcact tgggtgcact	60
cccagaactt cgtttcgtcg cttcgtaatc cgagcgaaaa cggaaccgtc ggagaaatca	120
gtagagatta tgaggaaatt ctccgagcaa tatgctcgtc gctctgggac ttacttctgt	180
gttgataaag gagttacttc agtcgttatt aagggtttgg ctgagcataa agattcatat	240
ggtgcaccgc tttgcccttg cagacactat gatgataaag ctgctgaggt tggacaaggc	300
ttttggaatt gtccgtgtgt tccaatgaga gagaggaagg agtgccattg tatgcttttc	360
ttaactcctg ataatgattt cgctggaaaa gatcagacga ttacatcgga tgaaataaaa	420
gaaactacag ctaacatgtg a	441

<210> 1428

<211> 146

<212> PRT

<213> Arabidopsis thaliana

<400> 1428

Met Asn Leu Gln Ala Val Ser Cys Ser Phe Gly Phe Leu Ser Ser Pro  
Page 2221

1 5 10 15

Leu Gly Val Thr Pro Arg Thr Ser Phe Arg Arg Phe Val Ile Arg Ala  
20 25 30

Lys Thr Glu Pro Ser Glu Lys Ser Val Glu Ile Met Arg Lys Phe Ser  
35 40 45

Glu Gln Tyr Ala Arg Arg Ser Gly Thr Tyr Phe Cys Val Asp Lys Gly  
50 55 60

Val Thr Ser Val Val Ile Lys Gly Leu Ala Glu His Lys Asp Ser Tyr  
65 70 75 80

Gly Ala Pro Leu Cys Pro Cys Arg His Tyr Asp Asp Lys Ala Ala Glu  
85 90 95

Val Gly Gln Gly Phe Trp Asn Cys Pro Cys Val Pro Met Arg Glu Arg  
100 105 110

Lys Glu Cys His Cys Met Leu Phe Leu Thr Pro Asp Asn Asp Phe Ala  
115 120 125

Gly Lys Asp Gln Thr Ile Thr Ser Asp Glu Ile Lys Glu Thr Thr Ala  
130 135 140

Asn Met  
145

<210> 1429  
<211> 255  
<212> DNA  
<213> Arabidopsis thaliana

<400> 1429  
atgtcacata acacaaacct tatgatcgct gccgcagcca ctaccactac gacctcttcg 60  
tcttcctctt cgtcctccgg aggctcgggg actaaccagc taagcaggta cgagaatcag 120  
aagagaagag attggaacac tttcggacag tatctacgca atcaccgtcc accactttct 180  
ctctcccgtt gcagtgggtgc tcatgttctt gaattcctca ggtacctcga ccaattcggc 240  
aagactaagg tataa 255

<210> 1430

&lt;211&gt; 84

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1430

Met Ser His Asn Thr Asn Leu Met Ile Ala Ala Ala Ala Thr Thr Thr  
 1 5 10 15

Thr Thr Ser Ser Ser Ser Ser Ser Ser Gly Gly Ser Gly Thr Asn  
 20 25 30

Gln Leu Ser Arg Tyr Glu Asn Gln Lys Arg Arg Asp Trp Asn Thr Phe  
 35 40 45

Gly Gln Tyr Leu Arg Asn His Arg Pro Pro Leu Ser Leu Ser Arg Cys  
 50 55 60

Ser Gly Ala His Val Leu Glu Phe Leu Arg Tyr Leu Asp Gln Phe Gly  
 65 70 75 80

Lys Thr Lys Val

&lt;210&gt; 1431

&lt;211&gt; 2268

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1431

atggcagatt caagttcttc tctccctcct ctttgcgaga agatctcata caaaaactat	60
tttctaagag ttgtggatct cacgattcta ggctttctct tttctcttct cttgtaccga	120
attctactta tgaacaaaa caactccgtt tgggttggtg ctttcctctg tgaatccttt	180
ttctctttca tatggcttct tattaccagc ataaaatgga gtcctgcttc atataaatca	240
tatcctgaaa gacttgatga aagggttcat gaccttccat cggtagatat gtttgtgact	300
actgcggatc ctgttcggga gccgccgatt cttgtagcaa acacgttgct ttcgctgtta	360
gcagtgaatt atccagcgaa taaacttgct tgttatgtat cggatgatgg atgctcacct	420
ctcacttact tctctctcaa ggaagcttct aagttcgcca agatttgggt tcccttctgc	480
aaaaaatata acattaaagt tagagctcct tttagatatt ttttgaaccc tccagccgca	540

acagaaagtt ctgaattcag taaagactgg gaaataacca agagggagta cgagaaatta 600  
 agcaggaggg tggaagatgc cactggagat tcccattggg tggatgcaga agatgacttt 660  
 gaagattttct cgaatacaaa accaaatgat cattcaacta tagtaaaggt ggtatgggag 720  
 aacaagggag gtgtcggagt cgagaacgag gttcctcatt ttgtatacat ttcaagagag 780  
 aaaagaccaa attatcttca tcattacaaa gctggagcca tgaactttct ggtaagagtg 840  
 tcagggttga tgacaaatgc accatacatg ttgaacgtag actgtgacat gtatgctaata 900  
 gaagcagatg tgggtgcgcca agcaatgtgt atattttctac aaaaatcaat gaattcaaac 960  
 cattgtgctt ttgttcaatt ccctcaagag ttctatgatt ctaacgccga cgaactcacc 1020  
 gtcttacaat catattttggg acgaggaatt gcgggaatcc aaggacctac atatgcagggt 1080  
 tcaggatgct tccacactag aagagttatg tacgggtctat caatagatga tttagaagat 1140  
 gatggaagtc tttcttcact tgcaacaagg aagtatttgg ctgaagagaa tttagctaga 1200  
 gaatttggga actctaacga gatggtgaca tcggtggctg aggcattaca aagaaaacca 1260  
 aatccgcaaa atacccttgc aaactccctc gaagcggctc aagaagtggg acattgtcat 1320  
 tttgagtacc aaactagctg gggcaaaact attggttggg tatacgaatc aacagcggaa 1380  
 gatgcaaaca cgagtatcgg aatccattcg agaggggtgga ctagctcata tatatctccg 1440  
 aaaccaccag cgtttcttgg ggctatgcca ccgggaggtc cggaagcgat gctccagcag 1500  
 cggcgatggg ccacaggact gctcgaagtc cttttcaaca aacaaagtcc gttgatcgga 1560  
 atgttttgta ggaaaataag atttcgacaa agcttggctt atttatacat tttcacttgg 1620  
 ggtctaaggt caatccctga gcttatttat tgtctcttgc ctgcttattg cctactccac 1680  
 aacgctgcct tatttcccaa gggagtttat ttaggtatag tcgtcacact tgtgggaatg 1740  
 cattgtcttt actctctatg ggaatttatg agccttgggt tctcagtaca atcgtgggtt 1800  
 gcctcccaat cattttggag gataaaaacc acttgcagtt gggtatttag catccctgat 1860  
 atcatactca agctacttgg aatctcgaaa actgttttca tagtcactaa aaagactatg 1920  
 cccaagacaa tgtcaggatc tggatccgaa aaatctcaac gagaagttga ttgtccaaac 1980  
 caagattccg gtaaatttga atttgatggc tcgctttatt tcttgccctg cacatttatc 2040  
 ctttttagtga atctagccgc tctagccggt tgttcggtgg gtctacaacg tcacagagga 2100  
 ggtgggttcgg gtttagcaga agcttgtgga tgtattttgg tggttatatt gtttcttcca 2160  
 tttctaaagg gtatgtttga gaagggaaaa tatggtatcc catggtctac tctttctaaa 2220  
 gctgcctttt tagcagtttt atttgttggg ttctctgtgg gaaactag 2268

&lt;210&gt; 1432

&lt;211&gt; 755

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1432

```

Met Ala Asp Ser Ser Ser Ser Leu Pro Pro Leu Cys Glu Lys Ile Ser
1      5      10      15
Tyr Lys Asn Tyr Phe Leu Arg Val Val Asp Leu Thr Ile Leu Gly Phe
20      25      30
Leu Phe Ser Leu Leu Leu Tyr Arg Ile Leu Leu Met Asn Gln Asn Asn
35      40      45
Ser Val Trp Val Val Ala Phe Leu Cys Glu Ser Phe Phe Ser Phe Ile
50      55      60
Trp Leu Leu Ile Thr Ser Ile Lys Trp Ser Pro Ala Ser Tyr Lys Ser
65      70      75      80
Tyr Pro Glu Arg Leu Asp Glu Arg Val His Asp Leu Pro Ser Val Asp
85      90      95
Met Phe Val Thr Thr Ala Asp Pro Val Arg Glu Pro Pro Ile Leu Val
100     105     110
Ala Asn Thr Leu Leu Ser Leu Leu Ala Val Asn Tyr Pro Ala Asn Lys
115     120     125
Leu Ala Cys Tyr Val Ser Asp Asp Gly Cys Ser Pro Leu Thr Tyr Phe
130     135     140
Ser Leu Lys Glu Ala Ser Lys Phe Ala Lys Ile Trp Val Pro Phe Cys
145     150     155     160
Lys Lys Tyr Asn Ile Lys Val Arg Ala Pro Phe Arg Tyr Phe Leu Asn
165     170     175
Pro Pro Ala Ala Thr Glu Ser Ser Glu Phe Ser Lys Asp Trp Glu Ile
180     185     190
Thr Lys Arg Glu Tyr Glu Lys Leu Ser Arg Arg Val Glu Asp Ala Thr
195     200     205
Gly Asp Ser His Trp Leu Asp Ala Glu Asp Asp Phe Glu Asp Phe Ser
210     215     220

```

## 047-E2F-PCT.ST25.txt

Asn Thr Lys Pro Asn Asp His Ser Thr Ile Val Lys Val Val Trp Glu  
 225 230 235 240  
 Asn Lys Gly Gly Val Gly Val Glu Asn Glu Val Pro His Phe Val Tyr  
 245 250 255  
 Ile Ser Arg Glu Lys Arg Pro Asn Tyr Leu His His Tyr Lys Ala Gly  
 260 265 270  
 Ala Met Asn Phe Leu Val Arg Val Ser Gly Leu Met Thr Asn Ala Pro  
 275 280 285  
 Tyr Met Leu Asn Val Asp Cys Asp Met Tyr Ala Asn Glu Ala Asp Val  
 290 295 300  
 Val Arg Gln Ala Met Cys Ile Phe Leu Gln Lys Ser Met Asn Ser Asn  
 305 310 315 320  
 His Cys Ala Phe Val Gln Phe Pro Gln Glu Phe Tyr Asp Ser Asn Ala  
 325 330 335  
 Asp Glu Leu Thr Val Leu Gln Ser Tyr Leu Gly Arg Gly Ile Ala Gly  
 340 345 350  
 Ile Gln Gly Pro Thr Tyr Ala Gly Ser Gly Cys Phe His Thr Arg Arg  
 355 360 365  
 Val Met Tyr Gly Leu Ser Ile Asp Asp Leu Glu Asp Asp Gly Ser Leu  
 370 375 380  
 Ser Ser Leu Ala Thr Arg Lys Tyr Leu Ala Glu Glu Asn Leu Ala Arg  
 385 390 395 400  
 Glu Phe Gly Asn Ser Asn Glu Met Val Thr Ser Val Val Glu Ala Leu  
 405 410 415  
 Gln Arg Lys Pro Asn Pro Gln Asn Thr Leu Ala Asn Ser Leu Glu Ala  
 420 425 430  
 Ala Gln Glu Val Gly His Cys His Phe Glu Tyr Gln Thr Ser Trp Gly  
 435 440 445  
 Lys Thr Ile Gly Trp Leu Tyr Glu Ser Thr Ala Glu Asp Ala Asn Thr  
 450 455 460  
 Ser Ile Gly Ile His Ser Arg Gly Trp Thr Ser Ser Tyr Ile Ser Pro  
 465 470 475 480



047-E2F-PCT.ST25.txt

Lys Pro Pro Ala Phe Leu Gly Ala Met Pro Pro Gly Gly Pro Glu Ala  
 485 490 495  
 Met Leu Gln Gln Arg Arg Trp Ala Thr Gly Leu Leu Glu Val Leu Phe  
 500 505 510  
 Asn Lys Gln Ser Pro Leu Ile Gly Met Phe Cys Arg Lys Ile Arg Phe  
 515 520 525  
 Arg Gln Ser Leu Ala Tyr Leu Tyr Ile Phe Thr Trp Gly Leu Arg Ser  
 530 535 540  
 Ile Pro Glu Leu Ile Tyr Cys Leu Leu Pro Ala Tyr Cys Leu Leu His  
 545 550 555 560  
 Asn Ala Ala Leu Phe Pro Lys Gly Val Tyr Leu Gly Ile Val Val Thr  
 565 570 575  
 Leu Val Gly Met His Cys Leu Tyr Ser Leu Trp Glu Phe Met Ser Leu  
 580 585 590  
 Gly Phe Ser Val Gln Ser Trp Phe Ala Ser Gln Ser Phe Trp Arg Ile  
 595 600 605  
 Lys Thr Thr Cys Ser Trp Leu Phe Ser Ile Pro Asp Ile Ile Leu Lys  
 610 615 620  
 Leu Leu Gly Ile Ser Lys Thr Val Phe Ile Val Thr Lys Lys Thr Met  
 625 630 635 640  
 Pro Lys Thr Met Ser Gly Ser Gly Ser Glu Lys Ser Gln Arg Glu Val  
 645 650 655  
 Asp Cys Pro Asn Gln Asp Ser Gly Lys Phe Glu Phe Asp Gly Ser Leu  
 660 665 670  
 Tyr Phe Leu Pro Gly Thr Phe Ile Leu Leu Val Asn Leu Ala Ala Leu  
 675 680 685  
 Ala Gly Cys Ser Val Gly Leu Gln Arg His Arg Gly Gly Gly Ser Gly  
 690 695 700  
 Leu Ala Glu Ala Cys Gly Cys Ile Leu Val Val Ile Leu Phe Leu Pro  
 705 710 715 720  
 Phe Leu Lys Gly Met Phe Glu Lys Gly Lys Tyr Gly Ile Pro Trp Ser

725

735

Thr Leu Ser Lys Ala Ala Phe Leu Ala Val Leu Phe Val Val Phe Ser  
740 745 750

Val Gly Asn  
755

<210> 1433

<211> 564

<212> DNA

<213> Arabidopsis thaliana

<400> 1433

```
atggctctcg aggcattggtt tatggatgat agcaatgagg accagagact tcctcatcat    60
cgtaaccgga aagaactcgt ctcgttggat tacttggcag agttgggagt gttgtactgg    120
aagttgaacc ctgagaacta cgagaatgat tctgaactta gcaagattag agaagacagg    180
ggttacgatt acatggattt gctggatctg tgtcccgaga aagtcagcaa ctacgaagaa    240
aagctgaaga actttttcac agaacacatt cacaaggacg aagagattcg gtactgccta    300
gcaggaagtg gctactttga tgttagggac aaggatgata gttggatccg tatctggatg    360
caacctggcg atctcattgt ccttcctgcc ggaatctacc accgggttcac actcgacgcc    420
agcaactaca tcaagctaata gaggctgttc gtgggggaac cggtttggac accatataac    480
cggccacagg aagaacatcc tgttaggaaa aagtatatcc acggcttaac ctacaagttt    540
ggagaaaccg ttaaagcaca ttaa                                     564
```

<210> 1434

<211> 187

<212> PRT

<213> Arabidopsis thaliana

<400> 1434

Met Ala Leu Glu Ala Trp Phe Met Asp Asp Ser Asn Glu Asp Gln Arg  
1 5 10 15

Leu Pro His His Arg Asn Pro Lys Glu Leu Val Ser Leu Asp Tyr Leu  
20 25 30

047-E2F-PCT.ST25.txt

Ala Glu Leu Gly Val Leu Tyr Trp Lys Leu Asn Pro Glu Asn Tyr Glu  
35 40 45

Asn Asp Ser Glu Leu Ser Lys Ile Arg Glu Asp Arg Gly Tyr Asp Tyr  
50 55 60

Met Asp Leu Leu Asp Leu Cys Pro Glu Lys Val Ser Asn Tyr Glu Glu  
65 70 75 80

Lys Leu Lys Asn Phe Phe Thr Glu His Ile His Lys Asp Glu Glu Ile  
85 90 95

Arg Tyr Cys Leu Ala Gly Ser Gly Tyr Phe Asp Val Arg Asp Lys Asp  
100 105 110

Asp Arg Trp Ile Arg Ile Trp Met Gln Pro Gly Asp Leu Ile Val Leu  
115 120 125

Pro Ala Gly Ile Tyr His Arg Phe Thr Leu Asp Ala Ser Asn Tyr Ile  
130 135 140

Lys Leu Met Arg Leu Phe Val Gly Glu Pro Val Trp Thr Pro Tyr Asn  
145 150 155 160

Arg Pro Gln Glu Glu His Pro Val Arg Lys Lys Tyr Ile His Gly Leu  
165 170 175

Thr Tyr Lys Phe Gly Glu Thr Val Lys Ala His  
180 185

<210> 1435

<211> 699

<212> DNA

<213> Arabidopsis thaliana

<400> 1435

atgacccta aatcgagagg cttcgtagg agaaggagaa gcagaagagt gttggttctc	60
gattgtcgat ctcaacaatg gcgtagtctc cccaaaatgc gtcaacctcg agcttctcct	120
gccgcgtatg ttaaggatgg tctgatcatt gtgattggag gttgcaggtc caagaatatc	180
gagacttggg gagagattta tgatctaaag accaataactt gggggcgaat actgctccaa	240
tcacatgatc ccacagttca aaatgcttac ttgaatcgct ttaaacctaa cttgcagacg	300
aatgcttgct atgtagagat tgacaaggtg tcgtgcctga tatttttatc cgatgggaag	360

ctatTTTggc gtgaaacaaa gcaaggTTTT gagaggTgta gtgttatatt gggagatgat 420  
gagcaagtgt cctcttatca acttgTTTcg gtggcaaacg ccgccggagg aggaagagtg 480  
acagTTTggT ggaagtcggg gttaaaagtt ctggatctct taagtggcac tgagacttgg 540  
gaatgttaca caaatattcg gtgtgcagag atttcgTTTg agagaagagg tTTaagagag 600  
ctttggggat tcgttgaatg gtctagagag gtgtttaccg ttgatggata tgacgatact 660  
tacgatttct ttttaaattc tgctattgtg acctattga 699

<210> 1436

<211> 232

<212> PRT

<213> Arabidopsis thaliana

<400> 1436

Met Thr Pro Lys Ser Arg Gly Phe Val Arg Arg Arg Arg Ser Arg Arg  
1 5 10 15

Val Leu Val Leu Asp Cys Arg Ser Gln Gln Trp Arg Ser Leu Pro Lys  
20 25 30

Met Arg Gln Pro Arg Ala Ser Pro Ala Ala Tyr Val Lys Asp Gly Leu  
35 40 45

Ile Ile Val Ile Gly Gly Cys Arg Ser Lys Asn Ile Glu Thr Trp Gly  
50 55 60

Glu Ile Tyr Asp Leu Lys Thr Asn Thr Trp Gly Arg Ile Leu Leu Gln  
65 70 75 80

Ser His Asp Pro Thr Val Gln Asn Ala Tyr Leu Asn Arg Phe Lys Pro  
85 90 95

Asn Leu Gln Thr Asn Ala Cys Tyr Val Glu Ile Asp Lys Val Ser Cys  
100 105 110

Leu Ile Phe Leu Ser Asp Gly Lys Leu Phe Trp Arg Glu Thr Lys Gln  
115 120 125

Gly Phe Glu Arg Cys Ser Val Ile Leu Gly Asp Asp Glu Gln Val Ser  
130 135 140

Ser Tyr Gln Leu Val Ser Val Ala Asn Ala Ala Gly Gly Gly Arg Val  
145 150 155 160

Thr Val Trp Trp Lys Ser Gly Leu Lys Val Leu Asp Leu Leu Ser Gly  
 165 170 175

Thr Glu Thr Trp Glu Cys Tyr Thr Asn Ile Arg Cys Ala Glu Ile Ser  
 180 185 190

Phe Glu Arg Arg Gly Leu Arg Glu Leu Trp Gly Phe Val Glu Trp Ser  
 195 200 205

Arg Glu Val Phe Thr Val Asp Gly Tyr Asp Asp Thr Tyr Asp Phe Phe  
 210 215 220

Leu Asn Ser Ala Ile Val Thr Tyr  
 225 230

<210> 1437

<211> 1068

<212> DNA

<213> Arabidopsis thaliana

<400> 1437

atgccgatga cggttgtttc cggtcgattc tcaacggcgt tgctccctac ttgcttttcc	60
ttgtcgcggt tgcattccgt caagtacgcc gctcaaagac gggttgtttt cgtttccaga	120
tcagctcacg cctcttcagc ctccgtctcc gttgagacaa attcgaattc gaatgtggat	180
tttgttatcg agaagaagga taagaacaga ggagagaaga agattctagc ttgtcccatc	240
tgttataact ccttagcatg gattagtcaa cctaattggat taatagaatc tgctgcctct	300
ggatttcaag tacaatgcaa tacatgtaaa aggagttact cgggtaatga gacgcattct	360
gatttggtcg ttgctagtgg aagcaagaga tacagtgaac cgatgcctct ttccactgag	420
ttatttagga ctccactggg ctcgtttctc tatgagaggg gttggcgta gaatttcata	480
tggggagggt ttccaggacc agagaaagag tttgaaatgg ctaaggccta tctgaagcct	540
gttttgggag gcaatatcat tgatgctagt tgtggaagtg ggatgttctc gaggttatcc	600
actagaagtg atctattttc tctggttatt gctctagatt actcagagaa tatgctgcga	660
caatgctatg aactcttaaa taaagaagaa aactttccca acaaagagaa acttgttcta	720
gtccgagctg acattgctag actccctttc ctttcggggt cagttgacgc tgtccatgct	780
gggtgctgctc tgcattgctg gccttcacca tcctcagccg ttgctgagat aagccgtggt	840
cttagacctg gaggagtatt tgtggccacc acatttatct atgacggtcc attcagtttt	900

atcccccttct tgaagaatct tcgtcaggaa ataatgagat attcaggttc tcacattttc 960  
 ctaaataaac gtgagcttga agatatctgc aaagcctgtg gtctcgtaa cttcactcgt 1020  
 gttagaaacg ggccatttat aatgctatct gcaacaaaac ccagctaa 1068

<210> 1438

<211> 355

<212> PRT

<213> Arabidopsis thaliana

<400> 1438

Met Pro Met Thr Val Val Ser Gly Arg Phe Ser Thr Ala Leu Leu Pro  
 1 5 10 15  
 Thr Cys Phe Ser Leu Ser Arg Leu His Ser Val Lys Tyr Ala Ala Gln  
 20 25 30  
 Arg Arg Val Val Phe Val Ser Arg Ser Ala His Ala Ser Ser Ala Ser  
 35 40 45  
 Val Ser Val Glu Thr Asn Ser Asn Ser Asn Val Asp Phe Val Ile Glu  
 50 55 60  
 Lys Lys Asp Lys Asn Arg Gly Glu Lys Lys Ile Leu Ala Cys Pro Ile  
 65 70 75 80  
 Cys Tyr Asn Ser Leu Ala Trp Ile Ser Gln Pro Asn Gly Leu Ile Glu  
 85 90 95  
 Ser Ala Ala Ser Gly Ile Gln Val Gln Cys Asn Thr Cys Lys Arg Ser  
 100 105 110  
 Tyr Ser Gly Asn Glu Thr His Leu Asp Leu Ala Val Ala Ser Gly Ser  
 115 120 125  
 Lys Arg Tyr Ser Glu Pro Met Pro Leu Ser Thr Glu Leu Phe Arg Thr  
 130 135 140  
 Pro Leu Val Ser Phe Leu Tyr Glu Arg Gly Trp Arg Gln Asn Phe Ile  
 145 150 155 160  
 Trp Gly Gly Phe Pro Gly Pro Glu Lys Glu Phe Glu Met Ala Lys Ala  
 165 170 175

Tyr Leu Lys Pro Val Leu Gly Gly Asn Ile Ile Asp Ala Ser Cys Gly  
180 185 190

Ser Gly Met Phe Ser Arg Leu Phe Thr Arg Ser Asp Leu Phe Ser Leu  
195 200 205

Val Ile Ala Leu Asp Tyr Ser Glu Asn Met Leu Arg Gln Cys Tyr Glu  
210 215 220

Leu Leu Asn Lys Glu Glu Asn Phe Pro Asn Lys Glu Lys Leu Val Leu  
225 230 235 240

Val Arg Ala Asp Ile Ala Arg Leu Pro Phe Leu Ser Gly Ser Val Asp  
245 250 255

Ala Val His Ala Gly Ala Ala Leu His Cys Trp Pro Ser Pro Ser Ser  
260 265 270

Ala Val Ala Glu Ile Ser Arg Val Leu Arg Pro Gly Gly Val Phe Val  
275 280 285

Ala Thr Thr Phe Ile Tyr Asp Gly Pro Phe Ser Phe Ile Pro Phe Leu  
290 295 300

Lys Asn Leu Arg Gln Glu Ile Met Arg Tyr Ser Gly Ser His Ile Phe  
305 310 315 320

Leu Asn Glu Arg Glu Leu Glu Asp Ile Cys Lys Ala Cys Gly Leu Val  
325 330 335

Asn Phe Thr Arg Val Arg Asn Gly Pro Phe Ile Met Leu Ser Ala Thr  
340 345 350

Lys Pro Ser  
355

<210> 1439

<211> 963

<212> DNA

<213> Arabidopsis thaliana

<400> 1439

atggaggtag agattgtgtg gttgggttaa gccgcttgga tcaccgtttg gatcgtctct 60

atacttcctt tgggtgattgc ttcaatacct agttcaaagc ttaactcttt tcgtgaactc 120

047-E2F-PCT.ST25.txt

gttttgagtt tcgctggttag aggcaagatt cttcacccat cctctcagaa gtttacagtt 180  
cctcagaagt tctttggtca cttctatggt gtcggagtggt tgtggacaac tctcctgctt 240  
gctgcaactt ggatgtatgc ttgcaaaatg gccggagggtt cccacgtttt ctctttccat 300  
atgactcatg ttgagcatcg gtttaaagtg gggcgagcgg tgtttctact tcttctgatg 360  
gagatccatg tcttgagacg tgttatagag tcattctatg tattcaaata tagcacttcc 420  
gctcggatgc acattctcgc ttatgttggc gcattgtttt actatgtagc agcgcctttg 480  
tcactctgct ccaatattgc tccagaggta gcaagattcg taggaagtca agtggctgag 540  
ttcattgcta gtgggaaaag ccatagtcatt gattttaatt tgttattatc tataagtcct 600  
ttgatgaagc ttggatcact ccagtggatt ggtggagcca tttttctttg gggatggata 660  
catcaacgtc gctgtcacgc cattcttggg tcactccggg aatatcctag tcaagcaaaa 720  
gagtacataa ttccatatgg agattgggtt gagatggtct catgtccgca tttcctagca 780  
gaaatcgttt tatacttagg tttacttata tcgagtggag gaacagatat aagcatctgg 840  
ttactctttg gtttcgtggc tgctaactctg acatacgag ctggagaaac gcaccgttgg 900  
tatctccaaa agtttgagaa ttatccggct agtcggcatg ctattttccc tcatgtctac 960  
taa 963

<210> 1440

<211> 320

<212> PRT

<213> Arabidopsis thaliana

<400> 1440

Met Glu Val Glu Ile Val Trp Leu Val Lys Ala Ala Trp Ile Thr Val  
1 5 10 15  
Trp Ile Val Ser Ile Leu Pro Leu Val Ile Ala Ser Ile Pro Ser Ser  
20 25 30  
Lys Leu Asn Ser Phe Arg Glu Leu Val Leu Ser Phe Ala Gly Arg Gly  
35 40 45  
Lys Ile Leu His Pro Ser Ser Gln Lys Phe Thr Val Pro Gln Lys Phe  
50 55 60  
Phe Gly His Phe Tyr Val Val Gly Val Val Trp Thr Thr Leu Leu Leu  
65 70 75 80



Ala Ala Thr Trp Met Tyr Ala Cys Lys Met Ala Gly Gly Ser His Val  
85 90 95

Phe Ser Phe His Met Thr His Val Glu His Arg Phe Lys Val Gly Arg  
100 105 110

Ala Val Phe Leu Leu Leu Leu Met Glu Ile His Val Leu Arg Arg Val  
115 120 125

Ile Glu Ser Phe Tyr Val Phe Lys Tyr Ser Thr Ser Ala Arg Met His  
130 135 140

Ile Leu Ala Tyr Val Gly Ala Leu Phe Tyr Tyr Val Ala Ala Pro Leu  
145 150 155 160

Ser Leu Cys Ser Asn Ile Ala Pro Glu Val Ala Arg Phe Val Gly Ser  
165 170 175

Gln Val Ala Glu Phe Ile Ala Ser Gly Lys Ser His Ser His Asp Phe  
180 185 190

Asn Leu Leu Leu Ser Ile Ser Pro Leu Met Lys Leu Gly Ser Leu Gln  
195 200 205

Trp Ile Gly Gly Ala Ile Phe Leu Trp Gly Trp Ile His Gln Arg Arg  
210 215 220

Cys His Ala Ile Leu Gly Ser Leu Arg Glu Tyr Pro Ser Gln Ala Lys  
225 230 235 240

Glu Tyr Ile Ile Pro Tyr Gly Asp Trp Phe Glu Met Val Ser Cys Pro  
245 250 255

His Phe Leu Ala Glu Ile Val Leu Tyr Leu Gly Leu Leu Ile Ser Ser  
260 265 270

Gly Gly Thr Asp Ile Ser Ile Trp Leu Leu Phe Gly Phe Val Ala Ala  
275 280 285

Asn Leu Thr Tyr Ala Ala Gly Glu Thr His Arg Trp Tyr Leu Gln Lys  
290 295 300

Phe Glu Asn Tyr Pro Ala Ser Arg His Ala Ile Phe Pro His Val Tyr  
305 310 315 320

<210> 1441

<211> 1608

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1441

atggagtcga taacgttaga tatagagctg ttgcagttac cagagacatc gccaatgtcg	60
atgaaatcta atcaagattt tgtaagaag ctctttgatc aatggcttgc tcttcctgaa	120
accaatcggt tggttacatc tttggtaaat gatgcaaagg caggagtggc tttgaatggt	180
atgtgtggag gaggtctctt tggcacgaat tcagggtcga atagtccatt agcttcaatg	240
tttccggcac gcaatgggcc tcctctttct ccaaggaatt caactggttc tcctcggatc	300
gccagacaaa gaactggact atcaaactct agttctcttc tcaaagtagt ttctgatcat	360
gttaaagaac tcattcctca gttttacttt gaagatggtc ggccaccacc aaatgatcta	420
aaagagcagt gcatagctaa gatcaatagt cttttctatg gccacgagga tggtttgcaa	480
ctccaagaat ttaaattagt cactactgaa atatgcaaag ttccatcatt tttttccacc	540
tccattttca agaaagttga taccaataac actggttttg tgaaaagaga agacttcatt	600
gattattggg ttaagggaaa tatgttaaca aaggagataa caagtcaagt atttacaata	660
ttgaagcagc cagatcacia ctaccttgtc caggatgatt tcaagccagt gcttcaagaa	720
ttattggcaa cacaccctgg tcttgaattc ttgcaaggca caccggaatt tcaggataga	780
tatgctgaaa ctgtaataata cagaatatat tactacataa ataggagtgg aaatgggcat	840
cttaccttga gagagcttaa gcgaggaaat ttagttgacg caatgcagca tgccgatgaa	900
gaagaggaca tcaataaggt gttgaggtac ttctcgtatg aacatttcta tgtcatatac	960
tgcaagttct gggagttgga tacagatcat gatttcttaa tcgacaaaga gaatctcatc	1020
cgatatagta accatgcgct cacctatagg attgtcgatc gaatcttttc acagggtaccg	1080
aggaagttta ctagtaaaac cgaaggaaag atgggttatg aggattttgt ttacttcata	1140
ttggctgaag aagacaagtc atcagaacct agtcttgagt attggttcaa gtgcattgat	1200
ttggatgcaa atggagtttt gacgcggaac gagctgcaat tcttttacga ggagcagcta	1260
catagaatgg aatgcatggc gcaagaggcg gtgttgtttg aggatatttt gtgccaatta	1320
ttcgacatgg tcaaaccaga ggacgaaggg ttcatattgt taaatgattt gaagggttct	1380
aaactttctg gaaatgtctt caacatactt tttaacctca acaagtttat ggcgtttgaa	1440
acgcgtgatc ccttcctcat ccgccaggag cgcgcaaadc cgacatggac agagtgggat	1500
cgttttgctc atagagaata tattaggcta tcaatggaag aagatgtcga agatgcttct	1560
aatggaagtg ctgaagcatg ggacgactca cttgaggtcc ctttttga	1608

&lt;210&gt; 1442

&lt;211&gt; 535

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1442

Met Glu Ser Ile Thr Leu Asp Ile Glu Leu Leu Gln Leu Pro Glu Thr  
 1 5 10 15

Ser Pro Met Ser Met Lys Ser Asn Gln Asp Phe Val Lys Lys Leu Phe  
 20 25 30

Asp Gln Trp Leu Ala Leu Pro Glu Thr Asn Arg Leu Val Thr Ser Leu  
 35 40 45

Val Asn Asp Ala Lys Ala Gly Val Ala Leu Asn Val Met Cys Gly Gly  
 50 55 60

Gly Ser Ser Gly Thr Asn Ser Gly Ser Asn Ser Pro Leu Ala Ser Met  
 65 70 75 80

Phe Pro Ala Arg Asn Gly Pro Pro Leu Ser Pro Arg Asn Ser Thr Gly  
 85 90 95

Ser Pro Arg Ile Ala Arg Gln Arg Thr Gly Leu Ser Asn Leu Ser Ser  
 100 105 110

Pro Leu Lys Val Val Ser Asp His Val Lys Glu Leu Ile Pro Gln Phe  
 115 120 125

Tyr Phe Glu Asp Gly Arg Pro Pro Pro Asn Asp Leu Lys Glu Gln Cys  
 130 135 140

Ile Ala Lys Ile Asn Ser Leu Phe Tyr Gly His Glu Asp Gly Leu Gln  
 145 150 155 160

Leu Gln Glu Phe Lys Leu Val Thr Thr Glu Ile Cys Lys Val Pro Ser  
 165 170 175

Phe Phe Ser Thr Ser Ile Phe Lys Lys Val Asp Thr Asn Asn Thr Gly  
 180 185 190

Phe Val Lys Arg Glu Asp Phe Ile Asp Tyr Trp Val Lys Gly Asn Met  
 195 200 205

047-E2F-PCT.ST25.txt

Leu Thr Lys Glu Ile Thr Ser Gln Val Phe Thr Ile Leu Lys Gln Pro  
 210 215 220  
 Asp His Asn Tyr Leu Val Gln Asp Asp Phe Lys Pro Val Leu Gln Glu  
 225 230 235 240  
 Leu Leu Ala Thr His Pro Gly Leu Glu Phe Leu Gln Gly Thr Pro Glu  
 245 250 255  
 Phe Gln Asp Arg Tyr Ala Glu Thr Val Ile Tyr Arg Ile Tyr Tyr Tyr  
 260 265 270  
 Ile Asn Arg Ser Gly Asn Gly His Leu Thr Leu Arg Glu Leu Lys Arg  
 275 280 285  
 Gly Asn Leu Val Asp Ala Met Gln His Ala Asp Glu Glu Glu Asp Ile  
 290 295 300  
 Asn Lys Val Leu Arg Tyr Phe Ser Tyr Glu His Phe Tyr Val Ile Tyr  
 305 310 315 320  
 Cys Lys Phe Trp Glu Leu Asp Thr Asp His Asp Phe Leu Ile Asp Lys  
 325 330 335  
 Glu Asn Leu Ile Arg Tyr Ser Asn His Ala Leu Thr Tyr Arg Ile Val  
 340 345 350  
 Asp Arg Ile Phe Ser Gln Val Pro Arg Lys Phe Thr Ser Lys Thr Glu  
 355 360 365  
 Gly Lys Met Gly Tyr Glu Asp Phe Val Tyr Phe Ile Leu Ala Glu Glu  
 370 375 380  
 Asp Lys Ser Ser Glu Pro Ser Leu Glu Tyr Trp Phe Lys Cys Ile Asp  
 385 390 395 400  
 Leu Asp Ala Asn Gly Val Leu Thr Arg Asn Glu Leu Gln Phe Phe Tyr  
 405 410 415  
 Glu Glu Gln Leu His Arg Met Glu Cys Met Ala Gln Glu Ala Val Leu  
 420 425 430  
 Phe Glu Asp Ile Leu Cys Gln Leu Phe Asp Met Val Lys Pro Glu Asp  
 435 440 445  
 Glu Gly Phe Ile Cys Leu Asn Asp Leu Lys Gly Ser Lys Leu Ser Gly  
 450 455 460

047-E2F-PCT.ST25.txt

Asn Val Phe Asn Ile Leu Phe Asn Leu Asn Lys Phe Met Ala Phe Glu  
465 470 475 480

Thr Arg Asp Pro Phe Leu Ile Arg Gln Glu Arg Ala Asn Pro Thr Trp  
485 490 495

Thr Glu Trp Asp Arg Phe Ala His Arg Glu Tyr Ile Arg Leu Ser Met  
500 505 510

Glu Glu Asp Val Glu Asp Ala Ser Asn Gly Ser Ala Glu Ala Trp Asp  
515 520 525

Asp Ser Leu Glu Val Pro Phe  
530 535

<210> 1443

<211> 2265

<212> DNA

<213> Arabidopsis thaliana

<400> 1443

atggcggagg atttcgctag agcggtagac gatgggctta aactcgcgaa acggatttat	60
ttcggcaaag accgagccgt tgcggcgccg agaccacctg ctccgatgga cagatcttcc	120
actacgcagc cttaccttcc tacagcacct atggtttacg ccgttatacc cgacccggga	180
attgtggata acccggattt gcctagctat cagcctcacg tgcacggcag gtgcgacca	240
ccggctttga ttcctctgca gatgaattcg attgagctgg atgttgattg ttatctcgac	300
acggctcttg ttactgtcac cggatcgtgg cgggttcatt gtgttatggg aagcaagaga	360
tgtgattgcc gaattgctat tcccatggga gaacagggat caatactagg tgttgagggt	420
gagattccta gaaaatcgta cacaacgcag ttgatcacag cagaagatgg aaacgaattt	480
gagaaaacgg cactacctga aactggtggc tttttgaaac ctaacatttt cactcttact	540
ataccacagg ttgatggagg taccaatctc tctatcaaga tgacttggtc tcagaagttg	600
acgtataacc aagggcagtt ttttcttgat attcctttca actttcctga gtatgtgact	660
cctgcggtaa agaaaatctc aaaaagagaa aagatttact tgagtgttaa tgctggtact	720
ggaacagaag ttctctgcaa aggatgcagt catcaactaa aggagaaatt gcggagtgc	780
gggaagttga ggtttgcata tgaagcagat gttttgaagt ggtcgaacac tgactttagc	840
ttttcttata cggcctcctc aagtaatata gttggtggac ttttccttca atctgcgct	900

047-E2F-PCT.ST25.txt

gttcacgatg ttgatcagag ggacatattt tctttctatc tttttccagg aaagcagcaa 960  
aaaactaagg cattcaagcg ggaggtagta tttgttggtg acataagtaa aagtatgact 1020  
ggaaaacctc tcgaggatgt aaaaaatgcg atatctacag ctctatctaa gcttgatcct 1080  
ggagattcctt tcaatattat cactttcagc aatgatactg ctctatcttc gacatcaatg 1140  
gagtcagtca cttctgatgc tgttgaaaga ggcattgagt ggatgaacaa gaactttgtc 1200  
gtcgcagatg gtacaaacat gctccctccc ctagagaagg ctgtggaaat gctttcaaat 1260  
actcgtggct ctattcctat gatcttcttc gtaacagatg ggtctgttga agatgagaga 1320  
cacatttggtg atgtaatgaa gaaacatcta gctagtgtcg gatcagtggt tcctcggata 1380  
cacacttttg ggtaggtgt attctgtaat cactacttcc tgcaaagtgt tgcaaata 1440  
tcctgtggcc agcacgaatc agtttataat acagatcaca ttgaggaaag aatggacaaa 1500  
ctgtttacaa aggctttatc caccattctt gttaatatag caattgagcc ccttcagagt 1560  
ctagatgaag ttgaggtata cccttcaaatt attccggatc tgacgtctgc aagtccattg 1620  
atgatatatg gaagataccg aggaaagttc cccgagaatg tgatagccaa aggtctgcta 1680  
ggagatttga gcagcttttc gacagacttg actgtacaga gtgcaaaaga catgcctctt 1740  
gataaagtat ttgcaaagaa tgttattgac ttgcttactg ctgaggcatg gttttctgaa 1800  
gataaacagc taaaagagaa gattgctaaa ctaagcatcc aaaccggcgt actatccgag 1860  
tataactcgaa tgatccaatt agagaacaca gaagaattga aaccagcga aactggcgga 1920  
aagaaaaaga caacaagcaa cggcgagaaa cagaagatga tatcaagaac gatcccgcta 1980  
caaagccttg ggataggatt tggggataaa acagccacca gagagaatgt tccgccagga 2040  
tttggcgagc agaaagctcc tgatgctgct gagaagttcg tcaaggctgc ttcgagctgt 2100  
tgtgtctcct tgtgcaacaa atgttgctgc atgtgttggt tccaatgctg ctctaagctc 2160  
aatgatcaat gtgtccttgt cttcacacag ctcttcacag cgattgcttg catcgctgc 2220  
tttgaatggt gctcaactgt ttgctgttct ggagacgatg ggtag 2265

<210> 1444

<211> 754

<212> PRT

<213> Arabidopsis thaliana

<400> 1444

Met Ala Glu Asp Phe Ala Arg Ala Val Asp Asp Gly Leu Lys Leu Ala  
1 5 10 15

Lys Arg Ile Tyr Phe Gly Lys Asp Arg Ala Val Ala Ala Pro Arg Pro  
 20 25 30  
 Pro Ala Pro Met Asp Arg Ser Ser Thr Thr Gln Pro Tyr Leu Pro Thr  
 35 40 45  
 Ala Pro Met Val Tyr Ala Val Ile Pro Asp Pro Gly Ile Val Asp Asn  
 50 55 60  
 Pro Asp Leu Pro Ser Tyr Gln Pro His Val His Gly Arg Cys Asp Pro  
 65 70 75 80  
 Pro Ala Leu Ile Pro Leu Gln Met Asn Ser Ile Glu Leu Asp Val Asp  
 85 90 95  
 Cys Tyr Leu Asp Thr Ala Leu Val Thr Val Thr Gly Ser Trp Arg Val  
 100 105 110  
 His Cys Val Met Gly Ser Lys Arg Cys Asp Cys Arg Ile Ala Ile Pro  
 115 120 125  
 Met Gly Glu Gln Gly Ser Ile Leu Gly Val Glu Val Glu Ile Pro Arg  
 130 135 140  
 Lys Ser Tyr Thr Thr Gln Leu Ile Thr Ala Glu Asp Gly Asn Glu Phe  
 145 150 155 160  
 Glu Lys Thr Ala Leu Pro Glu Thr Gly Gly Phe Leu Lys Pro Asn Ile  
 165 170 175  
 Phe Thr Leu Thr Ile Pro Gln Val Asp Gly Gly Thr Asn Leu Ser Ile  
 180 185 190  
 Lys Met Thr Trp Ser Gln Lys Leu Thr Tyr Asn Gln Gly Gln Phe Phe  
 195 200 205  
 Leu Asp Ile Pro Phe Asn Phe Pro Glu Tyr Val Thr Pro Ala Val Lys  
 210 215 220  
 Lys Ile Ser Lys Arg Glu Lys Ile Tyr Leu Ser Val Asn Ala Gly Thr  
 225 230 235 240  
 Gly Thr Glu Val Leu Cys Lys Gly Cys Ser His Gln Leu Lys Glu Lys  
 245 250 255  
 Leu Arg Ser Ala Gly Lys Leu Arg Phe Ala Tyr Glu Ala Asp Val Leu  
 260 265 270

## 047-E2F-PCT.ST25.txt

Lys Trp Ser Asn Thr Asp Phe Ser Phe Ser Tyr Thr Ala Ser Ser Ser  
 275 280 285  
 Asn Ile Val Gly Gly Leu Phe Leu Gln Ser Ala Pro Val His Asp Val  
 290 295 300  
 Asp Gln Arg Asp Ile Phe Ser Phe Tyr Leu Phe Pro Gly Lys Gln Gln  
 305 310 315 320  
 Lys Thr Lys Ala Phe Lys Arg Glu Val Val Phe Val Val Asp Ile Ser  
 325 330 335  
 Lys Ser Met Thr Gly Lys Pro Leu Glu Asp Val Lys Asn Ala Ile Ser  
 340 345 350  
 Thr Ala Leu Ser Lys Leu Asp Pro Gly Asp Ser Phe Asn Ile Ile Thr  
 355 360 365  
 Phe Ser Asn Asp Thr Ala Leu Phe Ser Thr Ser Met Glu Ser Val Thr  
 370 375 380  
 Ser Asp Ala Val Glu Arg Gly Ile Glu Trp Met Asn Lys Asn Phe Val  
 385 390 395 400  
 Val Ala Asp Gly Thr Asn Met Leu Pro Pro Leu Glu Lys Ala Val Glu  
 405 410 415  
 Met Leu Ser Asn Thr Arg Gly Ser Ile Pro Met Ile Phe Phe Val Thr  
 420 425 430  
 Asp Gly Ser Val Glu Asp Glu Arg His Ile Cys Asp Val Met Lys Lys  
 435 440 445  
 His Leu Ala Ser Ala Gly Ser Val Phe Pro Arg Ile His Thr Phe Gly  
 450 455 460  
 Leu Gly Val Phe Cys Asn His Tyr Phe Leu Gln Met Leu Ala Asn Ile  
 465 470 475 480  
 Ser Cys Gly Gln His Glu Ser Val Tyr Asn Thr Asp His Ile Glu Glu  
 485 490 495  
 Arg Met Asp Lys Leu Phe Thr Lys Ala Leu Ser Thr Ile Leu Val Asn  
 500 505 510  
 Ile Ala Ile Glu Pro Leu Gln Ser Leu Asp Glu Val Glu Val Tyr Pro  
 515 520 525



047-E2F-PCT.ST25.txt

Ser Asn Ile Pro Asp Leu Thr Ser Ala Ser Pro Leu Met Ile Tyr Gly  
530 535 540

Arg Tyr Arg Gly Lys Phe Pro Glu Asn Val Ile Ala Lys Gly Leu Leu  
545 550 555 560

Gly Asp Leu Ser Ser Phe Ser Thr Asp Leu Thr Val Gln Ser Ala Lys  
565 570 575

Asp Met Pro Leu Asp Lys Val Phe Ala Lys Asn Val Ile Asp Leu Leu  
580 585 590

Thr Ala Glu Ala Trp Phe Ser Glu Asp Lys Gln Leu Lys Glu Lys Ile  
595 600 605

Ala Lys Leu Ser Ile Gln Thr Gly Val Leu Ser Glu Tyr Thr Arg Met  
610 615 620

Ile Gln Leu Glu Asn Thr Glu Glu Leu Lys Pro Ser Glu Thr Gly Gly  
625 630 635 640

Lys Lys Lys Thr Thr Ser Asn Gly Glu Lys Gln Lys Met Ile Ser Arg  
645 650 655

Thr Ile Pro Leu Gln Ser Leu Gly Ile Gly Phe Gly Asp Lys Thr Ala  
660 665 670

Thr Arg Glu Asn Val Pro Pro Gly Phe Gly Glu Gln Lys Ala Pro Asp  
675 680 685

Ala Ala Glu Lys Phe Val Lys Ala Ala Ser Ser Cys Cys Val Ser Leu  
690 695 700

Cys Asn Lys Cys Cys Cys Met Cys Cys Val Gln Cys Cys Ser Lys Leu  
705 710 715 720

Asn Asp Gln Cys Val Leu Val Phe Thr Gln Leu Phe Thr Ala Ile Ala  
725 730 735

Cys Ile Ala Cys Phe Glu Cys Cys Ser Thr Val Cys Cys Ser Gly Asp  
740 745 750

Asp Gly

<210> 1445

&lt;211&gt; 1578

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1445

```

atggaggaga aatccaagtc aagaggttgg tgcggttggg tcatcgccat tattgtgcta      60
gcttctgtta tcctcgccgt cgtttacact gttaaattga gaacgaagaa atccggtgac      120
gatgacggtg gcggtcccgt tcctggacct cccggcgcca ttgataagaa atacgccgac      180
gctcttaagc tcgctttgca gttcttcgat atccagaaat ctggtaaatt ggagaacaat      240
aagatacctt ggagaggaga ttcaggtcct aaagatggaa gtgaagataa tctggatcct      300
tccaaaggct tatatgatgc tggagatcat ataaagtttg gttttccaat ggctttcact      360
gctacagttt tgtcatggtc gattcttgag tatggtgatc aaatgaatgc agtgaaccaa      420
ttggatcctg ctaaagactc tctccggtgg atcactgact atcttatcaa agctcatcct      480
tctgacaatg tcctctatat ccaggtggga gatccaaaag tagatcatcc atgctgggag      540
agaccagagg atatgaaaga gaagagacca cttactaaaa ttgatgtaga tactccaggg      600
acagaggttg ctgctgaaac tgctgcagct atggcttcag cgtctttggg gtttaaggat      660
agtgatccta catattcagc aacgcttctg aaacatgcga agcagttggt taattttgca      720
gatacaaaga gaggtcttta cagtgttaac atacctgagg ttcagaagtt ttacaattcg      780
actggatatg gtgatgagct actatgggca gctagttggg tgtatcatgc aacagaggat      840
aaaacttacc ttgattatgt gtctaatacat ggaaaagaat ttgctagttt tggaaatcct      900
acttggttta gttgggacaa caagcttgca ggaacacagg tactattatc aagattactc      960
ttctttaaga aagatttatc aggaagcaag ggacttggaa attacaggaa cacagctaaa     1020
gctgtcatgt gtggacttct accaaagtct ccaacatcta cagctagtag aacaaacggt     1080
ggctcttatat gggttagtga atggaactcg atgcaacaat ccgtttcgtc agcgttttta     1140
gcctcgcttt tcagtgatta catgctcact tcccgtatcc ataaaatatc ttgcgacggg     1200
aaaatcttca aagcaacaga gcttagagat ttcgccaaat cgcaggctga ttacatgctg     1260
gggaagaatc cgttgggaac gagcttcgtg gtgggttatg gagacaaata cccacaattt     1320
gtgcatcata gaggagcttc gatcccgga gatgcaacaa cgggttgctt agatggattc     1380
aaatggttta actcgacgaa accaaaccca aacatagcat atggtgcact cgtaggtgga     1440
cctttcttca atgagacggt cactgactca cgagagaacc caatgcagaa cgagccaacc     1500
acttacaaca atgcactcct cgttggtctc ttgtctagtc ttgtcactac atcttctact     1560
ttacagtcgt tgaagtga                                     1578

```

&lt;210&gt; 1446

&lt;211&gt; 525

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1446

Met Glu Glu Lys Ser Lys Ser Arg Gly Trp Cys Gly Trp Phe Ile Ala  
 1 5 10 15

Ile Ile Val Leu Ala Ser Val Ile Leu Ala Val Val Tyr Thr Val Lys  
 20 25 30

Leu Arg Thr Lys Lys Ser Gly Asp Asp Asp Gly Gly Gly Pro Val Pro  
 35 40 45

Gly Pro Pro Gly Ala Ile Asp Lys Lys Tyr Ala Asp Ala Leu Lys Leu  
 50 55 60

Ala Leu Gln Phe Phe Asp Ile Gln Lys Ser Gly Lys Leu Glu Asn Asn  
 65 70 75 80

Lys Ile Pro Trp Arg Gly Asp Ser Gly Leu Lys Asp Gly Ser Glu Asp  
 85 90 95

Asn Leu Asp Leu Ser Lys Gly Leu Tyr Asp Ala Gly Asp His Ile Lys  
 100 105 110

Phe Gly Phe Pro Met Ala Phe Thr Ala Thr Val Leu Ser Trp Ser Ile  
 115 120 125

Leu Glu Tyr Gly Asp Gln Met Asn Ala Val Asn Gln Leu Asp Pro Ala  
 130 135 140

Lys Asp Ser Leu Arg Trp Ile Thr Asp Tyr Leu Ile Lys Ala His Pro  
 145 150 155 160

Ser Asp Asn Val Leu Tyr Ile Gln Val Gly Asp Pro Lys Val Asp His  
 165 170 175

Pro Cys Trp Glu Arg Pro Glu Asp Met Lys Glu Lys Arg Pro Leu Thr  
 180 185 190

Lys Ile Asp Val Asp Thr Pro Gly Thr Glu Val Ala Ala Glu Thr Ala  
 Page 2245

195

200

205

Ala Ala Met Ala Ser Ala Ser Leu Val Phe Lys Asp Ser Asp Pro Thr  
 210 215 220  
 Tyr Ser Ala Thr Leu Leu Lys His Ala Lys Gln Leu Phe Asn Phe Ala  
 225 230 235 240  
 Asp Thr Lys Arg Gly Ser Tyr Ser Val Asn Ile Pro Glu Val Gln Lys  
 245 250 255  
 Phe Tyr Asn Ser Thr Gly Tyr Gly Asp Glu Leu Leu Trp Ala Ala Ser  
 260 265 270  
 Trp Leu Tyr His Ala Thr Glu Asp Lys Thr Tyr Leu Asp Tyr Val Ser  
 275 280 285  
 Asn His Gly Lys Glu Phe Ala Ser Phe Gly Asn Pro Thr Trp Phe Ser  
 290 295 300  
 Trp Asp Asn Lys Leu Ala Gly Thr Gln Val Leu Leu Ser Arg Leu Leu  
 305 310 315 320  
 Phe Phe Lys Lys Asp Leu Ser Gly Ser Lys Gly Leu Gly Asn Tyr Arg  
 325 330 335  
 Asn Thr Ala Lys Ala Val Met Cys Gly Leu Leu Pro Lys Ser Pro Thr  
 340 345 350  
 Ser Thr Ala Ser Arg Thr Asn Gly Gly Leu Ile Trp Val Ser Glu Trp  
 355 360 365  
 Asn Ser Met Gln Gln Ser Val Ser Ser Ala Phe Leu Ala Ser Leu Phe  
 370 375 380  
 Ser Asp Tyr Met Leu Thr Ser Arg Ile His Lys Ile Ser Cys Asp Gly  
 385 390 395 400  
 Lys Ile Phe Lys Ala Thr Glu Leu Arg Asp Phe Ala Lys Ser Gln Ala  
 405 410 415  
 Asp Tyr Met Leu Gly Lys Asn Pro Leu Gly Thr Ser Phe Val Val Gly  
 420 425 430  
 Tyr Gly Asp Lys Tyr Pro Gln Phe Val His His Arg Gly Ala Ser Ile  
 435 440 445

Pro Ala Asp Ala Thr Thr Gly Cys Leu Asp Gly Phe Lys Trp Phe Asn  
 450 455 460

Ser Thr Lys Pro Asn Pro Asn Ile Ala Tyr Gly Ala Leu Val Gly Gly  
 465 470 475 480

Pro Phe Phe Asn Glu Thr Phe Thr Asp Ser Arg Glu Asn Pro Met Gln  
 485 490 495

Asn Glu Pro Thr Thr Tyr Asn Asn Ala Leu Leu Val Gly Leu Leu Ser  
 500 505 510

Ser Leu Val Thr Thr Ser Ser Thr Leu Gln Ser Leu Lys  
 515 520 525

<210> 1447

<211> 2100

<212> DNA

<213> Arabidopsis thaliana

<400> 1447

atggtggcctt ttgggaaata cttgcagcgg aaacaaatcg aagaatggag tggctattat	60
atcaattaca aattgatgaa gaagaaagtg aagcaatatg ctgaacaaat ccaaggcgga	120
tctcaacatc ctcgccatgt tctcaaagat ttctcgagga tgctcgatac tcagattgag	180
acaactgtcc ttttcatgtt ggaacaacaa gggttgcttt cagggcgatt agccaaattg	240
agggaatctc atgatgctat acttgagcag cctgacatat caagaatttt cgagctacgt	300
gaagcataca gagatgttgg acgagacctt cttcagctcc tgaaattcgt tgagttgaac	360
gccattgggtc tgcgcaagat acttaagaaa ttcgacaaaa ggtttgata tagattcgct	420
gattattacg tgaagaccgc cgctaatac ccttactctc agcttcaaca agtttttaag	480
catgtgggtg ttggagctgt tgttggagca atttcccgca atcttcatga gcttcaagaa	540
aatgaaggaa gcttttattc aatttatgac caaccggtt ttccggctca ggatccagt	600
gttgaggcaa taaataacgc ggtggacaag ttaaccttct cgacgaattt cctcaacttc	660
ttggcacaac atgctcttat catgcaagat gatttggtga ctcttcaga ggatacaatc	720
gatgagcggc cttaccattt taattcgtaa ctctgaatc taggaaacac atttttgtac	780
atggtcaaca cttatatcat cgtccctaca gcggatgact attcgatgag ccttggagct	840
gcagcaacgg tttgtggtgt tgtcatcgga tctatggctg tggctcaagt attttcatcg	900
gtttatttca gcgcatggtc caacaaatct tacttcaaac ctcttggtgt tagcagcatc	960

gcactcttta tcggaaatth gatgtatgag ttggcatatg atgccaattc catagcgctt 1020  
cttttactcg gccgtgtctg ttgtgggttg ggatcagcaa gagctgttaa ccggagatat 1080  
atcagcgatt gtgtgccttt gagaatccga atgcaggcat cggcgggttt tgtgagtga 1140  
agtgtctttg gaatggcttg tggccctgag cttgccggtt tactccaaat caaattcaag 1200  
ttttacaagt ttacatttaa ccaatctact ttgccgggat gggttatggc tgtggcttgg 1260  
ctgttctatt tggatatggc atgcatttca ttcagagagc cgttgctga cacagaggat 1320  
ggagaaaaaa acaatcgaat tgaacaaca tcagcgacag atagagtaga aagtagcaga 1380  
gtcagaggaag gtcttcgatt gccgttgctg atcacttcag gaatcaagcc agaagatgaa 1440  
gaggaatgag atgaaagtga agaatccca gaagattctc acaaacctgc aaattctttc 1500  
atagaagcat accgactcct tactccatct gttaagggtt aactgttgat ctacttcatg 1560  
ctcaaataat cgatggaaat attactgtca gaatcaagtgc tcattacttc atactacttt 1620  
agttggacaa caagctctgt tgccatcttc ctggcctgag ttggcctcac ggtgctacca 1680  
atcaacatth tggctggaag ttacatcagt aatatgtttg aagacaggca aatccttcta 1740  
acatctgaga tcatcgtctt ccttgggatt ctcttcagtt tcaatttggt tgttccatac 1800  
actgtacctc aatacgtaat ctctgggtctc ataattgttg ttgctgctga agtactcgaa 1860  
ggtgtgaatc tatcgttggt atcgcgggta atgtcatcaa ggctatcgaa aggaacgtac 1920  
aacggaggat tgctctcaac agaagctgga acgttggtc gtgttggtgc agatgcaacc 1980  
ataacattgg gaggatattt gggaagaggc catctcctga atgccactct tctaccatca 2040  
cttgtcatct gcattggctc catcgttgct acttggttga cttataactc actctattga 2100

<210> 1448

<211> 699

<212> PRT

<213> *Arabidopsis thaliana*

<400> 1448

Met Val Ala Phe Gly Lys Tyr Leu Gln Arg Lys Gln Ile Glu Glu Trp  
1 5 10 15

Ser Gly Tyr Tyr Ile Asn Tyr Lys Leu Met Lys Lys Lys Val Lys Gln  
20 25 30

Tyr Ala Glu Gln Ile Gln Gly Gly Ser Gln His Pro Arg His Val Leu  
35 40 45

Lys Asp Phe Ser Arg Met Leu Asp Thr Gln Ile Glu Thr Thr Val Leu  
 50 55 60  
 Phe Met Leu Glu Gln Gln Gly Leu Leu Ser Gly Arg Leu Ala Lys Leu  
 65 70 75 80  
 Arg Glu Ser His Asp Ala Ile Leu Glu Gln Pro Asp Ile Ser Arg Ile  
 85 90 95  
 Phe Glu Leu Arg Glu Ala Tyr Arg Asp Val Gly Arg Asp Leu Leu Gln  
 100 105 110  
 Leu Leu Lys Phe Val Glu Leu Asn Ala Ile Gly Leu Arg Lys Ile Leu  
 115 120 125  
 Lys Lys Phe Asp Lys Arg Phe Gly Tyr Arg Phe Ala Asp Tyr Tyr Val  
 130 135 140  
 Lys Thr Arg Ala Asn His Pro Tyr Ser Gln Leu Gln Gln Val Phe Lys  
 145 150 155 160  
 His Val Gly Val Gly Ala Val Val Gly Ala Ile Ser Arg Asn Leu His  
 165 170 175  
 Glu Leu Gln Glu Asn Glu Gly Ser Phe Tyr Ser Ile Tyr Asp Gln Pro  
 180 185 190  
 Val Leu Pro Ala Gln Asp Pro Val Val Glu Ala Ile Asn Asn Ala Val  
 195 200 205  
 Asp Lys Leu Thr Phe Ser Thr Asn Phe Leu Asn Phe Leu Ala Gln His  
 210 215 220  
 Ala Leu Ile Met Gln Asp Asp Leu Val Thr Pro Ser Glu Asp Thr Ile  
 225 230 235 240  
 Asp Glu Arg Ser Tyr His Phe Asn Ser Leu Leu Leu Asn Leu Gly Asn  
 245 250 255  
 Thr Phe Leu Tyr Met Val Asn Thr Tyr Ile Ile Val Pro Thr Ala Asp  
 260 265 270  
 Asp Tyr Ser Met Ser Leu Gly Ala Ala Ala Thr Val Cys Gly Val Val  
 275 280 285  
 Ile Gly Ser Met Ala Val Ala Gln Val Phe Ser Ser Val Tyr Phe Ser  
 290 295 300

047-E2F-PCT.ST25.txt

Ala Trp Ser Asn Lys Ser Tyr Phe Lys Pro Leu Val Phe Ser Ser Ile  
305 310 315 320

Ala Leu Phe Ile Gly Asn Leu Met Tyr Ala Leu Ala Tyr Asp Ala Asn  
325 330 335

Ser Ile Ala Leu Leu Leu Leu Gly Arg Val Cys Cys Gly Leu Gly Ser  
340 345 350

Ala Arg Ala Val Asn Arg Arg Tyr Ile Ser Asp Cys Val Pro Leu Arg  
355 360 365

Ile Arg Met Gln Ala Ser Ala Gly Phe Val Ser Ala Ser Ala Leu Gly  
370 375 380

Met Ala Cys Gly Pro Ala Leu Ala Gly Leu Leu Gln Ile Lys Phe Lys  
385 390 395 400

Phe Tyr Lys Phe Thr Phe Asn Gln Ser Thr Leu Pro Gly Trp Val Met  
405 410 415

Ala Val Ala Trp Leu Phe Tyr Leu Val Trp Leu Cys Ile Ser Phe Arg  
420 425 430

Glu Pro Leu Arg Asp Thr Glu Asp Gly Glu Lys Asn Asn Arg Asn Glu  
435 440 445

Thr Thr Ser Ala Thr Asp Arg Val Glu Ser Ser Arg Val Glu Glu Gly  
450 455 460

Leu Arg Leu Pro Leu Leu Ile Thr Ser Gly Ile Lys Pro Glu Asp Glu  
465 470 475 480

Glu Glu Cys Asp Glu Ser Glu Glu Ser Pro Glu Asp Ser His Lys Pro  
485 490 495

Ala Asn Ser Phe Ile Glu Ala Tyr Arg Leu Leu Thr Pro Ser Val Lys  
500 505 510

Val Gln Leu Leu Ile Tyr Phe Met Leu Lys Tyr Ser Met Glu Ile Leu  
515 520 525

Leu Ser Glu Ser Ser Val Ile Thr Ser Tyr Tyr Phe Ser Trp Thr Thr  
530 535 540

Ser Ser Val Ala Ile Phe Leu Ala Cys Leu Gly Leu Thr Val Leu Pro  
545 550 555 560



047-E2F-PCT.ST25.txt

Ile Asn Ile Leu Val Gly Ser Tyr Ile Ser Asn Met Phe Glu Asp Arg  
565 570 575

Gln Ile Leu Leu Thr Ser Glu Ile Ile Val Phe Leu Gly Ile Leu Phe  
580 585 590

Ser Phe Asn Leu Phe Val Pro Tyr Thr Val Pro Gln Tyr Val Ile Ser  
595 600 605

Gly Leu Ile Met Phe Val Ala Ala Glu Val Leu Glu Gly Val Asn Leu  
610 615 620

Ser Leu Leu Ser Arg Val Met Ser Ser Arg Leu Ser Lys Gly Thr Tyr  
625 630 635 640

Asn Gly Gly Leu Leu Ser Thr Glu Ala Gly Thr Leu Ala Arg Val Val  
645 650 655

Ala Asp Ala Thr Ile Thr Leu Gly Gly Tyr Leu Gly Arg Gly His Leu  
660 665 670

Leu Asn Ala Thr Leu Leu Pro Ser Leu Val Ile Cys Ile Gly Ser Ile  
675 680 685

Val Ala Thr Cys Cys Thr Tyr Asn Ser Leu Tyr  
690 695

<210> 1449

<211> 432

<212> DNA

<213> Arabidopsis thaliana

<400> 1449

atgaggaaga aacgagaggc taaagatgaa aatgaagaag aagaagagga gaagaagaag	60
agactagagt tgatgaaggc agctgcgcag gcttggtctca gccactccca aacctcaaaa	120
catactgttt tagagttcga tgcgcagaga aagcatgctt ttgtcaaagg gaaggcatca	180
cgtttcaaaa cggaagcctt gtccgcaaag catcatccgt cgtttttgga ttgggaattc	240
ggacagtcgc tgtgggatcc ctacgagatt ctttcggtct ctaagaaact ggaacgcgaa	300
ctcacttttag aagaacaaac cttctcttct tcagataatg atggcctcaa gaagatgaag	360
aagaagaaaa ctagagacag cagaaacagc cttaggagtt tgttcactcg ttcgtcttca	420

aagagattct aa

432

&lt;210&gt; 1450

&lt;211&gt; 143

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1450

Met Arg Lys Lys Arg Glu Ala Lys Asp Glu Asn Glu Glu Glu Glu Glu  
 1 5 10 15

Glu Lys Lys Lys Arg Leu Glu Leu Met Lys Ala Ala Ala Gln Ala Trp  
 20 25 30

Leu Ser His Ser Gln Thr Ser Lys His Thr Val Leu Glu Phe Asp Ala  
 35 40 45

Gln Arg Lys His Ala Phe Val Lys Gly Lys Ala Ser Arg Phe Lys Thr  
 50 55 60

Glu Ala Leu Ser Ala Lys His His Pro Ser Phe Leu Asp Trp Glu Phe  
 65 70 75 80

Gly Gln Ser Leu Trp Asp Pro Tyr Glu Ile Leu Ser Val Ser Lys Lys  
 85 90 95

Leu Glu Arg Glu Leu Thr Leu Glu Glu Gln Thr Phe Ser Ser Ser Asp  
 100 105 110

Asn Asp Gly Leu Lys Lys Met Lys Lys Lys Lys Thr Arg Asp Ser Arg  
 115 120 125

Asn Ser Leu Arg Ser Leu Phe Thr Arg Ser Ser Ser Lys Arg Phe  
 130 135 140

&lt;210&gt; 1451

&lt;211&gt; 771

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1451

atgggttcgt cttcttcttt ctctctttct tcctcgaagc ttctctttcg tcaactcttt

60

047-E2F-PCT.ST25.txt

gagaacgaat cttccacctt tacttatctt ctcgccgacg tttctcatcc tgataaacct 120  
gctttgttga ttgatccggt ggacaagact gtggatagag acttgaaact gattgatgag 180  
ttaggactaa agcttatcta tgctatgaac actcatgttc atgctgatca tgtcactggt 240  
actggacttc ttaagacgaa gctcccgggt gtgaaatccg ttatttcgaa agcaagtgg 300  
tccaaagctg atttgtttct tgaacctggt gacaaagtat ctattggtga tatatacctt 360  
gaggttcgtg ctacacctgg acacactgca ggatgtgtta catatgtgac tggatgaagga 420  
gctgatcagc cccaaccaag aatggctttt accggggatg ctgtactcat ccgtggttgt 480  
gggaggactg actttcagga aggaagctca gatcaactct acgagtctgt acattcacag 540  
atatttacat tgccaaagga cacattgatc tatcctgctc acgactacaa aggtttcgag 600  
gtaagtacag ttggagaaga gatgcaacac aaccgcgctc taactaaaga taaagaaaca 660  
ttcaaaacca ttatgtcaaa tctgaatctg tcgtatccga agatgattga tgttcagta 720  
ccagcaaata tgggtctgtg gttacaagat gtgccttctc aagccaacta a 771

<210> 1452

<211> 256

<212> PRT

<213> Arabidopsis thaliana

<400> 1452

Met Gly Ser Ser Ser Ser Phe Ser Ser Ser Ser Ser Lys Leu Leu Phe  
1 5 10 15

Arg Gln Leu Phe Glu Asn Glu Ser Ser Thr Phe Thr Tyr Leu Leu Ala  
20 25 30

Asp Val Ser His Pro Asp Lys Pro Ala Leu Leu Ile Asp Pro Val Asp  
35 40 45

Lys Thr Val Asp Arg Asp Leu Lys Leu Ile Asp Glu Leu Gly Leu Lys  
50 55 60

Leu Ile Tyr Ala Met Asn Thr His Val His Ala Asp His Val Thr Gly  
65 70 75 80

Thr Gly Leu Leu Lys Thr Lys Leu Pro Gly Val Lys Ser Val Ile Ser  
85 90 95

Lys Ala Ser Gly Ser Lys Ala Asp Leu Phe Leu Glu Pro Gly Asp Lys  
Page 2253

100

105

110

Val Ser Ile Gly Asp Ile Tyr Leu Glu Val Arg Ala Thr Pro Gly His  
 115 120 125

Thr Ala Gly Cys Val Thr Tyr Val Thr Gly Glu Gly Ala Asp Gln Pro  
 130 135 140

Gln Pro Arg Met Ala Phe Thr Gly Asp Ala Val Leu Ile Arg Gly Cys  
 145 150 155 160

Gly Arg Thr Asp Phe Gln Glu Gly Ser Ser Asp Gln Leu Tyr Glu Ser  
 165 170 175

Val His Ser Gln Ile Phe Thr Leu Pro Lys Asp Thr Leu Ile Tyr Pro  
 180 185 190

Ala His Asp Tyr Lys Gly Phe Glu Val Ser Thr Val Gly Glu Glu Met  
 195 200 205

Gln His Asn Pro Arg Leu Thr Lys Asp Lys Glu Thr Phe Lys Thr Ile  
 210 215 220

Met Ser Asn Leu Asn Leu Ser Tyr Pro Lys Met Ile Asp Val Ala Val  
 225 230 235 240

Pro Ala Asn Met Val Cys Gly Leu Gln Asp Val Pro Ser Gln Ala Asn  
 245 250 255

&lt;210&gt; 1453

&lt;211&gt; 1311

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1453

atggatgac tctccaagct tctcttcttc ctctctctca ctatctccat taccaccgca 60  
 ttacccgata aacccgggtc ggggtcaaata aactcaaact ccgtcctcgt tgctcttctt 120  
 gactcacact acacagaact agcagagctc gtcgaaaaag ctcttcttct ccaaacctta 180  
 gaagaagctg ttggtcaaca caacatcaca atctttgctc ctcgtaacga tgccttagaa 240  
 aaaaatcttg atcctgaatt caaatctttc ttactccaac cgaaaaacct caaatcatta 300  
 caatctttat taatgtttca cattcttccc aaaagaatca cttctccaca attctcctcc 360  
 gccgtcgtta gccaccgtac tctctccaac gaccacctcc atttcaccaa cggaaaagtc 420

047-E2F-PCT.ST25.txt

```

aactccgctg aaataaccaa acccgatgat ttaactcgtc ccgatggaat catccacgga 480
atcgaacgtc ttttaatccc acgttctggt caagaagatt tcaaccgccg tcgtagtctc 540
cgttcaatcg ctgccgtatt accggaagga gcaccggagg ttgatccaag aactcacggt 600
ctcaagaaaa agccagcacc aattcccgcc ggagctccac cggttcttcc ggtttacgac 660
gcaatgtcac ctggtccgtc actagctccg gctccggcac caggaccggg tgggccacgc 720
caccatttca acggagaggg tcaagttaaa gattttatcc acacgcttct tcattacggt 780
ggctacaatg aaatggcaga tattctcggt aatctcactt ctttagccac cgagatgggt 840
cggctcgtgt cggaagggtta cgttttaacc gttttagcac caaacgacga agctatggct 900
aaattgacca cggaccaatt gagcgaaccg ggagctccag agcaaattat gtattatcac 960
atcataccgg aataccaaac cgaagagagt atgtacaatt ctgtacgccg gtttgggaaa 1020
atccggtacg attcactccg gtttcctcat aaagtagagg ctcaggaggc agatgggttcg 1080
gttaagttcg gtcattggtga tggttcggct tatttggtcg atcctgatat ttataccgat 1140
ggacggattt cggttcaagg gattgacggt gttttgttcc cggaggaaaa aactccggtc 1200
gagaagaaaa cgggcgttcc agttgtcaag aaagcaccta aaccaagaag aggtaaattg 1260
atggaagtag catgtacaat gctgggatca caatttccaa catgtcaatg a 1311

```

<210> 1454

<211> 436

<212> PRT

<213> Arabidopsis thaliana

<400> 1454

```

Met Asp Asp Leu Ser Lys Leu Leu Phe Phe Leu Leu Leu Thr Ile Ser
1          5          10          15

```

```

Ile Thr Thr Ala Leu Pro Asp Lys Pro Gly Ser Gly Gln Ile Asn Ser
          20          25          30

```

```

Asn Ser Val Leu Val Ala Leu Leu Asp Ser His Tyr Thr Glu Leu Ala
          35          40          45

```

```

Glu Leu Val Glu Lys Ala Leu Leu Leu Gln Thr Leu Glu Glu Ala Val
          50          55          60

```

```

Gly Gln His Asn Ile Thr Ile Phe Ala Pro Arg Asn Asp Ala Leu Glu
65          70          75          80

```

047-E2F-PCT.ST25.txt

Lys Asn Leu Asp Pro Glu Phe Lys Ser Phe Leu Leu Gln Pro Lys Asn  
 85 90 95  
 Leu Lys Ser Leu Gln Ser Leu Leu Met Phe His Ile Leu Pro Lys Arg  
 100 105 110  
 Ile Thr Ser Pro Gln Phe Ser Ser Ala Val Val Ser His Arg Thr Leu  
 115 120 125  
 Ser Asn Asp His Leu His Phe Thr Asn Gly Lys Val Asn Ser Ala Glu  
 130 135 140  
 Ile Thr Lys Pro Asp Asp Leu Thr Arg Pro Asp Gly Ile Ile His Gly  
 145 150 155 160  
 Ile Glu Arg Leu Leu Ile Pro Arg Ser Val Gln Glu Asp Phe Asn Arg  
 165 170 175  
 Arg Arg Ser Leu Arg Ser Ile Ala Ala Val Leu Pro Glu Gly Ala Pro  
 180 185 190  
 Glu Val Asp Pro Arg Thr His Arg Leu Lys Lys Lys Pro Ala Pro Ile  
 195 200 205  
 Pro Ala Gly Ala Pro Pro Val Leu Pro Val Tyr Asp Ala Met Ser Pro  
 210 215 220  
 Gly Pro Ser Leu Ala Pro Ala Pro Ala Pro Gly Pro Gly Gly Pro Arg  
 225 230 235 240  
 His His Phe Asn Gly Glu Ala Gln Val Lys Asp Phe Ile His Thr Leu  
 245 250 255  
 Leu His Tyr Gly Gly Tyr Asn Glu Met Ala Asp Ile Leu Val Asn Leu  
 260 265 270  
 Thr Ser Leu Ala Thr Glu Met Gly Arg Leu Val Ser Glu Gly Tyr Val  
 275 280 285  
 Leu Thr Val Leu Ala Pro Asn Asp Glu Ala Met Ala Lys Leu Thr Thr  
 290 295 300  
 Asp Gln Leu Ser Glu Pro Gly Ala Pro Glu Gln Ile Met Tyr Tyr His  
 305 310 315 320  
 Ile Ile Pro Glu Tyr Gln Thr Glu Glu Ser Met Tyr Asn Ser Val Arg  
 325 330 335

Arg Phe Gly Lys Ile Arg Tyr Asp Ser Leu Arg Phe Pro His Lys Val  
                   340                  345                  350

Glu Ala Gln Glu Ala Asp Gly Ser Val Lys Phe Gly His Gly Asp Gly  
                   355                  360                  365

Ser Ala Tyr Leu Phe Asp Pro Asp Ile Tyr Thr Asp Gly Arg Ile Ser  
           370                  375                  380

Val Gln Gly Ile Asp Gly Val Leu Phe Pro Glu Glu Lys Thr Pro Val  
   385                  390                  395                  400

Glu Lys Lys Thr Gly Val Pro Val Val Lys Lys Ala Pro Lys Pro Arg  
                   405                  410                  415

Arg Gly Lys Leu Met Glu Val Ala Cys Thr Met Leu Gly Ser Gln Phe  
                   420                  425                  430

Pro Thr Cys Gln  
           435

<210> 1455

<211> 1944

<212> DNA

<213> Arabidopsis thaliana

<400> 1455  
 atgggggaaag gttggttcat ggtagagaaa gctagaagat gcttaaggac ggtgttcttc 60  
 atggttgcga tgcttgtctc gctgttagtt tcttcgttgc ctgtgcttgt agccatcggc 120  
 gacgttttgg ttccgacctt ttgcttttca agctttacct gtttgacgtg ttacggcttc 180  
 aaggagcatc tgagtcgata cgctttcaag agctctttga ctgatattcc tctcgtctcc 240  
 ctcgtcagat ctttccttgt catctgtgtc tactctctat ccgatgctcc tgcactttcg 300  
 catggccctt accttggaac tgtatcgctg tgttctgttg tttctgttgt tcttctatca 360  
 gtaaaagctt gcgtttttac tgcaaattct caacttaacg accaagcctc gtcctctccg 420  
 tcaaggcaaa gactccatct gaaaaagtct tgggggatgc cagttttgtt cctttcatct 480  
 gttgtttttg ctcttggtca tatggttggt gcttatagaa caagttgcag agctaggagg 540  
 aaactcttgt atcacagagt tgaccctgaa gctgttcttt cttgcaaaag tgtcttctct 600  
 ggttaccaga aagtcccacg ttctccaatt cctttggtag gaaaggcctc caaggttgat 660

047-E2F-PCT.ST25.txt

```

ggcgaggcaa gacgaaagct gcatccttca gtatccaacg atgacggaga gctacctgcg 720
agattgcttg ctgatcttga cagcttattc attacagtca gagggctcac tgtgcattac 780
aagatttgca cacctgcttc tcctcgccac tctatctcct cctcagttga agccaactct 840
atgcttaata tgccagagggc gatggtggga aggttgaagc ttgacaggaa tatattgagc 900
atggtcacga gaaacaagct caaccatcac caccatagga gctacagcag tctgtttaac 960
aattcttctt ccttgcacga ccctctcctt gatggtcttc ctacttctcc tcgtcttttc 1020
aaagatatcc aggaagaatc gtgccgagag gatggcatca atgtgtccaa ttttggtgcc 1080
acggaacagc aagatgttgg tggaaacggc caatttggtg tagtgttggc ccatggattt 1140
ggcggaggag tgttttcttg gagacatgtg atgagttctc ttgcccatca acttggctgt 1200
gttgtcactg catttgatag gcctggttgg ggattaaccg ccagacctca taaaaaggat 1260
ttggaagaaa gagagatgcc aaacccttac actctggata atcaggtaga catgcttctt 1320
gccttttgcc acgaaatggg atttgcttct gtagtcttgg ttggccatga tgatggaggt 1380
ttgcttgctc tcaaggctgc acaaagattg ctagaaacaa aagatcccat caaagtcaaa 1440
ggagtggttt tgcttaatgt aagcttgacg agggaagtag tgccagcttt tgcaagaata 1500
cttctgcaca catcactagg aaagaaacac cttgttcgtc cgcttttacg cactgaaata 1560
gctcaggtgg tgaatcgacg agcttggat gatcctgcca agatgacaac cgatgtctta 1620
aggctataca aggcaccact tcatgtggaa ggctgggatg aggcacttca cgagataggc 1680
agactctcat ccgagatggg gcttccaact caaatgcat tgtcacttct caaggcagtg 1740
gaaaacttac cagtattagt cgttgctgga gccgaagacg cacttgttcc cctcaagtcc 1800
tccaagtca tggcttcaaa actcgaaaac tctaggctag tagcaatctc aggatgcgga 1860
catctgccac atgaggagtg tccaaggca cttcttgacg ccatgtgccc attcataagc 1920
agacttgat ttagtgagga ctga 1944

```

<210> 1456

<211> 647

<212> PRT

<213> Arabidopsis thaliana

<400> 1456

Met Gly Lys Gly Trp Phe Met Val Glu Lys Ala Arg Arg Cys Leu Arg  
1 5 10 15

Thr Val Phe Phe Met Val Ala Met Leu Val Ser Leu Leu Val Ser Ser  
20 25 30



047-E2F-PCT.ST25.txt

Leu Pro Val Leu Val Ala Ile Gly Asp Val Leu Val Pro Thr Phe Leu  
 35 40 45  
 Leu Ser Ser Phe Thr Cys Leu Thr Cys Tyr Gly Phe Lys Glu His Leu  
 50 55 60  
 Ser Arg Tyr Ala Phe Lys Ser Ser Leu Thr Asp Ile Pro Leu Val Ser  
 65 70 75 80  
 Leu Val Arg Ser Phe Leu Val Ile Cys Val Tyr Ser Leu Ser Asp Ala  
 85 90 95  
 Pro Ala Leu Ser His Gly Pro Tyr Leu Gly Thr Val Ser Leu Cys Ser  
 100 105 110  
 Val Val Ser Val Val Leu Leu Ser Val Lys Ala Cys Val Phe Thr Ala  
 115 120 125  
 Asn Ser Gln Leu Asn Asp Gln Ala Ser Ser Ser Pro Ser Arg Gln Arg  
 130 135 140  
 Leu His Leu Lys Lys Ser Trp Gly Met Pro Val Leu Phe Leu Ser Ser  
 145 150 155 160  
 Val Val Phe Ala Leu Gly His Met Val Val Ala Tyr Arg Thr Ser Cys  
 165 170 175  
 Arg Ala Arg Arg Lys Leu Leu Tyr His Arg Val Asp Pro Glu Ala Val  
 180 185 190  
 Leu Ser Cys Lys Ser Val Phe Ser Gly Tyr Gln Lys Val Pro Arg Ser  
 195 200 205  
 Pro Ile Pro Leu Val Gly Lys Ala Ser Lys Val Asp Gly Glu Ala Arg  
 210 215 220  
 Arg Lys Leu His Pro Ser Val Ser Asn Asp Asp Gly Glu Leu Pro Ala  
 225 230 235 240  
 Arg Leu Leu Ala Asp Leu Asp Ser Leu Phe Ile Thr Val Arg Gly Leu  
 245 250 255  
 Thr Val His Tyr Lys Ile Cys Thr Pro Ala Ser Pro Arg His Ser Ile  
 260 265 270

Ser Ser Ser Val Glu Ala Asn Ser Met Leu Asn Met Pro Glu Ala Met  
 Page 2259

275

280

285

Val Gly Arg Leu Lys Leu Asp Arg Asn Ile Leu Ser Met Val Thr Arg  
 290 295 300  
 Asn Lys Leu Asn His His His Arg Ser Tyr Ser Ser Leu Phe Asn  
 305 310 315 320  
 Asn Ser Ser Ser Leu His Asp Pro Leu Leu Asp Gly Leu Pro Thr Ser  
 325 330 335  
 Pro Arg Leu Phe Lys Asp Ile Gln Glu Glu Ser Cys Arg Glu Asp Gly  
 340 345 350  
 Ile Asn Val Ser Asn Phe Gly Ala Thr Glu Gln Gln Asp Val Gly Gly  
 355 360 365  
 Asn Gly Gln Phe Gly Val Val Leu Val His Gly Phe Gly Gly Gly Val  
 370 375 380  
 Phe Ser Trp Arg His Val Met Ser Ser Leu Ala His Gln Leu Gly Cys  
 385 390 395 400  
 Val Val Thr Ala Phe Asp Arg Pro Gly Trp Gly Leu Thr Ala Arg Pro  
 405 410 415  
 His Lys Lys Asp Leu Glu Glu Arg Glu Met Pro Asn Pro Tyr Thr Leu  
 420 425 430  
 Asp Asn Gln Val Asp Met Leu Leu Ala Phe Cys His Glu Met Gly Phe  
 435 440 445  
 Ala Ser Val Val Leu Val Gly His Asp Asp Gly Gly Leu Leu Ala Leu  
 450 455 460  
 Lys Ala Ala Gln Arg Leu Leu Glu Thr Lys Asp Pro Ile Lys Val Lys  
 465 470 475 480  
 Gly Val Val Leu Leu Asn Val Ser Leu Thr Arg Glu Val Val Pro Ala  
 485 490 495  
 Phe Ala Arg Ile Leu Leu His Thr Ser Leu Gly Lys Lys His Leu Val  
 500 505 510  
 Arg Pro Leu Leu Arg Thr Glu Ile Ala Gln Val Val Asn Arg Arg Ala  
 515 520 525

Trp Tyr Asp Pro Ala Lys Met Thr Thr Asp Val Leu Arg Leu Tyr Lys  
 530 535 540

Ala Pro Leu His Val Glu Gly Trp Asp Glu Ala Leu His Glu Ile Gly  
 545 550 555 560

Arg Leu Ser Ser Glu Met Val Leu Pro Thr Gln Asn Ala Leu Ser Leu  
 565 570 575

Leu Lys Ala Val Glu Asn Leu Pro Val Leu Val Val Ala Gly Ala Glu  
 580 585 590

Asp Ala Leu Val Pro Leu Lys Ser Ser Gln Val Met Ala Ser Lys Leu  
 595 600 605

Glu Asn Ser Arg Leu Val Ala Ile Ser Gly Cys Gly His Leu Pro His  
 610 615 620

Glu Glu Cys Pro Lys Ala Leu Leu Ala Ala Met Cys Pro Phe Ile Ser  
 625 630 635 640

Arg Leu Val Phe Ser Glu Asp  
 645

<210> 1457

<211> 1305

<212> DNA

<213> Arabidopsis thaliana

<400> 1457

atggaggaag tatctccggc gatcgcaggt cctttcaggc cattctccga aaccagatg	60
gatttcaccg ggatcagatt gggtaaaggt tactgcaata accaatactc aaatcaagat	120
tccgagaacg gagatctaata ggtttcgtta ccggagactt catcatgctc tgtttctggg	180
tcacatgggt ctgaatctag gaaagttttg atttctcgga tcaattctcc taatttaaac	240
atgaaggaat cagcagctgc tgatatagtc gtcgttgata tctccgccgg agatgagatc	300
aacggctcag atattactag cgagaagaag atgatcagca gaacagagag taggagtttg	360
tttgaattca agagtgtgcc tttgtatggg tttacttcga tttgtggaag aagacctgag	420
atggaagatg ctgtttcgac tataccaaga ttccttcaat cttcctctgg ttcgatgtta	480
gatggtcggg ttgatcctca atccgccgct ctttcttcg gtgtttacga cggccatggc	540
ggttctcagg tagcgaacta ttgtagagag aggatgcatt tggctttggc ggaggagata	600

047-E2F-PCT.ST25.txt

gctaaggaga aaccgatgct ctgcatggt gatacgtggc tggagaagtg gaagaaagct 660  
 cttttcaact cgttcctgag agttgactcg gagattgagt cagttgcgcc ggagacgggt 720  
 ggggtcaacgt cgggtggttgc cgttgttttc ccgtctcaca tcttcgtcgc taactgcggt 780  
 gactctagag ccgttctttg ccgcggcaaa actgcacttc cattatccgt tgaccataaa 840  
 ccggatagag aagatgaagc tgcgaggatt gaagccgcag gagggaaagt gattcagtgg 900  
 aatggagctc gtgttttcgg tgttctcgcc atgtcgagat ccattggcga tagatacttg 960  
 aaaccatcca tcattcctga tccggaagtg acggctgtga agagagtaaa agaagatgat 1020  
 tgtctgattt tggcgagtga cggggtttgg gatgtaatga cggatgaaga agcgtgtgag 1080  
 atggcaagga agcggattct cttgtggcac aagaaaaacg cggtggtcgg ggatgcatcg 1140  
 ttgctcgcg atgagcggag aaaggaaggg aaagatcctg cggcgatgtc cgcggtgag 1200  
 tatttgtcaa agctggcgat acagagagga agcaaagaca acataagtgt ggtggtggtt 1260  
 gatttgaagc ctcggaggaa actcaagagc aaacccttga actga 1305

<210> 1458

<211> 434

<212> PRT

<213> Arabidopsis thaliana

<400> 1458

Met Glu Glu Val Ser Pro Ala Ile Ala Gly Pro Phe Arg Pro Phe Ser  
 1 5 10 15

Glu Thr Gln Met Asp Phe Thr Gly Ile Arg Leu Gly Lys Gly Tyr Cys  
 20 25 30

Asn Asn Gln Tyr Ser Asn Gln Asp Ser Glu Asn Gly Asp Leu Met Val  
 35 40 45

Ser Leu Pro Glu Thr Ser Ser Cys Ser Val Ser Gly Ser His Gly Ser  
 50 55 60

Glu Ser Arg Lys Val Leu Ile Ser Arg Ile Asn Ser Pro Asn Leu Asn  
 65 70 75 80

Met Lys Glu Ser Ala Ala Ala Asp Ile Val Val Val Asp Ile Ser Ala  
 85 90 95

Gly Asp Glu Ile Asn Gly Ser Asp Ile Thr Ser Glu Lys Lys Met Ile  
 100 105 110

047-E2F-PCT.ST25.txt

Ser Arg Thr Glu Ser Arg Ser Leu Phe Glu Phe Lys Ser Val Pro Leu  
 115 120 125  
 Tyr Gly Phe Thr Ser Ile Cys Gly Arg Arg Pro Glu Met Glu Asp Ala  
 130 135 140  
 Val Ser Thr Ile Pro Arg Phe Leu Gln Ser Ser Ser Gly Ser Met Leu  
 145 150 155 160  
 Asp Gly Arg Phe Asp Pro Gln Ser Ala Ala His Phe Phe Gly Val Tyr  
 165 170 175  
 Asp Gly His Gly Gly Ser Gln Val Ala Asn Tyr Cys Arg Glu Arg Met  
 180 185 190  
 His Leu Ala Leu Ala Glu Glu Ile Ala Lys Glu Lys Pro Met Leu Cys  
 195 200 205  
 Asp Gly Asp Thr Trp Leu Glu Lys Trp Lys Lys Ala Leu Phe Asn Ser  
 210 215 220  
 Phe Leu Arg Val Asp Ser Glu Ile Glu Ser Val Ala Pro Glu Thr Val  
 225 230 235 240  
 Gly Ser Thr Ser Val Val Ala Val Val Phe Pro Ser His Ile Phe Val  
 245 250 255  
 Ala Asn Cys Gly Asp Ser Arg Ala Val Leu Cys Arg Gly Lys Thr Ala  
 260 265 270  
 Leu Pro Leu Ser Val Asp His Lys Pro Asp Arg Glu Asp Glu Ala Ala  
 275 280 285  
 Arg Ile Glu Ala Ala Gly Gly Lys Val Ile Gln Trp Asn Gly Ala Arg  
 290 295 300  
 Val Phe Gly Val Leu Ala Met Ser Arg Ser Ile Gly Asp Arg Tyr Leu  
 305 310 315 320  
 Lys Pro Ser Ile Ile Pro Asp Pro Glu Val Thr Ala Val Lys Arg Val  
 325 330 335  
 Lys Glu Asp Asp Cys Leu Ile Leu Ala Ser Asp Gly Val Trp Asp Val  
 340 345 350  
 Met Thr Asp Glu Glu Ala Cys Glu Met Ala Arg Lys Arg Ile Leu Leu  
 Page 2263

355 047-E2F-PCT.ST25.txt 360 365

Trp His Lys Lys Asn Ala Val Ala Gly Asp Ala Ser Leu Leu Ala Asp  
370 375 380

Glu Arg Arg Lys Glu Gly Lys Asp Pro Ala Ala Met Ser Ala Ala Glu  
385 390 395 400

Tyr Leu Ser Lys Leu Ala Ile Gln Arg Gly Ser Lys Asp Asn Ile Ser  
405 410 415

Val Val Val Val Asp Leu Lys Pro Arg Arg Lys Leu Lys Ser Lys Pro  
420 425 430

Leu Asn

<210> 1459

<211> 999

<212> DNA

<213> Arabidopsis thaliana

<400> 1459

atggcagcct ctctccaatc caccgctaca ttctccaggt cggcgaagat cgccaccgct	60
ccttctcgcg gaagttctca cctccgatcg actcaagccg tcggcaaatac ttttgggctc	120
gaaacttcct cggctcgcct cacttgctcc ttccaggtctg actttaagga cttcaccggt	180
aaatgctccg acgctgtcaa aatcgccgga ttcgctcttg ccacctctgc tctcgtcgtc	240
tcgggagcaa gtgcggaggg agctccaaag agattgacct atgatgagat tcagagcaag	300
acatacatgg aagtgaagg aactggaacg gctaaccagt gccctactat tgacggtggc	360
tctgagactt tctcgttcaa acccggaag tatgcaggaa agaagttctg cttcgagcct	420
acttccttca ccgtcaaggc agacagtgtg agcaagaacg ctctccaga gttccagaac	480
acaaagctca tgaccgtct tacctacacc cttgacgaga tcgaaggacc cttcgagggt	540
gcttcagacg gaagcgtcaa tttcaaggaa gaagatggaa tcgactatgc tgcagtcaca	600
gtccaacttc caggaggtga acgtgtgcca ttctttttca cagtcaaaca gcttgacgcc	660
tcaggcaaac cagacagctt caccggaaaa ttcttggttc catcgtaccg tggctcttcc	720
ttcttgacc caaagggccg tgggtgatcc acaggatatg acaacgccgt ggcattgcca	780
gctggaggca gaggagacga ggaggagctt gtaaaggaga acgtgaagaa cactgccgct	840
tcagtgggag agatcactct gaaagtgaca aagagcaagc cggagacagg agaggtgatc	900

ggagtgttcg agagtcttca gccgtcggat actgacttgg gtgctaaggt accaaaggat 960  
 gtgaagatcc aaggggtgtg gtatgggtcaa cttgagtga 999

<210> 1460

<211> 332

<212> PRT

<213> Arabidopsis thaliana

<400> 1460

Met Ala Ala Ser Leu Gln Ser Thr Ala Thr Phe Leu Gln Ser Ala Lys  
 1 5 10 15

Ile Ala Thr Ala Pro Ser Arg Gly Ser Ser His Leu Arg Ser Thr Gln  
 20 25 30

Ala Val Gly Lys Ser Phe Gly Leu Glu Thr Ser Ser Ala Arg Leu Thr  
 35 40 45

Cys Ser Phe Gln Ser Asp Phe Lys Asp Phe Thr Gly Lys Cys Ser Asp  
 50 55 60

Ala Val Lys Ile Ala Gly Phe Ala Leu Ala Thr Ser Ala Leu Val Val  
 65 70 75 80

Ser Gly Ala Ser Ala Glu Gly Ala Pro Lys Arg Leu Thr Tyr Asp Glu  
 85 90 95

Ile Gln Ser Lys Thr Tyr Met Glu Val Lys Gly Thr Gly Thr Ala Asn  
 100 105 110

Gln Cys Pro Thr Ile Asp Gly Gly Ser Glu Thr Phe Ser Phe Lys Pro  
 115 120 125

Gly Lys Tyr Ala Gly Lys Lys Phe Cys Phe Glu Pro Thr Ser Phe Thr  
 130 135 140

Val Lys Ala Asp Ser Val Ser Lys Asn Ala Pro Pro Glu Phe Gln Asn  
 145 150 155 160

Thr Lys Leu Met Thr Arg Leu Thr Tyr Thr Leu Asp Glu Ile Glu Gly  
 165 170 175

Pro Phe Glu Val Ala Ser Asp Gly Ser Val Asn Phe Lys Glu Glu Asp  
 Page 2265

180

185

190

Gly Ile Asp Tyr Ala Ala Val Thr Val Gln Leu Pro Gly Gly Glu Arg  
 195 200 205  
 Val Pro Phe Leu Phe Thr Val Lys Gln Leu Asp Ala Ser Gly Lys Pro  
 210 215 220  
 Asp Ser Phe Thr Gly Lys Phe Leu Val Pro Ser Tyr Arg Gly Ser Ser  
 225 230 235 240  
 Phe Leu Asp Pro Lys Gly Arg Gly Gly Ser Thr Gly Tyr Asp Asn Ala  
 245 250 255  
 Val Ala Leu Pro Ala Gly Gly Arg Gly Asp Glu Glu Glu Leu Val Lys  
 260 265 270  
 Glu Asn Val Lys Asn Thr Ala Ala Ser Val Gly Glu Ile Thr Leu Lys  
 275 280 285  
 Val Thr Lys Ser Lys Pro Glu Thr Gly Glu Val Ile Gly Val Phe Glu  
 290 295 300  
 Ser Leu Gln Pro Ser Asp Thr Asp Leu Gly Ala Lys Val Pro Lys Asp  
 305 310 315 320  
 Val Lys Ile Gln Gly Val Trp Tyr Gly Gln Leu Glu  
 325 330

&lt;210&gt; 1461

&lt;211&gt; 2355

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1461

```

atgggctctt cttctccatt aacaaggaga aacagagcac caccatcctc tgtttcctct      60
gtttatctaa tctttctctg tttcttcctc tactttttaa atttctcaaa cgctcaatca      120
tcgccggttt tcgcctgcga cgtagctgca aacccttctc tcgccgccta tggtttctgc      180
aacaccgttt tgaagatcga ataccgagtc gctgatctgg tcgcgaggct cacgttgcaa      240
gaaaagatcg ggttttttagt gagtaaagct aacggcgtga ctcgctcttg gattccaacg      300
tatgaatggt ggtctgaagc acttcacggc gtttcttaca tcggacccgg cacgcatttt      360
tctagccaag ttcccggagc tacgagtttc ccgcagggtta tactcaccgc cgcttctttc      420

```



## 047-E2F-PCT.ST25.txt

aacgtatctc	tgtttcaagc	cattggcaag	gtcgtctcaa	cggaagcgag	ggcaatgtac	480
aacgtgggat	tagccggact	aacgtattgg	tcaccgaacg	tgaacatatt	ccgagatcca	540
agatggggaa	gagggcaaga	gactccagga	gaagatccat	tgctcgctag	taagtatgct	600
tcagggtacg	ttaagggctc	tcaagagact	gacggtggcg	attctaaccg	tctcaaagtc	660
gccgcctgct	gcaaacacta	taccgcttac	gatgtcgata	attggaaagg	cgtagaacgt	720
tacagtttca	acgccgtggt	gactcaacaa	gatatggatg	atacgtatca	accaccgttc	780
aagagttgtg	tggttgatgg	gaatgtggcg	agtgttatgt	gttcttacia	tcaagttaac	840
ggcaaaccga	catgcgctga	tccagatctg	ctctctggtg	ttatccgcgg	tgaatggaaa	900
ttaaattgggt	acattgtttc	agattgtgat	tcagtagatg	tcttgataaa	gaaccaacac	960
tatacaaaga	ctccagctga	agctgcagcc	atatctatat	tggcaggttt	ggatttaaac	1020
tgtggttcat	tcttggttca	acatacagag	gaagcagtta	agtcgggttt	ggtaaaccgag	1080
gcagctatcg	ataaagcgat	ttcgaacaac	tttttgaccc	ttatgcgttt	aggattcttt	1140
gatggaaacc	caaagaacca	aatctatggc	gggttaggtc	ctaccgacgt	ttgcacgtct	1200
gcgaatcaag	agctagcagc	agatgcagca	agacaaggca	ttgttctact	caagaatact	1260
ggatgcttac	cgctttctcc	taaatcgatc	aaaacactag	ccgtgattgg	accaaaccgcg	1320
aatgtcacca	aaacaatgat	tggaaactac	gaaggcacgc	cgtgtaaata	cacaacacca	1380
ctacaaggac	tagccgggac	ggtatctaca	acatatctac	caggctgctc	caatgtagct	1440
tgtgctgtag	cggatgtagc	cggcgccacg	aaactagcag	ccactgcaga	tgtgtctgtg	1500
cttgtgatcg	gtgccgatca	atcaatcgag	gcagagagcc	gagacagagt	cgacctgcat	1560
cttcttgga	agcaacaaga	gctggtgatc	caagtggcta	aagcagcaaa	aggaccggtc	1620
ttgctcgtca	ttatgtccgg	tggaggtttc	gatattacat	tcgctaagaa	tgacccaaag	1680
atcgccggaa	ttttgtgggt	tggttatccc	ggagaagccg	gtggtatcgc	cattgctgat	1740
atcatctttg	gccgttataa	tccaagtggg	aaattaccga	tgacgtggta	tccacagtcg	1800
tatgtagaga	aagttccgat	gacaataatg	aacatgagac	ccgataaagc	aagcgggtat	1860
ccgggtcggg	cttaccgatt	ctacaccgga	gaaacagtat	acgcattcgg	agatggactc	1920
agctacacca	aattcagtca	cacttttagtc	aaagctccaa	gtctcgtttc	tctcggtctc	1980
gaagagaatc	acgtttgccg	atcatcgga	tgtcaatcgc	tagacgcgat	cggaccgcac	2040
tgcgaaaacg	ctgtctccgg	cggtggatcg	gcgtttgaag	ttcatatcaa	ggtacgaaac	2100
ggaggagata	gagaagggat	tcacacgggtg	tttctattca	cgacgccgcc	ggcgattcac	2160
ggatcgccga	ggaagcattt	ggtaggattc	gagaagattc	gattggggaa	gaggggaagaa	2220
gcggtggtta	ggtttaaggt	agagatatgt	aaagatctga	gtgtgggtga	tgagattggg	2280

aagaggaaga ttggtttggg aaagcatctt ctatcatgctg gagatttaaa acatttcctta 2340  
 agcattagaa tctga 2355

<210> 1462

<211> 784

<212> PRT

<213> Arabidopsis thaliana

<400> 1462

Met Gly Ser Ser Ser Pro Leu Thr Arg Arg Asn Arg Ala Pro Pro Ser  
 1 5 10 15

Ser Val Ser Ser Val Tyr Leu Ile Phe Leu Cys Phe Phe Leu Tyr Phe  
 20 25 30

Leu Asn Phe Ser Asn Ala Gln Ser Ser Pro Val Phe Ala Cys Asp Val  
 35 40 45

Ala Ala Asn Pro Ser Leu Ala Ala Tyr Gly Phe Cys Asn Thr Val Leu  
 50 55 60

Lys Ile Glu Tyr Arg Val Ala Asp Leu Val Ala Arg Leu Thr Leu Gln  
 65 70 75 80

Glu Lys Ile Gly Phe Leu Val Ser Lys Ala Asn Gly Val Thr Arg Leu  
 85 90 95

Gly Ile Pro Thr Tyr Glu Trp Trp Ser Glu Ala Leu His Gly Val Ser  
 100 105 110

Tyr Ile Gly Pro Gly Thr His Phe Ser Ser Gln Val Pro Gly Ala Thr  
 115 120 125

Ser Phe Pro Gln Val Ile Leu Thr Ala Ala Ser Phe Asn Val Ser Leu  
 130 135 140

Phe Gln Ala Ile Gly Lys Val Val Ser Thr Glu Ala Arg Ala Met Tyr  
 145 150 155 160

Asn Val Gly Leu Ala Gly Leu Thr Tyr Trp Ser Pro Asn Val Asn Ile  
 165 170 175

Phe Arg Asp Pro Arg Trp Gly Arg Gly Gln Glu Thr Pro Gly Glu Asp  
 180 185 190

047-E2F-PCT.ST25.txt

Pro Leu Leu Ala Ser Lys Tyr Ala Ser Gly Tyr Val Lys Gly Leu Gln  
195 200 205

Glu Thr Asp Gly Gly Asp Ser Asn Arg Leu Lys Val Ala Ala Cys Cys  
210 215 220

Lys His Tyr Thr Ala Tyr Asp Val Asp Asn Trp Lys Gly Val Glu Arg  
225 230 235 240

Tyr Ser Phe Asn Ala Val Val Thr Gln Gln Asp Met Asp Asp Thr Tyr  
245 250 255

Gln Pro Pro Phe Lys Ser Cys Val Val Asp Gly Asn Val Ala Ser Val  
260 265 270

Met Cys Ser Tyr Asn Gln Val Asn Gly Lys Pro Thr Cys Ala Asp Pro  
275 280 285

Asp Leu Leu Ser Gly Val Ile Arg Gly Glu Trp Lys Leu Asn Gly Tyr  
290 295 300

Ile Val Ser Asp Cys Asp Ser Val Asp Val Leu Tyr Lys Asn Gln His  
305 310 315 320

Tyr Thr Lys Thr Pro Ala Glu Ala Ala Ala Ile Ser Ile Leu Ala Gly  
325 330 335

Leu Asp Leu Asn Cys Gly Ser Phe Leu Gly Gln His Thr Glu Glu Ala  
340 345 350

Val Lys Ser Gly Leu Val Asn Glu Ala Ala Ile Asp Lys Ala Ile Ser  
355 360 365

Asn Asn Phe Leu Thr Leu Met Arg Leu Gly Phe Phe Asp Gly Asn Pro  
370 375 380

Lys Asn Gln Ile Tyr Gly Gly Leu Gly Pro Thr Asp Val Cys Thr Ser  
385 390 395 400

Ala Asn Gln Glu Leu Ala Ala Asp Ala Ala Arg Gln Gly Ile Val Leu  
405 410 415

Leu Lys Asn Thr Gly Cys Leu Pro Leu Ser Pro Lys Ser Ile Lys Thr  
420 425 430

Leu Ala Val Ile Gly Pro Asn Ala Asn Val Thr Lys Thr Met Ile Gly

435

440

445

Asn Tyr Glu Gly Thr Pro Cys Lys Tyr Thr Thr Pro Leu Gln Gly Leu  
 450 455 460  
 Ala Gly Thr Val Ser Thr Thr Tyr Leu Pro Gly Cys Ser Asn Val Ala  
 465 470 475 480  
 Cys Ala Val Ala Asp Val Ala Gly Ala Thr Lys Leu Ala Ala Thr Ala  
 485 490 495  
 Asp Val Ser Val Leu Val Ile Gly Ala Asp Gln Ser Ile Glu Ala Glu  
 500 505 510  
 Ser Arg Asp Arg Val Asp Leu His Leu Pro Gly Gln Gln Gln Glu Leu  
 515 520 525  
 Val Ile Gln Val Ala Lys Ala Ala Lys Gly Pro Val Leu Leu Val Ile  
 530 535 540  
 Met Ser Gly Gly Gly Phe Asp Ile Thr Phe Ala Lys Asn Asp Pro Lys  
 545 550 555 560  
 Ile Ala Gly Ile Leu Trp Val Gly Tyr Pro Gly Glu Ala Gly Gly Ile  
 565 570 575  
 Ala Ile Ala Asp Ile Ile Phe Gly Arg Tyr Asn Pro Ser Gly Lys Leu  
 580 585 590  
 Pro Met Thr Trp Tyr Pro Gln Ser Tyr Val Glu Lys Val Pro Met Thr  
 595 600 605  
 Ile Met Asn Met Arg Pro Asp Lys Ala Ser Gly Tyr Pro Gly Arg Thr  
 610 615 620  
 Tyr Arg Phe Tyr Thr Gly Glu Thr Val Tyr Ala Phe Gly Asp Gly Leu  
 625 630 635 640  
 Ser Tyr Thr Lys Phe Ser His Thr Leu Val Lys Ala Pro Ser Leu Val  
 645 650 655  
 Ser Leu Gly Leu Glu Glu Asn His Val Cys Arg Ser Ser Glu Cys Gln  
 660 665 670  
 Ser Leu Asp Ala Ile Gly Pro His Cys Glu Asn Ala Val Ser Gly Gly  
 675 680 685

Gly Ser Ala Phe Glu Val His Ile Lys Val Arg Asn Gly Gly Asp Arg  
690 695 700

Glu Gly Ile His Thr Val Phe Leu Phe Thr Thr Pro Pro Ala Ile His  
705 710 715 720

Gly Ser Pro Arg Lys His Leu Val Gly Phe Glu Lys Ile Arg Leu Gly  
725 730 735

Lys Arg Glu Glu Ala Val Val Arg Phe Lys Val Glu Ile Cys Lys Asp  
740 745 750

Leu Ser Val Val Asp Glu Ile Gly Lys Arg Lys Ile Gly Leu Gly Lys  
755 760 765

His Leu Leu His Val Gly Asp Leu Lys His Ser Leu Ser Ile Arg Ile  
770 775 780

<210> 1463

<211> 1086

<212> DNA

<213> Arabidopsis thaliana

<400> 1463

atgaaggcac tcattcttgt tggaggcttc ggcactcgct tgagaccatt gactctcagt	60
ttcccaaagc cccttgttga ttttgctaataa aaacccatga tccttcatca gatagaggct	120
cttaaggcag ttggagttga tgaagtgggt ttggccatca attatcagcc agagggtgatg	180
ctgaacttct tgaaggactt tgagaccaag ctggaaatca aaatcacttg ctcacaagag	240
accgagccac taggtaccgc tggtcctctg gctctagcga gagacaaatt gcttgatgga	300
tctggagagc ctttctttgt tcttaacagt gatgtgatta gtgagtaccc tcttaaagaa	360
atgcttgagt ttcacaaatc tcacggtggg gaagcctcca taatggtaac aaaggtggat	420
gaaccgtcga aatatggagt ggttgttatg gaagaaagca ctggaagagt ggagaagttt	480
gtggaaaagc caaaactgta tgtaggtaac aagatcaacg ctgggattta tcttctgaac	540
ccatctgttc ttgataagat tgagctaaga ccgacttcaa tcgaaaaaga gactttccct	600
aagattgcag cagcgcaagg gctctatgct atggtgctac cagggttttg gatggacatt	660
gggcaacccc gtgactacat aacgggtttg agactctact tagactccct taggaagaaa	720
tctcctgcca aattaaccag tgggccacac atagttggga atgttcttgt tgacgaaacc	780
gctacaattg gggaaggatg tttgattgga ccagacgttg ccattggtcc aggctgcatt	840

gttgagtcag gagtcagact ctcccgatgc acggtcatgc gtggagtccg catcaagaag 900  
catgcgtgta tctcgagcag tatcatcggg tggcactcaa cggttggtca atgggccagg 960  
atcgaagaaca tgacgatacct cggtgaggat gttcatgtga gcgatgagat ctatagcaat 1020  
ggaggagttg ttttgccaca caaggagatc aaatcaaaca tcttgaagcc agagatagtg 1080  
atgtga 1086

<210> 1464

<211> 361

<212> PRT

<213> Arabidopsis thaliana

<400> 1464

Met Lys Ala Leu Ile Leu Val Gly Gly Phe Gly Thr Arg Leu Arg Pro  
1 5 10 15

Leu Thr Leu Ser Phe Pro Lys Pro Leu Val Asp Phe Ala Asn Lys Pro  
20 25 30

Met Ile Leu His Gln Ile Glu Ala Leu Lys Ala Val Gly Val Asp Glu  
35 40 45

Val Val Leu Ala Ile Asn Tyr Gln Pro Glu Val Met Leu Asn Phe Leu  
50 55 60

Lys Asp Phe Glu Thr Lys Leu Glu Ile Lys Ile Thr Cys Ser Gln Glu  
65 70 75 80

Thr Glu Pro Leu Gly Thr Ala Gly Pro Leu Ala Leu Ala Arg Asp Lys  
85 90 95

Leu Leu Asp Gly Ser Gly Glu Pro Phe Phe Val Leu Asn Ser Asp Val  
100 105 110

Ile Ser Glu Tyr Pro Leu Lys Glu Met Leu Glu Phe His Lys Ser His  
115 120 125

Gly Gly Glu Ala Ser Ile Met Val Thr Lys Val Asp Glu Pro Ser Lys  
130 135 140

Tyr Gly Val Val Val Met Glu Glu Ser Thr Gly Arg Val Glu Lys Phe  
145 150 155 160

Val Glu Lys Pro Lys Leu Tyr Val Gly Asn Lys Ile Asn Ala Gly Ile  
 165 170 175  
 Tyr Leu Leu Asn Pro Ser Val Leu Asp Lys Ile Glu Leu Arg Pro Thr  
 180 185 190  
 Ser Ile Glu Lys Glu Thr Phe Pro Lys Ile Ala Ala Ala Gln Gly Leu  
 195 200 205  
 Tyr Ala Met Val Leu Pro Gly Phe Trp Met Asp Ile Gly Gln Pro Arg  
 210 215 220  
 Asp Tyr Ile Thr Gly Leu Arg Leu Tyr Leu Asp Ser Leu Arg Lys Lys  
 225 230 235 240  
 Ser Pro Ala Lys Leu Thr Ser Gly Pro His Ile Val Gly Asn Val Leu  
 245 250 255  
 Val Asp Glu Thr Ala Thr Ile Gly Glu Gly Cys Leu Ile Gly Pro Asp  
 260 265 270  
 Val Ala Ile Gly Pro Gly Cys Ile Val Glu Ser Gly Val Arg Leu Ser  
 275 280 285  
 Arg Cys Thr Val Met Arg Gly Val Arg Ile Lys Lys His Ala Cys Ile  
 290 295 300  
 Ser Ser Ser Ile Ile Gly Trp His Ser Thr Val Gly Gln Trp Ala Arg  
 305 310 315 320  
 Ile Glu Asn Met Thr Ile Leu Gly Glu Asp Val His Val Ser Asp Glu  
 325 330 335  
 Ile Tyr Ser Asn Gly Gly Val Val Leu Pro His Lys Glu Ile Lys Ser  
 340 345 350  
 Asn Ile Leu Lys Pro Glu Ile Val Met  
 355 360

<210> 1465

<211> 993

<212> DNA

<213> Arabidopsis thaliana

<400> 1465

```

atggatattc gtagtgatga tgcaaaaaaa cctatgatga tgtggttctt agggatgctg      60
ttgtttttcca tgggtggccga gtcaaagtct caactgtcag agaattacta cgcctcgaca    120
tgtcctagcg tagagctcat cgттаagcag gcggttacta caaaattcaa acaaactgtc     180
acaacggctc ctgcaacggt gcggatgttc tttcacgact gcttcgtcga gggatgtgat     240
gcgtctgtgt ttatagcatc tgagaatgaa gacgcagaga aagacgcaga tgacaataaa     300
tctctcgccg gagacggatt tgacaccgtg attaaagcta aaaccgctgt agaattctcaa     360
tgtcccgagag ttgtgtcatg tgccgatata ctagctctcg ccgctagaga cgtcgtcgtg     420
ctcgttggag ggccagagtt taaggtggag ctagggagac gagacgggct cgtgtcgaaa     480
gcgtctagag tgaccggcaa gttacctgaa ccagggcctg acgtgagagg tctagtccag     540
atcttcgcta gtaacgggct ttcattgacc gacatgatcg ctctttcagg cgcacataca     600
attggatcct ctactgcaa ccgtttcgcc aaccgtctcc acaatttctc gacgttcatg     660
ccagtggacc ctacgatgga cccggtctac gctcagcagc tgatacaagc ctgctctgac     720
cccaaccag atgctgtagt agacattgac ctaacgtcca gagatacctt cgacaatagc     780
tactaccaga acctcgtggc tcggaaagga cttttcacct ccgatcaagc tctgtttaac     840
gatctctcgt ctcaggctac ggtggtcagg ttgctaaca acgctgaaga attctacagc     900
gcttttagct ctgctatgag gaatcttggc cgcgttgggg ttaagggttg gaatcaaggc     960
gagattcgaa gggactgctc tgcttttaac tag                                  993

```

<210> 1466

<211> 330

<212> PRT

<213> Arabidopsis thaliana

<400> 1466

Met Asp Ile Arg Ser Asp Asp Ala Lys Lys Pro Met Met Met Trp Phe  
1 5 10 15

Leu Gly Met Leu Leu Phe Ser Met Val Ala Glu Ser Asn Ala Gln Leu  
20 25 30

Ser Glu Asn Tyr Tyr Ala Ser Thr Cys Pro Ser Val Glu Leu Ile Val  
35 40 45

Lys Gln Ala Val Thr Thr Lys Phe Lys Gln Thr Val Thr Thr Ala Pro  
50 55 60



Ala Thr Leu Arg Met Phe Phe His Asp Cys Phe Val Glu Gly Cys Asp  
 65 70 75 80  
 Ala Ser Val Phe Ile Ala Ser Glu Asn Glu Asp Ala Glu Lys Asp Ala  
 85 90 95  
 Asp Asp Asn Lys Ser Leu Ala Gly Asp Gly Phe Asp Thr Val Ile Lys  
 100 105 110  
 Ala Lys Thr Ala Val Glu Ser Gln Cys Pro Gly Val Val Ser Cys Ala  
 115 120 125  
 Asp Ile Leu Ala Leu Ala Ala Arg Asp Val Val Val Leu Val Gly Gly  
 130 135 140  
 Pro Glu Phe Lys Val Glu Leu Gly Arg Arg Asp Gly Leu Val Ser Lys  
 145 150 155 160  
 Ala Ser Arg Val Thr Gly Lys Leu Pro Glu Pro Gly Leu Asp Val Arg  
 165 170 175  
 Gly Leu Val Gln Ile Phe Ala Ser Asn Gly Leu Ser Leu Thr Asp Met  
 180 185 190  
 Ile Ala Leu Ser Gly Ala His Thr Ile Gly Ser Ser His Cys Asn Arg  
 195 200 205  
 Phe Ala Asn Arg Leu His Asn Phe Ser Thr Phe Met Pro Val Asp Pro  
 210 215 220  
 Thr Met Asp Pro Val Tyr Ala Gln Gln Leu Ile Gln Ala Cys Ser Asp  
 225 230 235 240  
 Pro Asn Pro Asp Ala Val Val Asp Ile Asp Leu Thr Ser Arg Asp Thr  
 245 250 255  
 Phe Asp Asn Ser Tyr Tyr Gln Asn Leu Val Ala Arg Lys Gly Leu Phe  
 260 265 270  
 Thr Ser Asp Gln Ala Leu Phe Asn Asp Leu Ser Ser Gln Ala Thr Val  
 275 280 285  
 Val Arg Phe Ala Asn Asn Ala Glu Glu Phe Tyr Ser Ala Phe Ser Ser  
 290 295 300  
 Ala Met Arg Asn Leu Gly Arg Val Gly Val Lys Val Gly Asn Gln Gly  
 305 310 315 320

Glu Ile Arg Arg Asp Cys Ser Ala Phe Asn  
                           325                          330

<210> 1467

<211> 663

<212> DNA

<213> Arabidopsis thaliana

<400> 1467

```
atggcgaacg accaagtgat tcttcttgat tactggccaa gcatgttcgg gatgaggacg      60
aagatggcctt tggctgagaa aggagtcaag tatgagtaca aggaaacaga tccatggggtt    120
aagactcctt tactcataga gatgaacccg attcacaaga agattccggt tctcatccac      180
aacggtaaac cgatttgtga atctcttatt cagcttgagt acattgatga ggtttggtcc     240
gatgcatccc caatccttcc ctctgacctt taccagaagt ctcgagctag attttgggct      300
gaattcatcg acaaaaagtt ttacgaccca tcatggaagg tatgggcaac aatgggcgaa      360
gaacatgcag cagtgaagaa ggaattgttg gaacatttca agacacttga gacagagctc     420
ggagacaaac cttattacgg tgggtgaagta tttggatacc tagacattgc attaatggga     480
tactacagct ggttcaaggc catggagaaa tttggtgaat tcagtatcga aacagagttt     540
cctatattga ctacgtggac caagaggtgt ttggaaagag agagtgtggt caaggcattg     600
gctgattctg ataggatcat tgagtatggt tatgtcctga ggaagaaatt tggagcagcg     660
taa                                                                    663
```

<210> 1468

<211> 220

<212> PRT

<213> Arabidopsis thaliana

<400> 1468

```
Met Ala Asn Asp Gln Val Ile Leu Leu Asp Tyr Trp Pro Ser Met Phe
1           5           10           15

Gly Met Arg Thr Lys Met Ala Leu Ala Glu Lys Gly Val Lys Tyr Glu
          20           25           30

Tyr Lys Glu Thr Asp Pro Trp Val Lys Thr Pro Leu Leu Ile Glu Met
          35           40           45
```

047-E2F-PCT.ST25.txt

Asn Pro Ile His Lys Lys Ile Pro Val Leu Ile His Asn Gly Lys Pro  
50 55 60

Ile Cys Glu Ser Leu Ile Gln Leu Glu Tyr Ile Asp Glu Val Trp Ser  
65 70 75 80

Asp Ala Ser Pro Ile Leu Pro Ser Asp Pro Tyr Gln Lys Ser Arg Ala  
85 90 95

Arg Phe Trp Ala Glu Phe Ile Asp Lys Lys Phe Tyr Asp Pro Ser Trp  
100 105 110

Lys Val Trp Ala Thr Met Gly Glu Glu His Ala Ala Val Lys Lys Glu  
115 120 125

Leu Leu Glu His Phe Lys Thr Leu Glu Thr Glu Leu Gly Asp Lys Pro  
130 135 140

Tyr Tyr Gly Gly Glu Val Phe Gly Tyr Leu Asp Ile Ala Leu Met Gly  
145 150 155 160

Tyr Tyr Ser Trp Phe Lys Ala Met Glu Lys Phe Gly Glu Phe Ser Ile  
165 170 175

Glu Thr Glu Phe Pro Ile Leu Thr Thr Trp Thr Lys Arg Cys Leu Glu  
180 185 190

Arg Glu Ser Val Val Lys Ala Leu Ala Asp Ser Asp Arg Ile Ile Glu  
195 200 205

Tyr Val Tyr Val Leu Arg Lys Lys Phe Gly Ala Ala  
210 215 220

<210> 1469

<211> 387

<212> DNA

<213> Arabidopsis thaliana

<400> 1469  
atggctcctc tcaagaactc ctttgtaaca tctctgggtca ttgcactaac attcacaagc 60  
ttctttcacca gcctatccgc tcatcgtcac cttctccaat caacaccagt gactcagcct 120  
ccagcttttaa cattcccacc tctgccc aaa accactatgc caccggttcc ttctctacca 180

047-E2F-PCT.ST25.txt

actccaggac aacaaacggt gccacagcca caaccaactc tgccacagcc cactggggttg 240  
ccaccgatgc cgagcacaca gataccatca ttgcccacc aggtgcagcc cacaatccct 300  
aacattccac agatcaactt ccctagcaac tttcccttca actttccttt caacattcct 360  
ttccttactc caccaccttc aaagtaa 387

<210> 1470

<211> 128

<212> PRT

<213> Arabidopsis thaliana

<400> 1470

Met Ala Pro Leu Lys Asn Ser Phe Val Thr Ser Leu Val Ile Ala Leu  
1 5 10 15

Thr Phe Thr Ser Phe Phe Thr Ser Leu Ser Ala His Arg His Leu Leu  
20 25 30

Gln Ser Thr Pro Val Thr Gln Pro Pro Ala Leu Thr Phe Pro Pro Leu  
35 40 45

Pro Lys Thr Thr Met Pro Pro Val Pro Ser Leu Pro Thr Pro Gly Gln  
50 55 60

Gln Thr Leu Pro Gln Pro Gln Pro Thr Leu Pro Gln Pro Thr Gly Leu  
65 70 75 80

Pro Pro Met Pro Ser Thr Gln Ile Pro Ser Leu Pro Asn Gln Val Gln  
85 90 95

Pro Thr Ile Pro Asn Ile Pro Gln Ile Asn Phe Pro Ser Asn Phe Pro  
100 105 110

Phe Asn Phe Pro Phe Asn Ile Pro Phe Leu Thr Pro Pro Pro Ser Lys  
115 120 125

<210> 1471

<211> 2904

<212> DNA

<213> Arabidopsis thaliana

&lt;400&gt; 1471

atgggaaatt ttgtgtgtat agaaatttct ggtgatcaaa tgctggatcg tatcattaga	60
tgcttatgtg gtaaaggtta tattcgaaac ctcgagaaga atctcagagc tctgcagagg	120
gaaatggaag atctaagagc aactcaacat gaggtacaga acaaggtagc gagagaggag	180
tcacgccatc aacaaaggct tgaagctgtc caggtatggc ttgaccgtgt caatagcatt	240
gatatagagt gcaaagatct gctaagtgtt agtcccgttg agcttcaaaa gttgtgtctc	300
tgcggtttat gttcaaaata tgtatgttca agctacaaat atgggaaaag ggtgtttttg	360
ttattggaag aggttacgaa actaaaatcg gagggaaatt ttgacgaggt ttctcagccg	420
cctccaagat ctgaagtga agagaggcct actcagccta cgattgggtca agaagaaatg	480
ctcaaaaagg catggaaccg ctttatggaa gatggagtcg gaatcatggg tctgcacggt	540
atgggtggtg taggcaaaac aacccttttc aagaaaatcc acaataagtt cgctgaaaca	600
ggtggtacgt ttgacattgt gatctggatc gtggtgtctc aaggcgcaaa gctttcaaag	660
cttcaagaag atattgcaga gaaattacac ctttgtgacg acctgtggaa gaacaagaat	720
gaaagtgata aggccaccga tatacacaga gttttaaagg gaaagagatt tgttttgatg	780
ctagatgata tatgggagaa agtggattta gagggcattg gtattcccta tccgagtga	840
gtaaataaat gcaaagtagc attcaccacc cgagatcaaa aagtttgtgg gcagatgggg	900
gatcataagc cgatgcaagt caaatgtttg gaaccagagg atgcatggga gttgttcaaa	960
aacaaggtcg gagacaacac attacgtagt gatcctgtta ttgtgggggtt ggcaagagag	1020
gtcgtcaaa aatgtcgtgg tctgccattg gcgctcagtt gcattggtga gacaatggca	1080
tctaaaacta tgggtacaaga atgggagcat gcaatcgatg ttttgactag atccgctgca	1140
gagttttctg acatgcaaaa caaaattctt ccgattctca agtacagcta cgatagcttg	1200
gaggatgaac atatcaagtc gtgtttccta tattgtgctc tgtttcccga agatgataag	1260
atagatacca aaaccttgat aaacaaatgg atctgcgaag gattcatcgg agaagaccaa	1320
gttataaaaa gagcgaggaa taagggttat gagatgctcg gtacccttat ccgtgcta	1380
ttactaacia atgatcgtgg gttcgtgaaa tggcatgttg tgatgcatga cgtggttcgt	1440
gaaatggctt tgtggattgc atccgatttt gggaaacaga aagagaatta tgttgtgca	1500
gcaagagtcg gggttacatga aataccaaaa gtcaaggatt ggggagctgt aagaagaatg	1560
tcactaatga tgaatgaaat tgaagagata acatgcgagt ccaagtgttc tgaacttaca	1620
actttgttcc ttcaaagtaa tcaattgaag aatctatcag gtgaattcat tcggtatatg	1680
caaaagctag ttgttttgga tctttcacat aatcctgact tcaatgaact tccagagcag	1740
atatcggggc tgggtctcgtt gcagtatctt gacttgtcgt ggacaagaat agagcaactg	1800
cctgttggtc tcaaagagtt gaaaaagcta atttttctga atttatgttt caccgagcga	1860

```

ctttgtagta tcagtgggat atcaagggtt ttgagtttaa gatggttgag tctgcgagag 1920
tctaattgttc atggagatgc tagcgtattg aaggagctgc agcaattgga gaattctacaa 1980
gatctacgca taactgaatc cgcgaggatta attagtttgg atcaaagggtt ggcgaagtta 2040
atctctgttc tgcgtattga ggggttttctt caaaagccat tcgatttatc attcctggcg 2100
agtatggaga atctttatgg gctactggtg gaaaatagtt atttctcgga gattaatata 2160
aagtgcagag aaagcgagac agaatcgtct tatttacaca tcaatccgaa aattccatgc 2220
tttaccaacc tcacaggact gattataatg aagtgccata gcatgaagga tctgacttgg 2280
atattgtttg ctccaaatct tgtcaaccta gacattcgtg attcaagaga agtgggagaa 2340
ataataaaca aagagaaagc aatcaatctt acaagtatta ttacaccatt tcagaaacta 2400
gaaaggttgt ttttgtatgg tttgccgaag ctggagagta tctactggag tcctctcccc 2460
tttccgcttt tgtcgaacat agttgttaaa tactgtccaa agctgagaaa gcttccatta 2520
aatgctacaa gtgtccact agttgaagaa ttgaaatac gtatggatcc tccagaacag 2580
gaaaatgagc ttgaatggga ggacgaagat accaaaaatc gattcttgcc ttcaatcaaa 2640
ccgctagtac gtcgtctaaa gatccattac tcaggaatgg gattcctcaa tgtcaaaaat 2700
cagaatccac gcttcttctt ctattgcttt atctatcttc ttgtagtga tttggattgt 2760
ataattgatt tgcattctga cacttctgga atgtgttgtg ttgttcactt ggattatggt 2820
tttcattttc cttttgtatt ccctaaaacg ttttgcattc ttttcagact acatttttac 2880
acaatcaaaa gtttatgcgt ttag 2904

```

&lt;210&gt; 1472

&lt;211&gt; 967

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1472

```

Met Gly Asn Phe Val Cys Ile Glu Ile Ser Gly Asp Gln Met Leu Asp
1           5           10           15

```

```

Arg Ile Ile Arg Cys Leu Cys Gly Lys Gly Tyr Ile Arg Asn Leu Glu
20           25           30

```

```

Lys Asn Leu Arg Ala Leu Gln Arg Glu Met Glu Asp Leu Arg Ala Thr
35           40           45

```

```

Gln His Glu Val Gln Asn Lys Val Ala Arg Glu Glu Ser Arg His Gln
50           55           60

```

047-E2F-PCT.ST25.txt

Gln Arg Leu Glu Ala Val Gln Val Trp Leu Asp Arg Val Asn Ser Ile  
65 70 75 80

Asp Ile Glu Cys Lys Asp Leu Leu Ser Val Ser Pro Val Glu Leu Gln  
85 90 95

Lys Leu Cys Leu Cys Gly Leu Cys Ser Lys Tyr Val Cys Ser Ser Tyr  
100 105 110

Lys Tyr Gly Lys Arg Val Phe Leu Leu Leu Glu Glu Val Thr Lys Leu  
115 120 125

Lys Ser Glu Gly Asn Phe Asp Glu Val Ser Gln Pro Pro Pro Arg Ser  
130 135 140

Glu Val Glu Glu Arg Pro Thr Gln Pro Thr Ile Gly Gln Glu Glu Met  
145 150 155 160

Leu Lys Lys Ala Trp Asn Arg Leu Met Glu Asp Gly Val Gly Ile Met  
165 170 175

Gly Leu His Gly Met Gly Gly Val Gly Lys Thr Thr Leu Phe Lys Lys  
180 185 190

Ile His Asn Lys Phe Ala Glu Thr Gly Gly Thr Phe Asp Ile Val Ile  
195 200 205

Trp Ile Val Val Ser Gln Gly Ala Lys Leu Ser Lys Leu Gln Glu Asp  
210 215 220

Ile Ala Glu Lys Leu His Leu Cys Asp Asp Leu Trp Lys Asn Lys Asn  
225 230 235 240

Glu Ser Asp Lys Ala Thr Asp Ile His Arg Val Leu Lys Gly Lys Arg  
245 250 255

Phe Val Leu Met Leu Asp Asp Ile Trp Glu Lys Val Asp Leu Glu Ala  
260 265 270

Ile Gly Ile Pro Tyr Pro Ser Glu Val Asn Lys Cys Lys Val Ala Phe  
275 280 285

Thr Thr Arg Asp Gln Lys Val Cys Gly Gln Met Gly Asp His Lys Pro  
290 295 300

Met Gln Val Lys Cys Leu Glu Pro Glu Asp Ala Trp Glu Leu Phe Lys

305                      310                      315                      320  
 Asn Lys Val Gly Asp 325 Asn Thr Leu Arg Ser 330 Asp Pro Val Ile Val Gly 335  
 Leu Ala Arg Glu 340 Val Ala Gln Lys Cys 345 Arg Gly Leu Pro Leu 350 Ala Leu  
 Ser Cys Ile 355 Gly Glu Thr Met Ala 360 Ser Lys Thr Met Val 365 Gln Glu Trp  
 Glu His 370 Ala Ile Asp Val Leu 375 Thr Arg Ser Ala Ala 380 Glu Phe Ser Asp  
 Met 385 Gln Asn Lys Ile Leu 390 Pro Ile Leu Lys Tyr 395 Ser Tyr Asp Ser Leu 400  
 Glu Asp Glu His Ile 405 Lys Ser Cys Phe Leu 410 Tyr Cys Ala Leu Phe 415 Pro  
 Glu Asp Asp Lys 420 Ile Asp Thr Lys Thr 425 Leu Ile Asn Lys Trp 430 Ile Cys  
 Glu Gly Phe 435 Ile Gly Glu Asp Gln 440 Val Ile Lys Arg Ala 445 Arg Asn Lys  
 Gly Tyr 450 Glu Met Leu Gly Thr 455 Leu Ile Arg Ala Asn 460 Leu Leu Thr Asn  
 Asp 465 Arg Gly Phe Val Lys 470 Trp His Val Val Met 475 His Asp Val Val Arg 480  
 Glu Met Ala Leu Trp 485 Ile Ala Ser Asp Phe 490 Gly Lys Gln Lys Glu 495 Asn  
 Tyr Val Val Arg 500 Ala Arg Val Gly Leu 505 His Glu Ile Pro Lys 510 Val Lys  
 Asp Trp Gly 515 Ala Val Arg Arg Met 520 Ser Leu Met Met Asn 525 Glu Ile Glu  
 Glu Ile 530 Thr Cys Glu Ser Lys 535 Cys Ser Glu Leu Thr 540 Thr Leu Phe Leu  
 Gln 545 Ser Asn Gln Leu Lys 550 Asn Leu Ser Gly Glu 555 Phe Ile Arg Tyr Met 560



Gln Lys Leu Val Val Leu Asp Leu Ser His Asn Pro Asp Phe Asn Glu  
 565 570 575  
 Leu Pro Glu Gln Ile Ser Gly Leu Val Ser Leu Gln Tyr Leu Asp Leu  
 580 585 590  
 Ser Trp Thr Arg Ile Glu Gln Leu Pro Val Gly Leu Lys Glu Leu Lys  
 595 600 605  
 Lys Leu Ile Phe Leu Asn Leu Cys Phe Thr Glu Arg Leu Cys Ser Ile  
 610 615 620  
 Ser Gly Ile Ser Arg Leu Leu Ser Leu Arg Trp Leu Ser Leu Arg Glu  
 625 630 635 640  
 Ser Asn Val His Gly Asp Ala Ser Val Leu Lys Glu Leu Gln Gln Leu  
 645 650 655  
 Glu Asn Leu Gln Asp Leu Arg Ile Thr Glu Ser Ala Glu Leu Ile Ser  
 660 665 670  
 Leu Asp Gln Arg Leu Ala Lys Leu Ile Ser Val Leu Arg Ile Glu Gly  
 675 680 685  
 Phe Leu Gln Lys Pro Phe Asp Leu Ser Phe Leu Ala Ser Met Glu Asn  
 690 695 700  
 Leu Tyr Gly Leu Leu Val Glu Asn Ser Tyr Phe Ser Glu Ile Asn Ile  
 705 710 715 720  
 Lys Cys Arg Glu Ser Glu Thr Glu Ser Ser Tyr Leu His Ile Asn Pro  
 725 730 735  
 Lys Ile Pro Cys Phe Thr Asn Leu Thr Gly Leu Ile Ile Met Lys Cys  
 740 745 750  
 His Ser Met Lys Asp Leu Thr Trp Ile Leu Phe Ala Pro Asn Leu Val  
 755 760 765  
 Asn Leu Asp Ile Arg Asp Ser Arg Glu Val Gly Glu Ile Ile Asn Lys  
 770 775 780  
 Glu Lys Ala Ile Asn Leu Thr Ser Ile Ile Thr Pro Phe Gln Lys Leu  
 785 790 795 800  
 Glu Arg Leu Phe Leu Tyr Gly Leu Pro Lys Leu Glu Ser Ile Tyr Trp  
 805 810 815

047-E2F-PCT.ST25.txt

Ser Pro Leu Pro Phe Pro Leu Leu Ser Asn Ile Val Val Lys Tyr Cys  
820 825 830

Pro Lys Leu Arg Lys Leu Pro Leu Asn Ala Thr Ser Val Pro Leu Val  
835 840 845

Glu Glu Phe Glu Ile Arg Met Asp Pro Pro Glu Gln Glu Asn Glu Leu  
850 855 860

Glu Trp Glu Asp Glu Asp Thr Lys Asn Arg Phe Leu Pro Ser Ile Lys  
865 870 875 880

Pro Leu Val Arg Arg Leu Lys Ile His Tyr Ser Gly Met Gly Phe Leu  
885 890 895

Asn Val Lys Asn Gln Asn Pro Arg Phe Phe Phe Tyr Cys Phe Ile Tyr  
900 905 910

Leu Leu Val Val His Leu Asp Cys Ile Ile Asp Leu His Ser Asp Thr  
915 920 925

Ser Gly Met Cys Cys Val Val His Leu Asp Tyr Val Phe His Phe Pro  
930 935 940

Phe Val Phe Pro Lys Thr Phe Cys Ile Leu Phe Arg Leu His Phe Tyr  
945 950 955 960

Thr Ile Lys Ser Leu Cys Val  
965

<210> 1473  
<211> 597  
<212> DNA  
<213> Arabidopsis thaliana

<400> 1473  
atggcaacca tgtctgctct tcagagctct tttactttctc tttctctatc tcccagctct 60  
tccttcctcg gccagcgttt aatttccccg atttccctct ccgtcacttc tccggtcaag 120  
cccgtgaga acccatgtct tgttcttgca aagctcaagc gttgggaacg aaaagaatgc 180  
aaaccaaaac gtcttccgat tctccacaaa atgcatgtca agtttggaga tacagtcaaa 240  
gtaatatctg gacgcgacaa gggtaaaatc ggagagggtta ctaagatttt cactcacaac 300  
agtaccattg tgatcaaaga tgtgaacctc aaaacaaaac acatgaagag ccgagaagag 360

047-E2F-PCT.ST25.txt

ggagagcctg gtcaaattgt caagatagaa gcacctatcc acagctcaaa tgtgatgttg 420  
tattcaaaag aaaaagacgt agtaagccgg gtgggtcaca aggtacttga agatggacag 480  
aaggtaagat atctgatcaa aacaggggaa ctcatcgaca ccattgagaa gtggaagcta 540  
cttaaggagg ctaaggataa ggaaaccacc caagttgcag ttacctccgc atcttag 597

<210> 1474

<211> 198

<212> PRT

<213> Arabidopsis thaliana

<400> 1474

Met Ala Thr Met Ser Ala Leu Gln Ser Ser Phe Thr Ser Leu Ser Leu  
1 5 10 15

Ser Pro Ser Ser Ser Phe Leu Gly Gln Arg Leu Ile Ser Pro Ile Ser  
20 25 30

Leu Ser Val Thr Ser Pro Val Lys Pro Ala Glu Asn Pro Cys Leu Val  
35 40 45

Leu Ala Lys Leu Lys Arg Trp Glu Arg Lys Glu Cys Lys Pro Asn Ser  
50 55 60

Leu Pro Ile Leu His Lys Met His Val Lys Phe Gly Asp Thr Val Lys  
65 70 75 80

Val Ile Ser Gly Arg Asp Lys Gly Lys Ile Gly Glu Val Thr Lys Ile  
85 90 95

Phe Thr His Asn Ser Thr Ile Val Ile Lys Asp Val Asn Leu Lys Thr  
100 105 110

Lys His Met Lys Ser Arg Glu Glu Gly Glu Pro Gly Gln Ile Val Lys  
115 120 125

Ile Glu Ala Pro Ile His Ser Ser Asn Val Met Leu Tyr Ser Lys Glu  
130 135 140

Lys Asp Val Val Ser Arg Val Gly His Lys Val Leu Glu Asp Gly Gln  
145 150 155 160

Lys Val Arg Tyr Leu Ile Lys Thr Gly Glu Leu Ile Asp Thr Ile Glu  
Page 2285

165

175

Lys Trp Lys Leu Leu Lys Glu Ala Lys Asp Lys Glu Thr Thr Gln Val  
180 185 190

Ala Val Thr Ser Ala Ser  
195

<210> 1475

<211> 573

<212> DNA

<213> Arabidopsis thaliana

<400> 1475  
atgtttcttc aggttaccgg cacggcgact ccggctatgc ctgcggtagt gtttctcaat 60  
tcatggagac gaccacttag tattcctctc cggagcgtaa aaaccttcaa gcctctagca 120  
ttcttcgatc tcaaaggagg caaaggaatg agtgagttcc atgaggttga actcaaagtt 180  
cgtgattatg aattggatca gtttggtggt gtgaacaatg ctgtttacgc aaactactgt 240  
caacacggtc gacatgagtt tctagagagt atcgggtatca actgcgacga agtagcacgt 300  
tctggggaag ccttagcaat ttcagagttg acaatgaagt tcctttcacc tttacgtagc 360  
ggagacaaat tcgtggtgaa agcgaggata tcggggacat ctgctgcgcg tatttacttc 420  
gatcatttca tctttaaact tccaaatcaa gagcctatat tggaggcaaa aggaatagct 480  
gtgtggctcg acaacaagta ccgtcctggt cgcatcccat cttctatacg ttctaaattt 540  
gttcacttcc tacgccaaga cgacgccgtt tga 573

<210> 1476

<211> 190

<212> PRT

<213> Arabidopsis thaliana

<400> 1476

Met Phe Leu Gln Val Thr Gly Thr Ala Thr Pro Ala Met Pro Ala Val  
1 5 10 15

Val Phe Leu Asn Ser Trp Arg Arg Pro Leu Ser Ile Pro Leu Arg Ser  
20 25 30

Val Lys Thr Phe Lys Pro Leu Ala Phe Phe Asp Leu Lys Gly Gly Lys  
 35 40 45  
 Gly Met Ser Glu Phe His Glu Val Glu Leu Lys Val Arg Asp Tyr Glu  
 50 55 60  
 Leu Asp Gln Phe Gly Val Val Asn Asn Ala Val Tyr Ala Asn Tyr Cys  
 65 70 75 80  
 Gln His Gly Arg His Glu Phe Leu Glu Ser Ile Gly Ile Asn Cys Asp  
 85 90 95  
 Glu Val Ala Arg Ser Gly Glu Ala Leu Ala Ile Ser Glu Leu Thr Met  
 100 105 110  
 Lys Phe Leu Ser Pro Leu Arg Ser Gly Asp Lys Phe Val Val Lys Ala  
 115 120 125  
 Arg Ile Ser Gly Thr Ser Ala Ala Arg Ile Tyr Phe Asp His Phe Ile  
 130 135 140  
 Phe Lys Leu Pro Asn Gln Glu Pro Ile Leu Glu Ala Lys Gly Ile Ala  
 145 150 155 160  
 Val Trp Leu Asp Asn Lys Tyr Arg Pro Val Arg Ile Pro Ser Ser Ile  
 165 170 175  
 Arg Ser Lys Phe Val His Phe Leu Arg Gln Asp Asp Ala Val  
 180 185 190

&lt;210&gt; 1477

&lt;211&gt; 2334

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1477

atggctaagc tctctctttc ctccatcttc ttcgtctttc ctctcctcct ctgtttcttt 60  
 tccccttctt cttcttcatac ggatggctta gaatcctaca tcgtccatgt gcagagatct 120  
 cataagcctt cctctctctc ctcccacaac aactggcacg tctctctcct tcgctctctc 180  
 ccttcttctc cccaaccagc aacgctgctc tactcttatt cacgcgccgt tcatggcttc 240  
 tccgctcgtc tctcccctat ccaaaccgcc gccctccgcc gtcaccttc agtcactctc 300  
 gttatacctg atcaagcgcg tgagatccac acaactcaca cgctgcctt cctcggtttc 360

tcccaaaact	ctggactctg	gagcaactca	aattacgggg	aagacgtgat	cgtcggcggtt	420
ttagatactg	gaatctggcc	ggaacatcca	agtttctcgg	attcaggtct	cggtccaatt	480
ccatctacct	ggaaaggcga	gtgcgagatc	ggacctgatt	ttcctgcctc	atcttgcaat	540
cggagctta	tcggagctcg	agcgttttac	aggggatatt	taacgcaacg	gaatggaaca	600
aaaaagcatg	cagccaagga	atcgagatcg	ccgcgtgata	cagaagggtca	tggcacgcac	660
acggcatcta	cggcagctgg	atcggtgggt	gctaacgcga	gtttgtacca	gtacgcgcgc	720
ggaacagcta	ctgggatggc	gtcaaaggcg	agaatcgccg	cttacaaaat	ctgttgacc	780
ggcggatggt	acgattccga	tatcctcgcc	gccatggatc	aggcggttgc	cgacgggtgtt	840
cacgttatct	ctctctccgt	cggagccagc	ggttccgccc	cggagtatca	cacggactct	900
atagcgatcg	gagcatttgg	agccacgcgg	cacggcatcg	tcgtttcttg	ctccgctggg	960
aattctggtc	ctaatactga	aaccgcgacg	aacatcgctc	catggatctt	aaccgttggt	1020
gcgtccaccg	tcgatagaga	attcgccgca	aacgcaatca	cgggagacgg	gaaagtcttc	1080
acgggaacat	cactgtacgc	aggcgaatct	ctaccggatt	ctcaactttc	tctggtatat	1140
tccggcgatt	gcggaagcag	attgtgttac	cctgggaaat	tgaattcatc	attggttgaa	1200
ggcaaaatcg	tgctctgtga	cagaggaggc	aacgcaagag	ttgagaaagg	aagtgcagtc	1260
aagctagccg	gtggtgctgg	tatgattctg	gcgaacacag	ctgaaagcgg	tgaagaatta	1320
accgccgatt	cgcatctcgt	cccggcgaca	atggttgag	ctaaagctgg	agatcaaatc	1380
cgcgactaca	tcaaaacatc	agactctccc	actgcaaaaa	tcagtttcct	aggcactttg	1440
atcggaccat	ctcctccttc	tcccagagtc	gccgctttct	ccagccgtgg	accgaatcac	1500
ttgacaccgg	ttattcttaa	accggacgtg	attgctcctg	gagtcaacat	tttagccggt	1560
tggaccggga	tggttggtcc	taccgattta	gatatcgatc	caagacgggt	tcaattcaac	1620
atcatctccg	gtacatcgat	gtcgtgccca	cacgttagtg	gactcgccgc	tctcctccgt	1680
aaagctcatc	ccgattggtc	acctgcagca	atcaaataccg	cccttgtaac	caccgcttac	1740
gatgtcgaaa	actccggcga	accaatcgag	gatctcgcca	ccggtaaatac	atcgaactca	1800
ttcatccacg	gagctggaca	cgtcgatcca	aacaaagctt	tgaatcctgg	tttggtttac	1860
gacatcgagg	tcaaagagta	cgtagctttc	ctctgcgccg	tgggatacga	gtttccgggg	1920
attctagtct	ttcttcaaga	tccaactctt	tacgacgcat	gtgaaacgag	caagctaaga	1980
accgccggcg	atctcaatta	cccatctttc	tccgtgggtt	tcgcatcgac	cggggaagtt	2040
gtgaaataca	aaagggttgt	caaaaacgtg	ggaagcaatg	tcgacgctgt	gtacgaagtc	2100
ggagttaaat	ctccggcgaa	tggttgagatt	gatgtttctc	caagcaagct	tgcgttcagc	2160
aaggagaaga	gcgtgttgga	gtatgaagtc	acatttaaga	gcgttgtgct	cggcggagga	2220
gtcggatccg	tgccgggtca	tgaattcggg	tcgatcgaat	ggacagacgg	tgaacacggt	2280

gttaagagtc cgggtggccgt ccaatgggggt cagggatcag ttcagtcctt ctga

2334

&lt;210&gt; 1478

&lt;211&gt; 777

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1478

Met Ala Lys Leu Ser Leu Ser Ser Ile Phe Phe Val Phe Pro Leu Leu  
1 5 10 15

Leu Cys Phe Phe Ser Pro Ser Ser Ser Ser Asp Gly Leu Glu Ser  
20 25 30

Tyr Ile Val His Val Gln Arg Ser His Lys Pro Ser Leu Phe Ser Ser  
35 40 45

His Asn Asn Trp His Val Ser Leu Leu Arg Ser Leu Pro Ser Ser Pro  
50 55 60

Gln Pro Ala Thr Leu Leu Tyr Ser Tyr Ser Arg Ala Val His Gly Phe  
65 70 75 80

Ser Ala Arg Leu Ser Pro Ile Gln Thr Ala Ala Leu Arg Arg His Pro  
85 90 95

Ser Val Ile Ser Val Ile Pro Asp Gln Ala Arg Glu Ile His Thr Thr  
100 105 110

His Thr Pro Ala Phe Leu Gly Phe Ser Gln Asn Ser Gly Leu Trp Ser  
115 120 125

Asn Ser Asn Tyr Gly Glu Asp Val Ile Val Gly Val Leu Asp Thr Gly  
130 135 140

Ile Trp Pro Glu His Pro Ser Phe Ser Asp Ser Gly Leu Gly Pro Ile  
145 150 155 160

Pro Ser Thr Trp Lys Gly Glu Cys Glu Ile Gly Pro Asp Phe Pro Ala  
165 170 175

Ser Ser Cys Asn Arg Lys Leu Ile Gly Ala Arg Ala Phe Tyr Arg Gly  
180 185 190

047-E2F-PCT.ST25.txt

Tyr Leu Thr Gln Arg Asn Gly Thr Lys Lys His Ala Ala Lys Glu Ser  
 195 200 205  
 Arg Ser Pro Arg Asp Thr Glu Gly His Gly Thr His Thr Ala Ser Thr  
 210 215 220  
 Ala Ala Gly Ser Val Val Ala Asn Ala Ser Leu Tyr Gln Tyr Ala Arg  
 225 230 235 240  
 Gly Thr Ala Thr Gly Met Ala Ser Lys Ala Arg Ile Ala Ala Tyr Lys  
 245 250 255  
 Ile Cys Trp Thr Gly Gly Cys Tyr Asp Ser Asp Ile Leu Ala Ala Met  
 260 265 270  
 Asp Gln Ala Val Ala Asp Gly Val His Val Ile Ser Leu Ser Val Gly  
 275 280 285  
 Ala Ser Gly Ser Ala Pro Glu Tyr His Thr Asp Ser Ile Ala Ile Gly  
 290 295 300  
 Ala Phe Gly Ala Thr Arg His Gly Ile Val Val Ser Cys Ser Ala Gly  
 305 310 315 320  
 Asn Ser Gly Pro Asn Pro Glu Thr Ala Thr Asn Ile Ala Pro Trp Ile  
 325 330 335  
 Leu Thr Val Gly Ala Ser Thr Val Asp Arg Glu Phe Ala Ala Asn Ala  
 340 345 350  
 Ile Thr Gly Asp Gly Lys Val Phe Thr Gly Thr Ser Leu Tyr Ala Gly  
 355 360 365  
 Glu Ser Leu Pro Asp Ser Gln Leu Ser Leu Val Tyr Ser Gly Asp Cys  
 370 375 380  
 Gly Ser Arg Leu Cys Tyr Pro Gly Lys Leu Asn Ser Ser Leu Val Glu  
 385 390 395 400  
 Gly Lys Ile Val Leu Cys Asp Arg Gly Gly Asn Ala Arg Val Glu Lys  
 405 410 415  
 Gly Ser Ala Val Lys Leu Ala Gly Gly Ala Gly Met Ile Leu Ala Asn  
 420 425 430  
 Thr Ala Glu Ser Gly Glu Glu Leu Thr Ala Asp Ser His Leu Val Pro  
 435 440 445



047-E2F-PCT.ST25.txt

Ala Thr Met Val Gly Ala Lys Ala Gly Asp Gln Ile Arg Asp Tyr Ile  
450 455 460

Lys Thr Ser Asp Ser Pro Thr Ala Lys Ile Ser Phe Leu Gly Thr Leu  
465 470 475 480

Ile Gly Pro Ser Pro Pro Ser Pro Arg Val Ala Ala Phe Ser Ser Arg  
485 490 495

Gly Pro Asn His Leu Thr Pro Val Ile Leu Lys Pro Asp Val Ile Ala  
500 505 510

Pro Gly Val Asn Ile Leu Ala Gly Trp Thr Gly Met Val Gly Pro Thr  
515 520 525

Asp Leu Asp Ile Asp Pro Arg Arg Val Gln Phe Asn Ile Ile Ser Gly  
530 535 540

Thr Ser Met Ser Cys Pro His Val Ser Gly Leu Ala Ala Leu Leu Arg  
545 550 555 560

Lys Ala His Pro Asp Trp Ser Pro Ala Ala Ile Lys Ser Ala Leu Val  
565 570 575

Thr Thr Ala Tyr Asp Val Glu Asn Ser Gly Glu Pro Ile Glu Asp Leu  
580 585 590

Ala Thr Gly Lys Ser Ser Asn Ser Phe Ile His Gly Ala Gly His Val  
595 600 605

Asp Pro Asn Lys Ala Leu Asn Pro Gly Leu Val Tyr Asp Ile Glu Val  
610 615 620

Lys Glu Tyr Val Ala Phe Leu Cys Ala Val Gly Tyr Glu Phe Pro Gly  
625 630 635 640

Ile Leu Val Phe Leu Gln Asp Pro Thr Leu Tyr Asp Ala Cys Glu Thr  
645 650 655

Ser Lys Leu Arg Thr Ala Gly Asp Leu Asn Tyr Pro Ser Phe Ser Val  
660 665 670

Val Phe Ala Ser Thr Gly Glu Val Val Lys Tyr Lys Arg Val Val Lys  
675 680 685

Asn Val Gly Ser Asn Val Asp Ala Val Tyr Glu Val Gly Val Lys Ser

690

695

Pro Ala Asn Val Glu Ile Asp Val Ser Pro Ser Lys Leu Ala Phe Ser  
705 710 715 720

Lys Glu Lys Ser Val Leu Glu Tyr Glu Val Thr Phe Lys Ser Val Val  
725 730 735

Leu Gly Gly Gly Val Gly Ser Val Pro Gly His Glu Phe Gly Ser Ile  
740 745 750

Glu Trp Thr Asp Gly Glu His Val Val Lys Ser Pro Val Ala Val Gln  
755 760 765

Trp Gly Gln Gly Ser Val Gln Ser Phe  
770 775

<210> 1479

<211> 753

<212> DNA

<213> Arabidopsis thaliana

<400> 1479

atggcgactt cttcgatcac tatcccgacc attagaactc cgattcatcg atcaaaattt	60
ctaggccaaa cacatcaatt ttcaactgta aaccggtcgg ttttcccgcc tccaaaacag	120
cagtcaaaac tgtatcaagt aaaggccatg ggtaaattca atctatggga agtgatggga	180
ggaagaggat tatgcaacgg agagaaaggt attgagaagg agctccagag gaacattgaa	240
gacgagcaag agacatcaaa ggctgagaac aacgagacag agagagagag cgatgacagt	300
aacttgtctt ttaaagtacc tgaagatggt ttcgagaaag agatgatggg tctcacagga	360
ggatttcccg gtggcgaaaa gggtttaaaa acgtttatcg aaaaaaatcc accacctcct	420
ccaccaccac cacctgcaaa acaaggaagc gatgcatccg cggttgctac agataagaag	480
ccgaaagcgc ccaagctacc ctttctcatg ccggggatga ttgctatagt caagaaccag	540
aacagtccgt atcacatgta ttgtggaatt gtgcagagga tcaatgatgg aaaagctggt	600
gtcttggttcg aaggaggaaa ctgggaccgt ctcattactt tcaggcttga agagcttgaa	660
cgaagagaaa aaggtccacc gggtaagaat ccaaagtctt gtattctcga gcctcttatc	720
gaacagatgc aaaaggaaga ggcagcacca taa	753

<210> 1480

&lt;211&gt; 250

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1480

Met Ala Thr Ser Ser Ile Thr Ile Pro Thr Ile Arg Thr Pro Ile His  
 1 5 10 15

Arg Ser Lys Phe Leu Gly Gln Thr His Gln Phe Ser Thr Val Asn Arg  
 20 25 30

Ser Val Phe Pro Pro Pro Lys Gln Gln Ser Lys Leu Tyr Gln Val Lys  
 35 40 45

Ala Met Gly Lys Phe Asn Leu Trp Glu Val Met Gly Gly Arg Gly Leu  
 50 55 60

Cys Asn Gly Glu Lys Gly Ile Glu Lys Glu Leu Gln Arg Asn Ile Glu  
 65 70 75 80

Asp Glu Gln Glu Thr Ser Lys Ala Glu Asn Asn Glu Thr Glu Arg Glu  
 85 90 95

Ser Asp Asp Ser Asn Leu Ser Phe Lys Val Pro Glu Asp Gly Phe Glu  
 100 105 110

Lys Glu Met Met Gly Leu Thr Gly Gly Phe Pro Gly Gly Glu Lys Gly  
 115 120 125

Leu Lys Thr Phe Ile Glu Lys Asn Pro Pro Pro Pro Pro Pro Pro  
 130 135 140

Pro Ala Lys Gln Gly Ser Asp Ala Ser Ala Val Ala Thr Asp Lys Lys  
 145 150 155 160

Pro Lys Ala Pro Lys Leu Pro Leu Leu Met Pro Gly Met Ile Ala Ile  
 165 170 175

Val Lys Asn Gln Asn Ser Pro Tyr His Met Tyr Cys Gly Ile Val Gln  
 180 185 190

Arg Ile Thr Asp Gly Lys Ala Gly Val Leu Phe Glu Gly Gly Asn Trp  
 195 200 205

Asp Arg Leu Ile Thr Phe Arg Leu Glu Glu Leu Glu Arg Arg Glu Lys  
 Page 2293

210

215

Gly Pro Pro Gly Lys Asn Pro Lys Ser Cys Ile Leu Glu Pro Leu Ile  
225 230 235 240

Glu Gln Met Gln Lys Glu Glu Ala Ala Pro  
245 250

<210> 1481

<211> 1086

<212> DNA

<213> Arabidopsis thaliana

<400> 1481

atgggagggg tgacgtcatc ggtggcgggc aagtttgcct tcttcccgcc gagtccaccg	60
tcttacaagg tgggtgaccga cgagctcacc ggactgttgc ttctcagccc tttccccac	120
cgcgaaaacg tagaaatcgt aaagcttcgg accaggagag gcacagagat cgtgggcatg	180
tacgtgaggc atccgatggc tacctccacg ctctctact cccatggcaa cgccgccgat	240
ctgggacaga tgtatgagct cttcattgag cttagcatcc atctcaagggt taatcttatg	300
ggatacgatt actccgggta tggacaatct actggaaagc cgagttagca taacacgtat	360
gctgatatcg aagctgttta taagtgtctt gaagaaacct ttggctctaa gcaggaagggt	420
gtcatcctct acggccaatc tgtaggcagc ggacctacgt tagatcttgc ttcccggttg	480
cctcaactta gagccgtcgt ccttcacagc cccattctct ccggtttaag agttatgtat	540
tccgtcaaga aaacctactg gtctgacatc tacaagaata tcgacaaaat cccatatgtc	600
gattgcccgg ttctcatcat tcatggaact tcggatgagg tagtggattg ttctcatggg	660
aaacaactat gggaactctg caaagacaag tacgagccgc tctgggtgaa aggagggaac	720
cactgtgatc ttgaacacta ccctgaatac attagacacc tcaagaagtt catagcaaca	780
gtagagagat taccatgtcc gaggatgagc agcgaccaat cagagagagt gagagatgcg	840
ccccgagga gaagtatgga caggagagtg aagccgaggc agagcacaga gcgtagagag	900
aaagagaagc caccaaagag tcagtcgaag atgagtagca gcagcagcaa gctcaagatc	960
tcgtttgatc aacttgatcg ctgcggagg agcgttgact gccatgaaaa gactcggaag	1020
agcgttgacc agattgagag ggggaggaag agtgtggata ggttggatag agttcgctcc	1080
gagtaa	1086

<210> 1482

&lt;211&gt; 361

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1482

Met Gly Gly Val Thr Ser Ser Val Ala Ala Lys Phe Ala Phe Phe Pro  
 1 5 10 15

Pro Ser Pro Pro Ser Tyr Lys Val Val Thr Asp Glu Leu Thr Gly Leu  
 20 25 30

Leu Leu Leu Ser Pro Phe Pro His Arg Glu Asn Val Glu Ile Val Lys  
 35 40 45

Leu Arg Thr Arg Arg Gly Thr Glu Ile Val Gly Met Tyr Val Arg His  
 50 55 60

Pro Met Ala Thr Ser Thr Leu Leu Tyr Ser His Gly Asn Ala Ala Asp  
 65 70 75 80

Leu Gly Gln Met Tyr Glu Leu Phe Ile Glu Leu Ser Ile His Leu Lys  
 85 90 95

Val Asn Leu Met Gly Tyr Asp Tyr Ser Gly Tyr Gly Gln Ser Thr Gly  
 100 105 110

Lys Pro Ser Glu His Asn Thr Tyr Ala Asp Ile Glu Ala Val Tyr Lys  
 115 120 125

Cys Leu Glu Glu Thr Phe Gly Ser Lys Gln Glu Gly Val Ile Leu Tyr  
 130 135 140

Gly Gln Ser Val Gly Ser Gly Pro Thr Leu Asp Leu Ala Ser Arg Leu  
 145 150 155 160

Pro Gln Leu Arg Ala Val Val Leu His Ser Pro Ile Leu Ser Gly Leu  
 165 170 175

Arg Val Met Tyr Ser Val Lys Lys Thr Tyr Trp Phe Asp Ile Tyr Lys  
 180 185 190

Asn Ile Asp Lys Ile Pro Tyr Val Asp Cys Pro Val Leu Ile Ile His  
 195 200 205

Gly Thr Ser Asp Glu Val Val Asp Cys Ser His Gly Lys Gln Leu Trp  
 Page 2295

210

215

Glu Leu Cys Lys Asp Lys Tyr Glu Pro Leu Trp Val Lys Gly Gly Asn  
225 230 235 240  
His Cys Asp Leu Glu His Tyr Pro Glu Tyr Ile Arg His Leu Lys Lys  
245 250 255  
Phe Ile Ala Thr Val Glu Arg Leu Pro Cys Pro Arg Met Ser Ser Asp  
260 265 270  
Gln Ser Glu Arg Val Arg Asp Ala Pro Pro Arg Arg Ser Met Asp Arg  
275 280 285  
Arg Val Lys Pro Arg Gln Ser Thr Glu Arg Arg Glu Lys Glu Lys Pro  
290 295 300  
Pro Lys Ser Gln Ser Lys Met Ser Ser Ser Ser Ser Lys Leu Lys Ile  
305 310 315 320  
Ser Phe Asp Gln Leu Asp Arg Ser Arg Arg Ser Val Asp Cys His Glu  
325 330 335  
Lys Thr Arg Lys Ser Val Asp Gln Ile Glu Arg Gly Arg Lys Ser Val  
340 345 350  
Asp Arg Leu Asp Arg Val Arg Ser Glu  
355 360

<210> 1483

<211> 522

<212> DNA

<213> Arabidopsis thaliana

<400> 1483

atggggtttta gagcactgcc tcttcaacac agcagtgggt tcatctccac gaccaaagta 60  
tccatctcaa gaacctcgcc caggattttc cggaacccta gatggggtcgt tgtctcagca 120  
aagcaagaga aagatgagga taagaagaag aatgaagagg agacttcggt gtttactcaa 180  
ttaacggatg ccttggactt ctcaacagtt cgatcggaga aagacgctga gcttctctac 240  
gaggctcgag aagccaccaa atctgggtcgc aagatgaccc aagaacagta tggggcattg 300  
aggagaaaaa tcggaggaac atacaaggac ttttttaaatt cctacgttga agtggatggg 360  
caatatgtgg aggagggatg ggtggacaaa acatgtaaga tatgcaaaaa ggacacaaag 420

ggtgaggcaa gacaagtgga caagttaggg agatatgctc atgtctcttg tcttcaaaat 480  
 cctccctctg gaaatttctt caccagactc ttctctagat ga 522

<210> 1484

<211> 173

<212> PRT

<213> Arabidopsis thaliana

<400> 1484

Met Gly Phe Arg Ala Leu Pro Leu Gln His Ser Ser Gly Phe Ile Ser  
 1 5 10 15

Thr Thr Lys Val Ser Ile Ser Arg Thr Ser Pro Arg Ile Phe Arg Asn  
 20 25 30

Pro Arg Trp Val Val Val Ser Ala Lys Gln Glu Lys Asp Glu Asp Lys  
 35 40 45

Lys Lys Asn Glu Glu Glu Thr Ser Leu Phe Thr Gln Leu Thr Asp Ala  
 50 55 60

Leu Asp Phe Ser Gln Val Arg Ser Glu Lys Asp Ala Glu Leu Leu Tyr  
 65 70 75 80

Glu Ala Arg Glu Ala Thr Lys Ser Gly Arg Lys Met Thr Gln Glu Gln  
 85 90 95

Tyr Gly Ala Leu Arg Arg Lys Ile Gly Gly Thr Tyr Lys Asp Phe Phe  
 100 105 110

Lys Ser Tyr Val Glu Val Asp Gly Gln Tyr Val Glu Glu Gly Trp Val  
 115 120 125

Asp Lys Thr Cys Lys Ile Cys Lys Lys Asp Thr Lys Gly Glu Ala Arg  
 130 135 140

Gln Val Asp Lys Leu Gly Arg Tyr Ala His Val Ser Cys Leu Gln Asn  
 145 150 155 160

Pro Pro Ser Gly Asn Phe Phe Thr Arg Leu Phe Ser Arg  
 165 170

<210> 1485

&lt;211&gt; 1185

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1485

```

atggttgagc cagctagtcc agattccgac gaagggatct cgctgctcga gtttcacggt      60
aacggtgacc gttcctggca gttaaatttc gatgatttcc aggtttcacc ggaacacaag      120
gagaagaaat ctccgagtaa actacacaac tgtcttggtt gtttggttcc ggaagacaat      180
gtggcagatt attaccagca gcaagtagag atgcttgagg gctttactga aatggatgaa      240
cttgcagaac gtggctttgt tcctggaatg tcaaaggaag agcaggataa tttggctaaa      300
agcgagacat tggcgattag aatatcaaac attgcaaaca tgcttctttt tgctgctaaa      360
gtctatgctt ctgtcactag tggctcttta gctatcattg cctctacatt ggactctctt      420
cttgatcttc tttctggctt catcctctgg tttaccgcct tctccatgca gacaccaaac      480
ccgtatcagt atcccattgg caagaaacgc atgcaaccac tgggaatcct agtctttgca      540
tcagtgatgg caacacttgg attgcagatt atcttggaat ctcttcgcac aatgttatcc      600
agccacaagg agttcaacct aacaaaagag caagagagtt gggtagttgg gatcatgctt      660
tctgttacat tgggtcaaact gcttctgggt ctttactgca gatccttcac taacgagatc      720
gttaaagctt atgtcaga tcatttcttc gacgtcatca caaacatcat tggactcatt      780
gcagtaatcc tggccaatta cattgattat tggattgatc cagttggagc tatcattctt      840
gcattataca caatacggac atgggtcaatg acggtcttgg agaacgttaa ctctcttggt      900
gggaaatcag ctagaccaga gtatctgcag aaactaactt acctgtgttg gaaccaccat      960
aaagccatta ggcacattga cacagtgagg gcatacacat ttggctctca ttattttgtg     1020
gaggttgata ttgttctccc agctgacatg cctctgcaag tggctcacga cattggagaa     1080
tcgctgcaag agaagctcga gctactagag gagatcgaac gggcttttgt gcatcttgat     1140
tatgagtaca ctcacaaacc tgagcacgct agatcccact gttag                          1185

```

&lt;210&gt; 1486

&lt;211&gt; 394

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1486



Met Val Glu Pro Ala Ser Pro Asp Ser Asp Glu Gly Ile Ser Leu Leu  
 1 5 10 15  
 Glu Phe His Gly Asn Gly Asp Arg Ser Trp Gln Leu Asn Phe Asp Asp  
 20 25 30  
 Phe Gln Val Ser Pro Glu His Lys Glu Lys Lys Ser Pro Ser Lys Leu  
 35 40 45  
 His Asn Cys Leu Gly Cys Leu Gly Pro Glu Asp Asn Val Ala Asp Tyr  
 50 55 60  
 Tyr Gln Gln Gln Val Glu Met Leu Glu Gly Phe Thr Glu Met Asp Glu  
 65 70 75 80  
 Leu Ala Glu Arg Gly Phe Val Pro Gly Met Ser Lys Glu Glu Gln Asp  
 85 90 95  
 Asn Leu Ala Lys Ser Glu Thr Leu Ala Ile Arg Ile Ser Asn Ile Ala  
 100 105 110  
 Asn Met Leu Leu Phe Ala Ala Lys Val Tyr Ala Ser Val Thr Ser Gly  
 115 120 125  
 Ser Leu Ala Ile Ile Ala Ser Thr Leu Asp Ser Leu Leu Asp Leu Leu  
 130 135 140  
 Ser Gly Phe Ile Leu Trp Phe Thr Ala Phe Ser Met Gln Thr Pro Asn  
 145 150 155 160  
 Pro Tyr Gln Tyr Pro Ile Gly Lys Lys Arg Met Gln Pro Leu Gly Ile  
 165 170 175  
 Leu Val Phe Ala Ser Val Met Ala Thr Leu Gly Leu Gln Ile Ile Leu  
 180 185 190  
 Glu Ser Leu Arg Thr Met Leu Ser Ser His Lys Glu Phe Asn Leu Thr  
 195 200 205  
 Lys Glu Gln Glu Ser Trp Val Val Gly Ile Met Leu Ser Val Thr Leu  
 210 215 220  
 Val Lys Leu Leu Leu Val Leu Tyr Cys Arg Ser Phe Thr Asn Glu Ile  
 225 230 235 240  
 Val Lys Ala Tyr Ala Gln Asp His Phe Phe Asp Val Ile Thr Asn Ile  
 245 250 255

047-E2F-PCT.ST25.txt

Ile Gly Leu Ile Ala Val Ile Leu Ala Asn Tyr Ile Asp Tyr Trp Ile  
260 265 270  
Asp Pro Val Gly Ala Ile Ile Leu Ala Leu Tyr Thr Ile Arg Thr Trp  
275 280 285  
Ser Met Thr Val Leu Glu Asn Val Asn Ser Leu Val Gly Lys Ser Ala  
290 295 300  
Arg Pro Glu Tyr Leu Gln Lys Leu Thr Tyr Leu Cys Trp Asn His His  
305 310 315 320  
Lys Ala Ile Arg His Ile Asp Thr Val Arg Ala Tyr Thr Phe Gly Ser  
325 330 335  
His Tyr Phe Val Glu Val Asp Ile Val Leu Pro Ala Asp Met Pro Leu  
340 345 350  
Gln Val Ala His Asp Ile Gly Glu Ser Leu Gln Glu Lys Leu Glu Leu  
355 360 365  
Leu Glu Glu Ile Glu Arg Ala Phe Val His Leu Asp Tyr Glu Tyr Thr  
370 375 380  
His Lys Pro Glu His Ala Arg Ser His Cys  
385 390

<210> 1487

<211> 348

<212> DNA

<213> Arabidopsis thaliana

<400> 1487

atgtctagcg cagaggatgt gaaagagcaa ggaaacctca ccaacgaggc agagaagtca	60
atgccatcat cacagcagga ggaggctggt gtaaagaaga agtatggagg gctcatgcca	120
aagaaaccac ctctcatttc caaggatcat gagcgagcat actttgactc agctgattgg	180
gctcttggaagcaaggtgt tgcgaagcca aagggacccc tggaagccct tcgtcccaag	240
ttacagccaa cgcagcagca gacacgttac aggaagtctc catgtgctcc atctgagggt	300
ggtgaagatg gaggagctgc tcaggccgag ggaggttcag gcaactga	348

<210> 1488

&lt;211&gt; 115

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1488

Met Ser Ser Ala Glu Asp Val Lys Glu Gln Gly Asn Leu Thr Asn Glu  
1 5 10 15

Ala Glu Lys Ser Met Pro Ser Ser Gln Gln Glu Glu Ala Val Val Lys  
20 25 30

Lys Lys Tyr Gly Gly Leu Met Pro Lys Lys Pro Pro Leu Ile Ser Lys  
35 40 45

Asp His Glu Arg Ala Tyr Phe Asp Ser Ala Asp Trp Ala Leu Gly Lys  
50 55 60

Gln Gly Val Ala Lys Pro Lys Gly Pro Leu Glu Ala Leu Arg Pro Lys  
65 70 75 80

Leu Gln Pro Thr Gln Gln Gln Thr Arg Tyr Arg Lys Ser Pro Cys Ala  
85 90 95

Pro Ser Glu Gly Gly Glu Asp Gly Gly Ala Ala Gln Ala Glu Gly Gly  
100 105 110

Ser Gly Asn  
115

&lt;210&gt; 1489

&lt;211&gt; 1047

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1489

atgggtcgagg gagagtccaa ggcattgtgg attatTTTTgG ccaccgtggtt tgcagtcgcg	60
gcggtggcac cagcgggtgca tggacagcaa acgccgtggtt acttcgtggtt tggagactct	120
gtcttcgaca acggttaacaa caatgccttg aacaccaagg ccaagggtcaa ctatttacct	180
tatggtatag attactttca aggtccaacc ggtcggttta gcaacgggtcg gaatattcca	240
gacgttatcg ctgaactagc gggtttcaat aaccaattc caccatttgc cggagcatca	300

047-E2F-PCT.ST25.txt

caggcacaag ctaacatcgg actcaactat gcttccggtg ccggcgggtat ccgcgaagaa 360  
accagcgaaa atatgggtga gagaatcagt ttgagacagc aagtaaaca cactttttcc 420  
gctatcataa ccgcgggcgggt gccactgagt cggttaaggc aatgtctata cacaatcaac 480  
atcgggaagca acgattacct caacaactac ttcttgtcgc ctcctactct agtcgctcgt 540  
ctattttaatc ctgaccagta cgctcgatct ctcataagcc tctaccgtat ctatctgacg 600  
caattgtacg tactaggagc gaggaatgta gcgttggttcg gtatcggtaa gatcggatgt 660  
acaccacgga ttgttgctac cctcgggtggc ggcactggct gcgcagaaga agtgaaccaa 720  
gccgtgatca tcttcaacac taaactcaaa gccctagtca cagatttcaa caacaaaccg 780  
ggagctatgt tcacttatgt tgatctcttc tctggaaatg ctgaagattt cgccgctcta 840  
gggattacgg ttggtgatag gagttgctgt acggttaatc cgggtgaaga actttgtgcg 900  
gcgaacggac cggtttgtcc agacagaaac aaattcatat tctgggataa cgtgcatact 960  
acggaagtga taaatactgt ggtggctaac gcagcgttta acggacctat agctagtccg 1020  
ttcaacatat cccagttagt gaattaa 1047

<210> 1490

<211> 348

<212> PRT

<213> Arabidopsis thaliana

<400> 1490

Met Val Glu Gly Glu Ser Lys Ala Leu Trp Ile Ile Leu Ala Thr Val  
1 5 10 15

Phe Ala Val Ala Ala Val Ala Pro Ala Val His Gly Gln Gln Thr Pro  
20 25 30

Cys Tyr Phe Val Phe Gly Asp Ser Val Phe Asp Asn Gly Asn Asn Asn  
35 40 45

Ala Leu Asn Thr Lys Ala Lys Val Asn Tyr Leu Pro Tyr Gly Ile Asp  
50 55 60

Tyr Phe Gln Gly Pro Thr Gly Arg Phe Ser Asn Gly Arg Asn Ile Pro  
65 70 75 80

Asp Val Ile Ala Glu Leu Ala Gly Phe Asn Asn Pro Ile Pro Pro Phe  
85 90 95

Ala Gly Ala Ser Gln Ala Gln Ala Asn Ile Gly Leu Asn Tyr Ala Ser  
 100 105 110  
 Gly Ala Gly Gly Ile Arg Glu Glu Thr Ser Glu Asn Met Gly Glu Arg  
 115 120 125  
 Ile Ser Leu Arg Gln Gln Val Asn Asn His Phe Ser Ala Ile Ile Thr  
 130 135 140  
 Ala Ala Val Pro Leu Ser Arg Leu Arg Gln Cys Leu Tyr Thr Ile Asn  
 145 150 155 160  
 Ile Gly Ser Asn Asp Tyr Leu Asn Asn Tyr Phe Leu Ser Pro Pro Thr  
 165 170 175  
 Leu Ala Arg Arg Leu Phe Asn Pro Asp Gln Tyr Ala Arg Ser Leu Ile  
 180 185 190  
 Ser Leu Tyr Arg Ile Tyr Leu Thr Gln Leu Tyr Val Leu Gly Ala Arg  
 195 200 205  
 Asn Val Ala Leu Phe Gly Ile Gly Lys Ile Gly Cys Thr Pro Arg Ile  
 210 215 220  
 Val Ala Thr Leu Gly Gly Gly Thr Gly Cys Ala Glu Glu Val Asn Gln  
 225 230 235 240  
 Ala Val Ile Ile Phe Asn Thr Lys Leu Lys Ala Leu Val Thr Asp Phe  
 245 250 255  
 Asn Asn Lys Pro Gly Ala Met Phe Thr Tyr Val Asp Leu Phe Ser Gly  
 260 265 270  
 Asn Ala Glu Asp Phe Ala Ala Leu Gly Ile Thr Val Gly Asp Arg Ser  
 275 280 285  
 Cys Cys Thr Val Asn Pro Gly Glu Glu Leu Cys Ala Ala Asn Gly Pro  
 290 295 300  
 Val Cys Pro Asp Arg Asn Lys Phe Ile Phe Trp Asp Asn Val His Thr  
 305 310 315 320  
 Thr Glu Val Ile Asn Thr Val Val Ala Asn Ala Ala Phe Asn Gly Pro  
 325 330 335  
 Ile Ala Ser Pro Phe Asn Ile Ser Gln Leu Val Asn  
 340 345

&lt;210&gt; 1491

&lt;211&gt; 546

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1491

```

atggcttcct ctatgctctc ctccgccgct gtgggttacat ccccggtca ggccaccatg      60
gtcgtccat tcaccggctt gaagtcattcc gctgcattcc cggtcaccg caagaccaac      120
aaggacatca cttccatcgc aagcaacggg ggaagagtta gctgcatgaa ggtgtggcca      180
ccaattggaa agaagaagtt tgagactcta tcttacctcc ctgaccttag tgacgtcgaa      240
ttggctaagg aagttgacta ctttctccgc aacaagtgga ttccttgtgt tgaattcgag      300
ttagagcacg gatttgtgta ccgtgagcac ggaaacactc ccggatacta cgatggacgg      360
tactggacaa tgtggaagct tccattgttc ggatgcaccg actccgctca agtgttgaag      420
gaagttgaag aatgcaagaa ggagtacccg ggcgccttca ttaggatcat cggattcgac      480
aacaccgctc aagtccaatg catcagtttc attgcctaca agccccaag cttcaccgaa      540
gcttaa                                           546

```

&lt;210&gt; 1492

&lt;211&gt; 181

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1492

```

Met Ala Ser Ser Met Leu Ser Ser Ala Ala Val Val Thr Ser Pro Ala
1      5      10     15
Gln Ala Thr Met Val Ala Pro Phe Thr Gly Leu Lys Ser Ser Ala Ala
20     25     30
Phe Pro Val Thr Arg Lys Thr Asn Lys Asp Ile Thr Ser Ile Ala Ser
35     40     45
Asn Gly Gly Arg Val Ser Cys Met Lys Val Trp Pro Pro Ile Gly Lys
50     55     60
Lys Lys Phe Glu Thr Leu Ser Tyr Leu Pro Asp Leu Ser Asp Val Glu
65     70     75     80

```

047-E2F-PCT.ST25.txt

Leu Ala Lys Glu Val Asp Tyr Leu Leu Arg Asn Lys Trp Ile Pro Cys  
85 90 95

Val Glu Phe Glu Leu Glu His Gly Phe Val Tyr Arg Glu His Gly Asn  
100 105 110

Thr Pro Gly Tyr Tyr Asp Gly Arg Tyr Trp Thr Met Trp Lys Leu Pro  
115 120 125

Leu Phe Gly Cys Thr Asp Ser Ala Gln Val Leu Lys Glu Val Glu Glu  
130 135 140

Cys Lys Lys Glu Tyr Pro Gly Ala Phe Ile Arg Ile Ile Gly Phe Asp  
145 150 155 160

Asn Thr Arg Gln Val Gln Cys Ile Ser Phe Ile Ala Tyr Lys Pro Pro  
165 170 175

Ser Phe Thr Glu Ala  
180

<210> 1493

<211> 771

<212> DNA

<213> Arabidopsis thaliana

<400> 1493  
atgatgcaag aggagggaaa ccgaaaaggt ccatggacag aacaggaaga catacttctg 60  
gtaaattttg ttcacttatt tggagatcga cgatgggatt ttatagcaaa agtatcaggt 120  
ttgaacagaa caggaaagag ttgcaggcta agatggggtta attacctaca tcctggtctc 180  
aaacgtggca agatgacgcc tcaagaagag cgcctcgtcc ttgagcttca cgctaagtgg 240  
ggaaacaggt ggtcgaaaat agcccgaata ttgccgggac gaacggataa cgagataaag 300  
aactactgga ggactcatat gaggaagaaa gctcaagaaa agaagcgtcc tgtttcccca 360  
acttcctcat tttccaactg cagctcgtca tctgtgacca ctaccaccac caatactcaa 420  
gatacatcgt gccactcgcg taaatcttca ggggaagtga gcttttacga cactggaggt 480  
tcccgatcca ctagagagat gaatcaagaa aacgaagacg tgtactcgtt ggatgatata 540  
tggagagaga ttgatcactc agcagtaaac ataataaaac cggttaaaga catctactca 600  
gaacaaagcc attgcttaag ttacccaaat ctagcttcac catcatggga aagctcattg 660

gattctatat ggaacatgga tgcagataaa agtaagatat cgtcttactt tgcaaatgat 720  
 cagtttcctt tctgtttcca acacagtaga tcaccatggt cgtcaggta a 771

<210> 1494

<211> 256

<212> PRT

<213> Arabidopsis thaliana

<400> 1494

Met Met Gln Glu Glu Gly Asn Arg Lys Gly Pro Trp Thr Glu Gln Glu  
 1 5 10 15

Asp Ile Leu Leu Val Asn Phe Val His Leu Phe Gly Asp Arg Arg Trp  
 20 25 30

Asp Phe Ile Ala Lys Val Ser Gly Leu Asn Arg Thr Gly Lys Ser Cys  
 35 40 45

Arg Leu Arg Trp Val Asn Tyr Leu His Pro Gly Leu Lys Arg Gly Lys  
 50 55 60

Met Thr Pro Gln Glu Glu Arg Leu Val Leu Glu Leu His Ala Lys Trp  
 65 70 75 80

Gly Asn Arg Trp Ser Lys Ile Ala Arg Lys Leu Pro Gly Arg Thr Asp  
 85 90 95

Asn Glu Ile Lys Asn Tyr Trp Arg Thr His Met Arg Lys Lys Ala Gln  
 100 105 110

Glu Lys Lys Arg Pro Val Ser Pro Thr Ser Ser Phe Ser Asn Cys Ser  
 115 120 125

Ser Ser Ser Val Thr Thr Thr Thr Thr Asn Thr Gln Asp Thr Ser Cys  
 130 135 140

His Ser Arg Lys Ser Ser Gly Glu Val Ser Phe Tyr Asp Thr Gly Gly  
 145 150 155 160

Ser Arg Ser Thr Arg Glu Met Asn Gln Glu Asn Glu Asp Val Tyr Ser  
 165 170 175

Leu Asp Asp Ile Trp Arg Glu Ile Asp His Ser Ala Val Asn Ile Ile  
 180 185 190



047-E2F-PCT.ST25.txt

Lys Pro Val Lys Asp Ile Tyr Ser Glu Gln Ser His Cys Leu Ser Tyr  
195 200 205

Pro Asn Leu Ala Ser Pro Ser Trp Glu Ser Ser Leu Asp Ser Ile Trp  
210 215 220

Asn Met Asp Ala Asp Lys Ser Lys Ile Ser Ser Tyr Phe Ala Asn Asp  
225 230 235 240

Gln Phe Pro Phe Cys Phe Gln His Ser Arg Ser Pro Trp Ser Ser Gly  
245 250 255

<210> 1495

<211> 801

<212> DNA

<213> Arabidopsis thaliana

<400> 1495

atggcgtctg ttgcttcttc aactactctc atctcttctc cctcttctag ggtttttcca	60
gcaaagtctt cactttcttc tccatctggt tctttccttc gaaccctttc ttctccttcc	120
gcatctgctt ctctccgctc cggatttgct cgacgctctt ccctcagctc cacttctcgt	180
cggagctttg ctgtcaaagc ccaggccgat gatcttccac tggttggaaa caaggcgcct	240
gattttgagg cagaggctgt gtttgatcaa gagttcatca aggttaagct ctctgattac	300
attggaaaga agtatgtgat tctctttttc taccattgg actttacttt cgtctgcca	360
acagagatta ctgccttcag tgaccggcat tcagaatttg agaagttgaa caccgaagta	420
ttaggtgttt ctgtcgatag tgtgttctct caccttgcac gggtcctaac agacaggaaa	480
tctggagggc ttggtgatct gaactatccc cttattttcag atgtcactaa atcaatctca	540
aagtcgttcg gagtgctcat ccatgatcag ggaatagcac tgagaggact tttcataatc	600
gacaaggaag gagtgatcca acattccacc atcaacaatc ttggtatttg ccgaagcggt	660
gatgagacaa tgagaaccct ccaggcatta cagtacatcc agggaaaacc ggatgaagtc	720
tgcccagcag gatggaagcc gggtgagaag tcaatgaaac ccgacccaaa actcagcaaa	780
gagtacttct cagctattta g	801

<210> 1496

<211> 266

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1496

```

Met Ala Ser Val Ala Ser Ser Thr Thr Leu Ile Ser Ser Pro Ser Ser
1      5      10      15

Arg Val Phe Pro Ala Lys Ser Ser Leu Ser Ser Pro Ser Val Ser Phe
20     25     30

Leu Arg Thr Leu Ser Ser Pro Ser Ala Ser Ala Ser Leu Arg Ser Gly
35     40     45

Phe Ala Arg Arg Ser Ser Leu Ser Ser Thr Ser Arg Arg Ser Phe Ala
50     55     60

Val Lys Ala Gln Ala Asp Asp Leu Pro Leu Val Gly Asn Lys Ala Pro
65     70     75     80

Asp Phe Glu Ala Glu Ala Val Phe Asp Gln Glu Phe Ile Lys Val Lys
85     90     95

Leu Ser Asp Tyr Ile Gly Lys Lys Tyr Val Ile Leu Phe Phe Tyr Pro
100    105    110

Leu Asp Phe Thr Phe Val Cys Pro Thr Glu Ile Thr Ala Phe Ser Asp
115    120    125

Arg His Ser Glu Phe Glu Lys Leu Asn Thr Glu Val Leu Gly Val Ser
130    135    140

Val Asp Ser Val Phe Ser His Leu Ala Trp Val Gln Thr Asp Arg Lys
145    150    155    160

Ser Gly Gly Leu Gly Asp Leu Asn Tyr Pro Leu Ile Ser Asp Val Thr
165    170    175

Lys Ser Ile Ser Lys Ser Phe Gly Val Leu Ile His Asp Gln Gly Ile
180    185    190

Ala Leu Arg Gly Leu Phe Ile Ile Asp Lys Glu Gly Val Ile Gln His
195    200    205

Ser Thr Ile Asn Asn Leu Gly Ile Gly Arg Ser Val Asp Glu Thr Met
210    215    220

```

Arg Thr Leu Gln Ala Leu Gln Tyr Ile Gln Glu Asn Pro Asp Glu Val  
 225 230 235 240

Cys Pro Ala Gly Trp Lys Pro Gly Glu Lys Ser Met Lys Pro Asp Pro  
 245 250 255

Lys Leu Ser Lys Glu Tyr Phe Ser Ala Ile  
 260 265

<210> 1497

<211> 648

<212> DNA

<213> Arabidopsis thaliana

<400> 1497

```

atgacaaaaa ctacaaaac catgaatcct aagttttact tggttcttgc cttaacgcg 60
gttctggcct caaacgcata tggtgcggtt gtagacatcg atggaaacgc catgttcac 120
gaaagttact acgtttctcc tgtcatccgt ggccgaggcg gaggcctgac tctagcaggc 180
cgcggtgggc agccatgtcc ttacgatatc gtgcaggaat cttcagaagt tgatgagggc 240
attcccgtaa aattctcaaa ctggaggctt aaggttgctg tcgttcccga atcacagaac 300
ctcaacatcg aaacagacgt cggagccacg atctgcatcc agtcaaccta ctggcgggtc 360
ggtgagtttg accacgagag gaagcagtag ttcgtggttg ctggtccaaa gccagaaggg 420
ttcggacaag attcgttgaa gagtttcttc aagatcgaga aatctggaga ggatgcttac 480
aagtttgtgt tctgtcctcg gacttgcgac tctggcaatc caaaatgcag cgatgtcggg 540
atattcatag atgaacttgg cgttcgtcgt ttggctttta gcgataagcc gttcttggtt 600
atgttcaaaa aagctaattg gaccgaagtt tcgtccaaga ctatgtga 648

```

<210> 1498

<211> 215

<212> PRT

<213> Arabidopsis thaliana

<400> 1498

Met Thr Lys Thr Thr Lys Thr Met Asn Pro Lys Phe Tyr Leu Val Leu  
 1 5 10 15

Ala Leu Thr Ala Val Leu Ala Ser Asn Ala Tyr Gly Ala Val Val Asp  
 Page 2309

Ile Asp Gly Asn Ala Met Phe His Glu Ser Tyr Tyr Val Leu Pro Val  
 35 40 45

Ile Arg Gly Arg Gly Gly Gly Leu Thr Leu Ala Gly Arg Gly Gly Gln  
 50 55 60

Pro Cys Pro Tyr Asp Ile Val Gln Glu Ser Ser Glu Val Asp Glu Gly  
 65 70 75 80

Ile Pro Val Lys Phe Ser Asn Trp Arg Leu Lys Val Ala Phe Val Pro  
 85 90 95

Glu Ser Gln Asn Leu Asn Ile Glu Thr Asp Val Gly Ala Thr Ile Cys  
 100 105 110

Ile Gln Ser Thr Tyr Trp Arg Val Gly Glu Phe Asp His Glu Arg Lys  
 115 120 125

Gln Tyr Phe Val Val Ala Gly Pro Lys Pro Glu Gly Phe Gly Gln Asp  
 130 135 140

Ser Leu Lys Ser Phe Phe Lys Ile Glu Lys Ser Gly Glu Asp Ala Tyr  
 145 150 155 160

Lys Phe Val Phe Cys Pro Arg Thr Cys Asp Ser Gly Asn Pro Lys Cys  
 165 170 175

Ser Asp Val Gly Ile Phe Ile Asp Glu Leu Gly Val Arg Arg Leu Ala  
 180 185 190

Leu Ser Asp Lys Pro Phe Leu Val Met Phe Lys Lys Ala Asn Val Thr  
 195 200 205

Glu Val Ser Ser Lys Thr Met  
 210 215

<210> 1499

<211> 1092

<212> DNA

<213> Arabidopsis thaliana

<400> 1499

atgggttcaa cggcagagac acaattaact ccggtgcaag tcaccgacga cgaagctgcc

60

047-E2F-PCT.ST25.txt

```

ctcttcgccca tgcaactagc cagtgccttc gttcttccga tggctttaaa atccgcctta 120
gagcttgacc ttcttgagat tatggccaag aatggttctc ccatgtctcc taccgagatc 180
gcttctaaac ttccgaccaa aaatcctgaa gctccgggtca tgctcgaccg tatcctccgt 240
cttcttacgt cttactccgt cttaacctgc tccaaccgta aactttccgg tgatggcggt 300
gaacggattt acgggcttgg tccggtttgc aagtatttga ccaagaacga agatggtggt 360
tccattgctg ctctttgtct tatgaaccaa gacaagggtc tcatggaaag ctggtaccat 420
ttgaaggatg caattcttga tgggtgggatt ccattcaaca aggcttatgg aatgagcgcg 480
ttcgagtacc acgggactga ccctagattc aacaagggtct ttaacaatgg aatgtctaac 540
cattccacaa tcaccatgaa gaagattctt gagacctata agggttttga aggattgact 600
tctttggttg atgttggtgg tggcattggt gctacactca aaatgattgt ctccaagtac 660
cctaattctta aaggcatcaa ctttgatctc ccacatgtca tcgaagatgc tccttctcat 720
cctggtattg agcatgttgg aggagatatg tttgtaagtg tccctaaagg tgatgccata 780
ttcatgaagt ggatatgtca tgactggagt gacgaacatt gcgtgaaatt cttgaagaac 840
tgctacgagt cacttccaga ggatggaaaa gtgatattag cagagtgtat acttccagag 900
acaccagact caagcctctc aaccaaacaa gtagtccatg tcgattgcat tatgttggct 960
cacaatcccg gaggcaaaga acgaaccgag aaagagtttg aggcattagc caaagcatca 1020
ggcttcaagg gcatcaaagt tgtctgcgac gcttttggtg ttaaccttat tgagttactc 1080
aagaagctct aa 1092

```

<210> 1500

<211> 363

<212> PRT

<213> Arabidopsis thaliana

<400> 1500

Met Gly Ser Thr Ala Glu Thr Gln Leu Thr Pro Val Gln Val Thr Asp  
1 5 10 15

Asp Glu Ala Ala Leu Phe Ala Met Gln Leu Ala Ser Ala Ser Val Leu  
20 25 30

Pro Met Ala Leu Lys Ser Ala Leu Glu Leu Asp Leu Leu Glu Ile Met  
35 40 45

Ala Lys Asn Gly Ser Pro Met Ser Pro Thr Glu Ile Ala Ser Lys Leu  
Page 2311

50

55

Pro Thr Lys Asn Pro Glu Ala Pro Val Met Leu Asp Arg Ile Leu Arg  
65 70 75 80

Leu Leu Thr Ser Tyr Ser Val Leu Thr Cys Ser Asn Arg Lys Leu Ser  
85 90 95

Gly Asp Gly Val Glu Arg Ile Tyr Gly Leu Gly Pro Val Cys Lys Tyr  
100 105 110

Leu Thr Lys Asn Glu Asp Gly Val Ser Ile Ala Ala Leu Cys Leu Met  
115 120 125

Asn Gln Asp Lys Val Leu Met Glu Ser Trp Tyr His Leu Lys Asp Ala  
130 135 140

Ile Leu Asp Gly Gly Ile Pro Phe Asn Lys Ala Tyr Gly Met Ser Ala  
145 150 155 160

Phe Glu Tyr His Gly Thr Asp Pro Arg Phe Asn Lys Val Phe Asn Asn  
165 170 175

Gly Met Ser Asn His Ser Thr Ile Thr Met Lys Lys Ile Leu Glu Thr  
180 185 190

Tyr Lys Gly Phe Glu Gly Leu Thr Ser Leu Val Asp Val Gly Gly Gly  
195 200 205

Ile Gly Ala Thr Leu Lys Met Ile Val Ser Lys Tyr Pro Asn Leu Lys  
210 215 220

Gly Ile Asn Phe Asp Leu Pro His Val Ile Glu Asp Ala Pro Ser His  
225 230 235 240

Pro Gly Ile Glu His Val Gly Gly Asp Met Phe Val Ser Val Pro Lys  
245 250 255

Gly Asp Ala Ile Phe Met Lys Trp Ile Cys His Asp Trp Ser Asp Glu  
260 265 270

His Cys Val Lys Phe Leu Lys Asn Cys Tyr Glu Ser Leu Pro Glu Asp  
275 280 285

Gly Lys Val Ile Leu Ala Glu Cys Ile Leu Pro Glu Thr Pro Asp Ser  
290 295 300

Ser Leu Ser Thr Lys Gln Val Val His Val Asp Cys Ile Met Leu Ala  
305 310 315 320

His Asn Pro Gly Gly Lys Glu Arg Thr Glu Lys Glu Phe Glu Ala Leu  
325 330 335

Ala Lys Ala Ser Gly Phe Lys Gly Ile Lys Val Val Cys Asp Ala Phe  
340 345 350

Gly Val Asn Leu Ile Glu Leu Leu Lys Lys Leu  
355 360

<210> 1501

<211> 372

<212> DNA

<213> Arabidopsis thaliana

<400> 1501

atgggttatta gggaagctct tctatacata gccatgctca aactcgagat agaagctttg	60
cagagagaat atgaagatct caagattacc aaaaaagaat ctttgcacca atttcaggag	120
gtgaaggtag agaagattgg ggaaatgttt caagtaaaaa taaaaagtcc acggggagaa	180
aacaatcttg tgaatattct tgaagcattt gaagaaatgg gggttgaatgt ggctcaagca	240
agggcatcat gcctagattc atttgccatg gaagccattg ttgcacctca atccaaagac	300
aagctttgta gtgtggatga tttgactcaa actcttgtca aagctcttgt caagccaagt	360
gtcccactgt aa	372

<210> 1502

<211> 123

<212> PRT

<213> Arabidopsis thaliana

<400> 1502

Met Val Ile Arg Glu Ala Leu Leu Tyr Ile Ala Met Leu Lys Leu Glu  
1 5 10 15

Ile Glu Ala Leu Gln Arg Glu Tyr Glu Asp Leu Lys Ile Thr Lys Lys  
20 25 30

Glu Ser Leu His Gln Phe Gln Glu Val Lys Val Glu Lys Ile Gly Glu  
Page 2313

35

40

45

Met Phe Gln Val Lys Ile Lys Ser Pro Arg Gly Glu Asn Asn Leu Val  
 50 55 60

Asn Ile Leu Glu Ala Phe Glu Glu Met Gly Leu Asn Val Ala Gln Ala  
 65 70 75 80

Arg Ala Ser Cys Leu Asp Ser Phe Ala Met Glu Ala Ile Val Ala Pro  
 85 90 95

Gln Ser Lys Asp Lys Leu Cys Ser Val Asp Asp Leu Thr Gln Thr Leu  
 100 105 110

Val Lys Ala Leu Val Lys Pro Ser Val Pro Leu  
 115 120

&lt;210&gt; 1503

&lt;211&gt; 594

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1503

atggcttctt cgacagcttt gtctctctca tggagctcct ctccttggtg gtcacacagc 60  
 ttcaatggcg gtgcaaataa aaccctaaaa gtatctgagc gaagggtcaa ttttgaagtt 120  
 gtttcccaga agaaagctaa gaaacttcgc aaggtaattt tgaaagagga tgtgacggat 180  
 ttgggtaagc aagggaattt acttgatgtg aaagctggat ttttcagaaa cttcctcttg 240  
 cctactggaa aggcctcagc tatgactcca cttctgctca aggaattgaa gatggaagac 300  
 gaacggattg aggcagagaa gcaaagggtg aaagaagagg cacaacaact ggcgatggta 360  
 ttccaaaccg ttggtgcttt caagggttaa cgcaaaggcg gtaaaggcaa actgatattt 420  
 ggatctgtca cagctcaaga cctcgtcgac atcatcaaat cacagctcca aaaggacatc 480  
 gacaaacgcc ttgtctctct cccagaaatc cgtgaaaccg gagaatacat agccgaactc 540  
 aagcttcacc ccgatgtcac tgctcgagtt aagatcaatg ttttcgctaa ctaa 594

&lt;210&gt; 1504

&lt;211&gt; 197

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana



&lt;400&gt; 1504

Met Ala Ser Ser Thr Ala Leu Ser Leu Ser Trp Ser Ser Ser Pro Cys  
 1 5 10 15  
 Trp Ser His Ser Phe Asn Gly Gly Ala Asn Glu Thr Leu Lys Val Ser  
 20 25 30  
 Glu Arg Arg Phe Asn Phe Glu Val Val Ser Gln Lys Lys Ala Lys Lys  
 35 40 45  
 Leu Arg Lys Val Ile Leu Lys Glu Asp Val Thr Asp Leu Gly Lys Gln  
 50 55 60  
 Gly Gln Leu Leu Asp Val Lys Ala Gly Phe Phe Arg Asn Phe Leu Leu  
 65 70 75 80  
 Pro Thr Gly Lys Ala Gln Leu Met Thr Pro Leu Leu Leu Lys Glu Leu  
 85 90 95  
 Lys Met Glu Asp Glu Arg Ile Glu Ala Glu Lys Gln Arg Val Lys Glu  
 100 105 110  
 Glu Ala Gln Gln Leu Ala Met Val Phe Gln Thr Val Gly Ala Phe Lys  
 115 120 125  
 Val Lys Arg Lys Gly Gly Lys Gly Lys Leu Ile Phe Gly Ser Val Thr  
 130 135 140  
 Ala Gln Asp Leu Val Asp Ile Ile Lys Ser Gln Leu Gln Lys Asp Ile  
 145 150 155 160  
 Asp Lys Arg Leu Val Ser Leu Pro Glu Ile Arg Glu Thr Gly Glu Tyr  
 165 170 175  
 Ile Ala Glu Leu Lys Leu His Pro Asp Val Thr Ala Arg Val Lys Ile  
 180 185 190  
 Asn Val Phe Ala Asn  
 195

&lt;210&gt; 1505

&lt;211&gt; 906

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

```

<400> 1505
atgaacacta atccagtgac taatggggttt gttaaacctg ttcctactga agaagaacaa      60
gcaaagattg aggaagtgag gaagctatta ggtccattac cggagaagct ttcgagtttt      120
tgttccgatg atgcagtttt aagggtatcta agggcaagga attggcatgt caagaaagct      180
actaagatgc ttaaagaaac tttgaaatgg agagttcaat acaaacctga ggagatttgt      240
tgggaggaag tagctggtga agcagagaca ggggaagatat atagatcgag ttgtgtcgat      300
aaacttggac gacctgttct cattatgaga ccgagtgttg agaattctaa atcggtgaaa      360
ggccagatta gataccttgt gtattgtatg gagaatgcag tacaaaattt gccaccaggg      420
gaagaacaga tgggtgtggat gatagatttt cacggttata gtttggcgaa tgtatcgtaa      480
cgaacaacga aagaaaccgc tcatgtatta caagaacatt accctgagag attagctttt      540
gctgttctct acaatcctcc taagtctttt gaacctttct ggaagggtggc gcggcccttc      600
ttagagccga agacacggaa caaagtgaag tttgtttact cggatgatcc aaacactaag      660
gtgataatgg aggagaactt tgatatggag aaaatggagt tagcgtttgg tggtaacgat      720
gactcggggt ttaacataga gaaacattca gagagaatga aagaggacga caagaaaaga      780
ttggcttcgt tggagggcat tgtttccgct tctctagact cgctcagcat tttatcggtc      840
tctgatggta ccgcctctaa cagtgtcac cctagctctc atgatgtctc tgaggatgag      900
cattaa                                           906

```

<210> 1506

<211> 301

<212> PRT

<213> Arabidopsis thaliana

<400> 1506

```

Met Asn Thr Asn Pro Val Thr Asn Gly Phe Val Lys Pro Val Pro Thr
1          5          10          15

Glu Glu Glu Gln Ala Lys Ile Glu Glu Val Arg Lys Leu Leu Gly Pro
20          25          30

Leu Pro Glu Lys Leu Ser Ser Phe Cys Ser Asp Asp Ala Val Leu Arg
35          40          45

Tyr Leu Arg Ala Arg Asn Trp His Val Lys Lys Ala Thr Lys Met Leu
50          55          60

```

047-E2F-PCT.ST25.txt

Lys Glu Thr Leu Lys Trp Arg Val Gln Tyr Lys Pro Glu Glu Ile Cys  
 65 70 75 80  
 Trp Glu Glu Val Ala Gly Glu Ala Glu Thr Gly Lys Ile Tyr Arg Ser  
 85 90 95  
 Ser Cys Val Asp Lys Leu Gly Arg Pro Val Leu Ile Met Arg Pro Ser  
 100 105 110  
 Val Glu Asn Ser Lys Ser Val Lys Gly Gln Ile Arg Tyr Leu Val Tyr  
 115 120 125  
 Cys Met Glu Asn Ala Val Gln Asn Leu Pro Pro Gly Glu Glu Gln Met  
 130 135 140  
 Val Trp Met Ile Asp Phe His Gly Tyr Ser Leu Ala Asn Val Ser Leu  
 145 150 155 160  
 Arg Thr Thr Lys Glu Thr Ala His Val Leu Gln Glu His Tyr Pro Glu  
 165 170 175  
 Arg Leu Ala Phe Ala Val Leu Tyr Asn Pro Pro Lys Phe Phe Glu Pro  
 180 185 190  
 Phe Trp Lys Val Ala Arg Pro Phe Leu Glu Pro Lys Thr Arg Asn Lys  
 195 200 205  
 Val Lys Phe Val Tyr Ser Asp Asp Pro Asn Thr Lys Val Ile Met Glu  
 210 215 220  
 Glu Asn Phe Asp Met Glu Lys Met Glu Leu Ala Phe Gly Gly Asn Asp  
 225 230 235 240  
 Asp Ser Gly Phe Asn Ile Glu Lys His Ser Glu Arg Met Lys Glu Asp  
 245 250 255  
 Asp Lys Lys Arg Leu Ala Ser Leu Glu Gly Ile Val Ser Ala Ser Leu  
 260 265 270  
 Asp Ser Leu Ser Ile Leu Ser Val Ser Asp Gly Thr Ala Ser Asn Ser  
 275 280 285  
 Ala His Pro Ser Ser His Asp Val Ser Glu Asp Glu His  
 290 295 300

<210> 1507

&lt;211&gt; 1068

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1507

```

atgggagagg aagagaagaa accagaagca gcagaggaaa agaaaatgga agagaagaaa      60
ccagaagaga aaaaagaagg agaagacaag aaagtggatg ctgagaaaaa aggagaagat      120
tctgacaaga agcctcaaga aggagaatct aacaagatt ccaaagaaga ttctgctccg      180
gcggcgcctg aggctccagc accgcctcct ccgccgcaag aggttgttct taaggtttac      240
atgcactgtg aaggatgtgc tagaaaagtc cgccgttgtc tcaaaggctt cgaaggagtg      300
gaagatgtga tgactgattg taaaacgggg aaagtgggtg tgaaaggatg gaaagctgat      360
ccattgaaag tattagctag agttcagagg aagaccacc gtcaagttca gcttctgtct      420
ccgattcctc ctccgcctcc gccgccggag aagaaagcag aggaggataa acccattgtg      480
gaagagaaga aagtggagcc tccggtggtt gtgacggttg ttcttaaggt tcacatgcac      540
tgtgaagctt gtgcgacaga gatcaagaaa cggatcatga gaatgaaagg agtggaatct      600
gctgaatccg acttaaagag ttctcaagtg acggtgaaag gagtttttga accacaaaag      660
cttgtagaat acgtttataa gcgaaccgga aaacatgctg cgatcatgaa aatcgacca      720
ccgcctccac caccacctga ggaggcggct gcggcagcgg aaggagagaa gaaggaagaa      780
gaaaagggag aaggagaatc caaaggcgaa gaagggaagg atgataaggc gaagacggac      840
gaagaaaaga aagaagggga tgggtggtaaa ggggaaggcg aagcagcgga taatggcggt      900
ggggaggaag aaggcaaagt tgtggaggtg agaaagatag agaatcctta ttactactac      960
tattaccaac caccgcgtgt ggcgattccg cctatggaaa tgccgccaca cgcttatccg     1020
cctcaattgt tcagcgacga gaatccaaat gcatgtactg taatgtaa                       1068

```

&lt;210&gt; 1508

&lt;211&gt; 355

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1508

```

Met Gly Glu Glu Lys Lys Pro Glu Ala Ala Glu Glu Lys Lys Met
1           5           10           15

```

Glu Glu Lys Lys Pro Glu Glu Lys Lys Glu Gly Glu Asp Lys Lys Val  
 20 25 30  
 Asp Ala Glu Lys Lys Gly Glu Asp Ser Asp Lys Lys Pro Gln Glu Gly  
 35 40 45  
 Glu Ser Asn Lys Asp Ser Lys Glu Asp Ser Ala Pro Ala Ala Pro Glu  
 50 55 60  
 Ala Pro Ala Pro Pro Pro Pro Pro Gln Glu Val Val Leu Lys Val Tyr  
 65 70 75 80  
 Met His Cys Glu Gly Cys Ala Arg Lys Val Arg Arg Cys Leu Lys Gly  
 85 90 95  
 Phe Glu Gly Val Glu Asp Val Met Thr Asp Cys Lys Thr Gly Lys Val  
 100 105 110  
 Val Val Lys Gly Glu Lys Ala Asp Pro Leu Lys Val Leu Ala Arg Val  
 115 120 125  
 Gln Arg Lys Thr His Arg Gln Val Gln Leu Leu Ser Pro Ile Pro Pro  
 130 135 140  
 Pro Pro Pro Pro Pro Glu Lys Lys Ala Glu Glu Asp Lys Pro Ile Val  
 145 150 155 160  
 Glu Glu Lys Lys Val Glu Pro Pro Val Val Val Thr Val Val Leu Lys  
 165 170 175  
 Val His Met His Cys Glu Ala Cys Ala Thr Glu Ile Lys Lys Arg Ile  
 180 185 190  
 Met Arg Met Lys Gly Val Glu Ser Ala Glu Ser Asp Leu Lys Ser Ser  
 195 200 205  
 Gln Val Thr Val Lys Gly Val Phe Glu Pro Gln Lys Leu Val Glu Tyr  
 210 215 220  
 Val Tyr Lys Arg Thr Gly Lys His Ala Ala Ile Met Lys Ile Asp Pro  
 225 230 235 240  
 Pro Pro Pro Pro Pro Pro Glu Glu Ala Ala Ala Ala Glu Gly Glu  
 245 250 255  
 Lys Lys Glu Glu Glu Lys Gly Glu Gly Glu Ser Lys Gly Glu Glu Gly  
 260 265 270

047-E2F-PCT.ST25.txt

Lys Asp Asp Lys Ala Lys Thr Asp Glu Glu Lys Lys Glu Gly Asp Gly  
275 280 285

Gly Lys Gly Glu Gly Glu Ala Ala Asp Asn Gly Gly Gly Glu Glu Glu  
290 295 300

Gly Lys Val Val Glu Val Arg Lys Ile Glu Asn Pro Tyr Tyr Tyr Tyr  
305 310 315 320

Tyr Tyr Gln Pro Pro Arg Val Ala Ile Pro Pro Met Glu Met Pro Pro  
325 330 335

His Ala Tyr Pro Pro Gln Leu Phe Ser Asp Glu Asn Pro Asn Ala Cys  
340 345 350

Thr Val Met  
355

<210> 1509

<211> 921

<212> DNA

<213> Arabidopsis thaliana

<400> 1509

atgaaggaga cgagaaagct gaagaagagt aatctcccta aagaagaaac tgttgggaaa	60
aaaattcaga ggaagaagaa tgagaaagtg agcaatgtcg aattaagcga ggatcctcag	120
gctgcacagc ttcaagctaa atcaagttag aaacccaata gaaagaagat tcagaagggt	180
aaggaaataa aaagctctcc agctgatggt aagctgagt ggaagatgaa gaagagaaaa	240
gagaaagtag gcaatgttga tataagcgaa ccgattctgg aagctatttc aactgagaaa	300
gtaaaagaaa agaagggcaa aatgaacaag actaagaaga aaaggaaggc cgaggaaata	360
actagatctt cagtcgaaga tctgaaaaga gaaagcaagt ttaagaaatc aaataagaag	420
aaaaagatgg acatgacctc taagaaagag aacaaaattg aagaggagga agatgtttat	480
caaatttctt caggcgatga ggattgcaca aggggaatga aaaagtgggt tagtgattac	540
tatgagggta gacctggttt agacgagctc caaaagagaa tcgatgactt catgactgct	600
catgaagaac gccttgaaca ggagaaacaa gacaaagaag ctaaagctgc agaaggtgga	660
tggaactgtg tcgtgcatca caaaggaagg aaaaagacaa cagaatctga aaccggaaca	720
gccgttgat ctttttctca ggctgctttg gaggataaga tcgctaaaaa gaaacagagt	780
gagcctgtcg ctcatggttt ctaccgtttc caaaggcgag atgcacaacg caatgaactc	840

ttggcgcttc agagtaagtt cgaggaagac aagaagagga tacaacaact tcgagctgct 900  
 cgtaggttta agcctttcta a 921

<210> 1510  
 <211> 306  
 <212> PRT  
 <213> Arabidopsis thaliana

<400> 1510  
 Met Lys Glu Thr Arg Lys Leu Lys Lys Ser Asn Leu Pro Lys Glu Glu  
 1 5 10 15  
 Thr Val Gly Lys Lys Ile Gln Arg Lys Lys Asn Glu Lys Val Ser Asn  
 20 25 30  
 Val Glu Leu Ser Glu Asp Pro Gln Ala Ala Gln Leu Gln Ala Lys Ser  
 35 40 45  
 Ser Glu Lys Pro Asn Arg Lys Lys Ile Gln Lys Gly Lys Glu Ile Lys  
 50 55 60  
 Ser Ser Pro Ala Asp Gly Lys Leu Ser Gly Lys Met Lys Lys Arg Lys  
 65 70 75 80  
 Glu Lys Val Gly Asn Val Asp Ile Ser Glu Pro Ile Leu Glu Ala Ile  
 85 90 95  
 Ser Thr Glu Lys Val Lys Glu Lys Lys Gly Lys Met Asn Lys Thr Lys  
 100 105 110  
 Lys Lys Arg Lys Ala Glu Glu Ile Thr Arg Ser Ser Val Glu Asp Leu  
 115 120 125  
 Lys Arg Glu Ser Lys Phe Lys Lys Ser Asn Lys Lys Lys Lys Met Asp  
 130 135 140  
 Met Thr Ser Lys Lys Glu Asn Lys Ile Glu Glu Glu Glu Asp Val Tyr  
 145 150 155 160  
 Gln Ile Ser Ser Gly Asp Glu Asp Cys Thr Arg Gly Met Lys Lys Trp  
 165 170 175  
 Val Ser Asp Tyr Tyr Glu Gly Arg Pro Gly Leu Asp Glu Leu Gln Lys  
 Page 2321

180

185

190

Arg Ile Asp Asp Phe Met Thr Ala His Glu Glu Arg Leu Glu Gln Glu  
 195 200 205

Lys Gln Asp Lys Glu Ala Lys Ala Ala Glu Gly Gly Trp Thr Val Val  
 210 215 220

Val His His Lys Gly Arg Lys Lys Thr Thr Glu Ser Glu Thr Gly Thr  
 225 230 235 240

Ala Val Gly Ser Phe Ser Gln Ala Ala Leu Glu Asp Lys Ile Ala Lys  
 245 250 255

Lys Lys Gln Ser Glu Pro Val Ala His Gly Phe Tyr Arg Phe Gln Arg  
 260 265 270

Arg Asp Ala Gln Arg Asn Glu Leu Leu Ala Leu Gln Ser Lys Phe Glu  
 275 280 285

Glu Asp Lys Lys Arg Ile Gln Gln Leu Arg Ala Ala Arg Arg Phe Lys  
 290 295 300

Pro Phe  
 305

<210> 1511

<211> 771

<212> DNA

<213> Arabidopsis thaliana

<400> 1511

atgggtcact tgccacagag cctctactcc gccgctggac caaagtttcc atatcctgga	60
agctccggtc taggagtaga tcaacggaag ctgacgtgga gccgcttccc ggtgttccta	120
cgggtgcgcgt cgacggagtc gttaacgagt ttgactcaga ataatgcggc ggagatagag	180
ttgaagtatc tggtagtca acacgggtgg gacgtgagga gattgaatag agacgacgag	240
gatgagatca ggagagtgtc tcttgttcaa gccgaagctt tccacatccc tcttgctctt	300
tttgaatgatt ttttcttcat gttttttcag gcagagggtc tatcagcact tctttacaaa	360
ctaaagaatt caccacctga cagatatgca tgtctcgtgg cggagcaaac aagtgaaact	420
gaaactttgt cgagctcaag tgttgtcggg gtagttgatg taacagctca aactgaaagt	480
tcagtacttc gctatcttcc gggcgctcgaa gaatatctat acgtctcggg tttagctgtc	540



047-E2F-PCT.ST25.txt

tcaaaatctc aaaggagaaa gaagatggca agtacattgt taaaggcatg tgatgttttg 600  
 tgttacttgt ggggtttcaa gcttcttgct ctaagagctt atgaagacga tgcagctgct 660  
 agaaatcttt actcgaatgc cggctacagt gtggtcgaga ctgaccggtt gtggacctct 720  
 acttggatag gcagaaaacg tcgcgttctt atgagtaaac gcttttctta g 771

<210> 1512

<211> 256

<212> PRT

<213> Arabidopsis thaliana

<400> 1512

Met Gly His Leu Pro Gln Ser Leu Tyr Ser Ala Ala Gly Pro Lys Phe  
 1 5 10 15

Pro Tyr Pro Gly Ser Ser Gly Leu Gly Val Asp Gln Arg Lys Leu Thr  
 20 25 30

Trp Ser Arg Phe Pro Val Phe Leu Arg Cys Ala Ser Thr Glu Ser Leu  
 35 40 45

Thr Ser Leu Thr Gln Asn Asn Ala Ala Glu Ile Glu Leu Lys Tyr Leu  
 50 55 60

Val Ser Gln His Gly Trp Asp Val Arg Arg Leu Asn Arg Asp Asp Glu  
 65 70 75 80

Asp Glu Ile Arg Arg Val Ser Leu Val Gln Ala Glu Ala Phe His Ile  
 85 90 95

Pro Leu Ala Leu Phe Asp Asp Phe Phe Phe Met Phe Phe Gln Ala Glu  
 100 105 110

Val Leu Ser Ala Leu Leu Tyr Lys Leu Lys Asn Ser Pro Pro Asp Arg  
 115 120 125

Tyr Ala Cys Leu Val Ala Glu Gln Thr Ser Glu Thr Glu Thr Leu Ser  
 130 135 140

Ser Ser Ser Val Val Gly Val Val Asp Val Thr Ala Gln Thr Glu Ser  
 145 150 155 160

Ser Val Leu Arg Tyr Phe Pro Gly Val Glu Glu Tyr Leu Tyr Val Ser  
 Page 2323

165

175

Gly Leu Ala Val Ser Lys Ser Gln Arg Arg Lys Lys Met Ala Ser Thr  
180 185 190

Leu Leu Lys Ala Cys Asp Val Leu Cys Tyr Leu Trp Gly Phe Lys Leu  
195 200 205

Leu Ala Leu Arg Ala Tyr Glu Asp Asp Ala Ala Ala Arg Asn Leu Tyr  
210 215 220

Ser Asn Ala Gly Tyr Ser Val Val Glu Thr Asp Pro Leu Trp Thr Ser  
225 230 235 240

Thr Trp Ile Gly Arg Lys Arg Arg Val Leu Met Ser Lys Arg Phe Ser  
245 250 255

<210> 1513

<211> 261

<212> DNA

<213> Arabidopsis thaliana

<400> 1513

atgcagcaag agagagatca caaaagagat tgttgcaagc tcatgcctca aactgtcaag 60  
gctttcttca agtgtctgag attcagacgt tcttcttctt cttcttcaga catggtgaaa 120  
gctagagcaa gaaatgaaga gaaagaagaa ccttcatcta tcgaaacttc aactaggagt 180  
ctcaacgtaa tgaggaaagg gataaggaaa caaccagtta gctcgggaaa acgaggtgga 240  
gttaacgact acgacatgta a 261

<210> 1514

<211> 86

<212> PRT

<213> Arabidopsis thaliana

<400> 1514

Met Gln Gln Glu Arg Asp His Lys Arg Asp Cys Cys Lys Leu Met Pro  
1 5 10 15

Gln Thr Val Lys Ala Phe Phe Lys Cys Leu Arg Phe Arg Arg Ser Ser  
20 25 30

047-E2F-PCT.ST25.txt

Ser Ser Ser Ser Asp Met Val Lys Ala Arg Ala Arg Asn Glu Glu Lys  
35 40 45

Glu Glu Pro Ser Ser Ile Glu Thr Ser Thr Arg Ser Leu Asn Val Met  
50 55 60

Arg Lys Gly Ile Arg Lys Gln Pro Val Ser Ser Gly Lys Arg Gly Gly  
65 70 75 80

Val Asn Asp Tyr Asp Met  
85

<210> 1515

<211> 507

<212> DNA

<213> Arabidopsis thaliana

<400> 1515

atggttgcg	gaagtgagga	aattgtgata	gtggaagaag	atacgactgc	gaaatgtttg	60
atgttgttat	caagagtcgg	agaatgcggc	ggcggctgcg	ggggagatga	acgtgttttc	120
cgatgcaaga	cttgtcttaa	agagttctca	tcgtttcaag	ctttgggagg	tcatcgtgca	180
agccacaaga	aacttatcaa	cagtgacaat	ccatcacttc	ttggatcctt	gtccaacaag	240
aaaactaaaa	cgtctcatcc	ttgtccgata	tgtggagtga	agtttccgat	gggacaagct	300
cttggtggtc	acatgaggag	acataggaac	gagaaagtct	caggctcggt	ggttacacgt	360
tcttttctac	cggagacgac	gacggtgacg	gctttgaaga	aatttagtag	tgggaagaga	420
gtggcttggt	tggatttgga	cttagattcg	atggagagtt	tggtcaattg	gaagttggag	480
ttgggaagaa	cgatttcttg	gagttaa				507

<210> 1516

<211> 168

<212> PRT

<213> Arabidopsis thaliana

<400> 1516

Met Val Ala Arg Ser Glu Glu Ile Val Ile Val Glu Glu Asp Thr Thr  
1 5 10 15

047-E2F-PCT.ST25.txt

Ala Lys Cys Leu Met Leu Leu Ser Arg Val Gly Glu Cys Gly Gly Gly  
20 25 30  
Cys Gly Gly Asp Glu Arg Val Phe Arg Cys Lys Thr Cys Leu Lys Glu  
35 40 45  
Phe Ser Ser Phe Gln Ala Leu Gly Gly His Arg Ala Ser His Lys Lys  
50 55 60  
Leu Ile Asn Ser Asp Asn Pro Ser Leu Leu Gly Ser Leu Ser Asn Lys  
65 70 75 80  
Lys Thr Lys Thr Ser His Pro Cys Pro Ile Cys Gly Val Lys Phe Pro  
85 90 95  
Met Gly Gln Ala Leu Gly Gly His Met Arg Arg His Arg Asn Glu Lys  
100 105 110  
Val Ser Gly Ser Leu Val Thr Arg Ser Phe Leu Pro Glu Thr Thr Thr  
115 120 125  
Val Thr Ala Leu Lys Lys Phe Ser Ser Gly Lys Arg Val Ala Cys Leu  
130 135 140  
Asp Leu Asp Leu Asp Ser Met Glu Ser Leu Val Asn Trp Lys Leu Glu  
145 150 155 160  
Leu Gly Arg Thr Ile Ser Trp Ser  
165

<210> 1517

<211> 1140

<212> DNA

<213> Arabidopsis thaliana

<400> 1517

atggaaactc ttttccacac tcttcttaga ttattactat tcgtagccat ctctcatact	60
ctgtcccctc tcgccggttc tttccggatt tctaattgact ttccggcggt tttcaacttc	120
ggagactcta actctgacac cggagaactt agctcgggtc ttggattcct tccacaacct	180
tcctatgaaa taaccttctt tagatctcca acttccggaa gattctgcaa tggacgtctt	240
atcgctgatt ttctaattgga agcaattgat cgaccatatt tgaggcctta tttagattcg	300
ataagtcgac aaacttaccg aagaggctgc aattttgctg cggctgcgtc aacgattcag	360

047-E2F-PCT.ST25.txt

aaggcaaattg ctgcatccta tagccccctt ggttttggtg ttcaagtctc tcaattcatc 420  
 acctttaagt ccaaagtcct tcaattgata caacaagatg aagagctcca aagatactta 480  
 ccgtccgaat attttttttag taatggattg tatatgtttg atatcggaca aaatgatatt 540  
 gccggagcat ttacaccaa gacagtagat caagttcttg ctctggttcc tataatctta 600  
 gatataatttc aagatggaat aaagagatta tatgcagagg gggcaagaaa ctattggata 660  
 cacaacacag gaccacttgg gtgttttagca caagttgtgt caatttttgg ggaagacaaa 720  
 tcaaagcttg atgagtttgg ttgtgtcagt gaccataacc aagctgctaa gcttttcaat 780  
 ttgcagcttc atggtctttt caaaaaactc cctcaacaat atcccaattc ccgtttcaca 840  
 tacgtagata tcttctctat caaatccgac ctcatcctga atcattccaa atatggtttt 900  
 gatcattcga taatggtatg ttgtggaacc ggaggaccac cactgaacta cgatgatcag 960  
 gttggttgcg gtaagacagc aagatcaaat ggtacgatca taaccgcaa accttgttat 1020  
 gatagttcca aatatgttaa ctgggacggc attcattaca ctgaagctgc aaatcggttt 1080  
 gttgcactac acattctcac cggtaaatac tctgagacgg cgtcatcttt gaatcttttag 1140

<210> 1518

<211> 379

<212> PRT

<213> Arabidopsis thaliana

<400> 1518

Met Glu Thr Leu Phe His Thr Leu Leu Arg Leu Leu Leu Phe Val Ala  
 1 5 10 15

Ile Ser His Thr Leu Ser Pro Leu Ala Gly Ser Phe Arg Ile Ser Asn  
 20 25 30

Asp Phe Pro Ala Val Phe Asn Phe Gly Asp Ser Asn Ser Asp Thr Gly  
 35 40 45

Glu Leu Ser Ser Gly Leu Gly Phe Leu Pro Gln Pro Ser Tyr Glu Ile  
 50 55 60

Thr Phe Phe Arg Ser Pro Thr Ser Gly Arg Phe Cys Asn Gly Arg Leu  
 65 70 75 80

Ile Val Asp Phe Leu Met Glu Ala Ile Asp Arg Pro Tyr Leu Arg Pro  
 85 90 95

047-E2F-PCT.ST25.txt

Tyr Leu Asp Ser Ile Ser Arg Gln Thr Tyr Arg Arg Gly Cys Asn Phe  
 100 105 110  
 Ala Ala Ala Ala Ser Thr Ile Gln Lys Ala Asn Ala Ala Ser Tyr Ser  
 115 120 125  
 Pro Phe Gly Phe Gly Val Gln Val Ser Gln Phe Ile Thr Phe Lys Ser  
 130 135 140  
 Lys Val Leu Gln Leu Ile Gln Gln Asp Glu Glu Leu Gln Arg Tyr Leu  
 145 150 155 160  
 Pro Ser Glu Tyr Phe Phe Ser Asn Gly Leu Tyr Met Phe Asp Ile Gly  
 165 170 175  
 Gln Asn Asp Ile Ala Gly Ala Phe Tyr Thr Lys Thr Val Asp Gln Val  
 180 185 190  
 Leu Ala Leu Val Pro Ile Ile Leu Asp Ile Phe Gln Asp Gly Ile Lys  
 195 200 205  
 Arg Leu Tyr Ala Glu Gly Ala Arg Asn Tyr Trp Ile His Asn Thr Gly  
 210 215 220  
 Pro Leu Gly Cys Leu Ala Gln Val Val Ser Ile Phe Gly Glu Asp Lys  
 225 230 235 240  
 Ser Lys Leu Asp Glu Phe Gly Cys Val Ser Asp His Asn Gln Ala Ala  
 245 250 255  
 Lys Leu Phe Asn Leu Gln Leu His Gly Leu Phe Lys Lys Leu Pro Gln  
 260 265 270  
 Gln Tyr Pro Asn Ser Arg Phe Thr Tyr Val Asp Ile Phe Ser Ile Lys  
 275 280 285  
 Ser Asp Leu Ile Leu Asn His Ser Lys Tyr Gly Phe Asp His Ser Ile  
 290 295 300  
 Met Val Cys Cys Gly Thr Gly Gly Pro Pro Leu Asn Tyr Asp Asp Gln  
 305 310 315 320  
 Val Gly Cys Gly Lys Thr Ala Arg Ser Asn Gly Thr Ile Ile Thr Ala  
 325 330 335  
 Lys Pro Cys Tyr Asp Ser Ser Lys Tyr Val Asn Trp Asp Gly Ile His  
 340 345 350

Tyr Thr Glu Ala Ala Asn Arg Phe Val Ala Leu His Ile Leu Thr Gly  
355 360 365

Lys Tyr Ser Glu Thr Ala Ser Ser Leu Asn Leu  
370 375

<210> 1519

<211> 141

<212> DNA

<213> Arabidopsis thaliana

<400> 1519  
atgatctatg atgtgaactc tggctctattc agatccttcc tgagccagaa gggtagctcg 60  
tccgacaaaa ggaaaatgga agataagcca agagaacaga agcccaaagc cagcgacaac 120  
aaacctgtta tgaatgaatg a 141

<210> 1520

<211> 46

<212> PRT

<213> Arabidopsis thaliana

<400> 1520

Met Ile Tyr Asp Val Asn Ser Gly Leu Phe Arg Ser Phe Leu Ser Gln  
1 5 10 15

Lys Gly Ser Ser Ser Asp Lys Arg Lys Met Glu Asp Lys Pro Arg Glu  
20 25 30

Gln Lys Pro Lys Ala Ser Asp Asn Lys Pro Val Met Asn Glu  
35 40 45

<210> 1521

<211> 1257

<212> DNA

<213> Arabidopsis thaliana

<400> 1521

```

atgatcaagc tttgcttcat gactttctcat gggtattcaa tccctggcct tgggtcttcct    60
caagacctct gcaacaccga aatcatcaag aatagccggg ctcacttggt gaatcccgga    120
gcaagacaag agatcatacc tgcaagctcc ttcaatctga atacagaact cttggaacca    180
tggaaacccg tttcttcatt tagccaattc gtggagattg attcagccat gatgaaacct    240
ctgctcatgg atgttcatga gacggcacca gaatctctga ttttgagctt tggaatcgct    300
gataagtttg caagacaaga aaagggtgatg gagtttcttc tgtctcagtc agaggagttc    360
aaggaaaaag gattcgatat gtcgctgtta aatgaattga tggagtttga gtctatgaaa    420
tccagttctc agctacgacc gtatgatact tcctctgttc tttacttgaa tcaagaatta    480
gggaaaccgg ttttggatct cgttagggat atgatggaga atccagagtt ctctgtgcga    540
tcgaatggtc atgttctggt ctcttcaagt agcaatcctg agttgaatga tctactttct    600
attgcttccg agttcaattt gtcaaggaat tcaacaacaa aatggagaca gctctcaccg    660
cttatccac actttcagag gtttgaaagt gacgtattta caccggctaa gctgaaagca    720
gttacagtgc tagcaccttt gaagagtcct gagaaaagca ggctcaagtc accaaggaaa    780
cacaacacga agcgaaaagc taaagagagg gacctataca aaagaaatca tctccacgct    840
tacgagagcc ttctctcttt aatgataggc aatgatcatc gacacaaaca cacaacagta    900
ctctctttac agaaatcatg tggagagctc tcagagcttc tgactcagtt ctctatcact    960
gctgctggaa ctggaatcgc tgtgctcttt tctgtcgtat gtagccttgc ttcaaggcgt   1020
gtaccctttt gcgcaaataa gttcttcgac actgggcttg gtttgagttt ggtaatactg   1080
tcatgggctg tgaatagact cagggaggtg attgttcatg tcaataggaa agcgaacaag   1140
ccatgttcaa gtttgaaaga tgacgaaatc ataaacagtg tggagagaag tatgaaggag   1200
gtttactaca gagctgcaac ggtaatcgcg gtgtttgcgc ttaggtttgc atgttga    1257

```

<210> 1522

<211> 418

<212> PRT

<213> Arabidopsis thaliana

<400> 1522

Met Ile Lys Leu Cys Phe Met Thr Ser His Gly Tyr Ser Ile Pro Gly  
1 5 10 15

Leu Gly Leu Pro Gln Asp Leu Cys Asn Thr Glu Ile Ile Lys Asn Ser  
20 25 30



Arg Ser His Leu Val Asn Pro Gly Ala Arg Gln Glu Ile Ile Pro Ala  
 35 40 45  
 Ser Ser Phe Asn Leu Asn Thr Glu Leu Leu Glu Pro Trp Lys Pro Val  
 50 55 60  
 Ser Ser Phe Ser Gln Phe Val Glu Ile Asp Ser Ala Met Met Lys Pro  
 65 70 75 80  
 Leu Leu Met Asp Val His Glu Thr Ala Pro Glu Ser Leu Ile Leu Ser  
 85 90 95  
 Phe Gly Ile Ala Asp Lys Phe Ala Arg Gln Glu Lys Val Met Glu Phe  
 100 105 110  
 Leu Leu Ser Gln Ser Glu Glu Phe Lys Glu Lys Gly Phe Asp Met Ser  
 115 120 125  
 Leu Leu Asn Glu Leu Met Glu Phe Glu Ser Met Lys Ser Ser Ser Gln  
 130 135 140  
 Leu Arg Pro Tyr Asp Thr Ser Ser Val Leu Tyr Leu Asn Gln Glu Leu  
 145 150 155 160  
 Gly Lys Pro Val Leu Asp Leu Val Arg Asp Met Met Glu Asn Pro Glu  
 165 170 175  
 Phe Ser Val Arg Ser Asn Gly His Val Leu Phe Ser Ser Ser Ser Asn  
 180 185 190  
 Pro Glu Leu Asn Asp Leu Leu Ser Ile Ala Ser Glu Phe Asn Leu Ser  
 195 200 205  
 Arg Asn Ser Thr Thr Lys Trp Arg Gln Leu Ser Pro Leu Ile Pro His  
 210 215 220  
 Phe Gln Arg Phe Glu Ser Asp Val Phe Thr Pro Ala Lys Leu Lys Ala  
 225 230 235 240  
 Val Thr Val Leu Ala Pro Leu Lys Ser Pro Glu Lys Ser Arg Leu Lys  
 245 250 255  
 Ser Pro Arg Lys His Asn Thr Lys Arg Lys Ala Lys Glu Arg Asp Leu  
 260 265 270  
 Tyr Lys Arg Asn His Leu His Ala Tyr Glu Ser Leu Leu Ser Leu Met  
 275 280 285

047-E2F-PCT.ST25.txt

Ile Gly Asn Asp His Arg His Lys His Thr Thr Val Leu Ser Leu Gln  
 290 295 300  
 Lys Ser Cys Gly Glu Leu Ser Glu Leu Leu Thr Gln Phe Ser Ile Thr  
 305 310 315 320  
 Ala Ala Gly Thr Gly Ile Ala Val Leu Phe Ser Val Val Cys Ser Leu  
 325 330 335  
 Ala Ser Arg Arg Val Pro Phe Cys Ala Asn Lys Phe Phe Asp Thr Gly  
 340 345 350  
 Leu Gly Leu Ser Leu Val Ile Leu Ser Trp Ala Val Asn Arg Leu Arg  
 355 360 365  
 Glu Val Ile Val His Val Asn Arg Lys Ala Asn Lys Pro Cys Ser Ser  
 370 375 380  
 Leu Lys Asp Asp Glu Ile Ile Asn Ser Val Glu Arg Ser Met Lys Glu  
 385 390 395 400  
 Val Tyr Tyr Arg Ala Ala Thr Val Ile Ala Val Phe Ala Leu Arg Phe  
 405 410 415

Ala Cys

<210> 1523

<211> 1554

<212> DNA

<213> Arabidopsis thaliana

<400> 1523

atgcttcctg tctcaaatcc ttccagtcct gaacatctcc tcaaaaaatc cagaacccca	60
gactccacca cctccattga tcgtaagaac tcatttaact cgcttcactc ggctcggaac	120
cgctcttcct acatcgccgc ttctcgtagc cactgcacat ggctgatcct ctctcttcta	180
tctctccaac tgatcctctt cctcactctc cgatccatcc cttttcctca ccgtcacatc	240
cccgaaaact tcccttctcc cgccgccgtc gtcaccacca ccgtcacaac caccgtcatt	300
tctgccgcct cttccaatcc ccctctctca tcctctctcat ctgacgaacg atgcgattca	360
ggctcgagtct tcgtctacga catgccaaag atcttcaacg aagtgattct acaacagtgt	420
gataatctca atccatggag ctctcgctgc gacgcacttt ctaacgacgg gtttggtcaa	480

047-E2F-PCT.ST25.txt

```

gaagcgacgt cgttaagcaa cgtgatccct aaagatttgg ttcaatcatg gttttggact 540
gaccaattcg taaccgaaat ttttttccat aaccggattt taaaccaccg gtgtcggact 600
ttggatccgg aatcagctac ggcgttttat ataccgttct acgctggact cgcagttggt 660
caatatttat ggtcaaatta cgcagcggct gatcgtgacc gtcattgtaa gatgatgaca 720
cagtgggtca aaaatcaacc ttattggaat agatccaacg gttgggatca tttcattact 780
atgggacgca tcacatggga ttttcgcagg tctaaagacg aagattgggg atctaactgt 840
atztatatcc ctggtatgcg taacatcacg cgcctcctta ttgagcgtaa ctcttgggat 900
cattttgacg tcggtgtacc gtaccctacc ggattccacc ctagatcgga ctccgacgtc 960
gtgaattggc aagattttgt tcggaatcga cgtcgtgaga cgttgttctg tttcgctgga 1020
gctccacgcg ccgggattgt gaatgatttt agaggattgc ttctccgtca ctgtgaggaa 1080
tcgctgaggga agtgtcggac ggtggattgt accgtcggga aatgctcgaa tggttcgtcg 1140
gcgatttttg agacgtttct cgggtctgat ttttgtctcc agccacgagg agatagcttc 1200
acacgccggt cgatatttga ttgtatgttg gccggttcga ttccggtttt cttttggaga 1260
cgaagcgctt acatgcagta tcagtggttt ttaccggata aaccggatag ttattcggtt 1320
tttatagacc ggaacgaggt aacaaacggc acgacgtcta taaaggaagt gttggaacgg 1380
tatagcaaag aagatgtgag gaagatgaga gaaagagtga ttgatttgat accgaatttg 1440
gtttacgcta agtctccgaa tgggttagag actttcaaag acgcttttga tgtggcgata 1500
gatggagttt ttaggagatt caaggagcaa gagaaatggt acaaatggag atga 1554

```

<210> 1524

<211> 517

<212> PRT

<213> Arabidopsis thaliana

<400> 1524

```

Met Leu Pro Val Ser Asn Pro Ser Ser Pro Glu His Leu Leu Lys Lys
1          5          10          15

```

```

Ser Arg Thr Pro Asp Ser Thr Thr Ser Ile Asp Arg Lys Asn Ser Phe
          20          25          30

```

```

Asn Ser Leu His Ser Val Gly Asn Arg Ser Ser Tyr Ile Ala Ala Ser
35          40          45

```

```

Arg Ser His Cys Thr Trp Leu Ile Leu Ser Leu Leu Ser Leu Gln Leu

```

50

55

Ile Leu Phe Leu Thr Leu Arg Ser Ile Pro Phe Pro His Arg His Ile  
65 70 75 80

Pro Glu Asn Phe Pro Ser Pro Ala Ala Val Val Thr Thr Thr Val Thr  
85 90 95

Thr Thr Val Ile Ser Ala Ala Ser Ser Asn Pro Pro Leu Ser Ser Ser  
100 105 110

Ser Ser Asp Glu Arg Cys Asp Ser Gly Arg Val Phe Val Tyr Asp Met  
115 120 125

Pro Lys Ile Phe Asn Glu Val Ile Leu Gln Gln Cys Asp Asn Leu Asn  
130 135 140

Pro Trp Ser Ser Arg Cys Asp Ala Leu Ser Asn Asp Gly Phe Gly Gln  
145 150 155 160

Glu Ala Thr Ser Leu Ser Asn Val Ile Pro Lys Asp Leu Val Gln Ser  
165 170 175

Trp Phe Trp Thr Asp Gln Phe Val Thr Glu Ile Ile Phe His Asn Arg  
180 185 190

Ile Leu Asn His Arg Cys Arg Thr Leu Asp Pro Glu Ser Ala Thr Ala  
195 200 205

Phe Tyr Ile Pro Phe Tyr Ala Gly Leu Ala Val Gly Gln Tyr Leu Trp  
210 215 220

Ser Asn Tyr Ala Ala Ala Asp Arg Asp Arg His Cys Lys Met Met Thr  
225 230 235 240

Gln Trp Val Lys Asn Gln Pro Tyr Trp Asn Arg Ser Asn Gly Trp Asp  
245 250 255

His Phe Ile Thr Met Gly Arg Ile Thr Trp Asp Phe Arg Arg Ser Lys  
260 265 270

Asp Glu Asp Trp Gly Ser Asn Cys Ile Tyr Ile Pro Gly Met Arg Asn  
275 280 285

Ile Thr Arg Leu Leu Ile Glu Arg Asn Ser Trp Asp His Phe Asp Val  
290 295 300

Gly Val Pro Tyr Pro Thr Gly Phe His Pro Arg Ser Asp Ser Asp Val  
 305 310 315 320  
 Val Asn Trp Gln Asp Phe Val Arg Asn Arg Arg Arg Glu Thr Leu Phe  
 325 330 335  
 Cys Phe Ala Gly Ala Pro Arg Ala Gly Ile Val Asn Asp Phe Arg Gly  
 340 345 350  
 Leu Leu Leu Arg His Cys Glu Glu Ser Arg Gly Lys Cys Arg Thr Val  
 355 360 365  
 Asp Cys Thr Val Gly Lys Cys Ser Asn Gly Ser Ser Ala Ile Leu Glu  
 370 375 380  
 Thr Phe Leu Gly Ser Asp Phe Cys Leu Gln Pro Arg Gly Asp Ser Phe  
 385 390 395 400  
 Thr Arg Arg Ser Ile Phe Asp Cys Met Leu Ala Gly Ser Ile Pro Val  
 405 410 415  
 Phe Phe Trp Arg Arg Ser Ala Tyr Met Gln Tyr Gln Trp Phe Leu Pro  
 420 425 430  
 Asp Lys Pro Asp Ser Tyr Ser Val Phe Ile Asp Arg Asn Glu Val Thr  
 435 440 445  
 Asn Gly Thr Thr Ser Ile Lys Glu Val Leu Glu Arg Tyr Ser Lys Glu  
 450 455 460  
 Asp Val Arg Lys Met Arg Glu Arg Val Ile Asp Leu Ile Pro Asn Leu  
 465 470 475 480  
 Val Tyr Ala Lys Ser Pro Asn Gly Leu Glu Thr Phe Lys Asp Ala Phe  
 485 490 495  
 Asp Val Ala Ile Asp Gly Val Phe Arg Arg Phe Lys Glu Gln Glu Lys  
 500 505 510  
 Trp Tyr Lys Trp Arg  
 515

&lt;210&gt; 1525

&lt;211&gt; 2175

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

<400> 1525  
atggggtttcc tgataggggg ctcttgcttc gtcccttctg ttcctctaca ctctcgattc 60  
ctttcatctc cttcttcttc ttcttcttct tctccttctt cgtctcagtt tgggcttctg 120  
tgttcgagta atgtcgccaa gttcaagcgc cgacgaccaa cattggcttc tttaaaccag 180  
gaagatgggt acgagtatga cgttgcttcc gccaaaagga gggctttcct tcttgtgggt 240  
atctctgttc ttcccttttt gcagcttcga tcacccgctt tggctgatga aagtgaagttt 300  
ttttattgct tagatgagat ttgttcaaat gttgcagtag ttagtgaagg aacatcccca 360  
aatccatttc tggctctcct gaatggctctt ggaattttta gtgctggcgt tcttgggtgca 420  
ctttatgcac tggctcggca agatacaaaa gctgctgagg aaaccatcga atctctaaag 480  
aaccagttga aagacagaga aagagcattg gttttgaagg agaaagattt cgaggcaaaa 540  
ctgcagcatg agcaggaaga gcggaaaaag gaagtagaaa aggcaaaaga ggaacagttg 600  
tcattgatca accagttgaa ttctgcaaag gacttggtga cagaattagg ccgggagcta 660  
agtagcgaga agaaattatg tgagaagctt aaagatcaaa tcgaaagtct ggaaaatagt 720  
ctgtcaaagg ctggcgaaga caaagaggca ctagaacaa agctcagaga aaagcttgat 780  
ttggttgaag gactacaaga tcggatcaac ttgcttagtt tggagctgaa agatagtga 840  
gaaaaagctc aacgttttaa tgcatcgttg gcaaaaaagg aagcagaatt gaaggaactc 900  
aactctatctt acactcaaac tagccgagat cttgctgaag cgaagttaga gatcaaacag 960  
cagaaggaag aactcataag aactcagagt gaattggact cgaagaactc tgcgattgag 1020  
gagttaaaca caagaataac aacttttagtg gctgagaaag agagttatat ccagaagctt 1080  
gatagtatctt caaaagatta tagtgctttg aaattgactt ctgagacgca agcagctgca 1140  
gatgcagagc tcatcagcag gaaagagcag gagattcagc agctaaatga aaatctggat 1200  
cgtgcgctag atgatgttaa taaaagtaaa gacaaagttg ctgacttaac tgagaagtac 1260  
gaagactcga agagaatgct ggatatagaa ctgactacag taaaaaattt gagacatgaa 1320  
cttgaaggaa caaagaaaac actgcaggca tctagagatc gggctctctga cctggaaacg 1380  
atgcttgatg agtcaagagc tttgtgttca aagttagaat cagagcttgc tatagttcac 1440  
gaagaatgga aggaagctaa ggaaagatat gaaaggaacc tcgatgctga aaaacaaaag 1500  
aatgagatctt ctgctagcga acttgactg gagaaagatc ttcggaggag agttaaagac 1560  
gagcttgagg gagtaactca tgaactcaaa gagtcttctg tcaagaacca gagcctccag 1620  
aaggaacttg tggagattta caagaaagtt gaaaccagta acaaggaatt ggaagaggag 1680  
aaaaagactg ttttgtcggt gaacaaagag gtgaaaggaa tggaaaagca gatcttgatg 1740  
gaaagggagg cgagaaaatc ccttgaaaca gatctcgaag aagctgtaaa gtcttttagat 1800

047-E2F-PCT.ST25.txt

gagatgaaca agaacacatc aatactgtca cgagagcttg agaaggtgaa tacccatgct 1860  
tcaaacttgg aggacgagaa agaagtactt caacgatcac taggagaggc aaagaatgca 1920  
tcaaaagaag ctaaggaaaa tgtggaagat gcacatatcc tcgtgatgag tctaggaaaa 1980  
gaaaggggaag tgctagagaa gaaagtgaag aagctcgagg aggacttggg ctctgcaaag 2040  
ggcgagatac tgcgcatgag gagccaaccg gattctgtaa aagctgtgaa tagtacagac 2100  
aacaagaga agagcgacaa cacggttact gtgaagaaag ttgtcaggag gagaaagagc 2160  
agtaccagtt cttga 2175

<210> 1526

<211> 724

<212> PRT

<213> Arabidopsis thaliana

<400> 1526

Met Gly Phe Leu Ile Gly Gly Ser Cys Phe Val Pro Ser Val Pro Leu  
1 5 10 15

His Ser Arg Phe Leu Ser Ser Pro Ser Ser Ser Ser Ser Ser Pro  
20 25 30

Ser Ser Ser Gln Phe Gly Leu Leu Cys Ser Ser Asn Val Ala Lys Phe  
35 40 45

Lys Arg Arg Arg Pro Thr Leu Ala Ser Leu Asn Gln Glu Asp Gly Tyr  
50 55 60

Glu Tyr Asp Val Ala Ser Ala Lys Arg Arg Ala Phe Leu Leu Val Gly  
65 70 75 80

Ile Ser Val Leu Pro Phe Leu Gln Leu Arg Ser Pro Ala Leu Ala Asp  
85 90 95

Glu Ser Glu Phe Phe Tyr Cys Leu Asp Glu Ile Cys Ser Asn Val Ala  
100 105 110

Val Val Ser Glu Gly Thr Ser Pro Asn Pro Phe Leu Ala Leu Leu Asn  
115 120 125

Gly Leu Gly Ile Phe Ser Ala Gly Val Leu Gly Ala Leu Tyr Ala Leu  
130 135 140

## 047-E2F-PCT.ST25.txt

Ala Arg Gln Asp Thr Lys Ala Ala Glu Glu Thr Ile Glu Ser Leu Lys  
 145 150 155 160  
 Asn Gln Leu Lys Asp Arg Glu Arg Ala Leu Val Leu Lys Glu Lys Asp  
 165 170 175  
 Phe Glu Ala Lys Leu Gln His Glu Gln Glu Glu Arg Lys Lys Glu Val  
 180 185 190  
 Glu Lys Ala Lys Glu Glu Gln Leu Ser Leu Ile Asn Gln Leu Asn Ser  
 195 200 205  
 Ala Lys Asp Leu Val Thr Glu Leu Gly Arg Glu Leu Ser Ser Glu Lys  
 210 215 220  
 Lys Leu Cys Glu Lys Leu Lys Asp Gln Ile Glu Ser Leu Glu Asn Ser  
 225 230 235 240  
 Leu Ser Lys Ala Gly Glu Asp Lys Glu Ala Leu Glu Thr Lys Leu Arg  
 245 250 255  
 Glu Lys Leu Asp Leu Val Glu Gly Leu Gln Asp Arg Ile Asn Leu Leu  
 260 265 270  
 Ser Leu Glu Leu Lys Asp Ser Glu Glu Lys Ala Gln Arg Phe Asn Ala  
 275 280 285  
 Ser Leu Ala Lys Lys Glu Ala Glu Leu Lys Glu Leu Asn Ser Ile Tyr  
 290 295 300  
 Thr Gln Thr Ser Arg Asp Leu Ala Glu Ala Lys Leu Glu Ile Lys Gln  
 305 310 315 320  
 Gln Lys Glu Glu Leu Ile Arg Thr Gln Ser Glu Leu Asp Ser Lys Asn  
 325 330 335  
 Ser Ala Ile Glu Glu Leu Asn Thr Arg Ile Thr Thr Leu Val Ala Glu  
 340 345 350  
 Lys Glu Ser Tyr Ile Gln Lys Leu Asp Ser Ile Ser Lys Asp Tyr Ser  
 355 360 365  
 Ala Leu Lys Leu Thr Ser Glu Thr Gln Ala Ala Ala Asp Ala Glu Leu  
 370 375 380  
 Ile Ser Arg Lys Glu Gln Glu Ile Gln Gln Leu Asn Glu Asn Leu Asp  
 385 390 395 400



047-E2F-PCT.ST25.txt

Arg Ala Leu Asp Asp Val Asn Lys Ser Lys Asp Lys Val Ala Asp Leu  
405 410 415

Thr Glu Lys Tyr Glu Asp Ser Lys Arg Met Leu Asp Ile Glu Leu Thr  
420 425 430

Thr Val Lys Asn Leu Arg His Glu Leu Glu Gly Thr Lys Lys Thr Leu  
435 440 445

Gln Ala Ser Arg Asp Arg Val Ser Asp Leu Glu Thr Met Leu Asp Glu  
450 455 460

Ser Arg Ala Leu Cys Ser Lys Leu Glu Ser Glu Leu Ala Ile Val His  
465 470 475 480

Glu Glu Trp Lys Glu Ala Lys Glu Arg Tyr Glu Arg Asn Leu Asp Ala  
485 490 495

Glu Lys Gln Lys Asn Glu Ile Ser Ala Ser Glu Leu Ala Leu Glu Lys  
500 505 510

Asp Leu Arg Arg Arg Val Lys Asp Glu Leu Glu Gly Val Thr His Glu  
515 520 525

Leu Lys Glu Ser Ser Val Lys Asn Gln Ser Leu Gln Lys Glu Leu Val  
530 535 540

Glu Ile Tyr Lys Lys Val Glu Thr Ser Asn Lys Glu Leu Glu Glu Glu  
545 550 555 560

Lys Lys Thr Val Leu Ser Leu Asn Lys Glu Val Lys Gly Met Glu Lys  
565 570 575

Gln Ile Leu Met Glu Arg Glu Ala Arg Lys Ser Leu Glu Thr Asp Leu  
580 585 590

Glu Glu Ala Val Lys Ser Leu Asp Glu Met Asn Lys Asn Thr Ser Ile  
595 600 605

Leu Ser Arg Glu Leu Glu Lys Val Asn Thr His Ala Ser Asn Leu Glu  
610 615 620

Asp Glu Lys Glu Val Leu Gln Arg Ser Leu Gly Glu Ala Lys Asn Ala  
625 630 635 640

Ser Lys Glu Ala Lys Glu Asn Val Glu Asp Ala His Ile Leu Val Met

645

650

655

Ser Leu Gly Lys Glu Arg Glu Val Leu Glu Lys Lys Val Lys Lys Leu  
 660 665 670

Glu Glu Asp Leu Gly Ser Ala Lys Gly Glu Ile Leu Arg Met Arg Ser  
 675 680 685

Gln Pro Asp Ser Val Lys Ala Val Asn Ser Thr Asp Asn Lys Glu Lys  
 690 695 700

Ser Asp Asn Thr Val Thr Val Lys Lys Val Val Arg Arg Arg Lys Ser  
 705 710 715 720

Ser Thr Ser Ser

<210> 1527

<211> 849

<212> DNA

<213> Arabidopsis thaliana

<400> 1527

atgaggccta aagcaaata aaaccacaag ctgaagggtc tccttggttt tcttcttgcc	60
accttaattc tcatttcat cgtgagatca actctgacat cttcacagga acaccagact	120
ccacaagaga caagatcaac gcgttgctct ggtgcctgca ataagctacc acgttccttc	180
gcacaagccc tgatccatta ctgacctca gttatcacac cacaacaaac gctcaaagag	240
atagcggtaa gcagtagagt actcggcaag aagtcaccct gcaatttctt ggtgtttggt	300
ctaggccatg acagcctcat gtggagctct ctcaactatg gaggccggac tgtgtttctt	360
gaagaagatg aagcatggat aaaacagatc aagagacggt ttccgatgct ggaatcgta	420
catgtaacat atgacagtaa agtcaatcaa gccgataatc tcatagaagt cggaaaagga	480
cctgaatgca cagccattgg agatccaagg tactcaatgt gtcaactagc actcaagggt	540
ttgcctgcag aaatttatga gaccggttgg gatctaatac tggttgatgc accgactggc	600
tactacgatg aggctcctgg gagaatgaca gcaatttaca ctgcgggaat gatggcaagg	660
aacaggaaac agggaggaga gactgatgtg tttgtgcatg atgttaacag ggaaatagaa	720
gacaagtttt ctaaggcttt cttgtgtgaa ggggtacatga agaaacagga agggagacta	780
aggcatttta ttatccctag ctatagagat ggatcagaat cagaatcaaa tagacccttt	840
tgtccatag	849

&lt;210&gt; 1528

&lt;211&gt; 282

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1528

Met Arg Pro Lys Ala Asn Gln Asn His Lys Leu Lys Val Leu Leu Val  
 1 5 10 15

Phe Leu Leu Ala Thr Leu Ile Leu Ile Phe Ile Val Arg Ser Thr Leu  
 20 25 30

Thr Ser Ser Gln Glu His Gln Thr Pro Gln Glu Thr Arg Ser Thr Arg  
 35 40 45

Cys Ser Gly Ala Cys Asn Lys Leu Pro Arg Ser Leu Ala Gln Ala Leu  
 50 55 60

Ile His Tyr Ser Thr Ser Val Ile Thr Pro Gln Gln Thr Leu Lys Glu  
 65 70 75 80

Ile Ala Val Ser Ser Arg Val Leu Gly Lys Lys Ser Pro Cys Asn Phe  
 85 90 95

Leu Val Phe Gly Leu Gly His Asp Ser Leu Met Trp Ser Ser Leu Asn  
 100 105 110

Tyr Gly Gly Arg Thr Val Phe Leu Glu Glu Asp Glu Ala Trp Ile Lys  
 115 120 125

Gln Ile Lys Arg Arg Phe Pro Met Leu Glu Ser Tyr His Val Thr Tyr  
 130 135 140

Asp Ser Lys Val Asn Gln Ala Asp Asn Leu Ile Glu Val Gly Lys Gly  
 145 150 155 160

Pro Glu Cys Thr Ala Ile Gly Asp Pro Arg Tyr Ser Met Cys Gln Leu  
 165 170 175

Ala Leu Lys Gly Leu Pro Ala Glu Ile Tyr Glu Thr Gly Trp Asp Leu  
 180 185 190

Ile Met Val Asp Ala Pro Thr Gly Tyr Tyr Asp Glu Ala Pro Gly Arg  
 Page 2341

195

200

205

Met Thr Ala Ile Tyr Thr Ala Gly Met Met Ala Arg Asn Arg Lys Gln  
 210 215 220

Gly Gly Glu Thr Asp Val Phe Val His Asp Val Asn Arg Glu Ile Glu  
 225 230 235 240

Asp Lys Phe Ser Lys Ala Phe Leu Cys Glu Gly Tyr Met Lys Lys Gln  
 245 250 255

Glu Gly Arg Leu Arg His Phe Ile Ile Pro Ser Tyr Arg Asp Gly Ser  
 260 265 270

Glu Ser Glu Ser Asn Arg Pro Phe Cys Pro  
 275 280

&lt;210&gt; 1529

&lt;211&gt; 741

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1529

```

atggctactt caagaacatt ctttttctct aatctcttca tcttcttctt cgttatagcc 60
actacttatg gtcaggctcc agctccaggc ccttcagggtc caacgaacat aaccgcaatc 120
ctagaaaagg ctggtcaatt cacattgttc ataagacttc ttaaaagcac tcaagcctca 180
gaccaaatca acactcagct caattcttcc tcgagtaatg gcttaaccgt gtttgccccg 240
actgataacg ccttcaacag cctcaaatcc ggaaccttaa actcattgtc tgaccaacaa 300
aaagttcagc ttgttcagtt ccatgtctta cctacactca taaccatgcc tcagtttcaa 360
accgttagta acccttttacg cagcaagct ggagatggcc aaaacggtaa attccctctt 420
aacatcacta gctccggtaa ccaagttaac atcaccactg gagttgtcag cgccaccgtg 480
gctaactctg tctacagcga taagcagctg gccgtttatc aggttgatca agttttgctg 540
ccattagcca tgtttgatc aagcgtggct cctgctccgg cccctgagaa aggcggtctt 600
gtttcaaaag gctcagcttc cggtggcgat gatggaggag attctactga ttcattctgat 660
gcagagagga ctggattcgg gtttgggatc agaactacta ccgttgcagc cattgctgct 720
tcttcttctc tgtggatata a 741

```

&lt;210&gt; 1530

&lt;211&gt; 246

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1530

Met Ala Thr Ser Arg Thr Phe Ile Phe Ser Asn Leu Phe Ile Phe Phe  
 1 5 10 15

Leu Val Ile Ala Thr Thr Tyr Gly Gln Ala Pro Ala Pro Gly Pro Ser  
 20 25 30

Gly Pro Thr Asn Ile Thr Ala Ile Leu Glu Lys Ala Gly Gln Phe Thr  
 35 40 45

Leu Phe Ile Arg Leu Leu Lys Ser Thr Gln Ala Ser Asp Gln Ile Asn  
 50 55 60

Thr Gln Leu Asn Ser Ser Ser Ser Asn Gly Leu Thr Val Phe Ala Pro  
 65 70 75 80

Thr Asp Asn Ala Phe Asn Ser Leu Lys Ser Gly Thr Leu Asn Ser Leu  
 85 90 95

Ser Asp Gln Gln Lys Val Gln Leu Val Gln Phe His Val Leu Pro Thr  
 100 105 110

Leu Ile Thr Met Pro Gln Phe Gln Thr Val Ser Asn Pro Leu Arg Thr  
 115 120 125

Gln Ala Gly Asp Gly Gln Asn Gly Lys Phe Pro Leu Asn Ile Thr Ser  
 130 135 140

Ser Gly Asn Gln Val Asn Ile Thr Thr Gly Val Val Ser Ala Thr Val  
 145 150 155 160

Ala Asn Ser Val Tyr Ser Asp Lys Gln Leu Ala Val Tyr Gln Val Asp  
 165 170 175

Gln Val Leu Leu Pro Leu Ala Met Phe Gly Ser Ser Val Ala Pro Ala  
 180 185 190

Pro Ala Pro Glu Lys Gly Gly Ser Val Ser Lys Gly Ser Ala Ser Gly  
 195 200 205

Gly Asp Asp Gly Gly Asp Ser Thr Asp Ser Ser Asp Ala Glu Arg Thr  
 Page 2343

210

215

Gly Phe Gly Phe Gly Ile Arg Ile Thr Thr Val Ala Ala Ile Ala Ala  
225 230 235 240

Ser Ser Ser Leu Trp Ile  
245

<210> 1531

<211> 843

<212> DNA

<213> Arabidopsis thaliana

<400> 1531

atggcgtctt cgtcgttctc agtcacatct ccagctgctg ctgcttccgt ctatgcagtc	60
actcaaacct cctcgcactt cccaatccaa aaccgctctc gcagagtttc tttccgtctc	120
tctgctaagc ccaagcttcg ctttctctcc aagcctagtc gcagtagcta ccctgtggtg	180
aaagcacaat ctaacaaggt tagtactggt gcatcatcaa atgctgcaa agttgatggg	240
ccatcatcag ctgaaggaaa ggagaaaaac tcattgaagg agtcgtctgc ttcttctcct	300
gaattagcta cagaagagtc tatttctgag ttccttacct aagtaacaac tcttgtcaag	360
cttgtggatt caagagacat tgttgagttg cagttgaaac aactcgactg tgaactagtc	420
attcgaaaaa aagaagcctt acctcaacct caagctcctg catcttatgt tatgatgcag	480
caaccaaadc aaccatctta tgcccagcaa atggctcctc ctgctgcacc tgctgctgcc	540
gcaccagccc cttctacgcc agcctctctg cctccaccat cccacctac tccagccaaa	600
tcgtcacttc ctactgttaa aagcccatg gctggcacat tctaccgtag tcctgcacct	660
gggtgaaccac cctttattaa gggttgagac aaagtgcaga aggggcaagt tctatgcatt	720
gttgaagcca tgaagttaat gaatgaaata gagtctgacc ataccggaac cgtagtcgat	780
attgtcgcag aagacggcaa gcctgtcagc ctcgacactc ctctgtttgt gggttcaaccg	840
tag	843

<210> 1532

<211> 280

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 1532

Met Ala Ser Ser Ser Phe Ser Val Thr Ser Pro Ala Ala Ala Ala Ser  
 1 5 10 15

Val Tyr Ala Val Thr Gln Thr Ser Ser His Phe Pro Ile Gln Asn Arg  
 20 25 30

Ser Arg Arg Val Ser Phe Arg Leu Ser Ala Lys Pro Lys Leu Arg Phe  
 35 40 45

Leu Ser Lys Pro Ser Arg Ser Ser Tyr Pro Val Val Lys Ala Gln Ser  
 50 55 60

Asn Lys Val Ser Thr Gly Ala Ser Ser Asn Ala Ala Lys Val Asp Gly  
 65 70 75 80

Pro Ser Ser Ala Glu Gly Lys Glu Lys Asn Ser Leu Lys Glu Ser Ser  
 85 90 95

Ala Ser Ser Pro Glu Leu Ala Thr Glu Glu Ser Ile Ser Glu Phe Leu  
 100 105 110

Thr Gln Val Thr Thr Leu Val Lys Leu Val Asp Ser Arg Asp Ile Val  
 115 120 125

Glu Leu Gln Leu Lys Gln Leu Asp Cys Glu Leu Val Ile Arg Lys Lys  
 130 135 140

Glu Ala Leu Pro Gln Pro Gln Ala Pro Ala Ser Tyr Val Met Met Gln  
 145 150 155 160

Gln Pro Asn Gln Pro Ser Tyr Ala Gln Gln Met Ala Pro Pro Ala Ala  
 165 170 175

Pro Ala Ala Ala Ala Pro Ala Pro Ser Thr Pro Ala Ser Leu Pro Pro  
 180 185 190

Pro Ser Pro Pro Thr Pro Ala Lys Ser Ser Leu Pro Thr Val Lys Ser  
 195 200 205

Pro Met Ala Gly Thr Phe Tyr Arg Ser Pro Ala Pro Gly Glu Pro Pro  
 210 215 220

Phe Ile Lys Val Gly Asp Lys Val Gln Lys Gly Gln Val Leu Cys Ile  
 225 230 235 240

Val Glu Ala Met Lys Leu Met Asn Glu Ile Glu Ser Asp His Thr Gly  
 Page 2345

245

255

Thr Val Val Asp Ile Val Ala Glu Asp Gly Lys Pro Val Ser Leu Asp  
260 265 270

Thr Pro Leu Phe Val Val Gln Pro  
275 280

<210> 1533

<211> 510

<212> DNA

<213> Arabidopsis thaliana

<400> 1533

atgtcgagta tatacagaac tgtttcgaga aaagagaaac cgagacgtca tcatggattg	60
acgacacaga agaagcaaga gattaaggaa gcttttgagc tatttgacac tgatgggttct	120
ggtaccattg atgctaaaga gcttaatggt gctatgaggg cgcttggttt tgaaatgacg	180
gaagagcaaa tcaacaaaat gatagctgat gtggataaag atggaagtgg agctatagat	240
tttgatgagt ttgttcatat gatgactgct aagattggtg aaagagacac aaaagaagag	300
ctcactaaag cattccagat cattgatctt gacaaaaatg ggaagatatc tccggatgat	360
atcaaacgca tggcaaagga cttgggtgag aatttcactg atgctgagat acgagagatg	420
gttgaagaag cagaccgaga ccgtgatggt gaagttaaca tggatgaatt catgaggatg	480
atgaggagaa ctgcttatgg tggttaactag	510

<210> 1534

<211> 169

<212> PRT

<213> Arabidopsis thaliana

<400> 1534

Met Ser Ser Ile Tyr Arg Thr Val Ser Arg Lys Glu Lys Pro Arg Arg	1 5 10 15
His His Gly Leu Thr Thr Gln Lys Lys Gln Glu Ile Lys Glu Ala Phe	20 25 30
Glu Leu Phe Asp Thr Asp Gly Ser Gly Thr Ile Asp Ala Lys Glu Leu	35 40 45



047-E2F-PCT.ST25.txt

Asn Val Ala Met Arg Ala Leu Gly Phe Glu Met Thr Glu Glu Gln Ile  
50 55 60

Asn Lys Met Ile Ala Asp Val Asp Lys Asp Gly Ser Gly Ala Ile Asp  
65 70 75 80

Phe Asp Glu Phe Val His Met Met Thr Ala Lys Ile Gly Glu Arg Asp  
85 90 95

Thr Lys Glu Glu Leu Thr Lys Ala Phe Gln Ile Ile Asp Leu Asp Lys  
100 105 110

Asn Gly Lys Ile Ser Pro Asp Asp Ile Lys Arg Met Ala Lys Asp Leu  
115 120 125

Gly Glu Asn Phe Thr Asp Ala Glu Ile Arg Glu Met Val Glu Glu Ala  
130 135 140

Asp Arg Asp Arg Asp Gly Glu Val Asn Met Asp Glu Phe Met Arg Met  
145 150 155 160

Met Arg Arg Thr Ala Tyr Gly Gly Asn  
165

<210> 1535

<211> 813

<212> DNA

<213> Arabidopsis thaliana

<400> 1535

atgaaaatcc tctcactttc actactcttg ctcttggccg ctacggtctc ccacgtccag	60
tcttcggcat ccgttccagg gtcatcga ctcctcgaat cgaacacccat ctttgggaac	120
gaagccgaac tcttagagaa agagggactg tccatcaact accccaactg cagaagctgg	180
caccttggtg ttgagacctc taacatcata aacttcgaca cggtgccgc aaattgcaaa	240
gcctatgttg aagactactt gatcacttcc aaacagtacc aatacgactc caaaactgta	300
aacaaagagg catattttta cgccaaagga cttgccctaa agaacgatac cgtcaatggt	360
tggatctttg acctagacga cactctctc tctagtattc cctactacgc taaatatgga	420
tatgggaccg agaacacagc cccgggggcg tactggtcgt ggtttagagtc cggagaatca	480
actccaggac tcccggagac cttgcatcta tacgaaaacc tcttggaact cgggattgaa	540

cccatcataa tctctgacag atggaaaaaa ttgtcagaag tcactgtcga gaatctcaag 600  
 gctgttggtg taacaaaatg gaagcatctc atactcaagc caaacggatc gaagttgacg 660  
 caagtgggtg acaagtcaaa ggtaggaat agccttgtga agaaagggtg caacatcggt 720  
 gggaatattg gagaccaatg ggctgatttg gttgaggata ctcctggaag ggtttttaag 780  
 ctcccaaadc cactctacta cgtaccttct taa 813

<210> 1536

<211> 270

<212> PRT

<213> Arabidopsis thaliana

<400> 1536

Met Lys Ile Leu Ser Leu Ser Leu Leu Leu Leu Leu Ala Ala Thr Val  
1 5 10 15

Ser His Val Gln Ser Ser Ala Ser Val Pro Gly Leu Ile Glu Leu Leu  
20 25 30

Glu Ser Asn Thr Ile Phe Gly Asn Glu Ala Glu Leu Leu Glu Lys Glu  
35 40 45

Gly Leu Ser Ile Asn Tyr Pro Asn Cys Arg Ser Trp His Leu Gly Val  
50 55 60

Glu Thr Ser Asn Ile Ile Asn Phe Asp Thr Val Pro Ala Asn Cys Lys  
65 70 75 80

Ala Tyr Val Glu Asp Tyr Leu Ile Thr Ser Lys Gln Tyr Gln Tyr Asp  
85 90 95

Ser Lys Thr Val Asn Lys Glu Ala Tyr Phe Tyr Ala Lys Gly Leu Ala  
100 105 110

Leu Lys Asn Asp Thr Val Asn Val Trp Ile Phe Asp Leu Asp Asp Thr  
115 120 125

Leu Leu Ser Ser Ile Pro Tyr Tyr Ala Lys Tyr Gly Tyr Gly Thr Glu  
130 135 140

Asn Thr Ala Pro Gly Ala Tyr Trp Ser Trp Leu Glu Ser Gly Glu Ser  
145 150 155 160

Thr Pro Gly Leu Pro Glu Thr Leu His Leu Tyr Glu Asn Leu Leu Glu  
 165 170 175

Leu Gly Ile Glu Pro Ile Ile Ile Ser Asp Arg Trp Lys Lys Leu Ser  
 180 185 190

Glu Val Thr Val Glu Asn Leu Lys Ala Val Gly Val Thr Lys Trp Lys  
 195 200 205

His Leu Ile Leu Lys Pro Asn Gly Ser Lys Leu Thr Gln Val Val Tyr  
 210 215 220

Lys Ser Lys Val Arg Asn Ser Leu Val Lys Lys Gly Tyr Asn Ile Val  
 225 230 235 240

Gly Asn Ile Gly Asp Gln Trp Ala Asp Leu Val Glu Asp Thr Pro Gly  
 245 250 255

Arg Val Phe Lys Leu Pro Asn Pro Leu Tyr Tyr Val Pro Ser  
 260 265 270

<210> 1537

<211> 1659

<212> DNA

<213> Arabidopsis thaliana

<400> 1537

atggagctga agtggggtttc ttgtcggaaa caatctctgt tcttgatctc ttgtctggct	60
ctgctttgtc tcgcgtcctt ggatactata tcatgtgaat caactcagaa tgctactgac	120
ttcaagaaac gatctcagac agtttcttgc cctcctgatt ggatcattgg accgaaccaa	180
accaagtgtc atgcttactt taaaaactct acttcatggg agaagtcaga aatgttctgt	240
agaacttatg gtggtcactt agcatcgctt gcatcgagca aagaactcag ctttgttcaa	300
aaactatgca atggaaatgt tagcagttgt tggattggag gacgaagtat gaattcttct	360
acctcagggt tccgttggag ctggtctgat cctaagactc ctcaatggaa ccaatccatg	420
tttcctaaag ttccaattcg caccgcgtgt ggcaatggca acggcagttc atcgtgtcgt	480
gctaatatat gtatagccgt gacaaatggg tcatcatcaa tattcggtga aagatgtaat	540
gcgtctcatg cttttgtttg cgctgttgat tctgatatca aatgtcgcaa ttgtcacaaa	600
tatctagtta tcctcgctgt tgtcagcggg ttgattctct tcacgacatt cgccattata	660
ttatggctcc ttgtctataa gcgaagcaag aaacgccgaa aatcacgaaa agtatcta	720

```

ccagcttcat catcatcagt agttcctcct tcatggaaga tcttcactag tgaagaactg 780
agatcaatga cgaagaactt cagtgaagca aaccgtctag ctggggacgc gaaaaccggt 840
ggaacctata gcggtggttt atcagacggg actaaagtgg cggttaagag attgaaaagg 900
tctagttttc agaggaagaa agagttctac tccgagatta gaagagcagc taaactttat 960
caccgcaatg tagttgctat aaaaggttgt tgctatgatc atggagaacg tttcattggt 1020
tatgagttca tagctagtgg acctctcgat agatggctac accatgtgcc tagaggtggt 1080
agaagcttgg actggaacat gagattgaac atcgccacaa ctcttgctca aggaatcgcg 1140
tttctacacg acaaggtcaa gccacaagtg gtgcaccgcg acatccgagc tagcaacgtg 1200
ctacttgatg aggagtttgg agctcattta atgggtgttg gtctctcaaa attcgttcct 1260
tggaagtaa tgcaagagag aaccgtaatg gcggttgga cctacggtta cctcgcaccc 1320
gaatacgttt acagaaacga gctaaccacg aagagcgatg tctacagttt cggagtcctt 1380
ttgcttgaga ttgtgagcgg tcgtagacca actcaggctg ttaattcttc agttgggtgg 1440
cagagcatat tcgaatgggc aacaccattg gttcaagcta accgttggtt agagattctt 1500
gatccggtta ttacatgcgg tttaccggaa gcatgtgtgg ttcagaaagt tgttgacttg 1560
gtttattctt gtactcagaa tgtgccatca atgcgtccaa ggatgtcaca tgtggttcat 1620
cagcttcagc aattggtcca accttagag gttaagtag 1659

```

&lt;210&gt; 1538

&lt;211&gt; 552

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1538

```

Met Glu Leu Lys Trp Val Ser Cys Arg Lys Gln Ser Leu Phe Leu Ile
1      5      10     15

```

```

Ser Cys Leu Ala Leu Leu Cys Leu Ala Ser Leu Asp Thr Ile Ser Cys
20     25     30

```

```

Glu Ser Thr Gln Asn Ala Thr Asp Phe Lys Lys Arg Ser Gln Thr Val
35     40     45

```

```

Ser Cys Pro Pro Asp Trp Ile Ile Gly Pro Asn Gln Thr Lys Cys Tyr
50     55     60

```

```

Ala Tyr Phe Lys Asn Ser Thr Ser Trp Glu Lys Ser Glu Met Phe Cys
65     70     75     80

```

047-E2F-PCT.ST25.txt

Arg Thr Tyr Gly Gly His Leu Ala Ser Leu Ala Ser Ser Lys Glu Leu  
85 90 95

Ser Phe Val Gln Lys Leu Cys Asn Gly Asn Val Ser Ser Cys Trp Ile  
100 105 110

Gly Gly Arg Ser Met Asn Ser Ser Thr Ser Gly Phe Arg Trp Ser Trp  
115 120 125

Ser Asp Pro Lys Thr Pro Gln Trp Asn Gln Ser Met Phe Pro Lys Val  
130 135 140

Pro Ile Arg Thr Arg Cys Gly Asn Gly Asn Gly Ser Ser Ser Cys Arg  
145 150 155 160

Ala Asn Ile Cys Ile Ala Val Thr Asn Gly Ser Ser Ser Ile Phe Gly  
165 170 175

Glu Arg Cys Asn Ala Ser His Ala Phe Val Cys Ala Val Asp Ser Asp  
180 185 190

Ile Lys Cys Arg Asn Cys His Lys Tyr Leu Val Ile Leu Ala Val Val  
195 200 205

Ser Gly Leu Ile Leu Phe Thr Thr Phe Ala Ile Ile Leu Trp Leu Leu  
210 215 220

Val Tyr Lys Arg Ser Lys Lys Arg Arg Lys Ser Arg Lys Val Ser Asn  
225 230 235 240

Pro Ala Ser Ser Ser Val Val Pro Pro Ser Trp Lys Ile Phe Thr  
245 250 255

Ser Glu Glu Leu Arg Ser Met Thr Lys Asn Phe Ser Glu Ala Asn Arg  
260 265 270

Leu Ala Gly Asp Ala Lys Thr Gly Gly Thr Tyr Ser Gly Gly Leu Ser  
275 280 285

Asp Gly Thr Lys Val Ala Val Lys Arg Leu Lys Arg Ser Ser Phe Gln  
290 295 300

Arg Lys Lys Glu Phe Tyr Ser Glu Ile Arg Arg Ala Ala Lys Leu Tyr  
305 310 315 320

His Pro Asn Val Val Ala Ile Lys Gly Cys Cys Tyr Asp His Gly Glu  
Page 2351

325

335

Arg Phe Ile Val Tyr Glu Phe Ile Ala Ser Gly Pro Leu Asp Arg Trp  
340 345 350

Leu His His Val Pro Arg Gly Gly Arg Ser Leu Asp Trp Asn Met Arg  
355 360 365

Leu Asn Ile Ala Thr Thr Leu Ala Gln Gly Ile Ala Phe Leu His Asp  
370 375 380

Lys Val Lys Pro Gln Val Val His Arg Asp Ile Arg Ala Ser Asn Val  
385 390 400

Leu Leu Asp Glu Glu Phe Gly Ala His Leu Met Gly Val Gly Leu Ser  
405 410 415

Lys Phe Val Pro Trp Glu Val Met Gln Glu Arg Thr Val Met Ala Gly  
420 425 430

Gly Thr Tyr Gly Tyr Leu Ala Pro Glu Tyr Val Tyr Arg Asn Glu Leu  
435 440 445

Thr Thr Lys Ser Asp Val Tyr Ser Phe Gly Val Leu Leu Leu Glu Ile  
450 455 460

Val Ser Gly Arg Arg Pro Thr Gln Ala Val Asn Ser Ser Val Gly Trp  
465 470 475 480

Gln Ser Ile Phe Glu Trp Ala Thr Pro Leu Val Gln Ala Asn Arg Trp  
485 490 495

Leu Glu Ile Leu Asp Pro Val Ile Thr Cys Gly Leu Pro Glu Ala Cys  
500 505 510

Val Val Gln Lys Val Val Asp Leu Val Tyr Ser Cys Thr Gln Asn Val  
515 520 525

Pro Ser Met Arg Pro Arg Met Ser His Val Val His Gln Leu Gln Gln  
530 535 540

Leu Val Gln Pro Leu Glu Val Lys  
545 550

<210> 1539

<211> 804

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1539

```

atggctggag aggagttggt gaaactgttc gagcaaaact ggtcagagag gccaatcttc      60
aagaaagaca aagagaatct gaatggaaaa agtagagaga agcgtggaga aaaagagatt      120
ctagaggaac gacgagaaga agaagcactg aagaattttc cggtagagctt tctttagtagag      180
agggctatga gtgacgagac gatgatgacg acgagttcca agacaagttt gtttagttct      240
tcatcagatg atttgttctt gtctcctaga tcggtcttac ccgttaaacc aacgccgatg      300
aagcttcaga cgatcctctc cggaaaagaa gtcaacgcgt tcacgattgc ggaaagagag      360
agactacttt cagagaagga agagcagagg aagaagaaga agaagaagag taatgtgaga      420
acaagaaagg gaaagagtat gtcggatttg gagtacgagg agcttaaagg gtttatggat      480
ctaggttttg tcttttccga ggatgaccat aaagactccg atctagtttc gattcttcct      540
gggttacaga gattggtgaa gaaagatgat ggagtaacaa aagaagaaga agaagaagaa      600
gaagaagaca aaatcgggtg aaacagagca gcgagaccgt atttgtcgga agcgtgggat      660
cattgtggag gaagaaaagg aaaaaacaa atcacgccgg agattaagtg gagagttccg      720
gcgccggcgg cggctagcga agttgactta aaagataatc taaggctttg ggctcatgct      780
gtggcctcga ctattcgaag ttaa                                           804

```

&lt;210&gt; 1540

&lt;211&gt; 267

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1540

```

Met Ala Gly Glu Glu Leu Leu Lys Leu Phe Glu Gln Asn Trp Ser Glu
1           5           10           15

Arg Pro Ile Phe Lys Lys Asp Lys Glu Asn Leu Asn Gly Lys Ser Arg
20          25          30

Glu Lys Arg Gly Glu Lys Glu Ile Leu Glu Glu Arg Arg Glu Glu Glu
35          40          45

Ala Leu Lys Asn Phe Pro Val Ser Phe Leu Val Glu Arg Ala Met Ser
50          55          60

```

047-E2F-PCT.ST25.txt

Asp Glu Thr Met Met Thr Thr Ser Ser Lys Thr Ser Leu Phe Ser Ser  
 65 70 75 80  
 Ser Ser Asp Asp Leu Phe Leu Ser Pro Arg Ser Val Leu Pro Val Lys  
 85 90 95  
 Pro Thr Pro Met Lys Leu Gln Thr Ile Leu Ser Gly Lys Glu Val Asn  
 100 105 110  
 Ala Phe Thr Ile Ala Glu Arg Glu Arg Leu Leu Ser Glu Lys Glu Glu  
 115 120 125  
 Gln Arg Lys Lys Lys Lys Lys Lys Ser Asn Val Arg Thr Arg Lys Gly  
 130 135 140  
 Lys Ser Met Ser Asp Leu Glu Tyr Glu Glu Leu Lys Gly Phe Met Asp  
 145 150 155 160  
 Leu Gly Phe Val Phe Ser Glu Asp Asp His Lys Asp Ser Asp Leu Val  
 165 170 175  
 Ser Ile Leu Pro Gly Leu Gln Arg Leu Val Lys Lys Asp Asp Gly Val  
 180 185 190  
 Thr Lys Glu Glu Glu Glu Glu Glu Glu Glu Asp Lys Ile Gly Gly Asn  
 195 200 205  
 Arg Ala Ala Arg Pro Tyr Leu Ser Glu Ala Trp Asp His Cys Gly Gly  
 210 215 220  
 Arg Lys Gly Lys Lys Gln Ile Thr Pro Glu Ile Lys Trp Arg Val Pro  
 225 230 235 240  
 Ala Pro Ala Ala Ala Ser Glu Val Asp Leu Lys Asp Asn Leu Arg Leu  
 245 250 255  
 Trp Ala His Ala Val Ala Ser Thr Ile Arg Ser  
 260 265

<210> 1541

<211> 2178

<212> DNA

<213> Arabidopsis thaliana



&lt;400&gt; 1541

atggagatta	acgggggcaca	caagagcaac	ggaggaggag	tggacgctat	gttatgcggc	60
ggagacatca	agacaaagaa	catggtgata	aacgcggagg	atcctctcaa	ctggggagct	120
gcagcggagc	aaatgaaagg	tagccatttg	gatgaagtga	agagaatggg	tgctgagttt	180
aggaagccag	ttgtgaatct	tggtggtgag	actctgacca	ttggacaagt	ggctgcgatc	240
tcaactattg	gtaacagtgt	gaagggtggag	ctatcggaga	cagctagagc	cgggtgtgaat	300
gctagtagtg	attgggttat	ggagagtatg	aacaaaggca	ctgatagtta	tggtgttact	360
actggttttg	gtgctacttc	tcatcggaga	acaaaaacg	gtgtcgcact	tcagaaggaa	420
cttattagat	tccttaacgc	cggaatatct	ggaagcacga	aagaaacaag	ccacacattg	480
ccacactccg	ccacaagagc	cgccatgctt	gtacgaatca	acactctcct	ccaaggattt	540
tccggtatcc	gatttgagat	tctcgaagca	attaccagtt	tcctcaacaa	caacatcact	600
ccatctctcc	ccctccgtgg	tacaatcacc	gcctccggag	atctcgttcc	tctctcctac	660
atcgccggac	ttctcaccgg	tcgtcccaat	tccaaagcta	ctgggtccaa	cgggtgaagct	720
ttaacagcag	aggaagcttt	caaattagca	ggaatcagct	ccggattctt	tgatctccag	780
cctaaggaag	gtctcgcgct	agtcaatggc	acggcgggtg	gatctggaat	ggcgtcaatg	840
gtgttattcg	aaacgaatgt	tctctctggt	ttggctgaga	ttttgtcggc	ggttttcgca	900
gaggtgatga	gtggtgaagc	tgagttcacc	gatcatctca	ctcacagact	taaacatcat	960
cccgggtcaaa	tcgaagcggc	ggcgataatg	gagcatatcc	tcgacggaag	ctcgtacatg	1020
aaattagctc	agaagcttca	cgagatggat	ccgttacaga	aacctaaaca	agatcgttac	1080
gctcttcgta	cttctcctca	atggttaggt	cctcaaactg	aagtgatccg	ttacgcaacg	1140
aaatcgatcg	agcgtgagat	taactccgtc	aacgataatc	cgttgatcga	tgtttcgagg	1200
aacaaggcga	ttcacgggtg	taacttccaa	ggaacaccaa	tcggagtttc	aatggataac	1260
acgagattgg	cgatagcagc	gattggtaaa	ctcatgtttg	ctcaattctc	agagcttgtg	1320
aatgattttct	acaacaatgg	tttaccctcg	aatctaaccg	cttcgaggaa	tccaagtttg	1380
gattatggat	tcaagggagc	tgagattgca	atggcttctt	attgttcaga	gcttcaatac	1440
ttagctaata	ctgtgactag	ccatgttcaa	tcagcagagc	aacataacca	agatgtcaac	1500
tctttgggac	taatctcgtc	tcgcaaaact	tctgaagctg	ttgatattct	caagcttatg	1560
tcaacaacgt	tcctcgttgc	gatttgtcaa	gctgtggatt	tgagacattt	ggaggagaat	1620
ttgagacaga	ctgtgaagaa	cactgtctct	caagtggcga	agaaagttct	tactactgga	1680
gtcaatggtg	agcttcatcc	ttctcgcttc	tgcgaaaagg	atttactcaa	agttgtagac	1740
cgtgaacaag	tctacacata	cgcgatgat	ccttgtagcg	caacgtaccc	gttgattcag	1800
aagctgagac	aagttattgt	tgaccatgct	ttgatcaatg	gtgagagtga	gaagaatgca	1860

gtgacttcaa tcttccataa gattggagct ttcgaggagg agcttaaggc agtgctaccg 1920  
aaagaagtgg aagcagcaag agcagcctac gataacggaa catcggctat cccgaacagg 1980  
atcaaggaat gtaggtcgta tccattgtat agattcgtga gggaagagct tggaacagag 2040  
cttttgaccg gagagaaagt gacgtcgcct ggagaagagt tcgacaagggt tttcacggcg 2100  
atgtgtgaag gtaaaatcat tgatccgatg atggaatgtc tcaacgagtg gaacggagct 2160  
cccattccaa tatgttaa 2178

<210> 1542

<211> 725

<212> PRT

<213> Arabidopsis thaliana

<400> 1542

Met Glu Ile Asn Gly Ala His Lys Ser Asn Gly Gly Gly Val Asp Ala  
1 5 10 15

Met Leu Cys Gly Gly Asp Ile Lys Thr Lys Asn Met Val Ile Asn Ala  
20 25 30

Glu Asp Pro Leu Asn Trp Gly Ala Ala Ala Glu Gln Met Lys Gly Ser  
35 40 45

His Leu Asp Glu Val Lys Arg Met Val Ala Glu Phe Arg Lys Pro Val  
50 55 60

Val Asn Leu Gly Gly Glu Thr Leu Thr Ile Gly Gln Val Ala Ala Ile  
65 70 75 80

Ser Thr Ile Gly Asn Ser Val Lys Val Glu Leu Ser Glu Thr Ala Arg  
85 90 95

Ala Gly Val Asn Ala Ser Ser Asp Trp Val Met Glu Ser Met Asn Lys  
100 105 110

Gly Thr Asp Ser Tyr Gly Val Thr Thr Gly Phe Gly Ala Thr Ser His  
115 120 125

Arg Arg Thr Lys Asn Gly Val Ala Leu Gln Lys Glu Leu Ile Arg Phe  
130 135 140

Leu Asn Ala Gly Ile Phe Gly Ser Thr Lys Glu Thr Ser His Thr Leu  
145 150 155 160

047-E2F-PCT.ST25.txt

Pro His Ser Ala Thr Arg Ala Ala Met Leu Val Arg Ile Asn Thr Leu  
165 170 175

Leu Gln Gly Phe Ser Gly Ile Arg Phe Glu Ile Leu Glu Ala Ile Thr  
180 185 190

Ser Phe Leu Asn Asn Asn Ile Thr Pro Ser Leu Pro Leu Arg Gly Thr  
195 200 205

Ile Thr Ala Ser Gly Asp Leu Val Pro Leu Ser Tyr Ile Ala Gly Leu  
210 215 220

Leu Thr Gly Arg Pro Asn Ser Lys Ala Thr Gly Pro Asn Gly Glu Ala  
225 230 235 240

Leu Thr Ala Glu Glu Ala Phe Lys Leu Ala Gly Ile Ser Ser Gly Phe  
245 250 255

Phe Asp Leu Gln Pro Lys Glu Gly Leu Ala Leu Val Asn Gly Thr Ala  
260 265 270

Val Gly Ser Gly Met Ala Ser Met Val Leu Phe Glu Thr Asn Val Leu  
275 280 285

Ser Val Leu Ala Glu Ile Leu Ser Ala Val Phe Ala Glu Val Met Ser  
290 295 300

Gly Lys Pro Glu Phe Thr Asp His Leu Thr His Arg Leu Lys His His  
305 310 315 320

Pro Gly Gln Ile Glu Ala Ala Ala Ile Met Glu His Ile Leu Asp Gly  
325 330 335

Ser Ser Tyr Met Lys Leu Ala Gln Lys Leu His Glu Met Asp Pro Leu  
340 345 350

Gln Lys Pro Lys Gln Asp Arg Tyr Ala Leu Arg Thr Ser Pro Gln Trp  
355 360 365

Leu Gly Pro Gln Ile Glu Val Ile Arg Tyr Ala Thr Lys Ser Ile Glu  
370 375 380

Arg Glu Ile Asn Ser Val Asn Asp Asn Pro Leu Ile Asp Val Ser Arg  
385 390 395 400

Asn Lys Ala Ile His Gly Gly Asn Phe Gln Gly Thr Pro Ile Gly Val  
Page 2357

405

415

Ser Met Asp Asn Thr Arg Leu Ala Ile Ala Ala Ile Gly Lys Leu Met  
420 425 430

Phe Ala Gln Phe Ser Glu Leu Val Asn Asp Phe Tyr Asn Asn Gly Leu  
435 440 445

Pro Ser Asn Leu Thr Ala Ser Arg Asn Pro Ser Leu Asp Tyr Gly Phe  
450 455 460

Lys Gly Ala Glu Ile Ala Met Ala Ser Tyr Cys Ser Glu Leu Gln Tyr  
465 470 475 480

Leu Ala Asn Pro Val Thr Ser His Val Gln Ser Ala Glu Gln His Asn  
485 490 495

Gln Asp Val Asn Ser Leu Gly Leu Ile Ser Ser Arg Lys Thr Ser Glu  
500 505

Ala Val Asp Ile Leu Lys Leu Met Ser Thr Thr Phe Leu Val Ala Ile  
515 520 525

Cys Gln Ala Val Asp Leu Arg His Leu Glu Glu Asn Leu Arg Gln Thr  
530 535 540

Val Lys Asn Thr Val Ser Gln Val Ala Lys Lys Val Leu Thr Thr Gly  
545 550 555 560

Val Asn Gly Glu Leu His Pro Ser Arg Phe Cys Glu Lys Asp Leu Leu  
565 570 575

Lys Val Val Asp Arg Glu Gln Val Tyr Thr Tyr Ala Asp Asp Pro Cys  
580 585 590

Ser Ala Thr Tyr Pro Leu Ile Gln Lys Leu Arg Gln Val Ile Val Asp  
595 600 605

His Ala Leu Ile Asn Gly Glu Ser Glu Lys Asn Ala Val Thr Ser Ile  
610 615 620

Phe His Lys Ile Gly Ala Phe Glu Glu Glu Leu Lys Ala Val Leu Pro  
625 630 635 640

Lys Glu Val Glu Ala Ala Arg Ala Ala Tyr Asp Asn Gly Thr Ser Ala  
645 650 655

Ile Pro Asn Arg Ile Lys Glu Cys Arg Ser Tyr Pro Leu Tyr Arg Phe  
 660 665 670

Val Arg Glu Glu Leu Gly Thr Glu Leu Leu Thr Gly Glu Lys Val Thr  
 675 680 685

Ser Pro Gly Glu Glu Phe Asp Lys Val Phe Thr Ala Ile Cys Glu Gly  
 690 695 700

Lys Ile Ile Asp Pro Met Met Glu Cys Leu Asn Glu Trp Asn Gly Ala  
 705 710 715 720

Pro Ile Pro Ile Cys  
 725

<210> 1543

<211> 1368

<212> DNA

<213> Arabidopsis thaliana

<400> 1543

atgggtggtt tgaagtttca tgtacttatg tatccatggt tcgcaacagg ccatatgacc	60
ccgttccttt ttcttgccaa caaattggct gagaaaggct atacgggtcac ttttttgatt	120
cccaagaaag ctctgaaaca gttggaaaat ctcaatctgt ttccacacaa cattgtcttt	180
cgctctgtca ccgtccctca tgtggatggt ctccccgttg gcacagagac agtctctgag	240
atccccgtga catcagctga tctcttgatg tctgctatgg atctcacacg tgatcaagtt	300
gaaggtgtgg tccgagccgt ggaaccggac ctgatcttct ttgacttcgc tcattggatt	360
ccagaggtag ctagagactt tggccttaag actgtaaagt acgtcgtggt atctgcatcg	420
actatagcta gtatgcttgt tccagggtggt gagtttaggtg ttcttccgcc gggatatcct	480
tcatcgaagg tgctgcttcg taaacaagat gcttacacca tgaagaatct ggagtctaca	540
aatacaatca atgtcggacc aaacttattg gaaagagtca ctacaagtct tatgaactct	600
gatgtcattg cgataaggac agccagagaa atcgaaggaa acttttgcca ctatatcgaa	660
aaacattgca ggaaaaaggt tctcttgaca ggtccggtgt tccctgagcc agacaagact	720
agagagctag aggaacgatg ggttaagtgg ctaagtgggt atgaaccaga ctcatggtg	780
ttttgtgcgt tgggctcaca agtcatttta gagaaagatc aattccaaga actctgctta	840
ggaatggagc taacaggttc accgtttctt gtagcggtta agccacctag aggctcatca	900
acgattcaag aagcacttcc tgaaggattc gaggagaggg ttaaaggaag aggagttggt	960

047-E2F-PCT.ST25.txt

tggggagaat gggttcaaca accattgcta ttgtctcatc catcagtcgg gtgctttgtg 1020  
 agccattgtg ggtttggatc aatgtgggag tctttgctga gtgattgtca gatagtcttg 1080  
 gtaccacagt tgggtgatca ggtcctcaac acaagattgc tgagtgcga actcaagggt 1140  
 tcggttgaag tggcaagaga ggaaacagga tggttctcga aagagagctt gttcgatgct 1200  
 atcaatagtg tgatgaaaag ggacagtgcg atcggaatc tgggaagaa gaatcacacc 1260  
 aagtggaggg agacactaac tagtcctgga cttgtgaccg gttatgtcga taatttcata 1320  
 gagtcattgc aggatcttgt ctctgggacc aaccatgttt cgaagtag 1368

<210> 1544

<211> 455

<212> PRT

<213> Arabidopsis thaliana

<400> 1544

Met Gly Gly Leu Lys Phe His Val Leu Met Tyr Pro Trp Phe Ala Thr  
 1 5 10 15

Gly His Met Thr Pro Phe Leu Phe Leu Ala Asn Lys Leu Ala Glu Lys  
 20 25 30

Gly His Thr Val Thr Phe Leu Ile Pro Lys Lys Ala Leu Lys Gln Leu  
 35 40 45

Glu Asn Leu Asn Leu Phe Pro His Asn Ile Val Phe Arg Ser Val Thr  
 50 55 60

Val Pro His Val Asp Gly Leu Pro Val Gly Thr Glu Thr Val Ser Glu  
 65 70 75 80

Ile Pro Val Thr Ser Ala Asp Leu Leu Met Ser Ala Met Asp Leu Thr  
 85 90 95

Arg Asp Gln Val Glu Gly Val Val Arg Ala Val Glu Pro Asp Leu Ile  
 100 105 110

Phe Phe Asp Phe Ala His Trp Ile Pro Glu Val Ala Arg Asp Phe Gly  
 115 120 125

Leu Lys Thr Val Lys Tyr Val Val Val Ser Ala Ser Thr Ile Ala Ser  
 130 135 140

Met Leu Val Pro Gly Gly Glu Leu Gly Val Pro Pro Pro Gly Tyr Pro  
 145 150 155 160  
 Ser Ser Lys Val Leu Leu Arg Lys Gln Asp Ala Tyr Thr Met Lys Asn  
 165 170 175  
 Leu Glu Ser Thr Asn Thr Ile Asn Val Gly Pro Asn Leu Leu Glu Arg  
 180 185 190  
 Val Thr Thr Ser Leu Met Asn Ser Asp Val Ile Ala Ile Arg Thr Ala  
 195 200 205  
 Arg Glu Ile Glu Gly Asn Phe Cys Asp Tyr Ile Glu Lys His Cys Arg  
 210 215 220  
 Lys Lys Val Leu Leu Thr Gly Pro Val Phe Pro Glu Pro Asp Lys Thr  
 225 230 235 240  
 Arg Glu Leu Glu Glu Arg Trp Val Lys Trp Leu Ser Gly Tyr Glu Pro  
 245 250 255  
 Asp Ser Val Val Phe Cys Ala Leu Gly Ser Gln Val Ile Leu Glu Lys  
 260 265 270  
 Asp Gln Phe Gln Glu Leu Cys Leu Gly Met Glu Leu Thr Gly Ser Pro  
 275 280 285  
 Phe Leu Val Ala Val Lys Pro Pro Arg Gly Ser Ser Thr Ile Gln Glu  
 290 295 300  
 Ala Leu Pro Glu Gly Phe Glu Glu Arg Val Lys Gly Arg Gly Val Val  
 305 310 315 320  
 Trp Gly Glu Trp Val Gln Gln Pro Leu Leu Leu Ser His Pro Ser Val  
 325 330 335  
 Gly Cys Phe Val Ser His Cys Gly Phe Gly Ser Met Trp Glu Ser Leu  
 340 345 350  
 Leu Ser Asp Cys Gln Ile Val Leu Val Pro Gln Leu Gly Asp Gln Val  
 355 360 365  
 Leu Asn Thr Arg Leu Leu Ser Asp Glu Leu Lys Val Ser Val Glu Val  
 370 375 380  
 Ala Arg Glu Glu Thr Gly Trp Phe Ser Lys Glu Ser Leu Phe Asp Ala  
 385 390 395 400

047-E2F-PCT.ST25.txt

Ile Asn Ser Val Met Lys Arg Asp Ser Glu Ile Gly Asn Leu Val Lys  
405 410 415

Lys Asn His Thr Lys Trp Arg Glu Thr Leu Thr Ser Pro Gly Leu Val  
420 425 430

Thr Gly Tyr Val Asp Asn Phe Ile Glu Ser Leu Gln Asp Leu Val Ser  
435 440 445

Gly Thr Asn His Val Ser Lys  
450 455

<210> 1545

<211> 1191

<212> DNA

<213> Arabidopsis thaliana

<400> 1545

atgggattct ggtcgttggt ggaggtggct tctatgccgg ttattcaagt tcttttcatg	60
agtcttgtgg gagctttcat ggcctctgat cgttgcaagc tcttccctgt tgaagcccgt	120
aattccatga acaaggtggg gtttgtacta tttgcaccgg ctctcatggt tgccaatcta	180
gctcagacgg ttacacttga agacatcatc tcatgggtgg ttatgccggg gaacatggga	240
cttacatttc taatcggagg acttcttggg tggttgggtt ttaagatttt gaaaccacct	300
ccttatcttg aaggctttat tgttgcaact tgttctgcag gaaatatggg gaacctacca	360
atcatacttg tcccagcaat ctgcgatgag gacaaaagtc cttttggtaa ccgaagtgtg	420
tgtagaaccg tcgggctctc ttacgcgtct ttctccatgg cgctaggggg tttctacata	480
tggacataca cattccggct gattaaaggg tccgcaatga aagttcaagc catagaagaa	540
tctgagaaaa tagcaattaa atcatccaat agtgacttag aagctgatca taagacccat	600
ctcctcgggtg caccggaaga caaggaaaac aaagtggtaa aggaaaagac agggttttgg	660
agaaaaggag tagacttcct ccatgagata ttggaggagc ttcttgcacc acctacactt	720
ggtgcaatta tcggtttcat tttcgggtgca gtaagatggc tcagaaatct tatcataggt	780
gatgatgctc ctttacgaat agtacaaagc actgcaaaac ttcttggaga tgggaccatt	840
ccctgtatga ctattatact aggggggaaac ctcatacaag gtttacgttc ttcggcagtc	900
aaaccgatgg ttgtacttgg aatagtctgt gttcgggtaca tagctatgcc aattatcggg	960
ataggcattg tactaacagc tgcaaattct ggatttcttc cagctgatcc tttgtttcag	1020
tatgttttga tgcttcagtt caccctccc cctgccatga atatcggtac catgacacag	1080



047-E2F-PCT.ST25.txt

ctgtacaatg ttgctcaaga cgaatgctca gtgctcatgc tttggaccta cttggtcgcg 1140  
atactggccc tcactgtatg gtccaccatc ttccttcact tgttagtcta a 1191

<210> 1546

<211> 396

<212> PRT

<213> Arabidopsis thaliana

<400> 1546

Met Gly Phe Trp Ser Leu Leu Glu Val Ala Ser Met Pro Val Ile Gln  
1 5 10 15

Val Leu Phe Met Ser Leu Val Gly Ala Phe Met Ala Ser Asp Arg Cys  
20 25 30

Lys Leu Phe Pro Val Glu Ala Arg Asn Ser Met Asn Lys Val Val Phe  
35 40 45

Val Leu Phe Ala Pro Ala Leu Met Phe Ala Asn Leu Ala Gln Thr Val  
50 55 60

Thr Leu Glu Asp Ile Ile Ser Trp Trp Phe Met Pro Val Asn Met Gly  
65 70 75 80

Leu Thr Phe Leu Ile Gly Gly Leu Leu Gly Trp Leu Val Val Lys Ile  
85 90 95

Leu Lys Pro Pro Pro Tyr Leu Glu Gly Leu Ile Val Ala Thr Cys Ser  
100 105 110

Ala Gly Asn Met Gly Asn Leu Pro Ile Ile Leu Val Pro Ala Ile Cys  
115 120 125

Asp Glu Asp Lys Ser Pro Phe Gly Asn Arg Ser Val Cys Arg Thr Val  
130 135 140

Gly Leu Ser Tyr Ala Ser Phe Ser Met Ala Leu Gly Gly Phe Tyr Ile  
145 150 155 160

Trp Thr Tyr Thr Phe Arg Leu Ile Lys Gly Ser Ala Met Lys Val Gln  
165 170 175

Ala Ile Glu Glu Ser Glu Lys Ile Ala Ile Lys Ser Ser Asn Ser Asp  
Page 2363

180

185

190

Leu Glu Ala Asp His Lys Thr His Leu Leu Gly Ala Pro Glu Asp Lys  
 195 200 205  
 Glu Asn Lys Val Val Lys Glu Lys Thr Gly Phe Trp Arg Lys Gly Val  
 210 215 220  
 Asp Phe Leu His Glu Ile Leu Glu Glu Leu Leu Ala Pro Pro Thr Leu  
 225 230 235 240  
 Gly Ala Ile Ile Gly Phe Ile Phe Gly Ala Val Arg Trp Leu Arg Asn  
 245 250 255  
 Leu Ile Ile Gly Asp Asp Ala Pro Leu Arg Ile Val Gln Ser Thr Ala  
 260 265 270  
 Lys Leu Leu Gly Asp Gly Thr Ile Pro Cys Met Thr Ile Ile Leu Gly  
 275 280 285  
 Gly Asn Leu Ile Gln Gly Leu Arg Ser Ser Ala Val Lys Pro Met Val  
 290 295 300  
 Val Leu Gly Ile Val Cys Val Arg Tyr Ile Ala Met Pro Ile Ile Gly  
 305 310 315 320  
 Ile Gly Ile Val Leu Thr Ala Ala Asn Leu Gly Phe Leu Pro Ala Asp  
 325 330 335  
 Pro Leu Phe Gln Tyr Val Leu Met Leu Gln Phe Thr Leu Pro Pro Ala  
 340 345 350  
 Met Asn Ile Gly Thr Met Thr Gln Leu Tyr Asn Val Ala Gln Asp Glu  
 355 360 365  
 Cys Ser Val Leu Met Leu Trp Thr Tyr Leu Val Ala Ile Leu Ala Leu  
 370 375 380  
 Thr Val Trp Ser Thr Ile Phe Leu His Leu Leu Val  
 385 390 395

&lt;210&gt; 1547

&lt;211&gt; 870

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

```

<400> 1547
atgtcagaat tattacagtt gcctccaggt ttccgatttc accctaccga tgaagagctt      60
gtcatgcact atctctgccg caaatgtgcc tctcagtcca tcgccgttcc gatcatcgct      120
gagatcgatc tctacaaata cgatccatgg gagcttcctg gtttagcctt gtatggtgag      180
aaggaatggt acttctttct tcccaggagac agaaaatatc ccaacggttc gcgtcctaac      240
cggtcgcgctg gttcttggtta ctggaaagct accggagctg ataaaccgat cggactacct      300
aaaccggtcg gaattaagaa agctcttggt ttctacgccg gcaaagctcc aaagggagag      360
aaaaccaatt ggatcatgca cgagtaccgt ctcgccgacg ttgaccgggc cgttcgcaag      420
aagaagaata gtctcaggct ggatgattgg gttctctgcc ggattttaca caaaaaagga      480
gctaccgaga ggcggggacc accgcctccg gttgtttacg gcgacgaaat catggaggag      540
aagccgaagg tgacggagat ggttatgcct ccgccgccgc aacagacaag tgagttcgcg      600
tatttcgaca cgtcggattc ggtgccgaag ctgcatacta cggattcgag ttgctcggag      660
caggtggtgt cgccggagtt cacgagcgag gttcagagcg agcccaagtg gaaagattgg      720
tcggccgtaa gtaatgacaa taacaatacc cttgattttg ggtttaatta cattgatgcc      780
accgtggata acgcgttttg aggaggaggg agtagtaatc agatgtttcc gctacaggat      840
atgttcatgt acatgcagaa gccttactag                                     870

```

<210> 1548

<211> 289

<212> PRT

<213> *Arabidopsis thaliana*

<400> 1548

```

Met Ser Glu Leu Leu Gln Leu Pro Pro Gly Phe Arg Phe His Pro Thr
1           5           10          15

```

```

Asp Glu Glu Leu Val Met His Tyr Leu Cys Arg Lys Cys Ala Ser Gln
          20          25          30

```

```

Ser Ile Ala Val Pro Ile Ile Ala Glu Ile Asp Leu Tyr Lys Tyr Asp
          35          40          45

```

```

Pro Trp Glu Leu Pro Gly Leu Ala Leu Tyr Gly Glu Lys Glu Trp Tyr
          50          55          60

```

```

Phe Phe Ser Pro Arg Asp Arg Lys Tyr Pro Asn Gly Ser Arg Pro Asn
                               Page 2365

```

65 70 80  
 Arg Ser Ala Gly Ser<sub>85</sub> Gly Tyr Trp Lys Ala<sub>90</sub> Thr Gly Ala Asp Lys<sub>95</sub> Pro  
 Ile Gly Leu Pro<sub>100</sub> Lys Pro Val Gly Ile<sub>105</sub> Lys Lys Ala Leu Val<sub>110</sub> Phe Tyr  
 Ala Gly Lys<sub>115</sub> Ala Pro Lys Gly Glu<sub>120</sub> Lys Thr Asn Trp Ile<sub>125</sub> Met His Glu  
 Tyr Arg<sub>130</sub> Leu Ala Asp Val Asp<sub>135</sub> Arg Ser Val Arg Lys<sub>140</sub> Lys Lys Asn Ser  
 Leu<sub>145</sub> Arg Leu Asp Asp Trp<sub>150</sub> Val Leu Cys Arg Ile<sub>155</sub> Tyr Asn Lys Lys Gly<sub>160</sub>  
 Ala Thr Glu Arg Arg<sub>165</sub> Gly Pro Pro Pro Pro<sub>170</sub> Val Val Tyr Gly Asp<sub>175</sub> Glu  
 Ile Met Glu Glu<sub>180</sub> Lys Pro Lys Val Thr<sub>185</sub> Glu Met Val Met Pro<sub>190</sub> Pro Pro  
 Pro Gln Gln<sub>195</sub> Thr Ser Glu Phe Ala<sub>200</sub> Tyr Phe Asp Thr Ser<sub>205</sub> Asp Ser Val  
 Pro Lys<sub>210</sub> Leu His Thr Thr Asp<sub>215</sub> Ser Ser Cys Ser Glu<sub>220</sub> Gln Val Val Ser  
 Pro Glu Phe Thr Ser Glu<sub>230</sub> Val Gln Ser Glu Pro<sub>235</sub> Lys Trp Lys Asp Trp<sub>240</sub>  
 Ser Ala Val Ser Asn<sub>245</sub> Asp Asn Asn Asn Thr<sub>250</sub> Leu Asp Phe Gly Phe<sub>255</sub> Asn  
 Tyr Ile Asp Ala<sub>260</sub> Thr Val Asp Asn Ala<sub>265</sub> Phe Gly Gly Gly Gly<sub>270</sub> Ser Ser  
 Asn Gln Met<sub>275</sub> Phe Pro Leu Gln Asp<sub>280</sub> Met Phe Met Tyr Met<sub>285</sub> Gln Lys Pro

Tyr

<210> 1549

<211> 447

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1549

```

atggcgctcga aaagaattaa caaagagctt agggacttgc aaagagatcc tcctgtgtcc      60
tgcagtgcag gtcctacggg agatgatatg ttccaatggc aagcaactat catgggtcca      120
gcagatagcc cgtttgccgg aggtgtgttt cttgtttacca ttcacttccc accagattac      180
cctttcaagc caccaaaggt tgccttccgg accaagggtt atcacccaaa catcaacagt      240
aatggaagta tctgtcttga cattctgaaa gagcagtgga gccctgcact taccgtatcc      300
aaggttcttc tgtcgatatg ctcatgtctg acggatccaa accctgacga tcctttgggt      360
cctgaaatag cgcacatcta caagacagac cgagtcaagt acgagtccac agctcaatcc      420
tggaactcaga agtatgcaat gggatga                                           447

```

&lt;210&gt; 1550

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1550

```

Met Ala Ser Lys Arg Ile Asn Lys Glu Leu Arg Asp Leu Gln Arg Asp
1          5          10          15

Pro Pro Val Ser Cys Ser Ala Gly Pro Thr Gly Asp Asp Met Phe Gln
20          25          30

Trp Gln Ala Thr Ile Met Gly Pro Ala Asp Ser Pro Phe Ala Gly Gly
35          40          45

Val Phe Leu Val Thr Ile His Phe Pro Pro Asp Tyr Pro Phe Lys Pro
50          55          60

Pro Lys Val Ala Phe Arg Thr Lys Val Tyr His Pro Asn Ile Asn Ser
65          70          75          80

Asn Gly Ser Ile Cys Leu Asp Ile Leu Lys Glu Gln Trp Ser Pro Ala
85          90          95

Leu Thr Val Ser Lys Val Leu Leu Ser Ile Cys Ser Leu Leu Thr Asp
100         105         110

```

047-E2F-PCT.ST25.txt

Pro Asn Pro Asp Asp Pro Leu Val Pro Glu Ile Ala His Ile Tyr Lys  
115 120 125

Thr Asp Arg Val Lys Tyr Glu Ser Thr Ala Gln Ser Trp Thr Gln Lys  
130 135 140

Tyr Ala Met Gly  
145

<210> 1551

<211> 870

<212> DNA

<213> Arabidopsis thaliana

<400> 1551  
atggctgctt cagcttcgct tctcgctctc tcttccttca accctaaatc tcttcctttc 60  
ggcgtctcca gacctgcctc cgtttccctc ttatctcctt ccctctcctt taaactcaat 120  
tccgactccg tttccttctc catcgccgcc aaatggaact ctcccgttc tcgcttcgcc 180  
cgtaacgttg cgattacctc agagttcgag gtggaagaag atggtttcgc tgacgtcgct 240  
ccgccaaaag agcaatcttt ctctgctgac cttaaaactct tcgttggttaa ccttcctttc 300  
aacgttgaca gtgctcagct cgctcagctc tttgagagtg ccggaaatgt tgagatgggt 360  
gaggtaatct atgacaaaat tacaggaaga agcagagggt ttggattcgt gactatgtct 420  
tcagtttctg aagttgaggc agctgctcag cagttcaatg gctatgagtt ggatggtaga 480  
cctttgagag tcaatgctgg tccccacca ccaaagaggg aagatgggtt ctccagagga 540  
cctaggagca gctttggaag ctcaggttct ggatatggag gaggtgggtg ttctggtgct 600  
ggttcaggaa accgtgttta tgtgggtaac ctctcttggg gagttgatga catggctctt 660  
gagagtttgt tctcggagca aggaaagggt gttgaggcca gagtcatcta cgacagggac 720  
agtggtcgat ccaaggggtt tggatttgtg acatacgact cttctcaaga ggtccaaaat 780  
gccatcaagt ccttgatgg tgctgatttg gacggtagac aaattagagt ctcggaagct 840  
gaggctaggc ctccaaggcg ccaatattga 870

<210> 1552

<211> 289

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 1552

```

Met Ala Ala Ser Ala Ser Ser Leu Ala Leu Ser Ser Phe Asn Pro Lys
 1      5      10      15

Ser Leu Pro Phe Gly Val Ser Arg Pro Ala Ser Val Ser Leu Leu Ser
 20      25      30

Pro Ser Leu Ser Phe Lys Leu Asn Ser Asp Ser Val Ser Phe Ser Ile
 35      40      45

Ala Ala Lys Trp Asn Ser Pro Ala Ser Arg Phe Ala Arg Asn Val Ala
 50      55      60

Ile Thr Ser Glu Phe Glu Val Glu Glu Asp Gly Phe Ala Asp Val Ala
 65      70      75      80

Pro Pro Lys Glu Gln Ser Phe Ser Ala Asp Leu Lys Leu Phe Val Gly
 85      90      95

Asn Leu Pro Phe Asn Val Asp Ser Ala Gln Leu Ala Gln Leu Phe Glu
100      105      110

Ser Ala Gly Asn Val Glu Met Val Glu Val Ile Tyr Asp Lys Ile Thr
115      120      125

Gly Arg Ser Arg Gly Phe Gly Phe Val Thr Met Ser Ser Val Ser Glu
130      135      140

Val Glu Ala Ala Ala Gln Gln Phe Asn Gly Tyr Glu Leu Asp Gly Arg
145      150      155      160

Pro Leu Arg Val Asn Ala Gly Pro Pro Pro Pro Lys Arg Glu Asp Gly
165      170      175

Phe Ser Arg Gly Pro Arg Ser Ser Phe Gly Ser Ser Gly Ser Gly Tyr
180      185      190

Gly Gly Gly Gly Gly Ser Gly Ala Gly Ser Gly Asn Arg Val Tyr Val
195      200      205

Gly Asn Leu Ser Trp Gly Val Asp Asp Met Ala Leu Glu Ser Leu Phe
210      215      220

Ser Glu Gln Gly Lys Val Val Glu Ala Arg Val Ile Tyr Asp Arg Asp
225      230      235      240

```

047-E2F-PCT.ST25.txt

Ser Gly Arg Ser Lys Gly Phe Gly Phe Val Thr Tyr Asp Ser Ser Gln  
245 250 255

Glu Val Gln Asn Ala Ile Lys Ser Leu Asp Gly Ala Asp Leu Asp Gly  
260 265 270

Arg Gln Ile Arg Val Ser Glu Ala Glu Ala Arg Pro Pro Arg Arg Gln  
275 280 285

Tyr

<210> 1553

<211> 2010

<212> DNA

<213> Arabidopsis thaliana

<400> 1553

```

atggcttcgt acactcccaa gaacattctc atcaccggag ctgctggttt cattgcgtct 60
catgtcgcca acagactcat acgaagctat cctgattaca aaatcgttgt gcttgacaag 120
cttgattact gttcaaattct caagaatctc aatccttcta agcactctcc gaacttcaag 180
tttgtcaaag gtgatatcgc tagtgctgac ttggtgaatc atcttctcat cactgaaggt 240
attgacacca tcatgcattt cgctgctcag actcacgtcg acaattcctt cggtaacagt 300
ttcgagttta ctaagaataa tatctatgga actcatgtcc ttcttgaggc ttgtaaagtt 360
actggtcaga ttaggagggtt tattcatggt agtactgatg aagtttatgg tgaaactgat 420
gaggatgctc ttgttggtta ccatgaggct tctcagctgc ttccgacgaa tccttactct 480
gccacgaaag ctggtgctga gatgcttggt atggcttatg gtagatctta tggtttgcct 540
gttattacca ctctggtggaa taacgtctat ggaccgaatc agtttcctga gaagttgatt 600
cctaagttca ttttgctggc aatgagaggg caggttcttc ccattcatgg agatggatca 660
aatgtcagga gctacctcta ctgtgaagac gttgctgagg cttttgaagt tgttcttcac 720
aagggagaag ttggccatgt ttacaatatt gggacgaaga aggagaggag agtgaatgat 780
gttgccaaag acatctgcaa actcttcaac atggaccctg aggcgaacat caagtttgtc 840
gacaacagac cttttaacga tcagaggtac ttccttgacg atcagaagct caaaaagttg 900
ggatggtcag agagaaccac gtgggaagaa gggttgaaga aaactatgga ttggtacaca 960
cagaacccgg agtggtgggg tgatgtttct ggagcattgc ttcctcatcc aaggatgctg 1020
atgatgcctg gtgggcgaca ctttgatggc tccgaggaca attcgctggc agctacttta 1080

```



047-E2F-PCT.ST25.txt

tctgaaaaac caagtcaaac ccatatgggtt gttccaagcc aaaggagcaa cggcacacct 1140  
 caaaagcctt cgctgaagtt cctgatatat ggaaagaccg gatggatcgg tggctctgctt 1200  
 ggaaagatat gtgataagca aggaattgct tacgagtatg ggaaaggctg gttggaggat 1260  
 cgatcttctc ttctgcagga tattcagagt gttaagccaa cccatgtttt caattccgct 1320  
 ggtgtgactg ggagacccaa tgttgactgg tgtgagtctc acaagaccga gactatccgt 1380  
 gccaatgtag ctggcacatt gactctagct gatgtctgca gagagcacgg actcctaattg 1440  
 atgaatttcg ctactgggtt tatattcgaa tatgacgaca agcatccgga aggttcagga 1500  
 attggcttca aggaggaaga cacacccaac ttactgggtt ctttctactc gaaaacaaaa 1560  
 gccatggtcg aggagctgct aaaggagtat gacaacgtat gcacattgag ggtaaggatg 1620  
 ccgatctcct cggatctaaa caaccgcgc aacttcatca ccaagatctc caggtacaac 1680  
 aaagtagtga acatcccaaa cagcatgact gtgttgagcg agttattacc aatctccatc 1740  
 gagatggcga aaagaaactt gaaaggaatc tggaacttca caaaccagg tgtggtgagc 1800  
 cacaacgaga tcctagagat gtacagagac tacatcaacc ctgaattcaa atgggcaaac 1860  
 ttcacattag aggagcaagc taaagtcatt gtggctccaa gaagcaacaa cgagatggat 1920  
 gcttccaagc tcaagaaaga gttccctgag ctactctcta tcaaggagtc tctgattaag 1980  
 tatgcatacg ggccaaacaa gaaaacctga 2010

<210> 1554

<211> 669

<212> PRT

<213> Arabidopsis thaliana

<400> 1554

Met Ala Ser Tyr Thr Pro Lys Asn Ile Leu Ile Thr Gly Ala Ala Gly  
 1 5 10 15

Phe Ile Ala Ser His Val Ala Asn Arg Leu Ile Arg Ser Tyr Pro Asp  
 20 25 30

Tyr Lys Ile Val Val Leu Asp Lys Leu Asp Tyr Cys Ser Asn Leu Lys  
 35 40 45

Asn Leu Asn Pro Ser Lys His Ser Pro Asn Phe Lys Phe Val Lys Gly  
 50 55 60

Asp Ile Ala Ser Ala Asp Leu Val Asn His Leu Leu Ile Thr Glu Gly  
 Page 2371

65					70												80
Ile	Asp	Thr	Ile	Met 85	His	Phe	Ala	Ala	Gln 90	Thr	His	Val	Asp	Asn 95	Ser		
Phe	Gly	Asn	Ser 100	Phe	Glu	Phe	Thr	Lys 105	Asn	Asn	Ile	Tyr	Gly 110	Thr	His		
Val	Leu	Leu 115	Glu	Ala	Cys	Lys	Val 120	Thr	Gly	Gln	Ile	Arg 125	Arg	Phe	Ile		
His	Val 130	Ser	Thr	Asp	Glu	Val 135	Tyr	Gly	Glu	Thr	Asp 140	Glu	Asp	Ala	Leu		
Val 145	Gly	Asn	His	Glu	Ala 150	Ser	Gln	Leu	Leu	Pro 155	Thr	Asn	Pro	Tyr	Ser 160		
Ala	Thr	Lys	Ala	Gly 165	Ala	Glu	Met	Leu	Val 170	Met	Ala	Tyr	Gly	Arg 175	Ser		
Tyr	Gly	Leu	Pro 180	Val	Ile	Thr	Thr	Arg 185	Gly	Asn	Asn	Val	Tyr 190	Gly	Pro		
Asn	Gln	Phe 195	Pro	Glu	Lys	Leu	Ile 200	Pro	Lys	Phe	Ile	Leu 205	Leu	Ala	Met		
Arg	Gly 210	Gln	Val	Leu	Pro	Ile 215	His	Gly	Asp	Gly	Ser 220	Asn	Val	Arg	Ser		
Tyr 225	Leu	Tyr	Cys	Glu	Asp 230	Val	Ala	Glu	Ala	Phe 235	Glu	Val	Val	Leu	His 240		
Lys	Gly	Glu	Val	Gly 245	His	Val	Tyr	Asn	Ile 250	Gly	Thr	Lys	Lys	Glu 255	Arg		
Arg	Val	Asn	Asp 260	Val	Ala	Lys	Asp	Ile 265	Cys	Lys	Leu	Phe	Asn 270	Met	Asp		
Pro	Glu	Ala 275	Asn	Ile	Lys	Phe	Val 280	Asp	Asn	Arg	Pro	Phe 285	Asn	Asp	Gln		
Arg	Tyr 290	Phe	Leu	Asp	Asp	Gln 295	Lys	Leu	Lys	Lys	Leu 300	Gly	Trp	Ser	Glu		
Arg 305	Thr	Thr	Trp	Glu	Glu 310	Gly	Leu	Lys	Lys	Thr 315	Met	Asp	Trp	Tyr	Thr 320		

Gln Asn Pro Glu Trp Trp Gly Asp Val Ser Gly Ala Leu Leu Pro His  
 325 330 335  
 Pro Arg Met Leu Met Met Pro Gly Gly Arg His Phe Asp Gly Ser Glu  
 340 345 350  
 Asp Asn Ser Leu Ala Ala Thr Leu Ser Glu Lys Pro Ser Gln Thr His  
 355 360 365  
 Met Val Val Pro Ser Gln Arg Ser Asn Gly Thr Pro Gln Lys Pro Ser  
 370 375 380  
 Leu Lys Phe Leu Ile Tyr Gly Lys Thr Gly Trp Ile Gly Gly Leu Leu  
 385 390 395 400  
 Gly Lys Ile Cys Asp Lys Gln Gly Ile Ala Tyr Glu Tyr Gly Lys Gly  
 405 410 415  
 Arg Leu Glu Asp Arg Ser Ser Leu Leu Gln Asp Ile Gln Ser Val Lys  
 420 425 430  
 Pro Thr His Val Phe Asn Ser Ala Gly Val Thr Gly Arg Pro Asn Val  
 435 440 445  
 Asp Trp Cys Glu Ser His Lys Thr Glu Thr Ile Arg Ala Asn Val Ala  
 450 455 460  
 Gly Thr Leu Thr Leu Ala Asp Val Cys Arg Glu His Gly Leu Leu Met  
 465 470 475 480  
 Met Asn Phe Ala Thr Gly Cys Ile Phe Glu Tyr Asp Asp Lys His Pro  
 485 490 495  
 Glu Gly Ser Gly Ile Gly Phe Lys Glu Glu Asp Thr Pro Asn Phe Thr  
 500 505 510  
 Gly Ser Phe Tyr Ser Lys Thr Lys Ala Met Val Glu Glu Leu Leu Lys  
 515 520 525  
 Glu Tyr Asp Asn Val Cys Thr Leu Arg Val Arg Met Pro Ile Ser Ser  
 530 535 540  
 Asp Leu Asn Asn Pro Arg Asn Phe Ile Thr Lys Ile Ser Arg Tyr Asn  
 545 550 555 560  
 Lys Val Val Asn Ile Pro Asn Ser Met Thr Val Leu Asp Glu Leu Leu  
 565 570 575

047-E2F-PCT.ST25.txt

Pro Ile Ser Ile Glu Met Ala Lys Arg Asn Leu Lys Gly Ile Trp Asn  
580 585 590

Phe Thr Asn Pro Gly Val Val Ser His Asn Glu Ile Leu Glu Met Tyr  
595 600 605

Arg Asp Tyr Ile Asn Pro Glu Phe Lys Trp Ala Asn Phe Thr Leu Glu  
610 615 620

Glu Gln Ala Lys Val Ile Val Ala Pro Arg Ser Asn Asn Glu Met Asp  
625 630 635 640

Ala Ser Lys Leu Lys Lys Glu Phe Pro Glu Leu Leu Ser Ile Lys Glu  
645 650 655

Ser Leu Ile Lys Tyr Ala Tyr Gly Pro Asn Lys Lys Thr  
660 665

<210> 1555

<211> 1431

<212> DNA

<213> Arabidopsis thaliana

<400> 1555

atggaggagc catttcttct gagagacgag cttctagtcc cttctcaagt cacatggcat	60
acaaatccat taaccgtcga gctaaagaga gtgagccgct tggccgctcc tatggccact	120
gtgaccattg ctctagtactt attgcctgtc atctcgggtca tggctcgctgg ccacaacggc	180
gagctccagc tctccggtgt cgctcttgca aactccttca caaacgtcac cggtttttagc	240
attatgtgtg gattagtggg tgcacttgaa actctttgtg gccaaagctta tggagccaaa	300
caatatgaaa aaatcggaac ttacgcatac tctgctattg cttccaacat accaatttgt	360
ttcctcatat caattctctg gctttacatc gaaaagatct tgatttctct cggacaagac	420
cctgaaattt caagaatcgc tggctcctac gccttttggc ttataccggc tttatttggc	480
caagcgattg tcataccact gtcccggttt ctgctaacac aagggttggt tattcctctg	540
ctcttcactg ccgtgaccac ctttttgttc cacgttttgg tttgttggac tttggttttc	600
ttgttttggtc tgggatgtaa tggacctgcc atggctacaa gtgtgtcttt ctggttttac	660
gctgtgatac tctcatgtta tgtgagattc tccagctctt gcgagaagac tcgcggattt	720
gtatcccgag attttgtgtc ttctatcaag cagttcttcc aatacgaat cccatcagct	780
gcaatgattt gtctagaatg gtggctattt gagatactca tactctgctc aggtctttctc	840

047-E2F-PCT.ST25.txt

cctaaccgga aactcgagac ctctgttctt tcaatttgtc ttacaataga aactttgcac 900  
 tatgtgattt cagctggagt cgccgcggct gtgagcacac gtgtatcaaa caatttgga 960  
 gctgggaatc ctcaagttgc tagggtttca gtattagcag ggctttgtct ctggatagta 1020  
 gagtcagctt tcttttagcat acttctattc acctgcagga acatcatagg atacgcattc 1080  
 agcaacagca aagaagtttt ggactatgta gctgacctaa ctcctttgct ctgcctctcc 1140  
 tttatcctcg acggcttcac agcagttcta aatggagttg ctaggggaag tggttggcaa 1200  
 cacattggag cttggaacaa tactgtttct tattatcttg taggagctcc tgttggaatt 1260  
 tacttagctt tcagtcgtga gttgaacgga aaaggactgt ggtgcggtgt tgtggttgga 1320  
 tctactgtgc aagccactat actggctatt gtcacagctt ccataaattg gaaggaacag 1380  
 gctgagaagg caaggaagag aattgtctca actgaaaaca gattggctta a 1431

<210> 1556

<211> 476

<212> PRT

<213> Arabidopsis thaliana

<400> 1556

Met Glu Glu Pro Phe Leu Leu Arg Asp Glu Leu Leu Val Pro Ser Gln  
 1 5 10 15

Val Thr Trp His Thr Asn Pro Leu Thr Val Glu Leu Lys Arg Val Ser  
 20 25 30

Arg Leu Ala Ala Pro Met Ala Thr Val Thr Ile Ala Gln Tyr Leu Leu  
 35 40 45

Pro Val Ile Ser Val Met Val Ala Gly His Asn Gly Glu Leu Gln Leu  
 50 55 60

Ser Gly Val Ala Leu Ala Asn Ser Phe Thr Asn Val Thr Gly Phe Ser  
 65 70 75 80

Ile Met Cys Gly Leu Val Gly Ala Leu Glu Thr Leu Cys Gly Gln Ala  
 85 90 95

Tyr Gly Ala Lys Gln Tyr Glu Lys Ile Gly Thr Tyr Ala Tyr Ser Ala  
 100 105 110

Ile Ala Ser Asn Ile Pro Ile Cys Phe Leu Ile Ser Ile Leu Trp Leu  
 Page 2375

115

120

125

Tyr Ile Glu Lys Ile Leu Ile Ser Leu Gly Gln Asp Pro Glu Ile Ser  
 130 135 140  
 Arg Ile Ala Gly Ser Tyr Ala Phe Trp Leu Ile Pro Ala Leu Phe Gly  
 145 150 155 160  
 Gln Ala Ile Val Ile Pro Leu Ser Arg Phe Leu Leu Thr Gln Gly Leu  
 165 170 175  
 Val Ile Pro Leu Leu Phe Thr Ala Val Thr Thr Leu Leu Phe His Val  
 180 185 190  
 Leu Val Cys Trp Thr Leu Val Phe Leu Phe Gly Leu Gly Cys Asn Gly  
 195 200 205  
 Pro Ala Met Ala Thr Ser Val Ser Phe Trp Phe Tyr Ala Val Ile Leu  
 210 215 220  
 Ser Cys Tyr Val Arg Phe Ser Ser Ser Cys Glu Lys Thr Arg Gly Phe  
 225 230 235 240  
 Val Ser Arg Asp Phe Val Ser Ser Ile Lys Gln Phe Phe Gln Tyr Gly  
 245 250 255  
 Ile Pro Ser Ala Ala Met Ile Cys Leu Glu Trp Trp Leu Phe Glu Ile  
 260 265 270  
 Leu Ile Leu Cys Ser Gly Leu Leu Pro Asn Pro Lys Leu Glu Thr Ser  
 275 280 285  
 Val Leu Ser Ile Cys Leu Thr Ile Glu Thr Leu His Tyr Val Ile Ser  
 290 295 300  
 Ala Gly Val Ala Ala Ala Val Ser Thr Arg Val Ser Asn Asn Leu Gly  
 305 310 315 320  
 Ala Gly Asn Pro Gln Val Ala Arg Val Ser Val Leu Ala Gly Leu Cys  
 325 330 335  
 Leu Trp Ile Val Glu Ser Ala Phe Phe Ser Ile Leu Leu Phe Thr Cys  
 340 345 350  
 Arg Asn Ile Ile Gly Tyr Ala Phe Ser Asn Ser Lys Glu Val Leu Asp  
 355 360 365

Tyr Val Ala Asp Leu Thr Pro Leu Leu Cys Leu Ser Phe Ile Leu Asp  
 370 375 380

Gly Phe Thr Ala Val Leu Asn Gly Val Ala Arg Gly Ser Gly Trp Gln  
 385 390 395 400

His Ile Gly Ala Trp Asn Asn Thr Val Ser Tyr Tyr Leu Val Gly Ala  
 405 410 415

Pro Val Gly Ile Tyr Leu Ala Phe Ser Arg Glu Leu Asn Gly Lys Gly  
 420 425 430

Leu Trp Cys Gly Val Val Val Gly Ser Thr Val Gln Ala Thr Ile Leu  
 435 440 445

Ala Ile Val Thr Ala Ser Ile Asn Trp Lys Glu Gln Ala Glu Lys Ala  
 450 455 460

Arg Lys Arg Ile Val Ser Thr Glu Asn Arg Leu Ala  
 465 470 475

<210> 1557

<211> 2190

<212> DNA

<213> Arabidopsis thaliana

<400> 1557

atggccaccg cgcacgaatt ctccgacgaa gatacatcac cgattgaaga agtccgttta	60
acggtaacaa acaccgacga tccaacacta ccggtttgga cattcaggat gtggttcttg	120
ggctctaatt catgtttctt cctctctttt cttaaccaat tcttctcgta ccgaaccgaa	180
ccgctcgtaa tcaactcaa caggtttcag gtggctacac tacctatcgg tcattttcttg	240
gccaaaggtgc ttcccaaaac ccggtttggg ttaccgggtt gtggatcggc ccggttctcg	300
ctgaaccggg gtccgtttta catgaaagag catgttttga tatcgatatt tgcgaatgcg	360
ggtagtgctt tcggatccgg gtcggcttat gcggttggtg tcatcacaat tattaagct	420
ttttatggcc ggagtatctt ttttattgcc ggctgggtcc tcatcatcac tacacaggta	480
ttgggatatg gctgggcccg tttactgagg aaatatgtgg tcgaaccggc tcatatgtgg	540
tggcctagca ctctggttca agtgtcactg tttagggcat tgcattgagaa ggacgaccaa	600
aggatgacga gagcaaaatt ctttgtgata gcattagtct gtagttttgg atggtacata	660
gtccctggct atctcttcac aacactcaca agcatctcat gggtttggtg ggcatttcca	720

047-E2F-PCT.ST25.txt

agatcagtca ctgctcaaca gattggttct ggaatgagag gtcttgggtct tggagccttt	780
acactagact ggaccgcggt tgcctctttc ttgttttagtc cacttatcag ccccttcttc	840
gccatcgcta atgttttcat cggttatgtt cttttgatct acttcgtctt gccttttagcc	900
tattggggat ttgattctta taacgctacg aggtttccta tttttcgtc gcatcttttc	960
acatcggttg gtaatacata tgatattcct gcgatcgtga atgataactt tgagctcgat	1020
ttagctaagt atgagcaaca aggaaggatt aacttgagca tgttctttgc tcttacctat	1080
gggcttgggt tgcgccaccat tgcttctacg ctactcatg tagctctctt ctatggcaag	1140
gaaatttctg agaggtttcg agtttcatac aaaggcaagg aagatataca cactaggtta	1200
atgaagagat ataaagacat accttcatgg tggttttact caatgttggc tgcgacacta	1260
cttatctctc ttgcattatg tgttttcttg aacgatgagg ttcaaagcc ttggtgggga	1320
cttgtgttcg caagcgcgat ggctttcgtc ttcacactcc cgataagcat cataaccgca	1380
acaactaacc aaacaccggg attgaatata ataacagagt acgcaatggg actcatttac	1440
ccgggacgac ctatcgcaaa cgtatgcttc aaagtctatg gatacatgag tatggcacia	1500
gcagtctctt tcttaaataa cttcaaacctt ggtcattaca tgaagatccc acctagatcc	1560
atgttcttgg ttcaattcat cgggtacaatt cttgccggaa caatcaacat aacggtcgca	1620
tgggtggcagt taaactctat caaaaacata tgtcaagagg aacttctacc tcccaacagt	1680
ccatggacat gtccgggtga ccgtgttttc ttcgatgcat cggtcatttg gggattggtc	1740
ggacaaaaac ggatttttgg ttctcagga aactatgcgg ccatgaactg gtttttctc	1800
ggaggtgcat taggaccagt catagtgtgg tcattgcaca aagcgttccc aaaacgttct	1860
tggattccac ttgtaaatct ccctgttctt ctaggagcaa ccgcaatgat gccacctgcg	1920
accgcggtga actacaactc gtggatattg gtggggacga tattcaactt gtttgtgttc	1980
cggtagagga aaagtgggtg gcagaggtat aactacgttc tctcagccgc tatggatgcc	2040
ggtgtagctt tcatggcggg tttgtgttac ttctcgggtg ggatggagga aaagagtttg	2100
gactgggtgg gaacaagagg tgaacattgt gatctagcta aatgtccaac cgctagagga	2160
gtaattgttg atggttgtcc ggttaaataa	2190

<210> 1558

<211> 729

<212> PRT

<213> Arabidopsis thaliana

<400> 1558



Met Ala Thr Ala Asp Glu Phe Ser Asp Glu Asp Thr Ser Pro Ile Glu  
 1 5 10 15  
 Glu Val Arg Leu Thr Val Thr Asn Thr Asp Asp Pro Thr Leu Pro Val  
 20 25 30  
 Trp Thr Phe Arg Met Trp Phe Leu Gly Leu Ile Ser Cys Ser Leu Leu  
 35 40 45  
 Ser Phe Leu Asn Gln Phe Phe Ser Tyr Arg Thr Glu Pro Leu Val Ile  
 50 55 60  
 Thr Gln Ile Thr Val Gln Val Ala Thr Leu Pro Ile Gly His Phe Leu  
 65 70 75 80  
 Ala Lys Val Leu Pro Lys Thr Arg Phe Gly Leu Pro Gly Cys Gly Ser  
 85 90 95  
 Ala Arg Phe Ser Leu Asn Pro Gly Pro Phe Asn Met Lys Glu His Val  
 100 105 110  
 Leu Ile Ser Ile Phe Ala Asn Ala Gly Ser Ala Phe Gly Ser Gly Ser  
 115 120 125  
 Ala Tyr Ala Val Gly Ile Ile Thr Ile Ile Lys Ala Phe Tyr Gly Arg  
 130 135 140  
 Ser Ile Ser Phe Ile Ala Gly Trp Leu Leu Ile Ile Thr Thr Gln Val  
 145 150 155 160  
 Leu Gly Tyr Gly Trp Ala Gly Leu Leu Arg Lys Tyr Val Val Glu Pro  
 165 170 175  
 Ala His Met Trp Trp Pro Ser Thr Leu Val Gln Val Ser Leu Phe Arg  
 180 185 190  
 Ala Leu His Glu Lys Asp Asp Gln Arg Met Thr Arg Ala Lys Phe Phe  
 195 200 205  
 Val Ile Ala Leu Val Cys Ser Phe Gly Trp Tyr Ile Val Pro Gly Tyr  
 210 215 220  
 Leu Phe Thr Thr Leu Thr Ser Ile Ser Trp Val Cys Trp Ala Phe Pro  
 225 230 235 240  
 Arg Ser Val Thr Ala Gln Gln Ile Gly Ser Gly Met Arg Gly Leu Gly  
 245 250 255

## 047-E2F-PCT.ST25.txt

Leu Gly Ala Phe Thr Leu Asp Trp Thr Ala Val Ala Ser Phe Leu Phe  
 260 265 270  
 Ser Pro Leu Ile Ser Pro Phe Phe Ala Ile Ala Asn Val Phe Ile Gly  
 275 280 285  
 Tyr Val Leu Leu Ile Tyr Phe Val Leu Pro Leu Ala Tyr Trp Gly Phe  
 290 295 300  
 Asp Ser Tyr Asn Ala Thr Arg Phe Pro Ile Phe Ser Ser His Leu Phe  
 305 310 315 320  
 Thr Ser Val Gly Asn Thr Tyr Asp Ile Pro Ala Ile Val Asn Asp Asn  
 325 330 335  
 Phe Glu Leu Asp Leu Ala Lys Tyr Glu Gln Gln Gly Arg Ile Asn Leu  
 340 345 350  
 Ser Met Phe Phe Ala Leu Thr Tyr Gly Leu Gly Phe Ala Thr Ile Ala  
 355 360 365  
 Ser Thr Leu Thr His Val Ala Leu Phe Tyr Gly Lys Glu Ile Ser Glu  
 370 375 380  
 Arg Phe Arg Val Ser Tyr Lys Gly Lys Glu Asp Ile His Thr Arg Leu  
 385 390 395 400  
 Met Lys Arg Tyr Lys Asp Ile Pro Ser Trp Trp Phe Tyr Ser Met Leu  
 405 410 415  
 Ala Ala Thr Leu Leu Ile Ser Leu Ala Leu Cys Val Phe Leu Asn Asp  
 420 425 430  
 Glu Val Gln Met Pro Trp Trp Gly Leu Val Phe Ala Ser Ala Met Ala  
 435 440 445  
 Phe Val Phe Thr Leu Pro Ile Ser Ile Ile Thr Ala Thr Thr Asn Gln  
 450 455 460  
 Thr Pro Gly Leu Asn Ile Ile Thr Glu Tyr Ala Met Gly Leu Ile Tyr  
 465 470 475 480  
 Pro Gly Arg Pro Ile Ala Asn Val Cys Phe Lys Val Tyr Gly Tyr Met  
 485 490 495  
 Ser Met Ala Gln Ala Val Ser Phe Leu Asn Asp Phe Lys Leu Gly His  
 500 505 510

047-E2F-PCT.ST25.txt

Tyr Met Lys Ile Pro Pro Arg Ser Met Phe Leu Val Gln Phe Ile Gly  
 515 520 525  
 Thr Ile Leu Ala Gly Thr Ile Asn Ile Thr Val Ala Trp Trp Gln Leu  
 530 535 540  
 Asn Ser Ile Lys Asn Ile Cys Gln Glu Glu Leu Leu Pro Pro Asn Ser  
 545 550 555 560  
 Pro Trp Thr Cys Pro Gly Asp Arg Val Phe Phe Asp Ala Ser Val Ile  
 565 570 575  
 Trp Gly Leu Val Gly Pro Lys Arg Ile Phe Gly Ser Gln Gly Asn Tyr  
 580 585 590  
 Ala Ala Met Asn Trp Phe Phe Leu Gly Gly Ala Leu Gly Pro Val Ile  
 595 600 605  
 Val Trp Ser Leu His Lys Ala Phe Pro Lys Arg Ser Trp Ile Pro Leu  
 610 615 620  
 Val Asn Leu Pro Val Leu Leu Gly Ala Thr Ala Met Met Pro Pro Ala  
 625 630 635 640  
 Thr Ala Val Asn Tyr Asn Ser Trp Ile Leu Val Gly Thr Ile Phe Asn  
 645 650 655  
 Leu Phe Val Phe Arg Tyr Arg Lys Ser Trp Trp Gln Arg Tyr Asn Tyr  
 660 665 670  
 Val Leu Ser Ala Ala Met Asp Ala Gly Val Ala Phe Met Ala Val Leu  
 675 680 685  
 Leu Tyr Phe Ser Val Gly Met Glu Glu Lys Ser Leu Asp Trp Trp Gly  
 690 695 700  
 Thr Arg Gly Glu His Cys Asp Leu Ala Lys Cys Pro Thr Ala Arg Gly  
 705 710 715 720  
 Val Ile Val Asp Gly Cys Pro Val Lys  
 725

<210> 1559

<211> 771

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1559

```

atgaagtttg gtaagagtct cagcaatcag atcgagcaaa ctcttcctga atggcaagac      60
aagttcttgt cttacaaaga actcaaaaaa cgactcaaac tcatcggttc caaaaccgcc      120
gatcggtccc ttaaacgact ccgttttagat gagttttccg tcggaatatc gaaagaagag      180
atcaatttca tccaattggt agaagacgag ttggagaaat tcaacaattt cttcgttgag      240
aaggaagaag aatatatcat cagactaaag gaatttagag atagaattgc gaaagctaag      300
gattcaatgg agaagatgat aaaaatcagg aaggagattg ttgatttcca tggagaaatg      360
gttcttcttg agaattacag tgctcttaat tacactggat tggttaagat actgaagaag      420
tatgacaaaa gaactggtga tctcatgctt ttacctttca tccagaaagt tcttcagcaa      480
cctttttaca ctactgactt attgttcaag cttgtcaagg aatctgaggc aatgcttgat      540
cagatcttcc ctgctaacga aactgagtct gagattatcc aagcagagtt atcagagcat      600
aagttcatgg agagtcttca tatgaagagc acaatcgctg ccttgcggtt tttgaaggag      660
atcaggagtg gaagttctac tgttagtgtg ttttcattgc cgcctctaca gttaaattggc      720
ttagatgaga catggaagaa gattccattg ttggagcaag aagccaaata g              771

```

&lt;210&gt; 1560

&lt;211&gt; 256

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1560

```

Met Lys Phe Gly Lys Ser Leu Ser Asn Gln Ile Glu Gln Thr Leu Pro
 1          5          10          15
Glu Trp Gln Asp Lys Phe Leu Ser Tyr Lys Glu Leu Lys Lys Arg Leu
 20          25          30
Lys Leu Ile Gly Ser Lys Thr Ala Asp Arg Pro Val Lys Arg Leu Arg
 35          40          45
Leu Asp Glu Phe Ser Val Gly Ile Ser Lys Glu Glu Ile Asn Phe Ile
 50          55          60
Gln Leu Leu Glu Asp Glu Leu Glu Lys Phe Asn Asn Phe Phe Val Glu
 65          70          75          80

```

047-E2F-PCT.ST25.txt

Lys Glu Glu Glu Tyr Ile Ile Arg Leu Lys Glu Phe Arg Asp Arg Ile  
85 90 95

Ala Lys Ala Lys Asp Ser Met Glu Lys Met Ile Lys Ile Arg Lys Glu  
100 105 110

Ile Val Asp Phe His Gly Glu Met Val Leu Leu Glu Asn Tyr Ser Ala  
115 120 125

Leu Asn Tyr Thr Gly Leu Val Lys Ile Leu Lys Lys Tyr Asp Lys Arg  
130 135 140

Thr Gly Asp Leu Met Arg Leu Pro Phe Ile Gln Lys Val Leu Gln Gln  
145 150 155 160

Pro Phe Tyr Thr Thr Asp Leu Leu Phe Lys Leu Val Lys Glu Ser Glu  
165 170 175

Ala Met Leu Asp Gln Ile Phe Pro Ala Asn Glu Thr Glu Ser Glu Ile  
180 185 190

Ile Gln Ala Glu Leu Ser Glu His Lys Phe Met Glu Ser Leu His Met  
195 200 205

Lys Ser Thr Ile Ala Ala Leu Arg Val Leu Lys Glu Ile Arg Ser Gly  
210 215 220

Ser Ser Thr Val Ser Val Phe Ser Leu Pro Pro Leu Gln Leu Asn Gly  
225 230 235 240

Leu Asp Glu Thr Trp Lys Lys Ile Pro Leu Leu Glu Gln Glu Ala Lys  
245 250 255

<210> 1561

<211> 783

<212> DNA

<213> Arabidopsis thaliana

<400> 1561

atggcctggtt acatcggttcc ttattaccac catcctgttt tgtctcatcc caatagagaa	60
atcttcagtc accgtcacca ccaccaccac cgtttctgca acaatctctt gaatagaaga	120
attagtgttc ctcgaagctc cgctattagt gacgggtggtg tctcctacaa tactctagtc	180

047-E2F-PCT.ST25.txt

tccgaggcgg tgaggctttt ggttccacaa gcaaactttg attcttcaaa gcttaaagtt 240  
gagttcttag gagagttatt ggagaacaag agtaacggag gaattattac gccgcggact 300  
tatattcttt cgcattgtga cttcactgct aacttaacgt taacaatctc aaacgttatc 360  
aatctggatc aactagaagg ctggtacaag aaagatgatg tggttgctga gtggaagaag 420  
gtgaatgatg agctgcgttt acatattcat tgttggtgta gtggtatgag tttattgcag 480  
gatgttgctg ctgagcttag gtatcatatt ttctccaagg aattgccttt ggtacttaaa 540  
gctgtggtgc atggagattc agttatgttt agagagaatc ctgagctaata ggatgcttat 600  
gtatgggttt atttccattc aagcacacct aagtacaatc ggatcgagtg ttggggacct 660  
cttaaggatg ctgcgaaggg aaagcagcag ggcaatcatc aaggcttctt gagttcgacg 720  
acttcgagga aattgattcg acataagtct atcttccata ccttatttac gtttcttctg 780  
tga 783

<210> 1562

<211> 260

<212> PRT

<213> Arabidopsis thaliana

<400> 1562

Met Ala Cys Tyr Ile Val Pro Tyr Tyr His His Pro Val Leu Ser His  
1 5 10 15

Pro Asn Arg Glu Ile Phe Ser His Arg His His His His His Arg Phe  
20 25 30

Cys Asn Asn Leu Leu Asn Arg Arg Ile Ser Val Pro Arg Ser Ser Ala  
35 40 45

Ile Ser Asp Gly Gly Val Ser Tyr Asn Thr Leu Val Ser Glu Ala Val  
50 55 60

Arg Leu Leu Val Pro Gln Ala Asn Phe Asp Ser Ser Lys Leu Lys Val  
65 70 75 80

Glu Phe Leu Gly Glu Leu Leu Glu Asn Lys Ser Asn Gly Gly Ile Ile  
85 90 95

Thr Pro Arg Thr Tyr Ile Leu Ser His Cys Asp Phe Thr Ala Asn Leu  
100 105 110

Thr Leu Thr Ile Ser Asn Val Ile Asn Leu Asp Gln Leu Glu Gly Trp  
 115 120 125

Tyr Lys Lys Asp Asp Val Val Ala Glu Trp Lys Lys Val Asn Asp Glu  
 130 135 140

Leu Arg Leu His Ile His Cys Cys Val Ser Gly Met Ser Leu Leu Gln  
 145 150 155 160

Asp Val Ala Ala Glu Leu Arg Tyr His Ile Phe Ser Lys Glu Leu Pro  
 165 170 175

Leu Val Leu Lys Ala Val Val His Gly Asp Ser Val Met Phe Arg Glu  
 180 185 190

Asn Pro Glu Leu Met Asp Ala Tyr Val Trp Val Tyr Phe His Ser Ser  
 195 200 205

Thr Pro Lys Tyr Asn Arg Ile Glu Cys Trp Gly Pro Leu Lys Asp Ala  
 210 215 220

Ala Lys Gly Lys Gln Gln Gly Asn His Gln Gly Phe Leu Ser Ser Thr  
 225 230 235 240

Thr Ser Arg Lys Leu Ile Arg His Lys Ser Ile Phe His Thr Leu Phe  
 245 250 255

Thr Phe Leu Leu  
 260

<210> 1563

<211> 906

<212> DNA

<213> Arabidopsis thaliana

<400> 1563

atggcggatc gtgttaaagg tccatggagt caagaagaag atgagcagct acgaaggatg	60
gttgagaaat acggaccgag gaattggtct gcgattagca aatcgattcc aggtcgatct	120
ggtaaatacgt gtagattacg ttggtgtaat cagttatctc cggaggttga gcatcgtcct	180
ttctcgccgg aggaagatga gactattgta accgcccgtg ctcagtttgg taacaagtgg	240
gcgacgattg ctcgtcttct taacggtcgt acggataacg ccgttaaaaa tactggaac	300
tctacgctta agaggaaatg cagcggaggt gtggcggtta cgacggtgac ggagacggag	360

047-E2F-PCT.ST25.txt

gaagatcagg atcggccgaa gaagaggaga tctgttagct ttgattctgc ttttgctccg 420  
 gtggatactg gattgtacat gagtcctgag agtcctaacg gaatcgatgt tagtgattct 480  
 agcacgattc cgtcaccgtc gtctcctggt gctcagctgt ttaaaccaat gccgatttcc 540  
 ggcggtttta cgggtggttcc gcagccgtta ccggttgaaa tgtcttcgtc ttcggaggat 600  
 ccacctactt cgttgagttt gtcactacct ggagctgaga acacgagttc gagccataac 660  
 aataacaaca acgcgttgat gtttccgaga tttagagagtc agatgaagat taatgtagag 720  
 gagagaggag aaggacgtag aggtgagttt atgacggtgg tgcaggagat gataaaagct 780  
 gaagtgagga gttacatggc ggaaatgcag aaaacaagtg gtggattcgt cgtcggagggt 840  
 ttatacgaat ccggcgccgaa tgggtggtttt agggattgtg gagtaataac acctaagggtt 900  
 gagtag 906

<210> 1564

<211> 301

<212> PRT

<213> Arabidopsis thaliana

<400> 1564

Met Ala Asp Arg Val Lys Gly Pro Trp Ser Gln Glu Glu Asp Glu Gln  
 1 5 10 15

Leu Arg Arg Met Val Glu Lys Tyr Gly Pro Arg Asn Trp Ser Ala Ile  
 20 25 30

Ser Lys Ser Ile Pro Gly Arg Ser Gly Lys Ser Cys Arg Leu Arg Trp  
 35 40 45

Cys Asn Gln Leu Ser Pro Glu Val Glu His Arg Pro Phe Ser Pro Glu  
 50 55 60

Glu Asp Glu Thr Ile Val Thr Ala Arg Ala Gln Phe Gly Asn Lys Trp  
 65 70 75 80

Ala Thr Ile Ala Arg Leu Leu Asn Gly Arg Thr Asp Asn Ala Val Lys  
 85 90 95

Asn His Trp Asn Ser Thr Leu Lys Arg Lys Cys Ser Gly Gly Val Ala  
 100 105 110

Val Thr Thr Val Thr Glu Thr Glu Glu Asp Gln Asp Arg Pro Lys Lys  
 115 120 125



047-E2F-PCT.ST25.txt

Arg Arg Ser Val Ser Phe Asp Ser Ala Phe Ala Pro Val Asp Thr Gly  
130 135 140

Leu Tyr Met Ser Pro Glu Ser Pro Asn Gly Ile Asp Val Ser Asp Ser  
145 150 155 160

Ser Thr Ile Pro Ser Pro Ser Ser Pro Val Ala Gln Leu Phe Lys Pro  
165 170 175

Met Pro Ile Ser Gly Gly Phe Thr Val Val Pro Gln Pro Leu Pro Val  
180 185 190

Glu Met Ser Ser Ser Ser Glu Asp Pro Pro Thr Ser Leu Ser Leu Ser  
195 200 205

Leu Pro Gly Ala Glu Asn Thr Ser Ser Ser His Asn Asn Asn Asn Asn  
210 215 220

Ala Leu Met Phe Pro Arg Phe Glu Ser Gln Met Lys Ile Asn Val Glu  
225 230 235 240

Glu Arg Gly Glu Gly Arg Arg Gly Glu Phe Met Thr Val Val Gln Glu  
245 250 255

Met Ile Lys Ala Glu Val Arg Ser Tyr Met Ala Glu Met Gln Lys Thr  
260 265 270

Ser Gly Gly Phe Val Val Gly Gly Leu Tyr Glu Ser Gly Gly Asn Gly  
275 280 285

Gly Phe Arg Asp Cys Gly Val Ile Thr Pro Lys Val Glu  
290 295 300

<210> 1565

<211> 1542

<212> DNA

<213> Arabidopsis thaliana

<400> 1565  
atggcaggag ggtcgttttg tccgaccggt gtggctaagg agagagcaga acaataccaa 60  
gggaaagtca ctagtattgt tataatcgct tgccttggtg cagctattgg tggatccatc 120  
tttgatatg acattggaat ctcaggagga gttacatcga tggatgagtt tcttgaggag 180

```

tttttccaca cggttttatga gaagaagaag caagctcatg aaagtaatta ctgcaaatat 240
gataatcaag gcttagctgc ttccacttct tcactctact tagctgggtt ggtttcgact 300
ctcgtggcctt caccatcac taggaactac ggtaggcgtg cgagtattgt ttgtggtgga 360
atcagctttc ttattggatc tggtttgaat gctggagctg tgaacttagc tatgcttctt 420
gccggacgga tcatgcttgg tggttggtatt ggatttgga atcaggcggt tcctttgtat 480
ttatcagaag tggcaccaac tcatctacga ggtggtttta acatgatgtt tcagctagct 540
acaactatcg ggatctttac agcgaacatg gttaattacg gtactcaaca gcttaagcct 600
tggggatgga gactctctct tggtttagct gcttttccag ctctgcttat gacgcttggc 660
gggtatttct tacccgagac accaaacagt ttggtcgaaa gaggattaac agagagaggt 720
cgacgagtct tagtgaagct aagaggaaca gaaaacgtca acgccgagct tcaagacatg 780
gtagatgcga gtgagcttgc gaattccatc aaacatccat tcagaaacat cttgcagaaa 840
cgacacaggc ctacgctagt tatggctatt tgcattgcaa tgtttcagat actcacaggg 900
ataaactcca ttctcttcta cgcacctgtt ctgttccaga caatgggggtt tggaggaaac 960
gcatctctct attcatcagc tttaacagga gctgttcttg tcctatcaac atttatttcc 1020
ataggattag tagacagatt gggacgaaga gctcttctca taactggagg aatacaaatg 1080
ataatctgtc aagtcatagt agcagtgatc ttaggagtga aatttgagaga caaccaagag 1140
ctatcaaaag ggtactcagt gatcgtagtc atcttcatct gcctctttgt tgtagcgttc 1200
ggatggctcat ggggtcctct aggttgacc atacctagcg aaatctttcc gttagagact 1260
cgttcagcgg ggcagagtat cacagtagct gtaaactctc tcttcacttt catcatagct 1320
caagctttcc ttggtctcct ctgtgcattc aagtttgga tcttcctctt ctttgctggt 1380
tggttgacag taatgactat ctttgtgtat ttcctgttgc ctgaaaccaa aggagttcca 1440
atagaagaga tgacactctt atggagtaaa cattggttct ggaaaaaagt attacctgat 1500
gcaacaaatc ttgaagatga gagcaagaat gtatctgttt aa 1542

```

&lt;210&gt; 1566

&lt;211&gt; 513

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1566

Met Ala Gly Gly Ser Phe Gly Pro Thr Gly Val Ala Lys Glu Arg Ala  
1 5 10 15

047-E2F-PCT.ST25.txt

Glu	Gln	Tyr	Gln	Gly	Lys	Val	Thr	Ser	Tyr	Val	Ile	Ile	Ala	Cys	Leu
			20					25					30		
Val	Ala	Ala	Ile	Gly	Gly	Ser	Ile	Phe	Gly	Tyr	Asp	Ile	Gly	Ile	Ser
		35					40					45			
Gly	Gly	Val	Thr	Ser	Met	Asp	Glu	Phe	Leu	Glu	Glu	Phe	Phe	His	Thr
	50					55					60				
Val	Tyr	Glu	Lys	Lys	Lys	Gln	Ala	His	Glu	Ser	Asn	Tyr	Cys	Lys	Tyr
65					70					75					80
Asp	Asn	Gln	Gly	Leu	Ala	Ala	Phe	Thr	Ser	Ser	Leu	Tyr	Leu	Ala	Gly
				85					90					95	
Leu	Val	Ser	Thr	Leu	Val	Ala	Ser	Pro	Ile	Thr	Arg	Asn	Tyr	Gly	Arg
			100					105					110		
Arg	Ala	Ser	Ile	Val	Cys	Gly	Gly	Ile	Ser	Phe	Leu	Ile	Gly	Ser	Gly
		115					120					125			
Leu	Asn	Ala	Gly	Ala	Val	Asn	Leu	Ala	Met	Leu	Leu	Ala	Gly	Arg	Ile
	130					135					140				
Met	Leu	Gly	Val	Gly	Ile	Gly	Phe	Gly	Asn	Gln	Ala	Val	Pro	Leu	Tyr
145					150					155					160
Leu	Ser	Glu	Val	Ala	Pro	Thr	His	Leu	Arg	Gly	Gly	Leu	Asn	Met	Met
				165					170					175	
Phe	Gln	Leu	Ala	Thr	Thr	Ile	Gly	Ile	Phe	Thr	Ala	Asn	Met	Val	Asn
			180					185					190		
Tyr	Gly	Thr	Gln	Gln	Leu	Lys	Pro	Trp	Gly	Trp	Arg	Leu	Ser	Leu	Gly
		195					200					205			
Leu	Ala	Ala	Phe	Pro	Ala	Leu	Leu	Met	Thr	Leu	Gly	Gly	Tyr	Phe	Leu
	210					215					220				
Pro	Glu	Thr	Pro	Asn	Ser	Leu	Val	Glu	Arg	Gly	Leu	Thr	Glu	Arg	Gly
225					230					235					240
Arg	Arg	Val	Leu	Val	Lys	Leu	Arg	Gly	Thr	Glu	Asn	Val	Asn	Ala	Glu
				245					250					255	
Leu	Gln	Asp	Met	Val	Asp	Ala	Ser	Glu	Leu	Ala	Asn	Ser	Ile	Lys	His
			260					265					270		

047-E2F-PCT.ST25.txt

Pro Phe Arg Asn Ile Leu Gln Lys Arg His Arg Pro Gln Leu Val Met  
275 280 285

Ala Ile Cys Met Pro Met Phe Gln Ile Leu Thr Gly Ile Asn Ser Ile  
290 295 300

Leu Phe Tyr Ala Pro Val Leu Phe Gln Thr Met Gly Phe Gly Gly Asn  
305 310 315 320

Ala Ser Leu Tyr Ser Ser Ala Leu Thr Gly Ala Val Leu Val Leu Ser  
325 330 335

Thr Phe Ile Ser Ile Gly Leu Val Asp Arg Leu Gly Arg Arg Ala Leu  
340 345 350

Leu Ile Thr Gly Gly Ile Gln Met Ile Ile Cys Gln Val Ile Val Ala  
355 360 365

Val Ile Leu Gly Val Lys Phe Gly Asp Asn Gln Glu Leu Ser Lys Gly  
370 375 380

Tyr Ser Val Ile Val Val Ile Phe Ile Cys Leu Phe Val Val Ala Phe  
385 390 395 400

Gly Trp Ser Trp Gly Pro Leu Gly Trp Thr Ile Pro Ser Glu Ile Phe  
405 410 415

Pro Leu Glu Thr Arg Ser Ala Gly Gln Ser Ile Thr Val Ala Val Asn  
420 425 430

Leu Leu Phe Thr Phe Ile Ile Ala Gln Ala Phe Leu Gly Leu Leu Cys  
435 440 445

Ala Phe Lys Phe Gly Ile Phe Leu Phe Phe Ala Gly Trp Val Thr Val  
450 455 460

Met Thr Ile Phe Val Tyr Phe Leu Leu Pro Glu Thr Lys Gly Val Pro  
465 470 475 480

Ile Glu Glu Met Thr Leu Leu Trp Ser Lys His Trp Phe Trp Lys Lys  
485 490 495

Val Leu Pro Asp Ala Thr Asn Leu Glu Asp Glu Ser Lys Asn Val Ser  
500 505 510

Val

&lt;210&gt; 1567

&lt;211&gt; 333

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1567

```

atgagctcgt cgccgttata ttcattcttc ttatcatctc tgctgacatt gtcgactcat    60
tgccatgggc ggagacagaa cctctgtttc aatcggaagc aacaaccttt cgttgtcaga    120
gccgcaaaac ttctgaagg ggtgatagtg ccaaaagcac aacccaaatc tcaacctgcg    180
tttctgggat tcacacaaac agctgagata tggaactcac gagcttgcat gattggtctc    240
atcgggtactt tcattctcga actgattctg aacaaggga tacttgaact gatcgggtga    300
gagattggga aaggactcga ttttctcta taa                                333

```

&lt;210&gt; 1568

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1568

```

Met Ser Ser Ser Pro Leu Ser Ser Ser Leu Phe His Pro Leu Ser Thr
1      5      10     15
Leu Ser Thr His Cys His Gly Arg Arg Gln Asn Leu Cys Phe Asn Arg
20     25     30
Lys Gln Gln Pro Phe Val Val Arg Ala Ala Lys Leu Pro Glu Gly Val
35     40     45
Ile Val Pro Lys Ala Gln Pro Lys Ser Gln Pro Ala Phe Leu Gly Phe
50     55     60
Thr Gln Thr Ala Glu Ile Trp Asn Ser Arg Ala Cys Met Ile Gly Leu
65     70     75     80
Ile Gly Thr Phe Ile Val Glu Leu Ile Leu Asn Lys Gly Ile Leu Glu
85     90     95
Leu Ile Gly Val Glu Ile Gly Lys Gly Leu Asp Leu Pro Leu

```

&lt;210&gt; 1569

&lt;211&gt; 1443

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1569

```

atggtgaaga tttgctgcat tggagctgga tatgttggtg gtccaacccat ggctgtcatt      60
gctctaaagt gtccatctgt tgaagtagct gttgttgata tctctgtgcc aaggatcaat      120
gcctggaaca gtgatcagtt accgatctat gagcctgggc ttgatgatgt cgttaagcag      180
tgccgtggaa agaatctctt cttcagcacc gatgttgaga aacatgtgag agaggctgac      240
attgtttttg tgtctgtcaa caccctact aagaccctgt gtcttggagc tggcaaagct      300
gcggatttga cttactggga gagcgtgct cgtatgattg ccgatgtttc ggtttccgac      360
aagattgttg ttgagaaatc aactgttcct gtcaaaaccg cagaggcaat tgagaagatt      420
cttacacaca acagcaaagg aatcaaattc cagattctgt caaacctga gttccttgct      480
gaaggaaccg ctattgaaga ctttttcatg cctgaccgtg tcctcatcgg tggtcgtgaa      540
acaactgaag gctttgcagc cgtcaaagcc ttgaaagaca tttatgcca atgggtccct      600
gaagagagaa tcctcaccac caatctatgg tctgccgagc tttccaagct tgcagctaat      660
gccttcctag cccagagaat ctcatcagtc aatgcaatgt ccgctctctg tgaggcaact      720
ggcgccaatg tctcagaggt ctcttatgct gtgggcaaag actctcgtat tgggtccaag      780
ttcttgaact ctagtgttgg gttcggagga tcttgtttcc agaaagatat tctcaactta      840
gtctacatct gcgaatgcaa cggcttacct gaagttgctg agtactggaa acaagtcatc      900
aagatcaacg actaccagaa aacccgatct gttaaccgca ttgtctcttc aatgtttaac      960
acagtctcca acaaaaagat tgcggttctc ggcttcgctt tcaagaaaga cactggagac     1020
actagagaga ctccagccat tgatgtctgc aaaggtctgt taggtgacaa ggctcgtctc     1080
agcatctacg acccacaagt cactgaagag cagatccaaa gagacttaac catgaacaaa     1140
ttcgaactgg accacccact tcatctccag cccatgagcc ccaccactgt gaagcaagtc     1200
tcagtcgctt gggacgcata cactgcaacc aaagacgccc acggtatctg cattttaacc     1260
gagtgggacg agttcaagaa acttgatttc cagcggatct ttgagaatat gcagaaaccg     1320
gcttttgttt ttgacggtag aaacgtgggc gacgctgata aactcaggga gattgggttt     1380
attgtttact ccattggtaa gccattggac cagtggctca aggacatgcc tgctcttgcc     1440
taa                                                                 1443

```

&lt;210&gt; 1570

&lt;211&gt; 480

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1570

Met Val Lys Ile Cys Cys Ile Gly Ala Gly Tyr Val Gly Gly Pro Thr  
 1 5 10 15

Met Ala Val Ile Ala Leu Lys Cys Pro Ser Val Glu Val Ala Val Val  
 20 25 30

Asp Ile Ser Val Pro Arg Ile Asn Ala Trp Asn Ser Asp Gln Leu Pro  
 35 40 45

Ile Tyr Glu Pro Gly Leu Asp Asp Val Val Lys Gln Cys Arg Gly Lys  
 50 55 60

Asn Leu Phe Phe Ser Thr Asp Val Glu Lys His Val Arg Glu Ala Asp  
 65 70 75 80

Ile Val Phe Val Ser Val Asn Thr Pro Thr Lys Thr Arg Gly Leu Gly  
 85 90 95

Ala Gly Lys Ala Ala Asp Leu Thr Tyr Trp Glu Ser Ala Ala Arg Met  
 100 105 110

Ile Ala Asp Val Ser Val Ser Asp Lys Ile Val Val Glu Lys Ser Thr  
 115 120 125

Val Pro Val Lys Thr Ala Glu Ala Ile Glu Lys Ile Leu Thr His Asn  
 130 135 140

Ser Lys Gly Ile Lys Phe Gln Ile Leu Ser Asn Pro Glu Phe Leu Ala  
 145 150 155 160

Glu Gly Thr Ala Ile Glu Asp Leu Phe Met Pro Asp Arg Val Leu Ile  
 165 170 175

Gly Gly Arg Glu Thr Thr Glu Gly Phe Ala Ala Val Lys Ala Leu Lys  
 180 185 190

Asp Ile Tyr Ala Gln Trp Val Pro Glu Glu Arg Ile Leu Thr Thr Asn  
 Page 2393

195

200

205

Leu Trp Ser Ala Glu Leu Ser Lys Leu Ala Ala Asn Ala Phe Leu Ala  
 210 215 220  
 Gln Arg Ile Ser Ser Val Asn Ala Met Ser Ala Leu Cys Glu Ala Thr  
 225 230 235 240  
 Gly Ala Asn Val Ser Glu Val Ser Tyr Ala Val Gly Lys Asp Ser Arg  
 245 250 255  
 Ile Gly Pro Lys Phe Leu Asn Ser Ser Val Gly Phe Gly Gly Ser Cys  
 260 265 270  
 Phe Gln Lys Asp Ile Leu Asn Leu Val Tyr Ile Cys Glu Cys Asn Gly  
 275 280 285  
 Leu Pro Glu Val Ala Glu Tyr Trp Lys Gln Val Ile Lys Ile Asn Asp  
 290 295 300  
 Tyr Gln Lys Thr Arg Phe Val Asn Arg Ile Val Ser Ser Met Phe Asn  
 305 310 315 320  
 Thr Val Ser Asn Lys Lys Ile Ala Val Leu Gly Phe Ala Phe Lys Lys  
 325 330 335  
 Asp Thr Gly Asp Thr Arg Glu Thr Pro Ala Ile Asp Val Cys Lys Gly  
 340 345 350  
 Leu Leu Gly Asp Lys Ala Arg Leu Ser Ile Tyr Asp Pro Gln Val Thr  
 355 360 365  
 Glu Glu Gln Ile Gln Arg Asp Leu Thr Met Asn Lys Phe Asp Trp Asp  
 370 375 380  
 His Pro Leu His Leu Gln Pro Met Ser Pro Thr Thr Val Lys Gln Val  
 385 390 395 400  
 Ser Val Ala Trp Asp Ala Tyr Thr Ala Thr Lys Asp Ala His Gly Ile  
 405 410 415  
 Cys Ile Leu Thr Glu Trp Asp Glu Phe Lys Lys Leu Asp Phe Gln Arg  
 420 425 430  
 Ile Phe Glu Asn Met Gln Lys Pro Ala Phe Val Phe Asp Gly Arg Asn  
 435 440 445



Val Val Asp Ala Asp Lys Leu Arg Glu Ile Gly Phe Ile Val Tyr Ser  
 450 455 460

Ile Gly Lys Pro Leu Asp Gln Trp Leu Lys Asp Met Pro Ala Leu Ala  
 465 470 475 480

<210> 1571

<211> 1140

<212> DNA

<213> Arabidopsis thaliana

<400> 1571

```

atggctacct cagagactcg agtcttggtc ttatctttgt gtctcatcct tggcaaagta      60
gttttgtctc agtttgatga gttatggcta gtaggggacg atgatccact caacgccttg      120
cagacgaggc gtgaaagaag agaggagagg tgtgattact cggtggggaa atggacgttc      180
gatgaaacgt atccgctcta tgattcaagc tgtccatata tgagttctgc actaagttgc      240
caaagaaatg gaagacccga ctcttattac cagaaatgga gatggatccc taaggcttgt      300
tcactaccaa ggtttgacgc attgaaatct cttgggaaaa tgagaggaaa aagaataatg      360
ctggttgag attcaatgat gagaaaccag tgggaatctc ttgtctgctt agtacagtct      420
gttcttccca ctcatcgtaa gaagctcact tacaatggtc ctacgatgtc tttccattct      480
ctggattttg agacatcaat tgagttttgt tgggctcctc tgcttggtgga actcaagaga      540
ggagttgacc gtaaaagggt gttacatttg gactcaatcg aagacaatgc tagatattgg      600
cgtggtgtag atgttcttgt attcgattcc gctcactggg ggactcactc tcagagatgg      660
agttcgtggg attattacat ggatgggaat aagatcttca aagctatgga cccaatgggt      720
gcttatgaga gaggactaac cacatgggct aaatggggtg agataaatct tgatccatcc      780
aaaacaaaag tcattttccg cactgtctca ccgagagaga gtggtcagat gtgctacaac      840
cagaaacatc ccttgccttc tttatcttct tccaccaaac cccacgtgcc tcaacagtca      900
agagtgttga acaaagtgct aaggacaatg aaataccgag tgtatttata cgatatcaca      960
acaatgtctg cgtatagaag agacgggtcat ccttcgggtg tcaagagagc aatgcacgag     1020
gaagagaagc accatcgat cgctggacct tcatcagatt gcagtcattg gtgcttgccc     1080
gggtgtcccg atatttgga tgagatgctt tcttcaatta tcttaaccaa tgctgtatga     1140

```

<210> 1572

<211> 379

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1572

Met Ala Thr Ser Glu Thr Arg Val Leu Phe Leu Ser Leu Cys Leu Ile  
 1 5 10 15  
 Leu Gly Lys Val Val Leu Ser Gln Phe Asp Glu Leu Trp Leu Val Gly  
 20 25 30  
 Asp Asp Asp Pro Leu Asn Ala Leu Gln Thr Arg Arg Glu Arg Arg Glu  
 35 40 45  
 Glu Arg Cys Asp Tyr Ser Val Gly Lys Trp Thr Phe Asp Glu Thr Tyr  
 50 55 60  
 Pro Leu Tyr Asp Ser Ser Cys Pro Tyr Leu Ser Ser Ala Leu Ser Cys  
 65 70 75 80  
 Gln Arg Asn Gly Arg Pro Asp Ser Tyr Tyr Gln Lys Trp Arg Trp Ile  
 85 90 95  
 Pro Lys Ala Cys Ser Leu Pro Arg Phe Asp Ala Leu Lys Phe Leu Gly  
 100 105 110  
 Lys Met Arg Gly Lys Arg Ile Met Leu Val Gly Asp Ser Met Met Arg  
 115 120 125  
 Asn Gln Trp Glu Ser Leu Val Cys Leu Val Gln Ser Val Leu Pro Thr  
 130 135 140  
 His Arg Lys Lys Leu Thr Tyr Asn Gly Pro Thr Met Ser Phe His Ser  
 145 150 155 160  
 Leu Asp Phe Glu Thr Ser Ile Glu Phe Cys Trp Ala Pro Leu Leu Val  
 165 170 175  
 Glu Leu Lys Arg Gly Val Asp Arg Lys Arg Val Leu His Leu Asp Ser  
 180 185 190  
 Ile Glu Asp Asn Ala Arg Tyr Trp Arg Gly Val Asp Val Leu Val Phe  
 195 200 205  
 Asp Ser Ala His Trp Trp Thr His Ser Gln Arg Trp Ser Ser Trp Asp  
 210 215 220

Tyr Tyr Met Asp Gly Asn Lys Ile Phe Lys Ala Met Asp Pro Met Val  
 225 230 235 240

Ala Tyr Glu Arg Gly Leu Thr Thr Trp Ala Lys Trp Val Glu Ile Asn  
 245 250 255

Leu Asp Pro Ser Lys Thr Lys Val Ile Phe Arg Thr Val Ser Pro Arg  
 260 265 270

Glu Ser Gly Gln Met Cys Tyr Asn Gln Lys His Pro Leu Pro Ser Leu  
 275 285

Ser Ser Ser Thr Lys Pro His Val Pro Gln Gln Ser Arg Val Leu Asn  
 290 295 300

Lys Val Leu Arg Thr Met Lys Tyr Arg Val Tyr Leu Tyr Asp Ile Thr  
 305 310 315 320

Thr Met Ser Ala Tyr Arg Arg Asp Gly His Pro Ser Val Phe Lys Arg  
 325 330 335

Ala Met His Glu Glu Glu Lys His His Arg Ile Ala Gly Pro Ser Ser  
 340 345 350

Asp Cys Ser His Trp Cys Leu Pro Gly Val Pro Asp Ile Trp Asn Glu  
 355 360 365

Met Leu Ser Ser Ile Ile Leu Thr Asn Ala Val  
 370 375

<210> 1573

<211> 789

<212> DNA

<213> Arabidopsis thaliana

<400> 1573

atggcgtctc cttcgcttct gcagtcttcc gcttcttcgt ttcacggacg tttctcacca	60
ttagcggctc catcctccgc acgaatgctc tctccgccgc tcagaaacgt ggtgaaagtc	120
tcggcgtctg gaactgtact ggtcgagaaa tctgaagccg agaaaactca acgcctcaaa	180
accgcttacc tcgagaggat tatccctgcg ctcaaagaag agttcaagta cgттаатatt	240
caccaggttc caaaggtaca gaagattgta gtgaattgtg gtattggaga tgcggcgcag	300
aacgacaagg gtttgagggc tgcgatgaag gatatcgcgc ttatcacagg gcagaaacct	360

047-E2F-PCT.ST25.txt

attaagacac gagctagagc ttccattgct actttcaaga tcaggggaaga tcaacctctt 420  
 gggattgctg tcactctcag aggagatgta atgtactcct tcttgatcg tcttatcaac 480  
 ttagcccttc cgagaactcg agatttccaa ggtgtgagtc ccagtagctt tgatgggaac 540  
 ggaaactaca gtattggtgt gaaagaccaa ggtgtattcc ctgaaatcag gtttgatgcc 600  
 gttggaaaaa cgagaggaat ggatgtatgc atcagcaciaa cggctaaaag cgatcaagaa 660  
 ggacagaaac tattggctct aatgggaatg cctttcaggg aaggaggtgg tggcagcaca 720  
 ggcgcgatag tgcggaagaa gaaactaaag tctcatcact ttgatgctaa aggaaaagga 780  
 aagagatga 789

<210> 1574

<211> 262

<212> PRT

<213> Arabidopsis thaliana

<400> 1574

Met Ala Ser Pro Ser Leu Leu Gln Ser Ser Ala Ser Ser Phe His Gly  
 1 5 10 15  
 Arg Phe Ser Pro Leu Ala Ala Pro Ser Ser Ala Arg Met Leu Ser Pro  
 20 25 30  
 Pro Leu Arg Asn Val Val Lys Val Ser Ala Ser Gly Thr Val Leu Val  
 35 40 45  
 Glu Lys Ser Glu Ala Glu Lys Thr Gln Arg Leu Lys Thr Ala Tyr Leu  
 50 55 60  
 Glu Arg Ile Ile Pro Ala Leu Lys Glu Glu Phe Lys Tyr Val Asn Ile  
 65 70 75 80  
 His Gln Val Pro Lys Val Gln Lys Ile Val Val Asn Cys Gly Ile Gly  
 85 90 95  
 Asp Ala Ala Gln Asn Asp Lys Gly Leu Glu Ala Ala Met Lys Asp Ile  
 100 105 110  
 Ala Leu Ile Thr Gly Gln Lys Pro Ile Lys Thr Arg Ala Arg Ala Ser  
 115 120 125  
 Ile Ala Thr Phe Lys Ile Arg Glu Asp Gln Pro Leu Gly Ile Ala Val  
 130 135 140

047-E2F-PCT.ST25.txt

Thr Leu Arg Gly Asp Val Met Tyr Ser Phe Leu Asp Arg Leu Ile Asn  
145 150 155 160

Leu Ala Leu Pro Arg Thr Arg Asp Phe Gln Gly Val Ser Pro Ser Ser  
165 170 175

Phe Asp Gly Asn Gly Asn Tyr Ser Ile Gly Val Lys Asp Gln Gly Val  
180 185 190

Phe Pro Glu Ile Arg Phe Asp Ala Val Gly Lys Thr Arg Gly Met Asp  
195 200 205

Val Cys Ile Ser Thr Thr Ala Lys Ser Asp Gln Glu Gly Gln Lys Leu  
210 215 220

Leu Ala Leu Met Gly Met Pro Phe Arg Glu Gly Gly Gly Gly Ser Thr  
225 230 235 240

Gly Ala Ile Val Arg Lys Lys Lys Leu Lys Ser His His Phe Asp Ala  
245 250 255

Lys Gly Lys Gly Lys Arg  
260

<210> 1575

<211> 1752

<212> DNA

<213> Arabidopsis thaliana

<400> 1575  
atgcagactc caaaacctag gccgggatcg ttggaggtgc ctcagaagaa atctcctgca 60  
tcaactccta aaactgctcg gaagctcaag acttcagaat ccgaccctgt ctcgtctcct 120  
aacacgaaaa tcaggacacc gaaaactcaa agcccaaaag tagttgctga tcgccgttct 180  
ccaagaaccc ctgtaaatga gattcagaag aaacggacag gaaaaacacc cgaattggca 240  
tctcagatat ctcagcttca agaggagcta aagaaggcaa aggaacagct aagtgcttca 300  
gaagctctga agaaggaagc tcaagatcaa gcagaggaaa caaagcagca gttaatggag 360  
attaacgcct ctgaggattc caggatcgat gagcttcgca agctctctca agaacgagac 420  
aaagcgtggc agtctgaact cgaagcaatg cagagacagc atgccatgga ttccgctgct 480  
ctatcatcta ccatgaacga ggtccagaaa ctgaaagcac agctgtctga atctgaaaat 540

047-E2F-PCT.ST25.txt

gttgagaact taaggatgga acttaacgag acgttgtcac ttgtcgagaa gctcagaggt 600  
gagctgtttg atgcaaagga aggggaagct caggcgcatg aaattgtgtc gggaactgaa 660  
aagcaattag agatagccaa cttgacgctt gagatgttac gttcagatgg tatgaagatg 720  
tctgaagctt gtaattcact aacaactgag ctagagcagt ctaaactctga ggtaagggtca 780  
ctagagcaac ttgtgagaca gcttgaggaa gaagatgaag cccgaggaaa tgctaacggg 840  
gactcatcat cagtggaaga gctcaaggaa gagataaatg ttgcaaggca agagattagc 900  
cagttgaaat ctgcagtgga agtaacagag agaaggtacc atgaagagta tatccagagc 960  
acgttgcaga tcagaactgc ttatgaacaa gtcgatgaag taaaatccgg atatgcacag 1020  
agagaggctg agttggggga agaactgaag aaaaccaaag ctgaaagaga ttctttgcat 1080  
gaacggttga tggataagga agctaagctc aggatactcg tcgatgaaaa cgagatactg 1140  
aactcgaaaa tcaaagaaaa agaagaagta tacttaaaact tggagaacag cttgaaccag 1200  
aacgagcctg aggataccgg tgaactcaag aagctagaat ccgatgtgat ggagttgaga 1260  
gcaaactctaa tggacaagga gatggagcta cagagcgtaa tgtcgcaata cgagagtctc 1320  
aggagcgaaa tggagacaat gcagagtgaag aagaacaagg ctatcgacga ggccttagca 1380  
aagctcggga gtctgacaga ggaagcagat aagagcggga agagagccga aaatgcgaca 1440  
gaacagctag gggcggcaca agtcaccaac accgaactag aagctgagct gaggagactc 1500  
aaggttcagt gtgatcaatg gaggaagca gctgaagccg cagctactat gctctctggt 1560  
ggtaacaaca acaataacag taacgggaag tacgtggaga gaacaggatc gttagagagt 1620  
ccgttgagga ggagaaacgt caacatgtcg ccttatatgg gtgaaactga tgatgaattg 1680  
tcatcaccaa agaagaagaa tggaagtatg ctgaagaaaa ttggtgtgtt actgaagaaa 1740  
agtcagaaat ga 1752

<210> 1576

<211> 583

<212> PRT

<213> Arabidopsis thaliana

<400> 1576

Met Gln Thr Pro Lys Pro Arg Pro Gly Ser Leu Glu Val Pro Gln Lys  
1 5 10 15

Lys Ser Pro Ala Ser Thr Pro Lys Thr Ala Arg Lys Leu Lys Thr Ser  
20 25 30

Glu Ser Asp Pro Val Ser Ser Pro Asn Thr Lys Ile Arg Thr Pro Lys  
 35 40 45  
 Thr Gln Ser Pro Lys Val Val Ala Asp Arg Arg Ser Pro Arg Thr Pro  
 50 55 60  
 Val Asn Glu Ile Gln Lys Lys Arg Thr Gly Lys Thr Pro Glu Leu Ala  
 65 70 75 80  
 Ser Gln Ile Ser Gln Leu Gln Glu Glu Leu Lys Lys Ala Lys Glu Gln  
 85 90 95  
 Leu Ser Ala Ser Glu Ala Leu Lys Lys Glu Ala Gln Asp Gln Ala Glu  
 100 105 110  
 Glu Thr Lys Gln Gln Leu Met Glu Ile Asn Ala Ser Glu Asp Ser Arg  
 115 120 125  
 Ile Asp Glu Leu Arg Lys Leu Ser Gln Glu Arg Asp Lys Ala Trp Gln  
 130 135 140  
 Ser Glu Leu Glu Ala Met Gln Arg Gln His Ala Met Asp Ser Ala Ala  
 145 150 155 160  
 Leu Ser Ser Thr Met Asn Glu Val Gln Lys Leu Lys Ala Gln Leu Ser  
 165 170 175  
 Glu Ser Glu Asn Val Glu Asn Leu Arg Met Glu Leu Asn Glu Thr Leu  
 180 185 190  
 Ser Leu Val Glu Lys Leu Arg Gly Glu Leu Phe Asp Ala Lys Glu Gly  
 195 200 205  
 Glu Ala Gln Ala His Glu Ile Val Ser Gly Thr Glu Lys Gln Leu Glu  
 210 215 220  
 Ile Ala Asn Leu Thr Leu Glu Met Leu Arg Ser Asp Gly Met Lys Met  
 225 230 235 240  
 Ser Glu Ala Cys Asn Ser Leu Thr Thr Glu Leu Glu Gln Ser Lys Ser  
 245 250 255  
 Glu Val Arg Ser Leu Glu Gln Leu Val Arg Gln Leu Glu Glu Glu Asp  
 260 265 270  
 Glu Ala Arg Gly Asn Ala Asn Gly Asp Ser Ser Ser Val Glu Glu Leu  
 275 280 285

047-E2F-PCT.ST25.txt

Lys Glu Glu Ile Asn Val Ala Arg Gln Glu Ile Ser Gln Leu Lys Ser  
 290 295 300  
 Ala Val Glu Val Thr Glu Arg Arg Tyr His Glu Glu Tyr Ile Gln Ser  
 305 310 315 320  
 Thr Leu Gln Ile Arg Thr Ala Tyr Glu Gln Val Asp Glu Val Lys Ser  
 325 330 335  
 Gly Tyr Ala Gln Arg Glu Ala Glu Leu Gly Glu Glu Leu Lys Lys Thr  
 340 345 350  
 Lys Ala Glu Arg Asp Ser Leu His Glu Arg Leu Met Asp Lys Glu Ala  
 355 360 365  
 Lys Leu Arg Ile Leu Val Asp Glu Asn Glu Ile Leu Asn Ser Lys Ile  
 370 375 380  
 Lys Glu Lys Glu Glu Val Tyr Leu Asn Leu Glu Asn Ser Leu Asn Gln  
 385 390 395 400  
 Asn Glu Pro Glu Asp Thr Gly Glu Leu Lys Lys Leu Glu Ser Asp Val  
 405 410 415  
 Met Glu Leu Arg Ala Asn Leu Met Asp Lys Glu Met Glu Leu Gln Ser  
 420 425 430  
 Val Met Ser Gln Tyr Glu Ser Leu Arg Ser Glu Met Glu Thr Met Gln  
 435 440 445  
 Ser Glu Lys Asn Lys Ala Ile Asp Glu Ala Leu Ala Lys Leu Gly Ser  
 450 455 460  
 Leu Thr Glu Glu Ala Asp Lys Ser Gly Lys Arg Ala Glu Asn Ala Thr  
 465 470 475 480  
 Glu Gln Leu Gly Ala Ala Gln Val Thr Asn Thr Glu Leu Glu Ala Glu  
 485 490 495  
 Leu Arg Arg Leu Lys Val Gln Cys Asp Gln Trp Arg Lys Ala Ala Glu  
 500 505 510  
 Ala Ala Ala Thr Met Leu Ser Gly Gly Asn Asn Asn Asn Asn Ser Asn  
 515 520 525  
 Gly Lys Tyr Val Glu Arg Thr Gly Ser Leu Glu Ser Pro Leu Arg Arg  
 530 535 540



047-E2F-PCT.ST25.txt

Arg Asn Val Asn Met Ser Pro Tyr Met Gly Glu Thr Asp Asp Glu Leu  
545 550 555 560

Ser Ser Pro Lys Lys Lys Asn Gly Ser Met Leu Lys Lys Ile Gly Val  
565 570 575

Leu Leu Lys Lys Ser Gln Lys  
580

<210> 1577

<211> 2907

<212> DNA

<213> Arabidopsis thaliana

<400> 1577

atggcgacgg ctacgacgac tgctacggcg gcgttttagtg gtgtagtcag tgtaggaacg	60
gagactcgaa ggattttattc gttttctcat cttcaacctt ctgcggccttt tccggcgaag	120
cctagttcct tcaaattctct caaattaaag cagagcgcgga ggctcacacg gcggccttgat	180
catcggccgt tcgttggtccg atgtgaagct tcttcttcta atggaaggct tacacagcaa	240
gaattcacag aaatggcgtg gcaatcgata gtttcgtcac cagatgttgc aaaagagaat	300
aagcaacaga ttgtggagac agagcatcta atgaaagctc ttttgagca gaagaatggt	360
ttagctcgta ggattttctc taagatcggg gtggataaca caaaggttct agaagcaaca	420
gagaagttca ttcaacgcca accaaagggtg tatggagatg ctgctgggtc gatgttgggg	480
cgtgatttgg aagctctgtt ccagagagca agacagttta agaaagattt aaaggactct	540
tatgtgtcag tggagcattt ggttcttgct tttgctgatg ataagcgggt tgggaaacag	600
ttgtttaagg attttcagat atcagagagg agcttgaaat ctgcaattga atccattaga	660
gggaaacaat cagtcattga ccaagatccg gaaggcaagt atgaggcgtt ggagaagtat	720
ggaaaagact tgacagcaat ggcaagagag ggaaaactag atcctgtgat aggtagagat	780
gacgagatcc gaagatgcat tcagattctc tcaaggagaa caaagaacaa ccctgtgttg	840
atcgggtgaac caggtgttgg taaaactgca atttcagaag gacttgctca gaggattgtg	900
caaggagatg tacctcaagc attgatgaac agaaagttga tatctcttga tatgggtgct	960
ctcattgctg gagcaaagta tcggggagaa ttcgaagaca gactaaaagc tgtgcttaag	1020
gaagtcacag actcagaagg ccaaatcatt ttgttcatcg atgagatcca tacagttggt	1080
ggtgcagggt cgactaatgg ggccatggat gctggtaatc tgctgaaacc gatgctgggc	1140

## 047-E2F-PCT.ST25.txt

cgaggcgagt tacgttgtat cggtgcaacc acgcttgatg aatataggaa atacatagag 1200  
 aaagatccag ccttgagcgc taggtttcaa caggtttatg ttgatcaacc tacggttgaa 1260  
 gacacgattt ctattctccg tggtttgccg gaaagggtatg aactacatca tggagttcgc 1320  
 atctcagata gtgctctagt ggaagctgct atcctctcag accgttacat cagtggcccg 1380  
 tttctacccg ataaagcaat tgacttggtc gatgaagcgc cagccaaatt gaaaatggaa 1440  
 atcacttcga aacctacagc tcttgacgag cttgaccgtt cggtataaaa gcttgaaatg 1500  
 gagaggcttt cacttaccaa tgatacagac aaagcttcta gagagagatt gaatcgaatt 1560  
 gaaactgagt tagtgctatt aaaggagaaa caagctgagt taactgaaca gtgggagcac 1620  
 gagaggctctg ttatgtcccg tcttcagtcg attaaagagg agattgatcg agtaaacctc 1680  
 gagatccagc aggcggaacg tgaatacgat ctcaaccgtg cagctgagct caaatacggg 1740  
 agcttaaaact cattgcagcg acagcttaat gaagcagaga aagagctgaa cgagtactta 1800  
 agctctggga aatctatgtt cagagaagag gttttgggta gcgatatcgc cgagattgtg 1860  
 agtaaattgga ctggaatccc ggtatcaaaa cttcaacagt ctgaacgaga taagcttcta 1920  
 catttggaag aagaattgca taaaagagta gtcggtcaaa acccagcagt gactgcggtg 1980  
 gctgaagcaa tccaacgatc aagagctggt ctttcggatc caggccgtcc tatagctagt 2040  
 ttcattgttta tgggaccaac tgggtgttggg aaaacagagc tagccaaagc acttgcttct 2100  
 tatatgttca aactgaaga agcttttagtg agaattgaca tgagtgaata catggagaag 2160  
 catgcggtgt ctaggctcat tggagctcca cctggatatg ttggttacga agaaggagga 2220  
 cagttaacag aaacggttag aagaaggcct tattcgggtc ttctatttga tgagattgag 2280  
 aaagctcatg gagatgtctt caatgtgttt ctccaaatct tggacgatgg gcgagtcaca 2340  
 gattctcaag gacgtacagt gagtttcacc aataccgtca ttattatgac ctcaaattgtt 2400  
 ggttcgcagt ttattctgaa caacacagat gatgatgcta atgagctctc ttatgaaacg 2460  
 attaaagaga gagtgatgaa tgctgcaagg tcaatctttc gtcctgaatt catgaatagg 2520  
 gttgatgagt atatagtttt caaacctctt gaccgcgagc agatcaaccg cattgtccgc 2580  
 ttacagctgg cacgtgtgca gaagcgaatt gcagacagga aaatgaagat aaacatcacg 2640  
 gatgcagcag tcgatcttct tggaagccta gggatatgatc caaactatgg agctagacct 2700  
 gttaagcgtg tgatacagca aaacattgag aatgagcttg ctaaggggtat cttgagagga 2760  
 gatttcaagg aggaagatgg cttttgatc gataccgagg tcacagcgtt ctccaatggc 2820  
 cagttacctc agcaaaagct cacattcaag aagattgagt cagaaacagc agatgctgaa 2880  
 caagaagaag cagctttctc aaaatag 2907

&lt;210&gt; 1578

&lt;211&gt; 968

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1578

Met Ala Thr Ala Thr Thr Thr Ala Thr Ala Ala Phe Ser Gly Val Val  
 1 5 10 15

Ser Val Gly Thr Glu Thr Arg Arg Ile Tyr Ser Phe Ser His Leu Gln  
 20 25 30

Pro Ser Ala Ala Phe Pro Ala Lys Pro Ser Ser Phe Lys Ser Leu Lys  
 35 40 45

Leu Lys Gln Ser Ala Arg Leu Thr Arg Arg Leu Asp His Arg Pro Phe  
 50 55 60

Val Val Arg Cys Glu Ala Ser Ser Ser Asn Gly Arg Leu Thr Gln Gln  
 65 70 75 80

Glu Phe Thr Glu Met Ala Trp Gln Ser Ile Val Ser Ser Pro Asp Val  
 85 90 95

Ala Lys Glu Asn Lys Gln Gln Ile Val Glu Thr Glu His Leu Met Lys  
 100 105 110

Ala Leu Leu Glu Gln Lys Asn Gly Leu Ala Arg Arg Ile Phe Ser Lys  
 115 120 125

Ile Gly Val Asp Asn Thr Lys Val Leu Glu Ala Thr Glu Lys Phe Ile  
 130 135 140

Gln Arg Gln Pro Lys Val Tyr Gly Asp Ala Ala Gly Ser Met Leu Gly  
 145 150 155 160

Arg Asp Leu Glu Ala Leu Phe Gln Arg Ala Arg Gln Phe Lys Lys Asp  
 165 170 175

Leu Lys Asp Ser Tyr Val Ser Val Glu His Leu Val Leu Ala Phe Ala  
 180 185 190

Asp Asp Lys Arg Phe Gly Lys Gln Leu Phe Lys Asp Phe Gln Ile Ser  
 195 200 205

Glu Arg Ser Leu Lys Ser Ala Ile Glu Ser Ile Arg Gly Lys Gln Ser  
 Page 2405

210

215

Val Ile Asp Gln Asp Pro Glu Gly Lys Tyr Glu Ala Leu Glu Lys Tyr  
225 230 235 240

Gly Lys Asp Leu Thr Ala Met Ala Arg Glu Gly Lys Leu Asp Pro Val  
245 250 255

Ile Gly Arg Asp Asp Glu Ile Arg Arg Cys Ile Gln Ile Leu Ser Arg  
260 265 270

Arg Thr Lys Asn Asn Pro Val Leu Ile Gly Glu Pro Gly Val Gly Lys  
275 280 285

Thr Ala Ile Ser Glu Gly Leu Ala Gln Arg Ile Val Gln Gly Asp Val  
290 295 300

Pro Gln Ala Leu Met Asn Arg Lys Leu Ile Ser Leu Asp Met Gly Ala  
305 310 315 320

Leu Ile Ala Gly Ala Lys Tyr Arg Gly Glu Phe Glu Asp Arg Leu Lys  
325 330 335

Ala Val Leu Lys Glu Val Thr Asp Ser Glu Gly Gln Ile Ile Leu Phe  
340 345 350

Ile Asp Glu Ile His Thr Val Val Gly Ala Gly Ala Thr Asn Gly Ala  
355 360 365

Met Asp Ala Gly Asn Leu Leu Lys Pro Met Leu Gly Arg Gly Glu Leu  
370 375 380

Arg Cys Ile Gly Ala Thr Thr Leu Asp Glu Tyr Arg Lys Tyr Ile Glu  
385 390 395 400

Lys Asp Pro Ala Leu Glu Arg Arg Phe Gln Gln Val Tyr Val Asp Gln  
405 410 415

Pro Thr Val Glu Asp Thr Ile Ser Ile Leu Arg Gly Leu Arg Glu Arg  
420 425 430

Tyr Glu Leu His His Gly Val Arg Ile Ser Asp Ser Ala Leu Val Glu  
435 440 445

Ala Ala Ile Leu Ser Asp Arg Tyr Ile Ser Gly Arg Phe Leu Pro Asp  
450 455 460

## 047-E2F-PCT.ST25.txt

Lys Ala Ile Asp Leu Val Asp Glu Ala Ala Ala Lys Leu Lys Met Glu  
 465 470 475 480  
 Ile Thr Ser Lys Pro Thr Ala Leu Asp Glu Leu Asp Arg Ser Val Ile  
 485 490 495  
 Lys Leu Glu Met Glu Arg Leu Ser Leu Thr Asn Asp Thr Asp Lys Ala  
 500 505 510  
 Ser Arg Glu Arg Leu Asn Arg Ile Glu Thr Glu Leu Val Leu Leu Lys  
 515 520 525  
 Glu Lys Gln Ala Glu Leu Thr Glu Gln Trp Glu His Glu Arg Ser Val  
 530 535 540  
 Met Ser Arg Leu Gln Ser Ile Lys Glu Glu Ile Asp Arg Val Asn Leu  
 545 550 555 560  
 Glu Ile Gln Gln Ala Glu Arg Glu Tyr Asp Leu Asn Arg Ala Ala Glu  
 565 570 575  
 Leu Lys Tyr Gly Ser Leu Asn Ser Leu Gln Arg Gln Leu Asn Glu Ala  
 580 585 590  
 Glu Lys Glu Leu Asn Glu Tyr Leu Ser Ser Gly Lys Ser Met Phe Arg  
 595 600 605  
 Glu Glu Val Leu Gly Ser Asp Ile Ala Glu Ile Val Ser Lys Trp Thr  
 610 615 620  
 Gly Ile Pro Val Ser Lys Leu Gln Gln Ser Glu Arg Asp Lys Leu Leu  
 625 630 635 640  
 His Leu Glu Glu Glu Leu His Lys Arg Val Val Gly Gln Asn Pro Ala  
 645 650 655  
 Val Thr Ala Val Ala Glu Ala Ile Gln Arg Ser Arg Ala Gly Leu Ser  
 660 665 670  
 Asp Pro Gly Arg Pro Ile Ala Ser Phe Met Phe Met Gly Pro Thr Gly  
 675 680 685  
 Val Gly Lys Thr Glu Leu Ala Lys Ala Leu Ala Ser Tyr Met Phe Asn  
 690 695 700  
 Thr Glu Glu Ala Leu Val Arg Ile Asp Met Ser Glu Tyr Met Glu Lys  
 705 710 715 720

047-E2F-PCT.ST25.txt

His Ala Val Ser Arg<sub>725</sub> Leu Ile Gly Ala Pro<sub>730</sub> Pro Gly Tyr Val Gly<sub>735</sub> Tyr  
 Glu Glu Gly Gly<sub>740</sub> Gln Leu Thr Glu Thr<sub>745</sub> Val Arg Arg Arg Pro<sub>750</sub> Tyr Ser  
 Val Ile Leu<sub>755</sub> Phe Asp Glu Ile Glu<sub>760</sub> Lys Ala His Gly Asp<sub>765</sub> Val Phe Asn  
 Val Phe<sub>770</sub> Leu Gln Ile Leu Asp<sub>775</sub> Asp Gly Arg Val Thr<sub>780</sub> Asp Ser Gln Gly  
 Arg<sub>785</sub> Thr Val Ser Phe Thr<sub>790</sub> Asn Thr Val Ile Ile<sub>795</sub> Met Thr Ser Asn Val<sub>800</sub>  
 Gly Ser Gln Phe Ile<sub>805</sub> Leu Asn Asn Thr Asp<sub>810</sub> Asp Asp Ala Asn Glu<sub>815</sub> Leu  
 Ser Tyr Glu Thr<sub>820</sub> Ile Lys Glu Arg Val<sub>825</sub> Met Asn Ala Ala Arg<sub>830</sub> Ser Ile  
 Phe Arg Pro<sub>835</sub> Glu Phe Met Asn Arg<sub>840</sub> Val Asp Glu Tyr Ile<sub>845</sub> Val Phe Lys  
 Pro Leu<sub>850</sub> Asp Arg Glu Gln Ile<sub>855</sub> Asn Arg Ile Val Arg<sub>860</sub> Leu Gln Leu Ala  
 Arg<sub>865</sub> Val Gln Lys Arg Ile<sub>870</sub> Ala Asp Arg Lys Met<sub>875</sub> Lys Ile Asn Ile Thr<sub>880</sub>  
 Asp Ala Ala Val Asp<sub>885</sub> Leu Leu Gly Ser Leu<sub>890</sub> Gly Tyr Asp Pro Asn<sub>895</sub> Tyr  
 Gly Ala Arg Pro<sub>900</sub> Val Lys Arg Val Ile<sub>905</sub> Gln Gln Asn Ile Glu<sub>910</sub> Asn Glu  
 Leu Ala Lys<sub>915</sub> Gly Ile Leu Arg Gly<sub>920</sub> Asp Phe Lys Glu Glu<sub>925</sub> Asp Gly Ile  
 Leu Ile<sub>930</sub> Asp Thr Glu Val Thr<sub>935</sub> Ala Phe Ser Asn Gly<sub>940</sub> Gln Leu Pro Gln  
 Gln Lys Leu Thr Phe Lys<sub>950</sub> Lys Ile Glu Ser Glu<sub>955</sub> Thr Ala Asp Ala Glu<sub>960</sub>  
 Gln Glu Glu Ala Ala<sub>965</sub> Phe Ser Lys

&lt;210&gt; 1579

&lt;211&gt; 1143

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1579

```

atgtctttgc tctctcctct tcctctgctc cactcattct cctccaccgt cgccacaaaa    60
tccaccgcct ctagaatcac tgccacgccg tcgaaaatcc gcttctctgt cataaacgcc    120
acgtcggaga atggaaacag cggtggtagt aaaaacgata gtgatgagga tccatctttt    180
aaccattttg gtttcgttac agacaacccg tctagccgga gtgcaattca gttaccagag    240
tctccggcgg aagacggcaa tgtcggccaa atgctctaca ggactgaaga taaaggtaaa    300
gagtatggct caactatcaa atctgggaag cttagatggg ttgtgagaga gactggatca    360
aaggagagtc gtcgaggaac cattgtatct gttcatggag ctctactca gtcttttagc    420
tacagaactg tcatgtctga gttgtcagat gctggatttc attgctttgc acctgactgg    480
ataggattcg gattcagtga caaaccgcag cctggatacg gttttaatta cacagaaaaa    540
gagtaccatg aggcgtttga taaactgctt gaagtgctag aggtcaaata tcctttcttt    600
cttggtgttc agggatttct tgtaggttca tatgggttaa cttgggcttt gaaaaatcca    660
agcaagggtg agaaactcgc gatccttaat agtccgctga ccgtttcatc cccagttccc    720
ggattattta agcagctgag gattcccctg tttggtgaat tcacctgcca aaatgctatc    780
ttggccgagc ggttcattga aggaggtagc ccctacgtcc tgaagaatga gaaagctgat    840
gtgtatcgtc taccatattt gtcaagcgga gggcctggct ttgccttgct cgagactgcg    900
aagaagatca actttggaga cacattgagt caaattgcaa atgggttttc atcaggcagc    960
tgggataaac ctacgcttct ggcttgggga atagctgata aatatctgcc tcagtctata   1020
gcagaggaat ttgagaaaca gaaccccaa aatgttaagc ttcgactcat cgaagggtgct   1080
gggcatttgc ctcaagaaga ctggccagag aaagtagttg ctgccctccg agcatttttc   1140
tga                                                                    1143

```

&lt;210&gt; 1580

&lt;211&gt; 380

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1580

```

Met Ser Leu Leu Ser Pro Leu Pro Leu Leu His Ser Phe Ser Ser Thr
 1      5      10      15
Val Ala Thr Lys Ser Thr Ala Ser Arg Ile Thr Ala Thr Pro Ser Lys
 20      25      30
Ile Arg Phe Ser Val Ile Asn Ala Thr Ser Glu Asn Gly Asn Ser Gly
 35      40      45
Gly Ser Lys Asn Asp Arg Asp Glu Asp Pro Ser Phe Asn Pro Phe Gly
 50      55      60
Phe Val Thr Asp Asn Pro Ser Ser Arg Ser Ala Ile Gln Leu Pro Glu
 65      70      75      80
Ser Pro Ala Glu Asp Gly Asn Val Gly Gln Met Leu Tyr Arg Thr Glu
 85      90      95
Asp Lys Gly Lys Glu Tyr Gly Ser Thr Ile Lys Ser Gly Lys Leu Arg
100      105      110
Trp Phe Val Arg Glu Thr Gly Ser Lys Glu Ser Arg Arg Gly Thr Ile
115      120      125
Val Phe Val His Gly Ala Pro Thr Gln Ser Phe Ser Tyr Arg Thr Val
130      135      140
Met Ser Glu Leu Ser Asp Ala Gly Phe His Cys Phe Ala Pro Asp Trp
145      150      155      160
Ile Gly Phe Gly Phe Ser Asp Lys Pro Gln Pro Gly Tyr Gly Phe Asn
165      170      175
Tyr Thr Glu Lys Glu Tyr His Glu Ala Phe Asp Lys Leu Leu Glu Val
180      185      190
Leu Glu Val Lys Ser Pro Phe Phe Leu Val Val Gln Gly Phe Leu Val
195      200      205
Gly Ser Tyr Gly Leu Thr Trp Ala Leu Lys Asn Pro Ser Lys Val Glu
210      215      220
Lys Leu Ala Ile Leu Asn Ser Pro Leu Thr Val Ser Ser Pro Val Pro
225      230      235      240

```



Gly Leu Phe Lys Gln Leu Arg Ile Pro Leu Phe Gly Glu Phe Thr Cys  
 245 250 255

Gln Asn Ala Ile Leu Ala Glu Arg Phe Ile Glu Gly Gly Ser Pro Tyr  
 260 265 270

Val Leu Lys Asn Glu Lys Ala Asp Val Tyr Arg Leu Pro Tyr Leu Ser  
 275 280 285

Ser Gly Gly Pro Gly Phe Ala Leu Leu Glu Thr Ala Lys Lys Ile Asn  
 290 295 300

Phe Gly Asp Thr Leu Ser Gln Ile Ala Asn Gly Phe Ser Ser Gly Ser  
 305 310 315 320

Trp Asp Lys Pro Thr Leu Leu Ala Trp Gly Ile Ala Asp Lys Tyr Leu  
 325 330 335

Pro Gln Ser Ile Ala Glu Glu Phe Glu Lys Gln Asn Pro Gln Asn Val  
 340 345 350

Lys Leu Arg Leu Ile Glu Gly Ala Gly His Leu Pro Gln Glu Asp Trp  
 355 360 365

Pro Glu Lys Val Val Ala Ala Leu Arg Ala Phe Phe  
 370 375 380

<210> 1581

<211> 1995

<212> DNA

<213> Arabidopsis thaliana

<400> 1581

atggcgagct ccgatgctct cttgccaatc tccgccagag aagaagaacc attatgtcct	60
tacacgagat taccaatggc cgacccgaat caagaaaccc atggcccccg gagaagaaga	120
cccttttaaag gtctcctcgc cgtctcattt ggtctcttgt tcatcgcctt ttacgtcgct	180
ctcatcgcca cacacgacgg atctagatcc aacgacgaag ggatcgatga aacagagacg	240
ataacgtcac gtgcacgtct tgctggtgtg tcggagaaac gtaacgatgg gttatggaaa	300
ctttccggtg atcggaacac gccggcgttt gaatggaaca atagtatggt gtcgtggcaa	360
cgaacggcgt ttcattttca gcctgagcaa aattggatga acgatacctaa cgggtccattg	420
ttctacaagg gatggtacca tttctttctac caatataacc caaacgcagc cgtatgggggt	480

047-E2F-PCT.ST25.txt

gacattgttt	ggggtcacgc	cgtgtctagg	gacctaatcc	attgggtcca	tttgcccata	540
gccatggtcg	ctgatcaatg	gtacgactcc	aacgggtgtgt	ggaccggctc	agccacattt	600
ctccctgatg	gctctatagt	catgctctat	accggttcca	ccgacaaagc	ggtgcaggtc	660
caaaaccttg	cctaccctga	agaccccaac	gaccacttcc	tgttgaaatg	ggtcaagttc	720
ccggggaacc	cggttctagt	acctccgccc	ggatatcctcc	ctaaggactt	ccgtgaccca	780
acgactgcat	ggaagacatc	agaaggaaaa	tggcggatca	cgattggttc	caagctcaac	840
aaaactggaa	tctcactcgt	gtacgacaca	atcgacttta	aaacatacga	gaaacttgac	900
acattgtttg	accgagttcc	caacactgga	atgtgggagt	gtgttgactt	ttaccgggtg	960
tctaagactg	cgggcaatgg	gcttgacaca	tcggtcaatg	gaccggatgt	gaagcatatc	1020
gtgaaggcta	gcatggacga	cacgaggttc	gatcattatg	ctgtaggcac	gtatttcgat	1080
tcaaacggaa	catggatccc	cgatgatcct	actatcgatg	ttgggatgac	tgccagttta	1140
agatatgatt	acggaaagtt	ctatgcttca	aagtcgtttt	acgaccagaa	caagggtcga	1200
agagtcttgt	ggagttggat	tgggtgagtct	gatagtgagg	cttctgatgt	acaaaagggg	1260
tggctttctc	tccagggtat	cccaagaacc	gttgtcctcg	acacaaagac	aggaaagaac	1320
ttggttcaat	ggccagtaga	agaaatcaaa	tctcttagac	taagcagcaa	gcaatttgat	1380
ctcgaggtcg	gtcccgggtc	agtggtagcg	gtcgatgtag	gttccgcagc	tcagctagac	1440
atcgaagcag	aattcgagat	taacaaagaa	tctctagaca	aaatcatcgg	aaacgcttcg	1500
gtagtggctg	aagccgagga	atttagctgc	gaaaaaagcg	gaggctccac	cgtccgtggg	1560
gctttagggc	cattcggatt	ctcggtagct	gccacagaga	gcttgtctga	gcaaacaccg	1620
gtttactttc	atgtagctaa	gggaaaagat	tcagagctca	aaactttctt	ctgcacagac	1680
acctcaaggt	catctgttgc	aaacgatgtc	gttaaaccga	tatacggtag	cgtcgtaccg	1740
gttctaaaag	gggagaaact	gaccatgaga	attttggtgg	atcattcgat	agtagaagca	1800
ttcggacaag	gtggaagaac	atgtataaca	tcaagagtct	atccaacaac	tgcaatctat	1860
ggagcagcca	agctcttctt	gttcaataat	gctcttgatg	cgacggttac	ggcgtcgttt	1920
acagtttggc	aaatgaacag	tgctttttatt	catccttact	ctgacgaagc	tgtccgtgct	1980
ctctcccgtg	cctga					1995

<210> 1582

<211> 664

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 1582

Met Ala Ser Ser Asp Ala Leu Leu Pro Ile Ser Ala Arg Glu Glu Glu  
 1 5 10 15

Pro Leu Cys Pro Tyr Thr Arg Leu Pro Met Ala Asp Pro Asn Gln Glu  
 20 25 30

Thr His Gly Pro Arg Arg Arg Arg Pro Phe Lys Gly Leu Leu Ala Val  
 35 40 45

Ser Phe Gly Leu Leu Phe Ile Ala Phe Tyr Val Ala Leu Ile Ala Thr  
 50 55 60

His Asp Gly Ser Arg Ser Asn Asp Glu Gly Ile Asp Glu Thr Glu Thr  
 65 70 75 80

Ile Thr Ser Arg Ala Arg Leu Ala Gly Val Ser Glu Lys Arg Asn Asp  
 85 90 95

Gly Leu Trp Lys Leu Ser Gly Asp Arg Asn Thr Pro Ala Phe Glu Trp  
 100 105 110

Asn Asn Ser Met Leu Ser Trp Gln Arg Thr Ala Phe His Phe Gln Pro  
 115 120 125

Glu Gln Asn Trp Met Asn Asp Pro Asn Gly Pro Leu Phe Tyr Lys Gly  
 130 135 140

Trp Tyr His Phe Phe Tyr Gln Tyr Asn Pro Asn Ala Ala Val Trp Gly  
 145 150 155 160

Asp Ile Val Trp Gly His Ala Val Ser Arg Asp Leu Ile His Trp Val  
 165 170 175

His Leu Pro Ile Ala Met Val Ala Asp Gln Trp Tyr Asp Ser Asn Gly  
 180 185 190

Val Trp Thr Gly Ser Ala Thr Phe Leu Pro Asp Gly Ser Ile Val Met  
 195 200 205

Leu Tyr Thr Gly Ser Thr Asp Lys Ala Val Gln Val Gln Asn Leu Ala  
 210 215 220

Tyr Pro Glu Asp Pro Asn Asp Pro Leu Leu Leu Lys Trp Val Lys Phe  
 225 230 235 240

Pro Gly Asn Pro Val Leu Val Pro Pro Pro Gly Ile Leu Pro Lys Asp  
 Page 2413

Phe Arg Asp Pro Thr Thr Ala Trp Lys Thr Ser Glu Gly Lys Trp Arg  
260 265 270

Ile Thr Ile Gly Ser Lys Leu Asn Lys Thr Gly Ile Ser Leu Val Tyr  
275 280 285

Asp Thr Ile Asp Phe Lys Thr Tyr Glu Lys Leu Asp Thr Leu Leu His  
290 295 300

Arg Val Pro Asn Thr Gly Met Trp Glu Cys Val Asp Phe Tyr Pro Val  
305 310 315 320

Ser Lys Thr Ala Gly Asn Gly Leu Asp Thr Ser Val Asn Gly Pro Asp  
325 330 335

Val Lys His Ile Val Lys Ala Ser Met Asp Asp Thr Arg Phe Asp His  
340 345 350

Tyr Ala Val Gly Thr Tyr Phe Asp Ser Asn Gly Thr Trp Ile Pro Asp  
355 360 365

Asp Pro Thr Ile Asp Val Gly Met Thr Ala Ser Leu Arg Tyr Asp Tyr  
370 375 380

Gly Lys Phe Tyr Ala Ser Lys Ser Phe Tyr Asp Gln Asn Lys Gly Arg  
385 390 395 400

Arg Val Leu Trp Ser Trp Ile Gly Glu Ser Asp Ser Glu Ala Ser Asp  
405 410 415

Val Gln Lys Gly Trp Ser Ser Leu Gln Gly Ile Pro Arg Thr Val Val  
420 425 430

Leu Asp Thr Lys Thr Gly Lys Asn Leu Val Gln Trp Pro Val Glu Glu  
435 440 445

Ile Lys Ser Leu Arg Leu Ser Ser Lys Gln Phe Asp Leu Glu Val Gly  
450 455 460

Pro Gly Ser Val Val Pro Val Asp Val Gly Ser Ala Ala Gln Leu Asp  
465 470 475 480

Ile Glu Ala Glu Phe Glu Ile Asn Lys Glu Ser Leu Asp Lys Ile Ile  
485 490 495

Gly Asn Ala Ser Val Val Ala Glu Ala Glu Glu Phe Ser Cys Glu Lys  
 500 505 510  
 Ser Gly Gly Ser Thr Val Arg Gly Ala Leu Gly Pro Phe Gly Phe Ser  
 515 520 525  
 Val Leu Ala Thr Glu Ser Leu Ser Glu Gln Thr Pro Val Tyr Phe Tyr  
 530 535 540  
 Val Ala Lys Gly Lys Asp Ser Glu Leu Lys Thr Phe Phe Cys Thr Asp  
 545 550 555 560  
 Thr Ser Arg Ser Ser Val Ala Asn Asp Val Val Lys Pro Ile Tyr Gly  
 565 570 575  
 Ser Val Val Pro Val Leu Lys Gly Glu Lys Leu Thr Met Arg Ile Leu  
 580 585 590  
 Val Asp His Ser Ile Val Glu Ala Phe Gly Gln Gly Gly Arg Thr Cys  
 595 600 605  
 Ile Thr Ser Arg Val Tyr Pro Thr Thr Ala Ile Tyr Gly Ala Ala Lys  
 610 615 620  
 Leu Phe Leu Phe Asn Asn Ala Leu Asp Ala Thr Val Thr Ala Ser Phe  
 625 630 635 640  
 Thr Val Trp Gln Met Asn Ser Ala Phe Ile His Pro Tyr Ser Asp Glu  
 645 650 655  
 Ala Val Arg Ala Leu Ser Arg Thr  
 660

&lt;210&gt; 1583

&lt;211&gt; 1560

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1583

atggacgaaa gacccgagac agagctaata tcaataccag ccacaccacg agtttcaaca 60  
 ccggagattc taactccctc cgggtcaaaga tcacctcgtc cggccaccaa accatcgctg 120  
 gcgacatgga ctccgacttc gttcatatca ccgagggttct tgagtccgat tggtacacca 180  
 atgaaacgag ttcttgtgaa catgaaaggg tatcttgaag aagttgggtca tctcactaag 240

ctaaaccac aagatgcttg gcttccaatc actgaatctc gtaatggaaa cgctcattac 300  
 gctgcttttc acaatctcaa cgctgggtgtt gggttttcaag cccttggttct tcccgtcgcg 360  
 ttgcggtttc ttggctggag ttggggaata ctgtctttta caatagcata ttgctggcaa 420  
 ctctacacac tgtggattct gggttcagttg cacgaagctg tccccgggaa acgctacaat 480  
 cgatatgtcg agcttgcaca agctgctttt ggagaaaggt taggagtatg gcttgcattg 540  
 tttcctacgg ttactttatc agcaggaacc gcgacagcgc tgattctgat cgggtggagag 600  
 acaatgaaac tcttcttcca gatagtttgc ggtccattat gcacctcgaa tccgttaaca 660  
 acagttgaat ggtatttggt gtttacatct ctctgcatcg ttctgtctca gctaccaaac 720  
 ctcaattcta ttgcgggact ctctttaata ggagcagtga ctgcaataac ttactccaca 780  
 atggtttggg ttctctctgt gagccaacca agaccagcca ctatctcata cgagcctctt 840  
 tctatgcctt cgacttctgg ttactcttc gctgttttga atgctcttgg cattatagct 900  
 ttgcttca gaggtcacaa cttgggtttg gaaattcagt cgacgatgcc atcaacgttt 960  
 aagcatcctg ctcacgtacc aatgtggaga ggagccaaaa tctcttactt cctcattgct 1020  
 ctgtgtatct ttccaatctc catcggaggc ttttgggctt atgggaacct tatgccttca 1080  
 ggaggtatgc ttgctgcttt gtatgcattc cacattcacg atatcccgag aggcttatta 1140  
 gcgacggcat ttctcctagt agtcttcagc tgcttgagca gttttcagat atactccatg 1200  
 cctgcctttg acagctttga agctggctac acaagcagaa ccaacaagcc gtgttcgatt 1260  
 tgggtcagat caggtttccg agtctttttt gggtttgtct cgtttttcat cgggtgttgct 1320  
 ctcccttttc tgtctagtct tgcggggttg ctcggtggac tctctctccc ggtcacattt 1380  
 gcttatcctt gcttcatgtg ggtcttgatt aagaaaccgg cgaaatacag tttcaattgg 1440  
 tatttccatt ggggattagg ttggttggga gttgcattca gcttggcatt ctccataggt 1500  
 gggatctgga gtatggttac caatggactt aagctcaagt tcttcaagcc gcctaactaa 1560

<210> 1584

<211> 519

<212> PRT

<213> *Arabidopsis thaliana*

<400> 1584

Met Asp Glu Arg Pro Glu Thr Glu Leu Ile Ser Ile Pro Ala Thr Pro  
 1 5 10 15

Arg Val Ser Thr Pro Glu Ile Leu Thr Pro Ser Gly Gln Arg Ser Pro  
 20 25 30

047-E2F-PCT.ST25.txt

Arg Pro Ala Thr Lys Pro Ser Ser Ala Thr Trp Thr Pro Thr Ser Phe  
35 40 45

Ile Ser Pro Arg Phe Leu Ser Pro Ile Gly Thr Pro Met Lys Arg Val  
50 55 60

Leu Val Asn Met Lys Gly Tyr Leu Glu Glu Val Gly His Leu Thr Lys  
65 70 75 80

Leu Asn Pro Gln Asp Ala Trp Leu Pro Ile Thr Glu Ser Arg Asn Gly  
85 90 95

Asn Ala His Tyr Ala Ala Phe His Asn Leu Asn Ala Gly Val Gly Phe  
100 105 110

Gln Ala Leu Val Leu Pro Val Ala Phe Ala Phe Leu Gly Trp Ser Trp  
115 120 125

Gly Ile Leu Ser Leu Thr Ile Ala Tyr Cys Trp Gln Leu Tyr Thr Leu  
130 135 140

Trp Ile Leu Val Gln Leu His Glu Ala Val Pro Gly Lys Arg Tyr Asn  
145 150 155 160

Arg Tyr Val Glu Leu Ala Gln Ala Ala Phe Gly Glu Arg Leu Gly Val  
165 170 175

Trp Leu Ala Leu Phe Pro Thr Val Tyr Leu Ser Ala Gly Thr Ala Thr  
180 185 190

Ala Leu Ile Leu Ile Gly Gly Glu Thr Met Lys Leu Phe Phe Gln Ile  
195 200 205

Val Cys Gly Pro Leu Cys Thr Ser Asn Pro Leu Thr Thr Val Glu Trp  
210 215 220

Tyr Leu Val Phe Thr Ser Leu Cys Ile Val Leu Ser Gln Leu Pro Asn  
225 230 235 240

Leu Asn Ser Ile Ala Gly Leu Ser Leu Ile Gly Ala Val Thr Ala Ile  
245 250 255

Thr Tyr Ser Thr Met Val Trp Val Leu Ser Val Ser Gln Pro Arg Pro  
260 265 270

275

280

285

Leu Phe Ala Val Leu Asn Ala Leu Gly Ile Ile Ala Phe Ala Phe Arg  
 290 295 300

Gly His Asn Leu Val Leu Glu Ile Gln Ser Thr Met Pro Ser Thr Phe  
 305 310 315 320

Lys His Pro Ala His Val Pro Met Trp Arg Gly Ala Lys Ile Ser Tyr  
 325 330 335

Phe Leu Ile Ala Leu Cys Ile Phe Pro Ile Ser Ile Gly Gly Phe Trp  
 340 345 350

Ala Tyr Gly Asn Leu Met Pro Ser Gly Gly Met Leu Ala Ala Leu Tyr  
 355 360 365

Ala Phe His Ile His Asp Ile Pro Arg Gly Leu Leu Ala Thr Ala Phe  
 370 375 380

Leu Leu Val Val Phe Ser Cys Leu Ser Ser Phe Gln Ile Tyr Ser Met  
 385 390 395 400

Pro Ala Phe Asp Ser Phe Glu Ala Gly Tyr Thr Ser Arg Thr Asn Lys  
 405 410 415

Pro Cys Ser Ile Trp Val Arg Ser Gly Phe Arg Val Phe Phe Gly Phe  
 420 425 430

Val Ser Phe Phe Ile Gly Val Ala Leu Pro Phe Leu Ser Ser Leu Ala  
 435 440 445

Gly Leu Leu Gly Gly Leu Thr Leu Pro Val Thr Phe Ala Tyr Pro Cys  
 450 455 460

Phe Met Trp Val Leu Ile Lys Lys Pro Ala Lys Tyr Ser Phe Asn Trp  
 465 470 475 480

Tyr Phe His Trp Gly Leu Gly Trp Leu Gly Val Ala Phe Ser Leu Ala  
 485 490 495

Phe Ser Ile Gly Gly Ile Trp Ser Met Val Thr Asn Gly Leu Lys Leu  
 500 505 510

Lys Phe Phe Lys Pro Pro Asn  
 515



&lt;210&gt; 1585

&lt;211&gt; 528

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1585

```

atggaagaag aaaagagatt ggagctaagg ctagctcctc cttgtcacca attcacttcc      60
aacaacaaca tcaatggatc taaacaaaaa agctcgacca aagaaacatc attcctttcc      120
aataacaggg ttgaggtagc tccagtgggtg ggatggccgc cggtgagatc atcccggaga      180
aacctaacgg cacaactaaa ggaggagatg aagaagaagg agagtgatga agagaaggaa      240
ttgtacgtta agatcaacat ggaaggagtt ccaataggaa gaaaagtcaa cctttcagct      300
tataacaact accaacagct ttcacatgcc gttgaccaac tcttctctaa gaaagattcg      360
tgggatctaa acagacaata cactttgggtc tacgaagaca ctgaaggaga taaagttctg      420
gtcggggatg ttccttggga gatgtttgta tctactgtaa agaggttgca tgttttaaaag      480
acctcccacg ctttctcact ctcacctaga aaacatggca aggaatag                    528

```

&lt;210&gt; 1586

&lt;211&gt; 175

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1586

```

Met Glu Glu Glu Lys Arg Leu Glu Leu Arg Leu Ala Pro Pro Cys His
1           5           10           15

Gln Phe Thr Ser Asn Asn Asn Ile Asn Gly Ser Lys Gln Lys Ser Ser
          20           25           30

Thr Lys Glu Thr Ser Phe Leu Ser Asn Asn Arg Val Glu Val Ala Pro
          35           40           45

Val Val Gly Trp Pro Pro Val Arg Ser Ser Arg Arg Asn Leu Thr Ala
          50           55           60

Gln Leu Lys Glu Glu Met Lys Lys Lys Glu Ser Asp Glu Glu Lys Glu
65           70           75           80

Leu Tyr Val Lys Ile Asn Met Glu Gly Val Pro Ile Gly Arg Lys Val

```

Asn Leu Ser Ala Tyr Asn Asn Tyr Gln Gln Leu Ser His Ala Val Asp  
100 105 110

Gln Leu Phe Ser Lys Lys Asp Ser Trp Asp Leu Asn Arg Gln Tyr Thr  
115 120 125

Leu Val Tyr Glu Asp Thr Glu Gly Asp Lys Val Leu Val Gly Asp Val  
130 135 140

Pro Trp Glu Met Phe Val Ser Thr Val Lys Arg Leu His Val Leu Lys  
145 150 155 160

Thr Ser His Ala Phe Ser Leu Ser Pro Arg Lys His Gly Lys Glu  
165 170 175

<210> 1587  
<211> 2049  
<212> DNA  
<213> Arabidopsis thaliana

<400> 1587  
atggagtcaa tccactgcaa tagtttacta aaccctaatt tctccttaaa ccagcgtcgt 60  
cggaggatta atcacgctgt tcttaatcgg agagatgctc ttttgcgatc cctcaacgcc 120  
gtggagttgc ggcggagcag gacgttctcg gctgtacgga cttctaattt ctcaagtact 180  
gcggcggcga cggatgttgg tggtcggaat tgcacggatg catcggtaat gacaacggcg 240  
atgagcgggg tggagagagg tgtgagagta gggaaatcga gctccgcgct tgagcagcta 300  
gatattgagc gaggcgtttg cgttccattc cgaaagtatt ctccggagac tgtgaggagt 360  
aaagtgctgg aatcaagagg agcagtcgtg tctctagttt caaggggtgt ggagattggt 420  
tggactcttg ggttgtattg gtctacctta acgtatgatt ttttggttgg aagggatgag 480  
gaagttgtcc cttttcgtgc taggcagctt aggaacctgt tgtgcaattt gggaccttca 540  
tttatcaaag ctggacaagt tctcgcaaat aggcctgata tcatccgtga agactacatg 600  
aacgagctct gcatactcca agatgatgtt cctccattcc caaacgaggt tgctttcaat 660  
atcatcgagg aagagttagg ccaacctctt gagaacatat ttagcaagat ttcttcacaa 720  
acaatagcag ctgcaagctt aggacaagtt tatcgagcta ctctacgtgc cactggagag 780  
gatgttgcta tcaaggtgca gagaccacaa atagagccta taatttaccg ggatctcttt 840  
cttttccgaa ccctcgcctc cttcttaaat ggcttcagtc tacagaaact gggttgcaac 900

047-E2F-PCT.ST25.txt

gcagagctaa tagttgatga atttggagaa aagcttttgg aggagcttga ctacaccttg 960  
gaagccagaa acattgaaga ctttctggag aacttcaaag atgacccac agtcaaaatt 1020  
cctggagtat acaagaatct ttgtggtccg cgggttcttg taatggagtg gattgatggt 1080  
attcgggtgca ctgaccaca ggccatcaag gatgcaggga ttgatttaa tggattcttg 1140  
actgttggcg taagtgtgc tctaaggcag ctgttggaa ttggattgtt ccatggagat 1200  
ccacatcctg gaaatatctt tgcaatgcaa gatgggcgta tcgcttatgt ggacttcggt 1260  
aatgttgctg tactgagtca gcaaaacaag caaatTTTga ttgatgctgt tgttcatgcg 1320  
gttaatgagg actatgggga gatggcaa at gatttcaacta ggcttgggtt cttggccaag 1380  
gataccgatg tttctcctat cgttccagct ttagaagcca tctggcagaa ctctgcaggg 1440  
aaaggacttg cagatttcaa tttccgaagt gttacaggac aattcaaca gcttgtgtac 1500  
gactttccca tccgtatccc agagcgggtt tctcttggtt ttcgttctct gcttacgcag 1560  
gagggtatat gtttcacact gaagcctgat tttaaatttc tagaggttgc ttatccatat 1620  
gtagcaaaac ggctcctaac ggatccaaat cctgcacttc gggaacgctt gatacagggt 1680  
ctattcaaag atggtgtttt ccaatggaaa aggctagaaa accttttatc acttgcaaag 1740  
gaaaacgtcg ccaagatgag tagcaatcct aatctacgag taaagcgtgt ggagagtaag 1800  
cttgacttga cagataccat taaggacgga gctcgtctt tctccttga cgaaggcatc 1860  
cgcaggaaac ttattcttgc actcacagag gactcgaagc ttcatgtaga agagcttgtg 1920  
gacgtataca gattggttga agacgaagta gatattcca cactggccat gcaagtcgtg 1980  
caagatttac cgaatgtttt ccgagatttt gtgttgtcat ggagcaactc agtattatcc 2040  
gacagatga 2049

<210> 1588

<211> 682

<212> PRT

<213> Arabidopsis thaliana

<400> 1588

Met Glu Ser Ile His Cys Asn Ser Leu Leu Asn Pro Asn Phe Ser Leu  
1 5 10 15

Asn Gln Arg Arg Arg Arg Ile Asn His Ala Val Leu Asn Arg Arg Asp  
20 25 30

Ala Leu Leu Arg Ser Leu Asn Ala Val Glu Leu Arg Arg Ser Arg Thr  
Page 2421

35

40

45

Phe Ser Ala Val Arg Thr Ser Asn Phe Ser Val Thr Ala Ala Ala Thr  
 50 55 60  
 Asp Val Gly Gly Arg Asn Ser Thr Asp Ala Ser Val Met Thr Thr Ala  
 65 70 75 80  
 Met Ser Gly Val Glu Arg Gly Val Arg Val Gly Lys Ser Ser Ser Ala  
 85 90 95  
 Leu Glu Gln Leu Asp Ile Glu Arg Gly Val Cys Val Pro Phe Arg Lys  
 100 105 110  
 Tyr Ser Pro Glu Thr Val Arg Ser Lys Val Leu Glu Ser Arg Gly Ala  
 115 120 125  
 Val Val Ser Leu Val Ser Arg Gly Val Glu Ile Val Trp Thr Leu Gly  
 130 135 140  
 Leu Tyr Trp Ser Thr Leu Thr Tyr Asp Phe Leu Val Gly Arg Asp Glu  
 145 150 155 160  
 Glu Val Val Pro Phe Arg Ala Arg Gln Leu Arg Asn Leu Leu Cys Asn  
 165 170 175  
 Leu Gly Pro Ser Phe Ile Lys Ala Gly Gln Val Leu Ala Asn Arg Pro  
 180 185 190  
 Asp Ile Ile Arg Glu Asp Tyr Met Asn Glu Leu Cys Ile Leu Gln Asp  
 195 200 205  
 Asp Val Pro Pro Phe Pro Asn Glu Val Ala Phe Asn Ile Ile Glu Glu  
 210 215 220  
 Glu Leu Gly Gln Pro Leu Glu Asn Ile Phe Ser Lys Ile Ser Ser Gln  
 225 230 235 240  
 Thr Ile Ala Ala Ala Ser Leu Gly Gln Val Tyr Arg Ala Thr Leu Arg  
 245 250 255  
 Ala Thr Gly Glu Asp Val Ala Ile Lys Val Gln Arg Pro Gln Ile Glu  
 260 265 270  
 Pro Ile Ile Tyr Arg Asp Leu Phe Leu Phe Arg Thr Leu Ala Ser Phe  
 275 280 285

047-E2F-PCT.ST25.txt

Leu Asn Gly Phe Ser Leu Gln Lys Leu Gly Cys Asn Ala Glu Leu Ile  
 290 295 300  
 Val Asp Glu Phe Gly Glu Lys Leu Leu Glu Glu Leu Asp Tyr Thr Leu  
 305 310 315 320  
 Glu Ala Arg Asn Ile Glu Asp Phe Leu Glu Asn Phe Lys Asp Asp Pro  
 325 330 335  
 Thr Val Lys Ile Pro Gly Val Tyr Lys Asn Leu Cys Gly Pro Arg Val  
 340 345 350  
 Leu Val Met Glu Trp Ile Asp Gly Ile Arg Cys Thr Asp Pro Gln Ala  
 355 360 365  
 Ile Lys Asp Ala Gly Ile Asp Leu Asn Gly Phe Leu Thr Val Gly Val  
 370 375 380  
 Ser Ala Ala Leu Arg Gln Leu Leu Glu Phe Gly Leu Phe His Gly Asp  
 385 390 395 400  
 Pro His Pro Gly Asn Ile Phe Ala Met Gln Asp Gly Arg Ile Ala Tyr  
 405 410 415  
 Val Asp Phe Gly Asn Val Ala Val Leu Ser Gln Gln Asn Lys Gln Ile  
 420 425 430  
 Leu Ile Asp Ala Val Val His Ala Val Asn Glu Asp Tyr Gly Glu Met  
 435 440 445  
 Ala Asn Asp Phe Thr Arg Leu Gly Phe Leu Ala Lys Asp Thr Asp Val  
 450 455 460  
 Ser Pro Ile Val Pro Ala Leu Glu Ala Ile Trp Gln Asn Ser Ala Gly  
 465 470 475 480  
 Lys Gly Leu Ala Asp Phe Asn Phe Arg Ser Val Thr Gly Gln Phe Asn  
 485 490 495  
 Lys Leu Val Tyr Asp Phe Pro Ile Arg Ile Pro Glu Arg Phe Ser Leu  
 500 505 510  
 Val Ile Arg Ser Leu Leu Thr Gln Glu Gly Ile Cys Phe Thr Leu Lys  
 515 520 525  
 Pro Asp Phe Lys Phe Leu Glu Val Ala Tyr Pro Tyr Val Ala Lys Arg  
 530 535 540

047-E2F-PCT.ST25.txt

Leu Leu Thr Asp Pro Asn Pro Ala Leu Arg Glu Arg Leu Ile Gln Val  
545 550 555 560

Leu Phe Lys Asp Gly Val Phe Gln Trp Lys Arg Leu Glu Asn Leu Leu  
565 570 575

Ser Leu Ala Lys Glu Asn Val Ala Lys Met Ser Ser Asn Pro Asn Leu  
580 585 590

Arg Val Lys Arg Val Glu Ser Lys Leu Asp Leu Thr Asp Thr Ile Lys  
595 600 605

Asp Gly Ala Arg Leu Phe Leu Leu Asp Glu Gly Ile Arg Arg Lys Leu  
610 615 620

Ile Leu Ala Leu Thr Glu Asp Ser Lys Leu His Val Glu Glu Leu Val  
625 630 635 640

Asp Val Tyr Arg Leu Val Glu Asp Glu Val Asp Ile Pro Thr Leu Ala  
645 650 655

Met Gln Val Val Gln Asp Leu Pro Asn Val Phe Arg Asp Phe Val Leu  
660 665 670

Ser Trp Ser Asn Ser Val Leu Ser Asp Arg  
675 680

<210> 1589

<211> 954

<212> DNA

<213> Arabidopsis thaliana

<400> 1589  
atggcaagtg aaacagagaa catcaagtat gaagagagtt tcatcaagaa cactcgagga 60  
atgaaactgt tcacgtgcaa atgggtacca gcaaagcaag agccaaaggc tttagtcttt 120  
atgtgccatg gatatgcaat ggaatgtagc atcaccatga acagtactgc gaggaggctg 180  
gtgaaagcag gatttgcggt atatggaatt gattacgaag ggcattggaaa atctgatggg 240  
cttagtgctt atgtcccaaa ctttgaccat ctcgttgatg atgtctctac tcactacaca 300  
agcatttgcg agaaagaaga gaataaaggg aagatgaggt tcttgtagg agaataatg 360  
ggaggagcag tgcttttgtt gttacacaga aagaagcctc agttttggga tggggctgtc 420  
ttggttgctc caatgtgtaa gattgctgaa gaaatgaaac caagcccttt ggtaatttcg 480

047-E2F-PCT.ST25.txt

```

atattggcca aacttagtgg agtgatacct tcgtggaaaa tcatccctgg ccaagatatc 540
attgagactg cttttaagca gccagaaatc aggaaacagg ttagggaaaa tccctactgc 600
tacaagggac gtccacgttt gaagactgct tatgagcttt tgaggggttag caccgatctc 660
gagaagagggc ttaatgaggt ttcattaccg ttcatagttt tgcacggtga agacgataaa 720
gtcacagata aagcggtgag tcgacaactg tatgaagttg catctagttc ggacaagact 780
ttcaagttgt accctgggat gtggcatggt ttactctatg gagagacacc agagaatatc 840
gagactgttt ttgctgacat cattggctgg ttggataaga aagttgctga tgaaagtgga 900
ggctttgaat ccgagcttaa acgtaaaaat gatggtattc ctttgaaagg gtag 954

```

<210> 1590

<211> 317

<212> PRT

<213> Arabidopsis thaliana

<400> 1590

Met Ala Ser Glu Thr Glu Asn Ile Lys Tyr Glu Glu Ser Phe Ile Lys  
1 5 10 15

Asn Thr Arg Gly Met Lys Leu Phe Thr Cys Lys Trp Val Pro Ala Lys  
20 25 30

Gln Glu Pro Lys Ala Leu Val Phe Ile Cys His Gly Tyr Ala Met Glu  
35 40 45

Cys Ser Ile Thr Met Asn Ser Thr Ala Arg Arg Leu Val Lys Ala Gly  
50 55 60

Phe Ala Val Tyr Gly Ile Asp Tyr Glu Gly His Gly Lys Ser Asp Gly  
65 70 75 80

Leu Ser Ala Tyr Val Pro Asn Phe Asp His Leu Val Asp Asp Val Ser  
85 90 95

Thr His Tyr Thr Ser Ile Cys Glu Lys Glu Glu Asn Lys Gly Lys Met  
100 105 110

Arg Phe Leu Leu Gly Glu Ser Met Gly Gly Ala Val Leu Leu Leu Leu  
115 120 125

His Arg Lys Lys Pro Gln Phe Trp Asp Gly Ala Val Leu Val Ala Pro  
Page 2425

130

135

Met Cys Lys Ile Ala Glu Glu Met Lys Pro Ser Pro Leu Val Ile Ser  
145 150 155 160

Ile Leu Ala Lys Leu Ser Gly Val Ile Pro Ser Trp Lys Ile Ile Pro  
165 170 175

Gly Gln Asp Ile Ile Glu Thr Ala Phe Lys Gln Pro Glu Ile Arg Lys  
180 185 190

Gln Val Arg Glu Asn Pro Tyr Cys Tyr Lys Gly Arg Pro Arg Leu Lys  
195 200 205

Thr Ala Tyr Glu Leu Leu Arg Val Ser Thr Asp Leu Glu Lys Arg Leu  
210 215 220

Asn Glu Val Ser Leu Pro Phe Ile Val Leu His Gly Glu Asp Asp Lys  
225 230 235 240

Val Thr Asp Lys Ala Val Ser Arg Gln Leu Tyr Glu Val Ala Ser Ser  
245 250 255

Ser Asp Lys Thr Phe Lys Leu Tyr Pro Gly Met Trp His Gly Leu Leu  
260 265 270

Tyr Gly Glu Thr Pro Glu Asn Ile Glu Thr Val Phe Ala Asp Ile Ile  
275 280 285

Gly Trp Leu Asp Lys Lys Val Ala Asp Glu Ser Gly Gly Phe Glu Ser  
290 295 300

Glu Leu Lys Arg Lys Asn Asp Gly Ile Pro Leu Lys Gly  
305 310 315

<210> 1591

<211> 2037

<212> DNA

<213> Arabidopsis thaliana

<400> 1591

atgactacgc cggagggggc gatgtatgtg gcgtgggagg atcttacggt ggtgatacca 60

aacttcggtg aaggagcaac taagagatta ctgaatggag tgaatggttg tggtgagcca 120

aataggatct tagctattat gggtccttca ggttcaggca aatctacgct tcttgatgct 180



## 047-E2F-PCT.ST25.txt

ttagcaggaa	gattagcagg	gaatgttgta	atgagtggca	aagtacttgt	caatggcaag	240
aagagaagac	ttgacttttg	tgctgccgct	tatgtgacgc	aagaagatgt	gttgctagga	300
actttgacag	tgagagaatc	catatcttac	tcggctcatc	tcaggctccc	ttcaaagctt	360
accagagaag	agatcagtga	cattgtggaa	gctacaatca	ctgacatggg	tcttgaagaa	420
tgttcagaca	ggaccatttg	aaactggcat	ttgctgtgaa	taagcggagg	agagaagaaa	480
cggcttagta	ttgccctcga	ggctcttaaca	aaaccaagtc	tcctctttct	agacgaacca	540
actagtggac	tggacagtgc	ttcagctttc	ttcgtggttc	agattcttag	aaacatagca	600
agcagtggca	aaactgtggt	ttcttcgata	catcagccga	gtggtgaggt	tttcgccctc	660
tttgatgacc	tgctacttct	gtctggagga	gaaactgttt	actttggcga	agcagaatct	720
gcaacaaagt	tctttggtga	agcaggtttt	ccttgtccaa	gtagacggaa	tccatcagac	780
cacttccttc	gctgtgtcaa	ttccgatttc	gataatgtca	cagcggcttt	ggttgaatct	840
cggagaatca	acgattcatc	tttctctctt	caccaactac	atgaaactac	aaacacatta	900
gatcctctgg	atgatatacc	aactgcagaa	attagaacaa	cacttgtcag	aaaatttaag	960
tgttcacttt	atgcagcagc	ttcaagagca	agaattcaag	aaatagcatc	gatagtgggg	1020
attgtcacag	aaaggaaaaa	ggggagccaa	actaattggt	ggaaacaact	cagaatactt	1080
actcagcgat	ctttcatcaa	catgagtaga	gacttggggg	actactggat	gcggattgca	1140
gtctacatag	tgttatccat	ttgtgtcggg	tcaatcttct	tcaacgtcgg	gagaaaccac	1200
acaaatgtta	tgagtactgc	agcttgtggc	ggatttatgg	caggctttat	gacattcatg	1260
tcaataggag	gattccaatc	cttcattgaa	gaaatgaagg	tgttttctcg	cgaaaggctc	1320
aatggacact	atgggggtgc	agtatacact	gtgtctaatt	tactctcctc	attacctttc	1380
ataatcctta	tgtgcctctc	caccagctca	atcactatct	acatggtgag	gttccaatcc	1440
ggaggttctc	atttcttcta	caactgtctc	gaccttatct	gcgcgattac	aactgtggag	1500
agttgcatga	tgatgatagc	ttcagtagtc	cctaacttct	tgatgggagt	catgttggga	1560
gctggttaca	ttggaattat	gggtgttaagt	gcgggggttt	tccgattctt	ccccgactta	1620
ccaatggtgt	tctggcgata	cccgggtgtc	tacataaact	atggtgcatg	ggcactacag	1680
ggagcataca	agaatgagat	gattgggggtg	gagtatgatt	ctccgttacc	cttggtacca	1740
aaaatgaaag	gagaactcat	tcttcaaact	gttctaggca	taaatccaga	aagttcaaag	1800
tggttggatc	tagcagttgt	gatgatgatt	ctcattgggt	ataggattgc	cttcttcgcc	1860
atcctcaagt	tccgggaaaa	ggttttccca	gttattcaca	tgttatacac	aaagagaact	1920
ctgagccata	tccagaaaag	gccttctttc	agaagaatga	cacctttccc	ttccaggcga	1980
taccctgttc	accatgctct	ctcttctcag	gaaggactta	actctccact	gcattag	2037

&lt;210&gt; 1592

&lt;211&gt; 678

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1592

Met Thr Thr Pro Glu Gly Ala Met Tyr Val Ala Trp Glu Asp Leu Thr  
 1 5 10 15

Val Val Ile Pro Asn Phe Gly Glu Gly Ala Thr Lys Arg Leu Leu Asn  
 20 25 30

Gly Val Asn Gly Cys Gly Glu Pro Asn Arg Ile Leu Ala Ile Met Gly  
 35 40 45

Pro Ser Gly Ser Gly Lys Ser Thr Leu Leu Asp Ala Leu Ala Gly Arg  
 50 55 60

Leu Ala Gly Asn Val Val Met Ser Gly Lys Val Leu Val Asn Gly Lys  
 65 70 75 80

Lys Arg Arg Leu Asp Phe Gly Ala Ala Ala Tyr Val Thr Gln Glu Asp  
 85 90 95

Val Leu Leu Gly Thr Leu Thr Val Arg Glu Ser Ile Ser Tyr Ser Ala  
 100 105 110

His Leu Arg Leu Pro Ser Lys Leu Thr Arg Glu Glu Ile Ser Asp Ile  
 115 120 125

Val Glu Ala Thr Ile Thr Asp Met Gly Leu Glu Glu Cys Ser Asp Arg  
 130 135 140

Thr Ile Gly Asn Trp His Leu Arg Gly Ile Ser Gly Gly Glu Lys Lys  
 145 150 155 160

Arg Leu Ser Ile Ala Leu Glu Val Leu Thr Lys Pro Ser Leu Leu Phe  
 165 170 175

Leu Asp Glu Pro Thr Ser Gly Leu Asp Ser Ala Ser Ala Phe Phe Val  
 180 185 190

Val Gln Ile Leu Arg Asn Ile Ala Ser Ser Gly Lys Thr Val Val Ser  
 195 200 205

047-E2F-PCT.ST25.txt

Ser Ile His Gln Pro Ser Gly Glu Val Phe Ala Leu Phe Asp Asp Leu  
210 215 220

Leu Leu Leu Ser Gly Gly Glu Thr Val Tyr Phe Gly Glu Ala Glu Ser  
225 230 235 240

Ala Thr Lys Phe Phe Gly Glu Ala Gly Phe Pro Cys Pro Ser Arg Arg  
245 250 255

Asn Pro Ser Asp His Phe Leu Arg Cys Val Asn Ser Asp Phe Asp Asn  
260 265 270

Val Thr Ala Ala Leu Val Glu Ser Arg Arg Ile Asn Asp Ser Ser Phe  
275 280 285

Ser Leu His Gln Leu His Glu Thr Thr Asn Thr Leu Asp Pro Leu Asp  
290 295 300

Asp Ile Pro Thr Ala Glu Ile Arg Thr Thr Leu Val Arg Lys Phe Lys  
305 310 315 320

Cys Ser Leu Tyr Ala Ala Ala Ser Arg Ala Arg Ile Gln Glu Ile Ala  
325 330 335

Ser Ile Val Gly Ile Val Thr Glu Arg Lys Lys Gly Ser Gln Thr Asn  
340 345 350

Trp Trp Lys Gln Leu Arg Ile Leu Thr Gln Arg Ser Phe Ile Asn Met  
355 360 365

Ser Arg Asp Leu Gly Tyr Tyr Trp Met Arg Ile Ala Val Tyr Ile Val  
370 375 380

Leu Ser Ile Cys Val Gly Ser Ile Phe Phe Asn Val Gly Arg Asn His  
385 390 395 400

Thr Asn Val Met Ser Thr Ala Ala Cys Gly Gly Phe Met Ala Gly Phe  
405 410 415

Met Thr Phe Met Ser Ile Gly Gly Phe Gln Ser Phe Ile Glu Glu Met  
420 425 430

Lys Val Phe Ser Arg Glu Arg Leu Asn Gly His Tyr Gly Val Ala Val  
435 440 445

Tyr Thr Val Ser Asn Leu Leu Ser Ser Leu Pro Phe Ile Ile Leu Met

450

455

Cys Leu Ser Thr Ser Ser Ile Thr Ile Tyr Met Val Arg Phe Gln Ser  
465 470 475 480

Gly Gly Ser His Phe Phe Tyr Asn Cys Leu Asp Leu Ile Cys Ala Ile  
485 490 495

Thr Thr Val Glu Ser Cys Met Met Met Ile Ala Ser Val Val Pro Asn  
500 505 510

Phe Leu Met Gly Val Met Leu Gly Ala Gly Tyr Ile Gly Ile Met Val  
515 520 525

Leu Ser Ala Gly Phe Phe Arg Phe Phe Pro Asp Leu Pro Met Val Phe  
530 535 540

Trp Arg Tyr Pro Val Ser Tyr Ile Asn Tyr Gly Ala Trp Ala Leu Gln  
545 550 555 560

Gly Ala Tyr Lys Asn Glu Met Ile Gly Val Glu Tyr Asp Ser Pro Leu  
565 570 575

Pro Leu Val Pro Lys Met Lys Gly Glu Leu Ile Leu Gln Thr Val Leu  
580 585 590

Gly Ile Asn Pro Glu Ser Ser Lys Trp Leu Asp Leu Ala Val Val Met  
595 600 605

Met Ile Leu Ile Gly Tyr Arg Ile Ala Phe Phe Ala Ile Leu Lys Phe  
610 615 620

Arg Glu Lys Val Phe Pro Val Ile His Met Leu Tyr Thr Lys Arg Thr  
625 630 635 640

Leu Ser His Ile Gln Lys Arg Pro Ser Phe Arg Arg Met Thr Pro Phe  
645 650 655

Pro Ser Arg Arg Tyr Pro Val His His Ala Leu Ser Ser Gln Glu Gly  
660 665 670

Leu Asn Ser Pro Leu His  
675

<210> 1593

<211> 705

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1593

```

atggcgtctc ttcaacaaac tctattctct cttcaatcca aactcccacc atcctccttc    60
caaatcgcca gatctctccc actccgaaaa accttcccaa tccgaatcaa caacggtgga    120
aacgccgccg gagcaagaat gtcagccacc gcagcatcaa gctacgcgat ggcattagca    180
gacgtcgcga aaagaaacga cacaatggaa ttaacagtca cagacatcga gaagctcgaa    240
caagtcttct cagatccaca agtactaaac ttcttcgcga atccaacaat caccgtcgag    300
aagaaacgtc aagtcatcga cgacatagtg aaatcgtcgt ctcttcaatc tcacacatct    360
aacttcctca acgtcctcgt cgacgcgaat cggatcaata tcgtgacgga gatcgttaag    420
gagtttgagt tggttttacaa taagctaacg gatacacaat tggcggaggt taggtcggtg    480
gtgaaattgg aagcgccgca attagctcag attgcgaaac aggttcagaa gttaaccgga    540
gctaagaatg ttcgggttaa gacggttatt gatgcgagtc ttgtggctgg ttttacgatt    600
cggtatggtg aatccgggtc gaagcttatt gatatgagtg tgaagaaaca gcttgaagat    660
attgcttctc agcttgaact tggtagagatt caattagcta cttga                    705

```

&lt;210&gt; 1594

&lt;211&gt; 234

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1594

```

Met Ala Ser Leu Gln Gln Thr Leu Phe Ser Leu Gln Ser Lys Leu Pro
1          5          10          15

Pro Ser Ser Phe Gln Ile Ala Arg Ser Leu Pro Leu Arg Lys Thr Phe
          20          25          30

Pro Ile Arg Ile Asn Asn Gly Gly Asn Ala Ala Gly Ala Arg Met Ser
          35          40          45

Ala Thr Ala Ala Ser Ser Tyr Ala Met Ala Leu Ala Asp Val Ala Lys
          50          55          60

Arg Asn Asp Thr Met Glu Leu Thr Val Thr Asp Ile Glu Lys Leu Glu
65          70          75          80

```

047-E2F-PCT.ST25.txt

Gln Val Phe Ser Asp Pro Gln Val Leu Asn Phe Phe Ala Asn Pro Thr  
85 90 95

Ile Thr Val Glu Lys Lys Arg Gln Val Ile Asp Asp Ile Val Lys Ser  
100 105 110

Ser Ser Leu Gln Ser His Thr Ser Asn Phe Leu Asn Val Leu Val Asp  
115 120 125

Ala Asn Arg Ile Asn Ile Val Thr Glu Ile Val Lys Glu Phe Glu Leu  
130 135 140

Val Tyr Asn Lys Leu Thr Asp Thr Gln Leu Ala Glu Val Arg Ser Val  
145 150 155 160

Val Lys Leu Glu Ala Pro Gln Leu Ala Gln Ile Ala Lys Gln Val Gln  
165 170 175

Lys Leu Thr Gly Ala Lys Asn Val Arg Val Lys Thr Val Ile Asp Ala  
180 185 190

Ser Leu Val Ala Gly Phe Thr Ile Arg Tyr Gly Glu Ser Gly Ser Lys  
195 200 205

Leu Ile Asp Met Ser Val Lys Lys Gln Leu Glu Asp Ile Ala Ser Gln  
210 215 220

Leu Glu Leu Gly Glu Ile Gln Leu Ala Thr  
225 230

<210> 1595

<211> 954

<212> DNA

<213> Arabidopsis thaliana

<400> 1595

atgtcaaaaa cggctaattt tctcagcctg agatccaatc ctctacctcc gattttctcc	60
tccaccggaa actctccttt cctccgagct tcctcggtc tgaatcttcc gacaactgct	120
tcgaaacctt tccacagttg gattcgtgct tcttcacgtc gccggttggt tctcggtggt	180
tttggcggcg cttctttgtg gatgaacaac aatatgtccg gtaaatttgg cggtaaatct	240
ttcattgctt ccgctaggca gaccaatcct tctcccgtcg aacaggcggt gaataaggtg	300
gattggccag agactttccc tttcaaagaa gaagatttcc agagatacga tgagtcgtct	360

047-E2F-PCT.ST25.txt

gattcaacat tctacgaagc tccaaggttt gtgacacaca ttgatgatcc agctatagct 420  
gcattgacaa agtattactc caagggttttg cctcagagcg atactccagg agtgagcata 480  
ctcgatatgt gtagcagttg ggtcagtcac tatccaccgg ggtataggca agaacgaata 540  
gttggaatgg gtatgaatga agaagagctt aagcgaaatc cggttctcac cgagtacata 600  
gtccaagact taaatctcaa ttcaaacttg ccttttgaag acaattcttt ccaagttata 660  
accaatgtgg taagtgtgga ttatcttaca aagccgcttg aagtgttcaa ggaaatgaac 720  
agaatcctta agcccggagg actcgctcta atgagcttct cgaaccgctg cttctttact 780  
aaagcaatct cgatatggac atcaactggc gacgcagatc atgctctcat tgttgatca 840  
tactttcact acgccggagg atttgaagct cctcaggccg ttgatatatc tccaaatcca 900  
gggcgttcag atcctatgta cgttgtttac tctagaaaac tccccatggg ttaa 954

<210> 1596

<211> 317

<212> PRT

<213> Arabidopsis thaliana

<400> 1596

Met Ser Lys Thr Ala Asn Phe Leu Ser Leu Arg Ser Asn Pro Leu Pro  
1 5 10 15

Pro Ile Phe Ser Ser Thr Gly Asn Ser Pro Phe Leu Arg Ala Ser Ser  
20 25 30

Ala Leu Asn Leu Pro Thr Thr Ala Ser Lys Pro Phe His Ser Trp Ile  
35 40 45

Arg Ala Ser Ser Arg Arg Arg Leu Val Leu Gly Gly Phe Gly Gly Ala  
50 55 60

Ser Leu Trp Met Asn Asn Asn Met Ser Gly Lys Phe Gly Gly Lys Ser  
65 70 75 80

Phe Ile Ala Ser Ala Arg Gln Thr Asn Pro Ser Pro Val Glu Gln Ala  
85 90 95

Leu Asn Lys Val Asp Trp Pro Glu Thr Phe Pro Phe Lys Glu Glu Asp  
100 105 110

Phe Gln Arg Tyr Asp Glu Ser Ser Asp Ser Thr Phe Tyr Glu Ala Pro

115

120

125

Arg Phe Val Thr His Ile Asp Asp Pro Ala Ile Ala Ala Leu Thr Lys  
 130 135 140

Tyr Tyr Ser Lys Val Leu Pro Gln Ser Asp Thr Pro Gly Val Ser Ile  
 145 150 155 160

Leu Asp Met Cys Ser Ser Trp Val Ser His Tyr Pro Pro Gly Tyr Arg  
 165 170 175

Gln Glu Arg Ile Val Gly Met Gly Met Asn Glu Glu Glu Leu Lys Arg  
 180 185 190

Asn Pro Val Leu Thr Glu Tyr Ile Val Gln Asp Leu Asn Leu Asn Ser  
 195 200 205

Asn Leu Pro Phe Glu Asp Asn Ser Phe Gln Val Ile Thr Asn Val Val  
 210 215 220

Ser Val Asp Tyr Leu Thr Lys Pro Leu Glu Val Phe Lys Glu Met Asn  
 225 230 235 240

Arg Ile Leu Lys Pro Gly Gly Leu Ala Leu Met Ser Phe Ser Asn Arg  
 245 250 255

Cys Phe Phe Thr Lys Ala Ile Ser Ile Trp Thr Ser Thr Gly Asp Ala  
 260 265 270

Asp His Ala Leu Ile Val Gly Ser Tyr Phe His Tyr Ala Gly Gly Phe  
 275 280 285

Glu Ala Pro Gln Ala Val Asp Ile Ser Pro Asn Pro Gly Arg Ser Asp  
 290 295 300

Pro Met Tyr Val Val Tyr Ser Arg Lys Leu Pro Met Val  
 305 310 315

&lt;210&gt; 1597

&lt;211&gt; 558

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1597

atgggttttaa ttcctcaacc acaagaatcg atccaagaat ctcattacta cacacataaa

60



047-E2F-PCT.ST25.txt

```

ctctttcctca ctgcaaacta cgtcctcctc ggtgcatcgt caagctgcat cttcctcact 120
ctctctctccc gtctaataccc ttactctctgc ggtttcttcc tcctcctcct tcacgccacc 180
acgatcgtag cgcgcgtctc aggtctgtgca gccgcatcct atggtaagaa ccggtggtac 240
gcagctcaca tgatcgcaac tgtccttacc gccattttcc aaggctcagt ctctgtttctc 300
atctttacca acacttcgaa tttcctcgag agccttaact cttacgtccg tgagaaagaa 360
gcgtctatga tcttgaaact agctgggtggg ctctgtgttg taatcttttg ccttgagtgg 420
atcgttcttg ttctcgctt tttcttgaag tactacgctt atgtcgatgg tgataacaat 480
ggagttgcta tgaaaaggac tggtaagggt cagagtgaag agactctcaa aaattcccca 540
tgggcggttcc aagtttga 558

```

<210> 1598

<211> 185

<212> PRT

<213> Arabidopsis thaliana

<400> 1598

Met Gly Leu Ile Pro Gln Pro Gln Glu Ser Ile Gln Glu Ser His Tyr  
1 5 10 15

Tyr Thr His Lys Leu Phe Leu Thr Ala Asn Tyr Val Leu Leu Gly Ala  
20 25 30

Ser Ser Ser Cys Ile Phe Leu Thr Leu Ser Leu Arg Leu Ile Pro Ser  
35 40 45

Leu Cys Gly Phe Phe Leu Ile Leu Leu His Ala Thr Thr Ile Ala Ala  
50 55 60

Ala Val Ser Gly Cys Ala Ala Ala Ser Tyr Gly Lys Asn Arg Trp Tyr  
65 70 75 80

Ala Ala His Met Ile Ala Thr Val Leu Thr Ala Ile Phe Gln Gly Ser  
85 90 95

Val Ser Val Leu Ile Phe Thr Asn Thr Ser Asn Phe Leu Glu Ser Leu  
100 105 110

Asn Ser Tyr Val Arg Glu Lys Glu Ala Ser Met Ile Leu Lys Leu Ala  
115 120 125

047-E2F-PCT.ST25.txt

Gly Gly Leu Cys Val Val Ile Phe Cys Leu Glu Trp Ile Val Leu Val  
130 135 140

Leu Ala Phe Phe Leu Lys Tyr Tyr Ala Tyr Val Asp Gly Asp Asn Asn  
145 150 155 160

Gly Val Ala Met Lys Arg Thr Gly Lys Val Gln Ser Glu Glu Thr Leu  
165 170 175

Lys Asn Ser Pro Trp Ala Phe Gln Val  
180 185

<210> 1599

<211> 2907

<212> DNA

<213> Arabidopsis thaliana

<400> 1599

atggcggggtc ggaacataga gaagatggca tctattgatg ctcagcttcg gcaactcggt	60
cctgctaaag tcagtgaaga cgataagctt gttgagtacg atgctcttct ccttgatcgc	120
tttctcgaca ttctccagga ttacacggc gaggatctcc gtgaaacggg tcaagagtta	180
tacgagcttt ctgctgagta tgaagggaag cgtgagccta gcaagcttga ggagctaggg	240
agtgtcctaa cgagtttgga tcctggtgac tcaattgtta tctccaaggc tttctctcac	300
atgcttaact tagccaatth ggctgaggag gtgcagattg ctcaccgtcg caggatcaag	360
aagctgaaga aaggtgattt cgttgatgag agttctgcaa ctactgaatc cgatattgaa	420
gagactttta agaggctcgt ttcggatctt ggtaagtctc ctgaagagat ctttgatgcc	480
ttgaagaatc agactgtgga tctggttttg actgctcatc ctactcagtc tgtgcgtaga	540
tcattgcttc agaagcatgg gaggataagg gactgtcttg ctcaactcta tgcaaaggac	600
attactcctg atgacaagca ggagctagat gagtctctgc aaagagagat tcaagctgca	660
ttccgaacag atgagattag aagaacacct ccaacccac aagatgaaat gagagctgga	720
atgagttatt tccacgagac aatctggaaa ggtgtcccca agttcttgcg ccgtgtggac	780
acagctctga aaaacattgg gattgatgaa cgtgttcctt acaatgcccc attgattcaa	840
ttctcttcgt ggatgggagg tgatcgtgat ggtaatccga gggtcacacc tgaggctact	900
agagatgtgt gcttggtggc tagaatgatg gctgccaatc tctactataa ccaaatcgag	960
aatctgatgt ttgagttatc tatgtggcgt tgcactgatg aattccgtgt gcgggcggat	1020
gaactgcaca ggaactcaag gaaagatgct gcaaaacatt acatagaatt ctggaagaca	1080

## 047-E2F-PCT.ST25.txt

attcctccaa ctgagccata ccgtgtgatt cttggtgatg tgagggataa gctgtatcac 1140  
 acacgtgagc gttcccgccca attgctgagt aatggaatct cggatattcc tgaagaagct 1200  
 accttcacta atgtggaaca gttcttggag cctcttgagc tctgttaccg atcactatgt 1260  
 tcatgtggtg acagcccgat agctgatgga agccttcttg atttcttgag gcaagtctct 1320  
 acctttggac tctcccttgt gagacttgac atcaggcaag agtctgaacg ccacacagat 1380  
 gtcttggatg ctatcaccaa gcacttggac atcggttcct cctatagaga ctggtctgaa 1440  
 gaaggccgac aggaatggct tcttgctgaa ctaagcggca aacgtccact tttcggacct 1500  
 gatcttccca aaaccgaaga aatttctgat gtcctggaca cattcaaagt catatctgag 1560  
 ctgccttcag attgttttgg agcttatatt atctctatgg caacttcacc tagtgatgtg 1620  
 cttgcggttg agcttttaca gcgcgaatgc catgtgaaaa atccacttag agttgttcca 1680  
 ctctttgaga agctagctga tcttgaagca gctcctgccg ctgttgcaag actcttttct 1740  
 atagactggt acaaaaaccg tattaacggt aaacaagagg ttatgattgg ttactcagat 1800  
 tcagggaag atgcagggcg tctctcagct gcttgggagc tatacaaagc tcaagaagag 1860  
 cttgtgaagg ttgctaagaa atatggagtg aagctaacta tgttccatgg ccgtggtggc 1920  
 acagtcggaa gaggaggtgg tcctactcat cttgctatat tgtctcagcc accagataca 1980  
 gttaatggct ctcttcgagt cacggttcag ggtgaagtca ttgagcaatc atttggggag 2040  
 gcacacttat gctttagaac acttcaacgt ttcacagcag ctactctaga gcacggaatg 2100  
 aaccctccga tttcaccaa acccgagtgg cgtgctttgc ttgatgaaat ggcggttggt 2160  
 gcaactgagg aataccgatc tgtcgttttc caagaacctc gattcgtcga gtatttccgc 2220  
 ctcgtactc cggagctgga gtatggacgt atgaatattg gaagtagacc ttcaaagcga 2280  
 aaaccaagcg gtgggatcga atctctccgt gcaatcccat ggatctttgc ttggacgcaa 2340  
 acaagattcc atcttcctgt atggttaggt ttcggagcag catttaggta tgcgatcaag 2400  
 aaggatgtga gaaaccttca catgctgcaa gatatgtata aacaatggcc ctttttccga 2460  
 gtcaccatcg atctaattga aatggtgttc gccaaaggag accccgggat cgctgctttg 2520  
 tacgacaaac ttcttgtctc agaagattta tgggcttttg gagagaaact cagagccaac 2580  
 tttgatgaaa ccaagaacct cgtcctccag actgctggac ataaagacct tcttgaagga 2640  
 gatccttact tgaaacagag actaaggcta cgtgactctt acattacgac cctcaacggt 2700  
 tgccaagcct acacattgaa gaggatccgt gatgcaaact acaatgtgac tctgcgacca 2760  
 cacatttcta aagagatcat gcaatcaagc aaatcagcac aagagctcgt caagcttaac 2820  
 cccacgagtg aatacgcgcc tggacttgag gacacactta tcttaaccat gaagggtatt 2880  
 gctgcaggat tgcaaaacac cggttaa 2907

&lt;210&gt; 1600

&lt;211&gt; 968

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1600

Met Ala Gly Arg Asn Ile Glu Lys Met Ala Ser Ile Asp Ala Gln Leu  
 1 5 10 15

Arg Gln Leu Val Pro Ala Lys Val Ser Glu Asp Asp Lys Leu Val Glu  
 20 25 30

Tyr Asp Ala Leu Leu Leu Asp Arg Phe Leu Asp Ile Leu Gln Asp Leu  
 35 40 45

His Gly Glu Asp Leu Arg Glu Thr Val Gln Glu Leu Tyr Glu Leu Ser  
 50 55 60

Ala Glu Tyr Glu Gly Lys Arg Glu Pro Ser Lys Leu Glu Glu Leu Gly  
 65 70 75 80

Ser Val Leu Thr Ser Leu Asp Pro Gly Asp Ser Ile Val Ile Ser Lys  
 85 90 95

Ala Phe Ser His Met Leu Asn Leu Ala Asn Leu Ala Glu Glu Val Gln  
 100 105 110

Ile Ala His Arg Arg Arg Ile Lys Lys Leu Lys Lys Gly Asp Phe Val  
 115 120 125

Asp Glu Ser Ser Ala Thr Thr Glu Ser Asp Ile Glu Glu Thr Phe Lys  
 130 135 140

Arg Leu Val Ser Asp Leu Gly Lys Ser Pro Glu Glu Ile Phe Asp Ala  
 145 150 155 160

Leu Lys Asn Gln Thr Val Asp Leu Val Leu Thr Ala His Pro Thr Gln  
 165 170 175

Ser Val Arg Arg Ser Leu Leu Gln Lys His Gly Arg Ile Arg Asp Cys  
 180 185 190

Leu Ala Gln Leu Tyr Ala Lys Asp Ile Thr Pro Asp Asp Lys Gln Glu  
 195 200 205

047-E2F-PCT.ST25.txt

Leu Asp Glu Ser Leu Gln Arg Glu Ile Gln Ala Ala Phe Arg Thr Asp  
 210 215 220  
 Glu Ile Arg Arg Thr Pro Pro Thr Pro Gln Asp Glu Met Arg Ala Gly  
 225 230 235 240  
 Met Ser Tyr Phe His Glu Thr Ile Trp Lys Gly Val Pro Lys Phe Leu  
 245 250 255  
 Arg Arg Val Asp Thr Ala Leu Lys Asn Ile Gly Ile Asp Glu Arg Val  
 260 265 270  
 Pro Tyr Asn Ala Pro Leu Ile Gln Phe Ser Ser Trp Met Gly Gly Asp  
 275 280 285  
 Arg Asp Gly Asn Pro Arg Val Thr Pro Glu Val Thr Arg Asp Val Cys  
 290 295 300  
 Leu Leu Ala Arg Met Met Ala Ala Asn Leu Tyr Tyr Asn Gln Ile Glu  
 305 310 315 320  
 Asn Leu Met Phe Glu Leu Ser Met Trp Arg Cys Thr Asp Glu Phe Arg  
 325 330 335  
 Val Arg Ala Asp Glu Leu His Arg Asn Ser Arg Lys Asp Ala Ala Lys  
 340 345 350  
 His Tyr Ile Glu Phe Trp Lys Thr Ile Pro Pro Thr Glu Pro Tyr Arg  
 355 360 365  
 Val Ile Leu Gly Asp Val Arg Asp Lys Leu Tyr His Thr Arg Glu Arg  
 370 375 380  
 Ser Arg Gln Leu Leu Ser Asn Gly Ile Ser Asp Ile Pro Glu Glu Ala  
 385 390 395 400  
 Thr Phe Thr Asn Val Glu Gln Phe Leu Glu Pro Leu Glu Leu Cys Tyr  
 405 410 415  
 Arg Ser Leu Cys Ser Cys Gly Asp Ser Pro Ile Ala Asp Gly Ser Leu  
 420 425 430  
 Leu Asp Phe Leu Arg Gln Val Ser Thr Phe Gly Leu Ser Leu Val Arg  
 435 440 445

Leu Asp Ile Arg Gln Glu Ser Glu Arg His Thr Asp Val Leu Asp Ala  
 Page 2439

450

455

Ile Thr Lys His Leu Asp Ile Gly Ser Ser Tyr Arg Asp Trp Ser Glu  
465 470 475 480

Glu Gly Arg Gln Glu Trp Leu Leu Ala Glu Leu Ser Gly Lys Arg Pro  
485 490 495

Leu Phe Gly Pro Asp Leu Pro Lys Thr Glu Glu Ile Ser Asp Val Leu  
500 505 510

Asp Thr Phe Lys Val Ile Ser Glu Leu Pro Ser Asp Cys Phe Gly Ala  
515 520 525

Tyr Ile Ile Ser Met Ala Thr Ser Pro Ser Asp Val Leu Ala Val Glu  
530 535 540

Leu Leu Gln Arg Glu Cys His Val Lys Asn Pro Leu Arg Val Val Pro  
545 550 555 560

Leu Phe Glu Lys Leu Ala Asp Leu Glu Ala Ala Pro Ala Ala Val Ala  
565 570 575

Arg Leu Phe Ser Ile Asp Trp Tyr Lys Asn Arg Ile Asn Gly Lys Gln  
580 585 590

Glu Val Met Ile Gly Tyr Ser Asp Ser Gly Lys Asp Ala Gly Arg Leu  
595 600 605

Ser Ala Ala Trp Glu Leu Tyr Lys Ala Gln Glu Glu Leu Val Lys Val  
610 615 620

Ala Lys Lys Tyr Gly Val Lys Leu Thr Met Phe His Gly Arg Gly Gly  
625 630 635 640

Thr Val Gly Arg Gly Gly Gly Pro Thr His Leu Ala Ile Leu Ser Gln  
645 650 655

Pro Pro Asp Thr Val Asn Gly Ser Leu Arg Val Thr Val Gln Gly Glu  
660 665 670

Val Ile Glu Gln Ser Phe Gly Glu Ala His Leu Cys Phe Arg Thr Leu  
675 680 685

Gln Arg Phe Thr Ala Ala Thr Leu Glu His Gly Met Asn Pro Pro Ile  
690 695 700

Ser Pro Lys Pro Glu Trp Arg Ala Leu Leu Asp Glu Met Ala Val Val  
 705 710 715 720  
 Ala Thr Glu Glu Tyr Arg Ser Val Val Phe Gln Glu Pro Arg Phe Val  
 725 730 735  
 Glu Tyr Phe Arg Leu Ala Thr Pro Glu Leu Glu Tyr Gly Arg Met Asn  
 740 745 750  
 Ile Gly Ser Arg Pro Ser Lys Arg Lys Pro Ser Gly Gly Ile Glu Ser  
 755 760 765  
 Leu Arg Ala Ile Pro Trp Ile Phe Ala Trp Thr Gln Thr Arg Phe His  
 770 775 780  
 Leu Pro Val Trp Leu Gly Phe Gly Ala Ala Phe Arg Tyr Ala Ile Lys  
 785 790 795 800  
 Lys Asp Val Arg Asn Leu His Met Leu Gln Asp Met Tyr Lys Gln Trp  
 805 810 815  
 Pro Phe Phe Arg Val Thr Ile Asp Leu Ile Glu Met Val Phe Ala Lys  
 820 825 830  
 Gly Asp Pro Gly Ile Ala Ala Leu Tyr Asp Lys Leu Leu Val Ser Glu  
 835 840 845  
 Asp Leu Trp Ala Phe Gly Glu Lys Leu Arg Ala Asn Phe Asp Glu Thr  
 850 855 860  
 Lys Asn Leu Val Leu Gln Thr Ala Gly His Lys Asp Leu Leu Glu Gly  
 865 870 875 880  
 Asp Pro Tyr Leu Lys Gln Arg Leu Arg Leu Arg Asp Ser Tyr Ile Thr  
 885 890 895  
 Thr Leu Asn Val Cys Gln Ala Tyr Thr Leu Lys Arg Ile Arg Asp Ala  
 900 905 910  
 Asn Tyr Asn Val Thr Leu Arg Pro His Ile Ser Lys Glu Ile Met Gln  
 915 920 925  
 Ser Ser Lys Ser Ala Gln Glu Leu Val Lys Leu Asn Pro Thr Ser Glu  
 930 935 940  
 Tyr Ala Pro Gly Leu Glu Asp Thr Leu Ile Leu Thr Met Lys Gly Ile  
 945 950 955 960

Ala Ala Gly Leu Gln Asn Thr Gly  
965

<210> 1601

<211> 468

<212> DNA

<213> Arabidopsis thaliana

<400> 1601

```
atgggggttga gtggtgttct tcatgtggag gttgaggtta agtctccggc tgaaaagttc      60
tgggtagccc ttggcgacgg catcaatctc ttccccaag ctttcctaa cgactacaaa      120
accatccaag ttctagccgg cgatggcaac gtcctggct ccattcgcct cattacttat      180
ggagaaggat ctccactggt gaagatatcg gcgagagga tcgaagcagt ggatttggag      240
aacaaaagca tgtcgtacag catcattggc ggagaaatgt tggagtacta caaaccttc      300
aaaggaacca tcaccgttat ccctaaggat ggtggtagcc ttctgaaatg gtctggtgag      360
tttgagaaga cgcgccatga gatcgatgat ccacatgtca tcaaggactt tgctgtcaag      420
aacttcaaag agatagatga gtatcttctt aagcaaacta gtgcctaa      468
```

<210> 1602

<211> 155

<212> PRT

<213> Arabidopsis thaliana

<400> 1602

```
Met Gly Leu Ser Gly Val Leu His Val Glu Val Glu Val Lys Ser Pro
1      5      10     15
Ala Glu Lys Phe Trp Val Ala Leu Gly Asp Gly Ile Asn Leu Phe Pro
20     25     30
Lys Ala Phe Pro Asn Asp Tyr Lys Thr Ile Gln Val Leu Ala Gly Asp
35     40     45
Gly Asn Ala Pro Gly Ser Ile Arg Leu Ile Thr Tyr Gly Glu Gly Ser
50     55     60
Pro Leu Val Lys Ile Ser Ala Glu Arg Ile Glu Ala Val Asp Leu Glu
65     70     75     80
```



047-E2F-PCT.ST25.txt

Asn Lys Ser Met Ser Tyr Ser Ile Ile Gly Gly Glu Met Leu Glu Tyr  
85 90 95

Tyr Lys Thr Phe Lys Gly Thr Ile Thr Val Ile Pro Lys Asp Gly Gly  
100 105 110

Ser Leu Leu Lys Trp Ser Gly Glu Phe Glu Lys Thr Ala His Glu Ile  
115 120 125

Asp Asp Pro His Val Ile Lys Asp Phe Ala Val Lys Asn Phe Lys Glu  
130 135 140

Ile Asp Glu Tyr Leu Leu Lys Gln Thr Ser Ala  
145 150 155

<210> 1603

<211> 1413

<212> DNA

<213> Arabidopsis thaliana

<400> 1603

atggcggcag agaaaataga gacagtggtc gcaggggaatt acttagaaat ggagagggaa	60
gaagaaaaca taagtggtaa caagaaatct tcaactaaaa caaaactctc taatttcttc	120
tggcatggtg gttctgtcta cgatgcttgg tttagtgtg cttcaaatca ggtggcacia	180
gttctgttga cattaccata ctcgtttcta caacttggga tgatgtcggg aattttgttt	240
caactctttt atggattaat gggaagttgg actgcttata tcattagtgt tctttacggt	300
gaatatcgaa ctcgtaaaga acgagaaaaa ttcgatttcc gtaaccacgt tattcagtgg	360
tttgagggtg tagatggatt gttggggaaa cattggagga accttggatt gatctttaac	420
tgcacttttc ttctcttttg atctgttatt cagctcattg cttgtgctag caatatatat	480
tatattaatg acaaattgga caagaggaca tggacataca tatttggggc gtgctgtgca	540
acaactgttt ttattccttc cttccacaat tatagaatth ggtcattcct cggactcgct	600
atgaccactt acacttcttg gtatctcacc attgcttcac tccttcatgg ccaggctgag	660
gatgtgaaac actctgggtcc aaccacaatg gtgctttact tcaccggagc caccaacatt	720
ctctacacct ttggtggcca cgccgtcaca gtggagataa tgcacgctat gtggaaaccg	780
caaaagttca aggcgatata tctactagcg accatatatg tactaacgct aacgctacca	840
tccgcgtctg cggtttattg ggcgtttggc gataagctac taactcattc caatgcgctc	900

047-E2F-PCT.ST25.txt

tctcttctcc ctaagactgg ttttagagat accgcagtga tcctcatgct cattcatcaa 960  
 ttataacgt tcggattcgc gtctacaccg ttatatatttg tgtgggagaa attgataggt 1020  
 gtgcatgaga cgaagagcat gttcaaaaga gccatggcta gattaccggt gggtgtaccc 1080  
 atatggttct tagccattat cttccccctt ttcggaccaa tcaattccgc ggctcgatct 1140  
 ctcttagtta gcttcaactgt ctacatcatc cccgcattgg ctcatatgct tacctttgct 1200  
 cctgctcctt caagagagaa tgcggtggag aggccaccga gagtggtagg aggatggatg 1260  
 gggacttact gcataaacat atttgtggtg gtttgggtat tcgtagttgg gttcgggttt 1320  
 ggaggatggg caagtatggt caactttggt cgccagatcg acacttttgg tctctttacc 1380  
 aaatgctacc aatgccctcc tcacaagcca tga 1413

<210> 1604

<211> 470

<212> PRT

<213> Arabidopsis thaliana

<400> 1604

Met Ala Ala Glu Lys Ile Glu Thr Val Val Ala Gly Asn Tyr Leu Glu  
 1 5 10 15

Met Glu Arg Glu Glu Glu Asn Ile Ser Gly Asn Lys Lys Ser Ser Thr  
 20 25 30

Lys Thr Lys Leu Ser Asn Phe Phe Trp His Gly Gly Ser Val Tyr Asp  
 35 40 45

Ala Trp Phe Ser Cys Ala Ser Asn Gln Val Ala Gln Val Leu Leu Thr  
 50 55 60

Leu Pro Tyr Ser Phe Ser Gln Leu Gly Met Met Ser Gly Ile Leu Phe  
 65 70 75 80

Gln Leu Phe Tyr Gly Leu Met Gly Ser Trp Thr Ala Tyr Leu Ile Ser  
 85 90 95

Val Leu Tyr Val Glu Tyr Arg Thr Arg Lys Glu Arg Glu Lys Phe Asp  
 100 105 110

Phe Arg Asn His Val Ile Gln Trp Phe Glu Val Leu Asp Gly Leu Leu  
 115 120 125

Gly Lys His Trp Arg Asn Leu Gly Leu Ile Phe Asn Cys Thr Phe Leu  
 130 135 140  
 Leu Phe Gly Ser Val Ile Gln Leu Ile Ala Cys Ala Ser Asn Ile Tyr  
 145 150 155 160  
 Tyr Ile Asn Asp Lys Leu Asp Lys Arg Thr Trp Thr Tyr Ile Phe Gly  
 165 170 175  
 Ala Cys Cys Ala Thr Thr Val Phe Ile Pro Ser Phe His Asn Tyr Arg  
 180 185 190  
 Ile Trp Ser Phe Leu Gly Leu Ala Met Thr Thr Tyr Thr Ser Trp Tyr  
 195 200 205  
 Leu Thr Ile Ala Ser Leu Leu His Gly Gln Ala Glu Asp Val Lys His  
 210 215 220  
 Ser Gly Pro Thr Thr Met Val Leu Tyr Phe Thr Gly Ala Thr Asn Ile  
 225 230 235 240  
 Leu Tyr Thr Phe Gly Gly His Ala Val Thr Val Glu Ile Met His Ala  
 245 250 255  
 Met Trp Lys Pro Gln Lys Phe Lys Ala Ile Tyr Leu Leu Ala Thr Ile  
 260 265 270  
 Tyr Val Leu Thr Leu Thr Leu Pro Ser Ala Ser Ala Val Tyr Trp Ala  
 275 280 285  
 Phe Gly Asp Lys Leu Leu Thr His Ser Asn Ala Leu Ser Leu Leu Pro  
 290 295 300  
 Lys Thr Gly Phe Arg Asp Thr Ala Val Ile Leu Met Leu Ile His Gln  
 305 310 315 320  
 Phe Ile Thr Phe Gly Phe Ala Ser Thr Pro Leu Tyr Phe Val Trp Glu  
 325 330 335  
 Lys Leu Ile Gly Val His Glu Thr Lys Ser Met Phe Lys Arg Ala Met  
 340 345 350  
 Ala Arg Leu Pro Val Val Val Pro Ile Trp Phe Leu Ala Ile Ile Phe  
 355 360 365  
 Pro Phe Phe Gly Pro Ile Asn Ser Ala Val Gly Ser Leu Leu Val Ser  
 370 375 380

047-E2F-PCT.ST25.txt

Phe Thr Val Tyr Ile Ile Pro Ala Leu Ala His Met Leu Thr Phe Ala  
385 390 395 400

Pro Ala Pro Ser Arg Glu Asn Ala Val Glu Arg Pro Pro Arg Val Val  
405 410 415

Gly Gly Trp Met Gly Thr Tyr Cys Ile Asn Ile Phe Val Val Val Trp  
420 425 430

Val Phe Val Val Gly Phe Gly Phe Gly Gly Trp Ala Ser Met Val Asn  
435 440 445

Phe Val Arg Gln Ile Asp Thr Phe Gly Leu Phe Thr Lys Cys Tyr Gln  
450 455 460

Cys Pro Pro His Lys Pro  
465 470

<210> 1605

<211> 546

<212> DNA

<213> Arabidopsis thaliana

<400> 1605  
atggctcgtc gcgatgttct cctccctttc ctctccttc tcgccaccgt ctccgccgta 60  
gctttcgccg aagatgatcc agactgtgta tacacattct acctcagaac cggatcgatc 120  
tggaagccg gaaccgattc gatcatcagc gcaagaatct acgataagga cggtgactac 180  
atcggaatca aaaaccttca agcttgggct ggattaatgg gacctgatta caattacttc 240  
gagaggggta atctcgacat ttccagtggg agagcaccgt gtttacctag tccgatctgt 300  
gccttaaacc taacctccga tggctccggc gatcaccatg gttggtacgt taattacgtt 360  
gagatcacga cggctggtgt tcacgcacag tgctcgacgc aggattttga gattgagcaa 420  
tggctcgcta ctgatacttc tccttatgag ctaccgccg tacggaacaa ttgtccggtc 480  
aagcttaggg atagtgttag tcgggtcggg tctgagattc ggaaaaagct ttcttgggtc 540  
gtttaa 546

<210> 1606

<211> 181

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1606

```

Met Ala Arg Arg Asp Val Leu Leu Pro Phe Leu Leu Leu Leu Ala Thr
 1          5          10          15

Val Ser Ala Val Ala Phe Ala Glu Asp Asp Pro Asp Cys Val Tyr Thr
          20          25          30

Phe Tyr Leu Arg Thr Gly Ser Ile Trp Lys Ala Gly Thr Asp Ser Ile
          35          40          45

Ile Ser Ala Arg Ile Tyr Asp Lys Asp Gly Asp Tyr Ile Gly Ile Lys
          50          55          60

Asn Leu Gln Ala Trp Ala Gly Leu Met Gly Pro Asp Tyr Asn Tyr Phe
65          70          75          80

Glu Arg Gly Asn Leu Asp Ile Phe Ser Gly Arg Ala Pro Cys Leu Pro
          85          90          95

Ser Pro Ile Cys Ala Leu Asn Leu Thr Ser Asp Gly Ser Gly Asp His
          100          105          110

His Gly Trp Tyr Val Asn Tyr Val Glu Ile Thr Thr Ala Gly Val His
          115          120          125

Ala Gln Cys Ser Thr Gln Asp Phe Glu Ile Glu Gln Trp Leu Ala Thr
          130          135          140

Asp Thr Ser Pro Tyr Glu Leu Thr Ala Val Arg Asn Asn Cys Pro Val
145          150          155          160

Lys Leu Arg Asp Ser Val Ser Arg Val Gly Ser Glu Ile Arg Lys Lys
          165          170          175

Leu Ser Trp Val Val
          180

```

&lt;210&gt; 1607

&lt;211&gt; 708

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

<400> 1607  
 atggaagaag gagatTTTTT caactgctgt ttcagcgaga ttagtagtgg catgaccatg 60  
 aataagaaga agatgaagaa gagcaataac caaaagaggt ttagcgagga acagatcaag 120  
 tcacttgagc ttatatTTTga gtctgagacg aggcttgagc cgaggaagaa ggttcaggta 180  
 gctagagagc tagggctgca accaagacaa gtggctatat ggTTTcaaaa caagagggct 240  
 cgatggaaaa ctaagcaact tgagaaagag tataacactc ttagagccaa ttacaacaat 300  
 ttggcttcac aatttgaaat catgaagaaa gaaaagcaat ctctgggtctc tgagctgcag 360  
 agactaaacg aagagatgca aaggcctaaa gaagaaaagc atcatgagtg ttgtggtgat 420  
 caaggactgg ctctaagcag cagcacagag tcgcataatg gaaagagtga gccagaaggg 480  
 aggttagacc aaggagagtgt tctatgtaat gatggtgatt acaacaacaa cattaaaaca 540  
 gagtattttg ggttcgagga agagactgat catgagctga tgaacattgt ggagaaagct 600  
 gatgatagtt gcttgacatc ttctgagaat tggggaggtt tcaattctga ttctctctta 660  
 gaccaatcta gcagcaatta ccctaactgg tgggagtttt ggtcataa 708

<210> 1608

<211> 235

<212> PRT

<213> Arabidopsis thaliana

<400> 1608

Met Glu Glu Gly Asp Phe Phe Asn Cys Cys Phe Ser Glu Ile Ser Ser  
 1 5 10 15

Gly Met Thr Met Asn Lys Lys Lys Met Lys Lys Ser Asn Asn Gln Lys  
 20 25 30

Arg Phe Ser Glu Glu Gln Ile Lys Ser Leu Glu Leu Ile Phe Glu Ser  
 35 40 45

Glu Thr Arg Leu Glu Pro Arg Lys Lys Val Gln Val Ala Arg Glu Leu  
 50 55 60

Gly Leu Gln Pro Arg Gln Val Ala Ile Trp Phe Gln Asn Lys Arg Ala  
 65 70 75 80

Arg Trp Lys Thr Lys Gln Leu Glu Lys Glu Tyr Asn Thr Leu Arg Ala  
 85 90 95

Asn Tyr Asn Asn Leu Ala Ser Gln Phe Glu Ile Met Lys Lys Glu Lys  
 100 105 110

Gln Ser Leu Val Ser Glu Leu Gln Arg Leu Asn Glu Glu Met Gln Arg  
 115 120 125

Pro Lys Glu Glu Lys His His Glu Cys Cys Gly Asp Gln Gly Leu Ala  
 130 135 140

Leu Ser Ser Ser Thr Glu Ser His Asn Gly Lys Ser Glu Pro Glu Gly  
 145 150 155 160

Arg Leu Asp Gln Gly Ser Val Leu Cys Asn Asp Gly Asp Tyr Asn Asn  
 165 170 175

Asn Ile Lys Thr Glu Tyr Phe Gly Phe Glu Glu Glu Thr Asp His Glu  
 180 185 190

Leu Met Asn Ile Val Glu Lys Ala Asp Asp Ser Cys Leu Thr Ser Ser  
 195 200 205

Glu Asn Trp Gly Gly Phe Asn Ser Asp Ser Leu Leu Asp Gln Ser Ser  
 210 215 220

Ser Asn Tyr Pro Asn Trp Trp Glu Phe Trp Ser  
 225 230 235

<210> 1609

<211> 660

<212> DNA

<213> Arabidopsis thaliana

<400> 1609

atggctgctt caagctccgt tttcacagta tccccgtcgc gaaatcttgc agctattcct	60
cttcatcagt ccctatctcc accgttgctt agatccagct ccgtcgcggt tcgtcccaaa	120
cgaagatcca gctcactcgt cttatgctca actgatgaat caaagagcac cgcagagaaa	180
gagatcccaa tcgaactaag gtatgaggcg tttccgacag tgatggacat caataagata	240
caagagattt tgcctcacag attcccattt ctgttagttg atagagtgat agagtacaca	300
gctggtgtat ctgcggtagc tattaataaac gttaccatta atgacaattt ctttcctggg	360
catttccttg agagacctat aatgcctgga gttctcatgg ttgaggcaat ggctcaagtg	420
ggaggtatag tgatgctaca accagaagtt ggcggatcta gaagcaactt cttctttgct	480

ggaatcgaca aagtcagatt caggaagcca gtgattgcag gtgatacgct ggtgatgagg 540  
 atgacacttg tgaagttgca gaagcggttt gggatagcga aaatggaagg gaaagcatat 600  
 gtaggggaact ctgtggtatg tgaaggagag ttcttgatgg ctatgggaaa agaagagtga 660

<210> 1610

<211> 219

<212> PRT

<213> Arabidopsis thaliana

<400> 1610

Met Ala Ala Ser Ser Ser Val Phe Thr Val Ser Pro Ser Arg Asn Leu  
 1 5 10 15  
 Ala Ala Ile Pro Leu His Gln Ser Leu Ser Pro Pro Leu Leu Arg Ser  
 20 25 30  
 Ser Ser Val Ala Phe Arg Pro Lys Arg Arg Ser Ser Ser Leu Val Leu  
 35 40 45  
 Cys Ser Thr Asp Glu Ser Lys Ser Thr Ala Glu Lys Glu Ile Pro Ile  
 50 55 60  
 Glu Leu Arg Tyr Glu Ala Phe Pro Thr Val Met Asp Ile Asn Lys Ile  
 65 70 75 80  
 Gln Glu Ile Leu Pro His Arg Phe Pro Phe Leu Leu Val Asp Arg Val  
 85 90 95  
 Ile Glu Tyr Thr Ala Gly Val Ser Ala Val Ala Ile Lys Asn Val Thr  
 100 105 110  
 Ile Asn Asp Asn Phe Phe Pro Gly His Phe Pro Glu Arg Pro Ile Met  
 115 120 125  
 Pro Gly Val Leu Met Val Glu Ala Met Ala Gln Val Gly Gly Ile Val  
 130 135 140  
 Met Leu Gln Pro Glu Val Gly Gly Ser Arg Ser Asn Phe Phe Phe Ala  
 145 150 155 160  
 Gly Ile Asp Lys Val Arg Phe Arg Lys Pro Val Ile Ala Gly Asp Thr  
 165 170 175



Leu Val Met Arg Met Thr Leu Val Lys Leu Gln Lys Arg Phe Gly Ile  
 180 185 190

Ala Lys Met Glu Gly Lys Ala Tyr Val Gly Asn Ser Val Val Cys Glu  
 195 200 205

Gly Glu Phe Leu Met Ala Met Gly Lys Glu Glu  
 210 215

<210> 1611

<211> 651

<212> DNA

<213> Arabidopsis thaliana

<400> 1611

```

atgagcttca ctgcttctct cgtctcttat ttgacgtctc cctcactcgt ctcgctcaac      60
catcttcctc cttccttctt cctcccaacc aaacttgtca agccaacaag cctcactcat      120
tcacagcctc cgagattgtc cgcattctat ggtccagctg caaaagctgc tacagccaac      180
gacgttggtc cagaaacagc tccgacatca gcgtcggagg tcgtctccag cttctacgcc      240
gccgttaacg tccatgattt atcctctgtc acagacctca tcgctcagga ctgctcttac      300
gaggatctcg tcttctcatc tccctttggt ggccgaaagg caattcttga tttcttcgga      360
aaattcattg aatcaacaag tacggatctc caattcgtga tagatgatat ctcaacagaa      420
gactcttcag ctgttgaggt ttcattggcat ttagaatgga aaggaaagaa cttcccattt      480
agcaaagggt gcagctttta ccggttagag gtgattgatg ggaagagaca gatcgtatat      540
ggaagagact gcgttgagcc tgcaatcaaa cctggagaaa cagttctggc tgctataaag      600
ggagttacct ggctgctgca gaaatttcct caactggccg accaattctg a              651

```

<210> 1612

<211> 216

<212> PRT

<213> Arabidopsis thaliana

<400> 1612

Met Ser Phe Thr Ala Ser Leu Val Ser Tyr Leu Thr Ser Pro Ser Leu  
 1 5 10 15

Val Ser Leu Asn His Leu Pro Pro Ser Phe Phe Leu Pro Thr Lys Leu  
 Page 2451

Val Lys Pro Thr Ser Leu Thr His Ser Gln Pro Pro Arg Leu Ser Ala  
           35                          40                          45  
 Ser Tyr Gly Pro Ala Ala Lys Ala Ala Thr Ala Asn Asp Val Val Pro  
       50                          55                          60  
 Glu Thr Ala Pro Thr Ser Ala Ser Glu Val Val Ser Ser Phe Tyr Ala  
   65                          70                          75                          80  
 Ala Val Asn Val His Asp Leu Ser Ser Val Thr Asp Leu Ile Ala Gln  
                           85                          90                          95  
 Asp Cys Val Tyr Glu Asp Leu Val Phe Ser Ser Pro Phe Val Gly Arg  
           100                          105                          110  
 Lys Ala Ile Leu Asp Phe Phe Gly Lys Phe Ile Glu Ser Thr Ser Thr  
           115                          120                          125  
 Asp Leu Gln Phe Val Ile Asp Asp Ile Ser Thr Glu Asp Ser Ser Ala  
       130                          135                          140  
 Val Gly Val Ser Trp His Leu Glu Trp Lys Gly Lys Asn Phe Pro Phe  
   145                          150                          155                          160  
 Ser Lys Gly Cys Ser Phe Tyr Arg Leu Glu Val Ile Asp Gly Lys Arg  
           165                          170                          175  
 Gln Ile Val Tyr Gly Arg Asp Cys Val Glu Pro Ala Ile Lys Pro Gly  
           180                          185                          190  
 Glu Thr Val Leu Ala Ala Ile Lys Gly Val Thr Trp Leu Leu Gln Lys  
       195                          200                          205  
 Phe Pro Gln Leu Ala Asp Gln Phe  
       210                          215

&lt;210&gt; 1613

&lt;211&gt; 1389

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1613

atggcagtag ctacacattg tttcacttca ccttgatcatg accgtattcg atttttctca

60

047-E2F-PCT.ST25.txt

```

agtgatgatg gtattggtag gcttggcatt acaagaaaga ggatcaatgg cactttcttg 120
ctcaagatatt tacctccaat ccaaagtgt gatctcagaa caactggtgg gagatcctca 180
cgtcctttat ctgcattcag gtcaggattc tctaagggga tatttgacat tgtgccatta 240
ccatcaaaga atgagctgaa agagctgacc gctccgctgt tgctaaaact cgtgggtggt 300
ttagcttgcg cgttccttat tgttccatct gcagatgcag ttgatgcact taaaacttgt 360
gcatgcttat tgaagggatg caggatagaa ctgcgaaagt gcattgccaa ccctgcctgt 420
gcagccaatg tcgctgcct tcagacctgc aataaccgtc cagatgaaac cgagtgccag 480
attaaatgtg gggatctgtt tgagaacagt gttgttgatg agttcaacga gtgtgctgtg 540
tcgagaaaaa agtgtgttcc tagaaaatct gatctcggag aatttcctgc ccagaccct 600
tctgttcttg tacagaactt caacatctcg gactttaacg ggaagtggta cattacaagt 660
ggcttgaatc caacctttga tgccttcgac tgccagctgc atgagttcca cacagaaggt 720
gacaacaagc ttgttgaaa catctcttgg agaataaaga ccctagacag tggattcttt 780
actaggtcag ccgtacaaaa attcgtgcaa gatcctaacc aacctggtgt tctctacaat 840
catgacaacg agtaccttca ctatcaagat gactggtata tcctgtcatc aaagatagag 900
aataaacctg aagactatat atttgtatac taccgtgggc gaaacgatgc ttgggatgga 960
tatggtggtg cagttgtata cagagaagt tctgtattac ccaatagcat tataccagaa 1020
ctcgaaaaag cagcaaaaag cataggcaga gacttcagca cattcattag aacggataac 1080
acatgtggtc ctgaacctgc gctcgtggag agaattgaga agacagtgga agaaggtgaa 1140
aggataatcg taaaagaggt tgaagagata gaagaagagg tagagaagga agtggagaag 1200
gtcggtagga ctgagatgac cttgttccag agattggctg aaggatttaa tgaactgaag 1260
caagacgagg agaatttcgt gagagagtta agtaaagaag agatggagtt tttggatgag 1320
atcaaaatgg aagcaagtga ggttgaaaaa ttgtttggga aagctttgcc aatcaggaag 1380
gtcaggtag 1389

```

<210> 1614

<211> 462

<212> PRT

<213> *Arabidopsis thaliana*

<400> 1614

Met Ala Val Ala Thr His Cys Phe Thr Ser Pro Cys His Asp Arg Ile  
1 5 10 15

047-E2F-PCT.ST25.txt

Arg Phe Phe Ser Ser Asp Asp Gly Ile Gly Arg Leu Gly Ile Thr Arg  
20 25 30

Lys Arg Ile Asn Gly Thr Phe Leu Leu Lys Ile Leu Pro Pro Ile Gln  
35 40 45

Ser Ala Asp Leu Arg Thr Thr Gly Gly Arg Ser Ser Arg Pro Leu Ser  
50 55 60

Ala Phe Arg Ser Gly Phe Ser Lys Gly Ile Phe Asp Ile Val Pro Leu  
65 70 75 80

Pro Ser Lys Asn Glu Leu Lys Glu Leu Thr Ala Pro Leu Leu Leu Lys  
85 90 95

Leu Val Gly Val Leu Ala Cys Ala Phe Leu Ile Val Pro Ser Ala Asp  
100 105 110

Ala Val Asp Ala Leu Lys Thr Cys Ala Cys Leu Leu Lys Gly Cys Arg  
115 120 125

Ile Glu Leu Ala Lys Cys Ile Ala Asn Pro Ala Cys Ala Ala Asn Val  
130 135 140

Ala Cys Leu Gln Thr Cys Asn Asn Arg Pro Asp Glu Thr Glu Cys Gln  
145 150 155 160

Ile Lys Cys Gly Asp Leu Phe Glu Asn Ser Val Val Asp Glu Phe Asn  
165 170 175

Glu Cys Ala Val Ser Arg Lys Lys Cys Val Pro Arg Lys Ser Asp Leu  
180 185 190

Gly Glu Phe Pro Ala Pro Asp Pro Ser Val Leu Val Gln Asn Phe Asn  
195 200 205

Ile Ser Asp Phe Asn Gly Lys Trp Tyr Ile Thr Ser Gly Leu Asn Pro  
210 215 220

Thr Phe Asp Ala Phe Asp Cys Gln Leu His Glu Phe His Thr Glu Gly  
225 230 235 240

Asp Asn Lys Leu Val Gly Asn Ile Ser Trp Arg Ile Lys Thr Leu Asp  
245 250 255

Ser Gly Phe Phe Thr Arg Ser Ala Val Gln Lys Phe Val Gln Asp Pro  
260 265 270

047-E2F-PCT.ST25.txt

Asn Gln Pro Gly Val Leu Tyr Asn His Asp Asn Glu Tyr Leu His Tyr  
 275 280 285

Gln Asp Asp Trp Tyr Ile Leu Ser Ser Lys Ile Glu Asn Lys Pro Glu  
 290 295 300

Asp Tyr Ile Phe Val Tyr Tyr Arg Gly Arg Asn Asp Ala Trp Asp Gly  
 305 310 315 320

Tyr Gly Gly Ala Val Val Tyr Thr Arg Ser Ser Val Leu Pro Asn Ser  
 325 330 335

Ile Ile Pro Glu Leu Glu Lys Ala Ala Lys Ser Ile Gly Arg Asp Phe  
 340 345 350

Ser Thr Phe Ile Arg Thr Asp Asn Thr Cys Gly Pro Glu Pro Ala Leu  
 355 360 365

Val Glu Arg Ile Glu Lys Thr Val Glu Glu Gly Glu Arg Ile Ile Val  
 370 375 380

Lys Glu Val Glu Glu Ile Glu Glu Glu Val Glu Lys Glu Val Glu Lys  
 385 390 395 400

Val Gly Arg Thr Glu Met Thr Leu Phe Gln Arg Leu Ala Glu Gly Phe  
 405 410 415

Asn Glu Leu Lys Gln Asp Glu Glu Asn Phe Val Arg Glu Leu Ser Lys  
 420 425 430

Glu Glu Met Glu Phe Leu Asp Glu Ile Lys Met Glu Ala Ser Glu Val  
 435 440 445

Glu Lys Leu Phe Gly Lys Ala Leu Pro Ile Arg Lys Val Arg  
 450 455 460

<210> 1615

<211> 1164

<212> DNA

<213> Arabidopsis thaliana

<400> 1615

atggcgactg ctctggtttc tcctcttact tcacaactca accatgaagc tgtctgttcc

60

047-E2F-PCT.ST25.txt

```

aagtttgtgt tacccaaatc gccgttcatg tcgggatcta agctcttttc atcgaacatg 120
ccttgctcta ctgttcctag acgcacaaga agatcacact gctttgcttc tgctaaagat 180
atgagctttg accatatccc taaacaattt cgtggagaca atctcaaaga cggagtgatg 240
cagaacttca agaacgtacc acaatatttt tacgggctta attcagctca aatggatatg 300
ttcatgacag aagatagccc tgtccgtagg caagcggaaa aagttacaga ggaaagcatc 360
tcgtctagaa ataactatth gaacaatgga ggaatatgga gtatgtccgg tatgaatgca 420
gcagatgcta gaagatatag catgagtgtc cagatgtaca gaggtggagg tggcggcgga 480
ggatctgaaa gaccaagaac tgctcctcca gatttgcctt ctttgctatt ggatgctcgc 540
atatgctacc ttggcatgcc aatcgtacct gcagttactg agttactcgt tgctcaatth 600
atgtggttag actatgataa cccaacaaag cccatctact tatatataaa ttcacccggg 660
accagaatg agaagatgga aactgttgga tcagaaacag aggcttatgc catagccgat 720
actatthctt attgcaaadc agatgtatac actatcaatt gtggcatggc ttttggtcaa 780
gcagcaatgc ttttttctt cgggaaaaaa ggttatcgtg ccgtacaacc acattcatca 840
acaaaattat atctgcaaaa agtaaacaga tcgagtggag ctgccataga catgtggata 900
aaggccaagg aacttgatgc aaataccgag tactacatcg agctgttagc taagggaaca 960
gggaaatcca aagagcagat caacgaggac atcaagcgac ctaaatatct ccaagctcaa 1020
gcagccattg actatggaat tgcagacaag atagctgact cgcaggacag ttttttcgag 1080
aaacgggatt acgatgggac ctttgcccag agagctatga gacctggagg aggcagtcca 1140
gcagctccag ccggactaag atga 1164

```

<210> 1616

<211> 387

<212> PRT

<213> *Arabidopsis thaliana*

<400> 1616

Met Ala Thr Ala Leu Val Ser Pro Leu Thr Ser Gln Leu Asn His Glu  
1 5 10 15

Ala Val Cys Ser Lys Phe Val Leu Pro Lys Ser Pro Phe Met Ser Gly  
20 25 30

Ser Lys Leu Phe Ser Ser Asn Met Pro Cys Ser Thr Val Pro Arg Arg  
35 40 45

## 047-E2F-PCT.ST25.txt

Thr Arg Arg Ser His Cys Phe Ala Ser Ala Lys Asp Met Ser Phe Asp  
 50 55 60  
 His Ile Pro Lys Gln Phe Arg Gly Asp Asn Leu Lys Asp Gly Val Met  
 65 70 75 80  
 Gln Asn Phe Lys Asn Val Pro Gln Tyr Phe Tyr Gly Leu Asn Ser Ala  
 85 90 95  
 Gln Met Asp Met Phe Met Thr Glu Asp Ser Pro Val Arg Arg Gln Ala  
 100 105 110  
 Glu Lys Val Thr Glu Glu Ser Ile Ser Ser Arg Asn Asn Tyr Leu Asn  
 115 120 125  
 Asn Gly Gly Ile Trp Ser Met Ser Gly Met Asn Ala Ala Asp Ala Arg  
 130 135 140  
 Arg Tyr Ser Met Ser Val Gln Met Tyr Arg Gly Gly Gly Gly Gly Gly  
 145 150 155 160  
 Gly Ser Glu Arg Pro Arg Thr Ala Pro Pro Asp Leu Pro Ser Leu Leu  
 165 170 175  
 Leu Asp Ala Arg Ile Cys Tyr Leu Gly Met Pro Ile Val Pro Ala Val  
 180 185 190  
 Thr Glu Leu Leu Val Ala Gln Phe Met Trp Leu Asp Tyr Asp Asn Pro  
 195 200 205  
 Thr Lys Pro Ile Tyr Leu Tyr Ile Asn Ser Pro Gly Thr Gln Asn Glu  
 210 215 220  
 Lys Met Glu Thr Val Gly Ser Glu Thr Glu Ala Tyr Ala Ile Ala Asp  
 225 230 235 240  
 Thr Ile Ser Tyr Cys Lys Ser Asp Val Tyr Thr Ile Asn Cys Gly Met  
 245 250 255  
 Ala Phe Gly Gln Ala Ala Met Leu Leu Ser Leu Gly Lys Lys Gly Tyr  
 260 265 270  
 Arg Ala Val Gln Pro His Ser Ser Thr Lys Leu Tyr Leu Pro Lys Val  
 275 280 285  
 Asn Arg Ser Ser Gly Ala Ala Ile Asp Met Trp Ile Lys Ala Lys Glu  
 290 295 300

047-E2F-PCT.ST25.txt

Leu Asp Ala Asn Thr Glu Tyr Tyr Ile Glu Leu Leu Ala Lys Gly Thr  
305 310 315 320

Gly Lys Ser Lys Glu Gln Ile Asn Glu Asp Ile Lys Arg Pro Lys Tyr  
325 330 335

Leu Gln Ala Gln Ala Ala Ile Asp Tyr Gly Ile Ala Asp Lys Ile Ala  
340 345 350

Asp Ser Gln Asp Ser Ser Phe Glu Lys Arg Asp Tyr Asp Gly Thr Leu  
355 360 365

Ala Gln Arg Ala Met Arg Pro Gly Gly Gly Ser Pro Ala Ala Pro Ala  
370 375 380

Gly Leu Arg  
385

<210> 1617

<211> 993

<212> DNA

<213> Arabidopsis thaliana

<400> 1617

atggctctca aagcttcacc tgttaccgga ttattccctc ctctccgtcc tactgcttct	60
tcttcccctt cgacttcttc taatcgccct tgttccctca ggattctccc tctcagaaca	120
tctttcttcg gtaactcaag tggagcgctg agagtgaatg tgttgagatt agcttgatgat	180
aatagactca ggtgcaatgg tcatggtgct actatgaatc tttttgaacg attttctaga	240
gtggtcaagt catatgcaaa tgcgctcata agctcttttg aagaccgga gaaaatcctg	300
gagcaaaactg tcattgaaat gaatagtgat ttgacaaaga tgcgtcaagc cactgcacag	360
gttttagcat cacaaaagca gttacagaac aaatataaag ctgcacagca gtcttctgat	420
gattggtaca aaagagcaca acttgctctt gcaaaaggag atgaggatct tgcacgtgag	480
gcccttaaac gacgaaagtc ttttgctgac aacgctactg ctttgaaaac tcaactagat	540
cagcaaaaag gtgttgctga caatcttggt tcaaatacaa ggctcttgga gagtaagata	600
caagaggcaa aagcaaagaa agatacgctc cttgcacgtg ctgcactgc taagactgca	660
accaaagtgc aagagatgat agggacagta aatacaagcg gtgctctttc agcttttgag	720
aaaatggagg agaaagttat ggctatggag tctgaagcag atgcactaac tcagattgga	780
accgatgaac tcgaggggaa gtttcaaagt cttgaaactt catctgtgga tgatgatctt	840



gcagacttga agaaagaatt gtctggaagc tcaaagaaag gagagcttcc tccagggaga 900  
 agcactgttg cagcaagcac gagataccct ttcaaagact cagagatcga gaatgagtta 960  
 aacgaactgc gaaggaaagc taacgacttt tag 993

<210> 1618

<211> 330

<212> PRT

<213> Arabidopsis thaliana

<400> 1618

Met Ala Leu Lys Ala Ser Pro Val Thr Gly Leu Phe Pro Pro Leu Arg  
 1 5 10 15

Pro Thr Ala Ser Ser Ser Pro Ser Thr Ser Ser Asn Arg Pro Cys Ser  
 20 25 30

Leu Arg Ile Leu Pro Leu Arg Thr Ser Phe Phe Gly Asn Ser Ser Gly  
 35 40 45

Ala Leu Arg Val Asn Val Leu Arg Leu Ala Cys Asp Asn Arg Leu Arg  
 50 55 60

Cys Asn Gly His Gly Ala Thr Met Asn Leu Phe Glu Arg Phe Ser Arg  
 65 70 75 80

Val Val Lys Ser Tyr Ala Asn Ala Leu Ile Ser Ser Phe Glu Asp Pro  
 85 90 95

Glu Lys Ile Leu Glu Gln Thr Val Ile Glu Met Asn Ser Asp Leu Thr  
 100 105 110

Lys Met Arg Gln Ala Thr Ala Gln Val Leu Ala Ser Gln Lys Gln Leu  
 115 120 125

Gln Asn Lys Tyr Lys Ala Ala Gln Gln Ser Ser Asp Asp Trp Tyr Lys  
 130 135 140

Arg Ala Gln Leu Ala Leu Ala Lys Gly Asp Glu Asp Leu Ala Arg Glu  
 145 150 155 160

Ala Leu Lys Arg Arg Lys Ser Phe Ala Asp Asn Ala Thr Ala Leu Lys  
 165 170 175

047-E2F-PCT.ST25.txt

Thr Gln Leu Asp Gln Gln Lys Gly Val Val Asp Asn Leu Val Ser Asn  
180 185 190

Thr Arg Leu Leu Glu Ser Lys Ile Gln Glu Ala Lys Ala Lys Lys Asp  
195 200 205

Thr Leu Leu Ala Arg Ala Arg Thr Ala Lys Thr Ala Thr Lys Val Gln  
210 215 220

Glu Met Ile Gly Thr Val Asn Thr Ser Gly Ala Leu Ser Ala Phe Glu  
225 230 235 240

Lys Met Glu Glu Lys Val Met Ala Met Glu Ser Glu Ala Asp Ala Leu  
245 250 255

Thr Gln Ile Gly Thr Asp Glu Leu Glu Gly Lys Phe Gln Met Leu Glu  
260 265 270

Thr Ser Ser Val Asp Asp Asp Leu Ala Asp Leu Lys Lys Glu Leu Ser  
275 280 285

Gly Ser Ser Lys Lys Gly Glu Leu Pro Pro Gly Arg Ser Thr Val Ala  
290 295 300

Ala Ser Thr Arg Tyr Pro Phe Lys Asp Ser Glu Ile Glu Asn Glu Leu  
305 310 315 320

Asn Glu Leu Arg Arg Lys Ala Asn Asp Phe  
325 330

<210> 1619

<211> 261

<212> DNA

<213> Arabidopsis thaliana

<400> 1619

atggagagtt cattaggttt catggcgggtt ttcgccgtct caggaagcgt tgtgttctta	60
gcgagtcaat ttcacaagcg tcttctctcc gattacatgg acaagttcga attcgaaatc	120
cgagcgcaga aaaaaatggt gatgaagaag aaggtgagat tcgcggcgga tgtggtggag	180
ccgtcgggga ataacaaga gtatcgccgg agacattctt ccaaggctaa atcgaattcg	240
aagatggcgg caactatttg a	261

&lt;210&gt; 1620

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1620

Met Glu Ser Ser Leu Gly Phe Met Ala Val Phe Ala Val Ser Gly Ser  
 1 5 10 15

Val Val Phe Leu Ala Ser Gln Phe His Lys Arg Leu Leu Ser Asp Tyr  
 20 25 30

Met Asp Lys Phe Glu Phe Glu Ile Arg Ala Gln Lys Lys Met Val Met  
 35 40 45

Lys Lys Lys Val Arg Phe Ala Ala Asp Val Val Glu Pro Ser Gly Asn  
 50 55 60

Asn Lys Glu Tyr Arg Arg Arg His Ser Ser Lys Ala Lys Ser Asn Ser  
 65 70 75 80

Lys Met Ala Ala Thr Ile  
 85

&lt;210&gt; 1621

&lt;211&gt; 1056

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1621

atggatagtc acaaatggag tctaggtttc acattacttg ctttcctctt catcacttcc 60  
 tcttccgctg agctcatcat taaacaggtc acacagggca gaggaataga gtacaacaac 120  
 tcttacagtc tcacgtcgaa tcttggagtg acgacaagag agttgagaga cgagcgacca 180  
 tcaagtaaga tagtgacaat cacaagcttc tctgtgatta aggacagagg agaaccctat 240  
 gaatcatcta tttttgaggc tgccggttac aaatggagat tagttttgta cgtgaagggt 300  
 aatccgaaag gcggtataaa taatcatatt tcactttacg cgaggataga agagacagaa 360  
 actcttccaa gaggggtggga agtgaatggt gatctcaaac tctttgtcca caatcggaag 420  
 ttaaagaaat atttgtctgt tacagatgga acagtgaagc gatacaacga tgcaaaaaaa 480

gagtggggat tcacacaatt gattttctctt ccaacattct acaacgcgaa cgaagggtac 540  
 cttgtgcagg acacagcttc ttttggtgct gagatcttca tcgttaaccc gacagaaaaa 600  
 caagagaaag tcacattcat atcaaaccct ccagacaatg ttttcacttg gaagatactt 660  
 cgttttctcta ccttggaaga taaattctat tactctgatg attttcttgt tggagaccga 720  
 tactggagac taggatttaa cccgaaagga tctggtggag gaagaccaca tgcacttcca 780  
 atcttcctat atgctcaagg ccataaggca aacgcagttg ttacaaacac ttggggagcg 840  
 gttaatctgc ggttaaagaa tcaacgaagc tccaaccaca aacaattata ttctgcagct 900  
 tggtagccga ttcgaagcga ttatggtgtg ggagtgaaca atataatatt gatgtcagag 960  
 ctaaaagatg catcaaaagg gtatatggtg aatgatgcca ttatctttga agctgaaatg 1020  
 gttaaggtct ctgtgacaaa catagtctcc gtttaa 1056

<210> 1622

<211> 351

<212> PRT

<213> Arabidopsis thaliana

<400> 1622

Met Asp Ser His Lys Trp Ser Leu Gly Phe Thr Leu Leu Ala Phe Leu  
1 5 10 15

Phe Ile Thr Ser Ser Ala Glu Leu Ile Ile Lys Gln Val Thr Gln  
20 25 30

Gly Arg Gly Ile Glu Tyr Asn Asn Ser Tyr Ser Leu Thr Ser Asn Leu  
35 40 45

Gly Val Thr Thr Arg Glu Leu Arg Asp Glu Arg Pro Ser Ser Lys Ile  
50 55 60

Val Thr Ile Thr Ser Phe Ser Val Ile Lys Asp Arg Gly Glu Pro Tyr  
65 70 75 80

Glu Ser Ser Ile Phe Glu Ala Ala Gly Tyr Lys Trp Arg Leu Val Leu  
85 90 95

Tyr Val Lys Gly Asn Pro Lys Gly Gly Ile Asn Asn His Ile Ser Leu  
100 105 110

Tyr Ala Arg Ile Glu Glu Thr Glu Thr Leu Pro Arg Gly Trp Glu Val  
115 120 125

047-E2F-PCT.ST25.txt

Asn Val Asp Leu Lys Leu Phe Val His Asn Arg Lys Leu Lys Lys Tyr  
 130 135 140  
 Leu Ser Val Thr Asp Gly Thr Val Lys Arg Tyr Asn Asp Ala Lys Lys  
 145 150 155 160  
 Glu Trp Gly Phe Thr Gln Leu Ile Ser Leu Pro Thr Phe Tyr Asn Ala  
 165 170 175  
 Asn Glu Gly Tyr Leu Val Gln Asp Thr Ala Ser Phe Gly Ala Glu Ile  
 180 185 190  
 Phe Ile Val Asn Pro Thr Glu Lys Gln Glu Lys Val Thr Phe Ile Ser  
 195 200 205  
 Asn Pro Pro Asp Asn Val Phe Thr Trp Lys Ile Leu Arg Phe Ser Thr  
 210 215 220  
 Leu Glu Asp Lys Phe Tyr Tyr Ser Asp Asp Phe Leu Val Gly Asp Arg  
 225 230 235 240  
 Tyr Trp Arg Leu Gly Phe Asn Pro Lys Gly Ser Gly Gly Gly Arg Pro  
 245 250 255  
 His Ala Leu Pro Ile Phe Leu Tyr Ala Gln Gly His Lys Ala Asn Ala  
 260 265 270  
 Val Val Thr Asn Thr Trp Gly Ala Val Asn Leu Arg Leu Lys Asn Gln  
 275 280 285  
 Arg Ser Ser Asn His Lys Gln Leu Tyr Ser Ala Ala Trp Tyr Pro Ile  
 290 295 300  
 Arg Ser Asp Tyr Gly Val Gly Val Asn Asn Ile Ile Leu Met Ser Glu  
 305 310 315 320  
 Leu Lys Asp Ala Ser Lys Gly Tyr Met Val Asn Asp Ala Ile Ile Phe  
 325 330 335  
 Glu Ala Glu Met Val Lys Val Ser Val Thr Asn Ile Val Ser Val  
 340 345 350

<210> 1623

<211> 651

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1623

```

atggcggctc ccgtagtggt cgctcctgcg ataaatcttc agcatatgga cctacctgaa      60
ggaaatgaag atgtagcagc tgtgcttcaa acatcaacac agcgctggct caacgctgct      120
gagtggagca ttctttataa caaccacaac ctattcccag aatcaaactc atttaccata      180
cctattgaag tagagggact ttacagagtt gacaaccgct ttaatcaaga cagcaatacg      240
tgagaaaaca caagtgctcc ctccacttgc aaaaatgcta tcaacttcta caatgttagg      300
atcgccactg gcttgtacag gtttgatgat gatggggaca ttgtgatgga cgctgaagtt      360
caaggagggg gggtcctttg cagaaaaacc gtgaggaaca gaggccattg tggtagacgt      420
ttgagtcatc tctacaagcc tgtcttcgat cgtcaattca agatgctgaa gattcatatg      480
atggaagata tgattaaaga tggatgaagag aagagtcctt acactttcgt gatatccagg      540
caacttacca ctttactga tctcacgggc tgggcatttg gctcatccgt gatagttgaa      600
tttaaagtga gacttgagca cttaagagga aaatcaattc ctatagcgta a              651

```

&lt;210&gt; 1624

&lt;211&gt; 216

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1624

```

Met Ala Ala Pro Val Val Val Ala Pro Ala Ile Asn Leu Gln His Met
1          5          10          15

Asp Leu Pro Glu Gly Asn Glu Asp Val Ala Ala Val Leu Gln Thr Ser
20        25        30

Thr Gln Arg Trp Leu Asn Ala Ala Glu Trp Ser Ile Leu Tyr Asn Asn
35        40        45

His Asn Leu Phe Pro Glu Ser Asn Ser Phe Thr Ile Pro Ile Glu Val
50        55        60

Glu Gly Leu Tyr Arg Val Asp Asn Arg Phe Asn Gln Asp Ser Asn Thr
65        70        75        80

Trp Arg Asn Thr Ser Ala Pro Ser Thr Cys Lys Asn Ala Ile Asn Phe
85          90          95

```

047-E2F-PCT.ST25.txt

Tyr Asn Val Arg Ile Ala Thr Gly Leu Tyr Arg Phe Asp Asp Asp Gly  
100 105 110

Asp Ile Val Met Asp Ala Glu Val Gln Gly Gly Trp Val Leu Cys Arg  
115 120 125

Lys Thr Val Arg Asn Arg Gly His Cys Gly Thr Arg Leu Ser His Leu  
130 135 140

Tyr Lys Pro Val Phe Asp Arg Gln Phe Lys Met Leu Lys Ile His Met  
145 150 155 160

Met Glu Asp Met Ile Lys Asp Gly Glu Glu Lys Ser Leu Asp Thr Phe  
165 170 175

Val Ile Ser Arg Gln Leu Thr Thr Phe Thr Asp Leu Thr Gly Trp Ala  
180 185 190

Phe Gly Ser Ser Val Ile Val Glu Phe Lys Val Arg Leu Glu His Leu  
195 200 205

Arg Gly Lys Ser Ile Pro Ile Ala  
210 215

<210> 1625

<211> 1206

<212> DNA

<213> Arabidopsis thaliana

<400> 1625  
atggcgacga agagaagcgt tggaactttg aaggaagcgg atctgaaggg aaagagtgtg 60  
ttcgtgaggg ttgatctcaa cgttcctttg gatgataact ctaacatcac cgatgacacc 120  
aggattcgtg cgcgtgttcc caccatcaag tacttgatgg gtaatggatc tagggttggt 180  
ctctgcagtc acttgggccg cccaaaaggt gttactccta agtacagctt aaagcctctt 240  
gtgcccagat tgtctgaact tcttggtggt gaggttgtaa tggcaaatga ctctattggt 300  
gaggaagtcc agaagttggt tgcaggacta cctgaaggtg gtgttttgct cttggagaat 360  
gtgaggttct acgccgagga agagaagaat gatcctgaat ttgcaaagaa gcttgctgct 420  
cttgccgatg ttacgttaa tgatgccttc ggaactgctc acagagctca tgcttcact 480  
gagggagtgt ccaaattctt gaagccttca gttgctgggt tcctcatgca gaaggaactt 540

047-E2F-PCT.ST25.txt

gattaccttg tcggagctgt ggcaaaccac aagaagcctt ttgctgccat tgttggaggc 600  
 tcaaaggttt caacaaagat tgggtgtcatt gagtctctct tgaacacagt tgacatcctc 660  
 ctgctcgggtg gaggtatgat ttttactttc tacaaggcac aaggactctc agtcggatct 720  
 tcccttgtgg aggaggacaa gcttgacttg gcaaagtcac tcatggagaa agcaaaggcc 780  
 aaaggtgtct ctctcttgct cccaaccgat gtggttattg ctgacaagtt tgctcccgat 840  
 gctaacagca agatagtgcc agccactgcc atccctgatg gctggatggg tctagatatt 900  
 ggtccagact ccatcaagac attcagcgaa gctctggaca caacaaaaac catcatctgg 960  
 aatggtccca tgggtgtggt tgaattcgat aagtttgctg ctggaactga ggccgtagca 1020  
 aagcagcttg cagaactaag cggaaagggg gtaaccacaa tcattggagg aggtgactct 1080  
 gttgctgccg tcgagaaggt tggtttggca gacaagatga gccacatctc taccggaggc 1140  
 ggtgctagtt tggagcttct tgagggtaag ccacttccag gagtcctcgc tctcgacgaa 1200  
 gcttga 1206

<210> 1626

<211> 401

<212> PRT

<213> Arabidopsis thaliana

<400> 1626

Met Ala Thr Lys Arg Ser Val Gly Thr Leu Lys Glu Ala Asp Leu Lys  
 1 5 10 15

Gly Lys Ser Val Phe Val Arg Val Asp Leu Asn Val Pro Leu Asp Asp  
 20 25 30

Asn Ser Asn Ile Thr Asp Asp Thr Arg Ile Arg Ala Ala Val Pro Thr  
 35 40 45

Ile Lys Tyr Leu Met Gly Asn Gly Ser Arg Val Val Leu Cys Ser His  
 50 55 60

Leu Gly Arg Pro Lys Gly Val Thr Pro Lys Tyr Ser Leu Lys Pro Leu  
 65 70 75 80

Val Pro Arg Leu Ser Glu Leu Leu Gly Val Glu Val Val Met Ala Asn  
 85 90 95

Asp Ser Ile Gly Glu Glu Val Gln Lys Leu Val Ala Gly Leu Pro Glu  
 100 105 110



047-E2F-PCT.ST25.txt

Gly Gly Val Leu Leu Leu Glu Asn Val Arg Phe Tyr Ala Glu Glu Glu  
115 120 125

Lys Asn Asp Pro Glu Phe Ala Lys Lys Leu Ala Ala Leu Ala Asp Val  
130 135 140

Tyr Val Asn Asp Ala Phe Gly Thr Ala His Arg Ala His Ala Ser Thr  
145 150 155 160

Glu Gly Val Ala Lys Phe Leu Lys Pro Ser Val Ala Gly Phe Leu Met  
165 170 175

Gln Lys Glu Leu Asp Tyr Leu Val Gly Ala Val Ala Asn Pro Lys Lys  
180 185 190

Pro Phe Ala Ala Ile Val Gly Gly Ser Lys Val Ser Thr Lys Ile Gly  
195 200 205

Val Ile Glu Ser Leu Leu Asn Thr Val Asp Ile Leu Leu Leu Gly Gly  
210 215 220

Gly Met Ile Phe Thr Phe Tyr Lys Ala Gln Gly Leu Ser Val Gly Ser  
225 230 235 240

Ser Leu Val Glu Glu Asp Lys Leu Asp Leu Ala Lys Ser Leu Met Glu  
245 250 255

Lys Ala Lys Ala Lys Gly Val Ser Leu Leu Leu Pro Thr Asp Val Val  
260 265 270

Ile Ala Asp Lys Phe Ala Pro Asp Ala Asn Ser Lys Ile Val Pro Ala  
275 280 285

Thr Ala Ile Pro Asp Gly Trp Met Gly Leu Asp Ile Gly Pro Asp Ser  
290 295 300

Ile Lys Thr Phe Ser Glu Ala Leu Asp Thr Thr Lys Thr Ile Ile Trp  
305 310 315 320

Asn Gly Pro Met Gly Val Phe Glu Phe Asp Lys Phe Ala Ala Gly Thr  
325 330 335

Glu Ala Val Ala Lys Gln Leu Ala Glu Leu Ser Gly Lys Gly Val Thr  
340 345 350

Thr Ile Ile Gly Gly Gly Asp Ser Val Ala Ala Val Glu Lys Val Gly  
Page 2467

355

360

365

Leu Ala Asp Lys Met Ser His Ile Ser Thr Gly Gly Gly Ala Ser Leu  
 370 375 380

Glu Leu Leu Glu Gly Lys Pro Leu Pro Gly Val Leu Ala Leu Asp Glu  
 385 390 395 400

Ala

&lt;210&gt; 1627

&lt;211&gt; 1353

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1627

```

atgcgtgaga ttcttcacat ccagggtggt caatgcggta accagatcgg agccaagttc      60
tggaagtgg tttgcgccga gcacggcatc gatccaaccg gaaggtacac cggagactca      120
gatctgcaac ttgagcgcac caacgtttac tacaatgaag cgagttgcgg tagattcggt      180
cctcgtgcag tgctcatgga tttggagcct gggactatgg atagtctcag atctggaccg      240
tacggtcaga cttttcgacc tgataacttc gtctttggtc aatccggtgc gggtaacaac      300
tgggccaagg gacactacac tgaaggagct gaactaatcg attccgttct cgatgttggt      360
cgtaaggaag ctgagaactg tgactgcctc caagggttcc aggtttgtca ctcatggga      420
ggaggaactg gatctggtat gggaacattg ttgatctcta agatccgtga agagtacca      480
gatcgcata tgcttacctt ctcggtgttc cttcaccaa aggtttctga tactgtggtg      540
gagccttaca acgctacttt atctgttcat cagcttggtg agaatgctga tgagtgcata      600
gttcttgata acgaggcctt gtacgatatt tgcttcagga ctctcaaact cactaccccc      660
agctttggtg atttgaacca tttgatattt gccactatgt ctggtgtgac ttgctgtctg      720
aggttccctg gtcaactcaa ctctgacctc cgtaagcttg ctgtgaatct catcccattc      780
cctcgtcttc acttcttcat gggttggttt gctcctctca cctcaagagg ttcacagcag      840
taccgctccc tcacagtccc tgagctcacc cagcaaattg gggactccaa gaacatgatg      900
tgtgtgcag acccaaggca cggacgtac ctcacagcct ctgccatggt ccgtggcaag      960
atgagcacia aggaagtga cgagcagatg ctgaatgttc agaacaagaa ctcgtcctac     1020
tttgtggagt ggatcccaa caacgtgaaa tcaacagtct gtgatatccc acctactggt     1080
ctgaagatgg cttccacttt cattggaaac tcaacatcga tccaagagat gttcaggcga     1140

```

047-E2F-PCT.ST25.txt

gtgagtgagc agttcacagc tatgttcagg aggaaggctt tcttgattg gtacacaggt 1200  
gaggggaatgg acgagatgga gttcacagaa gcagagagca acatgaacga tcttgtgtca 1260  
gagtaccagc aataccaaga tgcaacggct gatgaagaag gtgactacga ggatgaggaa 1320  
gaaggtgaat accaacagga agaagagtac tga 1353

<210> 1628

<211> 450

<212> PRT

<213> Arabidopsis thaliana

<400> 1628

Met Arg Glu Ile Leu His Ile Gln Gly Gly Gln Cys Gly Asn Gln Ile  
1 5 10 15

Gly Ala Lys Phe Trp Glu Val Val Cys Ala Glu His Gly Ile Asp Pro  
20 25 30

Thr Gly Arg Tyr Thr Gly Asp Ser Asp Leu Gln Leu Glu Arg Ile Asn  
35 40 45

Val Tyr Tyr Asn Glu Ala Ser Cys Gly Arg Phe Val Pro Arg Ala Val  
50 55 60

Leu Met Asp Leu Glu Pro Gly Thr Met Asp Ser Leu Arg Ser Gly Pro  
65 70 75 80

Tyr Gly Gln Thr Phe Arg Pro Asp Asn Phe Val Phe Gly Gln Ser Gly  
85 90 95

Ala Gly Asn Asn Trp Ala Lys Gly His Tyr Thr Glu Gly Ala Glu Leu  
100 105 110

Ile Asp Ser Val Leu Asp Val Val Arg Lys Glu Ala Glu Asn Cys Asp  
115 120 125

Cys Leu Gln Gly Phe Gln Val Cys His Ser Leu Gly Gly Gly Thr Gly  
130 135 140

Ser Gly Met Gly Thr Leu Leu Ile Ser Lys Ile Arg Glu Glu Tyr Pro  
145 150 155 160

Asp Arg Met Met Leu Thr Phe Ser Val Phe Pro Ser Pro Lys Val Ser  
Page 2469

165

175

Asp Thr Val Val Glu Pro Tyr Asn Ala Thr Leu Ser Val His Gln Leu  
180 185 190

Val Glu Asn Ala Asp Glu Cys Met Val Leu Asp Asn Glu Ala Leu Tyr  
195 200 205

Asp Ile Cys Phe Arg Thr Leu Lys Leu Thr Thr Pro Ser Phe Gly Asp  
210 215 220

Leu Asn His Leu Ile Ser Ala Thr Met Ser Gly Val Thr Cys Cys Leu  
225 230 235 240

Arg Phe Pro Gly Gln Leu Asn Ser Asp Leu Arg Lys Leu Ala Val Asn  
245 250 255

Leu Ile Pro Phe Pro Arg Leu His Phe Phe Met Val Gly Phe Ala Pro  
260 265 270

Leu Thr Ser Arg Gly Ser Gln Gln Tyr Arg Ser Leu Thr Val Pro Glu  
275 280 285

Leu Thr Gln Gln Met Trp Asp Ser Lys Asn Met Met Cys Ala Ala Asp  
290 295 300

Pro Arg His Gly Arg Tyr Leu Thr Ala Ser Ala Met Phe Arg Gly Lys  
305 310 315 320

Met Ser Thr Lys Glu Val Asp Glu Gln Met Leu Asn Val Gln Asn Lys  
325 330 335

Asn Ser Ser Tyr Phe Val Glu Trp Ile Pro Asn Asn Val Lys Ser Thr  
340 345 350

Val Cys Asp Ile Pro Pro Thr Gly Leu Lys Met Ala Ser Thr Phe Ile  
355 360 365

Gly Asn Ser Thr Ser Ile Gln Glu Met Phe Arg Arg Val Ser Glu Gln  
370 375 380

Phe Thr Ala Met Phe Arg Arg Lys Ala Phe Leu His Trp Tyr Thr Gly  
385 390 395 400

Glu Gly Met Asp Glu Met Glu Phe Thr Glu Ala Glu Ser Asn Met Asn  
405 410 415

Asp Leu Val Ser Glu Tyr Gln Gln Tyr Gln Asp Ala Thr Ala Asp Glu  
 420 425 430

Glu Gly Asp Tyr Glu Asp Glu Glu Glu Gly Glu Tyr Gln Gln Glu Glu  
 435 440 445

Glu Tyr  
 450

<210> 1629

<211> 723

<212> DNA

<213> Arabidopsis thaliana

<400> 1629

atggtggtta cggattctcc agtttcgggg ataatggctg atcagaacat cgatcctaac	60
accacgacga gccctagtcc taaagagaag catgtttctg cgattaaggc tatctccggc	120
gacgagaaag ctccgtcgaa ggagaaaaag aactacgcgt cgaagaaatc aactaccgta	180
atccagaaat cgcactgttt ccagaattct tggacatttt ggttcgataa tccttcctcc	240
aaatcgaatc aagtcatatg gggaagctct ttgagatcct tgtatacatt cgg tactatc	300
gaagagttct ggagtctcta caataacatt catcctccaa ccaagtgggt ttcgggggcg	360
gatctttact gcttcaaaga taagattgaa ccaaaatggg aagatcctat ctgtgcta	420
ggaggaaaat ggagtatgat gttccctaaa gctacactag aatgcaattg gcttaacacg	480
ttacttgcgt tggttggtga gcaatttgac caaggagatg agatctgtgg agcagttttg	540
aacttcagag cgagagggga caggatctct ctatggacaa agaacgctgc aaatgaggag	600
gctcagctaa gcattgggaa gcagtggaag gaacttcttg gctacaatga gacaatcgga	660
tttatagttc atgaggatgc aaagactctt gatcgtgatg ctaaacgtcg atatactgta	720
tga	723

<210> 1630

<211> 240

<212> PRT

<213> Arabidopsis thaliana

<400> 1630

Met Val Val Thr Asp Ser Pro Val Ser Gly Ile Met Ala Asp Gln Asn  
 Page 2471

1 5 15  
Ile Asp Pro Asn Thr Thr Thr Ser Pro Ser Pro Lys Glu Lys His Val  
20 25 30  
Ser Ala Ile Lys Ala Ile Ser Gly Asp Glu Lys Ala Pro Ser Lys Glu  
35 40 45  
Lys Lys Asn Tyr Ala Ser Lys Lys Ser Thr Thr Val Ile Gln Lys Ser  
50 55 60  
His Cys Phe Gln Asn Ser Trp Thr Phe Trp Phe Asp Asn Pro Ser Ser  
65 70 75 80  
Lys Ser Asn Gln Val Ile Trp Gly Ser Ser Leu Arg Ser Leu Tyr Thr  
85 90 95  
Phe Gly Thr Ile Glu Glu Phe Trp Ser Leu Tyr Asn Asn Ile His Pro  
100 105 110  
Pro Thr Lys Trp Val Ser Gly Ala Asp Leu Tyr Cys Phe Lys Asp Lys  
115 120 125  
Ile Glu Pro Lys Trp Glu Asp Pro Ile Cys Ala Asn Gly Gly Lys Trp  
130 135 140  
Ser Met Met Phe Pro Lys Ala Thr Leu Glu Cys Asn Trp Leu Asn Thr  
145 150 155 160  
Leu Leu Ala Leu Val Gly Glu Gln Phe Asp Gln Gly Asp Glu Ile Cys  
165 170 175  
Gly Ala Val Leu Asn Phe Arg Ala Arg Gly Asp Arg Ile Ser Leu Trp  
180 185 190  
Thr Lys Asn Ala Ala Asn Glu Glu Ala Gln Leu Ser Ile Gly Lys Gln  
195 200 205  
Trp Lys Glu Leu Leu Gly Tyr Asn Glu Thr Ile Gly Phe Ile Val His  
210 215 220  
Glu Asp Ala Lys Thr Leu Asp Arg Asp Ala Lys Arg Arg Tyr Thr Val  
225 230 235 240

<210> 1631

<211> 1734

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1631

```

atgaattatt tcccagacga ggttatagag cacgtgtttg acttcgtagc ttctcacaaa      60
gacaggaact cgatatctct ggtctgcaaa tcatggcaca agatcgagag gtttagtagg      120
aaggaagtgt tcatcggaag ctgctacgag attaaccgag agagggtgat caggagggtt      180
ccatgtctca aatccttaac tttaaaaggg aagcctcatt ttgcagactt caacttggtt      240
cctcatgaat ggggagggtt cggtgacatc ttgattgaag ctttggttag aagccgtgtg      300
ggacttgagg agctgagggt gaagcggatg gttgtaacag atgaaagctt ggaccttctt      360
tcacgttctt ttgcaaattt caagtctttg gttcttggtt gctgtgaagg gtttaccact      420
gatggcttag cttccattgc cgctaattgc aggcattctt gtgagctgga cttgcaagag      480
aatgagattg atgatcatag aggtcaatgg ctgaactgtt ttccagatag ctgcactact      540
cttatgtcgt tgaatttcgc ttgccttaaa ggagagacca atgttgctgc tttagaaagg      600
cttggttgcta ggtcaccaaa cctgaagagc ttgaagttaa accgtgcagt accgcttgac      660
gcactcgcaa ggttaatgag ttgtgcgccg cagctagtgg acttaggagt aggggtcttat      720
gagaatgagc cagatcctga atcttttgca aaactcatga ctgccattaa gaaatacaca      780
tcgttaagga gcttgtctgg ctttttagag gttgctccac tctgcctccc agcgttctac      840
ccaatttgcc aaaaccttat ctctttgaac ctgagctatg cagctgaaat ccaaggcaac      900
cacctcatta agcttattca gctttgcaag agacttcaac gattatggat attggatagt      960
attggtgaca aaggacttgc gggtgtcgtt gccacatgta aagagttaca agagcttaga     1020
gtttttccct ctgatgtaca tgggtgaagaa gataacaacg catctgtgac tgagggttga     1080
ctagtcgcca tttccgcagg ttgccctaaa cttcattcga ttctgtactt ctgcaaacag     1140
atgacaaacg cagcgtcat agccgtggcc aaaaactgtc caaacttcat ccggttcagg     1200
ctatgcattc tcgagccaca caaacctgac cacattacat ttcaatcact ggacgagggc     1260
tttggtgcaa tcgtacaagc ttgcaagggg ctaagacggc tctctgtctc cggctcttta     1320
accgatcaag tctttctcta catcggtatg tacgcggaac agctcgagat gctttcgata     1380
gcttttgagg gggacactga caaaggaatg ctctatgtgt tgaatggatg caaaaaaatg     1440
aggaagctgg agataaggga cagtcctttt ggggaacgctg cgcttcttgc tgacgtgggt     1500
aggtacgaaa caatgcgac cctttggatg tcgtcttgtg aagtaacact cgggtggctgc     1560
aagaggctcg cgcagaattc gccacggctt aacgtagaga tcatcaacga gaatgagaat     1620
aatgggatgg aacagaatga agaagatgaa agagagaagg ttgataaact ttacctctac     1680

```

cgaacagtgg ttgggactag aaaagatgca ccaccatattg ttaggattct ttag

1734

<210> 1632

<211> 577

<212> PRT

<213> Arabidopsis thaliana

<400> 1632

Met Asn Tyr Phe Pro Asp Glu Val Ile Glu His Val Phe Asp Phe Val  
1 5 10 15

Ala Ser His Lys Asp Arg Asn Ser Ile Ser Leu Val Cys Lys Ser Trp  
20 25 30

His Lys Ile Glu Arg Phe Ser Arg Lys Glu Val Phe Ile Gly Asn Cys  
35 40 45

Tyr Ala Ile Asn Pro Glu Arg Leu Ile Arg Arg Phe Pro Cys Leu Lys  
50 55 60

Ser Leu Thr Leu Lys Gly Lys Pro His Phe Ala Asp Phe Asn Leu Val  
65 70 75 80

Pro His Glu Trp Gly Gly Phe Val His Pro Trp Ile Glu Ala Leu Ala  
85 90 95

Arg Ser Arg Val Gly Leu Glu Glu Leu Arg Leu Lys Arg Met Val Val  
100 105 110

Thr Asp Glu Ser Leu Asp Leu Leu Ser Arg Ser Phe Ala Asn Phe Lys  
115 120 125

Ser Leu Val Leu Val Ser Cys Glu Gly Phe Thr Thr Asp Gly Leu Ala  
130 135 140

Ser Ile Ala Ala Asn Cys Arg His Leu Arg Glu Leu Asp Leu Gln Glu  
145 150 155 160

Asn Glu Ile Asp Asp His Arg Gly Gln Trp Leu Asn Cys Phe Pro Asp  
165 170 175

Ser Cys Thr Thr Leu Met Ser Leu Asn Phe Ala Cys Leu Lys Gly Glu  
180 185 190



Thr Asn Val Ala Ala Leu Glu Arg Leu Val Ala Arg Ser Pro Asn Leu  
 195 200 205  
 Lys Ser Leu Lys Leu Asn Arg Ala Val Pro Leu Asp Ala Leu Ala Arg  
 210 215 220  
 Leu Met Ser Cys Ala Pro Gln Leu Val Asp Leu Gly Val Gly Ser Tyr  
 225 230 235 240  
 Glu Asn Glu Pro Asp Pro Glu Ser Phe Ala Lys Leu Met Thr Ala Ile  
 245 250 255  
 Lys Lys Tyr Thr Ser Leu Arg Ser Leu Ser Gly Phe Leu Glu Val Ala  
 260 265 270  
 Pro Leu Cys Leu Pro Ala Phe Tyr Pro Ile Cys Gln Asn Leu Ile Ser  
 275 280 285  
 Leu Asn Leu Ser Tyr Ala Ala Glu Ile Gln Gly Asn His Leu Ile Lys  
 290 295 300  
 Leu Ile Gln Leu Cys Lys Arg Leu Gln Arg Leu Trp Ile Leu Asp Ser  
 305 310 315 320  
 Ile Gly Asp Lys Gly Leu Ala Val Val Ala Ala Thr Cys Lys Glu Leu  
 325 330 335  
 Gln Glu Leu Arg Val Phe Pro Ser Asp Val His Gly Glu Glu Asp Asn  
 340 345 350  
 Asn Ala Ser Val Thr Glu Val Gly Leu Val Ala Ile Ser Ala Gly Cys  
 355 360 365  
 Pro Lys Leu His Ser Ile Leu Tyr Phe Cys Lys Gln Met Thr Asn Ala  
 370 375 380  
 Ala Leu Ile Ala Val Ala Lys Asn Cys Pro Asn Phe Ile Arg Phe Arg  
 385 390 395 400  
 Leu Cys Ile Leu Glu Pro His Lys Pro Asp His Ile Thr Phe Gln Ser  
 405 410 415  
 Leu Asp Glu Gly Phe Gly Ala Ile Val Gln Ala Cys Lys Gly Leu Arg  
 420 425 430  
 Arg Leu Ser Val Ser Gly Leu Leu Thr Asp Gln Val Phe Leu Tyr Ile  
 435 440 445

047-E2F-PCT.ST25.txt

Gly Met Tyr Ala Glu Gln Leu Glu Met Leu Ser Ile Ala Phe Ala Gly  
450 455 460

Asp Thr Asp Lys Gly Met Leu Tyr Val Leu Asn Gly Cys Lys Lys Met  
465 470 475 480

Arg Lys Leu Glu Ile Arg Asp Ser Pro Phe Gly Asn Ala Ala Leu Leu  
485 490 495

Ala Asp Val Gly Arg Tyr Glu Thr Met Arg Ser Leu Trp Met Ser Ser  
500 505 510

Cys Glu Val Thr Leu Gly Gly Cys Lys Arg Leu Ala Gln Asn Ser Pro  
515 520 525

Arg Leu Asn Val Glu Ile Ile Asn Glu Asn Glu Asn Asn Gly Met Glu  
530 535 540

Gln Asn Glu Glu Asp Glu Arg Glu Lys Val Asp Lys Leu Tyr Leu Tyr  
545 550 555 560

Arg Thr Val Val Gly Thr Arg Lys Asp Ala Pro Pro Tyr Val Arg Ile  
565 570 575

Leu

<210> 1633

<211> 735

<212> DNA

<213> Arabidopsis thaliana

<400> 1633  
atggcaaacc tcttggtctc tactttcata ttttccgcac ttttgctcat ctccaccgca 60  
acagccgcca cattcgaaat cctaaaccaa tgtagttaca ccgtgtgggc tgccgcaagc 120  
cctggaggtg gccgacgtct agatgctggc caatcatgga ggctagatgt cgcggcgggc 180  
actaaaatgg cacggatttg gggtaggacc aattgtaact ttgactcctc aggtcgtggc 240  
cgatgccaaa ctggtgactg cagtgggtgga ctccaatgta ctggctgggg acagccacca 300  
aacacgttgg ctgagtacgc tttgaaccaa ttcaacaact tagacttcta cgatatctca 360  
cttgctgatg gatttaacat acctatggag tttagcccaa ctagttcgaa ctgccatcgg 420  
atactatgta ccgcagacat aaacggacaa tgtccaaacg tgttgagagc cccaggtgga 480

047-E2F-PCT.ST25.txt

tgcaacaacc cgtgtactgt atttcagacg aaccaatact gttgtacgaa cggtcagggga 540  
 tcatgtagcg atactgagta ctcaagattc ttttaagcaga gatgccctga cgcttacagc 600  
 tatccacaag atgacccgac tagcactttc acttgcacca acactaacta cagggtcgtg 660  
 ttttgtccaa ggtctaggct cggtgctact ggatcccacc agctcccgat caagatggtc 720  
 accgaggaga attaa 735

<210> 1634

<211> 244

<212> PRT

<213> Arabidopsis thaliana

<400> 1634

Met Ala Asn Leu Leu Val Ser Thr Phe Ile Phe Ser Ala Leu Leu Leu  
 1 5 10 15

Ile Ser Thr Ala Thr Ala Ala Thr Phe Glu Ile Leu Asn Gln Cys Ser  
 20 25 30

Tyr Thr Val Trp Ala Ala Ala Ser Pro Gly Gly Gly Arg Arg Leu Asp  
 35 40 45

Ala Gly Gln Ser Trp Arg Leu Asp Val Ala Ala Gly Thr Lys Met Ala  
 50 55 60

Arg Ile Trp Gly Arg Thr Asn Cys Asn Phe Asp Ser Ser Gly Arg Gly  
 65 70 75 80

Arg Cys Gln Thr Gly Asp Cys Ser Gly Gly Leu Gln Cys Thr Gly Trp  
 85 90 95

Gly Gln Pro Pro Asn Thr Leu Ala Glu Tyr Ala Leu Asn Gln Phe Asn  
 100 105 110

Asn Leu Asp Phe Tyr Asp Ile Ser Leu Val Asp Gly Phe Asn Ile Pro  
 115 120 125

Met Glu Phe Ser Pro Thr Ser Ser Asn Cys His Arg Ile Leu Cys Thr  
 130 135 140

Ala Asp Ile Asn Gly Gln Cys Pro Asn Val Leu Arg Ala Pro Gly Gly  
 145 150 155 160

047-E2F-PCT.ST25.txt

Cys Asn Asn Pro Cys Thr Val Phe Gln Thr Asn Gln Tyr Cys Cys Thr  
165 170 175  
Asn Gly Gln Gly Ser Cys Ser Asp Thr Glu Tyr Ser Arg Phe Phe Lys  
180 185 190  
Gln Arg Cys Pro Asp Ala Tyr Ser Tyr Pro Gln Asp Asp Pro Thr Ser  
195 200 205  
Thr Phe Thr Cys Thr Asn Thr Asn Tyr Arg Val Val Phe Cys Pro Arg  
210 215 220  
Ser Arg Leu Gly Ala Thr Gly Ser His Gln Leu Pro Ile Lys Met Val  
225 230 235 240

Thr Glu Glu Asn

<210> 1635

<211> 684

<212> DNA

<213> Arabidopsis thaliana

<400> 1635  
atggcgaccg aggacgtgaa gctgatcggc tcatgggcca gtgtttacgt catgagggcg 60  
aggatcgctc tccacctcaa atctattagc tacgaattcc ttcaggagac gtatgggttca 120  
aagagcgaat tgctcctcaa atcaaaccg gttcacaaga agatgccggt tctgattcac 180  
gctgacaaac cgggtgtgca gtccaacatc atcgttcatt atatcgacga ggcttggaac 240  
tcttctggac cttccattct cccgtcccat ccatacgacc gggccattgc tcggttttgg 300  
gctgcctaca tagacgatca gtggtttatc tctgtgagaa gtatcctaac agctcaagga 360  
gacgaagaga agaaagcagc catagctcaa gttgaagaaa ggaccaagct tctggagaaa 420  
gcattcaacg attgtagcca aggaaaaccg ttcttcaacg gtgaccatat cggttacctc 480  
gacattgcct tggggagctt cttaggttgg tggagagtcg tcgagttgga tgccaatcat 540  
aaatttcttg atgagaccaa aactccctct ctagtcaa atggcagagcg gttctgtgat 600  
gatcccgctg tgaaacctat aatgcccag attacaaagc tcgctgaatt cgcaaggaag 660  
ctctttccta agcggcaagc ataa 684

<210> 1636

&lt;211&gt; 227

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1636

Met Ala Thr Glu Asp Val Lys Leu Ile Gly Ser Trp Ala Ser Val Tyr  
 1 5 10 15

Val Met Arg Ala Arg Ile Ala Leu His Leu Lys Ser Ile Ser Tyr Glu  
 20 25 30

Phe Leu Gln Glu Thr Tyr Gly Ser Lys Ser Glu Leu Leu Lys Ser  
 35 40 45

Asn Pro Val His Lys Lys Met Pro Val Leu Ile His Ala Asp Lys Pro  
 50 55 60

Val Cys Glu Ser Asn Ile Ile Val His Tyr Ile Asp Glu Ala Trp Asn  
 65 70 75 80

Ser Ser Gly Pro Ser Ile Leu Pro Ser His Pro Tyr Asp Arg Ala Ile  
 85 90 95

Ala Arg Phe Trp Ala Ala Tyr Ile Asp Asp Gln Trp Phe Ile Ser Val  
 100 105 110

Arg Ser Ile Leu Thr Ala Gln Gly Asp Glu Glu Lys Lys Ala Ala Ile  
 115 120 125

Ala Gln Val Glu Glu Arg Thr Lys Leu Leu Glu Lys Ala Phe Asn Asp  
 130 135 140

Cys Ser Gln Gly Lys Pro Phe Phe Asn Gly Asp His Ile Gly Tyr Leu  
 145 150 155 160

Asp Ile Ala Leu Gly Ser Phe Leu Gly Trp Trp Arg Val Val Glu Leu  
 165 170 175

Asp Ala Asn His Lys Phe Leu Asp Glu Thr Lys Thr Pro Ser Leu Val  
 180 185 190

Lys Trp Ala Glu Arg Phe Cys Asp Asp Pro Ala Val Lys Pro Ile Met  
 195 200 205

Pro Glu Ile Thr Lys Leu Ala Glu Phe Ala Arg Lys Leu Phe Pro Lys  
 Page 2479

210

215

Arg Gln Ala  
225

&lt;210&gt; 1637

&lt;211&gt; 1275

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1637

```
atggcgtctc ttcttggaac atcttcttct gcaatctggg cttctccttc actctcttct 60
ccttcctcaa aaccttcctc ctccccatt tgcttcaggc caggaaaatt gtttggaagc 120
aagttaaattg caggaatcca aataaggcca aagaagaaca ggtctcgta ccatgtttcg 180
gttatgaattg tagccactga aatcaactct actgaacaag tagtagggaa gtttgattca 240
aagaagagtg cgagaccggt ttatccatct gcagctatag tagggcaaga tgagatgaag 300
ttatgtcttt tgttgaaatgt tattgatcca aagattgggtg gtgttatgat tatgggagat 360
agaggaactg gaaaatctac aactgttaga tcattagttg atctgttacc tgagattaat 420
gtagttgcag gtgaccgta taactcggat ccgatagatc ctgagtttat ggggtgttgaa 480
gtaagagaga gagttgagaa aggagagcaa gttcctgtta ttgcgactaa gattaatatg 540
gttgatcttc ctttggggtgc aacagaagat agagtttgtg gaaccatcga tatcgaagg 600
gctttgacag aagggtgtaaa agcctttgag cctggtttgt tggctaaagc taatagaggg 660
attctttatg ttgatgaagt taatctcttg gatgatcatt tggttgatgt tcttttgat 720
tcagctgctt ctggttgga tacggttgag agagaaggga tttcgatttc tcaccggcg 780
aggtttatct tgatcggttc aggaaatccg gaagaaggag agcttaggcc acagcttctt 840
gatcggtttg gtatgcatgc acaagtaggg acggttagag atgctgattt acgggtcaag 900
attgttgaag agagagctcg tttcgatagt aacccaaagg atttccgtga cacttacaaa 960
accgagcagg acaagcttca agaccagatt tcaactgcta gggcaaacct ttcctcggtt 1020
cagattgata ggaattgaa ggtgaagatc tctagagttt gttcagagct caatgttgat 1080
gggttgagag gagacatagt gactaacaga gcagcaaaag cacttgcagc tctcaaagga 1140
aaagatcgag taactccaga tgatgttgca accgttatcc ctaactgctt aaggcaccgt 1200
ctgaggaaag atccactgga atctattgat tcaggagttc tagtttccga gaagttcgcc 1260
gagattttca gctga 1275
```

&lt;210&gt; 1638

&lt;211&gt; 424

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1638

Met Ala Ser Leu Leu Gly Thr Ser Ser Ser Ala Ile Trp Ala Ser Pro  
 1 5 10 15

Ser Leu Ser Ser Pro Ser Ser Lys Pro Ser Ser Ser Pro Ile Cys Phe  
 20 25 30

Arg Pro Gly Lys Leu Phe Gly Ser Lys Leu Asn Ala Gly Ile Gln Ile  
 35 40 45

Arg Pro Lys Lys Asn Arg Ser Arg Tyr His Val Ser Val Met Asn Val  
 50 55 60

Ala Thr Glu Ile Asn Ser Thr Glu Gln Val Val Gly Lys Phe Asp Ser  
 65 70 75 80

Lys Lys Ser Ala Arg Pro Val Tyr Pro Phe Ala Ala Ile Val Gly Gln  
 85 90 95

Asp Glu Met Lys Leu Cys Leu Leu Leu Asn Val Ile Asp Pro Lys Ile  
 100 105 110

Gly Gly Val Met Ile Met Gly Asp Arg Gly Thr Gly Lys Ser Thr Thr  
 115 120 125

Val Arg Ser Leu Val Asp Leu Leu Pro Glu Ile Asn Val Val Ala Gly  
 130 135 140

Asp Pro Tyr Asn Ser Asp Pro Ile Asp Pro Glu Phe Met Gly Val Glu  
 145 150 155 160

Val Arg Glu Arg Val Glu Lys Gly Glu Gln Val Pro Val Ile Ala Thr  
 165 170 175

Lys Ile Asn Met Val Asp Leu Pro Leu Gly Ala Thr Glu Asp Arg Val  
 180 185 190

Cys Gly Thr Ile Asp Ile Glu Lys Ala Leu Thr Glu Gly Val Lys Ala  
 195 200 205

047-E2F-PCT.ST25.txt

Phe Glu Pro Gly Leu Leu Ala Lys Ala Asn Arg Gly Ile Leu Tyr Val  
 210 215 220  
 Asp Glu Val Asn Leu Leu Asp Asp His Leu Val Asp Val Leu Leu Asp  
 225 230 235 240  
 Ser Ala Ala Ser Gly Trp Asn Thr Val Glu Arg Glu Gly Ile Ser Ile  
 245 250 255  
 Ser His Pro Ala Arg Phe Ile Leu Ile Gly Ser Gly Asn Pro Glu Glu  
 260 265 270  
 Gly Glu Leu Arg Pro Gln Leu Leu Asp Arg Phe Gly Met His Ala Gln  
 275 280 285  
 Val Gly Thr Val Arg Asp Ala Asp Leu Arg Val Lys Ile Val Glu Glu  
 290 295 300  
 Arg Ala Arg Phe Asp Ser Asn Pro Lys Asp Phe Arg Asp Thr Tyr Lys  
 305 310 315 320  
 Thr Glu Gln Asp Lys Leu Gln Asp Gln Ile Ser Thr Ala Arg Ala Asn  
 325 330 335  
 Leu Ser Ser Val Gln Ile Asp Arg Glu Leu Lys Val Lys Ile Ser Arg  
 340 345 350  
 Val Cys Ser Glu Leu Asn Val Asp Gly Leu Arg Gly Asp Ile Val Thr  
 355 360 365  
 Asn Arg Ala Ala Lys Ala Leu Ala Ala Leu Lys Gly Lys Asp Arg Val  
 370 375 380  
 Thr Pro Asp Asp Val Ala Thr Val Ile Pro Asn Cys Leu Arg His Arg  
 385 390 395 400  
 Leu Arg Lys Asp Pro Leu Glu Ser Ile Asp Ser Gly Val Leu Val Ser  
 405 410 415  
 Glu Lys Phe Ala Glu Ile Phe Ser  
 420

<210> 1639

<211> 1161

<212> DNA



<213> *Arabidopsis thaliana*

&lt;400&gt; 1639

```

atggttggtg ctatggacca acgcaccaat gtgaacggag atcccggcgc cggagaccgg      60
aagaaagaag aaaggtttga tccgagtgca caaccaccgt tcaagatcgg agatataagg      120
gcggcgattc ctaagcactg ttgggttaag agtcctttga gatcaatgag ttacgtcgtc      180
agagacatta tcgccgtcgc ggctttggcc atcgctgccg tgtatgttga tagctgggtc      240
ctttggcctc tttattgggc cgcccaagga acacttttct gggccatctt tgttctcggc      300
cacgactgtg gacatgggag tttctcagac attcctctac tgaatagtgt ggttggtcac      360
attcttcatt ctttcatcct cgttccttac catggttgga gaataagcca ccggacacac      420
caccagaacc atggccatgt tgaaaacgac gagtcatggg ttccgttacc agaaaggggtg      480
tacaagaaat tgccccacag tactcggatg ctcatagata ctgtccctct ccccatgctc      540
gcatatcctc tctattttgtg ctacagaagt cctggaaaag aaggatcaca ttttaacca      600
tacagtagtt tatttgctcc aagcgagaga aagcttattg caacttcaac tacttgttgg      660
tccataatgt tcgtcagtct tatcgctcta tctttcgtct tcgggtccact cgcggttctt      720
aaagtctacg gtgtaccgta cattatcttt gtgatgtggt tggatgctgt cacgtatttg      780
catcatcatg gtcacgatga gaagttgcct tggatatagag gcaaggaatg gagttatcta      840
cgtggaggat taacaacaat tgatagagat tacggaatct ttaacaacat tcatcacgac      900
attggaactc acgtgatcca tcatctcttc ccacaaatcc ctactatca cttggtcgac      960
gccacgaaag cagctaaaca tgtgttggga agatactaca gagaaccaa gacgtcagga     1020
gcaataccga tccacttggt ggagagtttg gtcgcaagta ttaagaaaga tcattacgtc     1080
agcgacactg gtgatattgt cttctacgag acagatccag atctctacgt ttacgcttct     1140
gacaaatcta aaatcaatta a                                           1161

```

&lt;210&gt; 1640

&lt;211&gt; 386

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1640

```

Met Val Val Ala Met Asp Gln Arg Thr Asn Val Asn Gly Asp Pro Gly
1          5          10          15

```

```

Ala Gly Asp Arg Lys Lys Glu Glu Arg Phe Asp Pro Ser Ala Gln Pro
Page 2483

```

Pro Phe Lys Ile Gly Asp Ile Arg Ala Ala Ile Pro Lys His Cys Trp  
 35 40 45  
 Val Lys Ser Pro Leu Arg Ser Met Ser Tyr Val Val Arg Asp Ile Ile  
 50 55 60  
 Ala Val Ala Ala Leu Ala Ile Ala Ala Val Tyr Val Asp Ser Trp Phe  
 65 70 75 80  
 Leu Trp Pro Leu Tyr Trp Ala Ala Gln Gly Thr Leu Phe Trp Ala Ile  
 85 90 95  
 Phe Val Leu Gly His Asp Cys Gly His Gly Ser Phe Ser Asp Ile Pro  
 100 105 110  
 Leu Leu Asn Ser Val Val Gly His Ile Leu His Ser Phe Ile Leu Val  
 115 120 125  
 Pro Tyr His Gly Trp Arg Ile Ser His Arg Thr His His Gln Asn His  
 130 135 140  
 Gly His Val Glu Asn Asp Glu Ser Trp Val Pro Leu Pro Glu Arg Val  
 145 150 155 160  
 Tyr Lys Lys Leu Pro His Ser Thr Arg Met Leu Arg Tyr Thr Val Pro  
 165 170 175  
 Leu Pro Met Leu Ala Tyr Pro Leu Tyr Leu Cys Tyr Arg Ser Pro Gly  
 180 185 190  
 Lys Glu Gly Ser His Phe Asn Pro Tyr Ser Ser Leu Phe Ala Pro Ser  
 195 200 205  
 Glu Arg Lys Leu Ile Ala Thr Ser Thr Thr Cys Trp Ser Ile Met Phe  
 210 215 220  
 Val Ser Leu Ile Ala Leu Ser Phe Val Phe Gly Pro Leu Ala Val Leu  
 225 230 235 240  
 Lys Val Tyr Gly Val Pro Tyr Ile Ile Phe Val Met Trp Leu Asp Ala  
 245 250 255  
 Val Thr Tyr Leu His His His Gly His Asp Glu Lys Leu Pro Trp Tyr  
 260 265 270

Arg Gly Lys Glu Trp Ser Tyr Leu Arg Gly Gly Leu Thr Thr Ile Asp  
275 280 285

Arg Asp Tyr Gly Ile Phe Asn Asn Ile His His Asp Ile Gly Thr His  
290 295 300

Val Ile His His Leu Phe Pro Gln Ile Pro His Tyr His Leu Val Asp  
305 310 315 320

Ala Thr Lys Ala Ala Lys His Val Leu Gly Arg Tyr Tyr Arg Glu Pro  
325 330 335

Lys Thr Ser Gly Ala Ile Pro Ile His Leu Val Glu Ser Leu Val Ala  
340 345 350

Ser Ile Lys Lys Asp His Tyr Val Ser Asp Thr Gly Asp Ile Val Phe  
355 360 365

Tyr Glu Thr Asp Pro Asp Leu Tyr Val Tyr Ala Ser Asp Lys Ser Lys  
370 375 380

Ile Asn  
385

- <210> 1641
- <211> 282
- <212> DNA
- <213> Arabidopsis thaliana

```
<400> 1641
atggcttcgt attactctgg ttttttgggt tgtgaagagc cacacttttt ggaatcgtgt    60
tctctttgcc ggaaacacct tggctttaac tccgatatct tcatgtacag aggagacaag    120
gctttttgta gcaacgagtg tagagaagaa cagattgaat ctgatgaagc taaggagaga    180
aagtggaaaa aatcttcaag atctctccgg aaaaattctt ctgaaactaa agaatccgcc    240
gccggaaaca ccgtacggac aggaactctc gtcgtggctt ag                        282
```

- <210> 1642
- <211> 93
- <212> PRT
- <213> Arabidopsis thaliana

&lt;400&gt; 1642

Met Ala Ser Tyr Tyr Ser Gly Phe Leu Gly Cys Glu Glu Pro His Phe  
 1 5 10 15

Leu Glu Ser Cys Ser Leu Cys Arg Lys His Leu Gly Leu Asn Ser Asp  
 20 25 30

Ile Phe Met Tyr Arg Gly Asp Lys Ala Phe Cys Ser Asn Glu Cys Arg  
 35 40 45

Glu Glu Gln Ile Glu Ser Asp Glu Ala Lys Glu Arg Lys Trp Lys Lys  
 50 55 60

Ser Ser Arg Ser Leu Arg Lys Asn Ser Ser Glu Thr Lys Glu Ser Ala  
 65 70 75 80

Ala Gly Asn Thr Val Arg Thr Gly Thr Leu Val Val Ala  
 85 90

&lt;210&gt; 1643

&lt;211&gt; 693

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1643

atggcttctc tgaagctttc accttcttct ccaatctcca tttctaaggt tgggtgtgatt 60  
 ccttcctcta agaaaggact ttcatttctt gtaaaagcag agcaccattc ctcgtcttct 120  
 tcttctcatc ttcaagataa atgtcagaga cgtctgattg taacatttgg tgttggtgct 180  
 ccttgatct cattgcttag tagagctcca ttatcatttg ctgcagaaag caaaaaagga 240  
 ttccttgctg tctctgacaa taaagatgct tatgcgtttc tctatccatt tgggtggcag 300  
 gaagtgtga ttgaaggta agataaggta tacaagatg tgattgagcc tttagaaagt 360  
 gttagtgtga atttggtccc aactagcaaa cagactatta aagaatttgg ccctccaag 420  
 cagatagctg aaacactgat aaagaaagtt ttggcacctc caaatcagaa aacaaccctt 480  
 attgatgcat cagagcatga tgtcgatggg aagacttatt atcagtttga gttcactggt 540  
 caagctagaa actacactcg ccatgctctg ggtaccatca cggttttcaa cggaaacttc 600  
 tacacactga cgacgggagc gaatgaaagg aggtgggaga agatgaaaga taggccttcac 660  
 actgtggtag attccttcaa gatcactggt tga 693

&lt;210&gt; 1644

&lt;211&gt; 230

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1644

Met Ala Ser Leu Lys Leu Ser Pro Ser Ser Pro Ile Ser Ile Ser Lys  
 1 5 10 15

Val Gly Val Ile Pro Ser Ser Lys Lys Gly Leu Ser Phe Leu Val Lys  
 20 25 30

Ala Glu His His Ser Ser Ser Ser Ser His Leu Gln Asp Lys Cys  
 35 40 45

Gln Arg Arg Leu Ile Val Thr Phe Gly Val Val Ala Pro Trp Ile Ser  
 50 55 60

Leu Leu Ser Arg Ala Pro Leu Ser Phe Ala Ala Glu Ser Lys Lys Gly  
 65 70 75 80

Phe Leu Ala Val Ser Asp Asn Lys Asp Ala Tyr Ala Phe Leu Tyr Pro  
 85 90 95

Phe Gly Trp Gln Glu Val Val Ile Glu Gly Gln Asp Lys Val Tyr Lys  
 100 105 110

Asp Val Ile Glu Pro Leu Glu Ser Val Ser Val Asn Leu Val Pro Thr  
 115 120 125

Ser Lys Gln Thr Ile Lys Glu Phe Gly Pro Pro Lys Gln Ile Ala Glu  
 130 135 140

Thr Leu Ile Lys Lys Val Leu Ala Pro Pro Asn Gln Lys Thr Thr Leu  
 145 150 155 160

Ile Asp Ala Ser Glu His Asp Val Asp Gly Lys Thr Tyr Tyr Gln Phe  
 165 170 175

Glu Phe Thr Val Gln Ala Arg Asn Tyr Thr Arg His Ala Leu Gly Thr  
 180 185 190

Ile Thr Val Phe Asn Gly Asn Phe Tyr Thr Leu Thr Thr Gly Ala Asn  
 195 200 205

047-E2F-PCT.ST25.txt

Glu Arg Arg Trp Glu Lys Met Lys Asp Arg Leu His Thr Val Val Asp  
 210 215 220

Ser Phe Lys Ile Thr Val  
 225 230

<210> 1645

<211> 456

<212> DNA

<213> Arabidopsis thaliana

<400> 1645  
 atggcggatg ctttcacaga tgaacagatc caagagtttt acgaagcctt ctgtctcata 60  
 gacaaagatt cccgatgggtt catcacgaag gagaagctaa cgaaagtgat gaagtcgatg 120  
 gggaagaatc caaaggcgga acaactgcaa cagatgatga gcgatgttga catctttggc 180  
 aacggtggca tcacttttga tgatttcttg tatattatgg ctcaaacac ttctcaggaa 240  
 tcagcatcgg atgagttaat tgaggtattc agagtgttcg acagagacgg agatggtctc 300  
 atatctcaac ttgagttggg agaaggaatg aaggacatgg ggatgaagat aacagcagaa 360  
 gaagcggagc atatggtccg agaagccgac cttgatggcg atggttttct ttctttccac 420  
 gaattctcta aaatgatgat tgctgcctct tattag 456

<210> 1646

<211> 151

<212> PRT

<213> Arabidopsis thaliana

<400> 1646

Met Ala Asp Ala Phe Thr Asp Glu Gln Ile Gln Glu Phe Tyr Glu Ala  
 1 5 10 15

Phe Cys Leu Ile Asp Lys Asp Ser Asp Gly Phe Ile Thr Lys Glu Lys  
 20 25 30

Leu Thr Lys Val Met Lys Ser Met Gly Lys Asn Pro Lys Ala Glu Gln  
 35 40 45

Leu Gln Gln Met Met Ser Asp Val Asp Ile Phe Gly Asn Gly Gly Ile  
 50 55 60

047-E2F-PCT.ST25.txt

Thr Phe Asp Asp Phe Leu Tyr Ile Met Ala Gln Asn Thr Ser Gln Glu  
65 70 75 80

Ser Ala Ser Asp Glu Leu Ile Glu Val Phe Arg Val Phe Asp Arg Asp  
85 90 95

Gly Asp Gly Leu Ile Ser Gln Leu Glu Leu Gly Glu Gly Met Lys Asp  
100 105 110

Met Gly Met Lys Ile Thr Ala Glu Glu Ala Glu His Met Val Arg Glu  
115 120 125

Ala Asp Leu Asp Gly Asp Gly Phe Leu Ser Phe His Glu Phe Ser Lys  
130 135 140

Met Met Ile Ala Ala Ser Tyr  
145 150

<210> 1647

<211> 474

<212> DNA

<213> Arabidopsis thaliana

<400> 1647

atggcttctt tatccacttc cgttgtagct tcggcttcgt cgcgtttatg gaatcctgct	60
gcctccaacg gcaagatttg cgttccttct gcttcgcttt ctctgcgtac gggttgtaga	120
cggagttcgt cctctctcac ttcttcgct tcttcgcaat tgcttcattg ctcgtttctc	180
tcgtcgcttg tttccctagc gtctccattt tctggtttgt ccattgcgtt tgatctcagc	240
agtcaaaacta gtggactgaa tggccagaga cgcagaggcc ttgtggtttag agctggaaaa	300
gctgctctgt gtcaaaactaa gagaagcaga tcaagaaaat ctctagctag gactcatggt	360
ttccgtagaa ggatgaggac cactagcggg agagcaacca taaagcgtcg acgtgccaaag	420
ggacgttgga acctctgtcc caagtccaac cctagcagcg gcaaacgggc ttga	474

<210> 1648

<211> 157

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 1648

Met Ala Ser Leu Ser Thr Ser Val Val Ala Ser Ala Ser Ser Arg Leu  
 1 5 10 15  
 Trp Asn Pro Ala Ala Ser Asn Gly Lys Ile Cys Val Pro Ser Ala Ser  
 20 25 30  
 Leu Ser Leu Arg Thr Gly Cys Arg Arg Ser Ser Ser Ser Leu Thr Ser  
 35 40 45  
 Ser Ala Ser Ser Gln Leu Leu His Cys Ser Phe Leu Ser Ser Pro Val  
 50 55 60  
 Ser Leu Ala Ser Pro Phe Ser Gly Leu Ser Ile Ala Phe Asp Leu Ser  
 65 70 75 80  
 Ser Gln Thr Ser Gly Leu Asn Gly Gln Arg Arg Arg Gly Leu Val Val  
 85 90 95  
 Arg Ala Gly Lys Ala Ala Leu Cys Gln Thr Lys Arg Ser Arg Ser Arg  
 100 105 110  
 Lys Ser Leu Ala Arg Thr His Gly Phe Arg Arg Arg Met Arg Thr Thr  
 115 120 125  
 Ser Gly Arg Ala Thr Ile Lys Arg Arg Arg Ala Lys Gly Arg Trp Asn  
 130 135 140  
 Leu Cys Pro Lys Ser Asn Pro Ser Ser Gly Lys Arg Ala  
 145 150 155

&lt;210&gt; 1649

&lt;211&gt; 390

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1649

atggcagctt cgtctctcaa tctcctcctc attctctctc ttctcacttt catttctctc 60  
 cagagatctg aatctctttc cgataatcca tctctcactc ttctacccga cggattcgac 120  
 tggccgatct ctactccga tgaattcgat atcatcgacg gtgaagaaag cttcgaagtt 180  
 acggaggaag acgacggcgt aacagatcga cggtcattgt actggcggag gacgaagtat 240  
 tacatatcgt acggtgcatt gtcggcgaat agagtgccat gtcctcccag atctggaaga 300



047-E2F-PCT.ST25.txt

tcgtactaca ctcataactg cttcagagct agaggtcccg ttcacccgta tagccgagggc 360  
tgctcgtcga tcactcgatg ccggagatag 390

<210> 1650

<211> 129

<212> PRT

<213> Arabidopsis thaliana

<400> 1650

Met Ala Ala Ser Ser Leu Asn Leu Leu Leu Ile Leu Ser Leu Leu Thr  
1 5 10 15

Phe Ile Ser Leu Gln Arg Ser Glu Ser Leu Ser Asp Asn Pro Ser Leu  
20 25 30

Thr Leu Leu Pro Asp Gly Phe Asp Trp Pro Ile Ser His Ser Asp Glu  
35 40 45

Phe Asp Ile Ile Asp Gly Glu Glu Ser Phe Glu Val Thr Glu Glu Asp  
50 55 60

Asp Gly Val Thr Asp Arg Arg Ser Leu Tyr Trp Arg Arg Thr Lys Tyr  
65 70 75 80

Tyr Ile Ser Tyr Gly Ala Leu Ser Ala Asn Arg Val Pro Cys Pro Pro  
85 90 95

Arg Ser Gly Arg Ser Tyr Tyr Thr His Asn Cys Phe Arg Ala Arg Gly  
100 105 110

Pro Val His Pro Tyr Ser Arg Gly Cys Ser Ser Ile Thr Arg Cys Arg  
115 120 125

Arg

<210> 1651

<211> 615

<212> DNA

<213> Arabidopsis thaliana

<400> 1651  
 atgggaagtg tacagttgag tggttccggc ctagtagctt ctctacctcc aaatcatagc 60  
 tttagccaca agaccaaact taataagcca aattcgact tctttcgctc aaaacacaat 120  
 gccgcaagaa ccaaaaccgt ccgagccata agcaccgcac cagcgagcca gcctccagcc 180  
 gctgatgagc ccgacgaacc tcctgctgtc gattttgcgt tcgtccattc ggtggttgtg 240  
 ccggacggga caccggacgt acattggaga agagcgaacg gtggacagaa actaagagac 300  
 ataatgttgg attctaacat cgaactctat ggtccttata gtaagccttt gtcaaactgc 360  
 gcaggagtag gaacttgccg tacttgcatg gtcgagattg taaatggaaa ggagcttcta 420  
 aatccgcgaa ctgatattga gaaggagaaa ctcaaaagga aaccaaaaaa ttggagacta 480  
 gcttggtcaaa ccaacgtggg aaatccagat tctaccggat tggttgtcat acaacaattg 540  
 ccagagtgga aagctcatga gtggaacatc cctaagaata tacctaataa cgatgatctc 600  
 gaaacttcta cttga 615

<210> 1652

<211> 204

<212> PRT

<213> Arabidopsis thaliana

<400> 1652

Met Gly Ser Val Gln Leu Ser Gly Ser Gly Leu Val Ala Ser Leu Pro  
 1 5 10 15  
 Pro Asn His Ser Phe Ser His Lys Thr Lys Leu Asn Lys Pro Asn Ser  
 20 25 30  
 Tyr Phe Phe Arg Ser Lys His Asn Ala Ala Arg Thr Lys Thr Val Arg  
 35 40 45  
 Ala Ile Ser Thr Ala Pro Ala Ser Gln Pro Pro Ala Ala Asp Glu Pro  
 50 55 60  
 Asp Glu Pro Pro Ala Val Asp Phe Ala Phe Val His Ser Val Leu Leu  
 65 70 75 80  
 Pro Asp Gly Thr Pro Asp Val His Trp Arg Arg Ala Asn Gly Gly Gln  
 85 90 95  
 Lys Leu Arg Asp Ile Met Leu Asp Ser Asn Ile Glu Leu Tyr Gly Pro  
 100 105 110

047-E2F-PCT.ST25.txt

Tyr Ser Lys Pro Leu Ser Asn Cys Ala Gly Val Gly Thr Cys Ala Thr  
115 120 125

Cys Met Val Glu Ile Val Asn Gly Lys Glu Leu Leu Asn Pro Arg Thr  
130 135 140

Asp Ile Glu Lys Glu Lys Leu Lys Arg Lys Pro Lys Asn Trp Arg Leu  
145 150 155 160

Ala Cys Gln Thr Asn Val Gly Asn Pro Asp Ser Thr Gly Leu Val Val  
165 170 175

Ile Gln Gln Leu Pro Glu Trp Lys Ala His Glu Trp Asn Ile Pro Lys  
180 185 190

Asn Ile Pro Asn Asp Asp Asp Leu Glu Thr Ser Thr  
195 200

<210> 1653

<211> 1344

<212> DNA

<213> Arabidopsis thaliana

<400> 1653

atggccacac atgcagctct cgccgtctca agaatcccgg tcacacagcg actgcagtct	60
aagagtgccca ttcactcttt ccctgctcaa tgctcctcca agaggctaga agtcgctgaa	120
ttctccggtc tgcgtatgag tagtatcggg ggggaagcat ctttcttcga tgctgtagct	180
gcacaaatca tccctaaggc tgtgacaaca tcaactcctg ttagaggaga gacagtggcg	240
aaactgaaag ttgcgattaa cggtttttga aggattggta ggaactttct taggtgttgg	300
catggtcgtc aagactctcc tctcgaagtt gttgtactta acgacagtgg tgggtgtcaag	360
aatgcatccc acttgcttaa gtatgactcc atgcttggaa ccttcaaggc tgaagtgaaa	420
attgtggaca atgaaactat tagtgttgat ggtaagctca tcaaagttgt ctccaacaga	480
gaccctctta agcttccatg ggctgagctc ggcattgaca ttgttatcga gggaacagga	540
gtgtttgttg atgggccagg agcaggggaag catatccaag ccggagcctc gaaagttatc	600
atcactgcac cagccaaagg tgctgatatc cctacctatg ttatgggagt caatgagcaa	660
gactatgggtc acgatgtcgc taacattatt agcaatgcat cttgcaccac caactgtttg	720
gcaccttttg ctaaagtctt ggatgaagaa tttggaattg tcaaggggac aatgacaacc	780

047-E2F-PCT.ST25.txt

acacactcct acaccggaga ccaaaggcct ctagatgcat cacacaggga cctaaggcgt 840  
gcaagagccg cagcactgaa catagtgcct accagcacag gagcagccaa ggcggtgtca 900  
ttagtgttgc cgcagctgaa gggtaaactt aacggcattg cactccgtgt gccaacacca 960  
aacgtctcag tggttgacct tggtataaac gttgagaaga aaggtttgac agcagaggat 1020  
gtgaacgagg cctttagaaa agccgctaata ggaccgatga aaggcatttt agacgtttgc 1080  
gatgcgctc ttgtctctgt tgacttcagg tgctctgatg tctctaccac cattgactcg 1140  
tccctcacta tggttatggg tgatgatatg gtcaagggtg ttgcttggtg tgataacgag 1200  
tggggttaca gccaaagagt ggtggatttg gctcacctag tggctagcaa gtggccggga 1260  
gcggaagctg ttggaagtgg agatcctttg gaggatttct gcaagacaaa cccggctgat 1320  
gaggaatgca aagtctatga ctga 1344

<210> 1654

<211> 447

<212> PRT

<213> Arabidopsis thaliana

<400> 1654

Met Ala Thr His Ala Ala Leu Ala Val Ser Arg Ile Pro Val Thr Gln  
1 5 10 15

Arg Leu Gln Ser Lys Ser Ala Ile His Ser Phe Pro Ala Gln Cys Ser  
20 25 30

Ser Lys Arg Leu Glu Val Ala Glu Phe Ser Gly Leu Arg Met Ser Ser  
35 40 45

Ile Gly Gly Glu Ala Ser Phe Phe Asp Ala Val Ala Ala Gln Ile Ile  
50 55 60

Pro Lys Ala Val Thr Thr Ser Thr Pro Val Arg Gly Glu Thr Val Ala  
65 70 75 80

Lys Leu Lys Val Ala Ile Asn Gly Phe Gly Arg Ile Gly Arg Asn Phe  
85 90 95

Leu Arg Cys Trp His Gly Arg Lys Asp Ser Pro Leu Glu Val Val Val  
100 105 110

Leu Asn Asp Ser Gly Gly Val Lys Asn Ala Ser His Leu Leu Lys Tyr  
115 120 125

047-E2F-PCT.ST25.txt

Asp Ser Met Leu Gly Thr Phe Lys Ala Glu Val Lys Ile Val Asp Asn  
 130 135 140  
 Glu Thr Ile Ser Val Asp Gly Lys Leu Ile Lys Val Val Ser Asn Arg  
 145 150 155 160  
 Asp Pro Leu Lys Leu Pro Trp Ala Glu Leu Gly Ile Asp Ile Val Ile  
 165 170 175  
 Glu Gly Thr Gly Val Phe Val Asp Gly Pro Gly Ala Gly Lys His Ile  
 180 185 190  
 Gln Ala Gly Ala Ser Lys Val Ile Ile Thr Ala Pro Ala Lys Gly Ala  
 195 200 205  
 Asp Ile Pro Thr Tyr Val Met Gly Val Asn Glu Gln Asp Tyr Gly His  
 210 215 220  
 Asp Val Ala Asn Ile Ile Ser Asn Ala Ser Cys Thr Thr Asn Cys Leu  
 225 230 235 240  
 Ala Pro Phe Ala Lys Val Leu Asp Glu Glu Phe Gly Ile Val Lys Gly  
 245 250 255  
 Thr Met Thr Thr Thr His Ser Tyr Thr Gly Asp Gln Arg Leu Leu Asp  
 260 265 270  
 Ala Ser His Arg Asp Leu Arg Arg Ala Arg Ala Ala Ala Leu Asn Ile  
 275 280 285  
 Val Pro Thr Ser Thr Gly Ala Ala Lys Ala Val Ser Leu Val Leu Pro  
 290 295 300  
 Gln Leu Lys Gly Lys Leu Asn Gly Ile Ala Leu Arg Val Pro Thr Pro  
 305 310 315 320  
 Asn Val Ser Val Val Asp Leu Val Ile Asn Val Glu Lys Lys Gly Leu  
 325 330 335  
 Thr Ala Glu Asp Val Asn Glu Ala Phe Arg Lys Ala Ala Asn Gly Pro  
 340 345 350  
 Met Lys Gly Ile Leu Asp Val Cys Asp Ala Pro Leu Val Ser Val Asp  
 355 360 365  
 Phe Arg Cys Ser Asp Val Ser Thr Thr Ile Asp Ser Ser Leu Thr Met  
 Page 2495

370

375

Val Met Gly Asp Asp Met Val Lys Val Val Ala Trp Tyr Asp Asn Glu  
385 390 395 400

Trp Gly Tyr Ser Gln Arg Val Val Asp Leu Ala His Leu Val Ala Ser  
405 410 415

Lys Trp Pro Gly Ala Glu Ala Val Gly Ser Gly Asp Pro Leu Glu Asp  
420 425 430

Phe Cys Lys Thr Asn Pro Ala Asp Glu Glu Cys Lys Val Tyr Asp  
435 440 445

<210> 1655

<211> 582

<212> DNA

<213> Arabidopsis thaliana

<400> 1655

atggcgaaca tgaacgctct tcaacaaatg atcttcccag acgagaacgc tccaattcat	60
cgcaaaaagt ctgtcactgc tgcttctgtg aaatccaaag ggactgtact tggtcagaag	120
aaacctggag gagctcgtaa ggctctgaat gatattacaa acaagtctgg gattcatgcg	180
aaagctgctg cttcttcaaa gaacaagcaa attgcttctg ctgctgtgaa agagattgat	240
atagctgggg aaaggttttt acatgatcac agcaaagca tcaaagaaca gcaaaatctt	300
tgggatgatc actactctgc tgatctcatg ctacttcac atggttccag catcaaggag	360
aagcatctca attgggacat tgaaaagatg gatgctaagg acgatctgac ttacgaagaa	420
ccagaagaga tggcatcgcc caagttttct gattggctga agaactcgac tccatggcgc	480
tctccaatcc gtcattggctc tatgatgcct tccactcctc tggcttggcg gttcgattca	540
tgcgaattca cacttaaaga agactctgac gacctcttct ga	582

<210> 1656

<211> 193

<212> PRT

<213> Arabidopsis thaliana

<400> 1656

Met Ala Asn Met Asn Ala Leu Gln Gln Met Ile Phe Pro Asp Glu Asn  
 1 5 10 15  
 Ala Pro Ile His Arg Lys Lys Ser Val Thr Ala Ala Ser Val Lys Ser  
 20 25 30  
 Lys Gly Thr Val Leu Gly Gln Lys Lys Pro Gly Gly Ala Arg Lys Ala  
 35 40 45  
 Leu Asn Asp Ile Thr Asn Lys Ser Gly Ile His Ala Lys Ala Ala Ala  
 50 55 60  
 Ser Ser Lys Asn Lys Gln Ile Ala Ser Ala Ala Val Lys Glu Ile Asp  
 65 70 75 80  
 Ile Ala Gly Glu Arg Phe Leu His Asp His Ser Lys Cys Ile Lys Glu  
 85 90 95  
 Gln Gln Asn Leu Trp Asp Asp His Tyr Ser Ala Asp Leu Met Leu Leu  
 100 105 110  
 His His Gly Ser Ser Ile Lys Glu Lys His Leu Asn Trp Asp Ile Glu  
 115 120 125  
 Lys Met Asp Ala Lys Asp Asp Leu Thr Tyr Glu Glu Pro Glu Glu Met  
 130 135 140  
 Ala Ser Pro Lys Phe Ser Asp Trp Leu Lys Asn Ser Thr Pro Trp Arg  
 145 150 155 160  
 Ser Pro Ile Arg His Gly Ser Met Met Pro Ser Thr Pro Leu Ala Trp  
 165 170 175  
 Arg Phe Asp Ser Cys Glu Phe Thr Leu Lys Glu Asp Ser Asp Asp Leu  
 180 185 190

Phe

<210> 1657

<211> 783

<212> DNA

<213> Arabidopsis thaliana

<400> 1657

047-E2F-PCT.ST25.txt

```

atgatggaaa cagctctgct ccggtactgc gtcaactttt ccggtcacaa gaaaatctct 60
gctcatcaaa gaagtaatag tgagattccg aaaacgagtc cgggaggatg cgaagacgag 120
tggtgtgcta gggttttgag tagaagatcg gtaatggcgt caggggttggc ctcctcgacg 180
acggcttttag catttccaag ggaaggattg gctgtcgtta aacaagggtct tctcgctggg 240
agagttcctg gtctgtccga acctgatgaa gaaggttggg gaacataccg tagaccagac 300
gagaagtcag gagggcatgg tggtgggttg agtcctatta tcccttacgc cttttcgggt 360
cctcaagatt ggaatgaggt acctgtatcg atcgctgac ttggtggcac cgagattgac 420
ttgagatttg ctagtcctaa agaaggccgt ttgtctgtta ttgtagctcc tgttcttaga 480
tttgacagata acctcgggga cgatgttaag attgaaaata ttggacaacc agcgaagggtg 540
attaacgcgt ttggaccaga agttattgga gaaaacgtag aagggaagggt gttaagttcc 600
aatgttgcag aacacgatgg tagactctat taccaattcg agctagagcc gcctcatgta 660
ctgataactg caacagctgc cggaaaccgc ctttacttgt tcagtgtcac cggaaacggt 720
cttcaatgga agagacacta caaggatctg aagaggatag ctagttcatt ccgcattggt 780
tag 783

```

<210> 1658

<211> 260

<212> PRT

<213> Arabidopsis thaliana

<400> 1658

Met Met Glu Thr Ala Leu Leu Arg Tyr Cys Val Asn Phe Ser Gly His  
1 5 10 15

Lys Lys Ile Ser Ala His Gln Arg Ser Asn Ser Glu Ile Pro Lys Thr  
20 25 30

Ser Pro Gly Gly Cys Glu Asp Glu Trp Cys Ala Arg Val Leu Ser Arg  
35 40 45

Arg Ser Val Met Ala Ser Gly Leu Val Ser Ser Thr Thr Ala Leu Ala  
50 55 60

Phe Pro Arg Glu Gly Leu Ala Val Val Lys Gln Gly Leu Leu Ala Gly  
65 70 75 80

Arg Val Pro Gly Leu Ser Glu Pro Asp Glu Glu Gly Trp Arg Thr Tyr  
85 90 95



047-E2F-PCT.ST25.txt

Arg Arg Pro Asp Glu Lys Ser Gly Gly His Gly Val Gly Trp Ser Pro  
100 105 110

Ile Ile Pro Tyr Ala Phe Ser Val Pro Gln Asp Trp Asn Glu Val Pro  
115 120 125

Val Ser Ile Ala Asp Leu Gly Gly Thr Glu Ile Asp Leu Arg Phe Ala  
130 135 140

Ser Pro Lys Glu Gly Arg Leu Ser Val Ile Val Ala Pro Val Leu Arg  
145 150 155 160

Phe Ala Asp Asn Leu Gly Asp Asp Val Lys Ile Glu Asn Ile Gly Gln  
165 170 175

Pro Ala Lys Val Ile Asn Ala Phe Gly Pro Glu Val Ile Gly Glu Asn  
180 185 190

Val Glu Gly Lys Val Leu Ser Ser Asn Val Ala Glu His Asp Gly Arg  
195 200 205

Leu Tyr Tyr Gln Phe Glu Leu Glu Pro Pro His Val Leu Ile Thr Ala  
210 215 220

Thr Ala Ala Gly Asn Arg Leu Tyr Leu Phe Ser Val Thr Gly Asn Gly  
225 230 235 240

Leu Gln Trp Lys Arg His Tyr Lys Asp Leu Lys Arg Ile Ala Ser Ser  
245 250 255

Phe Arg Ile Val  
260

<210> 1659

<211> 960

<212> DNA

<213> Arabidopsis thaliana

<400> 1659

atggccactg tgaaaatctc tctttccttg gcttcgctat caccatcttc ttcttcttct	60
tcaattcaat ctaagttatc accatctttc attcccaatg cggcacctgc aaaggcggtg	120
aagttgcgat tcaatggaaa gtccttgaga gcaaaaccaa tggtatacag atcatctcgc	180

047-E2F-PCT.ST25.txt

tccgttggag tcacctgctc tgcttcatct tctctgacga ctcttccctc tgctcttctc	240
ttcgattgcg atggcgttct tgttgatacc gagaaggacg gtcacaggat ctcttcaac	300
gacactttca aagagagaga tttgaatggt acgtgggatg ttgatttata cggcgagtta	360
cttaaaatcg gtggtggtaa agaaaggatg actgcgtatt ttaacaagggt tggttggcca	420
gagaaagctc ctaaagatga agcagagagg aaagagttca tagctggact tcacaagcag	480
aagactgagc ttttcatggt tcttatcgag aaaaagctgc ttccgcttcg acccggtggt	540
gcaaagttgg ttgatcaagc ttttaaaaac ggagtcaaag tagctgtgtg cagtacttca	600
aatgagaagg cggtttctgc tatagtttca tgcttgcttg gaccagaacg agcagagaaa	660
atcaagatat tcgcaggaga cgtagtcccc aaaaagaaac ctgatccagc catctacaac	720
ttagcagctg aaacccttgg agttgatccc tcaaaatgtg tagtggttga agacagcgcg	780
atcgggctag cagctgcaaa agctgcggga atgacttgta tagttacaaa gagtggatac	840
acggctgatg aagatttcga gaacgcagat gcggttttcg actgcattgg agaccctcca	900
gaagagagat ttgatttggc attctgtgga agtcttctcc ggaaacagtt cgttagttaa	960

<210> 1660

<211> 319

<212> PRT

<213> Arabidopsis thaliana

<400> 1660

Met	Ala	Thr	Val	Lys	Ile	Ser	Leu	Ser	Leu	Ala	Ser	Leu	Ser	Pro	Ser
1				5					10					15	
Ser	Ser	Ser	Ser	Ser	Ile	Gln	Ser	Lys	Leu	Ser	Pro	Ser	Phe	Ile	Pro
				20				25					30		
Asn	Ala	Ala	Pro	Ala	Lys	Ala	Val	Lys	Leu	Arg	Phe	Asn	Gly	Lys	Ser
				35			40					45			
Leu	Arg	Ala	Lys	Pro	Met	Val	Tyr	Arg	Ser	Ser	Arg	Ser	Val	Gly	Val
	50					55					60				
Thr	Cys	Ser	Ala	Ser	Ser	Ser	Leu	Thr	Thr	Leu	Pro	Ser	Ala	Leu	Leu
65					70					75					80
Phe	Asp	Cys	Asp	Gly	Val	Leu	Val	Asp	Thr	Glu	Lys	Asp	Gly	His	Arg
				85					90					95	

Ile Ser Phe Asn Asp Thr Phe Lys Glu Arg Asp Leu Asn Val Thr Trp  
 100 105 110  
 Asp Val Asp Leu Tyr Gly Glu Leu Leu Lys Ile Gly Gly Gly Lys Glu  
 115 120 125  
 Arg Met Thr Ala Tyr Phe Asn Lys Val Gly Trp Pro Glu Lys Ala Pro  
 130 135 140  
 Lys Asp Glu Ala Glu Arg Lys Glu Phe Ile Ala Gly Leu His Lys Gln  
 145 150 155 160  
 Lys Thr Glu Leu Phe Met Val Leu Ile Glu Lys Lys Leu Leu Pro Leu  
 165 170 175  
 Arg Pro Gly Val Ala Lys Leu Val Asp Gln Ala Leu Thr Asn Gly Val  
 180 185 190  
 Lys Val Ala Val Cys Ser Thr Ser Asn Glu Lys Ala Val Ser Ala Ile  
 195 200 205  
 Val Ser Cys Leu Leu Gly Pro Glu Arg Ala Glu Lys Ile Lys Ile Phe  
 210 215 220  
 Ala Gly Asp Val Val Pro Lys Lys Lys Pro Asp Pro Ala Ile Tyr Asn  
 225 230 235 240  
 Leu Ala Ala Glu Thr Leu Gly Val Asp Pro Ser Lys Cys Val Val Val  
 245 250 255  
 Glu Asp Ser Ala Ile Gly Leu Ala Ala Ala Lys Ala Ala Gly Met Thr  
 260 265 270  
 Cys Ile Val Thr Lys Ser Gly Tyr Thr Ala Asp Glu Asp Phe Glu Asn  
 275 280 285  
 Ala Asp Ala Val Phe Asp Cys Ile Gly Asp Pro Pro Glu Glu Arg Phe  
 290 295 300  
 Asp Leu Ala Phe Cys Gly Ser Leu Leu Arg Lys Gln Phe Val Ser  
 305 310 315

&lt;210&gt; 1661

&lt;211&gt; 1134

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

```

<400> 1661
atggctgatg gtgaagacat tcaacctctt gtttgcgaca atggaactgg aatggttaag    60
gctggttttg ctggggatga tgcacctaga gctgtgtttc ctagtattgt gggtcgtcct    120
cgtcacaccg gtgtgatggg tgggatgggg caaaaggatg cttatgttgg cgatgaagct    180
caatccaaac gaggtatttt aactctcaag taccctattg agcatggaat tgtcaacaat    240
tgggatgaca tggagaagat ttggcatcac actttctaca atgagctccg tgttgctcct    300
gaggaacatc ctattctact taccgaggca ccgcttaacc cgaaagctaa tcgtgagaag    360
atgactcaaa tcatgtttga gactttcaat gcccctgcta tgtatgtggc tattcaggct    420
gttctttctc tttatgccag tggtcgtact accggtattg tgctcgactc tggagatggg    480
gtgagccaca ctgttcctat ctatgagggg tatgcacttc cacatgctat cctacgtctt    540
gatcttgctg gtcgtgacct cacggatgcg ctgatgaaga tcctaaccga gcgtgggttac    600
tctttcacca ccacagcaga gcgtgaaatt gtcagagaca taaaggagaa gctttgctac    660
attgctcttg actacgagca ggaactcgag acagccaaaa ccagctcatc tgttgagaag    720
aactacgagc tacctgatgg gcaagtgatc accattggat cagagcgatt ccgttgctcct    780
gaggttcttt accagccatc tatgattggg atggagaatg ctggtatcca tgaaaccacc    840
tataactcca taatgaagtg tgatgtcgac atcaggaagg acttgtagcg taacattgtg    900
ctcagtgggtg gaaccacaat gttccctgga atcgccgaca gaatgagcaa agagatcact    960
gctttggctc caagcagcat gaagatcaaa gtcgttgccc ctccagagag gaaatactct   1020
gtctggattg gaggggtccat cttggcctcc ctcagtacct tccagcagat gtggatcgca   1080
aaggcagagt atgacgagtc aggtccatcg attgttcaca ggaagtgctt ctga       1134

```

<210> 1662

<211> 377

<212> PRT

<213> Arabidopsis thaliana

<400> 1662

Met Ala Asp Gly Glu Asp Ile Gln Pro Leu Val Cys Asp Asn Gly Thr  
1 5 10 15

Gly Met Val Lys Ala Gly Phe Ala Gly Asp Asp Ala Pro Arg Ala Val  
20 25 30

Phe Pro Ser Ile Val Gly Arg Pro Arg His Thr Gly Val Met Val Gly  
 35 40 45  
 Met Gly Gln Lys Asp Ala Tyr Val Gly Asp Glu Ala Gln Ser Lys Arg  
 50 55 60  
 Gly Ile Leu Thr Leu Lys Tyr Pro Ile Glu His Gly Ile Val Asn Asn  
 65 70 75 80  
 Trp Asp Asp Met Glu Lys Ile Trp His His Thr Phe Tyr Asn Glu Leu  
 85 90 95  
 Arg Val Ala Pro Glu Glu His Pro Ile Leu Leu Thr Glu Ala Pro Leu  
 100 105 110  
 Asn Pro Lys Ala Asn Arg Glu Lys Met Thr Gln Ile Met Phe Glu Thr  
 115 120 125  
 Phe Asn Ala Pro Ala Met Tyr Val Ala Ile Gln Ala Val Leu Ser Leu  
 130 135 140  
 Tyr Ala Ser Gly Arg Thr Thr Gly Ile Val Leu Asp Ser Gly Asp Gly  
 145 150 155 160  
 Val Ser His Thr Val Pro Ile Tyr Glu Gly Tyr Ala Leu Pro His Ala  
 165 170 175  
 Ile Leu Arg Leu Asp Leu Ala Gly Arg Asp Leu Thr Asp Ala Leu Met  
 180 185 190  
 Lys Ile Leu Thr Glu Arg Gly Tyr Ser Phe Thr Thr Thr Ala Glu Arg  
 195 200 205  
 Glu Ile Val Arg Asp Ile Lys Glu Lys Leu Cys Tyr Ile Ala Leu Asp  
 210 215 220  
 Tyr Glu Gln Glu Leu Glu Thr Ala Lys Thr Ser Ser Ser Val Glu Lys  
 225 230 235 240  
 Asn Tyr Glu Leu Pro Asp Gly Gln Val Ile Thr Ile Gly Ser Glu Arg  
 245 250 255  
 Phe Arg Cys Pro Glu Val Leu Tyr Gln Pro Ser Met Ile Gly Met Glu  
 260 265 270  
 Asn Ala Gly Ile His Glu Thr Thr Tyr Asn Ser Ile Met Lys Cys Asp  
 275 280 285

047-E2F-PCT.ST25.txt

Val Asp Ile Arg Lys Asp Leu Tyr Gly Asn Ile Val Leu Ser Gly Gly  
290 295 300

Thr Thr Met Phe Pro Gly Ile Ala Asp Arg Met Ser Lys Glu Ile Thr  
305 310 315 320

Ala Leu Ala Pro Ser Ser Met Lys Ile Lys Val Val Ala Pro Pro Glu  
325 330 335

Arg Lys Tyr Ser Val Trp Ile Gly Gly Ser Ile Leu Ala Ser Leu Ser  
340 345 350

Thr Phe Gln Gln Met Trp Ile Ala Lys Ala Glu Tyr Asp Glu Ser Gly  
355 360 365

Pro Ser Ile Val His Arg Lys Cys Phe  
370 375

<210> 1663

<211> 351

<212> DNA

<213> Arabidopsis thaliana

<400> 1663  
atgagaggac tctccacaaa acccgttgcg ataatcatcg caattctcac cgtccacttc 60  
ttattcgccg ccgtaacctc ccaatcctcc ggcgatttcg taccgatcga gtcgaaatgc 120  
aacggtacca tcgccgagtg ctctttatcc acggcgaggg aagagttcga gatggactct 180  
gagatcaaca ggcgtatfff agcaacaacg aagtatataa gctacggtgc gctgaggaga 240  
aacacagttc cttgctcacg acgcggcgca tcttactaca attgccgacg tggagctcag 300  
gctaattcctt actctcgtgg ctgtagcgct attactcggt gcaggcgata a 351

<210> 1664

<211> 116

<212> PRT

<213> Arabidopsis thaliana

<400> 1664

Met Arg Gly Leu Ser Thr Lys Pro Val Ala Ile Ile Ile Ala Ile Leu  
1 5 10 15

Thr Val His Phe Leu Phe Ala Ala Val Thr Ser Gln Ser Ser Gly Asp  
20 25 30  
Phe Val Pro Ile Glu Ser Lys Cys Asn Gly Thr Ile Ala Glu Cys Ser  
35 40 45  
Leu Ser Thr Ala Glu Glu Glu Phe Glu Met Asp Ser Glu Ile Asn Arg  
50 55 60  
Arg Ile Leu Ala Thr Thr Lys Tyr Ile Ser Tyr Gly Ala Leu Arg Arg  
65 70 75 80  
Asn Thr Val Pro Cys Ser Arg Arg Gly Ala Ser Tyr Tyr Asn Cys Arg  
85 90 95  
Arg Gly Ala Gln Ala Asn Pro Tyr Ser Arg Gly Cys Ser Ala Ile Thr  
100 105 110  
Arg Cys Arg Arg  
115

<210> 1665  
<211> 618  
<212> DNA  
<213> Arabidopsis thaliana

<400> 1665  
atgggatcctt cttctgggca aagtgggtat gatctatctt tcaagatcctt gttgattgga 60  
gattctggtg ttggtaaaag cagcttgctt ctcagcttca tttccagctc tgtcgaagat 120  
cttgctccca ccattggtgt tgactttaag atcaaacaga tgaaagtaag agggaaaagg 180  
ctgaaactta caatctggga cacagctgga caagaaaagt tcagaacatt gacaagttct 240  
tatttcagag gctcccaagg aatcattctc gtttatgatg tcacgaaaag agagacattt 300  
ttgaacttgg cagatatttg ggctaaagag attgagctat attcgactaa ccatgactgc 360  
attaagatgc tcgttggcaa caaagttgat agagaatcag aaaggaaggt tagccgggaa 420  
gaaggaatgg ctctagcgaa agacctcaat tgtttgtttc atgaatgtag cgcaagaacc 480  
cgagaaaacg tgaacggatg cttcgaagag ctagctttga agataatgga ggtacctagt 540  
cttttggaaag aaggatcaag ctctgtgaag agaaaaccgg attaccgagc tcatcaaggc 600  
cggtgttgca gctcgtga 618

&lt;210&gt; 1666

&lt;211&gt; 205

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1666

Met Gly Ser Ser Ser Gly Gln Ser Gly Tyr Asp Leu Ser Phe Lys Ile  
 1 5 10 15

Leu Leu Ile Gly Asp Ser Gly Val Gly Lys Ser Ser Leu Leu Leu Ser  
 20 25 30

Phe Ile Ser Ser Ser Val Glu Asp Leu Ala Pro Thr Ile Gly Val Asp  
 35 40 45

Phe Lys Ile Lys Gln Met Lys Val Arg Gly Lys Arg Leu Lys Leu Thr  
 50 55 60

Ile Trp Asp Thr Ala Gly Gln Glu Lys Phe Arg Thr Leu Thr Ser Ser  
 65 70 75 80

Tyr Phe Arg Gly Ser Gln Gly Ile Ile Leu Val Tyr Asp Val Thr Lys  
 85 90 95

Arg Glu Thr Phe Leu Asn Leu Ala Asp Ile Trp Ala Lys Glu Ile Glu  
 100 105 110

Leu Tyr Ser Thr Asn His Asp Cys Ile Lys Met Leu Val Gly Asn Lys  
 115 120 125

Val Asp Arg Glu Ser Glu Arg Lys Val Ser Arg Glu Glu Gly Met Ala  
 130 135 140

Leu Ala Lys Asp Leu Asn Cys Leu Phe His Glu Cys Ser Ala Arg Thr  
 145 150 155 160

Arg Glu Asn Val Asn Gly Cys Phe Glu Glu Leu Ala Leu Lys Ile Met  
 165 170 175

Glu Val Pro Ser Leu Leu Glu Glu Gly Ser Ser Ser Val Lys Arg Lys  
 180 185 190

Pro Asp Tyr Arg Ala His Gln Gly Arg Cys Cys Ser Ser  
 195 200 205



&lt;210&gt; 1667

&lt;211&gt; 1434

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1667

```

atggcgcac tactttcagc ttcattgcct tcagttatct cacttagcag cagcagcagc      60
aagaattcag ttaagccgtt tgtttcaggg cagaccttct tcaatgctca gtttctttca    120
agatcttctc tcaaaggact tctcttccaa gagaagaaac cgagaaaaag ctgcgttttc    180
agagcaactg ctgtacctat aaccacaaca gcaccacccg aaacatctac caataactca    240
tcctctaaac caaagcgtgt tatggtcatt ggtggagatg gttattgcgg ttgggctact    300
gctctccact tgtccaagaa gaattacgaa gtttgacattg ttgacaacct tgtaagacgt    360
cttttcgacc accagcttgg acttgagtca ttgactccta ttgcctccat tcatgaccga    420
atcagccgat ggaaggcttt gacagggaaa tcaattgagt tgtacgttgg tgatatctgt    480
gatttcgaat tcttagctga gtctttcaag tcttttgagc cggattcagt tgtccacttt    540
ggggaacaga gatccgctcc ttactcgatg attgaccggt ccagagcagt ttatacacag    600
cacaacaatg tgattgggac tctcaacggt ctctttgcta taaaagagtt tggagaggag    660
tgtcatcttg taaaacttgg gacgatgggt gagtatggaa ctccaaatat tgacatcgag    720
gaaggttata taaccataac ccacaacggt agaactgaca ctttgccata cccaagcaa    780
gctagctcct tttatcatct tagcaaagtt catgattcgc acaacattgc ttttacttgc    840
aaggcttggg gtattagagc cactgatctc aaccaaggag ttgtttatgg agtgaagact    900
gatgagacag agatgcatga ggaactccgt aaccgactgg attacgatgc tgtgtttggt    960
acagcactta accggttctg tgtgcaagct gctgttggtc acccacttac agtttatggt   1020
aaagggtggc agacgagagg ctacctcgat ataagagaca cggttcaatg tgttgagatc   1080
gctatagcaa acccggaaca agctggtgag ttccgggtct tcaaccaatt tacagaacag   1140
ttttcagtca atgaactggc ttactcgtc actaaagcgg gttcaaagct tgggctagac   1200
gtgaaaaaga tgacggtgcc taacccgaga gtggaggcag aagaacatta ctacaacgca   1260
aagcacacta agctgatgga acttggaact gagcctcact atctatctga ctcaattctt   1320
gattcgttgc tcaactttgc tgttcagttt aaagatcgtg tggacacgaa acaaatcatg   1380
cctagtgttt cctggaagaa gattggcgtc aagactaagt ccatgaccac ataa         1434

```

&lt;210&gt; 1668

&lt;211&gt; 477

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1668

Met Ala His Leu Leu Ser Ala Ser Cys Pro Ser Val Ile Ser Leu Ser  
1 5 10 15

Ser Ser Ser Ser Lys Asn Ser Val Lys Pro Phe Val Ser Gly Gln Thr  
20 25 30

Phe Phe Asn Ala Gln Leu Leu Ser Arg Ser Ser Leu Lys Gly Leu Leu  
35 40 45

Phe Gln Glu Lys Lys Pro Arg Lys Ser Cys Val Phe Arg Ala Thr Ala  
50 55 60

Val Pro Ile Thr Gln Gln Ala Pro Pro Glu Thr Ser Thr Asn Asn Ser  
65 70 75 80

Ser Ser Lys Pro Lys Arg Val Met Val Ile Gly Gly Asp Gly Tyr Cys  
85 90 95

Gly Trp Ala Thr Ala Leu His Leu Ser Lys Lys Asn Tyr Glu Val Cys  
100 105 110

Ile Val Asp Asn Leu Val Arg Arg Leu Phe Asp His Gln Leu Gly Leu  
115 120 125

Glu Ser Leu Thr Pro Ile Ala Ser Ile His Asp Arg Ile Ser Arg Trp  
130 135 140

Lys Ala Leu Thr Gly Lys Ser Ile Glu Leu Tyr Val Gly Asp Ile Cys  
145 150 155 160

Asp Phe Glu Phe Leu Ala Glu Ser Phe Lys Ser Phe Glu Pro Asp Ser  
165 170 175

Val Val His Phe Gly Glu Gln Arg Ser Ala Pro Tyr Ser Met Ile Asp  
180 185 190

Arg Ser Arg Ala Val Tyr Thr Gln His Asn Asn Val Ile Gly Thr Leu  
195 200 205

Asn Val Leu Phe Ala Ile Lys Glu Phe Gly Glu Glu Cys His Leu Val  
 210 215 220  
 Lys Leu Gly Thr Met Gly Glu Tyr Gly Thr Pro Asn Ile Asp Ile Glu  
 225 230 235 240  
 Glu Gly Tyr Ile Thr Ile Thr His Asn Gly Arg Thr Asp Thr Leu Pro  
 245 250 255  
 Tyr Pro Lys Gln Ala Ser Ser Phe Tyr His Leu Ser Lys Val His Asp  
 260 265 270  
 Ser His Asn Ile Ala Phe Thr Cys Lys Ala Trp Gly Ile Arg Ala Thr  
 275 280 285  
 Asp Leu Asn Gln Gly Val Val Tyr Gly Val Lys Thr Asp Glu Thr Glu  
 290 295 300  
 Met His Glu Glu Leu Arg Asn Arg Leu Asp Tyr Asp Ala Val Phe Gly  
 305 310 315 320  
 Thr Ala Leu Asn Arg Phe Cys Val Gln Ala Ala Val Gly His Pro Leu  
 325 330 335  
 Thr Val Tyr Gly Lys Gly Gly Gln Thr Arg Gly Tyr Leu Asp Ile Arg  
 340 345 350  
 Asp Thr Val Gln Cys Val Glu Ile Ala Ile Ala Asn Pro Ala Lys Ala  
 355 360 365  
 Gly Glu Phe Arg Val Phe Asn Gln Phe Thr Glu Gln Phe Ser Val Asn  
 370 375 380  
 Glu Leu Ala Ser Leu Val Thr Lys Ala Gly Ser Lys Leu Gly Leu Asp  
 385 390 395 400  
 Val Lys Lys Met Thr Val Pro Asn Pro Arg Val Glu Ala Glu Glu His  
 405 410 415  
 Tyr Tyr Asn Ala Lys His Thr Lys Leu Met Glu Leu Gly Leu Glu Pro  
 420 425 430  
 His Tyr Leu Ser Asp Ser Leu Leu Asp Ser Leu Leu Asn Phe Ala Val  
 435 440 445  
 Gln Phe Lys Asp Arg Val Asp Thr Lys Gln Ile Met Pro Ser Val Ser  
 450 455 460

Trp Lys Lys Ile Gly Val Lys Thr Lys Ser Met Thr Thr  
 465 470 475

<210> 1669

<211> 576

<212> DNA

<213> Arabidopsis thaliana

<400> 1669

```

atggcgaatg tggatcgtga tcggcgtgtg catgtagacc gtactgacaa acgtgttcat      60
cagccaaact acgaagatga tgtcggtttt ggtggctatg gcggttatgg tgctggttct      120
gattataaga gtcgcggccc ctccactaac caaatcttgg cacttatagc aggagttccc      180
attggtggca cactgctaac cctagctgga ctcaacttag ccggttcggt gatcggcttg      240
ctagtctcca taccctcttt cctcctcttc agtccggtga tagtcccggc ggctctcact      300
attgggcttg ctgtgacggg aatcttggct tctggtttgt ttgggttgac gggctctgagc      360
tcggctctcgt gggtcctcaa ctacctcgt gggacgagtg atacagtgcc agagcaattg      420
gactacgcta aacggcgatg ggctgatgcg gtaggctatg ctggtatgaa gggaaaagag      480
atgggtcagt atgtgcaaga taaggctcat gaggctcgtg agactgagtt catgactgag      540
acccatgagc cgggtaaggc caggagaggc tcataa                                576

```

<210> 1670

<211> 191

<212> PRT

<213> Arabidopsis thaliana

<400> 1670

```

Met Ala Asn Val Asp Arg Asp Arg Arg Val His Val Asp Arg Thr Asp
1          5          10          15

Lys Arg Val His Gln Pro Asn Tyr Glu Asp Asp Val Gly Phe Gly Gly
          20          25          30

Tyr Gly Gly Tyr Gly Ala Gly Ser Asp Tyr Lys Ser Arg Gly Pro Ser
          35          40          45

Thr Asn Gln Ile Leu Ala Leu Ile Ala Gly Val Pro Ile Gly Gly Thr
          50          55          60

```

047-E2F-PCT.ST25.txt

Leu Leu Thr Leu Ala Gly Leu Thr Leu Ala Gly Ser Val Ile Gly Leu  
65 70 75 80

Leu Val Ser Ile Pro Leu Phe Leu Leu Phe Ser Pro Val Ile Val Pro  
85 90 95

Ala Ala Leu Thr Ile Gly Leu Ala Val Thr Gly Ile Leu Ala Ser Gly  
100 105 110

Leu Phe Gly Leu Thr Gly Leu Ser Ser Val Ser Trp Val Leu Asn Tyr  
115 120 125

Leu Arg Gly Thr Ser Asp Thr Val Pro Glu Gln Leu Asp Tyr Ala Lys  
130 135 140

Arg Arg Met Ala Asp Ala Val Gly Tyr Ala Gly Met Lys Gly Lys Glu  
145 150 155 160

Met Gly Gln Tyr Val Gln Asp Lys Ala His Glu Ala Arg Glu Thr Glu  
165 170 175

Phe Met Thr Glu Thr His Glu Pro Gly Lys Ala Arg Arg Gly Ser  
180 185 190

<210> 1671

<211> 1998

<212> DNA

<213> Arabidopsis thaliana

<400> 1671

atggcgactg gtcgatacat cgttgaggtt gagaagggaa agcaaggcgt tgatggagga	60
agtccatcgg tcggtccagt gtaccggagt atctatgcta aagacggttt tcctgaaccg	120
cctgatgatc tcgtcagtgc atgggatatt ttccgtttat ctgtggagaa atctccaaat	180
aatcctatgc ttggtcgtag agaaatagtt gatggaaaag ctgggaaata tgtatggcaa	240
acttaciaaag aagtacataa tgtagtgatt aagcttgga actctatcag aactattgga	300
gttggaagaa gagataaatg cggtatttat ggcgccaata gtcctgaatg gattataagc	360
atggaggcctt gcaatgctca tggactctac tgtgtacctt tatatgacac tctaggtgct	420
ggagcaatag aattcatcat ttgtcatgct gaggtctcac ttgcttttgc tgaggagaac	480
aagatttctg agttattgaa gacagctcca aaatcaacta aatatttgaa gtatattgtg	540

agcttttggtg aggttacaaa taatcagaga gtagaagctg agaggcacag attaacaata 600  
 tattcatggg accaattctt gaagctaggg gagggtaaac attatgaatt accagagaag 660  
 aggagaagcg atgtttgcac cataatgtat acaagtggca caactggtga tcctaaagga 720  
 gtattgctta caaatgagag cattattcat ctccttgaag gtgttaaaaa attgcttaaa 780  
 actattgatg aagagttaac cagtaaagat gtatatctct catatctacc tctggctcat 840  
 atcttcgacg gtgtgattga ggagctgtgt atttatgaag cagcctctat cggattctgg 900  
 cgaggggatg ttaagatatt gatagaagac attgctgcat tgaaaccgac tgttttctgc 960  
 gctgttcctc gcgttctaga gagaatatac accggtcttc agcagaaaact ttctgatggt 1020  
 ggttttgtaa agaagaaatt attcaacttt gcattcaaat acaaacataa aaacatggag 1080  
 aaagggcagc ctcattgaaca agcatctcca atagctgaca aaattgtatt taaaaaggta 1140  
 aaagaagggg tgggaggaaa cgtgcgtctt atcctctcag gagcagctcc tcttgagct 1200  
 cacatcgaat ctttccttcg agttgtcgcg tgtgctcatg ttttgcaagg atacggtcta 1260  
 acagagagtt gtggtgggac ttttgtgtcc attccaaacg agctttcaat gcttggaacg 1320  
 gttggtccac cggttccaaa cgttgacata aggctagagt cagttccaga gatgggttat 1380  
 gacgctcttg caagcaatcc acgtggagag atttgcatca ggggaaagac tttgttctct 1440  
 ggatactaca aacgtgaaga tctcactcaa gaagtcttca ttgatggatg gcttcacact 1500  
 ggtgatgtcg gtgagtggca accagatgga gccatgaaga tcatcgaccg taagaagaac 1560  
 atcttttaaac tgtctcaagg agaatacgtt gccgttgaga acttgagaga catatacagt 1620  
 catgtcgccg ccattgaatc gatatgggta tatggaaaca gctatgagtc ttacttagtg 1680  
 gctgtggtat gtccaagcaa gatccagatc gagcattggg ccaaagaaca caaagtttca 1740  
 ggagactttg agtctatctg ccgaaaccaa aagactaaag agtttgtcct tggagagttc 1800  
 aacagagtag ccaaagacaa aaagctgaag ggatttgagc tgatcaaagg tgttcatttg 1860  
 gacacagtcc cgttcgacat ggaaagagat ctcactctc cttcttacia gatgaaaaga 1920  
 cctcagcttc tcaagtacta tcagaaagag attgatgaaa tgtataagaa aaacagagaa 1980  
 gtgcagctac gagtgtaa 1998

<210> 1672

<211> 665

<212> PRT

<213> *Arabidopsis thaliana*

<400> 1672

Met Ala Thr Gly Arg Tyr Ile Val Glu Val Glu Lys Gly Lys Gln Gly  
 1 5 10 15  
 Val Asp Gly Gly Ser Pro Ser Val Gly Pro Val Tyr Arg Ser Ile Tyr  
 20 25 30  
 Ala Lys Asp Gly Phe Pro Glu Pro Pro Asp Asp Leu Val Ser Ala Trp  
 35 40 45  
 Asp Ile Phe Arg Leu Ser Val Glu Lys Ser Pro Asn Asn Pro Met Leu  
 50 55 60  
 Gly Arg Arg Glu Ile Val Asp Gly Lys Ala Gly Lys Tyr Val Trp Gln  
 65 70 75 80  
 Thr Tyr Lys Glu Val His Asn Val Val Ile Lys Leu Gly Asn Ser Ile  
 85 90 95  
 Arg Thr Ile Gly Val Gly Lys Gly Asp Lys Cys Gly Ile Tyr Gly Ala  
 100 105 110  
 Asn Ser Pro Glu Trp Ile Ile Ser Met Glu Ala Cys Asn Ala His Gly  
 115 120 125  
 Leu Tyr Cys Val Pro Leu Tyr Asp Thr Leu Gly Ala Gly Ala Ile Glu  
 130 135 140  
 Phe Ile Ile Cys His Ala Glu Val Ser Leu Ala Phe Ala Glu Glu Asn  
 145 150 155 160  
 Lys Ile Ser Glu Leu Leu Lys Thr Ala Pro Lys Ser Thr Lys Tyr Leu  
 165 170 175  
 Lys Tyr Ile Val Ser Phe Gly Glu Val Thr Asn Asn Gln Arg Val Glu  
 180 185 190  
 Ala Glu Arg His Arg Leu Thr Ile Tyr Ser Trp Asp Gln Phe Leu Lys  
 195 200 205  
 Leu Gly Glu Gly Lys His Tyr Glu Leu Pro Glu Lys Arg Arg Ser Asp  
 210 215 220  
 Val Cys Thr Ile Met Tyr Thr Ser Gly Thr Thr Gly Asp Pro Lys Gly  
 225 230 235 240  
 Val Leu Leu Thr Asn Glu Ser Ile Ile His Leu Leu Glu Gly Val Lys  
 245 250 255

047-E2F-PCT.ST25.txt

Lys Leu Leu Lys Thr Ile Asp Glu Glu Leu Thr Ser Lys Asp Val Tyr  
 260 265 270  
 Leu Ser Tyr Leu Pro Leu Ala His Ile Phe Asp Arg Val Ile Glu Glu  
 275 280 285  
 Leu Cys Ile Tyr Glu Ala Ala Ser Ile Gly Phe Trp Arg Gly Asp Val  
 290 295 300  
 Lys Ile Leu Ile Glu Asp Ile Ala Ala Leu Lys Pro Thr Val Phe Cys  
 305 310 315 320  
 Ala Val Pro Arg Val Leu Glu Arg Ile Tyr Thr Gly Leu Gln Gln Lys  
 325 330 335  
 Leu Ser Asp Gly Gly Phe Val Lys Lys Lys Leu Phe Asn Phe Ala Phe  
 340 345 350  
 Lys Tyr Lys His Lys Asn Met Glu Lys Gly Gln Pro His Glu Gln Ala  
 355 360 365  
 Ser Pro Ile Ala Asp Lys Ile Val Phe Lys Lys Val Lys Glu Gly Leu  
 370 375 380  
 Gly Gly Asn Val Arg Leu Ile Leu Ser Gly Ala Ala Pro Leu Ala Ala  
 385 390 395 400  
 His Ile Glu Ser Phe Leu Arg Val Val Ala Cys Ala His Val Leu Gln  
 405 410 415  
 Gly Tyr Gly Leu Thr Glu Ser Cys Gly Gly Thr Phe Val Ser Ile Pro  
 420 425 430  
 Asn Glu Leu Ser Met Leu Gly Thr Val Gly Pro Pro Val Pro Asn Val  
 435 440 445  
 Asp Ile Arg Leu Glu Ser Val Pro Glu Met Gly Tyr Asp Ala Leu Ala  
 450 455 460  
 Ser Asn Pro Arg Gly Glu Ile Cys Ile Arg Gly Lys Thr Leu Phe Ser  
 465 470 475 480  
 Gly Tyr Tyr Lys Arg Glu Asp Leu Thr Gln Glu Val Phe Ile Asp Gly  
 485 490 495  
 Trp Leu His Thr Gly Asp Val Gly Glu Trp Gln Pro Asp Gly Ala Met  
 500 505 510



047-E2F-PCT.ST25.txt

Lys Ile Ile Asp Arg Lys Lys Asn Ile Phe Lys Leu Ser Gln Gly Glu  
515 520 525

Tyr Val Ala Val Glu Asn Leu Glu Asn Ile Tyr Ser His Val Ala Ala  
530 535 540

Ile Glu Ser Ile Trp Val Tyr Gly Asn Ser Tyr Glu Ser Tyr Leu Val  
545 550 555 560

Ala Val Val Cys Pro Ser Lys Ile Gln Ile Glu His Trp Ala Lys Glu  
565 570 575

His Lys Val Ser Gly Asp Phe Glu Ser Ile Cys Arg Asn Gln Lys Thr  
580 585 590

Lys Glu Phe Val Leu Gly Glu Phe Asn Arg Val Ala Lys Asp Lys Lys  
595 600 605

Leu Lys Gly Phe Glu Leu Ile Lys Gly Val His Leu Asp Thr Val Pro  
610 615 620

Phe Asp Met Glu Arg Asp Leu Ile Thr Pro Ser Tyr Lys Met Lys Arg  
625 630 635 640

Pro Gln Leu Leu Lys Tyr Tyr Gln Lys Glu Ile Asp Glu Met Tyr Lys  
645 650 655

Lys Asn Arg Glu Val Gln Leu Arg Val  
660 665

<210> 1673

<211> 873

<212> DNA

<213> Arabidopsis thaliana

<400> 1673

atgggcgcgga atatctcggg aggttcaccg gagtttgacc ggaacgatga cgtttactcg	60
aggaaactca gattggtgga tttacctgag aattgtgtag cgttgattat gacacggctt	120
gatccacctg agatttgccg gcttgctcgt ctcaacagga tgttccgctg cgcttcctca	180
gctgatttca tttgggaatc aaagttgcct gcgaattatc gtgttattgc acacaaggtg	240
ttcgaatgaaa ttactctgac gaaattaata aagaagatc tttatgcaaa gcttagccag	300

047-E2F-PCT.ST25.txt

cctaattctct tcgacgatgg cacaaaggaa ttgtggatag ataagaacac gggtcgtctt 360  
 tgtttatcta tttcttcaaa ggcactaagg attactggaa ttgatgatcg gagatactgg 420  
 agtcatatcc caactgatga atccagggttc cagtcagctg cttatgttca acagatatgg 480  
 tggtttgaag taggaggaga gtttgagatc cagtttccat ctggaacata tagtctcttc 540  
 ttccgtatcc agctcggtaa aacatcaaag aggcttggaa ggaggatctg caactctgaa 600  
 cacattcatg gatgggacat aaaacctgta aggttccagc tcgccacttc ggacaaccaa 660  
 caagctgtat cattgtgtta tctgaacaac aaccctggga gctggagtca ctatcacgtt 720  
 ggagatttca aagtgacaaa tccagatgta tcaacaggaa tcaaattctc catgactcaa 780  
 atcgattgca ctacacgaa aggtgggcta tgcatagact ctgttcttat attacctaaa 840  
 gaatgtgcaa aagaagtcac tggatcacao tag 873

<210> 1674

<211> 290

<212> PRT

<213> Arabidopsis thaliana

<400> 1674

Met Gly Ala Asn Ile Ser Gly Gly Ser Pro Glu Phe Asp Arg Asn Asp  
 1 5 10 15

Asp Val Tyr Ser Arg Lys Leu Arg Leu Val Asp Leu Pro Glu Asn Cys  
 20 25 30

Val Ala Leu Ile Met Thr Arg Leu Asp Pro Pro Glu Ile Cys Arg Leu  
 35 40 45

Ala Arg Leu Asn Arg Met Phe Arg Arg Ala Ser Ser Ala Asp Phe Ile  
 50 55 60

Trp Glu Ser Lys Leu Pro Ala Asn Tyr Arg Val Ile Ala His Lys Val  
 65 70 75 80

Phe Asp Glu Ile Thr Leu Thr Lys Leu Ile Lys Lys Asp Leu Tyr Ala  
 85 90 95

Lys Leu Ser Gln Pro Asn Leu Phe Asp Asp Gly Thr Lys Glu Leu Trp  
 100 105 110

Ile Asp Lys Asn Thr Gly Arg Leu Cys Leu Ser Ile Ser Ser Lys Ala  
 115 120 125

047-E2F-PCT.ST25.txt

Leu Arg Ile Thr Gly Ile Asp Asp Arg Arg Tyr Trp Ser His Ile Pro  
130 135 140

Thr Asp Glu Ser Arg Phe Gln Ser Ala Ala Tyr Val Gln Gln Ile Trp  
145 150 155 160

Trp Phe Glu Val Gly Gly Glu Phe Glu Ile Gln Phe Pro Ser Gly Thr  
165 170 175

Tyr Ser Leu Phe Phe Arg Ile Gln Leu Gly Lys Thr Ser Lys Arg Leu  
180 185 190

Gly Arg Arg Ile Cys Asn Ser Glu His Ile His Gly Trp Asp Ile Lys  
195 200 205

Pro Val Arg Phe Gln Leu Ala Thr Ser Asp Asn Gln Gln Ala Val Ser  
210 215 220

Leu Cys Tyr Leu Asn Asn Asn Pro Gly Ser Trp Ser His Tyr His Val  
225 230 235 240

Gly Asp Phe Lys Val Thr Asn Pro Asp Val Ser Thr Gly Ile Lys Phe  
245 250 255

Ser Met Thr Gln Ile Asp Cys Thr His Thr Lys Gly Gly Leu Cys Ile  
260 265 270

Asp Ser Val Leu Ile Leu Pro Lys Glu Cys Ala Lys Glu Val Ile Gly  
275 280 285

Ser Gln  
290

<210> 1675

<211> 465

<212> DNA

<213> Arabidopsis thaliana

<400> 1675  
atggctatgg cggcgtctat tatccaatct tctccgctct ccttcaatag caacaacgca 60  
aagccacgga ttcatagttc aggatcgctc ggcggaatca aaagccaaaa tagagtctct 120  
ccattgagtg cggttggatt aagctcaggc cttggaagta gaaggaaatc tcttttgata 180

tgtcactcag ccattaacgc gaaatgcagt gaaggacaaa cacagaccgt tactcgggag 240  
 tcaccgacta taacacaggc tcctgtacac tctaaggaga aatcaccaag cctagacgat 300  
 ggaggagacg gggtcccacc gcgagatgat ggagatgggtg gtggaggagg aggggggtgga 360  
 ggcaactggt cgggtgggtt cttcttcttt ggttttcttg ctttcttggg tctattgaag 420  
 gataaagagg gcgaggaaga ttaccgaggg agcagaaggc gataa 465

<210> 1676

<211> 154

<212> PRT

<213> Arabidopsis thaliana

<400> 1676

Met Ala Met Ala Ala Ser Ile Ile Gln Ser Ser Pro Leu Ser Phe Asn  
 1 5 10 15  
 Ser Asn Asn Ala Lys Pro Arg Ile His Ser Ser Gly Ser Leu Gly Gly  
 20 25 30  
 Ile Lys Ser Gln Asn Arg Val Ser Pro Leu Ser Ala Val Gly Leu Ser  
 35 40 45  
 Ser Gly Leu Gly Ser Arg Arg Lys Ser Leu Leu Ile Cys His Ser Ala  
 50 55 60  
 Ile Asn Ala Lys Cys Ser Glu Gly Gln Thr Gln Thr Val Thr Arg Glu  
 65 70 75 80  
 Ser Pro Thr Ile Thr Gln Ala Pro Val His Ser Lys Glu Lys Ser Pro  
 85 90 95  
 Ser Leu Asp Asp Gly Gly Asp Gly Phe Pro Pro Arg Asp Asp Gly Asp  
 100 105 110  
 Gly Gly Gly Gly Gly Gly Gly Gly Gly Asn Trp Ser Gly Gly Phe Phe  
 115 120 125  
 Phe Phe Gly Phe Leu Ala Phe Leu Gly Leu Leu Lys Asp Lys Glu Gly  
 130 135 140  
 Glu Glu Asp Tyr Arg Gly Ser Arg Arg Arg  
 145 150

&lt;210&gt; 1677

&lt;211&gt; 378

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1677

```

atggcagcga aatttcgaat ttcttcttct tcgttttagcc acagggctag tgattcctca    60
acttcatcat cttcttcata ttcatcattg cttgctttac ctcaattctt ttgtccacca    120
tcaccattag gattcccaga attcaagctt catgccaaat taggtggagg agatggagaa    180
gtgaagccta aagataagaa aaagtttata accaaagagg aagaacctga acagtattgg    240
caaagcgttg gagaaagaga aggagagaat ccgatgaaga cgcctcttcc ttacattatc    300
atattcggtg tgtcaactcc attcgtcatc ttagccattg cttttgccaa tggttggatc    360
aaagttccca ttcgttga                                     378

```

&lt;210&gt; 1678

&lt;211&gt; 125

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1678

```

Met Ala Ala Lys Phe Arg Ile Ser Ser Ser Ser Phe Ser His Arg Ala
1          5          10          15
Ser Asp Ser Ser Thr Ser Ser Ser Ser Ser Tyr Ser Ser Leu Leu Ala
20          25          30
Leu Pro Gln Phe Phe Cys Pro Pro Ser Pro Leu Gly Phe Pro Glu Phe
35          40          45
Lys Leu His Ala Lys Leu Gly Gly Gly Asp Gly Glu Val Lys Pro Lys
50          55          60
Asp Lys Lys Lys Phe Ile Thr Lys Glu Glu Glu Pro Glu Gln Tyr Trp
65          70          75          80
Gln Ser Val Gly Glu Arg Glu Gly Glu Asn Pro Met Lys Thr Pro Leu
85          90          95
Pro Tyr Ile Ile Ile Phe Gly Met Ser Thr Pro Phe Val Ile Leu Ala

```

100

047-E2F-PCT.ST25.txt

105

110

Ile Ala Phe Ala Asn Gly Trp Ile Lys Val Pro Ile Arg  
 115 120 125

&lt;210&gt; 1679

&lt;211&gt; 999

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1679

```

atgcttgctg acgggaaact cgtctgcgtc accggagccg gcggctacat tgcttcttgg      60
atcgттаagt tactcttaga gagaggctac accgтtagag gaaccgтаag gaacccaact     120
gatcccaaga acaaccatct cagagagctt caaggagcca aggaaagact cactcttcac     180
agtgсagatc ttctcgacta cgaagctctc tgtgccacaa tcgacggттg cgatggcgтт     240
ttccacactg cctctccgat gaccgacgat cccgagacaa tgттggagcc ggcgгtгаac     300
ggagccaagt tcgtgattga cgcagcgгct aaagccaagg tcaagcgгct ggттttcacg     360
tcatcaattg gtgcagттta catgaaccct aaccgtgaca ctcaagccat tgттgacgaa     420
aactgctgga gtgatcttga tttctgcaaa aacactaaga attgгtattg ctacgggaag     480
atgттggcgгg aacaatcgгc atgggagacg gccaaagcaa aaggгtgгga cttagtgгtg     540
ctaaatccггg tттtgгттct cggaccaccg ctccagtcag cgatcaacgc tagtctagtc     600
catattctca agtacctcac cggctcagcc aagacctacg ctaacttgac tcaggгctac     660
gtggacгtcc gtgacгtgгc actaggccat gттctgгттct acgaagcacc ctccгcctca     720
ggccгттaca tcctcgccga gaccгcactt caccгcgгag aggттgттga gattctггcc     780
aaattcttcc cгgagtatcc acttcccacc aagtгттcгг acgagaagaa tccgaggгct     840
aagccataca agттtactac ccaaaagata aaagacttag gттtggaatt taaaccatc     900
aagcaatctc тttacgaatc tgtcaagagc ttgcaagaga aaggccatct tcctctacct     960
caagattcga accaaaacga agtcatcatc gaatcttag                               999

```

&lt;210&gt; 1680

&lt;211&gt; 332

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1680

Met Leu Val Asp Gly Lys Leu Val Cys Val Thr Gly Ala Gly Gly Tyr  
 1 5 10 15

Ile Ala Ser Trp Ile Val Lys Leu Leu Leu Glu Arg Gly Tyr Thr Val  
 20 25 30

Arg Gly Thr Val Arg Asn Pro Thr Asp Pro Lys Asn Asn His Leu Arg  
 35 40 45

Glu Leu Gln Gly Ala Lys Glu Arg Leu Thr Leu His Ser Ala Asp Leu  
 50 55 60

Leu Asp Tyr Glu Ala Leu Cys Ala Thr Ile Asp Gly Cys Asp Gly Val  
 65 70 75 80

Phe His Thr Ala Ser Pro Met Thr Asp Asp Pro Glu Thr Met Leu Glu  
 85 90 95

Pro Ala Val Asn Gly Ala Lys Phe Val Ile Asp Ala Ala Ala Lys Ala  
 100 105 110

Lys Val Lys Arg Val Val Phe Thr Ser Ser Ile Gly Ala Val Tyr Met  
 115 120 125

Asn Pro Asn Arg Asp Thr Gln Ala Ile Val Asp Glu Asn Cys Trp Ser  
 130 135 140

Asp Leu Asp Phe Cys Lys Asn Thr Lys Asn Trp Tyr Cys Tyr Gly Lys  
 145 150 155 160

Met Leu Ala Glu Gln Ser Ala Trp Glu Thr Ala Lys Ala Lys Gly Val  
 165 170 175

Asp Leu Val Val Leu Asn Pro Val Leu Val Leu Gly Pro Pro Leu Gln  
 180 185 190

Ser Ala Ile Asn Ala Ser Leu Val His Ile Leu Lys Tyr Leu Thr Gly  
 195 200 205

Ser Ala Lys Thr Tyr Ala Asn Leu Thr Gln Val Tyr Val Asp Val Arg  
 210 215 220

Asp Val Ala Leu Gly His Val Leu Val Tyr Glu Ala Pro Ser Ala Ser  
 225 230 235 240

Gly Arg Tyr Ile Leu Ala Glu Thr Ala Leu His Arg Gly Glu Val Val  
 Page 2521

245

255

Glu Ile Leu Ala Lys Phe Phe Pro Glu Tyr Pro Leu Pro Thr Lys Cys  
260 265 270  
Ser Asp Glu Lys Asn Pro Arg Ala Lys Pro Tyr Lys Phe Thr Thr Gln  
275 280 285  
Lys Ile Lys Asp Leu Gly Leu Glu Phe Lys Pro Ile Lys Gln Ser Leu  
290 295 300  
Tyr Glu Ser Val Lys Ser Leu Gln Glu Lys Gly His Leu Pro Leu Pro  
305 310 315 320  
Gln Asp Ser Asn Gln Asn Glu Val Ile Ile Glu Ser  
325 330

<210> 1681  
<211> 459  
<212> DNA  
<213> Arabidopsis thaliana

<400> 1681  
atgagtcaac acatgaacct tctcctgcct tcatttgaaa cggacaaaga ggaatacgat 60  
gaacgcaaga caacagacca cggaggcatc ggtggcagcg tctggagggtt caaaggcaac 120  
aaagcggcca aggaagcggc tagtgtctca atgaaaggta cacttgctag gttattcgac 180  
tgctgcagca aagacgtcaa aaagactatt ttgcctctgg gtcacggcga cccctccgtc 240  
tacccttgct tccaaacgtc cgttgacgct gaggaagcgg tggttgaatc cttacgggtct 300  
ggagctgcaa actcttacgc ccccggggtc ggtatatttac cggccagaag gagaggtact 360  
aggactgaag aattgggtga gattctctat cggagtggag aggtctatgc tggaagatgc 420  
attcatgagg ctcaaaggct tcttcgctcg ccatactaa 459

<210> 1682  
<211> 152  
<212> PRT  
<213> Arabidopsis thaliana

<400> 1682



Met Ser Gln His Met Asn Leu Leu Leu Pro Ser Phe Glu Thr Asp Lys  
1 5 10 15

Glu Glu Tyr Asp Glu Arg Lys Thr Thr Asp His Gly Gly Ile Gly Gly  
20 25 30

Ser Val Trp Arg Phe Lys Gly Asn Lys Ala Ala Lys Glu Ala Ala Ser  
35 40 45

Val Ser Met Lys Gly Thr Leu Ala Arg Leu Phe Asp Cys Cys Ser Lys  
50 55 60

Asp Val Lys Lys Thr Ile Leu Pro Leu Gly His Gly Asp Pro Ser Val  
65 70 75 80

Tyr Pro Cys Phe Gln Thr Ser Val Asp Ala Glu Glu Ala Val Val Glu  
85 90 95

Ser Leu Arg Ser Gly Ala Ala Asn Ser Tyr Ala Pro Gly Val Gly Ile  
100 105 110

Leu Pro Ala Arg Arg Arg Gly Thr Arg Thr Glu Glu Leu Gly Glu Ile  
115 120 125

Leu Tyr Arg Ser Gly Glu Val Tyr Ala Gly Arg Cys Ile His Glu Ala  
130 135 140

Gln Arg Leu Leu Arg Ser Pro Tyr  
145 150

<210> 1683

<211> 1254

<212> DNA

<213> Arabidopsis thaliana

<400> 1683  
atgcttttga taccttcctt caccgcaaat tctaacgaac caccaccgtc gaagctttct 60  
ctttccgatac tttcaatggc gattctcaaa tctcacttct tcttactctt ccctcttctt 120  
cttctccact ttcacactgt ctcttttgct cagacgctct ttgtgttcgg agatggctct 180  
tacgacgccg gaaacaaaca gtttctctct cagaaccgag ttgacgcaag ctttcctcct 240  
tatggagtca ctgtaggaca agccaccgga cggtgggtccg atggttctat cgttcctgat 300  
tatcttgcta aattcatggg aattcctaaa atctctccga ttctcctaac cacggcggat 360

047-E2F-PCT.ST25.txt

```

ttttctcacg gagctaattt cgccatcgcc gacgctaccg ttcttggctc tcctccggag 420
acgatgactt tgtcacaaca agtgaagaaa ttctcggaac acaagaataa gtggacaaat 480
caaacacggt ctgaagctat ctacttgatc tacattgggt ctgatgatta cttgagctat 540
gctaagagta atccaagtcc atcagatact cagaaacaag cttttgttga tcaagtcattc 600
actaccataa aagcagaaat aaaggtgggt tacgggtctg gcggaaggaa attcgattc 660
cagaacttgg caccgttagg ttgcttaccg gccgtgaaac aagcaagcgg aaatgttcaa 720
gaatgtgtga aattgccttc ggaaatgggt gctttgcata acaagaaact tttgcagctc 780
ttggttgaac tatcaagaga actaaatgggt ttccagtact cgttttacga cttcttttagc 840
tcgatccaaa acagagttat caagtctaag acttatacat tcgagacagg aaacgctgct 900
tgttgtggaa ctggctctat caacgggagt aattgctcag ctaaaaatgt atgcgccaag 960
cctgaagagt atatcttctt tgatggtaag catttgacgc aagaagccaa ctttcaggtc 1020
gggcatttga tgtggggagc agatccggaa gtgattggac cgaacaatat cagggagctt 1080
atggctcttc ctctagacat tacagtcattc ttagctggta tacaagaagc tatggctgcc 1140
atgagaccga gacagagcaa cattgagagt ctctatgata tcaagaagat ggagtcagag 1200
atggataatc attggcttta tcaagttgac aaagctatct cttttatgat ataa 1254

```

<210> 1684

<211> 417

<212> PRT

<213> Arabidopsis thaliana

<400> 1684

Met Leu Leu Ile Pro Ser Phe Thr Ala Asn Ser Asn Glu Pro Pro Pro  
1 5 10 15

Ser Lys Leu Ser Leu Ser Asp Leu Ser Met Ala Ile Leu Lys Ser His  
20 25 30

Phe Phe Leu Leu Phe Pro Leu Leu Leu Leu His Phe His Thr Val Ser  
35 40 45

Phe Ala Gln Thr Leu Phe Val Phe Gly Asp Gly Leu Tyr Asp Ala Gly  
50 55 60

Asn Lys Gln Phe Leu Ser Gln Asn Arg Val Asp Ala Ser Phe Pro Pro  
65 70 75 80

Tyr Gly Val Thr Val Gly Gln Ala Thr Gly Arg Trp Ser Asp Gly Ser  
 85 90 95  
 Ile Val Pro Asp Tyr Leu Ala Lys Phe Met Gly Ile Pro Lys Ile Ser  
 100 105 110  
 Pro Ile Leu Leu Thr Thr Ala Asp Phe Ser His Gly Ala Asn Phe Ala  
 115 120 125  
 Ile Ala Asp Ala Thr Val Leu Gly Ser Pro Pro Glu Thr Met Thr Leu  
 130 135 140  
 Ser Gln Gln Val Lys Lys Phe Ser Glu Asn Lys Asn Lys Trp Thr Asn  
 145 150 155 160  
 Gln Thr Arg Ser Glu Ala Ile Tyr Leu Ile Tyr Ile Gly Ser Asp Asp  
 165 170 175  
 Tyr Leu Ser Tyr Ala Lys Ser Asn Pro Ser Pro Ser Asp Thr Gln Lys  
 180 185 190  
 Gln Ala Phe Val Asp Gln Val Ile Thr Thr Ile Lys Ala Glu Ile Lys  
 195 200 205  
 Val Val Tyr Gly Ser Gly Gly Arg Lys Phe Ala Phe Gln Asn Leu Ala  
 210 215 220  
 Pro Leu Gly Cys Leu Pro Ala Val Lys Gln Ala Ser Gly Asn Val Gln  
 225 230 235 240  
 Glu Cys Val Lys Leu Pro Ser Glu Met Ala Ala Leu His Asn Lys Lys  
 245 250 255  
 Leu Leu Gln Leu Leu Val Glu Leu Ser Arg Glu Leu Asn Gly Phe Gln  
 260 265 270  
 Tyr Ser Phe Tyr Asp Phe Phe Ser Ser Ile Gln Asn Arg Val Ile Lys  
 275 280 285  
 Ser Lys Thr Tyr Thr Phe Glu Thr Gly Asn Ala Ala Cys Cys Gly Thr  
 290 295 300  
 Gly Ser Ile Asn Gly Ser Asn Cys Ser Ala Lys Asn Val Cys Ala Lys  
 305 310 315 320  
 Pro Glu Glu Tyr Ile Phe Phe Asp Gly Lys His Leu Thr Gln Glu Ala  
 325 330 335

047-E2F-PCT.ST25.txt

Asn Leu Gln Val Gly His Leu Met Trp Gly Ala Asp Pro Glu Val Ile  
340 345 350

Gly Pro Asn Asn Ile Arg Glu Leu Met Val Leu Pro Leu Asp Ile Thr  
355 360 365

Val Ile Leu Ala Gly Ile Gln Glu Ala Met Ala Ala Met Arg Pro Arg  
370 375 380

Gln Ser Asn Ile Glu Ser Leu Tyr Asp Ile Lys Lys Met Glu Ser Glu  
385 390 395 400

Met Asp Asn His Trp Leu Tyr Gln Val Asp Lys Ala Ile Ser Phe Met  
405 410 415

Ile

<210> 1685

<211> 1119

<212> DNA

<213> Arabidopsis thaliana

<400> 1685

atgtttgttt ccgataacaa caatccttca cgggacataa acatgatgat cggcgatggt	60
acatcaaacg gagatctaca gccacaccag atcatcctcg gagaaagcag tggaggagag	120
gatcatgaga tcatcaaagc accaaagaaa cgagcagaga catgggcaca agacgagact	180
cgaaccttaa tctcattacg gagagaaatg gacaatcttt tcaacacttc caaatctaac	240
aaacatctct gggaacagat ttctaagaaa atgagagaga aagggtttga tcgatcacca	300
tctatgtgta cggacaagtg gaggaacata ttgaaagagt ttaagaaagc taagcaacat	360
gaagataaag caacaagtgg aggatcaacg aagatgtctt attacaatga gattgaagat	420
atcttcagag aaagaaagaa gaaagtggca ttctataaga gtcctgctac tactacacca	480
tcttctgcta aagttgattc ctttatgcaa ttacagata aagggtttga agatactggt	540
atctcattta catctgttga agctaattggc aggccaacgc taaatcttga aacggagctt	600
gatcatgatg gtcttcctct cccatttgct gctgatccca tcacagcaaa tggagttcct	660
ccttggaatt ggagagacac ccctggaaat ggcgttgatg gtcagccatt tgctgggagg	720
atcataacgg tgaaatttgg agattacaca agacgagttg ggattgatgg tactgctgaa	780
gcaattaagg aagctatcag atccgcgttt agattgagaa caagacgagc tttttggcta	840

047-E2F-PCT.ST25.txt

gaagatgaag aacagggttat tcgctctctt gaccgagaca tgccttttagg gaactatata 900  
 ctccgcattg atgaagggat agccgttaga gtgtgccact atgatgaatc tgatccgtta 960  
 ccagtccatc aagaggagaa gatattctac accgaagaag attaccgaga tttcttggct 1020  
 cgacgaggat ggacatgtct gagagagttt gacgcgtttc aaaacataga caatatggac 1080  
 gagcttcaat ccggtcgttt atacagagga atgagatga 1119

<210> 1686

<211> 372

<212> PRT

<213> Arabidopsis thaliana

<400> 1686

Met Phe Val Ser Asp Asn Asn Asn Pro Ser Arg Asp Ile Asn Met Met  
 1 5 10 15

Ile Gly Asp Val Thr Ser Asn Gly Asp Leu Gln Pro His Gln Ile Ile  
 20 25 30

Leu Gly Glu Ser Ser Gly Gly Glu Asp His Glu Ile Ile Lys Ala Pro  
 35 40 45

Lys Lys Arg Ala Glu Thr Trp Ala Gln Asp Glu Thr Arg Thr Leu Ile  
 50 55 60

Ser Leu Arg Arg Glu Met Asp Asn Leu Phe Asn Thr Ser Lys Ser Asn  
 65 70 75 80

Lys His Leu Trp Glu Gln Ile Ser Lys Lys Met Arg Glu Lys Gly Phe  
 85 90 95

Asp Arg Ser Pro Ser Met Cys Thr Asp Lys Trp Arg Asn Ile Leu Lys  
 100 105 110

Glu Phe Lys Lys Ala Lys Gln His Glu Asp Lys Ala Thr Ser Gly Gly  
 115 120 125

Ser Thr Lys Met Ser Tyr Tyr Asn Glu Ile Glu Asp Ile Phe Arg Glu  
 130 135 140

Arg Lys Lys Lys Val Ala Phe Tyr Lys Ser Pro Ala Thr Thr Thr Pro  
 145 150 155 160

047-E2F-PCT.ST25.txt

Ser Ser Ala Lys Val Asp Ser Phe Met Gln Phe Thr Asp Lys Gly Phe  
165 170 175

Glu Asp Thr Gly Ile Ser Phe Thr Ser Val Glu Ala Asn Gly Arg Pro  
180 185 190

Thr Leu Asn Leu Glu Thr Glu Leu Asp His Asp Gly Leu Pro Leu Pro  
195 200 205

Ile Ala Ala Asp Pro Ile Thr Ala Asn Gly Val Pro Pro Trp Asn Trp  
210 215 220

Arg Asp Thr Pro Gly Asn Gly Val Asp Gly Gln Pro Phe Ala Gly Arg  
225 230 235 240

Ile Ile Thr Val Lys Phe Gly Asp Tyr Thr Arg Arg Val Gly Ile Asp  
245 250 255

Gly Thr Ala Glu Ala Ile Lys Glu Ala Ile Arg Ser Ala Phe Arg Leu  
260 265 270

Arg Thr Arg Arg Ala Phe Trp Leu Glu Asp Glu Glu Gln Val Ile Arg  
275 280 285

Ser Leu Asp Arg Asp Met Pro Leu Gly Asn Tyr Ile Leu Arg Ile Asp  
290 295 300

Glu Gly Ile Ala Val Arg Val Cys His Tyr Asp Glu Ser Asp Pro Leu  
305 310 315 320

Pro Val His Gln Glu Glu Lys Ile Phe Tyr Thr Glu Glu Asp Tyr Arg  
325 330 335

Asp Phe Leu Ala Arg Arg Gly Trp Thr Cys Leu Arg Glu Phe Asp Ala  
340 345 350

Phe Gln Asn Ile Asp Asn Met Asp Glu Leu Gln Ser Gly Arg Leu Tyr  
355 360 365

Arg Gly Met Arg  
370

<210> 1687

<211> 690

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1687

```

atggaagggg ttcttcgctt tctttagtagc aaagccatct tattggcttt agcatcttca    60
tttgtatctt gttacgaccc aagtcctctt caggactttt gtgttgccgt cgatgacgct    120
agtgggtgtt tcgtgaatgg aaaattctgc aaagacccaa aatacgtgaa agctgaagac    180
ttttttactt ccggactaaa catcgccgga aacacaataa accgcgttgg ctccaacggt    240
acaaacgtta acgttgacaa aatccctgga ctcaacaccc tcggagtgtc tcttgtccga    300
attgactttg ccccgaggagg tcaaaacccg ccacacacgc acccacgagc cactgagatc    360
ctcgtgggtg tcgaaggaac actcttagtc ggttttgtaa catcgaacca agacaacaac    420
agattgttct caaaggttct ttacccggga gacgttttcg tgtttcccat aggaatgata    480
cattttcaag tgaacgttgg gaggacgaac gcagttgcgt ttgctggtct tggtagccaa    540
aatcccggta caatcacaat cgcagacgcc gtttttggat cgaagccttc gattatgccg    600
gagattttag caaaagcgtt tcagctggat gtgaacgtgg ttaaatatct cgaggcaaga    660
ttttcttcca attatgatcg tcattattaa    690

```

&lt;210&gt; 1688

&lt;211&gt; 229

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1688

```

Met Glu Gly Phe Leu Arg Phe Leu Val Ala Lys Ala Ile Leu Leu Ala
1           5           10          15

Leu Ala Ser Ser Phe Val Ser Cys Tyr Asp Pro Ser Pro Leu Gln Asp
20          25          30

Phe Cys Val Ala Val Asp Asp Ala Ser Gly Val Phe Val Asn Gly Lys
35          40          45

Phe Cys Lys Asp Pro Lys Tyr Val Lys Ala Glu Asp Phe Phe Thr Ser
50          55          60

Gly Leu Asn Ile Ala Gly Asn Thr Ile Asn Arg Val Gly Ser Asn Val
65          70          75          80

Thr Asn Val Asn Val Asp Lys Ile Pro Gly Leu Asn Thr Leu Gly Val

```

Ser Leu Val Arg Ile Asp Phe Ala Pro Gly Gly Gln Asn Pro Pro His  
100 105 110

Thr His Pro Arg Ala Thr Glu Ile Leu Val Val Val Glu Gly Thr Leu  
115 120 125

Leu Val Gly Phe Val Thr Ser Asn Gln Asp Asn Asn Arg Leu Phe Ser  
130 135 140

Lys Val Leu Tyr Pro Gly Asp Val Phe Val Phe Pro Ile Gly Met Ile  
145 150 155 160

His Phe Gln Val Asn Val Gly Arg Thr Asn Ala Val Ala Phe Ala Gly  
165 170 175

Leu Gly Ser Gln Asn Pro Gly Thr Ile Thr Ile Ala Asp Ala Val Phe  
180 185 190

Gly Ser Lys Pro Ser Ile Met Pro Glu Ile Leu Ala Lys Ala Phe Gln  
195 200 205

Leu Asp Val Asn Val Val Lys Tyr Leu Glu Ala Arg Phe Ser Ser Asn  
210 215 220

Tyr Asp Arg His Tyr  
225

<210> 1689

<211> 678

<212> DNA

<213> Arabidopsis thaliana

<400> 1689

atggcgaaga aagaagagag tgtgaagctt ctagggtttt ggataagccc ttttagtcgt	60
agagtcgaga tggctctcaa acttaaaggc gtaccatacg agtacttgga agaagactta	120
cccaaaaaga gcactttact tcttgaacta aatccggttc acaagaaggt tccggttctt	180
gttcacaatg ataaattatt atccgagtca catgtgatcc tcgaatacat cgaccaaact	240
tggaataaca atccaattct acctcacgat ccctacgaga aggccatggt tcggttctgg	300
gccaaagttcg ttgatgagca gatcctacca gttggcttca tgcccctagt aaaagcagag	360
aagggaatag atgttgctat tgaggagatt cgagaaatgc ttatgtttct tgagaaggaa	420



047-E2F-PCT.ST25.txt

gtcactggaa aagatttctt tgggtggcaag acgatcggat tcttggacat ggttgcgggga 480  
 agtatgatcc cgttttgtct tgctcgggct tgggaatggt tggggattga tatgactcca 540  
 gaggatacgt ttccagaatt aaacagatgg atcaagaact tgaatgaagt tgagatcgtg 600  
 agggaatgta tacctccaaa agagaaacat attgagcgta tgaagaaaat tatagagaga 660  
 gctaagtcta cgtttctaa 678

<210> 1690

<211> 225

<212> PRT

<213> Arabidopsis thaliana

<400> 1690

Met Ala Lys Lys Glu Glu Ser Val Lys Leu Leu Gly Phe Trp Ile Ser  
 1 5 10 15

Pro Phe Ser Arg Arg Val Glu Met Ala Leu Lys Leu Lys Gly Val Pro  
 20 25 30

Tyr Glu Tyr Leu Glu Glu Asp Leu Pro Lys Lys Ser Thr Leu Leu Leu  
 35 40 45

Glu Leu Asn Pro Val His Lys Lys Val Pro Val Leu Val His Asn Asp  
 50 55 60

Lys Leu Leu Ser Glu Ser His Val Ile Leu Glu Tyr Ile Asp Gln Thr  
 65 70 75 80

Trp Asn Asn Asn Pro Ile Leu Pro His Asp Pro Tyr Glu Lys Ala Met  
 85 90 95

Val Arg Phe Trp Ala Lys Phe Val Asp Glu Gln Ile Leu Pro Val Gly  
 100 105 110

Phe Met Pro Leu Val Lys Ala Glu Lys Gly Ile Asp Val Ala Ile Glu  
 115 120 125

Glu Ile Arg Glu Met Leu Met Phe Leu Glu Lys Glu Val Thr Gly Lys  
 130 135 140

Asp Phe Phe Gly Gly Lys Thr Ile Gly Phe Leu Asp Met Val Ala Gly  
 145 150 155 160

047-E2F-PCT.ST25.txt

Ser Met Ile Pro Phe Cys Leu Ala Arg Ala Trp Glu Cys Leu Gly Ile  
165 170 175

Asp Met Thr Pro Glu Asp Thr Phe Pro Glu Leu Asn Arg Trp Ile Lys  
180 185 190

Asn Leu Asn Glu Val Glu Ile Val Arg Glu Cys Ile Pro Pro Lys Glu  
195 200 205

Lys His Ile Glu Arg Met Lys Lys Ile Ile Glu Arg Ala Lys Ser Thr  
210 215 220

Phe  
225

<210> 1691

<211> 396

<212> DNA

<213> Arabidopsis thaliana

<400> 1691

atggcctttt ccaaattctt agtggttggt cttctcgctg ctcttttgat ttcttccgca	60
gtggctcaat ctccggctcc agctccatct aacgtcggag gtagacggat ctcaccggct	120
ccttcaccta agaagatgac tgctcctgct cctgcacctg aagtttctcc ttctccttct	180
ccggcagccg cattgactcc agaatcctct gcttcaccac catcgccgcc tctagctgat	240
tctcctaccg ctgactcccc ggctttgtct ccatctgcga tctccgattc tccgactgaa	300
gctcctgggtc ctgctcaggg cggcgccggt tcgaacaaat tcgccagttt cggatctgtg	360
gcggttatgt taactgctgc cgttttgggt atctag	396

<210> 1692

<211> 131

<212> PRT

<213> Arabidopsis thaliana

<400> 1692

Met Ala Phe Ser Lys Ser Leu Val Phe Val Leu Leu Ala Ala Leu Leu  
1 5 10 15

Ile Ser Ser Ala Val Ala Gln Ser Pro Ala Pro Ala Pro Ser Asn Val  
20 25 30

Gly Gly Arg Arg Ile Ser Pro Ala Pro Ser Pro Lys Lys Met Thr Ala  
35 40 45

Pro Ala Pro Ala Pro Glu Val Ser Pro Ser Pro Ser Pro Ala Ala Ala  
50 55 60

Leu Thr Pro Glu Ser Ser Ala Ser Pro Pro Ser Pro Pro Leu Ala Asp  
65 70 75 80

Ser Pro Thr Ala Asp Ser Pro Ala Leu Ser Pro Ser Ala Ile Ser Asp  
85 90 95

Ser Pro Thr Glu Ala Pro Gly Pro Ala Gln Gly Gly Ala Val Ser Asn  
100 105 110

Lys Phe Ala Ser Phe Gly Ser Val Ala Val Met Leu Thr Ala Ala Val  
115 120 125

Leu Val Ile  
130

<210> 1693

<211> 1113

<212> DNA

<213> Arabidopsis thaliana

<400> 1693

atggcactaa tgaagaagag tctctctgct gctcttctct catcaccact tctgatcata	60
tgtcttatcg cattgctcgc tgatccgttt tcagtcggtg ctgccgggtt attggaggat	120
cctaaaccgg agatacaaaa attgcctgag ctacctaaat tcgaagttcc caagttgccg	180
gagttcccta aaccagagtt gcccaagtta cccgaatttc caaagcctga gttgccaaag	240
atcccgagaga ttccaaagcc agagttacca aaggtaccgg agattccaaa gcctgaggaa	300
actaaactgc cagatattcc caagcttgaa ttgcccaagt ttccggaaat tccaaaacct	360
gagctcccaa agatgccaga gattccaaaa cctgagttac caaagggtacc ggagattcag	420
aagcccgagt taccaaaaaat gccggagatt ccaaagcctg aattaccaaaa gtttccagag	480
attccaaagc ctgatttgcc aaagttttcca gagaattcaa agcctgaggt gcctaagcta	540
atggagactg aaaagcctga ggctcctaag gtgccagaga ttccaaagcc tgagttgcc	600

047-E2F-PCT.ST25.txt

aagttgccag aagttcccaa gcttgaggct cctaaggtac cagagatcca gaagccggag 660  
 ttgccccaaa tgccggagtt acctaagatg ccggagattc agaaacctga gttgccaaag 720  
 ttgccagaag ttcccaagct tgaggctcct aaggtaccgg agatccagaa gccggagttg 780  
 cccaaaatgc cggagttacc taagatgccg gagattcaga aacccgagtt gcccaagatg 840  
 ccggagattc agaagcctga gttgccgaag gtgccagagg ttccaaagcc cgaattgcca 900  
 acggtttccag aggtttccaaa gtctgaggct cctaagtttc cagagattcc aaagcctgaa 960  
 ctgccgaaga ttccagaagt tccaaaacct gaactgccca aggtttccaga aattacaaaa 1020  
 cctgcagttc cagagattcc aaagccagag ctaccgacga tgcctcaact tcccaagttg 1080  
 ccggaattcc caaaagttcc cggaactcct taa 1113

<210> 1694

<211> 370

<212> PRT

<213> Arabidopsis thaliana

<400> 1694

Met Ala Leu Met Lys Lys Ser Leu Ser Ala Ala Leu Leu Ser Ser Pro  
 1 5 10 15

Leu Leu Ile Ile Cys Leu Ile Ala Leu Leu Ala Asp Pro Phe Ser Val  
 20 25 30

Gly Ala Arg Arg Leu Leu Glu Asp Pro Lys Pro Glu Ile Pro Lys Leu  
 35 40 45

Pro Glu Leu Pro Lys Phe Glu Val Pro Lys Leu Pro Glu Phe Pro Lys  
 50 55 60

Pro Glu Leu Pro Lys Leu Pro Glu Phe Pro Lys Pro Glu Leu Pro Lys  
 65 70 75 80

Ile Pro Glu Ile Pro Lys Pro Glu Leu Pro Lys Val Pro Glu Ile Pro  
 85 90 95

Lys Pro Glu Glu Thr Lys Leu Pro Asp Ile Pro Lys Leu Glu Leu Pro  
 100 105 110

Lys Phe Pro Glu Ile Pro Lys Pro Glu Leu Pro Lys Met Pro Glu Ile  
 115 120 125

047-E2F-PCT.ST25.txt

Pro Lys Pro Glu Leu Pro Lys Val Pro Glu Ile Gln Lys Pro Glu Leu  
130 135 140

Pro Lys Met Pro Glu Ile Pro Lys Pro Glu Leu Pro Lys Phe Pro Glu  
145 150 155 160

Ile Pro Lys Pro Asp Leu Pro Lys Phe Pro Glu Asn Ser Lys Pro Glu  
165 170 175

Val Pro Lys Leu Met Glu Thr Glu Lys Pro Glu Ala Pro Lys Val Pro  
180 185 190

Glu Ile Pro Lys Pro Glu Leu Pro Lys Leu Pro Glu Val Pro Lys Leu  
195 200 205

Glu Ala Pro Lys Val Pro Glu Ile Gln Lys Pro Glu Leu Pro Lys Met  
210 215 220

Pro Glu Leu Pro Lys Met Pro Glu Ile Gln Lys Pro Glu Leu Pro Lys  
225 230 235 240

Leu Pro Glu Val Pro Lys Leu Glu Ala Pro Lys Val Pro Glu Ile Gln  
245 250 255

Lys Pro Glu Leu Pro Lys Met Pro Glu Leu Pro Lys Met Pro Glu Ile  
260 265 270

Gln Lys Pro Glu Leu Pro Lys Met Pro Glu Ile Gln Lys Pro Glu Leu  
275 280 285

Pro Lys Val Pro Glu Val Pro Lys Pro Glu Leu Pro Thr Val Pro Glu  
290 295 300

Val Pro Lys Ser Glu Ala Pro Lys Phe Pro Glu Ile Pro Lys Pro Glu  
305 310 315 320

Leu Pro Lys Ile Pro Glu Val Pro Lys Pro Glu Leu Pro Lys Val Pro  
325 330 335

Glu Ile Thr Lys Pro Ala Val Pro Glu Ile Pro Lys Pro Glu Leu Pro  
340 345 350

Thr Met Pro Gln Leu Pro Lys Leu Pro Glu Phe Pro Lys Val Pro Gly  
355 360 365

Thr Pro  
370

&lt;210&gt; 1695

&lt;211&gt; 2004

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1695

```

atggggttcaa ctccgttttg ctactctatc aatccatctc catcaaagct tgatttcacg      60
aggacccatg tgttttagtcc tgtttctaaa cagttttact tagatttatc atcgttttcc      120
ggaaaacccg gaggagtatc tgggttttagg agccgctcgag ctttgctcgg agtaaaggcg      180
gcgacggcgt tagttgagaa ggaggagaag agagaggcgg tgacggagaa gaagaagaaa      240
tcgagggttt tagttgccgg aggtggaatc ggaggattgg tgtttgcttt agcggctaag      300
aagaaaggat tcgatgtgtt agtgtttgag aaagatttga gtgctataag aggagaagga      360
aaatacagag gcccgattca aatacagagc aacgcttttag ctgctttgga agctattgat      420
attgaagttg ctgaacaagt tatggaagct ggggtgatca ctggtgatcg gattaacggt      480
ctcgttgatg gtatctctgg tacttggtat gtaaagtttg atactttcac tcctgcggcg      540
tcacggggac ttcctgtgac tagagtaatt agtagaatga ctctgcagca gattctagca      600
cgtgcggttg gagaagatgt gattagaaac gagagtaatg ttgttgattt tgaagattct      660
ggagataagg ttactgtggt actcgagaat ggtcaacgct atgaaggatga tctgcttggt      720
gggtgcagatg gcatttggtc taagggtgaga aataatttgt ttggccgtag tgaagctact      780
tattcaggct acacttggtt cacggggatt gcagatttta taccagcgga tatcgagtct      840
gttggctacc gggttttctt gggacacaaa cagtactttg tttcttcgga tgttggtggt      900
ggaaaaatgc aatggtatgc atttcacgag gaaccagctg gtggggctga tgctccaaat      960
gggatgaaga aaagggttgtt tgaaatatat gacggttggt gcgacaatgt actcgacttg     1020
ttgcatgcga ctgaggagga agccattctg agaagagata tttatgatag aagtcctggt     1080
tttacttggg gtaaagggcg tgttacgctg ctcggggatt ctatccatgc gatgcagcca     1140
aatatgggtc aagggtggatg catggccatt gaggatagtt ttcaactagc attggagctt     1200
gatgaagcat ggaaacagag tgttgaaacg actacacctg ttgatgttgt ttcctctttg     1260
aaaagatatg aggaatctag aagactgaga gtcgctatta tccatgcaat ggcgaggatg     1320
gctgcaatta tggcttccac ttacaaagca tacttaggtg ttgggcttgg tcctctgtct     1380
ttcttgacaa agtttagagt accacatcca ggaagagttg gtggtagatt cttcgttgac     1440
attgctatgc catcgatgct tgactgggtc cttggaggta acagtgaaaa actccaagga     1500
aggccaccta gttgcagact cactgacaaa gccgatgacc ggcttcgaga gtggtttgaa     1560

```

047-E2F-PCT.ST25.txt

gatgacgatg ctcttgaacg tactataaag ggagaatggt atctaattcc acacggcgac 1620  
gattgttgcg tttcggaaac attatgtcta accaaagatg aagatcaacc ttgcatcgtc 1680  
ggaagcgaac cagatcaaga ttttcctgga atgcgcattg tgatcccttc gtctcagggtt 1740  
tcgaagatgc atgctcgtgt gatttataaaa gacggagctt tcttcttgat ggatcttcga 1800  
agcgaacacg gaacctatgt gaccgataac gaaggaagaa gatatagagc aacaccgaat 1860  
tttcccgcgcg ggttttagatc gtccgacatc atcgagtttg gttcagataa gaaggcggcg 1920  
tttaggggtga aagtaatcag gaaaactccg aaatcgacga ggaagaatga gagtaacaac 1980  
gataaattac ttcagacagc ttga 2004

<210> 1696

<211> 667

<212> PRT

<213> Arabidopsis thaliana

<400> 1696

Met Gly Ser Thr Pro Phe Cys Tyr Ser Ile Asn Pro Ser Pro Ser Lys  
1 5 10 15

Leu Asp Phe Thr Arg Thr His Val Phe Ser Pro Val Ser Lys Gln Phe  
20 25 30

Tyr Leu Asp Leu Ser Ser Phe Ser Gly Lys Pro Gly Gly Val Ser Gly  
35 40 45

Phe Arg Ser Arg Arg Ala Leu Leu Gly Val Lys Ala Ala Thr Ala Leu  
50 55 60

Val Glu Lys Glu Glu Lys Arg Glu Ala Val Thr Glu Lys Lys Lys Lys  
65 70 75 80

Ser Arg Val Leu Val Ala Gly Gly Gly Ile Gly Gly Leu Val Phe Ala  
85 90 95

Leu Ala Ala Lys Lys Lys Gly Phe Asp Val Leu Val Phe Glu Lys Asp  
100 105 110

Leu Ser Ala Ile Arg Gly Glu Gly Lys Tyr Arg Gly Pro Ile Gln Ile  
115 120 125

Gln Ser Asn Ala Leu Ala Ala Leu Glu Ala Ile Asp Ile Glu Val Ala  
Page 2537

130

135

Glu Gln Val Met Glu Ala Gly Cys Ile Thr Gly Asp Arg Ile Asn Gly  
145 150 155 160

Leu Val Asp Gly Ile Ser Gly Thr Trp Tyr Val Lys Phe Asp Thr Phe  
165 170 175

Thr Pro Ala Ala Ser Arg Gly Leu Pro Val Thr Arg Val Ile Ser Arg  
180 185 190

Met Thr Leu Gln Gln Ile Leu Ala Arg Ala Val Gly Glu Asp Val Ile  
195 200 205

Arg Asn Glu Ser Asn Val Val Asp Phe Glu Asp Ser Gly Asp Lys Val  
210 215 220

Thr Val Val Leu Glu Asn Gly Gln Arg Tyr Glu Gly Asp Leu Leu Val  
225 230 235 240

Gly Ala Asp Gly Ile Trp Ser Lys Val Arg Asn Asn Leu Phe Gly Arg  
245 250 255

Ser Glu Ala Thr Tyr Ser Gly Tyr Thr Cys Tyr Thr Gly Ile Ala Asp  
260 265 270

Phe Ile Pro Ala Asp Ile Glu Ser Val Gly Tyr Arg Val Phe Leu Gly  
275 280 285

His Lys Gln Tyr Phe Val Ser Ser Asp Val Gly Gly Gly Lys Met Gln  
290 295 300

Trp Tyr Ala Phe His Glu Glu Pro Ala Gly Gly Ala Asp Ala Pro Asn  
305 310 315 320

Gly Met Lys Lys Arg Leu Phe Glu Ile Phe Asp Gly Trp Cys Asp Asn  
325 330 335

Val Leu Asp Leu Leu His Ala Thr Glu Glu Glu Ala Ile Leu Arg Arg  
340 345 350

Asp Ile Tyr Asp Arg Ser Pro Gly Phe Thr Trp Gly Lys Gly Arg Val  
355 360 365

Thr Leu Leu Gly Asp Ser Ile His Ala Met Gln Pro Asn Met Gly Gln  
370 375 380



## 047-E2F-PCT.ST25.txt

Gly Gly Cys Met Ala Ile Glu Asp Ser Phe Gln Leu Ala Leu Glu Leu  
 385 390 395 400  
 Asp Glu Ala Trp Lys Gln Ser Val Glu Thr Thr Thr Pro Val Asp Val  
 405 410 415  
 Val Ser Ser Leu Lys Arg Tyr Glu Glu Ser Arg Arg Leu Arg Val Ala  
 420 425 430  
 Ile Ile His Ala Met Ala Arg Met Ala Ala Ile Met Ala Ser Thr Tyr  
 435 440 445  
 Lys Ala Tyr Leu Gly Val Gly Leu Gly Pro Leu Ser Phe Leu Thr Lys  
 450 455 460  
 Phe Arg Val Pro His Pro Gly Arg Val Gly Gly Arg Phe Phe Val Asp  
 465 470 475 480  
 Ile Ala Met Pro Ser Met Leu Asp Trp Val Leu Gly Gly Asn Ser Glu  
 485 490 495  
 Lys Leu Gln Gly Arg Pro Pro Ser Cys Arg Leu Thr Asp Lys Ala Asp  
 500 505 510  
 Asp Arg Leu Arg Glu Trp Phe Glu Asp Asp Asp Ala Leu Glu Arg Thr  
 515 520 525  
 Ile Lys Gly Glu Trp Tyr Leu Ile Pro His Gly Asp Asp Cys Cys Val  
 530 535 540  
 Ser Glu Thr Leu Cys Leu Thr Lys Asp Glu Asp Gln Pro Cys Ile Val  
 545 550 555 560  
 Gly Ser Glu Pro Asp Gln Asp Phe Pro Gly Met Arg Ile Val Ile Pro  
 565 570 575  
 Ser Ser Gln Val Ser Lys Met His Ala Arg Val Ile Tyr Lys Asp Gly  
 580 585 590  
 Ala Phe Phe Leu Met Asp Leu Arg Ser Glu His Gly Thr Tyr Val Thr  
 595 600 605  
 Asp Asn Glu Gly Arg Arg Tyr Arg Ala Thr Pro Asn Phe Pro Ala Arg  
 610 615 620  
 Phe Arg Ser Ser Asp Ile Ile Glu Phe Gly Ser Asp Lys Lys Ala Ala  
 625 630 635 640

047-E2F-PCT.ST25.txt

Phe Arg Val Lys Val Ile Arg Lys Thr Pro Lys Ser Thr Arg Lys Asn  
645 650 655

Glu Ser Asn Asn Asp Lys Leu Leu Gln Thr Ala  
660 665

<210> 1697

<211> 438

<212> DNA

<213> Arabidopsis thaliana

<400> 1697

atggcgatga	cgtcagcagc	taccggattt	attctcacgg	ccaacgtccc	ggcggcaata	60
ggcgggtggtt	cttcaaagag	caccaccatt	gtgtctttct	tgccgatgag	aagcttcggt	120
tcaaggctag	tagtcagagc	ggcggaagat	acacctccgg	caaccgcctc	gtcggatagt	180
tcttccacca	ccgctgctgc	tgctccggcg	aaagttccgg	ccgctaaggc	taaacctcct	240
ccaattggcc	caaagagagg	atccaaggtc	aagattctaa	ggaaagaatc	atactggtac	300
aagaacgttg	gatcagttgt	ggccgttgat	caggacccga	agacccgata	tccggttggtg	360
gtccggttcg	ccaaggtgaa	ttacgcgaat	atatcgacca	acaactacgc	attggacgag	420
gtggaagaag	taaaatga					438

<210> 1698

<211> 145

<212> PRT

<213> Arabidopsis thaliana

<400> 1698

Met Ala Met Thr Ser Ala Ala Thr Gly Phe Ile Leu Thr Ala Asn Val  
1 5 10 15

Pro Ala Ala Ile Gly Gly Gly Ser Ser Lys Ser Thr Thr Ile Val Ser  
20 25 30

Phe Leu Pro Met Arg Ser Phe Gly Ser Arg Leu Val Val Arg Ala Ala  
35 40 45

Glu Asp Thr Pro Pro Ala Thr Ala Ser Ser Asp Ser Ser Ser Thr Thr  
50 55 60

047-E2F-PCT.ST25.txt

Ala Ala Ala Ala Pro Ala Lys Val Pro Ala Ala Lys Ala Lys Pro Pro  
65 70 75 80

Pro Ile Gly Pro Lys Arg Gly Ser Lys Val Lys Ile Leu Arg Lys Glu  
85 90 95

Ser Tyr Trp Tyr Lys Asn Val Gly Ser Val Val Ala Val Asp Gln Asp  
100 105 110

Pro Lys Thr Arg Tyr Pro Val Val Val Arg Phe Ala Lys Val Asn Tyr  
115 120 125

Ala Asn Ile Ser Thr Asn Asn Tyr Ala Leu Asp Glu Val Glu Glu Val  
130 135 140

Lys  
145

<210> 1699

<211> 537

<212> DNA

<213> Arabidopsis thaliana

<400> 1699

atgggtggtt tccggtttca ccagtatcag gtggttgga gagccctccc gacagagaac	60
gatgagcacc ctaagatcta caggatgaag ctttggggta gaaatgaagt atgcgccaag	120
tccaagttct ggtacttcat gaggaactg aagaagggtga agaaaagcaa cggacagatg	180
cttgccatca atgagatttt cgagaagaac ccaacgacca tcaagaacta cgggatctgg	240
ttgcgttatc agagccgaac tgggtaccac aacatgtaca aggagtaccg tgacacaaca	300
ctcaatggtg gagtggagca gatgtacact gagatggctt ctcgtcatag agtgaggttc	360
ccttgcatc agatcatcaa gactgcgact gtccctgcaa agctttgcaa gagagagatc	420
accaagcagt tccataactc gaagatcaag ttccctcttg ttttcaggaa ggtcagacca	480
ccaagcagga agcttaagac tacatacaag gcatcaaac ctaacctttt catgtag	537

<210> 1700

<211> 178

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 1700

Met Gly Gly Phe Arg Phe His Gln Tyr Gln Val Val Gly Arg Ala Leu  
 1 5 10 15

Pro Thr Glu Asn Asp Glu His Pro Lys Ile Tyr Arg Met Lys Leu Trp  
 20 25 30

Gly Arg Asn Glu Val Cys Ala Lys Ser Lys Phe Trp Tyr Phe Met Arg  
 35 40 45

Lys Leu Lys Lys Val Lys Lys Ser Asn Gly Gln Met Leu Ala Ile Asn  
 50 55 60

Glu Ile Phe Glu Lys Asn Pro Thr Thr Ile Lys Asn Tyr Gly Ile Trp  
 65 70 75 80

Leu Arg Tyr Gln Ser Arg Thr Gly Tyr His Asn Met Tyr Lys Glu Tyr  
 85 90 95

Arg Asp Thr Thr Leu Asn Gly Gly Val Glu Gln Met Tyr Thr Glu Met  
 100 105 110

Ala Ser Arg His Arg Val Arg Phe Pro Cys Ile Gln Ile Ile Lys Thr  
 115 120 125

Ala Thr Val Pro Ala Lys Leu Cys Lys Arg Glu Ile Thr Lys Gln Phe  
 130 135 140

His Asn Ser Lys Ile Lys Phe Pro Leu Val Phe Arg Lys Val Arg Pro  
 145 150 155 160

Pro Ser Arg Lys Leu Lys Thr Thr Tyr Lys Ala Ser Lys Pro Asn Leu  
 165 170 175

Phe Met

&lt;210&gt; 1701

&lt;211&gt; 681

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

047-E2F-PCT.ST25.txt

<400> 1701  
atgagctcat ctgattccgt taataacggc gttaactcac ggatgtactt ccgtaacccg 60  
agtttcagca acgttatctt aaacgataac tggagcgact tgccgttaag tgtcgacgat 120  
tctcaagaca tggctattta caacactctc cgtgatgccg ttagctccgg ctggacaccc 180  
tccgttcctc ccgttacctc tccggcggag gaaaataagc ctccggcgac gaaggcgagt 240  
ggctcacacg cgccgaggca gaaggggatg cagtacagag gagtgaggag gaggccgtgg 300  
gggaaattcg cggcggagat tagggatccg aagaagaacg gagctagggt ttggctcggg 360  
acttacgaga cgccggagga cgcggcggtg gcgtacgacc gagcggcggt tcagctcaga 420  
ggatcgaaag ctaagctgaa ttttccgcat ttgattgggt cttgtaagta tgagccggtt 480  
aggattaggc ctcgccgtcg ctcgccggaa ccgtcagtct ccgatcagtt aacgtcggag 540  
cagaagaggg aaagccacgt ggatgacggc gagtctagtt tggttgtacc ggagttggat 600  
ttcacggtgg atcagtttta cttcgatggt agtttattaa tggaccaatc agaatgttct 660  
tattctgata atcgatatata a 681

<210> 1702

<211> 226

<212> PRT

<213> Arabidopsis thaliana

<400> 1702

Met Ser Ser Ser Asp Ser Val Asn Asn Gly Val Asn Ser Arg Met Tyr  
1 5 10 15

Phe Arg Asn Pro Ser Phe Ser Asn Val Ile Leu Asn Asp Asn Trp Ser  
20 25 30

Asp Leu Pro Leu Ser Val Asp Asp Ser Gln Asp Met Ala Ile Tyr Asn  
35 40 45

Thr Leu Arg Asp Ala Val Ser Ser Gly Trp Thr Pro Ser Val Pro Pro  
50 55 60

Val Thr Ser Pro Ala Glu Glu Asn Lys Pro Pro Ala Thr Lys Ala Ser  
65 70 75 80

Gly Ser His Ala Pro Arg Gln Lys Gly Met Gln Tyr Arg Gly Val Arg  
85 90 95

Arg Arg Pro Trp Gly Lys Phe Ala Ala Glu Ile Arg Asp Pro Lys Lys  
Page 2543

100

105

110

Asn Gly Ala Arg Val Trp Leu Gly Thr Tyr Glu Thr Pro Glu Asp Ala  
 115 120 125

Ala Val Ala Tyr Asp Arg Ala Ala Phe Gln Leu Arg Gly Ser Lys Ala  
 130 135 140

Lys Leu Asn Phe Pro His Leu Ile Gly Ser Cys Lys Tyr Glu Pro Val  
 145 150 155 160

Arg Ile Arg Pro Arg Arg Arg Ser Pro Glu Pro Ser Val Ser Asp Gln  
 165 170 175

Leu Thr Ser Glu Gln Lys Arg Glu Ser His Val Asp Asp Gly Glu Ser  
 180 185 190

Ser Leu Val Val Pro Glu Leu Asp Phe Thr Val Asp Gln Phe Tyr Phe  
 195 200 205

Asp Gly Ser Leu Leu Met Asp Gln Ser Glu Cys Ser Tyr Ser Asp Asn  
 210 215 220

Arg Ile  
 225

<210> 1703

<211> 609

<212> DNA

<213> Arabidopsis thaliana

<400> 1703

atggctatgg ctacgcgagc gattcgatac cagttaccgt caccgagatt tagagctcct 60  
 agatgcgaat catcggaacc gattaagcag attcagatcc agcaacgacc aagaggtggc 120  
 gatttagccg agaacgggaa gatcgtgctc caaccaaggc tttgcacgct gagatcttat 180  
 ggatctgata tggatcatcg ctaaaaaggac ggcggagatg gtggaggagg aggatctgat 240  
 gttgagttag cgtctccgtt ttttgagacg cttacggatt acatagagag ttcgaagaag 300  
 agtcaggatt tcgaaaccat ctccggtaga ctcgccatga ttgtatttgc ggtgacggtg 360  
 acggaggaga ttgttacggg gaactcgttg ttttaagaaac tagatgtgga aggattgagt 420  
 gaagctattg gagctggtct cgccgcgatg ggatgcgcgg cgatgtttgc ttggttaacg 480  
 atttctcgga acagagtcgg acggatcttt acagtgaagt gcaactcgtt cattgactcg 540

ttggttgatc agatcgttga tggactgttc tacgatacca agcctagtga ttggtctgat 600  
gatctttaa 609

<210> 1704

<211> 202

<212> PRT

<213> Arabidopsis thaliana

<400> 1704

Met Ala Met Ala Thr Arg Ala Ile Arg Tyr Gln Leu Pro Ser Pro Arg  
1 5 10 15

Phe Arg Ala Pro Arg Cys Glu Ser Ser Glu Pro Ile Lys Gln Ile Gln  
20 25 30

Ile Gln Gln Arg Pro Arg Gly Gly Asp Leu Ala Glu Asn Gly Lys Ile  
35 40 45

Val Leu Gln Pro Arg Leu Cys Thr Leu Arg Ser Tyr Gly Ser Asp Met  
50 55 60

Val Ile Ala Lys Lys Asp Gly Gly Asp Gly Gly Gly Gly Gly Ser Asp  
65 70 75 80

Val Glu Leu Ala Ser Pro Phe Phe Glu Thr Leu Thr Asp Tyr Ile Glu  
85 90 95

Ser Ser Lys Lys Ser Gln Asp Phe Glu Thr Ile Ser Gly Arg Leu Ala  
100 105 110

Met Ile Val Phe Ala Val Thr Val Thr Glu Glu Ile Val Thr Gly Asn  
115 120 125

Ser Leu Phe Lys Lys Leu Asp Val Glu Gly Leu Ser Glu Ala Ile Gly  
130 135 140

Ala Gly Leu Ala Ala Met Gly Cys Ala Ala Met Phe Ala Trp Leu Thr  
145 150 155 160

Ile Ser Arg Asn Arg Val Gly Arg Ile Phe Thr Val Ser Cys Asn Ser  
165 170 175

Phe Ile Asp Ser Leu Val Asp Gln Ile Val Asp Gly Leu Phe Tyr Asp  
Page 2545

180

047-E2F-PCT.ST25.txt

185

190

Thr Lys Pro Ser Asp Trp Ser Asp Asp Leu  
 195 200

&lt;210&gt; 1705

&lt;211&gt; 990

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1705

```

atgtcgtcag cttattgttc ctccgccgtg gctgtatccg ccgcagccac cgcttcctcc      60
gccgctacct ttaatccatt actctcctcc cactccaatt cccaactctt ctatcgcttt      120
acacaaaaat ctttcaaact cgttgccaat tgccctaata cactaatcct ccactcaaat      180
atccgccgcc accgcttctt ctgcgccgcc gaaaccgaag ctagttccgc cgatgatgaa      240
atccaggcat cagtagaaga agaagaagag gtagaagaag aaggagatga aggtgaagaa      300
gaagtagagg aagaaaaaca gacgacgcaa gcgagtgggtg aagaaggagg gctttacgtt      360
gggaatttac cttacacaat cacttcttct gagctctctc agatttttgg agaagctgga      420
actgtcgtcg atgttcagat tgtttatgat aaagttactg atagaagcag aggatttgga      480
tttgtaacaa tgggaagcat tgaagaagct aaagaagcga tgcagatggt taacagctct      540
caaattgggtg gtagaacggt gaaagtgaac ttcccgaggg tgccgagagg cggtgagaac      600
gaagtaatga gaacaaaaat ccgtgataat aaccggagtt atgttgatag tcctcataag      660
gtatatgcag gaaaccttgg ttggaatcta acctcacaag gtttaaagga tgcatttggt      720
gatcaacctg gtgtgcttgg tgctaaagtt atctatgaaa gaaatactgg gaggtctagg      780
gggtttggtt tcatctcggt cgagtcagcg gaaaatgttc agtctgcttt ggctacaatg      840
aatggcgtag aagttgaagg acgagcgctg aggctaaatt tggcttcaga gagagagaaa      900
cccactgtgt ctctccttc cgtagaagaa ggagaaaccg aggaggccag tctagagagt      960
aacgaggtgc tttcgaatgt tagtgcata      990

```

&lt;210&gt; 1706

&lt;211&gt; 329

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana



&lt;400&gt; 1706

Met Ser Ser Ala Tyr Cys Ser Ser Ala Val Ala Val Ser Ala Ala Ala  
1 5 10 15

Thr Ala Ser Ser Ala Ala Thr Phe Asn Pro Leu Leu Ser Ser His Ser  
20 25 30

Asn Ser Gln Leu Phe Tyr Arg Phe Thr Pro Lys Ser Phe Lys Leu Val  
35 40 45

Ala Asn Cys Pro Asn Pro Leu Ile Leu His Ser Asn Ile Arg Arg His  
50 55 60

Arg Phe Phe Cys Ala Ala Glu Thr Glu Ala Ser Ser Ala Asp Asp Glu  
65 70 75 80

Ile Gln Ala Ser Val Glu Glu Glu Glu Glu Val Glu Glu Glu Gly Asp  
85 90 95

Glu Gly Glu Glu Glu Val Glu Glu Glu Lys Gln Thr Thr Gln Ala Ser  
100 105 110

Gly Glu Glu Gly Arg Leu Tyr Val Gly Asn Leu Pro Tyr Thr Ile Thr  
115 120 125

Ser Ser Glu Leu Ser Gln Ile Phe Gly Glu Ala Gly Thr Val Val Asp  
130 135 140

Val Gln Ile Val Tyr Asp Lys Val Thr Asp Arg Ser Arg Gly Phe Gly  
145 150 155 160

Phe Val Thr Met Gly Ser Ile Glu Glu Ala Lys Glu Ala Met Gln Met  
165 170 175

Phe Asn Ser Ser Gln Ile Gly Gly Arg Thr Val Lys Val Asn Phe Pro  
180 185 190

Glu Val Pro Arg Gly Gly Glu Asn Glu Val Met Arg Thr Lys Ile Arg  
195 200 205

Asp Asn Asn Arg Ser Tyr Val Asp Ser Pro His Lys Val Tyr Ala Gly  
210 215 220

Asn Leu Gly Trp Asn Leu Thr Ser Gln Gly Leu Lys Asp Ala Phe Gly  
225 230 235 240

Asp Gln Pro Gly Val Leu Gly Ala Lys Val Ile Tyr Glu Arg Asn Thr  
Page 2547

245

255

Gly Arg Ser Arg Gly Phe Gly Phe Ile Ser Phe Glu Ser Ala Glu Asn  
260 265 270

Val Gln Ser Ala Leu Ala Thr Met Asn Gly Val Glu Val Glu Gly Arg  
275 280 285

Ala Leu Arg Leu Asn Leu Ala Ser Glu Arg Glu Lys Pro Thr Val Ser  
290 295 300

Pro Pro Ser Val Glu Glu Gly Glu Thr Glu Glu Ala Ser Leu Glu Ser  
305 310 315 320

Asn Glu Val Leu Ser Asn Val Ser Ala  
325

<210> 1707

<211> 843

<212> DNA

<213> Arabidopsis thaliana

<400> 1707

atggcaacat ctttgcttct cagacattcc tcagctgtct tcttctctca gtcttccttc	60
ttcaccaaga acaaatcttt tcgctccttt acttccatca aaatggaaaa aggtgaagca	120
gagaatgcag tgaagacaaa gaagggtgtt gtcgcaggag caactggaca aaccgggaag	180
aggattgtgg agcagttgtt gtcccgtggc ttgcccgtca aagctggtgt tcgtgatgta	240
gagaaagcaa aaacatcttt caaagacgac ccgtctcttc agatagttag agcagacgtg	300
acagaaggtc ctgataagct agctgaagtt atagggtgatg attctcaagc tgtgatttgt	360
gctactgggt ttcgtcccgg atttgatata ttacttcctt ggaaagtcga taatttcggg	420
acagtgaatc ttgtggatgc ttgccgtaaa caaggagtgg aaaagtttgt tcttgtaagc	480
tccatcttgg tgaatggagc tgccatggga cagatactga accctgctta cctcttcctc	540
aacctctttg gactaactct tgctgctaag cttcaagccg agaagtatat caaaaaatct	600
ggcatcaact atactatagt aaggcctggt ggtcttaaaa acgacacctc aactggaaat	660
gttgtcatgg agccagagga tactctatat gaaggagta tatcgagaga cctggtcgca	720
gaagttgcag tggaagcttt acttcaagag gaatcatctt tcaaggttgt ggagatagtt	780
gctcgtgccg aagctccaaa acgttcctac aaagatctat ttgcctctgt taaaggacaa	840
taa	843

&lt;210&gt; 1708

&lt;211&gt; 280

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1708

Met Ala Thr Ser Leu Leu Leu Arg His Ser Ser Ala Val Phe Phe Ser  
 1 5 10 15

Gln Ser Ser Phe Phe Thr Lys Asn Lys Ser Phe Arg Ser Phe Thr Ser  
 20 25 30

Ile Lys Met Glu Lys Gly Glu Ala Glu Asn Ala Val Lys Thr Lys Lys  
 35 40 45

Val Phe Val Ala Gly Ala Thr Gly Gln Thr Gly Lys Arg Ile Val Glu  
 50 55 60

Gln Leu Leu Ser Arg Gly Phe Ala Val Lys Ala Gly Val Arg Asp Val  
 65 70 75 80

Glu Lys Ala Lys Thr Ser Phe Lys Asp Asp Pro Ser Leu Gln Ile Val  
 85 90 95

Arg Ala Asp Val Thr Glu Gly Pro Asp Lys Leu Ala Glu Val Ile Gly  
 100 105 110

Asp Asp Ser Gln Ala Val Ile Cys Ala Thr Gly Phe Arg Pro Gly Phe  
 115 120 125

Asp Ile Phe Thr Pro Trp Lys Val Asp Asn Phe Gly Thr Val Asn Leu  
 130 135 140

Val Asp Ala Cys Arg Lys Gln Gly Val Glu Lys Phe Val Leu Val Ser  
 145 150 155 160

Ser Ile Leu Val Asn Gly Ala Ala Met Gly Gln Ile Leu Asn Pro Ala  
 165 170 175

Tyr Leu Phe Leu Asn Leu Phe Gly Leu Thr Leu Val Ala Lys Leu Gln  
 180 185 190

Ala Glu Lys Tyr Ile Lys Lys Ser Gly Ile Asn Tyr Thr Ile Val Arg  
 Page 2549

195

200

205

Pro Gly Gly Leu Lys Asn Asp Pro Pro Thr Gly Asn Val Val Met Glu  
 210 215 220

Pro Glu Asp Thr Leu Tyr Glu Gly Ser Ile Ser Arg Asp Leu Val Ala  
 225 230 235 240

Glu Val Ala Val Glu Ala Leu Leu Gln Glu Glu Ser Ser Phe Lys Val  
 245 250 255

Val Glu Ile Val Ala Arg Ala Glu Ala Pro Lys Arg Ser Tyr Lys Asp  
 260 265 270

Leu Phe Ala Ser Val Lys Gly Gln  
 275 280

&lt;210&gt; 1709

&lt;211&gt; 1068

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1709

```

atgttgaaag tagagagtaa ctgggcacaa gcctgtgata catgccgata agccgcctgc      60
accgtgtact gccgggctga ttctgcctac ttgtgtcca gttgtgatgc tcaagttcat      120
gctgccaatc gtcttgcttc ccgccatgaa cgtgttcgag tctgtcaatc atgtgagcga      180
gccccggctg cttttttctg caaggcagat gctgcatctc tatgcacaac ctgtgattca      240
gagattcatt ccgcaaacc acttgctaga cgccatcaac gagttccaat tctgcccatt      300
tctgagtact cttacagttc cacggccact aaccattcat gtgagacaac agtgacagat      360
ccagagaaca gacttgtgct tgggtcaagaa gaagaggatg aagatgaagc agaggcggct      420
tcatggttgt tgcctaattc agggaaaaac agtggttaaca acaatggctt ctcgattggg      480
gatgagtttc tgaaccttgt tgattatagt tcgagtata agcaattcac agatcaatcc      540
aatcagtatc aactagactg caacgtacct cagaggagct atggggaaga tggagttggt      600
ccacttcaaa ttgaagtatc aaagggcatg taccaagagc aacagaactt tcagctgagt      660
atcaactgtg gtcctgggg agctcttcga agctccaatg gttccctcag tcatatggtg      720
aatgtttcat ctatggacct gggagttgtg ccggagtcaa caacgagtga cgcaacagta      780
tcaaacccaa gatcgcccaa agcggtaaca gaccaaccac cttaccctcc agctcagatg      840
ctcagtccaa gggacagaga agctagagtc ctgagatata gagagaagaa gaagatgagg      900

```

047-E2F-PCT.ST25.txt

aaatttgaga agacgataag atatgcttca aggaaagcgt atgcagagaa aagaccacgg 960  
atcaagggcc ggtttgcaaa gaagaaagat gtcgatgaag aggcaaacca agctttctcc 1020  
acaatgataa catttgacac cggatatgga attgttccat cattctga 1068

<210> 1710

<211> 355

<212> PRT

<213> Arabidopsis thaliana

<400> 1710

Met Leu Lys Val Glu Ser Asn Trp Ala Gln Ala Cys Asp Thr Cys Arg  
1 5 10 15  
Ser Ala Ala Cys Thr Val Tyr Cys Arg Ala Asp Ser Ala Tyr Leu Cys  
20 25 30  
Ser Ser Cys Asp Ala Gln Val His Ala Ala Asn Arg Leu Ala Ser Arg  
35 40 45  
His Glu Arg Val Arg Val Cys Gln Ser Cys Glu Arg Ala Pro Ala Ala  
50 55 60  
Phe Phe Cys Lys Ala Asp Ala Ala Ser Leu Cys Thr Thr Cys Asp Ser  
65 70 75 80  
Glu Ile His Ser Ala Asn Pro Leu Ala Arg Arg His Gln Arg Val Pro  
85 90 95  
Ile Leu Pro Ile Ser Glu Tyr Ser Tyr Ser Ser Thr Ala Thr Asn His  
100 105 110  
Ser Cys Glu Thr Thr Val Thr Asp Pro Glu Asn Arg Leu Val Leu Gly  
115 120 125  
Gln Glu Glu Glu Asp Glu Asp Glu Ala Glu Ala Ala Ser Trp Leu Leu  
130 135 140  
Pro Asn Ser Gly Lys Asn Ser Gly Asn Asn Asn Gly Phe Ser Ile Gly  
145 150 155 160  
Asp Glu Phe Leu Asn Leu Val Asp Tyr Ser Ser Ser Asp Lys Gln Phe  
165 170 175

047-E2F-PCT.ST25.txt

Thr Asp Gln Ser Asn Gln Tyr Gln Leu Asp Cys Asn Val Pro Gln Arg  
180 185 190

Ser Tyr Gly Glu Asp Gly Val Val Pro Leu Gln Ile Glu Val Ser Lys  
195 200 205

Gly Met Tyr Gln Glu Gln Gln Asn Phe Gln Leu Ser Ile Asn Cys Gly  
210 215 220

Ser Trp Gly Ala Leu Arg Ser Ser Asn Gly Ser Leu Ser His Met Val  
225 230 235 240

Asn Val Ser Ser Met Asp Leu Gly Val Val Pro Glu Ser Thr Thr Ser  
245 250 255

Asp Ala Thr Val Ser Asn Pro Arg Ser Pro Lys Ala Val Thr Asp Gln  
260 265 270

Pro Pro Tyr Pro Pro Ala Gln Met Leu Ser Pro Arg Asp Arg Glu Ala  
275 280 285

Arg Val Leu Arg Tyr Arg Glu Lys Lys Lys Met Arg Lys Phe Glu Lys  
290 295 300

Thr Ile Arg Tyr Ala Ser Arg Lys Ala Tyr Ala Glu Lys Arg Pro Arg  
305 310 315 320

Ile Lys Gly Arg Phe Ala Lys Lys Lys Asp Val Asp Glu Glu Ala Asn  
325 330 335

Gln Ala Phe Ser Thr Met Ile Thr Phe Asp Thr Gly Tyr Gly Ile Val  
340 345 350

Pro Ser Phe  
355

<210> 1711

<211> 1956

<212> DNA

<213> Arabidopsis thaliana

<400> 1711

atgcagacat taccaagctc agaaaccggt cttttaggct ccaactcagc accacctgtg 60

ttgcgtagtc cgggtggcga tgacgtggac atcgattttg gtgacgtgtt tgggtggtcct 120

## 047-E2F-PCT.ST25.txt

cctaagagac	gctctaaagt	tactagtaac	gaagtcacac	gacatagctt	cagtgaatcc	180
gctctccggc	gtcgtgacgt	catcgtcgac	gtcggcgatc	tgcttccgca	agacgagaag	240
cctgtattcg	gcgaagatac	atcatctgtc	cggcgctcgtt	tcaccactga	tgattttcttc	300
gacgatatTT	tcagagttaa	tgaatcatca	tcacttccgg	gttctcggat	ccttagccccg	360
gctcacaAAC	ccgaatcttc	ttcagggact	tcgtctccat	cccaattcag	tcttcctgca	420
aaagcaacag	agattccaac	atttaattta	gcagctactc	gtagtttgaa	caagaacaaa	480
gaaactgttt	cgagctctcc	tttgtcaaga	acttcaagca	aagcagatgt	ggtctctact	540
gctaaatcat	attcagatga	ttgtgatgat	cctccacaag	tttttgttac	tgggaaagga	600
aggcaatttc	atttctctat	ctacaagtgg	cctaataaag	gagttcctgt	tgttatttgg	660
ggaagctcta	gattgagttc	tatgtctaaa	gctgaggaga	caacacctgt	accattgagt	720
gattatcgaa	aaacttcagt	tgttgagaaa	ttgggtaaaa	atgaagaagg	agatggaaaa	780
agtggtttat	ctggtttgaa	agatgtgaag	aagacctcgc	taaagcgtcc	tggtgtccag	840
acaaaagaag	agaaaacaga	aacagatttg	aagtctgaac	aagccttctt	tggtgtctca	900
aaagcacgtg	aggctaattg	gaagcctctt	gattcagttg	agtctgaaca	ggccttctct	960
ggtgtgtcaa	aagcacatga	agctactact	gtgaagcctc	ttcattcaat	ttttcatgaa	1020
gaagatgaga	gacaagatga	gaaaatagta	tcagagagag	aagtgagaaa	aggtaaaagc	1080
aaagcgaaga	acactcgaag	ttttaccgaa	gattcaagaa	ccaagaagaa	atcacaaggc	1140
actaaaagtt	ctttggatag	tagccccgata	cccgataaat	ccagcttcgc	aagttcatca	1200
gcagcaccag	aagttggcaa	agatggagtc	aaaggaaaag	tgagtgactt	cgtaagatt	1260
ttcagtaaag	gagcttcagt	tgagcaggt	ggggaatctc	ttggacaaag	ctctagatgg	1320
agagctaaag	aaactcccaa	gactgatatc	attcatgatg	gttctaattgc	caaggaaact	1380
gtaaacattc	ctgatcaaca	aaagaaatcg	actccagata	tccccgctat	gaatcgggat	1440
cagaaacctt	cacagtcaac	tcagaaaaaa	gattcagacc	gggagagcat	gaactataag	1500
gctcctggtg	atactgtaca	agaagagaga	caagaacctc	gcacaacaca	tactacctca	1560
gaggatatag	atgagccctt	ccatgtaa	ttcgatgtgg	aggatataac	acaagatgaa	1620
aacaaaatgg	aagaggccaa	taaggatgct	gaagaaatca	agaacatcga	tgctaaaatc	1680
cgcaagtgg	caagcgga	gagtggaaac	attcgggtctc	ttctatccac	gctgcaatat	1740
attctttgg	ctgggagcgg	gtggaagccg	gttcctctaa	tgatgatgat	cgaaggaaac	1800
gcggttcgaa	aatcgtacca	gagggcatta	ctaatacttc	atccagacaa	actacaacaa	1860
aagggtgctt	ctgcaaacca	gaaatacatg	gccgagaaa	ttttcgaatt	attacaggaa	1920
gcatgggacc	acttcaacac	tctcggaccg	gtttaa			1956

&lt;210&gt; 1712

&lt;211&gt; 651

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1712

Met Gln Thr Leu Pro Ser Ser Glu Thr Val Leu Leu Gly Ser Asn Ser  
 1 5 10 15

Ala Pro Pro Val Leu Arg Ser Pro Gly Gly Asp Asp Val Asp Ile Asp  
 20 25 30

Phe Gly Asp Val Phe Gly Gly Pro Pro Lys Arg Arg Ser Lys Val Thr  
 35 40 45

Ser Asn Glu Val Thr Arg His Ser Phe Ser Glu Ser Ala Leu Arg Arg  
 50 55 60

Arg Asp Val Ile Val Asp Val Gly Asp Leu Leu Pro Gln Asp Glu Lys  
 65 70 75 80

Pro Val Phe Gly Glu Asp Thr Ser Ser Val Arg Arg Arg Phe Thr Thr  
 85 90 95

Asp Asp Phe Phe Asp Asp Ile Phe Arg Val Asn Glu Ser Ser Ser Leu  
 100 105 110

Pro Gly Ser Arg Ile Leu Ser Pro Ala His Lys Pro Glu Ser Ser Ser  
 115 120 125

Gly Thr Ser Ser Pro Ser Gln Phe Ser Leu Pro Ala Lys Ala Thr Glu  
 130 135 140

Ile Pro Thr Phe Asn Leu Ala Ala Thr Arg Ser Leu Asn Lys Asn Lys  
 145 150 155 160

Glu Thr Val Ser Ser Ser Pro Leu Ser Arg Thr Ser Ser Lys Ala Asp  
 165 170 175

Val Val Ser Thr Ala Lys Ser Tyr Ser Asp Asp Cys Asp Asp Pro Pro  
 180 185 190

Gln Val Phe Val Thr Gly Lys Gly Arg Gln Phe His Phe Ser Ile Tyr  
 195 200 205



047-E2F-PCT.ST25.txt

Lys Trp Pro Asn Lys Gly Val Pro Val Val Ile Trp Gly Ser Ser Arg  
 210 215 220  
 Leu Ser Ser Met Ser Lys Ala Glu Glu Thr Thr Pro Val Pro Leu Ser  
 225 230 235 240  
 Asp Tyr Arg Lys Thr Ser Val Val Glu Lys Leu Gly Lys Asn Glu Glu  
 245 250 255  
 Gly Asp Gly Lys Ser Gly Leu Ser Gly Leu Lys Asp Val Lys Lys Thr  
 260 265 270  
 Ser Leu Lys Arg Pro Gly Val Gln Thr Lys Glu Glu Lys Thr Glu Thr  
 275 280 285  
 Asp Leu Lys Ser Glu Gln Ala Phe Phe Gly Val Ser Lys Ala Arg Glu  
 290 295 300  
 Ala Asn Val Lys Pro Leu Asp Ser Val Glu Ser Glu Gln Ala Phe Ser  
 305 310 315 320  
 Gly Val Ser Lys Ala His Glu Ala Thr Thr Val Lys Pro Leu His Ser  
 325 330 335  
 Ile Phe His Glu Glu Asp Glu Arg Gln Asp Glu Lys Ile Val Ser Glu  
 340 345 350  
 Arg Glu Val Arg Lys Gly Lys Ser Lys Ala Lys Asn Thr Arg Ser Phe  
 355 360 365  
 Thr Glu Asp Ser Arg Thr Lys Lys Lys Ser Gln Gly Thr Lys Ser Ser  
 370 375 380  
 Leu Asp Ser Ser Pro Ile Pro Asp Lys Ser Ser Phe Ala Ser Ser Ser  
 385 390 395 400  
 Ala Ala Pro Glu Val Gly Lys Asp Gly Val Lys Gly Lys Val Ser Asp  
 405 410 415  
 Phe Val Lys Ile Phe Ser Lys Gly Ala Ser Val Gly Ala Gly Gly Glu  
 420 425 430  
 Ser Leu Gly Gln Ser Ser Arg Trp Arg Ala Lys Glu Thr Pro Lys Thr  
 435 440 445  
 Asp Ile Ile His Asp Gly Ser Asn Ala Lys Glu Thr Val Asn Ile Pro  
 Page 2555

450

455

Asp Gln Gln Lys Lys Ser Thr Pro Asp Ile Pro Ala Met Asn Arg Asp  
465 470 475 480

Gln Lys Pro Ser Gln Ser Thr Gln Lys Lys Asp Ser Asp Arg Glu Ser  
485 490 495

Met Asn Tyr Lys Ala Pro Gly Asp Thr Val Gln Glu Glu Arg Gln Glu  
500 505 510

Pro Ser Thr Thr His Thr Thr Ser Glu Asp Ile Asp Glu Pro Phe His  
515 520 525

Val Asn Phe Asp Val Glu Asp Ile Thr Gln Asp Glu Asn Lys Met Glu  
530 535 540

Glu Ala Asn Lys Asp Ala Glu Glu Ile Lys Asn Ile Asp Ala Lys Ile  
545 550 555 560

Arg Lys Trp Ser Ser Gly Lys Ser Gly Asn Ile Arg Ser Leu Leu Ser  
565 570 575

Thr Leu Gln Tyr Ile Leu Trp Ser Gly Ser Gly Trp Lys Pro Val Pro  
580 585 590

Leu Met Asp Met Ile Glu Gly Asn Ala Val Arg Lys Ser Tyr Gln Arg  
595 600 605

Ala Leu Leu Ile Leu His Pro Asp Lys Leu Gln Gln Lys Gly Ala Ser  
610 615 620

Ala Asn Gln Lys Tyr Met Ala Glu Lys Val Phe Glu Leu Leu Gln Glu  
625 630 635 640

Ala Trp Asp His Phe Asn Thr Leu Gly Pro Val  
645 650

<210> 1713

<211> 2130

<212> DNA

<213> Arabidopsis thaliana

<400> 1713

atgatgatgc agagaaactg tttcggattt aacctaaaga accgaggagg tgaaaagaag

60

## 047-E2F-PCT.ST25.txt

aaagcatcca	aatctttcag	ggaaggagtt	aaaaaaatca	gatcagaagg	tctaataacc	120
atcggtaaat	ccgtttacaag	agcgggttttt	ccagaagact	taagaataac	agagaagaaa	180
atctttgatc	ctcaagacaa	aacactttctc	gtatggaaca	gattgttcgt	catttcgtgt	240
atcttagctg	tctctgttga	tcctttgttc	ttctatcttc	ccattgtcga	taattccgga	300
agcagctgta	tagggattga	tacgaaacta	gctgtttaca	cgacgactct	tagaaccatt	360
gttgacgttt	tttacttaac	tagaatggct	cttcagtttc	gtacagctta	tatagctcct	420
tcttctcgtg	tgtttggctg	tggtgagctt	gtgattgatc	ctgcaaagat	cgctgaacgc	480
tatttaaccc	gttatttcgt	cgctgatttt	cttgcaagtgc	tgcttttacc	gcagattgca	540
gtgtggaagt	ttcttcacgg	gtctaaagga	tcggatgtgt	taccaacgaa	aacggcattg	600
ttgaacattg	taattgtgca	gtatatccg	agattcgtga	ggttttattcc	gttaacatca	660
gagttgaaga	aaactgcagg	agcttttgcc	gaaggagctt	gggctgggtgc	tgcttattat	720
cttctctggt	atatgcttgc	aagccacata	actggagcgt	tttggtacat	gttgctcagt	780
gagcgtaacg	atacttggtg	gagatttgcg	tgtaaagttc	agccagatcc	gcgactctgt	840
gttcagattc	tgtattgtgg	gactaaattt	gtgagcagt	gagaaactga	atggatcaaa	900
acagtccctg	agcttcttaa	gagcaattgt	tctgctaaag	cagatgattc	aaagtttaac	960
tatgggatat	acggtcaggc	tatatcttca	ggcattgtat	catcaacaac	atctttctcc	1020
aagttctggt	attgtctatg	gtgggggtctt	caaaatctca	gcacgttagg	tcaagggctg	1080
cagacaagta	catttccagg	agaggttttg	ttttccattg	cgattgctat	agctgggctt	1140
cttcttttcg	cgcttctcat	cggaatatg	cagacttata	ttcagtcact	tactgttcgt	1200
ctcgaggaaa	tgaggatcaa	aagacgtgac	tcagaacagt	ggatgcatca	cagggtcactt	1260
ccacaaaatt	tgagggaaaag	agtcagacgc	tatgatcaat	acaaatgggt	agagacaaga	1320
ggtgtagacg	aagaaaacat	agttcagagt	ttacctaagg	atctcagaag	agacatcaaa	1380
cgccatctct	gtctgaattt	agttaggagg	gttcctctgt	ttgctaatat	ggatgaaaga	1440
ttacttgacg	caatctgtga	gagattaaag	ccgagtcctt	tcacggaaaag	cacttacatt	1500
gtgcgtgaag	gagaccccgt	taacgaaatg	atgttcataa	tccgaggccg	gttagaaagt	1560
gtaacaacag	atgggggaag	aagcggtttc	ttcaacagag	ggttgttaaa	agaaggagac	1620
ttttgtggtg	aagagcttct	gacatgggct	cttgacccta	aagcaggctc	aaacttacct	1680
tcttccacaa	gaacagtga	ggctctgact	gaagtagagg	ctttcgctct	tgaagctgaa	1740
gagctgaagt	ttgtagcaag	tcagtttagg	agacttcata	gtcgacagg	tcaacaaaca	1800
tttaggtttt	actctcagca	atggagaact	tgggcttctt	gcttcatcca	agctgcttgg	1860
cgctcgctatt	caagaaggaa	aaacgctgaa	ttgagacgga	ttgaagaaaa	agaagaagaa	1920

ttggggttatg aagatgaata tgatgatgag agtgacaaga ggcctatggt tatcacaaga 1980  
 agtgagtcctt cttctagact gcgttcaacg atatttgcac caagatttgc tgctaattgca 2040  
 ttgaaagggc acagacttag gagctcagag agttcaaaga ccttgataaa tctgcaaaag 2100  
 cctccggaac ctgattttga tgctgaataa 2130

<210> 1714

<211> 709

<212> PRT

<213> Arabidopsis thaliana

<400> 1714

Met Met Met Gln Arg Asn Cys Phe Gly Phe Asn Leu Lys Asn Arg Gly  
 1 5 10 15

Gly Glu Lys Lys Lys Ala Ser Lys Ser Phe Arg Glu Gly Val Lys Lys  
 20 25 30

Ile Arg Ser Glu Gly Leu Ile Thr Ile Gly Lys Ser Val Thr Arg Ala  
 35 40 45

Val Phe Pro Glu Asp Leu Arg Ile Thr Glu Lys Lys Ile Phe Asp Pro  
 50 55 60

Gln Asp Lys Thr Leu Leu Val Trp Asn Arg Leu Phe Val Ile Ser Cys  
 65 70 75 80

Ile Leu Ala Val Ser Val Asp Pro Leu Phe Phe Tyr Leu Pro Ile Val  
 85 90 95

Asp Asn Ser Gly Ser Ser Cys Ile Gly Ile Asp Thr Lys Leu Ala Val  
 100 105 110

Thr Thr Thr Thr Leu Arg Thr Ile Val Asp Val Phe Tyr Leu Thr Arg  
 115 120 125

Met Ala Leu Gln Phe Arg Thr Ala Tyr Ile Ala Pro Ser Ser Arg Val  
 130 135 140

Phe Gly Arg Gly Glu Leu Val Ile Asp Pro Ala Lys Ile Ala Glu Arg  
 145 150 155 160

Tyr Leu Thr Arg Tyr Phe Val Val Asp Phe Leu Ala Val Leu Pro Leu  
 165 170 175

047-E2F-PCT.ST25.txt

Pro Gln Ile Ala Val Trp Lys Phe Leu His Gly Ser Lys Gly Ser Asp  
180 185 190

Val Leu Pro Thr Lys Thr Ala Leu Leu Asn Ile Val Ile Val Gln Tyr  
195 200 205

Ile Pro Arg Phe Val Arg Phe Ile Pro Leu Thr Ser Glu Leu Lys Lys  
210 215 220

Thr Ala Gly Ala Phe Ala Glu Gly Ala Trp Ala Gly Ala Ala Tyr Tyr  
225 230 235 240

Leu Leu Trp Tyr Met Leu Ala Ser His Ile Thr Gly Ala Phe Trp Tyr  
245 250 255

Met Leu Ser Val Glu Arg Asn Asp Thr Cys Trp Arg Phe Ala Cys Lys  
260 265 270

Val Gln Pro Asp Pro Arg Leu Cys Val Gln Ile Leu Tyr Cys Gly Thr  
275 280 285

Lys Phe Val Ser Ser Gly Glu Thr Glu Trp Ile Lys Thr Val Pro Glu  
290 295 300

Leu Leu Lys Ser Asn Cys Ser Ala Lys Ala Asp Asp Ser Lys Phe Asn  
305 310 315 320

Tyr Gly Ile Tyr Gly Gln Ala Ile Ser Ser Gly Ile Val Ser Ser Thr  
325 330 335

Thr Phe Phe Ser Lys Phe Cys Tyr Cys Leu Trp Trp Gly Leu Gln Asn  
340 345 350

Leu Ser Thr Leu Gly Gln Gly Leu Gln Thr Ser Thr Phe Pro Gly Glu  
355 360 365

Val Leu Phe Ser Ile Ala Ile Ala Ile Ala Gly Leu Leu Leu Phe Ala  
370 375 380

Leu Leu Ile Gly Asn Met Gln Thr Tyr Leu Gln Ser Leu Thr Val Arg  
385 390 395 400

Leu Glu Glu Met Arg Ile Lys Arg Arg Asp Ser Glu Gln Trp Met His  
405 410 415

His Arg Ser Leu Pro Gln Asn Leu Arg Glu Arg Val Arg Arg Tyr Asp  
Page 2559

420

425

430

Gln Tyr Lys Trp Leu Glu Thr Arg Gly Val Asp Glu Glu Asn Ile Val  
 435 440 445  
 Gln Ser Leu Pro Lys Asp Leu Arg Arg Asp Ile Lys Arg His Leu Cys  
 450 455 460  
 Leu Asn Leu Val Arg Arg Val Pro Leu Phe Ala Asn Met Asp Glu Arg  
 465 470 475 480  
 Leu Leu Asp Ala Ile Cys Glu Arg Leu Lys Pro Ser Leu Phe Thr Glu  
 485 490 495  
 Ser Thr Tyr Ile Val Arg Glu Gly Asp Pro Val Asn Glu Met Met Phe  
 500 505 510  
 Ile Ile Arg Gly Arg Leu Glu Ser Val Thr Thr Asp Gly Gly Arg Ser  
 515 520 525  
 Gly Phe Phe Asn Arg Gly Leu Leu Lys Glu Gly Asp Phe Cys Gly Glu  
 530 535 540  
 Glu Leu Leu Thr Trp Ala Leu Asp Pro Lys Ala Gly Ser Asn Leu Pro  
 545 550 555 560  
 Ser Ser Thr Arg Thr Val Lys Ala Leu Thr Glu Val Glu Ala Phe Ala  
 565 570 575  
 Leu Glu Ala Glu Glu Leu Lys Phe Val Ala Ser Gln Phe Arg Arg Leu  
 580 585 590  
 His Ser Arg Gln Val Gln Gln Thr Phe Arg Phe Tyr Ser Gln Gln Trp  
 595 600 605  
 Arg Thr Trp Ala Ser Cys Phe Ile Gln Ala Ala Trp Arg Arg Tyr Ser  
 610 615 620  
 Arg Arg Lys Asn Ala Glu Leu Arg Arg Ile Glu Glu Lys Glu Glu Glu  
 625 630 635 640  
 Leu Gly Tyr Glu Asp Glu Tyr Asp Asp Glu Ser Asp Lys Arg Pro Met  
 645 650 655  
 Val Ile Thr Arg Ser Glu Ser Ser Ser Arg Leu Arg Ser Thr Ile Phe  
 660 665 670

Ala Ser Arg Phe Ala Ala Asn Ala Leu Lys Gly His Arg Leu Arg Ser  
 675 680 685

Ser Glu Ser Ser Lys Thr Leu Ile Asn Leu Gln Lys Pro Pro Glu Pro  
 690 695 700

Asp Phe Asp Ala Glu  
 705

<210> 1715

<211> 999

<212> DNA

<213> Arabidopsis thaliana

<400> 1715

atgattgcat tagctgcttc ttcgttgggg aatacaccga ttgcttcgtt taaccgtcat	60
tttagattcc ggttacatcc acgaaaccct ctgatacaag cagcggtttc accttcgtct	120
tcttcttctt ctcctactgc ttcattctggc tttagatttga gttctctcga atccgccatt	180
aacaagaaag atagtaatgg tgtaaggaa gctctcgata aattgagtga agaaggttgg	240
gctaagaaat ggagctccca gccgtatctt tcgcgccgta cgacatcact gcgggagctg	300
acaactctcg gtatcaagaa tgcagagact ctggccatcc ctagtgtcag gaacgatgag	360
gcttttcttt tcacagtagt cggatcaact gggttcatag ctgtacttgc cggccaactt	420
cccggggact ggggattctt tgtgccttac ttagttggga gcatttcgtt ggtagtttta	480
gccgtgggaa gcgtttcacc agggcttctt caagctgcga tttccgggtt ttcgacgttc	540
ttccctgatt atcaagaacg aattgctgca catgaagcag ccacttctt agtggcttac	600
ttaatcgggc ttccaatcct cgggtactcg ttagacatcg gtaaagaaca tgtcaatctc	660
attgacgaga gactagctaa actaatatac agcggcaagc ttgactcaaa ggagctcgat	720
aggttggctg ctgttgcaat ggctggactt gccgccgagg gtctgaagta tgacaaagta	780
attggccaat ctgcagatct cttctctctt cagagattca taaacagaag ccaacccaaa	840
atcagcaacg agcagcagca aaatctaaca agatgggctg ttctttactc tgcttctctt	900
ctcaaaaaca acaagaccat ccatgaagct ctaatggctg caatgtccaa aaatgcatct	960
gttcttgaat gcattcaaac cattgagaca gcttcctag	999

<210> 1716

<211> 332

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1716

```

Met Ile Ala Leu Ala Ala Ser Ser Leu Gly Asn Thr Pro Ile Ala Ser
 1           5           10           15

Phe Asn Arg His Phe Arg Phe Arg Leu His Pro Arg Asn Pro Leu Ile
 20           25           30

Gln Ala Ala Val Ser Pro Ser Ser Ser Ser Ser Ser Pro Thr Ala Ser
 35           40           45

Ser Gly Phe Asp Leu Ser Ser Leu Glu Ser Ala Ile Asn Lys Lys Asp
 50           55           60

Ser Asn Gly Val Lys Glu Ala Leu Asp Lys Leu Ser Glu Glu Gly Trp
 65           70           75           80

Ala Lys Lys Trp Ser Ser Gln Pro Tyr Leu Ser Arg Arg Thr Thr Ser
 85           90           95

Leu Arg Glu Leu Thr Thr Leu Gly Ile Lys Asn Ala Glu Thr Leu Ala
100           105           110

Ile Pro Ser Val Arg Asn Asp Ala Ala Phe Leu Phe Thr Val Val Gly
115           120           125

Ser Thr Gly Phe Ile Ala Val Leu Ala Gly Gln Leu Pro Gly Asp Trp
130           135           140

Gly Phe Phe Val Pro Tyr Leu Val Gly Ser Ile Ser Leu Val Val Leu
145           150           155           160

Ala Val Gly Ser Val Ser Pro Gly Leu Leu Gln Ala Ala Ile Ser Gly
165           170           175

Phe Ser Thr Phe Phe Pro Asp Tyr Gln Glu Arg Ile Ala Ala His Glu
180           185           190

Ala Ala His Phe Leu Val Ala Tyr Leu Ile Gly Leu Pro Ile Leu Gly
195           200           205

Tyr Ser Leu Asp Ile Gly Lys Glu His Val Asn Leu Ile Asp Glu Arg
210           215           220

```



Leu Ala Lys Leu Ile Tyr Ser Gly Lys Leu Asp Ser Lys Glu Leu Asp  
 225 230 235 240

Arg Leu Ala Ala Val Ala Met Ala Gly Leu Ala Ala Glu Gly Leu Lys  
 245 250 255

Tyr Asp Lys Val Ile Gly Gln Ser Ala Asp Leu Phe Ser Leu Gln Arg  
 260 265 270

Phe Ile Asn Arg Ser Gln Pro Lys Ile Ser Asn Glu Gln Gln Gln Asn  
 275 280 285

Leu Thr Arg Trp Ala Val Leu Tyr Ser Ala Ser Leu Leu Lys Asn Asn  
 290 295 300

Lys Thr Ile His Glu Ala Leu Met Ala Ala Met Ser Lys Asn Ala Ser  
 305 310 315 320

Val Leu Glu Cys Ile Gln Thr Ile Glu Thr Ala Ser  
 325 330

<210> 1717

<211> 1254

<212> DNA

<213> Arabidopsis thaliana

<400> 1717

atggctctta acgtgagcaa gggtgttccc aatagtccaa ttttagttaa gagtgttaat	60
gcttcaagat ctcgaagagt tctgttggcg tatgttcac atccttttagc tgctaataag	120
ggttcatcta ttgaagagtt aaagcaaggc ctttgttgta caaagactgt cacttttggt	180
agttctcgga gatgttctac attgtgcttt gttggaaagt ctcaagacac tgaaactaat	240
tcccaagttg tacaaaaaga aggtgagaag caagtgatgc cgaggaggaa aagtagtaac	300
tcaagccaac ttttggtgga atatgtgtct aatgatgcta agtttgtgaa tgaaagagct	360
cgtaatgact ttgttcttct atctcgtggt attatgagac ttgatgctcg tgcacgacag	420
gatgttgcca ttcttggttc cgggttcctt aaactcgatg ctcgggcaag agaagataca	480
gagaaaatag accgtgatgt caagagaaaa gccgagcgcc ttcatcatat tgctactata	540
tttaaaaaca tagctgagtc taagttgaaa aatgccgctg ataagcattg gagcgatggc	600
gcttttagagg ctgatttaag gcgagcagat ttccgtgcta aacaacgggc catggaagac	660
gcattaatgg ctttagagtt tattaagaac atccacgaca tgatggtgaa caaatgggtt	720

047-E2F-PCT.ST25.txt

gacagcttgg tgacatctga aactggtacc acggatcgca tatcgcttga gaagaatgga	780
atagctctcg ggtttttccc tggggaagtt tcatctgac gcataatctgc tattgaggaa	840
gcttacaaga gtatggcatc agcgctctca gaagccgatg gaattgacta cactgaccct	900
gaagaactcg agttgttagt cagcactctg attgaccttg atgcaatgga tggtaaaagt	960
agtgcactctc tcttggctga atgctcaagc tctccagatg tcaatacaag aaaagcgctg	1020
gctaatagctt tagcagcggc accatcaatg tggacactag gaaatgcagg aatgggagca	1080
ttacagagac tcgctgaaga cagtaacccg gcgattgcag cagctgcttc gagagcgatc	1140
aatgcgctga agaagcaatg ggaagtagag gaaggagact cactgagggtt tatgatgaac	1200
ttcgagaggc cgaatgatga tgatgatgta gacagtgacc ttgatgagat ctga	1254

<210> 1718

<211> 417

<212> PRT

<213> Arabidopsis thaliana

<400> 1718

Met	Ala	Leu	Asn	Val	Ser	Lys	Val	Val	Pro	Asn	Ser	Pro	Ile	Leu	Val
1			5						10					15	
Lys	Ser	Val	Asn	Ala	Ser	Arg	Ser	Arg	Arg	Val	Leu	Leu	Ala	Tyr	Val
			20					25					30		
His	His	Pro	Leu	Ala	Ala	Asn	Lys	Gly	Ser	Ser	Ile	Glu	Glu	Leu	Lys
		35					40					45			
Gln	Gly	Leu	Cys	Cys	Thr	Lys	Thr	Val	Thr	Phe	Val	Ser	Ser	Arg	Arg
	50					55					60				
Cys	Ser	Thr	Leu	Cys	Phe	Val	Gly	Lys	Ser	Gln	Asp	Thr	Glu	Thr	Asn
65					70					75					80
Ser	Gln	Val	Val	Gln	Lys	Glu	Gly	Glu	Lys	Gln	Val	Met	Pro	Arg	Arg
				85					90					95	
Lys	Ser	Ser	Asn	Ser	Ser	Gln	Leu	Leu	Val	Glu	Tyr	Val	Ser	Asn	Asp
			100					105					110		
Ala	Lys	Phe	Val	Asn	Glu	Arg	Ala	Arg	Asn	Asp	Phe	Val	Leu	Leu	Ser
		115					120					125			

047-E2F-PCT.ST25.txt

Arg Gly Ile Met Arg Leu Asp Ala Arg Ala Arg Gln Asp Val Ala Ile  
130 135 140

Leu Gly Ser Gly Phe Leu Lys Leu Asp Ala Arg Ala Arg Glu Asp Thr  
145 150 155 160

Glu Lys Ile Asp Arg Asp Val Lys Arg Lys Ala Glu Arg Leu His His  
165 170 175

Ile Ala Thr Ile Phe Lys Asn Ile Ala Glu Ser Lys Leu Lys Asn Ala  
180 185 190

Ala Asp Lys His Trp Ser Asp Gly Ala Leu Glu Ala Asp Leu Arg Arg  
195 200 205

Ala Asp Phe Arg Ala Lys Gln Arg Ala Met Glu Asp Ala Leu Met Ala  
210 215 220

Leu Glu Phe Ile Lys Asn Ile His Asp Met Met Val Asn Lys Met Val  
225 230 235 240

Asp Ser Leu Val Thr Ser Glu Thr Gly Thr Thr Asp Arg Ile Ser Leu  
245 250 255

Glu Lys Asn Gly Ile Ala Leu Gly Phe Phe Pro Gly Glu Val Ser Ser  
260 265 270

Asp Arg Ile Ser Ala Ile Glu Glu Ala Tyr Lys Ser Met Ala Ser Ala  
275 280 285

Leu Ser Glu Ala Asp Gly Ile Asp Tyr Thr Asp Pro Glu Glu Leu Glu  
290 295 300

Leu Leu Val Thr Thr Leu Ile Asp Leu Asp Ala Met Asp Gly Lys Ser  
305 310 315 320

Ser Ala Ser Leu Leu Ala Glu Cys Ser Ser Ser Pro Asp Val Asn Thr  
325 330 335

Arg Lys Ala Leu Ala Asn Ala Leu Ala Ala Ala Pro Ser Met Trp Thr  
340 345 350

Leu Gly Asn Ala Gly Met Gly Ala Leu Gln Arg Leu Ala Glu Asp Ser  
355 360 365

Asn Pro Ala Ile Ala Ala Ala Ala Ser Arg Ala Ile Asn Ala Leu Lys  
370 375 380

047-E2F-PCT.ST25.txt

Lys Gln Trp Glu Val Glu Glu Gly Asp Ser Leu Arg Phe Met Met Asn  
385 390 395 400

Phe Glu Arg Pro Asn Asp Asp Asp Asp Val Asp Ser Asp Leu Asp Glu  
405 410 415

Ile

<210> 1719

<211> 2292

<212> DNA

<213> Arabidopsis thaliana

<400> 1719

atgggggaag atacaaaggc aaccattgag ccaaccgcaa acaagactac ttctcttgaa	60
aagccatcag aggctatggc tggaaaggag aatgctgggg gtaaggaaac acaagaactg	120
gcgaaagatg aggatatggc tgagccagac aatatggaga tagatgctca gattaagaaa	180
gatgatgaaa aagctgagac ggaagataaa gagtcagagg ttaagaaaaa tgaagacaat	240
gctgagactc aaaaaatgga agagaagggt gaggtcacca aagatgaggg acaagcagag	300
gctaccaaca tggatgaaga tgccgatgga aagaaagagc aaactgatga tgggtgtttca	360
gtggaagata ctgtaatgaa ggaaaacgtg gaatctaaag acaataacta tgccaaagat	420
gatgaaaaag agaccaaaga gacagatatt actgaggcag accacaaaaa agctgggaag	480
gaggacatac aacatgaagc tgacaaagca aatggaacaa aagatggcaa tacaggagac	540
atcaaagagg aagggacact ggtagatgaa gacaaagggc cagatatgga tgaaaaagt	600
gagaatgggg atgaaaataa acaagtggag aatgttgaag gaaaagaaaa ggaagataag	660
gaagaaaata aaacaaagga agttgaggcg gcaaaggctg aggtggatga gtcaaaggta	720
gaagatgaaa aagaaggag tgaggatgag aacgacaatg aaaaagtgga gagcaaagat	780
gcaaaggaag atgagaaaga ggagacaaat gatgataaag aagatgaaaa agaagagagc	840
aagggttcta aaaagcgtgg gaaagggacg agttctggag gaaagggttc cgagaagaat	900
aaaaccgagg aagtaaaaaa ggatgcagag cctaggactc ctttctctga tcgccctgtg	960
cgtgagcgga aatctgttga gaggcttggt gcattgattg ataaagactc ctcgaaagaa	1020
ttccgtgttg aaaaggggag aggtgcatat ctcaaagata ttcccaatgt tgctaacaag	1080
gtaatgagga agaggtctga tgaaactttg aagctgcttc acccaattct atttggtggg	1140
aggagagggg aggtgctca gatcaagaca aacatatggg gcttctctgg tttcgtttgg	1200

047-E2F-PCT.ST25.txt

```

catggagatg agaagaaagc aaaagaaaaa gtaaaagaaa agcttgagaa atgcacaaaa 1260
gagaaactgt gggagttttg tgatgtgttg gacatacaca ttaccaaggc tacaacaaag 1320
aaggaagata ttattacaaa actgtttgag tttttggaga aacctcatgt gacaggatgat 1380
gtgaccggtg acactacagt ttctgagaaa gagaagtcaa gtaagggagc aaaacgcaag 1440
agaactccca agaaaacttc acctacagct gggagttcat cctccaaacg atcagcaaag 1500
agccaaaaaa agtctgaaga agcaacaaaa gttgtcaaaa agagtttagc tcattctgat 1560
gatgaatctg aagaagagaa agaagaagaa gaaaaacaag aggaggagaa ggcagaagag 1620
aaagaagaga aaaaagagga ggagaatgaa aatggcattc ctgataaatc tgaggatgag 1680
gcgcctcagc cttctgaaag cgaggagaaa gatgaatctg aggagcattc tgaagaagaa 1740
actacaaaga agaaacgtgg ttctagattg tcagctggga agaaagaatc agcagggaga 1800
gccagaaaca agaaagcagt ggtcgctgca aaatccagtc caccagagaa gattacacag 1860
aagcggatcat cagccaaacg aaagaagact gatgatgaca gtgatacaag tccaaaggcg 1920
tcctctaaga ggaagaagtc tgaaaaccct atcaaggcct ccccggtcc ttcaaagtct 1980
gcatcaaaag agaagccagt aaaaagggct ggaaaaggga aagacaagcc gagtgataaa 2040
gtgctgaaaa atgcaatcgt tgagatcttg aaaagagtgg acttttagtac ggctacgttc 2100
acggacatcc ttaaagaact tgctaaggag ttcacagaag atctcactcc aagaaagtca 2160
tctataaaga tgataatcca agaggagctc accaaattag cagatgagga ggaggaggag 2220
gaaaagaaag aagaggattc agagaaggag gaagcaggag ggtctggtgg tggtaggag 2280
gtgaaagcct aa 2292

```

<210> 1720

<211> 763

<212> PRT

<213> Arabidopsis thaliana

<400> 1720

```

Met Gly Glu Asp Thr Lys Ala Thr Ile Glu Pro Thr Ala Asn Lys Thr
1          5          10          15

Thr Ser Leu Glu Lys Pro Ser Glu Ala Met Ala Gly Lys Glu Asn Ala
          20          25          30

Gly Gly Lys Glu Thr Gln Glu Leu Ala Lys Asp Glu Asp Met Ala Glu
          35          40          45

```

047-E2F-PCT.ST25.txt

Pro Asp Asn Met Glu Ile Asp Ala Gln Ile Lys Lys Asp Asp Glu Lys  
50 55 60

Ala Glu Thr Glu Asp Lys Glu Ser Glu Val Lys Lys Asn Glu Asp Asn  
65 70 75 80

Ala Glu Thr Gln Lys Met Glu Glu Lys Val Glu Val Thr Lys Asp Glu  
85 90 95

Gly Gln Ala Glu Ala Thr Asn Met Asp Glu Asp Ala Asp Gly Lys Lys  
100 105 110

Glu Gln Thr Asp Asp Gly Val Ser Val Glu Asp Thr Val Met Lys Glu  
115 120 125

Asn Val Glu Ser Lys Asp Asn Asn Tyr Ala Lys Asp Asp Glu Lys Glu  
130 135 140

Thr Lys Glu Thr Asp Ile Thr Glu Ala Asp His Lys Lys Ala Gly Lys  
145 150 155 160

Glu Asp Ile Gln His Glu Ala Asp Lys Ala Asn Gly Thr Lys Asp Gly  
165 170 175

Asn Thr Gly Asp Ile Lys Glu Glu Gly Thr Leu Val Asp Glu Asp Lys  
180 185 190

Gly Thr Asp Met Asp Glu Lys Val Glu Asn Gly Asp Glu Asn Lys Gln  
195 200 205

Val Glu Asn Val Glu Gly Lys Glu Lys Glu Asp Lys Glu Glu Asn Lys  
210 215 220

Thr Lys Glu Val Glu Ala Ala Lys Ala Glu Val Asp Glu Ser Lys Val  
225 230 235 240

Glu Asp Glu Lys Glu Gly Ser Glu Asp Glu Asn Asp Asn Glu Lys Val  
245 250 255

Glu Ser Lys Asp Ala Lys Glu Asp Glu Lys Glu Glu Thr Asn Asp Asp  
260 265 270

Lys Glu Asp Glu Lys Glu Glu Ser Lys Gly Ser Lys Lys Arg Gly Lys  
275 280 285

Gly Thr Ser Ser Gly Gly Lys Val Arg Glu Lys Asn Lys Thr Glu Glu  
290 295 300

047-E2F-PCT.ST25.txt

Val Lys Lys Asp Ala Glu Pro Arg Thr Pro Phe Ser Asp Arg Pro Val  
 305 310 315 320  
 Arg Glu Arg Lys Ser Val Glu Arg Leu Val Ala Leu Ile Asp Lys Asp  
 325 330 335  
 Ser Ser Lys Glu Phe Arg Val Glu Lys Gly Arg Gly Ala Tyr Leu Lys  
 340 345 350  
 Asp Ile Pro Asn Val Ala Asn Lys Val Met Arg Lys Arg Ser Asp Glu  
 355 360 365  
 Thr Leu Lys Leu Leu His Pro Ile Leu Phe Gly Gly Arg Arg Gly Lys  
 370 375 380  
 Ala Ala Gln Ile Lys Thr Asn Ile Leu Gly Phe Ser Gly Phe Val Trp  
 385 390 395 400  
 His Gly Asp Glu Lys Lys Ala Lys Glu Lys Val Lys Glu Lys Leu Glu  
 405 410 415  
 Lys Cys Thr Lys Glu Lys Leu Trp Glu Phe Cys Asp Val Leu Asp Ile  
 420 425 430  
 His Ile Thr Lys Ala Thr Thr Lys Lys Glu Asp Ile Ile Thr Lys Leu  
 435 440 445  
 Phe Glu Phe Leu Glu Lys Pro His Val Thr Gly Asp Val Thr Gly Asp  
 450 455 460  
 Thr Thr Val Ser Glu Lys Glu Lys Ser Ser Lys Gly Ala Lys Arg Lys  
 465 470 475 480  
 Arg Thr Pro Lys Lys Thr Ser Pro Thr Ala Gly Ser Ser Ser Ser Lys  
 485 490 495  
 Arg Ser Ala Lys Ser Gln Lys Lys Ser Glu Glu Ala Thr Lys Val Val  
 500 505 510  
 Lys Lys Ser Leu Ala His Ser Asp Asp Glu Ser Glu Glu Glu Lys Glu  
 515 520 525  
 Glu Glu Glu Lys Gln Glu Glu Glu Lys Ala Glu Glu Lys Glu Glu Lys  
 530 535 540  
 Lys Glu Glu Glu Asn Glu Asn Gly Ile Pro Asp Lys Ser Glu Asp Glu  
 545 550 555 560 565 570 575 580 585 590 595

047-E2F-PCT.ST25.txt

545															550															555															560
Ala	Pro	Gln	Pro	Ser 565	Glu	Ser	Glu	Glu	Lys 570	Asp	Glu	Ser	Glu	Glu	His 575																														
Ser	Glu	Glu	Glu	Thr 580	Thr	Lys	Lys	Lys 585	Arg	Gly	Ser	Arg	Leu 590	Ser	Ala																														
Gly	Lys	Lys 595	Glu	Ser	Ala	Gly	Arg 600	Ala	Arg	Asn	Lys	Lys 605	Ala	Val	Val																														
Ala	Ala 610	Lys	Ser	Ser	Pro	Pro 615	Glu	Lys	Ile	Thr	Gln 620	Lys	Arg	Ser	Ser																														
Ala 625	Lys	Arg	Lys	Lys	Thr 630	Asp	Asp	Asp	Ser	Asp 635	Thr	Ser	Pro	Lys	Ala 640																														
Ser	Ser	Lys	Arg	Lys 645	Lys	Ser	Glu	Asn	Pro 650	Ile	Lys	Ala	Ser	Pro 655	Ala																														
Pro	Ser	Lys	Ser 660	Ala	Ser	Lys	Glu	Lys 665	Pro	Val	Lys	Arg	Ala 670	Gly	Lys																														
Gly	Lys	Asp 675	Lys	Pro	Ser	Asp	Lys 680	Val	Leu	Lys	Asn	Ala 685	Ile	Val	Glu																														
Ile	Leu 690	Lys	Arg	Val	Asp	Phe 695	Ser	Thr	Ala	Thr	Phe 700	Thr	Asp	Ile	Leu																														
Lys 705	Glu	Leu	Ala	Lys	Glu 710	Phe	Thr	Glu	Asp	Leu 715	Thr	Pro	Arg	Lys	Ser 720																														
Ser	Ile	Lys	Met	Ile 725	Ile	Gln	Glu	Glu	Leu 730	Thr	Lys	Leu	Ala	Asp 735	Glu																														
Glu	Glu	Glu	Glu 740	Glu	Lys	Lys	Glu	Glu 745	Asp	Ser	Glu	Lys	Glu 750	Glu	Ala																														
Gly	Gly	Ser 755	Gly	Gly	Gly	Glu	Glu 760	Val	Lys	Ala																																			

<210> 1721

<211> 525

<212> DNA

<213> Arabidopsis thaliana



```

<400> 1721
atgaaaattg acaacgctag agaagaaaag aagaaaaaag gacagaaacg caagcaccag      60
cagaatgatc aagctgatat ggaaatgtta aaacttcgag ctgctctaga gggaaaacat      120
agaagcaatg gttctactgt tttaaagtct gctaaagctc aaaaacgcca gaaatcagaa      180
gactcagaag atgaatttta cagacaagtg aacacagaaac aagaagctaa aaaagctgcc      240
aaagcagaaa tctattcaag gaaaccatat ttgatcccgt catcgccaga tctggtggat      300
ggaagacgat tgatttcaaa tcagatggct agtaacagag gattgaccg gaaacgcaac      360
aaggaccata aaaacccgag aaagaagtac cgggatcagc acaagaaaat agtcattaac      420
cgcaaaggac aggtcagaga tatcaggacg caagtgggct catatgcagg agaaactcgc      480
ggtatcaatc cctacacaag ccgcagcatc cgaatcaaga actaa                          525

```

<210> 1722

<211> 174

<212> PRT

<213> *Arabidopsis thaliana*

<400> 1722

```

Met Lys Ile Asp Asn Ala Arg Glu Glu Lys Lys Lys Lys Gly Gln Lys
1          5          10          15

```

```

Arg Lys His Gln Gln Asn Asp Gln Ala Asp Met Glu Met Leu Lys Leu
20          25          30

```

```

Arg Ala Ala Leu Glu Gly Lys His Arg Ser Asn Gly Ser Thr Val Leu
35          40          45

```

```

Lys Ser Ala Lys Ala Gln Lys Arg Gln Lys Ser Glu Asp Ser Glu Asp
50          55          60

```

```

Glu Phe Tyr Arg Gln Val Lys Gln Lys Gln Glu Ala Lys Lys Ala Ala
65          70          75          80

```

```

Lys Ala Glu Ile Tyr Ser Arg Lys Pro Tyr Leu Ile Pro Ser Ser Pro
85          90          95

```

```

Asp Leu Val Asp Gly Arg Arg Leu Ile Ser Asn Gln Met Ala Ser Asn
100         105         110

```

```

Arg Gly Leu Thr Arg Lys Arg Asn Lys Asp His Lys Asn Pro Arg Lys
Page 2571

```

115

120

125

Lys Tyr Arg Asp Gln His Lys Lys Ile Val Ile Asn Arg Lys Gly Gln  
 130 135 140

Val Arg Asp Ile Arg Thr Gln Val Gly Pro Tyr Ala Gly Glu Thr Arg  
 145 150 155 160

Gly Ile Asn Pro Tyr Thr Ser Arg Ser Ile Arg Ile Lys Asn  
 165 170

&lt;210&gt; 1723

&lt;211&gt; 981

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1723

```

atgtctcgtt ctcttgtctt cttcttcctc tttcttgtct tggtcgtccc ttgtctctcc      60
catggaaccg gaggagacca cgacgacgat gaggccttcgc acgttaagag ttccgatctc      120
aaatccaaat ccttaatctc cgtcaagatc gcatgtcttg tcatcatctt tgtcctcacg      180
ttcataagcg gtgtatctcc ttatttcttg aaatggagcc aagggttttt ggttcttggt      240
acacaattcg ccggaggcgt gtttcttgca accgccttga tgcatttctt gtcggacgct      300
gatgagacgt ttcgtggttt gttgacggcg gaaggagagt cggagccatc tccggcttac      360
ccatttgctt atatgttggc ttgtgctggg tttatgttga ccatgcttgc tgattctgtc      420
atcgctcata tctactcaaa gacccaaaac gatttggagc ttcaaggaga agacaaatcg      480
aatcagaggt cagcaacaac tgaaacttcg attggagata gcattctatt gatcgtagct      540
ctctgttttc actctgtctt cgaaggcata gctattggta tttcagagac taaatcagat      600
gcttggagag ctctctggac aataacactc cataagatat ttgcagcgat tgcaatgggg      660
atagctcttc tccgtatgat ccctgaccgt cctttattct cctcaatcac ttattctttc      720
gcattcgcca tctcgagccc aattggtggt gccatcggga tagtcatcga tgcaacgact      780
caaggggtcca tcgcggattg gatattcgca ttgtcgatga gcttggcgtg tggggtatatt      840
gtgtatgtat ctgtgaacca tttgttggca aaagggatc gaccaaaca gaaagttcat      900
gttgatgagc ctcgttataa gtttttggct gtgttgtttg gagttgttgt cattgccatt      960
gttatgatat gggacacttg a                                     981

```

&lt;210&gt; 1724

&lt;211&gt; 326

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1724

Met Ser Arg Ser Leu Val Phe Phe Phe Leu Phe Leu Val Leu Val Val  
 1 5 10 15

Pro Cys Leu Ser His Gly Thr Gly Gly Asp His Asp Asp Asp Glu Ala  
 20 25 30

Ser His Val Lys Ser Ser Asp Leu Lys Ser Lys Ser Leu Ile Ser Val  
 35 40 45

Lys Ile Ala Cys Leu Val Ile Ile Phe Val Leu Thr Phe Ile Ser Gly  
 50 55 60

Val Ser Pro Tyr Phe Leu Lys Trp Ser Gln Gly Phe Leu Val Leu Gly  
 65 70 75 80

Thr Gln Phe Ala Gly Gly Val Phe Leu Ala Thr Ala Leu Met His Phe  
 85 90 95

Leu Ser Asp Ala Asp Glu Thr Phe Arg Gly Leu Leu Thr Ala Glu Gly  
 100 105 110

Glu Ser Glu Pro Ser Pro Ala Tyr Pro Phe Ala Tyr Met Leu Ala Cys  
 115 120 125

Ala Gly Phe Met Leu Thr Met Leu Ala Asp Ser Val Ile Ala His Ile  
 130 135 140

Tyr Ser Lys Thr Gln Asn Asp Leu Glu Leu Gln Gly Glu Asp Lys Ser  
 145 150 155 160

Asn Gln Arg Ser Ala Thr Thr Glu Thr Ser Ile Gly Asp Ser Ile Leu  
 165 170 175

Leu Ile Val Ala Leu Cys Phe His Ser Val Phe Glu Gly Ile Ala Ile  
 180 185 190

Gly Ile Ser Glu Thr Lys Ser Asp Ala Trp Arg Ala Leu Trp Thr Ile  
 195 200 205

Thr Leu His Lys Ile Phe Ala Ala Ile Ala Met Gly Ile Ala Leu Leu  
 Page 2573

210

215

Arg Met Ile Pro Asp Arg Pro Leu Phe Ser Ser Ile Thr Tyr Ser Phe  
225 230 235 240

Ala Phe Ala Ile Ser Ser Pro Ile Gly Val Ala Ile Gly Ile Val Ile  
245 250 255

Asp Ala Thr Thr Gln Gly Ser Ile Ala Asp Trp Ile Phe Ala Leu Ser  
260 265 270

Met Ser Leu Ala Cys Gly Val Phe Val Tyr Val Ser Val Asn His Leu  
275 280 285

Leu Ala Lys Gly Tyr Arg Pro Asn Lys Lys Val His Val Asp Glu Pro  
290 295 300

Arg Tyr Lys Phe Leu Ala Val Leu Phe Gly Val Val Val Ile Ala Ile  
305 310 315 320

Val Met Ile Trp Asp Thr  
325

<210> 1725

<211> 1539

<212> DNA

<213> Arabidopsis thaliana

<400> 1725

atgaacgcga gagctcttct ttgctcttca aatattcact ctctctacac ttcaaatcgt	60
ccacctgaaa aaacctcttc ttctcgcagc ctccgtaatc tcaaaccatc tccaaagtcg	120
ttacgggtat ggatctaccc gcgaaatagg tccagtgttt tccgggtatt agttcggagc	180
tccgacaaga gtgaaagcag taattcgtat tacgtagaag gagataaagt aagtggaaac	240
aatgacgtcg tttctgattc gcctagctct atcgctctcc catggtggga agagtttccg	300
aagcgggtggg tgattgtgtt actctgtttc tcagcttttc ttctctgcaa tatggacaga	360
gtgaatatga gtatagctat acttccgatg tcagctgagt atggttggaa tccagcaaca	420
gttggtctga ttcagtcttc tttcttctgg ggttaccttc ttacacagat agctggtgga	480
atgtgggcag aactgtagg agggaaaagg gttcttggat tcggtgttat ttggtggtca	540
atcgtacaa ttctcactcc tgtagctgct aaactcggtc ttccttactt gctcgttggt	600
cgtgctttca tgggagttgg agagggtgtt gcaatgcctg ctatgaataa tatattgtcg	660

047-E2F-PCT.ST25.txt

```

aagtgggttc ctgtgcaaga gagaagcaga tcactcgcgc ttgtttacag cggaatgtac 720
cttggatctg tcaccggttt agccttttcg cctttcttga ttcatcaatt tggatggcct 780
tctgtgtttt attcttttcg gtctcttgga actgtatggt tgactctgtg gctaactaag 840
gcagagagtt caccattaga agatccaaca ttgctccctg aagaaagaaa gctaattgca 900
gacaactgtg ctagcaaaga gccagtgaag tcgatcccgt ggaggctgat attgtcgaac 960
ccaccggttt gggctctcat cagttgccac ttttgtcaca actggggaac attcattctc 1020
ttaacatgga tgccaactta ttaccatcaa gtgctgaagt tcaaccttat ggagtcagga 1080
cttctctctg tatttccatg gatgacaatg gcaatatctg caaatgccgg tggatggatt 1140
gccgatacac ttgtcagccg aggtttctct gtcacgaatg tccgcaagat aatgcaaaca 1200
atagggtttc ttggaccagc gttcttccta acacagctga aacacataga ttctcctaca 1260
atggctgttt tgtgcatggc ttgtagtcag gggactgatg cgttttcaca gtctgggtcta 1320
tactctaacc atcaagacat cgctccaaga tactctggag tgttacttgg tttgtctaatt 1380
actgctggag tacttgccgg agttcttggc acagctgcga ctggtcacat actacaacac 1440
ggttcttggg atgacgtttt cacgatttcg gtcgggtctt acctcgttgg gaccgtcatt 1500
tggaacctat tttcaaccgg agagaagata atcgattga 1539

```

<210> 1726

<211> 512

<212> PRT

<213> Arabidopsis thaliana

<400> 1726

```

Met Asn Ala Arg Ala Leu Leu Cys Ser Ser Asn Ile His Ser Leu Tyr
1          5          10          15

Thr Ser Asn Arg Pro Pro Glu Lys Thr Ser Ser Ser Arg Ser Leu Arg
          20          25          30

Asn Leu Lys Pro Ser Pro Lys Ser Leu Arg Val Trp Ile Tyr Pro Arg
          35          40          45

Asn Arg Ser Ser Val Phe Arg Val Leu Val Arg Ser Ser Asp Lys Ser
          50          55          60

Glu Ser Ser Asn Ser Tyr Tyr Val Glu Gly Asp Lys Val Ser Gly Asn
65          70          75          80

```

047-E2F-PCT.ST25.txt

Asn Asp Val Val Ser Asp Ser Pro Ser Ser Ile Val Leu Pro Trp Trp  
                     85                    90                    95  
 Glu Glu Phe Pro Lys Arg Trp Val Ile Val Leu Leu Cys Phe Ser Ala  
                     100                    105                    110  
 Phe Leu Leu Cys Asn Met Asp Arg Val Asn Met Ser Ile Ala Ile Leu  
                     115                    120                    125  
 Pro Met Ser Ala Glu Tyr Gly Trp Asn Pro Ala Thr Val Gly Leu Ile  
                     130                    135                    140  
 Gln Ser Ser Phe Phe Trp Gly Tyr Leu Leu Thr Gln Ile Ala Gly Gly  
                     145                    150                    155                    160  
 Ile Trp Ala Asp Thr Val Gly Gly Lys Arg Val Leu Gly Phe Gly Val  
                     165                    170                    175  
 Ile Trp Trp Ser Ile Ala Thr Ile Leu Thr Pro Val Ala Ala Lys Leu  
                     180                    185                    190  
 Gly Leu Pro Tyr Leu Leu Val Val Arg Ala Phe Met Gly Val Gly Glu  
                     195                    200                    205  
 Gly Val Ala Met Pro Ala Met Asn Asn Ile Leu Ser Lys Trp Val Pro  
                     210                    215                    220  
 Val Gln Glu Arg Ser Arg Ser Leu Ala Leu Val Tyr Ser Gly Met Tyr  
                     225                    230                    235                    240  
 Leu Gly Ser Val Thr Gly Leu Ala Phe Ser Pro Phe Leu Ile His Gln  
                     245                    250                    255  
 Phe Gly Trp Pro Ser Val Phe Tyr Ser Phe Gly Ser Leu Gly Thr Val  
                     260                    265                    270  
 Trp Leu Thr Leu Trp Leu Thr Lys Ala Glu Ser Ser Pro Leu Glu Asp  
                     275                    280                    285  
 Pro Thr Leu Leu Pro Glu Glu Arg Lys Leu Ile Ala Asp Asn Cys Ala  
                     290                    295                    300  
 Ser Lys Glu Pro Val Lys Ser Ile Pro Trp Arg Leu Ile Leu Ser Lys  
                     305                    310                    315                    320  
 Pro Pro Val Trp Ala Leu Ile Ser Cys His Phe Cys His Asn Trp Gly  
                     325                    330                    335

047-E2F-PCT.ST25.txt

Thr Phe Ile Leu Leu Thr Trp Met Pro Thr Tyr Tyr His Gln Val Leu  
340 345 350

Lys Phe Asn Leu Met Glu Ser Gly Leu Leu Ser Val Phe Pro Trp Met  
355 360 365

Thr Met Ala Ile Ser Ala Asn Ala Gly Gly Trp Ile Ala Asp Thr Leu  
370 375 380

Val Ser Arg Gly Phe Ser Val Thr Asn Val Arg Lys Ile Met Gln Thr  
385 390 395 400

Ile Gly Phe Leu Gly Pro Ala Phe Phe Leu Thr Gln Leu Lys His Ile  
405 410 415

Asp Ser Pro Thr Met Ala Val Leu Cys Met Ala Cys Ser Gln Gly Thr  
420 425 430

Asp Ala Phe Ser Gln Ser Gly Leu Tyr Ser Asn His Gln Asp Ile Ala  
435 440 445

Pro Arg Tyr Ser Gly Val Leu Leu Gly Leu Ser Asn Thr Ala Gly Val  
450 455 460

Leu Ala Gly Val Leu Gly Thr Ala Ala Thr Gly His Ile Leu Gln His  
465 470 475 480

Gly Ser Trp Asp Asp Val Phe Thr Ile Ser Val Gly Leu Tyr Leu Val  
485 490 495

Gly Thr Val Ile Trp Asn Leu Phe Ser Thr Gly Glu Lys Ile Ile Asp  
500 505 510

<210> 1727

<211> 840

<212> DNA

<213> Arabidopsis thaliana

<400> 1727

atgccgccga agagaaat	caggaagcgt agcttcgagg	aggaagaaga agataatgat	60
gtaaacaaag cgcgaatttc	agaggaagaa gagaagcgaa	gattggcggtt agaggaggtg	120
aagttttttgc agaagctg	cgc agagaggaaa ttaggtatcc	cagctttatc ttctacggcg	180

047-E2F-PCT.ST25.txt

caatctagca tcggaaaagt gaaaccagtg gagaaaactg aaactgaagg agagaaagag 240  
gagcttgtgt tgcaagatac ttttgctcaa gagactgctg ttttgattga agatcccaac 300  
atggtaaagt acattgaaca agaattggcg aagaaacggg gaagaaatat tgatgatgca 360  
gaggaggttg agaacgaatt gaagcgagtg gaagatgagt tatataagat acctgatcat 420  
cttaaagtca agaagcgtag ctcggaagag agctcgacgc agtggactac cggaatagca 480  
gaagtccaac tccaattga atacaagctg aagaacattg aagaaactga agctgccaag 540  
aagcttttgc aagagaggag acttatgggt cggccaaagt cagagtttag tatcccgctt 600  
agttatagtg cggattactt ccaacgcggg aaagattatg ctgagaagct taggagagag 660  
catcctgagc tatacaaaga tagaggagga cctcaagcgg acggtgaagc agctaaacct 720  
tctactagca gtagtactaa taataatgct gattcaggga aaagcagaca agcagcaact 780  
gatcaaatca tgttggaacg atttcgcaag agagagcgta accgtgtaat gcgaagataa 840

<210> 1728

<211> 279

<212> PRT

<213> Arabidopsis thaliana

<400> 1728

Met Pro Pro Lys Arg Asn Phe Arg Lys Arg Ser Phe Glu Glu Glu Glu  
1 5 10 15  
Glu Asp Asn Asp Val Asn Lys Ala Ala Ile Ser Glu Glu Glu Glu Lys  
20 25 30  
Arg Arg Leu Ala Leu Glu Glu Val Lys Phe Leu Gln Lys Leu Arg Glu  
35 40 45  
Arg Lys Leu Gly Ile Pro Ala Leu Ser Ser Thr Ala Gln Ser Ser Ile  
50 55 60  
Gly Lys Val Lys Pro Val Glu Lys Thr Glu Thr Glu Gly Glu Lys Glu  
65 70 75 80  
Glu Leu Val Leu Gln Asp Thr Phe Ala Gln Glu Thr Ala Val Leu Ile  
85 90 95  
Glu Asp Pro Asn Met Val Lys Tyr Ile Glu Gln Glu Leu Ala Lys Lys  
100 105 110



Arg Gly Arg Asn Ile Asp Asp Ala Glu Glu Val Glu Asn Glu Leu Lys  
 115 120 125

Arg Val Glu Asp Glu Leu Tyr Lys Ile Pro Asp His Leu Lys Val Lys  
 130 135 140

Lys Arg Ser Ser Glu Glu Ser Ser Thr Gln Trp Thr Thr Gly Ile Ala  
 145 150 155 160

Glu Val Gln Leu Pro Ile Glu Tyr Lys Leu Lys Asn Ile Glu Glu Thr  
 165 170 175

Glu Ala Ala Lys Lys Leu Leu Gln Glu Arg Arg Leu Met Gly Arg Pro  
 180 185 190

Lys Ser Glu Phe Ser Ile Pro Ser Ser Tyr Ser Ala Asp Tyr Phe Gln  
 195 200 205

Arg Gly Lys Asp Tyr Ala Glu Lys Leu Arg Arg Glu His Pro Glu Leu  
 210 215 220

Tyr Lys Asp Arg Gly Gly Pro Gln Ala Asp Gly Glu Ala Ala Lys Pro  
 225 230 235 240

Ser Thr Ser Ser Ser Thr Asn Asn Asn Ala Asp Ser Gly Lys Ser Arg  
 245 250 255

Gln Ala Ala Thr Asp Gln Ile Met Leu Glu Arg Phe Arg Lys Arg Glu  
 260 265 270

Arg Asn Arg Val Met Arg Arg  
 275

<210> 1729

<211> 1053

<212> DNA

<213> Arabidopsis thaliana

<400> 1729  
 atggctctag tgggtgtcagg tggcaaagca gccatgatgc cgcttcatgc caattctctt 60  
 cctctaagta tcaacaccaa atcaagagta ctaagtgcac cagcatttcc actattctcg 120  
 tccactcctc acctcccttc cagatccctc tccatccgcc tctcgccgaa tgtttcccgg 180  
 tctctcactg tggtatcttc tgttttgtca gaggacagag ctactaacgt tagtggctct 240

```

gggacagatg cattcaagct gacttacttg gagggcaata gctggctatg ggaaacagct 300
ggactgaaaa tcctagttga tccgattcct gtgggtaatt tggactttgg aatcccatgg 360
ctttatgatg ctgccaagag atatttgaag gccttcaagc ttgatgatct ccctgaagtt 420
gattgccttc tcataactca aagccttgat gatcattgtc atttgaatac ccttaggcca 480
ctttccgaga aatctccagg cataaagggt atagcaaccc caaatgctaa gcctttgcta 540
gatcctcttt ttagtaacgt cacttatctg gaacctggag atagctttga gctaaatgca 600
agaaacgggt ctaaggttcg agttaagcc acagctggac ctgtccttgg tccaccgtgg 660
caacgccctg aaaacgggta tctccttgta tcccctgaag atcagatatc tctctactat 720
gaaccgcatt gtgtatgcaa catggaactt ctgaagaatg aaagagccga cattgtaatc 780
acaccggtca tcaaacaact tctcccacga tttactcttg tttctggtca agaagacgct 840
gtccagcttg ccaaactcct gaaagccaag tttgttgtgc cgatgcaaaa tggcgagctt 900
gaagcaaagg gacttttagc aagcctagta aagaaagaag gaactattga atcatttaag 960
gaattattgt taaaagagct cccagaagct caagtgttgg agcctatagc aggtataccg 1020
ctagagatct tggttccatc ttcagacatt tag 1053

```

&lt;210&gt; 1730

&lt;211&gt; 350

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1730

```

Met Ala Leu Val Val Ser Gly Gly Lys Ala Ala Met Met Pro Leu His
1          5          10          15

```

```

Ala Asn Ser Leu Pro Leu Ser Ile Asn Thr Lys Ser Arg Val Leu Ser
20          25          30

```

```

Ala Ser Ala Phe Pro Leu Phe Ser Ser Thr Pro His Leu Pro Ser Arg
35          40          45

```

```

Ser Leu Ser Ile Arg Leu Ser Pro Asn Val Ser Arg Ser Leu Thr Val
50          55          60

```

```

Val Ser Ser Val Leu Ser Glu Asp Arg Ala Thr Asn Val Ser Gly Ser
65          70          75          80

```

```

Gly Thr Asp Ala Phe Lys Leu Thr Tyr Leu Glu Gly Asn Ser Trp Leu
85          90          95

```

047-E2F-PCT.ST25.txt

Trp Glu Thr Ala Gly Leu Lys Ile Leu Val Asp Pro Ile Leu Val Gly  
 100 105 110  
 Asn Leu Asp Phe Gly Ile Pro Trp Leu Tyr Asp Ala Ala Lys Arg Tyr  
 115 120 125  
 Leu Lys Ala Phe Lys Leu Asp Asp Leu Pro Glu Val Asp Cys Leu Leu  
 130 135 140  
 Ile Thr Gln Ser Leu Asp Asp His Cys His Leu Asn Thr Leu Arg Pro  
 145 150 155 160  
 Leu Ser Glu Lys Ser Pro Gly Ile Lys Val Ile Ala Thr Pro Asn Ala  
 165 170 175  
 Lys Pro Leu Leu Asp Pro Leu Phe Ser Asn Val Thr Tyr Leu Glu Pro  
 180 185 190  
 Gly Asp Ser Phe Glu Leu Asn Ala Arg Asn Gly Ser Lys Val Arg Val  
 195 200 205  
 Lys Ala Thr Ala Gly Pro Val Leu Gly Pro Pro Trp Gln Arg Pro Glu  
 210 215 220  
 Asn Gly Tyr Leu Leu Val Ser Pro Glu Asp Gln Ile Ser Leu Tyr Tyr  
 225 230 235 240  
 Glu Pro His Cys Val Cys Asn Met Glu Leu Leu Lys Asn Glu Arg Ala  
 245 250 255  
 Asp Ile Val Ile Thr Pro Val Ile Lys Gln Leu Leu Pro Arg Phe Thr  
 260 265 270  
 Leu Val Ser Gly Gln Glu Asp Ala Val Gln Leu Ala Lys Leu Leu Lys  
 275 280 285  
 Ala Lys Phe Val Val Pro Met Gln Asn Gly Glu Leu Glu Ala Lys Gly  
 290 295 300  
 Leu Leu Ala Ser Leu Val Lys Lys Glu Gly Thr Ile Glu Ser Phe Lys  
 305 310 315 320  
 Glu Leu Leu Leu Lys Glu Leu Pro Glu Ala Gln Val Leu Glu Pro Ile  
 325 330 335  
 Ala Gly Ile Pro Leu Glu Ile Leu Val Pro Ser Ser Asp Ile

340

047-E2F-PCT.ST25.txt  
345 350

&lt;210&gt; 1731

&lt;211&gt; 1143

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1731

```

atgcgagaaa tgaagtccac ggttcgtgat gccgtgaaat caatgaagca aaaaccgacg      60
gtcatgattg ttgacttttt ttgtacagcg ttgttgcca taaccgatgt aggtgtgacg      120
agtaagtatg tgtacatacc gtctcacgcg tggttcttgg cattaattgt ctacttgccg      180
gtattggata aggtaatgga aggtgagtat gttgatatta aggagcctat gaaaatacca      240
ggttgtaaac cggtcggacc aaaagagctt ttggacacaa tgtagaccg gtccgaccaa      300
caataccgtg attgtgtaca gattgggttg gagataccta tgagcgatgg agttttggta      360
aatacttggg gggagttaca agggaagact ctagctgcg taagagagga catagatttg      420
aaccgggtta taaaagtacc ggtttatcct attggaccta ttgttaggac taatgtgctt      480
attgaaaaac caaacagtac attcgagtgg ctagacaaac aagaggaaag atctgttgta      540
tatgtgtgtt tagggagtgg tggaacattg tcgtttgagc aaacgatgga actagcttgg      600
gggttagagt taagttgtca aagtttctta tgggttctac gtaagcctcc ttcttacctt      660
ggagcaagct caaaagatga tgatcaagta agtgacggtc taccagaagg tttcttggac      720
cgcacacgtg gtgtagggct tgtggtaacg caatgggcac cgcaagttga gatcttaagc      780
catagatcaa tcggtgggtt tttgtcacat tgtggttgga gctcgggtgt ggagagttta      840
actaaaggag ttccgatcat cgcttggcct ctttatgcgg agcaatggat gaatgccacg      900
ttgctgacgg aggagattgg tatggctatt cgtacgtcag agttaccgtc gaagaaagtg      960
atcagccggg aagaagtggc gtctttggtg aagaagattg tagcggaaga ggataaagaa     1020
ggacgaaaga taaagactaa agctgaagag gtgaggggta gctccgaacg agcttggact     1080
catggtgggt cgtctcatag ttctctcttt gaatgggcaa aacgatgtgg gcttgtatct     1140
taa                                                         1143

```

&lt;210&gt; 1732

&lt;211&gt; 380

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1732

```

Met Arg Glu Met Lys Ser Thr Val Arg Asp Ala Val Lys Ser Met Lys
 1      5      10      15

Gln Lys Pro Thr Val Met Ile Val Asp Phe Phe Gly Thr Ala Leu Leu
 20      25      30

Ser Ile Thr Asp Val Gly Val Thr Ser Lys Tyr Val Tyr Ile Pro Ser
 35      40      45

His Ala Trp Phe Leu Ala Leu Ile Val Tyr Leu Pro Val Leu Asp Lys
 50      55      60

Val Met Glu Gly Glu Tyr Val Asp Ile Lys Glu Pro Met Lys Ile Pro
 65      70      75      80

Gly Cys Lys Pro Val Gly Pro Lys Glu Leu Leu Asp Thr Met Leu Asp
 85      90      95

Arg Ser Asp Gln Gln Tyr Arg Asp Cys Val Gln Ile Gly Leu Glu Ile
100      105      110

Pro Met Ser Asp Gly Val Leu Val Asn Thr Trp Gly Glu Leu Gln Gly
115      120      125

Lys Thr Leu Ala Ala Leu Arg Glu Asp Ile Asp Leu Asn Arg Val Ile
130      135      140

Lys Val Pro Val Tyr Pro Ile Gly Pro Ile Val Arg Thr Asn Val Leu
145      150      155      160

Ile Glu Lys Pro Asn Ser Thr Phe Glu Trp Leu Asp Lys Gln Glu Glu
165      170      175

Arg Ser Val Val Tyr Val Cys Leu Gly Ser Gly Gly Thr Leu Ser Phe
180      185      190

Glu Gln Thr Met Glu Leu Ala Trp Gly Leu Glu Leu Ser Cys Gln Ser
195      200      205

Phe Leu Trp Val Leu Arg Lys Pro Pro Ser Tyr Leu Gly Ala Ser Ser
210      215      220

Lys Asp Asp Asp Gln Val Ser Asp Gly Leu Pro Glu Gly Phe Leu Asp
225      230      235      240

```

047-E2F-PCT.ST25.txt

Arg Thr Arg Gly Val Gly Leu Val Val Thr Gln Trp Ala Pro Gln Val  
245 250 255

Glu Ile Leu Ser His Arg Ser Ile Gly Gly Phe Leu Ser His Cys Gly  
260 265 270

Trp Ser Ser Val Leu Glu Ser Leu Thr Lys Gly Val Pro Ile Ile Ala  
275 280 285

Trp Pro Leu Tyr Ala Glu Gln Trp Met Asn Ala Thr Leu Leu Thr Glu  
290 295 300

Glu Ile Gly Met Ala Ile Arg Thr Ser Glu Leu Pro Ser Lys Lys Val  
305 310 315 320

Ile Ser Arg Glu Glu Val Ala Ser Leu Val Lys Lys Ile Val Ala Glu  
325 330 335

Glu Asp Lys Glu Gly Arg Lys Ile Lys Thr Lys Ala Glu Glu Val Arg  
340 345 350

Val Ser Ser Glu Arg Ala Trp Thr His Gly Gly Ser Ser His Ser Ser  
355 360 365

Leu Phe Glu Trp Ala Lys Arg Cys Gly Leu Val Ser  
370 375 380

<210> 1733

<211> 1575

<212> DNA

<213> Arabidopsis thaliana

<400> 1733

atggagtgtg ttggggctag gaatttcgca gcaatggcgg tttcaacatt tccgtcatgg	60
agttgtcgaa ggaaatttcc agtggttaag agatacagct ataggaatat tcgtttcggt	120
ttgtgtagtg tcagagctag cggcggcgga agttccggta gtgagagttg tgtagcggtg	180
agagaagatt tcgctgacga agaagatttt gtgaaagctg gtggttctga gattctatatt	240
gttcaaattgc agcagaacaa agatatggat gaacagtcta agcttgttga taagttgcct	300
cctatatcaa ttggtgatgg tgctttggat ctagtgggta ttggttgtgg tcctgctgggt	360
ttagccttgg ctgcagaatc agctaagctt ggattaaaag ttggactcat tgggtccagat	420
cttcctttta ctaacaatta cgggtgtttgg gaagatgaat tcaatgatct tgggctgcaa	480

047-E2F-PCT.ST25.txt

```

aatgtattg agcatgtttg gagagagact attgtgtatc tggatgatga caagcctatt 540
accattggcc gtgcttatgg aagagttagt cgacgtttgc tccatgagga gcttttgagg 600
aggtgtgtcg agtcaggtgt ctcgtacctt agctcgaaag ttgacagcat aacagaagct 660
tctgatggcc ttagacttgt tgcttgtgac gacaataacg tcattccctg caggcttgcc 720
actgttgctt ctggagcagc ttcgggaaag ctcttgcaat acgaagttgg tggacctaga 780
gtctgtgtgc aaactgcata cggcgtggag gttgaggtgg aaaatagtcc atatgatcca 840
gatcaaatgg ttttcatgga ttacagagat tatactaacg agaaagttcg gagcttagaa 900
gctgagtatc caacgtttct gtacgccatg cctatgacaa agtcaagact cttcttcgag 960
gagacatgtt tggcctcaaa agatgtcatg ccctttgatt tgctaaaaac gaagctcatg 1020
ttaagattag atacactcgg aattcgaatt ctaaagactt acgaagagga gtggtcctat 1080
atcccagttg gtggttcctt gccaaacacc gaacaaaaga atctcgcctt tgggtgctgcc 1140
gctagcatgg tacatcccgc aacaggctat tcagttgtga gatctttgtc tgaagctcca 1200
aaatatgcat cagtcatcgc agagatacta agagaagaga ctaccaaaca gatcaacagt 1260
aatatttcaa gacaagcttg ggatacttta tggccaccag aaaggaaaag acagagagca 1320
ttctttctct ttggtcttgc actcatagtt caattcgata ccgaaggcat tagaagcttc 1380
ttccgtactt tcttccgcct tccaaaatgg atgtggcaag ggtttctagg atcaacatta 1440
acatcaggag atctcgttct ctttgcttta tacatgttcg tcatttcacc aaacaatttg 1500
agaaaaggtc tcatcaatca tctcatctct gatccaaccg gagcaaccat gataaaaacc 1560
tatctcaaag tatga 1575

```

<210> 1734

<211> 524

<212> PRT

<213> Arabidopsis thaliana

<400> 1734

Met Glu Cys Val Gly Ala Arg Asn Phe Ala Ala Met Ala Val Ser Thr  
1 5 10 15

Phe Pro Ser Trp Ser Cys Arg Arg Lys Phe Pro Val Val Lys Arg Tyr  
20 25 30

Ser Tyr Arg Asn Ile Arg Phe Gly Leu Cys Ser Val Arg Ala Ser Gly  
35 40 45

047-E2F-PCT.ST25.txt

Gly Gly Ser Ser Gly Ser Glu Ser Cys Val Ala Val Arg Glu Asp Phe  
 50 55 60  
 Ala Asp Glu Glu Asp Phe Val Lys Ala Gly Gly Ser Glu Ile Leu Phe  
 65 70 75 80  
 Val Gln Met Gln Gln Asn Lys Asp Met Asp Glu Gln Ser Lys Leu Val  
 85 90 95  
 Asp Lys Leu Pro Pro Ile Ser Ile Gly Asp Gly Ala Leu Asp Leu Val  
 100 105 110  
 Val Ile Gly Cys Gly Pro Ala Gly Leu Ala Leu Ala Ala Glu Ser Ala  
 115 120 125  
 Lys Leu Gly Leu Lys Val Gly Leu Ile Gly Pro Asp Leu Pro Phe Thr  
 130 135 140  
 Asn Asn Tyr Gly Val Trp Glu Asp Glu Phe Asn Asp Leu Gly Leu Gln  
 145 150 155 160  
 Lys Cys Ile Glu His Val Trp Arg Glu Thr Ile Val Tyr Leu Asp Asp  
 165 170 175  
 Asp Lys Pro Ile Thr Ile Gly Arg Ala Tyr Gly Arg Val Ser Arg Arg  
 180 185 190  
 Leu Leu His Glu Glu Leu Leu Arg Arg Cys Val Glu Ser Gly Val Ser  
 195 200 205  
 Tyr Leu Ser Ser Lys Val Asp Ser Ile Thr Glu Ala Ser Asp Gly Leu  
 210 215 220  
 Arg Leu Val Ala Cys Asp Asp Asn Asn Val Ile Pro Cys Arg Leu Ala  
 225 230 235 240  
 Thr Val Ala Ser Gly Ala Ala Ser Gly Lys Leu Leu Gln Tyr Glu Val  
 245 250 255  
 Gly Gly Pro Arg Val Cys Val Gln Thr Ala Tyr Gly Val Glu Val Glu  
 260 265 270  
 Val Glu Asn Ser Pro Tyr Asp Pro Asp Gln Met Val Phe Met Asp Tyr  
 275 280 285  
 Arg Asp Tyr Thr Asn Glu Lys Val Arg Ser Leu Glu Ala Glu Tyr Pro  
 290 295 300



047-E2F-PCT.ST25.txt

Thr Phe Leu Tyr Ala Met Pro Met Thr Lys Ser Arg Leu Phe Phe Glu  
305 310 315 320

Glu Thr Cys Leu Ala Ser Lys Asp Val Met Pro Phe Asp Leu Leu Lys  
325 330 335

Thr Lys Leu Met Leu Arg Leu Asp Thr Leu Gly Ile Arg Ile Leu Lys  
340 345 350

Thr Tyr Glu Glu Glu Trp Ser Tyr Ile Pro Val Gly Gly Ser Leu Pro  
355 360 365

Asn Thr Glu Gln Lys Asn Leu Ala Phe Gly Ala Ala Ala Ser Met Val  
370 375 380

His Pro Ala Thr Gly Tyr Ser Val Val Arg Ser Leu Ser Glu Ala Pro  
385 390 395 400

Lys Tyr Ala Ser Val Ile Ala Glu Ile Leu Arg Glu Glu Thr Thr Lys  
405 410 415

Gln Ile Asn Ser Asn Ile Ser Arg Gln Ala Trp Asp Thr Leu Trp Pro  
420 425 430

Pro Glu Arg Lys Arg Gln Arg Ala Phe Phe Leu Phe Gly Leu Ala Leu  
435 440 445

Ile Val Gln Phe Asp Thr Glu Gly Ile Arg Ser Phe Phe Arg Thr Phe  
450 455 460

Phe Arg Leu Pro Lys Trp Met Trp Gln Gly Phe Leu Gly Ser Thr Leu  
465 470 475 480

Thr Ser Gly Asp Leu Val Leu Phe Ala Leu Tyr Met Phe Val Ile Ser  
485 490 495

Pro Asn Asn Leu Arg Lys Gly Leu Ile Asn His Leu Ile Ser Asp Pro  
500 505 510

Thr Gly Ala Thr Met Ile Lys Thr Tyr Leu Lys Val  
515 520

<210> 1735

<211> 984

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1735

```

atggcctttat caatggagtt tggggttttca attgggtcat gcttcaaggc accaaaccca      60
cctgtttctaa tctctgcaag ccctaataag atcaatttca cgttgagaag gagaaagaaa      120
agattctttac ttagagtctc tgctgtgtcg tataaggaat tcgcagagtc tgcttttagaa      180
gaaaccagga aaaggatcgt tcttgaacct tcacatctcc agtatagtag catgacagga      240
ctagatggta agaccgaact tcaaatgctt gctttttaa atctcaaagat tagactcttg      300
aggagtatgg caatagagaa tgagacaatg cagggtctttg actttgcggg tttcatggag      360
cctgagtatg atactcccat attctgtgct aactttttca catctaccaa cgttaacata      420
gttgtattgg accttaatcc tttgcatcag ttgactgacc agacggatta ccaagacaag      480
tattataaca agataatgtc catatatcac aaatatgctg agactttccc atgggggaggg      540
aaattgactg gtgaatccat aaagtttttc tcgccttttg tgatgtggac taggttttcg      600
tctagcaaag aaaaacataa ggctttgttc tctgcgtttc tagagtacta tcaggcatgg      660
cttgagatga caatccaagt gagggaggag atggaaccat ctcatgtgag agccaattgt      720
gaagcacaac acaagtacct gacatggcga gcacaaaagg atcctggaca tgggtcttctt      780
aaaagattag taggtgaagc aaaggcaaag gagctgctaa gggatttcct gttcaatggg      840
gtggatgagt taggcacaaa aacattcatt gattactttc cagagtacca aacagaagat      900
ggaactgtaa gcgataaacg aagtatcatt gggaagtc atgaaactcg tccatgggat      960
ttaacaggac aatttatcgg ctaa                                           984

```

&lt;210&gt; 1736

&lt;211&gt; 327

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1736

```

Met Ala Leu Ser Met Glu Phe Gly Phe Ser Ile Gly Ser Cys Phe Lys
1           5           10           15

Ala Pro Asn Pro Pro Val Leu Ile Ser Ala Ser Pro Asn Lys Ile Asn
          20           25           30

Phe Thr Leu Arg Arg Arg Lys Lys Arg Phe Leu Leu Arg Val Ser Ala
        35           40           45

```

047-E2F-PCT.ST25.txt

Val Ser Tyr Lys Glu Phe Ala Glu Ser Ala Leu Glu Glu Thr Arg Lys  
50 55 60

Arg Ile Val Leu Glu Pro Ser His Leu Gln Tyr Ser Ser Met Thr Gly  
65 70 75 80

Leu Asp Gly Lys Thr Glu Leu Gln Met Leu Ala Phe Lys Ser Ser Lys  
85 90 95

Ile Arg Leu Leu Arg Ser Met Ala Ile Glu Asn Glu Thr Met Gln Val  
100 105 110

Phe Asp Phe Ala Gly Phe Met Glu Pro Glu Tyr Asp Thr Pro Ile Phe  
115 120 125

Cys Ala Asn Phe Phe Thr Ser Thr Asn Val Asn Ile Val Val Leu Asp  
130 135 140

Leu Asn Pro Leu His Gln Leu Thr Asp Gln Thr Asp Tyr Gln Asp Lys  
145 150 155 160

Tyr Tyr Asn Lys Ile Met Ser Ile Tyr His Lys Tyr Ala Glu Thr Phe  
165 170 175

Pro Trp Gly Gly Lys Leu Thr Gly Glu Ser Ile Lys Phe Phe Ser Pro  
180 185 190

Leu Val Met Trp Thr Arg Phe Ser Ser Ser Lys Glu Lys His Lys Ala  
195 200 205

Leu Phe Ser Ala Phe Leu Glu Tyr Tyr Gln Ala Trp Leu Glu Met Thr  
210 215 220

Ile Gln Val Arg Glu Glu Met Glu Pro Ser His Val Arg Ala Asn Cys  
225 230 235 240

Glu Ala Gln His Lys Tyr Leu Thr Trp Arg Ala Gln Lys Asp Pro Gly  
245 250 255

His Gly Leu Leu Lys Arg Leu Val Gly Glu Ala Lys Ala Lys Glu Leu  
260 265 270

Leu Arg Asp Phe Leu Phe Asn Gly Val Asp Glu Leu Gly Thr Lys Thr  
275 280 285

Phe Ile Asp Tyr Phe Pro Glu Tyr Gln Thr Glu Asp Gly Thr Val Ser

290

295

Asp Lys Arg Ser Ile Ile Gly Lys Ser Tyr Glu Thr Arg Pro Trp Asp  
305 310 315 320

Leu Thr Gly Gln Phe Ile Gly  
325

<210> 1737

<211> 1269

<212> DNA

<213> Arabidopsis thaliana

<400> 1737

atggtgatga gtaggtgggc aaattgggaa ttccacatat cgttcgatgt tcgagctggc	60
atcgatcatat ctctcgcatc ctttttcgac acggacgtga acaaataccg gcaagtccta	120
tataaagggtc acttatcgga aatgttcata cttacatgg acccaagtga tgattggtat	180
ttcattactt atcttgattg tggcgatttt ggctgcggtc aatgcgccgt atctcttcaa	240
ccgtacactg attgtccagc ggggtgcagtt ttatggatg gtatTTTTgc tggatcaagat	300
ggaactcccg caaaaatccc aaaagtatat tgcatttttg aaaaatatgc tggagatatc	360
atgtggcgac atacagaagc tgaaattcca aacttagaaa ttacggaggt tagaccggac	420
gtaagtcttg tagcccggtat tgtgacgacc gtgggaaact atgactacat agttgattat	480
gagttcaagc ctagtggttc catcaaatg ggggtcggct taaccggtgt tttagaagtg	540
aaaccggtag aatatattca cacatccgaa atcaaaactag gggaagacat acacgggaca	600
attgtcgccg acaacaccgt cgggtgttaac cacgaccatt tcgtgacatt ccgtcttcat	660
cttgacatcg acggtaccga aaattccttt gttcgtaacg aacttgtgac cacgaggtct	720
ccaaaatctg ttaacacacc gagaaaaacc tattggacaa cgaagccaaa gacggccaag	780
accgaggcag aggctcgggt gaaactaggt ttgaaggcgg aggagttagt tgtgggttaac	840
cctaaccgaa agacgaagca tggcaatgag gttggatacc gtttacttca tggatccgct	900
gcaggccac tcctggccca agatgatttc ccgcagattc gagctgcatt caccaactat	960
aacgtgtgga tcacgccgta taacaggtca gaggtttggg cagggtggtt gtacgctgac	1020
aggagccaag gcgacgatac gttggcagtg tggctctcaa ggaatagaaa aatagagaag	1080
gaagatatag tgatgtggta caccgtcgggt ttccaccatg ttcttagcca ggaagattac	1140
ccgacgatgc ctactttatc cgggtggcttt gagctccgac cgaccaactt tttcgagcga	1200
aaccctgtcc tcaagaccaa acccgtaaaa gttaccaccg ctcgaaagtg cactcctaaa	1260

aacgattaa

1269

&lt;210&gt; 1738

&lt;211&gt; 422

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1738

Met Val Met Ser Arg Trp Ala Asn Trp Glu Phe His Ile Ser Phe Asp  
 1 5 10 15

Val Arg Ala Gly Ile Val Ile Ser Leu Ala Ser Leu Phe Asp Thr Asp  
 20 25 30

Val Asn Lys Tyr Arg Gln Val Leu Tyr Lys Gly His Leu Ser Glu Met  
 35 40 45

Phe Ile Pro Tyr Met Asp Pro Ser Asp Asp Trp Tyr Phe Ile Thr Tyr  
 50 55 60

Leu Asp Cys Gly Asp Phe Gly Cys Gly Gln Cys Ala Val Ser Leu Gln  
 65 70 75 80

Pro Tyr Thr Asp Cys Pro Ala Gly Ala Val Phe Met Asp Gly Ile Phe  
 85 90 95

Ala Gly Gln Asp Gly Thr Pro Ala Lys Ile Pro Lys Val Met Cys Ile  
 100 105 110

Phe Glu Lys Tyr Ala Gly Asp Ile Met Trp Arg His Thr Glu Ala Glu  
 115 120 125

Ile Pro Asn Leu Glu Ile Thr Glu Val Arg Pro Asp Val Ser Leu Val  
 130 135 140

Ala Arg Ile Val Thr Thr Val Gly Asn Tyr Asp Tyr Ile Val Asp Tyr  
 145 150 155 160

Glu Phe Lys Pro Ser Gly Ser Ile Lys Met Gly Val Gly Leu Thr Gly  
 165 170 175

Val Leu Glu Val Lys Pro Val Glu Tyr Ile His Thr Ser Glu Ile Lys  
 180 185 190

047-E2F-PCT.ST25.txt

Leu Gly Glu Asp Ile His Gly Thr Ile Val Ala Asp Asn Thr Val Gly  
 195 200 205  
 Val Asn His Asp His Phe Val Thr Phe Arg Leu His Leu Asp Ile Asp  
 210 215 220  
 Gly Thr Glu Asn Ser Phe Val Arg Asn Glu Leu Val Thr Thr Arg Ser  
 225 230 235 240  
 Pro Lys Ser Val Asn Thr Pro Arg Lys Thr Tyr Trp Thr Thr Lys Pro  
 245 250 255  
 Lys Thr Ala Lys Thr Glu Ala Glu Ala Arg Val Lys Leu Gly Leu Lys  
 260 265 270  
 Ala Glu Glu Leu Val Val Val Asn Pro Asn Arg Lys Thr Lys His Gly  
 275 280 285  
 Asn Glu Val Gly Tyr Arg Leu Leu His Gly Ser Ala Ala Gly Pro Leu  
 290 295 300  
 Leu Ala Gln Asp Asp Phe Pro Gln Ile Arg Ala Ala Phe Thr Asn Tyr  
 305 310 315 320  
 Asn Val Trp Ile Thr Pro Tyr Asn Arg Ser Glu Val Trp Ala Gly Gly  
 325 330 335  
 Leu Tyr Ala Asp Arg Ser Gln Gly Asp Asp Thr Leu Ala Val Trp Ser  
 340 345 350  
 Gln Arg Asn Arg Lys Ile Glu Lys Glu Asp Ile Val Met Trp Tyr Thr  
 355 360 365  
 Val Gly Phe His His Val Pro Ser Gln Glu Asp Tyr Pro Thr Met Pro  
 370 375 380  
 Thr Leu Ser Gly Gly Phe Glu Leu Arg Pro Thr Asn Phe Phe Glu Arg  
 385 390 395 400  
 Asn Pro Val Leu Lys Thr Lys Pro Val Lys Val Thr Thr Ala Arg Lys  
 405 410 415  
 Cys Thr Pro Lys Asn Asp  
 420

<210> 1739

&lt;211&gt; 1326

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1739

```

atgaaat ttt caatcacatt agctctatgc ttcactctct ccatcttctt gatcggatca    60
caagccaaag ttccagtcga cgaccaattc cgagtgggtca acgaaggtgg ctacaccgat    120
tacagtccca tcgaatacaa ccccgacgta cgtggcttcg tacccttcag tgacaacttc    180
cgtctctgtt tctacaacac aaccccaaac gcatacactc tcgctctcag aatcggaaac    240
agagtccaag aatccactct cagatgggtc tgggaagcaa acagaggctc accggtcaaa    300
gaaaacgcga cgttgacttt tggcgaagac ggaaacctcg tactcgctga agccgatgga    360
cgcttgggtat ggcaaacgaa cacagctaac aaaggcgccg tggggatcaa aatcttggag    420
aatggcaata tggtaatata cgattccagt ggaaaatttg tatggcagag ctttgattct    480
cccaccgaca cacttctcgt tggacagtct ttgaaactca acggtcggac caaactcgta    540
agcagactgt ctccatctgt caacacaaac ggaccgtaca gtctcgtgat ggaagccaag    600
aagctagtct tgtactacac gacaaacaaa actccgaaac caatcgctta ttttgaatac    660
gaattcttca ccaagataac acaattccag tcaatgacgt tccaagctgt ggaagattcc    720
gacacaacgt ggggtctagt catggaaggt gtcgattctg gttctaaatt caacgtttca    780
acgttcctct cacggccgaa acacaacgcg acgttgagtt ttattcggtt agaatcagac    840
ggaaacatca gagtttggag ttacagtacg ttggcgactt ccacggcttg ggacgtgaca    900
tacacggcgt ttaccaacgc cgacactgac ggtaacgacg agtgtaggat ccctgagcat    960
tgtttggggg ttggtttgtg taagaaaggc cagtgtaacg cttgtcctag cgacaaaggg   1020
cttcttgggt gggacgagac atgtaaatct ccaagtctcg caagttgcga tccaagaca   1080
tttactact tcaagatcga aggagctgat agtttcatga caaatataa cggtggtatca   1140
tcgacgacgg agagtgcgtg tggggacaag tgtacgagag attgcaaattg tttagggttt   1200
ttctacaata gaaagagttc gaggtgttgg ttgggctacg agctcaagac attgactaga   1260
accggagatt cttccctggg tgcttatgtc aaagctccta atgcaaacaa aaagtcaact   1320
ctttga                                           1326

```

&lt;210&gt; 1740

&lt;211&gt; 441

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1740

```

Met Lys Phe Ser Ile Thr Leu Ala Leu Cys Phe Thr Leu Ser Ile Phe
 1      5      10     15
Leu Ile Gly Ser Gln Ala Lys Val Pro Val Asp Asp Gln Phe Arg Val
 20     25     30
Val Asn Glu Gly Gly Tyr Thr Asp Tyr Ser Pro Ile Glu Tyr Asn Pro
 35     40     45
Asp Val Arg Gly Phe Val Pro Phe Ser Asp Asn Phe Arg Leu Cys Phe
 50     55     60
Tyr Asn Thr Thr Pro Asn Ala Tyr Thr Leu Ala Leu Arg Ile Gly Asn
 65     70     75     80
Arg Val Gln Glu Ser Thr Leu Arg Trp Val Trp Glu Ala Asn Arg Gly
 85     90     95
Ser Pro Val Lys Glu Asn Ala Thr Leu Thr Phe Gly Glu Asp Gly Asn
100    105    110
Leu Val Leu Ala Glu Ala Asp Gly Arg Leu Val Trp Gln Thr Asn Thr
115    120    125
Ala Asn Lys Gly Ala Val Gly Ile Lys Ile Leu Glu Asn Gly Asn Met
130    135    140
Val Ile Tyr Asp Ser Ser Gly Lys Phe Val Trp Gln Ser Phe Asp Ser
145    150    155    160
Pro Thr Asp Thr Leu Leu Val Gly Gln Ser Leu Lys Leu Asn Gly Arg
165    170    175
Thr Lys Leu Val Ser Arg Leu Ser Pro Ser Val Asn Thr Asn Gly Pro
180    185    190
Tyr Ser Leu Val Met Glu Ala Lys Lys Leu Val Leu Tyr Tyr Thr Thr
195    200    205
Asn Lys Thr Pro Lys Pro Ile Ala Tyr Phe Glu Tyr Glu Phe Phe Thr
210    215    220
Lys Ile Thr Gln Phe Gln Ser Met Thr Phe Gln Ala Val Glu Asp Ser
225    230    235    240

```



047-E2F-PCT.ST25.txt

Asp Thr Thr Trp Gly Leu Val Met Glu Gly Val Asp Ser Gly Ser Lys  
245 250 255

Phe Asn Val Ser Thr Phe Leu Ser Arg Pro Lys His Asn Ala Thr Leu  
260 265 270

Ser Phe Ile Arg Leu Glu Ser Asp Gly Asn Ile Arg Val Trp Ser Tyr  
275 280 285

Ser Thr Leu Ala Thr Ser Thr Ala Trp Asp Val Thr Tyr Thr Ala Phe  
290 295 300

Thr Asn Ala Asp Thr Asp Gly Asn Asp Glu Cys Arg Ile Pro Glu His  
305 310 315 320

Cys Leu Gly Phe Gly Leu Cys Lys Lys Gly Gln Cys Asn Ala Cys Pro  
325 330 335

Ser Asp Lys Gly Leu Leu Gly Trp Asp Glu Thr Cys Lys Ser Pro Ser  
340 345 350

Leu Ala Ser Cys Asp Pro Lys Thr Phe His Tyr Phe Lys Ile Glu Gly  
355 360 365

Ala Asp Ser Phe Met Thr Lys Tyr Asn Gly Gly Ser Ser Thr Thr Glu  
370 375 380

Ser Ala Cys Gly Asp Lys Cys Thr Arg Asp Cys Lys Cys Leu Gly Phe  
385 390 395 400

Phe Tyr Asn Arg Lys Ser Ser Arg Cys Trp Leu Gly Tyr Glu Leu Lys  
405 410 415

Thr Leu Thr Arg Thr Gly Asp Ser Ser Leu Val Ala Tyr Val Lys Ala  
420 425 430

Pro Asn Ala Asn Lys Lys Ser Thr Leu  
435 440

<210> 1741

<211> 1467

<212> DNA

<213> Arabidopsis thaliana

## 047-E2F-PCT.ST25.txt

<400> 1741  
 atggagatac ggagcttgat tgtttctatg aaccctaatt tatcttcctt tgagctctct 60  
 cgccctgtat ctctctcac tcgctacta gttccgttcc gatcgactaa actagttccc 120  
 cgctccattt ctagggtttc ggcgtcgatc tccaccccga atagtgaac tgacaagatc 180  
 tccgttaaac ctgtttacgt cccgacgtct cccaatcgcg aactccggac tcctcacagt 240  
 ggataccatt tcgatggaac acctcggaag ttcttcgagg gatggtatctt cagggtttcc 300  
 atcccagaga agagggagag tttttgtttt atgtattctg tggagaatcc tgcatttcgg 360  
 cagagtttgt caccattgga agtggctcta tatggaccta gattcactgg tgttgagct 420  
 cagattcttg gcgctaata taaatattta tgccaatacg aacaagactc tcacaatttc 480  
 tggggagatc gacatgagct agttttgggg aatactttta gtgctgtgcc aggcgcaaag 540  
 gctccaaaca aggaggttcc accagaggaa tttaacagaa gagtgtccga agggttccaa 600  
 gctactccat ttggcatca aggtcacatt tgcgatgatg gccgtactga ctatgcggaa 660  
 actgtgaaat ctgctcgttg ggagtatagt actcgtcccg ttacggttg ggggtgatgtt 720  
 ggggccaaac agaagtcaac tgcaggctgg cctgcagctt ttctgtatt tgagcctcat 780  
 tggcagatat gcatggcagg aggcctttcc acagggtgga tagaatgggg cggtgaaagg 840  
 tttagatttc gggatgcacc ttcttattca gagaagaatt ggggtggagg cttcccaaga 900  
 aaatggtttt ggggtccagt taatgtcttt gaaggggcaa ctggagaagt tgctttaacc 960  
 gcagggtggcg ggttgaggca attgcctgga ttgactgaga cctatgaaaa tgctgcactg 1020  
 gtttgtgtac actatgatgg aaaaatgtac gagtttgttc cttggaatgg tgttgttaga 1080  
 tgggaaatgt ctccctgggg ttattggtat ataactgcag agaacgaaaa ccatgtggtg 1140  
 gaactagagg caagaacaaa tgaagcgggt acacctctgc gtgctcctac cacagaagtt 1200  
 gggctagcta cggcttgca agatagttgt tacgggtgaat tgaagttgca gatatgggaa 1260  
 cggctatatg atggaagtaa aggcaagggt atattagaga caaagagctc aatggcagca 1320  
 gtggagatag gaggaggacc gtggtttggg acatggaaag gagatacgag caacacgcc 1380  
 gagctactaa aacaggctct tcagggtccca ttggatcttg aaagcgcctt aggtttggtc 1440  
 cttttcttca agccaccggg tctgtaa 1467

<210> 1742

<211> 488

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1742

Met Glu Ile Arg Ser Leu Ile Val Ser Met Asn Pro Asn Leu Ser Ser  
 1 5 10 15

Phe Glu Leu Ser Arg Pro Val Ser Pro Leu Thr Arg Ser Leu Val Pro  
 20 25 30

Phe Arg Ser Thr Lys Leu Val Pro Arg Ser Ile Ser Arg Val Ser Ala  
 35 40 45

Ser Ile Ser Thr Pro Asn Ser Glu Thr Asp Lys Ile Ser Val Lys Pro  
 50 55 60

Val Tyr Val Pro Thr Ser Pro Asn Arg Glu Leu Arg Thr Pro His Ser  
 65 70 75 80

Gly Tyr His Phe Asp Gly Thr Pro Arg Lys Phe Phe Glu Gly Trp Tyr  
 85 90 95

Phe Arg Val Ser Ile Pro Glu Lys Arg Glu Ser Phe Cys Phe Met Tyr  
 100 105 110

Ser Val Glu Asn Pro Ala Phe Arg Gln Ser Leu Ser Pro Leu Glu Val  
 115 120 125

Ala Leu Tyr Gly Pro Arg Phe Thr Gly Val Gly Ala Gln Ile Leu Gly  
 130 135 140

Ala Asn Asp Lys Tyr Leu Cys Gln Tyr Glu Gln Asp Ser His Asn Phe  
 145 150 155 160

Trp Gly Asp Arg His Glu Leu Val Leu Gly Asn Thr Phe Ser Ala Val  
 165 170 175

Pro Gly Ala Lys Ala Pro Asn Lys Glu Val Pro Pro Glu Glu Phe Asn  
 180 185 190

Arg Arg Val Ser Glu Gly Phe Gln Ala Thr Pro Phe Trp His Gln Gly  
 195 200 205

His Ile Cys Asp Asp Gly Arg Thr Asp Tyr Ala Glu Thr Val Lys Ser  
 210 215 220

Ala Arg Trp Glu Tyr Ser Thr Arg Pro Val Tyr Gly Trp Gly Asp Val  
 225 230 235 240

Gly Ala Lys Gln Lys Ser Thr Ala Gly Trp Pro Ala Ala Phe Pro Val  
 Page 2597

Phe Glu Pro His Trp Gln Ile Cys Met Ala Gly Gly Leu Ser Thr Gly  
260 265 270

Trp Ile Glu Trp Gly Gly Glu Arg Phe Glu Phe Arg Asp Ala Pro Ser  
275 280 285

Tyr Ser Glu Lys Asn Trp Gly Gly Gly Phe Pro Arg Lys Trp Phe Trp  
290 295 300

Val Gln Cys Asn Val Phe Glu Gly Ala Thr Gly Glu Val Ala Leu Thr  
305 310 315 320

Ala Gly Gly Gly Leu Arg Gln Leu Pro Gly Leu Thr Glu Thr Tyr Glu  
325 330 335

Asn Ala Ala Leu Val Cys Val His Tyr Asp Gly Lys Met Tyr Glu Phe  
340 345 350

Val Pro Trp Asn Gly Val Val Arg Trp Glu Met Ser Pro Trp Gly Tyr  
355 360 365

Trp Tyr Ile Thr Ala Glu Asn Glu Asn His Val Val Glu Leu Glu Ala  
370 375 380

Arg Thr Asn Glu Ala Gly Thr Pro Leu Arg Ala Pro Thr Thr Glu Val  
385 390 395 400

Gly Leu Ala Thr Ala Cys Arg Asp Ser Cys Tyr Gly Glu Leu Lys Leu  
405 410 415

Gln Ile Trp Glu Arg Leu Tyr Asp Gly Ser Lys Gly Lys Val Ile Leu  
420 425 430

Glu Thr Lys Ser Ser Met Ala Ala Val Glu Ile Gly Gly Gly Pro Trp  
435 440 445

Phe Gly Thr Trp Lys Gly Asp Thr Ser Asn Thr Pro Glu Leu Leu Lys  
450 455 460

Gln Ala Leu Gln Val Pro Leu Asp Leu Glu Ser Ala Leu Gly Leu Val  
465 470 475 480

Pro Phe Phe Lys Pro Pro Gly Leu  
485

&lt;210&gt; 1743

&lt;211&gt; 975

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1743

```

atgggtagca agatgttggt tagtttgaca agtcctcgac ttttctccgc cgtttctcgc      60
aaaccttcct cttctttctc tccttctcct ccgtcgccgt cttcgaggac tcaatggact      120
cagctcagcc ctggaaaatc gatttctttg agaagaagag tcttcttggt gcctgctaaa      180
gccacaacag agcaatcagg tccagtagga ggagacaacg tcgatagcaa tgttttgccc      240
tattgtagca tcaacaaggc tgagaagaaa acaattggtg aaatggaaca agagtttctc      300
caagcgttgc aatctttcta ttatgatggc aaagcgatca tgtctaata gaagtttgat      360
aaccttaaag aagagttaat gtgggaagga agcagtgttg tgatgctaag ttccgatgaa      420
caaagattct tggaagcttc catggcttat gtttctggaa atccaatctt gaatgatgaa      480
gaatatgata agtcaaaact caaactaaag attgatggta gcgacattgt gagcgagggt      540
ccaagatgca gtctccgtag taaaaagggt tatagtgatc tcgctgtaga ttatttcaaa      600
atgttattgt tgaatgttcc agcaaccggt gttgctctcg gactcttttt cttcctggac      660
gacattacag gttttgagat cacatacatc atggagcttc cagaaccata cagtttcata      720
ttcacttggt tcgctgctgt gcctgtgatt gtatatctgg ctttatcaat caccaaattg      780
atcatcaagg acttcttgat cttgaagggt ccttgtccga attgtggaac ggaaaacacc      840
tccttctttg gaacaattct gtcaatctcc agcggcggca aaaccaacac tgtcaaatgc      900
accaactgcg gaaccgcat ggtgtatgac tcgggttcta ggttgatcac attgccagaa      960
ggaagccaag cttaa                                         975

```

&lt;210&gt; 1744

&lt;211&gt; 324

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1744

```

Met Gly Ser Lys Met Leu Phe Ser Leu Thr Ser Pro Arg Leu Phe Ser
1           5           10          15

```

```

Ala Val Ser Arg Lys Pro Ser Ser Ser Phe Ser Pro Ser Pro Pro Ser
Page 2599

```

Pro Ser Ser Arg Thr Gln Trp Thr Gln Leu Ser Pro Gly Lys Ser Ile  
           35                          40                          45  
 Ser Leu Arg Arg Arg Val Phe Leu Leu Pro Ala Lys Ala Thr Thr Glu  
       50                          55                          60  
 Gln Ser Gly Pro Val Gly Gly Asp Asn Val Asp Ser Asn Val Leu Pro  
   65                          70                          75                          80  
 Tyr Cys Ser Ile Asn Lys Ala Glu Lys Lys Thr Ile Gly Glu Met Glu  
                   85                          90  
 Gln Glu Phe Leu Gln Ala Leu Gln Ser Phe Tyr Tyr Asp Gly Lys Ala  
           100                          105                          110  
 Ile Met Ser Asn Glu Glu Phe Asp Asn Leu Lys Glu Glu Leu Met Trp  
       115                          120                          125  
 Glu Gly Ser Ser Val Val Met Leu Ser Ser Asp Glu Gln Arg Phe Leu  
       130                          135                          140  
 Glu Ala Ser Met Ala Tyr Val Ser Gly Asn Pro Ile Leu Asn Asp Glu  
   145                          150                          155                          160  
 Glu Tyr Asp Lys Leu Lys Leu Lys Leu Lys Ile Asp Gly Ser Asp Ile  
           165                          170                          175  
 Val Ser Glu Gly Pro Arg Cys Ser Leu Arg Ser Lys Lys Val Tyr Ser  
           180                          185                          190  
 Asp Leu Ala Val Asp Tyr Phe Lys Met Leu Leu Leu Asn Val Pro Ala  
       195                          200                          205  
 Thr Val Val Ala Leu Gly Leu Phe Phe Phe Leu Asp Asp Ile Thr Gly  
       210                          215                          220  
 Phe Glu Ile Thr Tyr Ile Met Glu Leu Pro Glu Pro Tyr Ser Phe Ile  
   225                          230                          235                          240  
 Phe Thr Trp Phe Ala Ala Val Pro Val Ile Val Tyr Leu Ala Leu Ser  
           245                          250                          255  
 Ile Thr Lys Leu Ile Ile Lys Asp Phe Leu Ile Leu Lys Gly Pro Cys  
           260                          265                          270

Pro Asn Cys Gly Thr Glu Asn Thr Ser Phe Phe Gly Thr Ile Leu Ser  
 275 280 285

Ile Ser Ser Gly Gly Lys Thr Asn Thr Val Lys Cys Thr Asn Cys Gly  
 290 295 300

Thr Ala Met Val Tyr Asp Ser Gly Ser Arg Leu Ile Thr Leu Pro Glu  
 305 310 315 320

Gly Ser Gln Ala

<210> 1745

<211> 618

<212> DNA

<213> Arabidopsis thaliana

<400> 1745

```

atggctccta cacaaaatct cttccttgtc gctattgcct tcgccgtcat tttcaccgcc      60
tccaccgtac atggtcgtca taatggtgca gaagatatcg tgcattcctc ctgcgaacac      120
gcgagctatc catcactatg cgtccgtact ctttcgtcat actccggtcc aaccatcacc      180
aaccgccgcg atctagctca agccgccata aaaatcagcc tctcccacgc tcaaagcgcc      240
gcgaagaaac tcgcggtggt gcgagactcg gtggggaaga agaagcaaga gaaagcggcg      300
cttgtggact gtgtggagat gattggagac tctgtggacg agctaagccg tacgctcggc      360
gttttgaagc acctccgtgt ctctggcggg tcagctaaag agttccggtg gcagatgagc      420
aatgcacaga cgtgggctag cgcggcactt acggatgacg acacgtgtct cgatggggtt      480
caagggatgg acgacggtga aatcaaaacg gaggtgaagc agtggatgac gaaagtggcc      540
agggttacga gcaacgcgct ttacatgggtc aaccagctag atgagacacg tggcaaaccc      600
cacgacgtac atctttga                                     618

```

<210> 1746

<211> 205

<212> PRT

<213> Arabidopsis thaliana

<400> 1746

Met Ala Pro Thr Gln Asn Leu Phe Leu Val Ala Ile Ala Phe Ala Val  
 Page 2601

1                      5                      10                      15  
 Ile Phe Thr Ala Ser Thr Val His Gly Arg His Asn Gly Ala Glu Asp  
                     20                      25                      30  
 Ile Val His Ser Ser Cys Glu His Ala Ser Tyr Pro Ser Leu Cys Val  
                     35                      40                      45  
 Arg Thr Leu Ser Ser Tyr Ser Gly Pro Thr Ile Thr Asn Arg Arg Asp  
                     50                      55                      60  
 Leu Ala Gln Ala Ala Ile Lys Ile Ser Leu Ser His Ala Gln Ser Ala  
                     65                      70                      75                      80  
 Ala Lys Lys Leu Ala Val Val Arg Asp Ser Val Gly Lys Lys Lys Gln  
                     85                      90                      95  
 Glu Lys Ala Ala Leu Val Asp Cys Val Glu Met Ile Gly Asp Ser Val  
                     100                      105                      110  
 Asp Glu Leu Ser Arg Thr Leu Gly Val Leu Lys His Leu Arg Val Ser  
                     115                      120                      125  
 Gly Gly Ser Ala Lys Glu Phe Arg Trp Gln Met Ser Asn Ala Gln Thr  
                     130                      135                      140  
 Trp Ala Ser Ala Ala Leu Thr Asp Asp Asp Thr Cys Leu Asp Gly Phe  
                     145                      150                      155                      160  
 Gln Gly Met Asp Asp Gly Glu Ile Lys Thr Glu Val Lys Gln Trp Met  
                     165                      170                      175  
 Thr Lys Val Ala Arg Val Thr Ser Asn Ala Leu Tyr Met Val Asn Gln  
                     180                      185                      190  
 Leu Asp Glu Thr Arg Gly Lys Pro His Asp Val His Leu  
                     195                      200                      205

<210> 1747

<211> 978

<212> DNA

<213> Arabidopsis thaliana

<400> 1747

atggcgatca agaacattct cgcccttggtg gttctttctta gcgtgggttg agtttctgtc

60



047-E2F-PCT.ST25.txt

```

gccattccac agttgcttga cctcgactac taccggtcta agtgtcccaa ggcagaggaa 120
attgttcgtg gtgtcacagt acaatatgtt tctcgccaga aaacccttgc cgctaaactt 180
ctaaggatgc atttccatga ttgtttcgtc agaggatgtg atggttccgt tcttctgaaa 240
tctgcaaaga atgatgcgga aagagacgct gtccccaacc tgaccctgaa aggttatgaa 300
gtggtggatg cggccaagac agcgctggag aggaagtgtc ctaatctcat ttcttgcgct 360
gatgttcttg ccttggtcgc cagagatgcc gtggcagtga tcgggggacc atggtggccg 420
gttccattgg gccgcaggga tggacgcata tcgaaattga acgatgcatt gctaaattta 480
ccatctcctt tcgccgacat aaagacgctg aagaagaact ttgccaacaa ggggtcttaac 540
gctaaagacc ttgtggttct ctcagggggt cacaccattg gaatctctag ttgcgctctc 600
gtcaacagtc gtctctacaa cttcacagga aagggcgatt ctgaccatc catgaaccct 660
agctacgtga ggggaattgaa gagaaagtgc cgcctacag atttcagaac ctcactgaac 720
atggaccag gcagtgcgtt gacattcgac actcactact tcaaggctgt ggctcagaag 780
aaagggtctt tcacatctga ctctacgctt ctcgatgaca ttgagaccaa aaactacgtt 840
cagactcagg ccattctccc tcctgtgttt tcttctttca ataaagattt ctccgattcc 900
atggtcaaac ttggtttcgt ccaaattctt accggcaaaa atggtgagat caggaagaga 960
tgcgcttcc ctaactaa 978

```

<210> 1748

<211> 325

<212> PRT

<213> Arabidopsis thaliana

<400> 1748

Met Ala Ile Lys Asn Ile Leu Ala Leu Val Val Leu Leu Ser Val Val  
1 5 10 15

Gly Val Ser Val Ala Ile Pro Gln Leu Leu Asp Leu Asp Tyr Tyr Arg  
20 25 30

Ser Lys Cys Pro Lys Ala Glu Glu Ile Val Arg Gly Val Thr Val Gln  
35 40 45

Tyr Val Ser Arg Gln Lys Thr Leu Ala Ala Lys Leu Leu Arg Met His  
50 55 60

Phe His Asp Cys Phe Val Arg Gly Cys Asp Gly Ser Val Leu Leu Lys  
Page 2603

65                                      70                                      75                                      80  
 Ser Ala Lys Asn Asp<sub>85</sub> Ala Glu Arg Asp Ala<sub>90</sub> Val Pro Asn Leu Thr<sub>95</sub> Leu  
 Lys Gly Tyr Glu<sub>100</sub> Val Val Asp Ala Ala<sub>105</sub> Lys Thr Ala Leu Glu<sub>110</sub> Arg Lys  
 Cys Pro Asn<sub>115</sub> Leu Ile Ser Cys Ala<sub>120</sub> Asp Val Leu Ala Leu<sub>125</sub> Val Ala Arg  
 Asp Ala<sub>130</sub> Val Ala Val Ile Gly<sub>135</sub> Gly Pro Trp Trp Pro<sub>140</sub> Val Pro Leu Gly  
 Arg Arg Asp Gly Arg Ile<sub>150</sub> Ser Lys Leu Asn Asp<sub>155</sub> Ala Leu Leu Asn Leu<sub>160</sub>  
 Pro Ser Pro Phe Ala<sub>165</sub> Asp Ile Lys Thr Leu<sub>170</sub> Lys Lys Asn Phe Ala<sub>175</sub> Asn  
 Lys Gly Leu Asn<sub>180</sub> Ala Lys Asp Leu Val<sub>185</sub> Val Leu Ser Gly Gly<sub>190</sub> His Thr  
 Ile Gly Ile<sub>195</sub> Ser Ser Cys Ala Leu<sub>200</sub> Val Asn Ser Arg Leu<sub>205</sub> Tyr Asn Phe  
 Thr Gly<sub>210</sub> Lys Gly Asp Ser Asp<sub>215</sub> Pro Ser Met Asn Pro<sub>220</sub> Ser Tyr Val Arg  
 Glu<sub>225</sub> Leu Lys Arg Lys Cys<sub>230</sub> Pro Pro Thr Asp Phe<sub>235</sub> Arg Thr Ser Leu Asn<sub>240</sub>  
 Met Asp Pro Gly Ser<sub>245</sub> Ala Leu Thr Phe Asp<sub>250</sub> Thr His Tyr Phe Lys<sub>255</sub> Val  
 Val Ala Gln Lys<sub>260</sub> Lys Gly Leu Phe Thr<sub>265</sub> Ser Asp Ser Thr Leu<sub>270</sub> Leu Asp  
 Asp Ile Glu<sub>275</sub> Thr Lys Asn Tyr Val<sub>280</sub> Gln Thr Gln Ala Ile<sub>285</sub> Leu Pro Pro  
 Val Phe<sub>290</sub> Ser Ser Phe Asn Lys<sub>295</sub> Asp Phe Ser Asp Ser<sub>300</sub> Met Val Lys Leu  
 Gly<sub>305</sub> Phe Val Gln Ile Leu<sub>310</sub> Thr Gly Lys Asn Gly<sub>315</sub> Glu Ile Arg Lys Arg<sub>320</sub>

Cys Ala Phe Pro Asn  
325

<210> 1749

<211> 1401

<212> DNA

<213> *Arabidopsis thaliana*

<400> 1749

```

atggaagctc tgaaaaccgc aacttttagc cctatgtcgg tgttatccga gaaaagatca    60
gaaccacgaa agcctttctc gctccctaac ctctttccac caaaatcaca gagaccaatc    120
tccaagaaa gcttcttgaa gagattcaat ggtggattgg ctcttctaac ttctgttcta    180
agcagtgcaa cagctcctgc taaatccctg acgtacgagg aagctctgca acaatctatg    240
accacttctt catcttttga ttcggatggt ctgattgaag ggatatccaa ttttgtcaca    300
gacaatcctt tggttattgc cgggtggagtt gctgcattgg ctgttccatt tgttctgtct    360
caggttctga acaagaagcc caaatcatgg ggagttgagt ctgctaagaa tgcttatacc    420
aagttgggta ctgatgataa tgctcagttg cttgacataa gagctactgc tgatttcaga    480
caagtgggca gtcctaatat taagggtttg ggtaaaaaag cggtttctac tgtttataac    540
ggtgaagaca agcctgggtt cctgaagaag ctttctttga agtttaaaga tcctgagaac    600
accacattat acattctgga caagtttgat ggaaactctg agcttggttg tgaattggtg    660
gctcttaatg gattcaaatc tgcttatgcg attaaagatg gtgcagaggg acctagaggc    720
tggttgaata gcagcttgcc ttggatagag ccaaagaaga ctctcagcct tgatttaagc    780
agtttgacgg atagcatcag cgggtgtattt ggtgagagtt ctgatggtgt atctgtcgct    840
cttggagtag ctgctgctgc tggattaagt gtttttgcatt ttacagagat tgaaaccata    900
ctccaactac taggttcagc tgcacttggt caacttgcag gcaagaaact tctatttgct    960
gaggaccgaa agcaaactct aaaacaggtg gatgagttct tgaacacaaa ggttgcccct   1020
aaagaacttg ttgatgagtt aaaggaaata ggaaaggctc ttcttcctca atcaacaagc   1080
aacaaagctc tcccagcacc agcaacagta acagcagaag cagaatcagc tacagctaca   1140
accaccacag tcgataaacc agtacctgag ccagaaacag ttgcagctac aacaaccact   1200
gtagataaac cagtacctga gccagagcca gtgccagagc cagtgccagt gccagcgatt   1260
gaagctgcag tcgctgcaca agtaatcaca gaaccaaccg aaacagaagc caaaccaaaa   1320
cctcattcaa gacctctctc tccatatgca tcgtaccctg acttgaagcc tccatcttct   1380
ccgatgccat cgcagccctg a                                     1401

```

&lt;210&gt; 1750

&lt;211&gt; 466

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1750

Met Glu Ala Leu Lys Thr Ala Thr Phe Ser Pro Met Ser Val Leu Ser  
 1 5 10 15

Glu Lys Arg Ser Glu Pro Arg Lys Pro Phe Ser Leu Pro Asn Leu Phe  
 20 25 30

Pro Pro Lys Ser Gln Arg Pro Ile Ser Gln Glu Ser Phe Leu Lys Arg  
 35 40 45

Phe Asn Gly Gly Leu Ala Leu Leu Thr Ser Val Leu Ser Ser Ala Thr  
 50 55 60

Ala Pro Ala Lys Ser Leu Thr Tyr Glu Glu Ala Leu Gln Gln Ser Met  
 65 70 75 80

Thr Thr Ser Ser Ser Phe Asp Ser Asp Gly Leu Ile Glu Gly Ile Ser  
 85 90 95

Asn Phe Val Thr Asp Asn Pro Leu Val Ile Ala Gly Gly Val Ala Ala  
 100 105 110

Leu Ala Val Pro Phe Val Leu Ser Gln Val Leu Asn Lys Lys Pro Lys  
 115 120 125

Ser Trp Gly Val Glu Ser Ala Lys Asn Ala Tyr Thr Lys Leu Gly Thr  
 130 135 140

Asp Asp Asn Ala Gln Leu Leu Asp Ile Arg Ala Thr Ala Asp Phe Arg  
 145 150 155 160

Gln Val Gly Ser Pro Asn Ile Lys Gly Leu Gly Lys Lys Ala Val Ser  
 165 170 175

Thr Val Tyr Asn Gly Glu Asp Lys Pro Gly Phe Leu Lys Lys Leu Ser  
 180 185 190

Leu Lys Phe Lys Asp Pro Glu Asn Thr Thr Leu Tyr Ile Leu Asp Lys  
 195 200 205

047-E2F-PCT.ST25.txt

Phe Asp Gly Asn Ser Glu Leu Val Ala Glu Leu Val Ala Leu Asn Gly  
 210 215 220  
 Phe Lys Ser Ala Tyr Ala Ile Lys Asp Gly Ala Glu Gly Pro Arg Gly  
 225 230 235 240  
 Trp Leu Asn Ser Ser Leu Pro Trp Ile Glu Pro Lys Lys Thr Leu Ser  
 245 250 255  
 Leu Asp Leu Ser Ser Leu Thr Asp Ser Ile Ser Gly Val Phe Gly Glu  
 260 265 270  
 Ser Ser Asp Gly Val Ser Val Ala Leu Gly Val Ala Ala Ala Ala Gly  
 275 280 285  
 Leu Ser Val Phe Ala Phe Thr Glu Ile Glu Thr Ile Leu Gln Leu Leu  
 290 295 300  
 Gly Ser Ala Ala Leu Val Gln Leu Ala Gly Lys Lys Leu Leu Phe Ala  
 305 310 315 320  
 Glu Asp Arg Lys Gln Thr Leu Lys Gln Val Asp Glu Phe Leu Asn Thr  
 325 330 335  
 Lys Val Ala Pro Lys Glu Leu Val Asp Glu Leu Lys Glu Ile Gly Lys  
 340 345 350  
 Ala Leu Leu Pro Gln Ser Thr Ser Asn Lys Ala Leu Pro Ala Pro Ala  
 355 360 365  
 Thr Val Thr Ala Glu Ala Glu Ser Ala Thr Ala Thr Thr Thr Val  
 370 375 380  
 Asp Lys Pro Val Pro Glu Pro Glu Thr Val Ala Ala Thr Thr Thr Thr  
 385 390 395 400  
 Val Asp Lys Pro Val Pro Glu Pro Glu Pro Val Pro Glu Pro Val Pro  
 405 410 415  
 Val Pro Ala Ile Glu Ala Ala Val Ala Ala Gln Val Ile Thr Glu Pro  
 420 425 430  
 Thr Glu Thr Glu Ala Lys Pro Lys Pro His Ser Arg Pro Leu Ser Pro  
 435 440 445  
 Tyr Ala Ser Tyr Pro Asp Leu Lys Pro Pro Ser Ser Pro Met Pro Ser  
 Page 2607

450

455

Gln Pro  
465

<210> 1751

<211> 321

<212> DNA

<213> Arabidopsis thaliana

<400> 1751

atggaatctg cagggatcca gcaactgctt gctgctgaac gtgaagctca gcaaattgtc	60
aatgccgcta ggaccgcaaa aatgactaga ctgaagcaag ccaaggaaga agctgaaaca	120
gaggttgctg agcacaaaac cagtacagag caggggttcc agaggaaact cgaagcgaca	180
agtgagatt caggtgcaaa cgtgaagagg cttgagcaag agactgatgc caaatcgag	240
caattgaaga acgaagctac gagaatttcc aaagatgttg tggatatgct tctgaaaaat	300
gtgaccacag tgaacaactg a	321

<210> 1752

<211> 106

<212> PRT

<213> Arabidopsis thaliana

<400> 1752

Met	Glu	Ser	Ala	Gly	Ile	Gln	Gln	Leu	Leu	Ala	Ala	Glu	Arg	Glu	Ala
1				5					10					15	
Gln	Gln	Ile	Val	Asn	Ala	Ala	Arg	Thr	Ala	Lys	Met	Thr	Arg	Leu	Lys
			20					25					30		
Gln	Ala	Lys	Glu	Glu	Ala	Glu	Thr	Glu	Val	Ala	Glu	His	Lys	Thr	Ser
		35					40					45			
Thr	Glu	Gln	Gly	Phe	Gln	Arg	Lys	Leu	Glu	Ala	Thr	Ser	Gly	Asp	Ser
	50					55					60				
Gly	Ala	Asn	Val	Lys	Arg	Leu	Glu	Gln	Glu	Thr	Asp	Ala	Lys	Ile	Glu
65					70					75					80

Gln Leu Lys Asn Glu Ala Thr Arg Ile Ser Lys Asp Val Val Asp Met  
 85 90 95

Leu Leu Lys Asn Val Thr Thr Val Asn Asn  
 100 105

<210> 1753

<211> 1236

<212> DNA

<213> Arabidopsis thaliana

<400> 1753

atgtctctcc ttctccctac gaatttaca caataccctt cttcttcctc cttcccatct	60
tcaacaccta tcctatctcc gcctccttcc accgctttct ccgtcatcgt acctcgtcgg	120
agatgtctca gattggttac ttcttgtgtc tccaccgttc aaagctccgt cgcaacaaac	180
ggttcctctc cagctcctgc tccggccgct gttgtcgttg agcgtgacca gattcgtctt	240
ggtcttccta gtaaaggacg tatggctgct gatgcaatcg atcttctcaa ggactgtcaa	300
ctgtttgtta aacaagtcaa tcctaggcaa tatgttgac agattcccca gttaccaaac	360
actgaagtct ggtttcaacg gccaaaagat attgtcagaa agttactctc aggagatttg	420
gatctaggta tcgttgggtc tgacacactt agtgaatatg gtcaggaaaa tgaagatctt	480
atcattgtcc atgaagctct caactttgga gactgtcacc tgtctattgc gattccaaac	540
tatgggatat ttgagaatat aaattctctg aaggagctag cgcaaagcc ccaatggagt	600
gaagagagac ccttacgctt agctactggc ttcacttata tcggccccaa atttatgaaa	660
gaaaatggca taaagcatgt ggtgttttca actgcagacg gagcactgga ggcagctcca	720
gcgatgggga tagctgatgc ctttttgat cttgtgagta gtggtataac actcaaagag	780
aacaacttga aagaaattga aggaggtgtt gtgctggaaa gccaggcggc acttgtggca	840
agtagaagag cattaaacga gagaaaagg gcaactaaaca cagtacacga gattcttgag	900
agattggagg cccatctaaa ggcggatggc caattcactg ttgttgcaaa catgagagga	960
aatagtgtct aggaagtggc tgagcgtgtg ctgagccaac catcattgtc aggattgcag	1020
ggaccgacaa taagcccagt gtactgtaca caaatggaa aagtatcggg tgactactat	1080
gccatcgtga tttgtgtacc aaaaaaggcc ctatacgact ctgtgaagca acttagagcg	1140
gccggaggca gtgggggtatt agtttcacct ttgacctaca tttttgatga ggatactcca	1200
agatgggggtc agctcctgag aaacctcggg atttaa	1236

<210> 1754

&lt;211&gt; 411

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1754

Met Ser Leu Leu Leu Pro Thr Asn Leu Gln Gln Tyr Pro Ser Ser Ser  
 1 5 10 15

Ser Phe Pro Ser Ser Thr Pro Ile Leu Ser Pro Pro Pro Ser Thr Ala  
 20 25 30

Phe Ser Val Ile Val Pro Arg Arg Arg Cys Leu Arg Leu Val Thr Ser  
 35 40 45

Cys Val Ser Thr Val Gln Ser Ser Val Ala Thr Asn Gly Ser Ser Pro  
 50 55 60

Ala Pro Ala Pro Ala Ala Val Val Val Glu Arg Asp Gln Ile Arg Leu  
 65 70 75 80

Gly Leu Pro Ser Lys Gly Arg Met Ala Ala Asp Ala Ile Asp Leu Leu  
 85 90 95

Lys Asp Cys Gln Leu Phe Val Lys Gln Val Asn Pro Arg Gln Tyr Val  
 100 105 110

Ala Gln Ile Pro Gln Leu Pro Asn Thr Glu Val Trp Phe Gln Arg Pro  
 115 120 125

Lys Asp Ile Val Arg Lys Leu Leu Ser Gly Asp Leu Asp Leu Gly Ile  
 130 135 140

Val Gly Leu Asp Thr Leu Ser Glu Tyr Gly Gln Glu Asn Glu Asp Leu  
 145 150 155 160

Ile Ile Val His Glu Ala Leu Asn Phe Gly Asp Cys His Leu Ser Ile  
 165 170 175

Ala Ile Pro Asn Tyr Gly Ile Phe Glu Asn Ile Asn Ser Leu Lys Glu  
 180 185 190

Leu Ala Gln Met Pro Gln Trp Ser Glu Glu Arg Pro Leu Arg Leu Ala  
 195 200 205



047-E2F-PCT.ST25.txt

Thr Gly Phe Thr Tyr Leu Gly Pro Lys Phe Met Lys Glu Asn Gly Ile  
 210 215 220

Lys His Val Val Phe Ser Thr Ala Asp Gly Ala Leu Glu Ala Ala Pro  
 225 230 235 240

Ala Met Gly Ile Ala Asp Ala Ile Leu Asp Leu Val Ser Ser Gly Ile  
 245 250 255

Thr Leu Lys Glu Asn Asn Leu Lys Glu Ile Glu Gly Gly Val Val Leu  
 260 265 270

Glu Ser Gln Ala Ala Leu Val Ala Ser Arg Arg Ala Leu Asn Glu Arg  
 275 280 285

Lys Gly Ala Leu Asn Thr Val His Glu Ile Leu Glu Arg Leu Glu Ala  
 290 295 300

His Leu Lys Ala Asp Gly Gln Phe Thr Val Val Ala Asn Met Arg Gly  
 305 310 315 320

Asn Ser Ala Gln Glu Val Ala Glu Arg Val Leu Ser Gln Pro Ser Leu  
 325 330 335

Ser Gly Leu Gln Gly Pro Thr Ile Ser Pro Val Tyr Cys Thr Gln Asn  
 340 345 350

Gly Lys Val Ser Val Asp Tyr Tyr Ala Ile Val Ile Cys Val Pro Lys  
 355 360 365

Lys Ala Leu Tyr Asp Ser Val Lys Gln Leu Arg Ala Ala Gly Gly Ser  
 370 375 380

Gly Val Leu Val Ser Pro Leu Thr Tyr Ile Phe Asp Glu Asp Thr Pro  
 385 390 395 400

Arg Trp Gly Gln Leu Leu Arg Asn Leu Gly Ile  
 405 410

<210> 1755

<211> 465

<212> DNA

<213> Arabidopsis thaliana

<400> 1755

```

atggctatgg agttagagct tgatgatgat gtcttctttg cagacataag caaacagatc      60
tctctttctca tcatggatga agatgaacac ttaaaccctg tttctctctc ttctctctcc    120
tcctctctctt cattccaggg tttgttcaga ggagggttacc aaacggctcc atatatgtat    180
caacaagaac agagcaaagg gactggtgtg ttcattcccta aatcgtctca gcctagaaga     240
agacctcatc atcatcagaa gcaaggtagg tatagttcct tcaacgcaa gcaacaacac      300
tctcttcatc aaaacagaca agagtatcag caaatcatg agaactcaag aagtactctc      360
accactcaca acaataacaa caacaagagc aacatgaaca gcactagtgt tcatgcttct     420
atcccaagaa gaagctacag agatgcatca tctatctaca cttga                      465

```

&lt;210&gt; 1756

&lt;211&gt; 154

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1756

```

Met Ala Met Glu Leu Glu Leu Asp Asp Asp Val Phe Phe Ala Asp Ile
1      5      10
Ser Lys Gln Ile Ser Leu Leu Ile Met Asp Glu Asp Glu His Leu Asn
20     25     30
Pro Val Ser Leu Ser Ser Ser Ser Ser Leu Ser Phe Gln Gly Leu
35     40     45
Phe Arg Gly Gly Tyr Gln Thr Ala Pro Tyr Met Tyr Gln Gln Glu Gln
50     55     60
Ser Lys Gly Thr Gly Val Phe Ile Pro Lys Ser Ser Gln Pro Arg Arg
65     70     75     80
Arg Pro His His His Gln Lys Gln Gly Arg Tyr Ser Ser Phe Asn Ala
85     90     95
Lys Gln Gln His Ser Leu His Gln Asn Arg Gln Glu Tyr Gln Gln Asn
100    105    110
His Glu Asn Ser Arg Ser Thr Leu Thr Thr His Asn Asn Asn Asn
115    120    125
Lys Ser Asn Met Asn Ser Thr Ser Val His Ala Ser Ile Pro Arg Arg
130    135    140

```

Ser Tyr Arg Asp Ala Ser Ser Ile Tyr Thr  
 145 150

<210> 1757

<211> 1311

<212> DNA

<213> *Arabidopsis thaliana*

<400> 1757

```

atggcgtcgt cttctctcac ttcgaaatcc attctcggat ccaccaaact cggttcttct 60
tctcttccct cggagctccg tcgtctctct tctcccgcgc ttcagatctc tctccgtacc 120
caaaccagga agaacttcca gatacaagct actggaagtt catatgggac tcattttcga 180
gtttcaactt ttggagaatc acatggagga ggagttgggt gtatcattga tggttgtcct 240
cctcgtattc cacttactga atctgatttg caattcgatc tcgatagaag gaggcctggt 300
cagagcagga tcacaactcc tagaaaagag actgatactt gccggatata gtctggagtc 360
tctgaaggaa tgacgacagg aacacctatc catgtgtttg taccaaacac agatcagaga 420
ggacttgatt acagtgaaat gtcggttgcc tatagaccat cgcattgctga tgcaacttat 480
gacatgaagt atggtgtcag atcagtgcag ggtggaggaa gatcttcagc tagagagacc 540
attggaagag ttgctcctgg agctttggcc aagaaaatth tgaagcaatt tgcaggaact 600
gagattcttg cctatgtctc gcaagttcac catgttgtac ttccagaaga attggttagac 660
cacgagaatt taacactcga acagatagaa aataacattg tcagatgcc taatcccag 720
tatgcggaag agatgatagc tgcgattgat gctgtcagga caaaagggaa ctctgttggt 780
gggtgttgta cctgcattgt tcggaatgct ccacgtgggc ttggtacacc ggttttcgat 840
aaacttgaag cagaactggc aaaagcttgt atgtcgctac ctgcaactaa gggatttgag 900
tttggaagcg gctttgcagg tacctttttg actggtcttg aacacaatga tgagttctat 960
accgatgaaa atggaagaat acgtaccaga accaaccgat ctggtggaat tcagggaggg 1020
atctcaaatt gtgaaataat aaacatgaga gtagccttca agccaacatc aacaattgga 1080
aggaagcaaa atacggtaac cagagacaag gtagaaaccg aaatgattgc gcgtgggtcgt 1140
catgatcctt gtgttggtcc acgagctgtg ccaatgggtg aagcaatggg ggctctagtt 1200
cttgtggatc aattgatggc gcaatacgca caatgccatt tgtttccaat aaatccagag 1260
ttgcaggaac ctctccagat agagcagccg caaatgcta ctgctttgta a 1311

```

<210> 1758

&lt;211&gt; 436

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1758

Met Ala Ser Ser Ser Leu Thr Ser Lys Ser Ile Leu Gly Ser Thr Lys  
 1 5 10 15

Leu Gly Ser Ser Ser Leu Pro Ser Glu Leu Arg Arg Leu Ser Ser Pro  
 20 25 30

Ala Val Gln Ile Ser Leu Arg Thr Gln Thr Arg Lys Asn Phe Gln Ile  
 35 40 45

Gln Ala Thr Gly Ser Ser Tyr Gly Thr His Phe Arg Val Ser Thr Phe  
 50 55 60

Gly Glu Ser His Gly Gly Gly Val Gly Cys Ile Ile Asp Gly Cys Pro  
 65 70 75 80

Pro Arg Ile Pro Leu Thr Glu Ser Asp Leu Gln Phe Asp Leu Asp Arg  
 85 90 95

Arg Arg Pro Gly Gln Ser Arg Ile Thr Thr Pro Arg Lys Glu Thr Asp  
 100 105 110

Thr Cys Arg Ile Ser Ser Gly Val Ser Glu Gly Met Thr Thr Gly Thr  
 115 120 125

Pro Ile His Val Phe Val Pro Asn Thr Asp Gln Arg Gly Leu Asp Tyr  
 130 135 140

Ser Glu Met Ser Val Ala Tyr Arg Pro Ser His Ala Asp Ala Thr Tyr  
 145 150 155 160

Asp Met Lys Tyr Gly Val Arg Ser Val Gln Gly Gly Gly Arg Ser Ser  
 165 170 175

Ala Arg Glu Thr Ile Gly Arg Val Ala Pro Gly Ala Leu Ala Lys Lys  
 180 185 190

Ile Leu Lys Gln Phe Ala Gly Thr Glu Ile Leu Ala Tyr Val Ser Gln  
 195 200 205

Val His His Val Val Leu Pro Glu Glu Leu Val Asp His Glu Asn Leu  
 210 215 220

Thr Leu Glu Gln Ile Glu Asn Asn Ile Val Arg Cys Pro Asn Pro Glu  
 225 230 235 240

Tyr Ala Glu Lys Met Ile Ala Ala Ile Asp Ala Val Arg Thr Lys Gly  
 245 250 255

Asn Ser Val Gly Gly Val Val Thr Cys Ile Val Arg Asn Ala Pro Arg  
 260 265 270

Gly Leu Gly Thr Pro Val Phe Asp Lys Leu Glu Ala Glu Leu Ala Lys  
 275 280 285

Ala Cys Met Ser Leu Pro Ala Thr Lys Gly Phe Glu Phe Gly Ser Gly  
 290 295 300

Phe Ala Gly Thr Phe Leu Thr Gly Leu Glu His Asn Asp Glu Phe Tyr  
 305 310 315 320

Thr Asp Glu Asn Gly Arg Ile Arg Thr Arg Thr Asn Arg Ser Gly Gly  
 325 330 335

Ile Gln Gly Gly Ile Ser Asn Gly Glu Ile Ile Asn Met Arg Val Ala  
 340 345 350

Phe Lys Pro Thr Ser Thr Ile Gly Arg Lys Gln Asn Thr Val Thr Arg  
 355 360 365

Asp Lys Val Glu Thr Glu Met Ile Ala Arg Gly Arg His Asp Pro Cys  
 370 375 380

Val Val Pro Arg Ala Val Pro Met Val Glu Ala Met Val Ala Leu Val  
 385 390 395 400

Leu Val Asp Gln Leu Met Ala Gln Tyr Ala Gln Cys His Leu Phe Pro  
 405 410 415

Ile Asn Pro Glu Leu Gln Glu Pro Leu Gln Ile Glu Gln Pro Gln Asn  
 420 425 430

Ala Thr Ala Leu  
 435

<210> 1759

<211> 804

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1759

```

atggctcctc atggagatgg attaagtgac atcgaagaac ctgagggtcga tgctcaatcg      60
gagattcttc gaccgatctc ctcagtcgtc ttcgtcatcg ctatgcaagc ggaggctctt      120
cctttgggtca acaagttcgg actctctgaa actactgatt cgccgcttgg taaaggattg      180
ccctggggttc tgtatcacgg cgtgcataaa gatcttcgaa tcaatgtagt ttgccccgga      240
agagatgcag ctttagggat cgatagtgtt ggaactgttc cagcttctct cataactttt      300
gcttccatcc aagcattaaa acctgacatc ataatcaatg ccggaacctg cgggtggcttc      360
aagggtcaaag gagccaacat aggcgatgta ttccttgat ctgatgttgt gtttcatgat      420
agaagaatac caattccgat gtttgatctg tatggagttg gtctccgtca ggcattctcg      480
acaccaatc tcctcaagga actcaatttg aagattggca ggttatctac tggtgactcg      540
ttggatatgt ccacgcaaga tgaaacattg atcattgcca atgatgctac gctaaaggac      600
atggagggtg ctgccgtggc gtatgtggct gatcttctga aaataccagt cgtgttcctc      660
aaagccgtga ccgatctagt ggacggagat aaacctacag cagaagagtt cttgcagaac      720
ttgacagttg tgaccgctgc attagagggg actgctacta aagtgatcaa cttcatcaat      780
gggagaaacc tttcggacct ttaa                                         804

```

&lt;210&gt; 1760

&lt;211&gt; 267

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1760

```

Met Ala Pro His Gly Asp Gly Leu Ser Asp Ile Glu Glu Pro Glu Val
1          5          10          15

Asp Ala Gln Ser Glu Ile Leu Arg Pro Ile Ser Ser Val Val Phe Val
          20          25          30

Ile Ala Met Gln Ala Glu Ala Leu Pro Leu Val Asn Lys Phe Gly Leu
          35          40          45

Ser Glu Thr Thr Asp Ser Pro Leu Gly Lys Gly Leu Pro Trp Val Leu
50          55          60

```

047-E2F-PCT.ST25.txt

Tyr His Gly Val His Lys Asp Leu Arg Ile Asn Val Val Cys Pro Gly  
 65 70 75 80  
 Arg Asp Ala Ala Leu Gly Ile Asp Ser Val Gly Thr Val Pro Ala Ser  
 85 90 95  
 Leu Ile Thr Phe Ala Ser Ile Gln Ala Leu Lys Pro Asp Ile Ile Ile  
 100 105 110  
 Asn Ala Gly Thr Cys Gly Gly Phe Lys Val Lys Gly Ala Asn Ile Gly  
 115 120 125  
 Asp Val Phe Leu Val Ser Asp Val Val Phe His Asp Arg Arg Ile Pro  
 130 135 140  
 Ile Pro Met Phe Asp Leu Tyr Gly Val Gly Leu Arg Gln Ala Phe Ser  
 145 150 155 160  
 Thr Pro Asn Leu Leu Lys Glu Leu Asn Leu Lys Ile Gly Arg Leu Ser  
 165 170 175  
 Thr Gly Asp Ser Leu Asp Met Ser Thr Gln Asp Glu Thr Leu Ile Ile  
 180 185 190  
 Ala Asn Asp Ala Thr Leu Lys Asp Met Glu Gly Ala Ala Val Ala Tyr  
 195 200 205  
 Val Ala Asp Leu Leu Lys Ile Pro Val Val Phe Leu Lys Ala Val Thr  
 210 215 220  
 Asp Leu Val Asp Gly Asp Lys Pro Thr Ala Glu Glu Phe Leu Gln Asn  
 225 230 235 240  
 Leu Thr Val Val Thr Ala Ala Leu Glu Gly Thr Ala Thr Lys Val Ile  
 245 250 255  
 Asn Phe Ile Asn Gly Arg Asn Leu Ser Asp Leu  
 260 265

<210> 1761

<211> 1143

<212> DNA

<213> Arabidopsis thaliana

047-E2F-PCT.ST25.txt

```

<400> 1761
atgcttgtac cgcctgaata cacttacctt gttggaccga tctcattctc tggtccttat    60
tgtcaagcta acatttgttt ccagcttgat ggtacgatta tagctccaac ggattcaaag    120
acatggggaa aagggttaat gtggtggatt gattttacaa agctgaaagg aattaaagta    180
caagggaaaag gtgttattga tggaagaggc tctggttggt ggcaacaaga ttctcctttc    240
attgatagtg ataccaaact catcgctcct ttgaacaatt ctgctaacca aaaccctcct    300
atgccgatca gaagtgagct tgatgagaga atgccaagca ttaaaccaac ggcattgaga    360
ttctctggga gttttggtgt ggaagtgacg ggtataacga taaaaacag tcctcagtgt    420
cacctcaaat tcgacgactg cgtaggggtt gtggtgcatg acatagccgt ttcttcacct    480
ggtgacagtc caaactactga tggaattcac ctccagaaca ccaaagatgt cctcattcac    540
agcactactc tcgcttgccg agatgactgt atctcgatcc aaacggggtg ctcgaacgtg    600
tttgtgcaca atgtgaactg tggaccgggt cacgggatca gcattggtag tctcggcaaa    660
gaggggtacaa aagcctgcgt ctcgaacata acagtacgag acgtagctat gcacaacaca    720
atgacaggtg tccgaatcaa gacatggcaa ggaggagtag gatcagtga agggataatc    780
ttctcaaaca ttcagctcaa ccaagtacaa attccaataa cgataaacca attctactgt    840
gaccatagca aatgcaagaa ccaaacatca gcagtagcag tggaaggagt gacttacgag    900
aggataaaag gaacttatac cgtgaaaccg gtgcatttcg cttgtagcga taacttcccg    960
tgtgtagatg tgcagttatc gtcgatagag cttaaaccgg ttcaagaaaa gtatcgaatg   1020
tatgatgctt attgctggca gacatttggt gagctcaaca ctctactct tcctccatt   1080
gattgtttga agattgggaa gccccgaga aacaaagttc agtccgatca cgatgtgtgt   1140
taa                                                                    1143

```

<210> 1762

<211> 380

<212> PRT

<213> Arabidopsis thaliana

<400> 1762

Met Leu Val Pro Pro Glu Tyr Thr Tyr Leu Val Gly Pro Ile Ser Phe  
1 5 10 15

Ser Gly Pro Tyr Cys Gln Ala Asn Ile Val Phe Gln Leu Asp Gly Thr  
20 25 30



Ile Ile Ala Pro Thr Asp Ser Lys Thr Trp Gly Lys Gly Leu Met Trp  
 35 40 45  
 Trp Ile Asp Phe Thr Lys Leu Lys Gly Ile Lys Val Gln Gly Lys Gly  
 50 55 60  
 Val Ile Asp Gly Arg Gly Ser Gly Trp Trp Gln Gln Asp Ser Pro Phe  
 65 70 75 80  
 Ile Asp Ser Asp Thr Lys Leu Ile Val Pro Leu Asn Asn Ser Ala Asn  
 85 90 95  
 Gln Asn Pro Pro Met Pro Ile Arg Ser Glu Leu Asp Glu Arg Met Pro  
 100 105 110  
 Ser Ile Lys Pro Thr Ala Leu Arg Phe Ser Gly Ser Phe Gly Val Glu  
 115 120 125  
 Val Thr Gly Ile Thr Ile Gln Asn Ser Pro Gln Cys His Leu Lys Phe  
 130 135 140  
 Asp Asp Cys Val Gly Val Val Val His Asp Ile Ala Val Ser Ser Pro  
 145 150 155 160  
 Gly Asp Ser Pro Asn Thr Asp Gly Ile His Leu Gln Asn Thr Lys Asp  
 165 170 175  
 Val Leu Ile His Ser Thr Thr Leu Ala Cys Gly Asp Asp Cys Ile Ser  
 180 185 190  
 Ile Gln Thr Gly Cys Ser Asn Val Phe Val His Asn Val Asn Cys Gly  
 195 200 205  
 Pro Gly His Gly Ile Ser Ile Gly Ser Leu Gly Lys Glu Gly Thr Lys  
 210 215 220  
 Ala Cys Val Ser Asn Ile Thr Val Arg Asp Val Ala Met His Asn Thr  
 225 230 235 240  
 Met Thr Gly Val Arg Ile Lys Thr Trp Gln Gly Gly Val Gly Ser Val  
 245 250 255  
 Lys Gly Ile Ile Phe Ser Asn Ile Gln Leu Asn Gln Val Gln Ile Pro  
 260 265 270  
 Ile Thr Ile Asn Gln Phe Tyr Cys Asp His Ser Lys Cys Lys Asn Gln  
 275 280 285

047-E2F-PCT.ST25.txt

Thr Ser Ala Val Ala Val Glu Gly Val Thr Tyr Glu Arg Ile Lys Gly  
290 295 300

Thr Tyr Thr Val Lys Pro Val His Phe Ala Cys Ser Asp Asn Phe Pro  
305 310 315 320

Cys Val Asp Val Gln Leu Ser Ser Ile Glu Leu Lys Pro Val Gln Glu  
325 330 335

Lys Tyr Arg Met Tyr Asp Ala Tyr Cys Trp Gln Thr Phe Gly Glu Leu  
340 345 350

Asn Thr Pro Thr Leu Pro Pro Ile Asp Cys Leu Lys Ile Gly Lys Pro  
355 360 365

Pro Arg Asn Lys Val Gln Ser Asp His Asp Val Cys  
370 375 380

<210> 1763

<211> 666

<212> DNA

<213> Arabidopsis thaliana

<400> 1763

atggcgaatt cggcggaaga gaagttgaag ctctactctt actggagaag ctcgtgtgct	60
catcgtgtcc gtatcgccct cgctttgaaa gggcttgatt atgagtatat accagtgaat	120
ttgctcaagg gtgatcaatt cgattcagat ttcaagaaga tcaatccaat gggaactgta	180
ccagctctgg tggatggaga tgttgtgatt aatgattctt ttgcgataat aatgtatctg	240
gatgagaagt accctgagcc acctttgtta cctcgtgacc tccataaacg agctgtgaat	300
taccaggcaa tgagtattgt cttgtctggc atacagcctc atcaaaatct ggctgttatt	360
aggatatatcg aggaaaagat aaatgtggag gagaagactg cctggggttaa taatgctatc	420
acaaaaggat ttacagctct cgagaaactg ttggtgaatt gcgctgggaa acatgcgact	480
ggtgatgaaa ttacactggc tgatctcttt ctagcaccac agatccacgg agcaatcaac	540
agattccaga ttaacatgga accgtaccca actcttgcaa aatgttacga atcatacaac	600
gaactgcctg cgtttcaaaa tgcactaccg gaaaagcagc cagatgctcc ttcttcacc	660
atctga	666

<210> 1764

&lt;211&gt; 221

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1764

Met Ala Asn Ser Gly Glu Glu Lys Leu Lys Leu Tyr Ser Tyr Trp Arg  
 1 5 10 15

Ser Ser Cys Ala His Arg Val Arg Ile Ala Leu Ala Leu Lys Gly Leu  
 20 25 30

Asp Tyr Glu Tyr Ile Pro Val Asn Leu Leu Lys Gly Asp Gln Phe Asp  
 35 40 45

Ser Asp Phe Lys Lys Ile Asn Pro Met Gly Thr Val Pro Ala Leu Val  
 50 55 60

Asp Gly Asp Val Val Ile Asn Asp Ser Phe Ala Ile Ile Met Tyr Leu  
 65 70 75 80

Asp Glu Lys Tyr Pro Glu Pro Pro Leu Leu Pro Arg Asp Leu His Lys  
 85 90 95

Arg Ala Val Asn Tyr Gln Ala Met Ser Ile Val Leu Ser Gly Ile Gln  
 100 105 110

Pro His Gln Asn Leu Ala Val Ile Arg Tyr Ile Glu Glu Lys Ile Asn  
 115 120 125

Val Glu Glu Lys Thr Ala Trp Val Asn Asn Ala Ile Thr Lys Gly Phe  
 130 135 140

Thr Ala Leu Glu Lys Leu Leu Val Asn Cys Ala Gly Lys His Ala Thr  
 145 150 155 160

Gly Asp Glu Ile Tyr Leu Ala Asp Leu Phe Leu Ala Pro Gln Ile His  
 165 170 175

Gly Ala Ile Asn Arg Phe Gln Ile Asn Met Glu Pro Tyr Pro Thr Leu  
 180 185 190

Ala Lys Cys Tyr Glu Ser Tyr Asn Glu Leu Pro Ala Phe Gln Asn Ala  
 195 200 205

Leu Pro Glu Lys Gln Pro Asp Ala Pro Ser Ser Thr Ile  
 Page 2621

210

215

<210> 1765

<211> 711

<212> DNA

<213> Arabidopsis thaliana

<400> 1765

```
atggcaggag aggcagaggc tttggccacg acggcaccgt tagctccggt caccagtcag    60
cgaaaagtac ggaacgattt ggaggaaaca ttaccaaacc catacatggc aagagcatta    120
gcagctccag atacagagca tccgaatgga acagaagggtc acgatagcaa aggaatgagt    180
gttatgcaac aacatgttgc tttcttcgac caaaacgacg atggaatcgt ctatccttgg    240
gagacttata agggatttcg tgaccttggt ttcaacccaa tttcctctat cttttggacc    300
ttactcataa acttagcggt cagctacggt acacttccga gttgggtgcc atcaccatta    360
ttgccggttt atatcgacaa catacacaaa gccaaagcatg ggagtgattc gagcacctat    420
gacaccgaag gaaggatatgt cccagttaac ctcgagaaca tatttagcaa atacgcgcta    480
acggttaaag ataagttatc atttaaagag gtttggaatg taaccgaggg aaatcgaatg    540
gcaatcgatc cttttggatg gctttcaaac aaagttgaat ggatactact ctatattctt    600
gctaaggacg aagatggttt cctatctaaa gaagctgtga gaggttgctt tgatggaagt    660
ttatttgaac aaattgccaa agagagggcc aattctcgca aacaagacta a          711
```

<210> 1766

<211> 236

<212> PRT

<213> Arabidopsis thaliana

<400> 1766

```
Met Ala Gly Glu Ala Glu Ala Leu Ala Thr Thr Ala Pro Leu Ala Pro
1          5          10          15

Val Thr Ser Gln Arg Lys Val Arg Asn Asp Leu Glu Glu Thr Leu Pro
20         25         30

Lys Pro Tyr Met Ala Arg Ala Leu Ala Ala Pro Asp Thr Glu His Pro
35         40         45
```

047-E2F-PCT.ST25.txt

Asn Gly Thr Glu Gly His Asp Ser Lys Gly Met Ser Val Met Gln Gln  
50 55 60

His Val Ala Phe Phe Asp Gln Asn Asp Asp Gly Ile Val Tyr Pro Trp  
65 70 75 80

Glu Thr Tyr Lys Gly Phe Arg Asp Leu Gly Phe Asn Pro Ile Ser Ser  
85 90 95

Ile Phe Trp Thr Leu Leu Ile Asn Leu Ala Phe Ser Tyr Val Thr Leu  
100 105 110

Pro Ser Trp Val Pro Ser Pro Leu Leu Pro Val Tyr Ile Asp Asn Ile  
115 120 125

His Lys Ala Lys His Gly Ser Asp Ser Ser Thr Tyr Asp Thr Glu Gly  
130 135 140

Arg Tyr Val Pro Val Asn Leu Glu Asn Ile Phe Ser Lys Tyr Ala Leu  
145 150 155 160

Thr Val Lys Asp Lys Leu Ser Phe Lys Glu Val Trp Asn Val Thr Glu  
165 170 175

Gly Asn Arg Met Ala Ile Asp Pro Phe Gly Trp Leu Ser Asn Lys Val  
180 185 190

Glu Trp Ile Leu Leu Tyr Ile Leu Ala Lys Asp Glu Asp Gly Phe Leu  
195 200 205

Ser Lys Glu Ala Val Arg Gly Cys Phe Asp Gly Ser Leu Phe Glu Gln  
210 215 220

Ile Ala Lys Glu Arg Ala Asn Ser Arg Lys Gln Asp  
225 230 235

<210> 1767

<211> 753

<212> DNA

<213> Arabidopsis thaliana

<400> 1767

atggcggcta ttgctagtct gcaagcagtt aatctcacat ttaggcgacg tagcactcga 60

tgtggaattg ctgagccgag cggagagcca gctccgatgg ggctgaagac tagatacgag 120

047-E2F-PCT.ST25.txt

gatgggctgg tggagagagt gttcatgggt ctcttcgcga ggaagatgga caagttcggg 180  
tcgaagaaga agaaggacac gaaggagaag ggtttttggg agtacgatta cgagagcttc 240  
gtggaggtgt caaagagagt gatgcagga cgggtccagag tgcagcagca agaggccgtg 300  
agggaggttc ttctctctat gctgcctcct ggtgctcctg aacagtttag gaaattgttc 360  
ccaccaacga aatgggctgc agagttcaat gccgctctta cagtgccttt ctttactgg 420  
ttggttggtc catctcaggt catagaagtg gaagtgaatg gtgtgaaaca gagaagtgga 480  
gttcgtatca agaaatgcag gtatctggag aacagtgggt gtgtaggaat gtgtgtgaat 540  
atgtgcaaga ttccaacca agatttcttc accaatgagt ttggcctccc actcaccatg 600  
aacccaaatt atgaagacat gagctgcgag atgatatacg ggcaagcacc tccggccttt 660  
gaggaggatg tagccaccaa gcaaccttgt ctagcagata tatgttctat gtcgaatcca 720  
agctcccaa tctgccctaa actagaggca tga 753

<210> 1768

<211> 250

<212> PRT

<213> Arabidopsis thaliana

<400> 1768

Met Ala Ala Ile Ala Ser Leu Gln Ala Val Asn Leu Thr Phe Arg Arg  
1 5 10 15

Arg Ser Thr Arg Cys Gly Ile Ala Glu Pro Ser Gly Glu Pro Ala Pro  
20 25 30

Met Gly Leu Lys Thr Arg Tyr Glu Asp Gly Leu Val Glu Arg Val Phe  
35 40 45

Met Gly Leu Phe Ala Arg Lys Met Asp Lys Phe Gly Ser Lys Lys Lys  
50 55 60

Lys Asp Thr Lys Glu Lys Gly Phe Trp Glu Tyr Asp Tyr Glu Ser Phe  
65 70 75 80

Val Glu Val Ser Lys Arg Val Met Gln Gly Arg Ser Arg Val Gln Gln  
85 90 95

Gln Glu Ala Val Arg Glu Val Leu Leu Ser Met Leu Pro Pro Gly Ala  
100 105 110

Pro Glu Gln Phe Arg Lys Leu Phe Pro Pro Thr Lys Trp Ala Ala Glu  
 115 120 125

Phe Asn Ala Ala Leu Thr Val Pro Phe Phe His Trp Leu Val Gly Pro  
 130 135 140

Ser Gln Val Ile Glu Val Glu Val Asn Gly Val Lys Gln Arg Ser Gly  
 145 150 155 160

Val Arg Ile Lys Lys Cys Arg Tyr Leu Glu Asn Ser Gly Cys Val Gly  
 165 170 175

Met Cys Val Asn Met Cys Lys Ile Pro Thr Gln Asp Phe Phe Thr Asn  
 180 185 190

Glu Phe Gly Leu Pro Leu Thr Met Asn Pro Asn Tyr Glu Asp Met Ser  
 195 200 205

Cys Glu Met Ile Tyr Gly Gln Ala Pro Pro Ala Phe Glu Glu Asp Val  
 210 215 220

Ala Thr Lys Gln Pro Cys Leu Ala Asp Ile Cys Ser Met Ser Asn Pro  
 225 230 235 240

Ser Ser Pro Ile Cys Pro Lys Leu Glu Ala  
 245 250

<210> 1769

<211> 510

<212> DNA

<213> Arabidopsis thaliana

<400> 1769

atggcggcctt ctttatcgag cagacttata aaaggaatcg ctaatctcaa agctgttcgt	60
tctagcagat tgacgtctgc atcagtctac caaaatggga tgatgagatt ttcctcaaca	120
gtgccaaagtg attcagatac acatgatgat ttcaagccta cacaaaaagt ccctcccgat	180
tctacggact cacttaaaga tatcgttgag aatgatgtga aggataatcc tgttatgatc	240
tacatgaaag gtgtccctga atctcctcag tgtgggttta gctcactagc cgtcagagtt	300
ttgcagcaat ataatgttcc tatcagttct agaaacattc tagaagacca agagttgaaa	360
aacgctgtga aatccttcag ccaactggcct acgtttccac agatcttcat taaggagag	420
ttcattggcg gctcagacat catccttaac atgcacaagg aaggtgaatt ggagcagaag	480

cttaaagacg tctccggaaa ccaagattga

510

&lt;210&gt; 1770

&lt;211&gt; 169

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1770

Met Ala Ala Ser Leu Ser Ser Arg Leu Ile Lys Gly Ile Ala Asn Leu  
 1 5 10 15

Lys Ala Val Arg Ser Ser Arg Leu Thr Ser Ala Ser Val Tyr Gln Asn  
 20 25 30

Gly Met Met Arg Phe Ser Ser Thr Val Pro Ser Asp Ser Asp Thr His  
 35 40 45

Asp Asp Phe Lys Pro Thr Gln Lys Val Pro Pro Asp Ser Thr Asp Ser  
 50 55 60

Leu Lys Asp Ile Val Glu Asn Asp Val Lys Asp Asn Pro Val Met Ile  
 65 70 75 80

Tyr Met Lys Gly Val Pro Glu Ser Pro Gln Cys Gly Phe Ser Ser Leu  
 85 90 95

Ala Val Arg Val Leu Gln Gln Tyr Asn Val Pro Ile Ser Ser Arg Asn  
 100 105 110

Ile Leu Glu Asp Gln Glu Leu Lys Asn Ala Val Lys Ser Phe Ser His  
 115 120 125

Trp Pro Thr Phe Pro Gln Ile Phe Ile Lys Gly Glu Phe Ile Gly Gly  
 130 135 140

Ser Asp Ile Ile Leu Asn Met His Lys Glu Gly Glu Leu Glu Gln Lys  
 145 150 155 160

Leu Lys Asp Val Ser Gly Asn Gln Asp  
 165

&lt;210&gt; 1771

&lt;211&gt; 741



&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1771

```

atgggagagg tgaaagtaga cgacgatgcg attcttaaatt ccttcctcgc cgaggctcga      60
gaagttgaga gagataacga agtcggcagg attctctcat gcttcaagct gaatccgttt      120
gagcatctta acctctcttt cgattcttcc acggatgatg ttaaaaggca gtacagaaag      180
atttctttga tggttcatcc tgataaatgc aaacatccac aagcacagga ggcttttcgga      240
gcattggcaa aagcgcaaca actgctgcta aacgaccaag aaagagatta tattcttacc      300
caagtccatg ctgcaaaaga agagcttaag atgaagagaa agaaacagtt aaagaaagac      360
accgcctcta aaataaagtc cttggttgat gagggaaagc atgagcacat atatgagcaa      420
tctgaggagt ttcagaagga gctcaagtta aagggtccgag agatattaac agaccaagag      480
tggcgtagaa gaaaaatggc aatgagaata tcagaagaag aggggagact gaagaaggat      540
gaagcagaac aaaaggagat atggaagaaa aagcgtgagc atgaagaaca gtgggaagga      600
acaagagaaa aaagggatatc aagctggaga gactttcaga aagcaggaaa gaaggccaaa      660
aaaggagaga cgcgacctcc aaaattgaag acagaggatc cgaacaaatc atacgtccaa      720
aggccggtca agaaaggctg a                                     741

```

&lt;210&gt; 1772

&lt;211&gt; 246

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1772

```

Met Gly Glu Val Lys Val Asp Asp Asp Ala Ile Leu Lys Ser Phe Leu
1           5           10           15

```

```

Ala Glu Val Gly Glu Val Glu Arg Asp Asn Glu Val Gly Arg Ile Leu
20           25           30

```

```

Ser Cys Phe Lys Leu Asn Pro Phe Glu His Leu Asn Leu Ser Phe Asp
35           40           45

```

```

Ser Ser Thr Asp Asp Val Lys Arg Gln Tyr Arg Lys Ile Ser Leu Met
50           55           60

```

```

Val His Pro Asp Lys Cys Lys His Pro Gln Ala Gln Glu Ala Phe Gly

```

65					70					75					80
Ala	Leu	Ala	Lys	Ala 85	Gln	Gln	Leu	Leu	Leu 90	Asn	Asp	Gln	Glu	Arg 95	Asp
Tyr	Ile	Leu	Thr 100	Gln	Val	His	Ala	Ala 105	Lys	Glu	Glu	Leu	Lys 110	Met	Lys
Arg	Lys	Lys 115	Gln	Leu	Lys	Lys	Asp 120	Thr	Ala	Ser	Lys	Ile 125	Lys	Ser	Leu
Val	Asp 130	Glu	Gly	Lys	His	Glu 135	His	Ile	Tyr	Glu	Gln 140	Ser	Glu	Glu	Phe
Gln 145	Lys	Glu	Leu	Lys	Leu 150	Lys	Val	Arg	Glu	Ile 155	Leu	Thr	Asp	Gln	Glu 160
Trp	Arg	Arg	Arg	Lys 165	Met	Ala	Met	Arg	Ile 170	Ser	Glu	Glu	Glu	Gly 175	Arg
Leu	Lys	Lys	Asp 180	Glu	Ala	Glu	Gln	Lys 185	Glu	Ile	Trp	Lys	Lys 190	Lys	Arg
Glu	His	Glu 195	Glu	Gln	Trp	Glu	Gly 200	Thr	Arg	Glu	Lys	Arg 205	Val	Ser	Ser
Trp	Arg 210	Asp	Phe	Gln	Lys	Ala 215	Gly	Lys	Lys	Ala	Lys 220	Lys	Gly	Glu	Thr
Arg 225	Pro	Pro	Lys	Leu	Lys 230	Thr	Glu	Asp	Pro	Asn 235	Lys	Ser	Tyr	Val	Gln 240
Arg	Pro	Val	Lys	Lys 245	Gly										

<210>	1773
<211>	537
<212>	DNA
<213>	Arabidopsis thaliana

<400>	1773						
atgaaaacag	caaaggggaa	agataaagtt	aagaccacaa	aggaagcctt	gaagccagtt		60
gatgacagaa	aggtgggaaa	gaggaaggca	ccggctgaga	agcctactaa	acgagagact		120
cgtaaagaga	agaaggctaa	aaaggaccca	aacaaaccaa	aaagagctcc	tagtgccttc		180

047-E2F-PCT.ST25.txt

```

tttgtctttc tagaagattt taggggtcacg ttcaagaaag aaaatccaaa tgtgaaggcc 240
gtctctgctg ttgggaaagc tggagggcag aaatggaagt caatgtctca agctgaaaaa 300
gctccatatg aagagaaagc tgcaaaaagg aaagctgaat atgagaagca aatggatgca 360
tacaacaaaa acttggagga agggagtgat gaatctgaaa agtctagatc tgagataaat 420
gatgaagatg aagccagtgg ggaggaagaa ctattagaga aggaagcggc aggtgatgat 480
gaagaagaag aagaggaaga agatgacgat gatgatgacg acgaggaaga agactaa 537

```

<210> 1774

<211> 178

<212> PRT

<213> Arabidopsis thaliana

<400> 1774

Met Lys Thr Ala Lys Gly Lys Asp Lys Val Lys Thr Thr Lys Glu Ala  
1 5 10 15

Leu Lys Pro Val Asp Asp Arg Lys Val Gly Lys Arg Lys Ala Pro Ala  
20 25 30

Glu Lys Pro Thr Lys Arg Glu Thr Arg Lys Glu Lys Lys Ala Lys Lys  
35 40 45

Asp Pro Asn Lys Pro Lys Arg Ala Pro Ser Ala Phe Phe Val Phe Leu  
50 55 60

Glu Asp Phe Arg Val Thr Phe Lys Lys Glu Asn Pro Asn Val Lys Ala  
65 70 75 80

Val Ser Ala Val Gly Lys Ala Gly Gly Gln Lys Trp Lys Ser Met Ser  
85 90 95

Gln Ala Glu Lys Ala Pro Tyr Glu Glu Lys Ala Ala Lys Arg Lys Ala  
100 105 110

Glu Tyr Glu Lys Gln Met Asp Ala Tyr Asn Lys Asn Leu Glu Glu Gly  
115 120 125

Ser Asp Glu Ser Glu Lys Ser Arg Ser Glu Ile Asn Asp Glu Asp Glu  
130 135 140

Ala Ser Gly Glu Glu Glu Leu Leu Glu Lys Glu Ala Ala Gly Asp Asp  
Page 2629

145                      150                      160  
Glu Glu Glu Glu Glu Glu Glu Asp Asp Asp Asp Asp Asp Glu Glu  
                         165                      170                      175

Glu Asp

<210> 1775  
<211> 978  
<212> DNA  
<213> Arabidopsis thaliana

<400> 1775  
atgtcgacat ctgaggataa accggaaatc atcagtagag tagttcatca ggagggtgac 60  
gtggaaatcg tcgatagaag tcagaaggat aaggacgagg aaaaagaaga agggaaaggt 120  
ggattcctcg ataaggtgaa agatttcatt catgacattg gtgagaaact cgagggaacc 180  
attggctttg ggaagccaac tgctgatgtc tctgcgattc atatccctaa gatcaatctt 240  
gagagggcag atattgttgt ggatgtgctt gtcaagaacc cgaatccagt tcctatccct 300  
ctcatcgatg tcaactacct ggctcgagagc gatgggagga aactggtttc tggtttgatc 360  
ccggatgctg gaacactcaa ggctcatgga gaagaaactg tgaagatacc attgacgttg 420  
atctatgatg acatcaagag cacttacaac gatatcaacc ccgggatgat cataccttac 480  
agaatcaagg ttgatctgat tgtggatgtg ccagtattgg gaagactgac attgccgctg 540  
gagaaatgtg gagagatccc aattccaaag aaacctgatg ttgatatcga gaagattaag 600  
ttccagaagt tctcttttga ggaaaccgtg gcgattctcc atgtgaggct tcagaacatg 660  
aatgattttc acttggggct caatgacttg gactgtgaag tttggctgtg tgatgtaagc 720  
attgggaaag cagagatcgc ggactcgatc aagcttgaca aaaacggaag cggattgatt 780  
aatgtgccga tgacattccg accaaaggac tttggttctg cgctttggga tatgattcgt 840  
ggtaaaggaa cagggtacac aatcaaaggt aatattgatg ttgatacacc atttggagct 900  
atgaagcttc ctattatcaa ggaaggtgga gagaccgctc tgaagaagga agatgatgat 960  
gacgacgatg aggaataa 978

<210> 1776  
<211> 325  
<212> PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1776

Met Ser Thr Ser Glu Asp Lys Pro Glu Ile Ile Ser Arg Val Val His  
 1 5 10 15

Gln Glu Gly Asp Val Glu Ile Val Asp Arg Ser Gln Lys Asp Lys Asp  
 20 25 30

Glu Glu Lys Glu Glu Gly Lys Gly Gly Phe Leu Asp Lys Val Lys Asp  
 35 40 45

Phe Ile His Asp Ile Gly Glu Lys Leu Glu Gly Thr Ile Gly Phe Gly  
 50 55 60

Lys Pro Thr Ala Asp Val Ser Ala Ile His Ile Pro Lys Ile Asn Leu  
 65 70 75 80

Glu Arg Ala Asp Ile Val Val Asp Val Leu Val Lys Asn Pro Asn Pro  
 85 90 95

Val Pro Ile Pro Leu Ile Asp Val Asn Tyr Leu Val Glu Ser Asp Gly  
 100 105 110

Arg Lys Leu Val Ser Gly Leu Ile Pro Asp Ala Gly Thr Leu Lys Ala  
 115 120 125

His Gly Glu Glu Thr Val Lys Ile Pro Leu Thr Leu Ile Tyr Asp Asp  
 130 135 140

Ile Lys Ser Thr Tyr Asn Asp Ile Asn Pro Gly Met Ile Ile Pro Tyr  
 145 150 155 160

Arg Ile Lys Val Asp Leu Ile Val Asp Val Pro Val Leu Gly Arg Leu  
 165 170 175

Thr Leu Pro Leu Glu Lys Cys Gly Glu Ile Pro Ile Pro Lys Lys Pro  
 180 185 190

Asp Val Asp Ile Glu Lys Ile Lys Phe Gln Lys Phe Ser Leu Glu Glu  
 195 200 205

Thr Val Ala Ile Leu His Val Arg Leu Gln Asn Met Asn Asp Phe Asp  
 210 215 220

Leu Gly Leu Asn Asp Leu Asp Cys Glu Val Trp Leu Cys Asp Val Ser  
 Page 2631

225 230 235 240

Ile Gly Lys Ala Glu Ile Ala Asp Ser Ile Lys Leu Asp Lys Asn Gly  
245 250 255

Ser Gly Leu Ile Asn Val Pro Met Thr Phe Arg Pro Lys Asp Phe Gly  
260 265 270

Ser Ala Leu Trp Asp Met Ile Arg Gly Lys Gly Thr Gly Tyr Thr Ile  
275 280 285

Lys Gly Asn Ile Asp Val Asp Thr Pro Phe Gly Ala Met Lys Leu Pro  
290 295 300

Ile Ile Lys Glu Gly Gly Glu Thr Arg Leu Lys Lys Glu Asp Asp Asp  
305 310 315 320

Asp Asp Asp Glu Glu  
325

<210> 1777

<211> 252

<212> DNA

<213> Arabidopsis thaliana

<400> 1777

atggggtttgt tgccattggt gaagaaacta ggtttcatca tctttcttct agtttcagct	60
tcagcgtttg ctctctgttc tgcaggccga tcatccattt taatctatag ccaagaagat	120
gatcatcccg aggtagtaga aagaagaata catgagcatg agagaattct gagaatgaat	180
tcaagagact atggccactc cagtcctaaa ccaaagctcg tgagacctcc tttcaagctt	240
attcccaact ga	252

<210> 1778

<211> 83

<212> PRT

<213> Arabidopsis thaliana

<400> 1778

Met Gly Leu Leu Pro Leu Val Lys Lys Leu Gly Phe Ile Ile Phe Leu  
1 5 10 15

Leu Val Ser Ala Ser Ala Phe Ala Leu Cys Ser Ala Gly Arg Ser Ser  
                   20                                  25                                  30

Ile Leu Ile Tyr Ser Gln Glu Asp Asp His Pro Glu Val Val Glu Arg  
           35                                  40                                  45

Arg Ile His Glu His Glu Arg Ile Leu Arg Met Asn Ser Arg Asp Tyr  
       50                                  55                                  60

Gly His Ser Ser Pro Lys Pro Lys Leu Val Arg Pro Pro Phe Lys Leu  
   65                                  70                                  75                                  80

Ile Pro Asn

<210> 1779

<211> 981

<212> DNA

<213> Arabidopsis thaliana

<400> 1779

atgactaatg gcggtagagg ttccggcggc ggtggtggtg gcggcggcag ggagtcaggc	60
ggtcgtgatt tggaattag acctggtggt atgttggttc agaaacgtaa cccggatttg	120
gatactgtcg gacctccacc accaccgatg atcagagtta gaatcaagta cggtgccgtc	180
taccatgaga tcaatattag tcctcaagct tcttttgggg agctaaagaa gatgttgact	240
ggaccaacgg gtattcatca tcaagatcag aagctaattgt ataaagataa agagagggat	300
tcgaaggcgt tcctcgatgt ttccgggagt aaagataaat ctaagatggt gcttatagaa	360
gacccgctta gccaagagaa acggtttttg gagatgagga agattgctaa aaccgaaaag	420
gcgtctaaag cgatatcgga tattagcctt gaagttgata ggctcggcgg acgagtttcg	480
gcttttgaga tggtactaa aaaaggaggg aagattgcgg agaaagatct tgtaacggtt	540
atcgaattgc tgatgaatga gttgattaag ttggatgcga ttgtagctga aggagatgtc	600
aagttacaaa gaaagatgca ggtgaagaga gtgcagaatt atgtggaaac actcgatgcc	660
ttgaagggtga aaaactccat ggctaattgg caacagaaac agtcaagtac tgctcagaga	720
cttgcaccga ttcaagaaca taacaatgaa gagagacaag aacagaaacc gatacaatcg	780
ctcatggaca tgccgataca atacaaagag aagaagcaag agattgaaga ggagcctagg	840
aattcagggg aaggaccatt tgtgttagat tcttctgcta aatgggaaac attcgatcat	900

catcccgatga cgccattgag ctcgactact gcgaaaaata acgcgatccc gccaggttt 960  
aattgggaat tctttgattg a 981

<210> 1780

<211> 326

<212> PRT

<213> Arabidopsis thaliana

<400> 1780

Met Thr Asn Gly Gly Arg Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly  
1 5 10 15

Arg Glu Ser Gly Gly Arg Asp Leu Glu Ile Arg Pro Gly Gly Met Leu  
20 25 30

Val Gln Lys Arg Asn Pro Asp Leu Asp Pro Val Gly Pro Pro Pro Pro  
35 40 45

Pro Met Ile Arg Val Arg Ile Lys Tyr Gly Ala Val Tyr His Glu Ile  
50 55 60

Asn Ile Ser Pro Gln Ala Ser Phe Gly Glu Leu Lys Lys Met Leu Thr  
65 70 75 80

Gly Pro Thr Gly Ile His His Gln Asp Gln Lys Leu Met Tyr Lys Asp  
85 90 95

Lys Glu Arg Asp Ser Lys Ala Phe Leu Asp Val Ser Gly Val Lys Asp  
100 105 110

Lys Ser Lys Met Val Leu Ile Glu Asp Pro Leu Ser Gln Glu Lys Arg  
115 120 125

Phe Leu Glu Met Arg Lys Ile Ala Lys Thr Glu Lys Ala Ser Lys Ala  
130 135 140

Ile Ser Asp Ile Ser Leu Glu Val Asp Arg Leu Gly Gly Arg Val Ser  
145 150 155 160

Ala Phe Glu Met Val Thr Lys Lys Gly Gly Lys Ile Ala Glu Lys Asp  
165 170 175

Leu Val Thr Val Ile Glu Leu Leu Met Asn Glu Leu Ile Lys Leu Asp  
180 185 190



047-E2F-PCT.ST25.txt

Ala Ile Val Ala Glu Gly Asp Val Lys Leu Gln Arg Lys Met Gln Val  
195 200 205

Lys Arg Val Gln Asn Tyr Val Glu Thr Leu Asp Ala Leu Lys Val Lys  
210 215 220

Asn Ser Met Ala Asn Gly Gln Gln Lys Gln Ser Ser Thr Ala Gln Arg  
225 230 235 240

Leu Ala Pro Ile Gln Glu His Asn Asn Glu Glu Arg Gln Glu Gln Lys  
245 250 255

Pro Ile Gln Ser Leu Met Asp Met Pro Ile Gln Tyr Lys Glu Lys Lys  
260 265 270

Gln Glu Ile Glu Glu Glu Pro Arg Asn Ser Gly Glu Gly Pro Phe Val  
275 280 285

Leu Asp Ser Ser Ala Lys Trp Glu Thr Phe Asp His His Pro Val Thr  
290 295 300

Pro Leu Ser Ser Thr Thr Ala Lys Asn Asn Ala Ile Pro Pro Arg Phe  
305 310 315 320

Asn Trp Glu Phe Phe Asp  
325

<210> 1781

<211> 933

<212> DNA

<213> Arabidopsis thaliana

<400> 1781

atggcgacgg agaaaagcaa gattctggtg atcggaggaa ctggttacat cgggaaattc	60
ctagtagaag cgagcgccaa agctggccac tccacattcg ctctcgttag agaagcaact	120
ctatccgatc ctgtcaaggg caaaaccgtc cagagtttca aagatctcgg cgtcacaata	180
ctacacggag atttgaatga tcacgagagc ttagtgaagg ctattaaaca ggttgatgtg	240
gtgatatcta ccgttgggag catgcaaadc ttggatcaaa ccaagatcat ttccgccatc	300
aaagaagccg gtaatgtcaa gagattcttg ccgtctgagt ttgggggtgga tgtggatagg	360
acgagtgcgg ttgagccagc taaatcggct tttgcaggga agatacagat caggagaacc	420

atcgaagcgg aaggaatacc atacacttac gctgttaccg gttgctttgg tggttactac 480  
 ttgccaatat tggttcagtt cgagcctggt ctcacttctc ctctagaga caaagtcacc 540  
 attcttggcg atggaaatgc caaagctgtg atcaacaaag aggaagatat tgctgcttac 600  
 acgatcaagg cgggtgatga tcctaggact ctgaacaaaa tcctatacat taagccttct 660  
 aacaacactt tatcgaatga cgaaatagtc accttgtggg agaaaaagat tggcaagtct 720  
 cttgagaaga ctcacctccc agaggaacaa ctacttaaaa gcatccaaga gtctccgatt 780  
 cccatcaatg ttgttctgtc gataaaccac gcggtgtttg tgaatggaga taccaatatc 840  
 agtatagagc cttcctttgg tgtggaagcc tctgagcttt accctgatgt caagtacaca 900  
 agtggtgacg agtatctcag ttatttcgct tga 933

<210> 1782

<211> 310

<212> PRT

<213> Arabidopsis thaliana

<400> 1782

Met Ala Thr Glu Lys Ser Lys Ile Leu Val Ile Gly Gly Thr Gly Tyr  
1 5 10 15

Ile Gly Lys Phe Leu Val Glu Ala Ser Ala Lys Ala Gly His Ser Thr  
20 25 30

Phe Ala Leu Val Arg Glu Ala Thr Leu Ser Asp Pro Val Lys Gly Lys  
35 40 45

Thr Val Gln Ser Phe Lys Asp Leu Gly Val Thr Ile Leu His Gly Asp  
50 55 60

Leu Asn Asp His Glu Ser Leu Val Lys Ala Ile Lys Gln Val Asp Val  
65 70 75 80

Val Ile Ser Thr Val Gly Ser Met Gln Ile Leu Asp Gln Thr Lys Ile  
85 90 95

Ile Ser Ala Ile Lys Glu Ala Gly Asn Val Lys Arg Phe Leu Pro Ser  
100 105 110

Glu Phe Gly Val Asp Val Asp Arg Thr Ser Ala Val Glu Pro Ala Lys  
115 120 125

Ser Ala Phe Ala Gly Lys Ile Gln Ile Arg Arg Thr Ile Glu Ala Glu  
 130 135 140

Gly Ile Pro Tyr Thr Tyr Ala Val Thr Gly Cys Phe Gly Gly Tyr Tyr  
 145 150 155 160

Leu Pro Thr Leu Val Gln Phe Glu Pro Gly Leu Thr Ser Pro Pro Arg  
 165 170 175

Asp Lys Val Thr Ile Leu Gly Asp Gly Asn Ala Lys Ala Val Ile Asn  
 180 185 190

Lys Glu Glu Asp Ile Ala Ala Tyr Thr Ile Lys Ala Val Asp Asp Pro  
 195 200 205

Arg Thr Leu Asn Lys Ile Leu Tyr Ile Lys Pro Ser Asn Asn Thr Leu  
 210 215 220

Ser Met Asn Glu Ile Val Thr Leu Trp Glu Lys Lys Ile Gly Lys Ser  
 225 230 235 240

Leu Glu Lys Thr His Leu Pro Glu Glu Gln Leu Leu Lys Ser Ile Gln  
 245 250 255

Glu Ser Pro Ile Pro Ile Asn Val Val Leu Ser Ile Asn His Ala Val  
 260 265 270

Phe Val Asn Gly Asp Thr Asn Ile Ser Ile Glu Pro Ser Phe Gly Val  
 275 280 285

Glu Ala Ser Glu Leu Tyr Pro Asp Val Lys Tyr Thr Ser Val Asp Glu  
 290 295 300

Tyr Leu Ser Tyr Phe Ala  
 305 310

<210> 1783

<211> 1797

<212> DNA

<213> Arabidopsis thaliana

<400> 1783

atgggtgggta gtattgttgg cagtaacatg gctgcgactg atgcgagggtt tctaagctcg 60

aattttggca acagtttcag catcaacacc agaattcaca gattccatga tcgctcccaa 120

## 047-E2F-PCT.ST25.txt

atcgtaatcc ctaggggtca atctttcttct tctccgtctc catctccacc ctccgacaag 180  
 aagaagacca aaacccgacc cggaaccata accactaagg agagcgaaga gacggttgcg 240  
 aagaagctcg acgttgctcc gccttcgcct caatcaccac cgtctccgcc tacactgaag 300  
 ttggacgatg tgaatcctgt gggattagga cgacgatcgc ggcagatctt cgacgaggtg 360  
 tggcggaaat tctctggatt aggtcagatg tcgaggacaa cccgacccga tgagcaagag 420  
 actcttgata gtctactcat tagagaagga cctatgtgtg agtttgctgt tcccggcgct 480  
 caaaacgtta ccgttttagt cgtcggagct actagtagaa tcggtcgtat cgttgctccgt 540  
 aaactcatgc tccgtggcta caccgtcaag gcactggtga ggaaacaaga tgaggaagtg 600  
 atgagtatgt tgccaaggtc agtggatatt gttgttgagg atgtgggtga accgtcaacg 660  
 ctcaaatccg ctgttgaaag ctgcagcaag atcatctact gtgcgactgc tcggtctacg 720  
 attactgcag accttacgcg ggttgatcac ttgggtgttt ataacctcac caaggctttt 780  
 caggattaca ataacagact agcgaatta agggcggtta aaagcagcaa aagcaagctt 840  
 ctattagcta agttcaagtc agctgagtca cttgatggtt gggaaattcg tcaaggaact 900  
 tactttcagg acacaaccgc ttccaaatat gatggtggga tggatgctaa gtttgagttc 960  
 actgaaactg agagagctga gttttcaggt tatgttttca cccgaggagg atatgttgag 1020  
 ttgtcgaaga aactttcact tccattgggt accactcttg acaggtagca aggccttagtt 1080  
 ctttctgttg gtgggaatgg aagatcctat gttgtaatcc ttgaagctgg tccatcatca 1140  
 gatatgtctc agagcaaaca gtatttcgct aggatcagta ccaaagcagg gttttgtcgg 1200  
 gtaaggggtgc cattttcagc ttttcgaccg gtcaaccag aagatccacc gctagatcca 1260  
 tttcttgttc acacattgac aatacgcttt gagcctaaaa gacagaggcc tgttgatgga 1320  
 cttgctggtg cgcaacaaga tttgagaagt ttttagccttg tatttgagta cataaaagct 1380  
 ttgcctgcgg gtcaagaaac agactttatt ctggtatcgt gtactggttc gggagtagaa 1440  
 gccaacagaa gggagcaagt gttgaaagct aagagggtcg gtgaagattc ttttaaggaga 1500  
 tcaggccttg gatacacaat cattcgtcct ggtcccttga aggaggaacc aggcgggcaa 1560  
 cgagctctga tatttgatca aggaaacaga atttctcagg gcattagttg cgcggatgtg 1620  
 gctgatatat gtgtcaaggc actgcacgat tcaaccgcca gaaacaaaag ctttgatggt 1680  
 tgccatgaat acgttgctga gcaaggaata gaactctatg agctgggtggc tcatttgcca 1740  
 gacaaggcga acaactatct gactccggct ttatctgtac ttgagaagaa cacatga 1797

&lt;210&gt; 1784

&lt;211&gt; 598

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1784

```

Met Val Gly Ser Ile Val Gly Ser Asn Met Ala Ala Thr Asp Ala Arg
 1      5      10      15

Phe Leu Ser Ser Asn Phe Gly Asn Ser Phe Ser Ile Asn Thr Arg Ile
 20      25      30

His Arg Phe His Asp Arg Ser Gln Ile Val Ile Pro Arg Ala Gln Ser
 35      40      45

Ser Ser Ser Pro Ser Pro Ser Pro Pro Ser Asp Lys Lys Lys Thr Lys
 50      55      60

Thr Arg Pro Gly Thr Ile Thr Thr Lys Glu Ser Glu Glu Thr Val Ala
 65      70      75      80

Lys Lys Leu Asp Val Ala Pro Pro Ser Pro Gln Ser Pro Pro Ser Pro
 85      90      95

Pro Thr Leu Lys Leu Asp Asp Val Asn Pro Val Gly Leu Gly Arg Arg
100      105      110

Ser Arg Gln Ile Phe Asp Glu Val Trp Arg Lys Phe Ser Gly Leu Gly
115      120      125

Gln Met Ser Arg Thr Thr Arg Pro Asp Glu Gln Glu Thr Leu Asp Ser
130      135      140

Leu Leu Ile Arg Glu Gly Pro Met Cys Glu Phe Ala Val Pro Gly Ala
145      150      155      160

Gln Asn Val Thr Val Leu Val Val Gly Ala Thr Ser Arg Ile Gly Arg
165      170      175

Ile Val Val Arg Lys Leu Met Leu Arg Gly Tyr Thr Val Lys Ala Leu
180      185      190

Val Arg Lys Gln Asp Glu Glu Val Met Ser Met Leu Pro Arg Ser Val
195      200      205

Asp Ile Val Val Gly Asp Val Gly Glu Pro Ser Thr Leu Lys Ser Ala
210      215      220

Val Glu Ser Cys Ser Lys Ile Ile Tyr Cys Ala Thr Ala Arg Ser Thr

```

225                      230                      235                      240  
 Ile Thr Ala Asp Leu Thr Arg Val Asp His Leu Gly Val Tyr Asn Leu  
                                  245                      250                      255  
 Thr Lys Ala Phe Gln Asp Tyr Asn Asn Arg Leu Ala Gln Leu Arg Ala  
                                  260                      265                      270  
 Gly Lys Ser Ser Lys Ser Lys Leu Leu Leu Ala Lys Phe Lys Ser Ala  
                                  275                      280                      285  
 Glu Ser Leu Asp Gly Trp Glu Ile Arg Gln Gly Thr Tyr Phe Gln Asp  
                                  290                      295                      300  
 Thr Thr Ala Ser Lys Tyr Asp Gly Gly Met Asp Ala Lys Phe Glu Phe  
                                  305                      310                      315                      320  
 Thr Glu Thr Glu Arg Ala Glu Phe Ser Gly Tyr Val Phe Thr Arg Gly  
                                  325                      330                      335  
 Gly Tyr Val Glu Leu Ser Lys Lys Leu Ser Leu Pro Leu Gly Thr Thr  
                                  340                      345                      350  
 Leu Asp Arg Tyr Glu Gly Leu Val Leu Ser Val Gly Gly Asn Gly Arg  
                                  355                      360                      365  
 Ser Tyr Val Val Ile Leu Glu Ala Gly Pro Ser Ser Asp Met Ser Gln  
                                  370                      375                      380  
 Ser Lys Gln Tyr Phe Ala Arg Ile Ser Thr Lys Ala Gly Phe Cys Arg  
                                  385                      390                      395                      400  
 Val Arg Val Pro Phe Ser Ala Phe Arg Pro Val Asn Pro Glu Asp Pro  
                                  405                      410                      415  
 Pro Leu Asp Pro Phe Leu Val His Thr Leu Thr Ile Arg Phe Glu Pro  
                                  420                      425                      430  
 Lys Arg Gln Arg Pro Val Asp Gly Leu Ala Gly Ala Gln Gln Asp Leu  
                                  435                      440                      445  
 Arg Ser Phe Ser Leu Val Phe Glu Tyr Ile Lys Ala Leu Pro Ala Gly  
                                  450                      455                      460  
 Gln Glu Thr Asp Phe Ile Leu Val Ser Cys Thr Gly Ser Gly Val Glu  
                                  465                      470                      475                      480

Ala Asn Arg Arg Glu Gln Val Leu Lys Ala Lys Arg Ala Gly Glu Asp  
485 490 495

Ser Leu Arg Arg Ser Gly Leu Gly Tyr Thr Ile Ile Arg Pro Gly Pro  
500 505 510

Leu Lys Glu Glu Pro Gly Gly Gln Arg Ala Leu Ile Phe Asp Gln Gly  
515 520 525

Asn Arg Ile Ser Gln Gly Ile Ser Cys Ala Asp Val Ala Asp Ile Cys  
530 535 540

Val Lys Ala Leu His Asp Ser Thr Ala Arg Asn Lys Ser Phe Asp Val  
545 550 555 560

Cys His Glu Tyr Val Ala Glu Gln Gly Ile Glu Leu Tyr Glu Leu Val  
565 570 575

Ala His Leu Pro Asp Lys Ala Asn Asn Tyr Leu Thr Pro Ala Leu Ser  
580 585 590

Val Leu Glu Lys Asn Thr  
595

<210> 1785

<211> 810

<212> DNA

<213> Arabidopsis thaliana

<400> 1785

atgtcaacgt atctgatcac aggattcata ggcattcgaat acagcaaccc aaccttagct	60
tcagccatta gcaatatcaa tcttgccatt accttcatcc ttgccattat cttcagaatg	120
gagaaagcat ctttcaaaga aaagagtagt gtagccaaaa tggttgggac aatagtttca	180
ctagttggcg cacttggtgt agttctctac catggtccac gaggcttcac cccatcttct	240
ccaccatttc cacaactccg tcagcttctt ttgccgttat catcctcaaa ctcggattgg	300
atcatcggtg gttgtctttt agccatcaaa gacaccctcg ttcctggtgc ttttattctt	360
caagcacata taatgaagtt atatccagca ccattcacgg tctctttctt ctattttctg	420
attgcttcaa tcttgacgtc attgatcgga atcgtagcag aaaagaacaa tccgagcata	480
tggatcattc attttgacat tacattagtt tgcatagttg ttgggggaat atttaacca	540
ggatattacg cgattcatct gtgggcagta cgtaataaag gacctgttta cttagctata	600

ttcagacctt tatcgatttt aatagcagtg attatgggag cgatttttct tggagattct 660  
 ttttacctag gaagtttggt cggagggatt ttgatatcgt tagggtttta cactgtgatg 720  
 tggggaaaag caaaagaagg gaagactcag ttcttgtcgc tgtcagagga aactcctctt 780  
 ctagacgaaa acatagacga ccgaatatag 810

<210> 1786

<211> 269

<212> PRT

<213> Arabidopsis thaliana

<400> 1786

Met Ser Thr Tyr Leu Ile Thr Gly Phe Ile Gly Ile Glu Tyr Ser Asn  
 1 5 10 15

Pro Thr Leu Ala Ser Ala Ile Ser Asn Ile Asn Pro Ala Ile Thr Phe  
 20 25 30

Ile Leu Ala Ile Ile Phe Arg Met Glu Lys Ala Ser Phe Lys Glu Lys  
 35 40 45

Ser Ser Val Ala Lys Met Val Gly Thr Ile Val Ser Leu Val Gly Ala  
 50 55 60

Leu Val Val Val Leu Tyr His Gly Pro Arg Val Phe Thr Pro Ser Ser  
 65 70 75 80

Pro Pro Phe Pro Gln Leu Arg Gln Leu Leu Leu Pro Leu Ser Ser Ser  
 85 90 95

Asn Ser Asp Trp Ile Ile Gly Gly Cys Leu Leu Ala Ile Lys Asp Thr  
 100 105 110

Leu Val Pro Val Ala Phe Ile Leu Gln Ala His Ile Met Lys Leu Tyr  
 115 120 125

Pro Ala Pro Phe Thr Val Ser Phe Phe Tyr Phe Leu Ile Ala Ser Ile  
 130 135 140

Leu Thr Ser Leu Ile Gly Ile Val Ala Glu Lys Asn Asn Pro Ser Ile  
 145 150 155 160

Trp Ile Ile His Phe Asp Ile Thr Leu Val Cys Ile Val Val Gly Gly  
 165 170 175



047-E2F-PCT.ST25.txt

Ile Phe Asn Pro Gly Tyr Tyr Ala Ile His Leu Trp Ala Val Arg Asn  
180 185 190

Lys Gly Pro Val Tyr Leu Ala Ile Phe Arg Pro Leu Ser Ile Leu Ile  
195 200 205

Ala Val Ile Met Gly Ala Ile Phe Leu Gly Asp Ser Phe Tyr Leu Gly  
210 215 220

Ser Leu Val Gly Gly Ile Leu Ile Ser Leu Gly Phe Tyr Thr Val Met  
225 230 235 240

Trp Gly Lys Ala Lys Glu Gly Lys Thr Gln Phe Leu Ser Leu Ser Glu  
245 250 255

Glu Thr Pro Leu Leu Asp Glu Asn Ile Asp Asp Arg Ile  
260 265

<210> 1787

<211> 309

<212> DNA

<213> Arabidopsis thaliana

<400> 1787

atggagaacc tacagaagat gatctctgag aagtcggtag taatttttag caagaactca	60
tgctgcatgt ctcatacaat taagactctc ttcttagact ttggcgtgaa cccgactatc	120
tatgagctcg acgagatcaa cataggaagg gagatagagc aagcattggc tcagctcgga	180
tgcagcccga ccgttccggt ggtgttcatt ggagggcagc ttgttggtgg agccaatcaa	240
gtcatgagtc tccatctcaa ccgctccctt gttcctatgc ttaaacgtgc tggagcatta	300
tggttttaa	309

<210> 1788

<211> 102

<212> PRT

<213> Arabidopsis thaliana

<400> 1788

Met Glu Asn Leu Gln Lys Met Ile Ser Glu Lys Ser Val Val Ile Phe  
Page 2643

1                      5                      10                      15  
 Ser Lys Asn Ser Cys Cys Met Ser His Thr Ile Lys Thr Leu Phe Leu  
                     20                      25                      30  
 Asp Phe Gly Val Asn Pro Thr Ile Tyr Glu Leu Asp Glu Ile Asn Ile  
                     35                      40                      45  
 Gly Arg Glu Ile Glu Gln Ala Leu Ala Gln Leu Gly Cys Ser Pro Thr  
                     50                      55                      60  
 Val Pro Val Val Phe Ile Gly Gly Gln Leu Val Gly Gly Ala Asn Gln  
                     65                      70                      75                      80  
 Val Met Ser Leu His Leu Asn Arg Ser Leu Val Pro Met Leu Lys Arg  
                     85                      90                      95  
 Ala Gly Ala Leu Trp Leu  
                     100

<210> 1789

<211> 930

<212> DNA

<213> Arabidopsis thaliana

<400> 1789

atgagaactc ttttgcacaa cttcaatttt gtccctcaag attctcctta ttacaaaacg 60  
 tccccctttt ccacatcatc cttcttcaac gttcgccttc ccatcaagaa caaccaaadc 120  
 tcttgtaaca aagcaaagaa tttgagaatg gatccgtcta agggaaatcca agaacagagg 180  
 attgtgattc caaacagaca caacgagaag ctggttggtc tgcttcatga aactggttct 240  
 acagacatcg tagtcttgtg ccatggcttt cgatcaaaca agagtaacca aataatgaat 300  
 aatgtggctg ctgctataca gaaagaaggg atcagcgctt ttcgttttga tttctccggg 360  
 aatggagaga gtgaaggcag tttctattat ggtaactata accatgaagc tgatgattta 420  
 cattctgttg tccaatactt ctctaacaag aaccgtgttg ttcctataat cctcgggtcac 480  
 agtaagggag gtgatgttgt cctcctctac gcctccaagt atcatgatgt ccgcaatgta 540  
 atcaatctct cgggacgtta tgatcttaaa aagggtataa gagagcgtct tggagaagat 600  
 tttttggaaa gaattaagca acaaggattc atcgatgttg gagatggaaa atcgggggtat 660  
 cgtgttactg agaagagctt aatggacagg ttaagcactg atattcatga agcttgccctc 720  
 aagattgaca aagagtgcag ggtcttgacg gttcatggat cggaggacga ggtaatacct 780

047-E2F-PCT.ST25.txt

gtggaagatg cgaaggagtt tgcgaagatc ataccaaacc acaagctgga gattgtggaa 840  
 ggagctaatac atggttatac tgagcaccaa agtcaattag tttcaacagt tatggagttc 900  
 ataaagacag tcattgtgaa gaacaactag 930

<210> 1790

<211> 309

<212> PRT

<213> Arabidopsis thaliana

<400> 1790

Met Arg Thr Leu Leu His Asn Phe Asn Phe Val Pro Gln Asp Ser Pro  
 1 5 10 15  
 Tyr Tyr Lys Thr Ser Pro Phe Pro Thr Ser Ser Phe Phe Asn Val Arg  
 20 25 30  
 Phe Pro Ile Lys Asn Asn Gln Ile Ser Cys Asn Lys Ala Lys Asn Leu  
 35 40 45  
 Arg Met Asp Pro Ser Lys Gly Ile Gln Glu Gln Arg Ile Val Ile Pro  
 50 55 60  
 Asn Arg His Asn Glu Lys Leu Val Gly Leu Leu His Glu Thr Gly Ser  
 65 70 75 80  
 Thr Asp Ile Val Val Leu Cys His Gly Phe Arg Ser Asn Lys Ser Asn  
 85 90 95  
 Gln Ile Met Asn Asn Val Ala Ala Ala Ile Gln Lys Glu Gly Ile Ser  
 100 105 110  
 Ala Phe Arg Phe Asp Phe Ser Gly Asn Gly Glu Ser Glu Gly Ser Phe  
 115 120 125  
 Tyr Tyr Gly Asn Tyr Asn His Glu Ala Asp Asp Leu His Ser Val Val  
 130 135 140  
 Gln Tyr Phe Ser Asn Lys Asn Arg Val Val Pro Ile Ile Leu Gly His  
 145 150 155 160  
 Ser Lys Gly Gly Asp Val Val Leu Leu Tyr Ala Ser Lys Tyr His Asp  
 165 170 175

047-E2F-PCT.ST25.txt

Val Arg Asn Val Ile Asn Leu Ser Gly Arg Tyr Asp Leu Lys Lys Gly  
180 185 190  
Ile Arg Glu Arg Leu Gly Glu Asp Phe Leu Glu Arg Ile Lys Gln Gln  
195 200 205  
Gly Phe Ile Asp Val Gly Asp Gly Lys Ser Gly Tyr Arg Val Thr Glu  
210 215 220  
Lys Ser Leu Met Asp Arg Leu Ser Thr Asp Ile His Glu Ala Cys Leu  
225 230 235 240  
Lys Ile Asp Lys Glu Cys Arg Val Leu Thr Val His Gly Ser Glu Asp  
245 250 255  
Glu Val Ile Pro Val Glu Asp Ala Lys Glu Phe Ala Lys Ile Ile Pro  
260 265 270  
Asn His Lys Leu Glu Ile Val Glu Gly Ala Asn His Gly Tyr Thr Glu  
275 280 285  
His Gln Ser Gln Leu Val Ser Thr Val Met Glu Phe Ile Lys Thr Val  
290 295 300  
Ile Val Lys Asn Asn  
305

<210> 1791

<211> 2292

<212> DNA

<213> Arabidopsis thaliana

<400> 1791

atgggggaag atacaaaggc aaccattgag ccaaccgcaa acaagactac ttctcttgaa	60
aagccatcag aggctatggc tggaaaggag aatgctgggg gtaaggaaac acaagaactg	120
gcgaaagatg aggatatggc tgagccagac aatatggaga tagatgctca gattaagaaa	180
gatgatgaaa aagctgagac ggaagataaa gagtcagagg ttaagaaaaa tgaagacaat	240
gctgagactc aaaaaatgga agagaagggtt gaggtcacca aagatgaggg acaagcagag	300
gctaccaaca tggatgaaga tgccgatgga aagaaagagc aaactgatga tgggtgtttca	360
gtggaagata ctgtaatgaa ggaaaacgtg gaatctaaag acaataacta tgccaaagat	420
gatgaaaaag agaccaaaga gacagatatt actgaggcag accacaaaaa agctgggaag	480

## 047-E2F-PCT.ST25.txt

gaggacatac aacatgaagc tgacaaagca aatggaacaa aagatggcaa tacaggagac	540
atcaaagagg aagggacact ggtagatgaa gacaaagga cagatatgga tgaaaaagtg	600
gagaatgggg atgaaaataa acaagtggag aatgttgaag gaaaagaaaa ggaagataag	660
gaagaaaata aaacaaagga agttgagggc gcaaaggctg aggtggatga gtcaaaggta	720
gaagatgaaa aagaaggag tgaggatgag aacgacaatg aaaaagtgga gagcaaagat	780
gcaaaggaag atgagaaaga ggagacaaat gatgataaag aagatgaaaa agaagagagc	840
aagggttcta aaaagcgtgg gaaagggacg agttctggag gaaaggttcg cgagaagaat	900
aaaaccgagg aagtaaaaaa ggatgcagag cctaggactc ctttctctga tcgccctgtg	960
cgtgagcggg aatctgttga gaggcttggt gcattgattg ataaagactc ctcgaaagaa	1020
ttccgtgttg aaaaggggcg aggtgcatat ctcaaagata ttccaatgt tgctaacaag	1080
gtaatgagga agaggtctga tgaaactttg aagctgcttc acccaattct atttggtggg	1140
aggagagggg aggctgctca gatcaagaca aacatattgg gcttctctgg tttcgtttgg	1200
catggagatg agaagaaagc aaaagaaaaa gtaaaagaaa agcttgagaa atgcaccaa	1260
gagaaactgt gggagttttg tgatgtgttg gacatacaca ttaccaaggc tacaacaaag	1320
aaggaagata ttattacaaa actgtttgag tttttggaga aacctcatgt gacaggtgat	1380
gtgaccggtg acactacagt ttctgagaaa gagaagtcaa gtaagggagc aaaacgcaag	1440
agaactccca agaaaacttc acctacagct gggagttcat cctccaaacg atcagcaaag	1500
agccaaaaaa agtctgaaga agcaacaaaa gttgtcaaaa agagtttagc tcattctgat	1560
gatgaatctg aagaagagaa agaagaagaa gaaaaacaag aggaggagaa ggcagaagag	1620
aaagaagaga aaaaagagga ggagaatgaa aatggcattc ctgataaatc tgaggatgag	1680
gcgccctcagc cttctgaaag cgaggagaaa gatgaatctg aggagcattc tgaagaagaa	1740
actacaaaga agaaacgtgg ttctagattg tcagctggga agaaagaatc agcagggaga	1800
gccagaaaca agaaagcagt ggtcgctgca aaatccagtc caccagagaa gattacacag	1860
aagcggtcac cagccaaacg aaagaagact gatgatgaca gtgatacaag tccaaaggcg	1920
tcctctaaga ggaagaagtc tgaaaaccct atcaaggcct ccccggtcc ttcaaagtct	1980
gcatcaaaag agaagccagt aaaaagggtg ggaagaggga aagacaagcc gagtgataaa	2040
gtgctgaaaa atgcaatcgt tgagatcttg aaaagagtgg acttttagtac ggctacgttc	2100
acggacatcc ttaaagaact tgctaaggag ttcacagaag atctcactcc aagaaagtca	2160
tctataaaga tgataatcca agaggagctc accaaattag cagatgagga ggaggaggag	2220
gaaaagaaag aagaggattc agagaaggag gaagcaggag ggtctggtgg tggtgaggag	2280
gtgaaagcct aa	2292

&lt;210&gt; 1792

&lt;211&gt; 763

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1792

Met Gly Glu Asp Thr Lys Ala Thr Ile Glu Pro Thr Ala Asn Lys Thr  
 1 5 10 15

Thr Ser Leu Glu Lys Pro Ser Glu Ala Met Ala Gly Lys Glu Asn Ala  
 20 25 30

Gly Gly Lys Glu Thr Gln Glu Leu Ala Lys Asp Glu Asp Met Ala Glu  
 35 40 45

Pro Asp Asn Met Glu Ile Asp Ala Gln Ile Lys Lys Asp Asp Glu Lys  
 50 55 60

Ala Glu Thr Glu Asp Lys Glu Ser Glu Val Lys Lys Asn Glu Asp Asn  
 65 70 75 80

Ala Glu Thr Gln Lys Met Glu Glu Lys Val Glu Val Thr Lys Asp Glu  
 85 90 95

Gly Gln Ala Glu Ala Thr Asn Met Asp Glu Asp Ala Asp Gly Lys Lys  
 100 105 110

Glu Gln Thr Asp Asp Gly Val Ser Val Glu Asp Thr Val Met Lys Glu  
 115 120 125

Asn Val Glu Ser Lys Asp Asn Asn Tyr Ala Lys Asp Asp Glu Lys Glu  
 130 135 140

Thr Lys Glu Thr Asp Ile Thr Glu Ala Asp His Lys Lys Ala Gly Lys  
 145 150 155 160

Glu Asp Ile Gln His Glu Ala Asp Lys Ala Asn Gly Thr Lys Asp Gly  
 165 170 175

Asn Thr Gly Asp Ile Lys Glu Glu Gly Thr Leu Val Asp Glu Asp Lys  
 180 185 190

Gly Thr Asp Met Asp Glu Lys Val Glu Asn Gly Asp Glu Asn Lys Gln  
 195 200 205

047-E2F-PCT.ST25.txt

Val Glu Asn Val Glu Gly Lys Glu Lys Glu Asp Lys Glu Glu Asn Lys  
210 215 220

Thr Lys Glu Val Glu Ala Ala Lys Ala Glu Val Asp Glu Ser Lys Val  
225 230 235 240

Glu Asp Glu Lys Glu Gly Ser Glu Asp Glu Asn Asp Asn Glu Lys Val  
245 250 255

Glu Ser Lys Asp Ala Lys Glu Asp Glu Lys Glu Glu Thr Asn Asp Asp  
260 265 270

Lys Glu Asp Glu Lys Glu Glu Ser Lys Gly Ser Lys Lys Arg Gly Lys  
275 280 285

Gly Thr Ser Ser Gly Gly Lys Val Arg Glu Lys Asn Lys Thr Glu Glu  
290 295 300

Val Lys Lys Asp Ala Glu Pro Arg Thr Pro Phe Ser Asp Arg Pro Val  
305 310 315 320

Arg Glu Arg Lys Ser Val Glu Arg Leu Val Ala Leu Ile Asp Lys Asp  
325 330 335

Ser Ser Lys Glu Phe Arg Val Glu Lys Gly Arg Gly Ala Tyr Leu Lys  
340 345 350

Asp Ile Pro Asn Val Ala Asn Lys Val Met Arg Lys Arg Ser Asp Glu  
355 360 365

Thr Leu Lys Leu Leu His Pro Ile Leu Phe Gly Gly Arg Arg Gly Lys  
370 375 380

Ala Ala Gln Ile Lys Thr Asn Ile Leu Gly Phe Ser Gly Phe Val Trp  
385 390 395 400

His Gly Asp Glu Lys Lys Ala Lys Glu Lys Val Lys Glu Lys Leu Glu  
405 410 415

Lys Cys Thr Lys Glu Lys Leu Trp Glu Phe Cys Asp Val Leu Asp Ile  
420 425 430

His Ile Thr Lys Ala Thr Thr Lys Lys Glu Asp Ile Ile Thr Lys Leu  
435 440 445

Phe Glu Phe Leu Glu Lys Pro His Val Thr Gly Asp Val Thr Gly Asp  
Page 2649

450

455

Thr Thr Val Ser Glu Lys Glu Lys Ser Ser Lys Gly Ala Lys Arg Lys  
465 470 475 480

Arg Thr Pro Lys Lys Thr Ser Pro Thr Ala Gly Ser Ser Ser Ser Lys  
485 490 495

Arg Ser Ala Lys Ser Gln Lys Lys Ser Glu Glu Ala Thr Lys Val Val  
500 505 510

Lys Lys Ser Leu Ala His Ser Asp Asp Glu Ser Glu Glu Glu Lys Glu  
515 520 525

Glu Glu Glu Lys Gln Glu Glu Glu Lys Ala Glu Glu Lys Glu Glu Lys  
530 535 540

Lys Glu Glu Glu Asn Glu Asn Gly Ile Pro Asp Lys Ser Glu Asp Glu  
545 550 555 560

Ala Pro Gln Pro Ser Glu Ser Glu Glu Lys Asp Glu Ser Glu Glu His  
565 570 575

Ser Glu Glu Glu Thr Thr Lys Lys Lys Arg Gly Ser Arg Leu Ser Ala  
580 585 590

Gly Lys Lys Glu Ser Ala Gly Arg Ala Arg Asn Lys Lys Ala Val Val  
595 600 605

Ala Ala Lys Ser Ser Pro Pro Glu Lys Ile Thr Gln Lys Arg Ser Ser  
610 615 620

Ala Lys Arg Lys Lys Thr Asp Asp Asp Ser Asp Thr Ser Pro Lys Ala  
625 630 635 640

Ser Ser Lys Arg Lys Lys Ser Glu Asn Pro Ile Lys Ala Ser Pro Ala  
645 650 655

Pro Ser Lys Ser Ala Ser Lys Glu Lys Pro Val Lys Arg Ala Gly Lys  
660 665 670

Gly Lys Asp Lys Pro Ser Asp Lys Val Leu Lys Asn Ala Ile Val Glu  
675 680 685

Ile Leu Lys Arg Val Asp Phe Ser Thr Ala Thr Phe Thr Asp Ile Leu  
690 695 700



Lys Glu Leu Ala Lys Glu Phe Thr Glu Asp Leu Thr Pro Arg Lys Ser  
705 710 715 720

Ser Ile Lys Met Ile Ile Gln Glu Glu Leu Thr Lys Leu Ala Asp Glu  
725 730 735

Glu Glu Glu Glu Glu Lys Lys Glu Glu Asp Ser Glu Lys Glu Glu Ala  
740 745 750

Gly Gly Ser Gly Gly Gly Glu Glu Val Lys Ala  
755 760

<210> 1793

<211> 3054

<212> DNA

<213> *Arabidopsis thaliana*

<400> 1793

atggagaacc caaaaccggc gataacgtcg gtggtcttga aaggagagaa ctatctacta	60
tggatgagga cgacaaaaac ggtgttatgt ggccgagggc tttggagcca tgttgaaacc	120
aaacatgttc agtttaaggc taccaaagaa gacggcgacg aagggttcaa gaggaagaa	180
gaagaagctg agatcgagaa agaagccaag tggtttcaag aagacaaaaa cgttctcgct	240
attcttcaac attctcttga gagctccatt cttgaggctt actcttattg tgaaacggca	300
cgcgagctat gggagacact cgagaacgtg tatgggaatg tgtcaaactt gactcgagtc	360
tttgaagtca agaaggccat taacaacctt agccaagtag acttggagtt cactaaacac	420
ttcggaaagt ttaggtcact atgggctgaa cttgagatgc ttcgaccaag taccgtggat	480
ccggccattc ttaacgagag aaaggaacaa gagaaagtat tcggccttct tcttacctc	540
aatccgcct tcaacgatct catcaaacat cttcttcgag ccgacaagct tccttcactt	600
gaaaatgttt gttctcaagt acaaaaggaa caaggatctc tcgggttggt tagtggtgtaag	660
ggcgaactta tcacggctca caaagggatc tacaaaggtg aagaaaggaa ggtatgggtg	720
tgtgatcatt gcaagaagaa gggacacatg aaagacaaat gttggattct tcatccccac	780
ctaaaaccgg ctaagttcaa agcaaacata tctcaagaag ttgcaagtga ccaaggagaa	840
gtggtgagga agtcagattt ggagtctctc ataagatcca tcgcctctct aaaagaatct	900
ggtacctctt tcttgacctt tgaacaaat aaaatgctaa aggaatccgg tacatctttc	960
tttacttccg aaccaagtaa aactcttggt atagattcgg gcgcatctca ccatatgatc	1020
aacaatccta gtctaatacga taatataaaa ccggcgttag gcaatgtagt tatagcaa	1080

ggagataaag	taccggtaaa	agaaatagga	gagttaaact	tatttgataa	gaaatctaaa	1140
gctctatata	tgcctagctt	tacttcaa	cttttatcgg	ttaagagagc	tactaatgat	1200
ttgaattgct	atacaatatt	tggtccta	agtgtacatt	ttcaggatat	taagaccgga	1260
aggtctttga	ctatttatga	gaattgtttt	gacttggttc	actcggatgt	ttggacttct	1320
ccttgcatgt	ctagggataa	taagaagtac	tttgtgactt	ttattgatga	gaaatcgaaa	1380
tatacatgga	tcacattggt	accatctaaa	gattgtgtga	tggatgcctt	tataaatttc	1440
caaaactatg	tcactaatta	cttcaatgct	aaaattaagg	tacttagatc	cgacaatggt	1500
ggagagtata	caagtcacaa	attcaaagag	taccttgcaa	aacacggcat	cattcatcaa	1560
acgagttgtc	cttacacacc	tcaacaaa	ggagtggcgg	agaggaagaa	tcgacacctc	1620
atggaggtag	aaaggtcaat	gatgtttcat	acgaatgtca	ccaagaagtt	ttggggagat	1680
gcggtgatga	cggcttggtt	tcttatcaat	agaacacca	caaagttct	acaagatggt	1740
tctacatttg	agttctttga	agaaaaaggt	tattacgaga	agaaagattg	gaatagcttg	1800
gcagatctct	ctacaccctc	aacggatcgt	gctacaagtt	tacagtttct	tcttgaccat	1860
cttgaggtta	ctccatcaag	tgaaagagaa	accaagacaa	gagacttgat	agaagaaccg	1920
attactattg	atcaagaaaa	tgaacaagag	gaggcctcca	acctacaaca	agatggagag	1980
attaatggaa	tccaaataca	tgatgatatg	gatactcaaa	atgaagatgg	agacgaagta	2040
ctcggattaa	gagaaaaatc	ttctcgcttg	tattacaaca	ataaggcggt	agctcacctt	2100
atacaagcag	tgtgttctct	tgccctctta	ccacaagatc	accaagcttt	tataggaaaag	2160
atagaagcaa	actttgttct	gcaaacctat	gaagaagcta	aggagagtga	agaatggata	2220
aatgcggtgg	cggatgaaac	cggagctatg	attcgtaatc	atacttgga	tgaagaagac	2280
ttgcctccgg	ggaagagagc	cgtgagctcc	aaatgggtct	tcacgatcaa	gtacttgagt	2340
aatggtgaga	tagagagaca	taaagctcgc	ttggtagcat	gcgggttcac	tcaaacttat	2400
ggtcgtgact	atactgaaac	ctttgcaccc	gtcgccaagc	ttcacacggt	gagagttggt	2460
ctctctcttg	ctactaatct	ctcgtgggac	ttatggcaaa	tggacgtcaa	gaacgccttt	2520
cttcaaggag	agctagaaga	agaagtgtat	atgactccac	caccgggact	agaagattcc	2580
attgctccgg	gtaaagtttt	gcgacttcgg	aaggcaat	atggcttgaa	acaatctcct	2640
agagcttggt	accataat	aagtaccaca	ctaaagggaa	aagggttcaa	gaaatccgaa	2700
gccgatcaca	ctctcttcac	acttcaatcc	gatcaaggta	ttattgttgc	tctcatctat	2760
gttgataata	ttatcatctc	cggagacaac	aaagaaggta	tccatgacac	caaactcttt	2820
cttaaactta	catttgatat	aaaagacctt	ggtgaactaa	agtatttctt	agggattgaa	2880
gtatgtcgct	ctcccgaggg	cttatttctt	tcacaaagaa	aatacactct	tgatcttttg	2940
aatgagacag	gaaaacttgg	ttctaaaccg	gctaagacac	ctcttggtga	tggctatacg	3000

gtcaagcgaa cggggggggg aagaagaaga agaatgcacc acttgatccg ttag

3054

&lt;210&gt; 1794

&lt;211&gt; 1017

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1794

Met Glu Asn Pro Lys Pro Ala Ile Thr Ser Val Val Leu Lys Gly Glu  
1 5 10 15

Asn Tyr Leu Leu Trp Met Arg Thr Thr Lys Thr Val Leu Cys Gly Arg  
20 25 30

Gly Leu Trp Ser His Val Glu Thr Lys His Val Gln Phe Lys Ala Thr  
35 40 45

Lys Glu Asp Gly Asp Glu Gly Phe Lys Arg Glu Glu Glu Glu Ala Glu  
50 55 60

Ile Glu Lys Glu Ala Lys Trp Phe Gln Glu Asp Gln Asn Val Leu Ala  
65 70 75 80

Ile Leu Gln His Ser Leu Glu Ser Ser Ile Leu Glu Ala Tyr Ser Tyr  
85 90 95

Cys Glu Thr Ala Arg Glu Leu Trp Glu Thr Leu Glu Asn Val Tyr Gly  
100 105 110

Asn Val Ser Asn Leu Thr Arg Val Phe Glu Val Lys Lys Ala Ile Asn  
115 120 125

Asn Leu Ser Gln Val Asp Leu Glu Phe Thr Lys His Phe Gly Lys Phe  
130 135 140

Arg Ser Leu Trp Ala Glu Leu Glu Met Leu Arg Pro Ser Thr Val Asp  
145 150 155 160

Pro Ala Ile Leu Asn Glu Arg Lys Glu Gln Glu Lys Val Phe Gly Leu  
165 170 175

Leu Leu Thr Leu Asn Pro Ala Phe Asn Asp Leu Ile Lys His Leu Leu  
180 185 190

## 047-E2F-PCT.ST25.txt

Arg Ala Asp Lys Leu Pro Ser Leu Glu Asn Val Cys Ser Gln Val Gln  
 195 200 205  
 Lys Glu Gln Gly Ser Leu Gly Leu Phe Ser Gly Lys Gly Glu Leu Ile  
 210 215 220  
 Thr Ala His Lys Gly Ile Tyr Lys Gly Glu Glu Arg Lys Val Trp Val  
 225 230 235 240  
 Cys Asp His Cys Lys Lys Lys Gly His Met Lys Asp Lys Cys Trp Ile  
 245 250 255  
 Leu His Pro His Leu Lys Pro Ala Lys Phe Lys Ala Asn Ile Ser Gln  
 260 265 270  
 Glu Val Ala Ser Asp Gln Gly Glu Val Val Arg Lys Ser Asp Leu Glu  
 275 280 285  
 Ser Leu Ile Arg Ser Ile Ala Ser Leu Lys Glu Ser Gly Thr Ser Phe  
 290 295 300  
 Leu Thr Tyr Glu Pro Asn Lys Met Leu Lys Glu Ser Gly Thr Ser Phe  
 305 310 315 320  
 Phe Thr Ser Glu Pro Ser Lys Thr Leu Val Ile Asp Ser Gly Ala Ser  
 325 330 335  
 His His Met Ile Asn Asn Pro Ser Leu Ile Asp Asn Ile Lys Pro Ala  
 340 345 350  
 Leu Gly Asn Val Val Ile Ala Asn Gly Asp Lys Val Pro Val Lys Glu  
 355 360 365  
 Ile Gly Glu Leu Asn Leu Phe Asp Lys Lys Ser Lys Ala Leu Tyr Met  
 370 375 380  
 Pro Ser Phe Thr Ser Asn Leu Leu Ser Val Lys Arg Ala Thr Asn Asp  
 385 390 395 400  
 Leu Asn Cys Tyr Thr Ile Phe Gly Pro Asn Ser Val His Phe Gln Asp  
 405 410 415  
 Ile Lys Thr Gly Arg Ser Leu Thr Ile Tyr Glu Asn Cys Phe Asp Leu  
 420 425 430  
 Val His Ser Asp Val Trp Thr Ser Pro Cys Met Ser Arg Asp Asn Lys  
 435 440 445

047-E2F-PCT.ST25.txt

Lys Tyr Phe Val Thr Phe Ile Asp Glu Lys Ser Lys Tyr Thr Trp Ile  
 450 455 460  
 Thr Leu Leu Pro Ser Lys Asp Cys Val Met Asp Ala Phe Ile Asn Phe  
 465 470 475 480  
 Gln Asn Tyr Val Thr Asn Tyr Phe Asn Ala Lys Ile Lys Val Leu Arg  
 485 490 495  
 Ser Asp Asn Gly Gly Glu Tyr Thr Ser His Lys Phe Lys Glu Tyr Leu  
 500 505 510  
 Ala Lys His Gly Ile Ile His Gln Thr Ser Cys Pro Tyr Thr Pro Gln  
 515 520 525  
 Gln Asn Gly Val Ala Glu Arg Lys Asn Arg His Leu Met Glu Val Glu  
 530 535 540  
 Arg Ser Met Met Phe His Thr Asn Val Thr Lys Lys Phe Trp Gly Asp  
 545 550 555 560  
 Ala Val Met Thr Ala Cys Tyr Leu Ile Asn Arg Thr Pro Thr Lys Val  
 565 570 575  
 Leu Gln Asp Val Ser Thr Phe Glu Phe Phe Glu Glu Lys Gly Tyr Tyr  
 580 585 590  
 Glu Lys Lys Asp Trp Asn Ser Leu Ala Asp Leu Ser Thr Pro Ser Thr  
 595 600 605  
 Asp Arg Ala Thr Ser Leu Gln Phe Leu Leu Asp His Leu Gly Val Thr  
 610 615 620  
 Pro Ser Ser Glu Arg Glu Thr Lys Thr Arg Asp Leu Ile Glu Glu Pro  
 625 630 635 640  
 Ile Thr Ile Asp Gln Glu Asn Glu Gln Glu Glu Ala Ser Asn Leu Gln  
 645 650 655  
 Gln Asp Gly Glu Ile Asn Gly Ile Gln Ile His Asp Asp Met Asp Thr  
 660 665 670  
 Gln Asn Glu Asp Gly Asp Glu Val Leu Gly Leu Arg Glu Lys Ser Ser  
 675 680 685  
 Arg Leu Tyr Tyr Asn Asn Lys Ala Val Ala His Pro Ile Gln Ala Val  
 Page 2655

690

695

Cys Ser Leu Ala Leu Leu Pro Gln Asp His Gln Ala Phe Ile Gly Lys  
705 710 715 720  
Ile Glu Ala Asn Phe Val Leu Gln Thr Tyr Glu Glu Ala Lys Glu Ser  
725 730 735  
Glu Glu Trp Ile Asn Ala Val Ala Asp Glu Thr Gly Ala Met Ile Arg  
740 745 750  
Asn His Thr Trp Asp Glu Glu Asp Leu Pro Pro Gly Lys Arg Ala Val  
755 760 765  
Ser Ser Lys Trp Val Phe Thr Ile Lys Tyr Leu Ser Asn Gly Glu Ile  
770 775 780  
Glu Arg His Lys Ala Arg Leu Val Ala Cys Gly Phe Thr Gln Thr Tyr  
785 790 795 800  
Gly Arg Asp Tyr Thr Glu Thr Phe Ala Pro Val Ala Lys Leu His Thr  
805 810 815  
Val Arg Val Val Leu Ser Leu Ala Thr Asn Leu Ser Trp Asp Leu Trp  
820 825 830  
Gln Met Asp Val Lys Asn Ala Phe Leu Gln Gly Glu Leu Glu Glu Glu  
835 840 845  
Val Tyr Met Thr Pro Pro Pro Gly Leu Glu Asp Ser Ile Ala Pro Gly  
850 855 860  
Lys Val Leu Arg Leu Arg Lys Ala Ile Tyr Gly Leu Lys Gln Ser Pro  
865 870 875 880  
Arg Ala Trp Tyr His Asn Leu Ser Thr Thr Leu Lys Gly Lys Gly Phe  
885 890 895  
Lys Lys Ser Glu Ala Asp His Thr Leu Phe Thr Leu Gln Ser Asp Gln  
900 905 910  
Gly Ile Ile Val Ala Leu Ile Tyr Val Asp Asn Ile Ile Ile Ser Gly  
915 920 925  
Asp Asn Lys Glu Gly Ile His Asp Thr Lys Leu Phe Leu Lys Ser Thr  
930 935 940

Phe Asp Ile Lys Asp Leu Gly Glu Leu Lys Tyr Phe Leu Gly Ile Glu  
 945 950 955 960

Val Cys Arg Ser Pro Glu Gly Leu Phe Leu Ser Gln Arg Lys Tyr Thr  
 965 970 975

Leu Asp Leu Leu Asn Glu Thr Gly Lys Leu Gly Ser Lys Pro Ala Lys  
 980 985 990

Thr Pro Leu Val Asp Gly Tyr Thr Val Lys Arg Thr Gly Gly Gly Arg  
 995 1000 1005

Arg Arg Arg Met His His Leu Ile Arg  
 1010 1015

<210> 1795

<211> 870

<212> DNA

<213> Arabidopsis thaliana

<400> 1795

atgagtctct tcaacactga aaacacatgg gcctttgtct ttggcttgct cggcaacctt	60
atctcctttg ccgtgttcct atctcctgtg ccaacgttct ataggatttg gaagaagaag	120
acaacagaag ggtttcagtc tttccttat gttgtggcgc tcttcagtc gacgctttgg	180
ctttactatg cgacacagaa gaaagatgtc ttcctcctcg taaccattaa cgcctttggt	240
tgcttcacgc aaaccatcta catctctatg ttccttgcc acgctcccaa gccagctcgg	300
atgttgacag tgaagatgct acttcttatg aactttggag gattctgtgc gattctcctt	360
ctttgccaat tcttggtaaa aggagccaca cgtgctaaga ttatcggagg aatctgtgtc	420
ggattctctg tttgtgtttt cgctgtcct ctaagcataa tcaggacggg aataaagaca	480
agaagtgtgg agtacatgcc ctttagctta tccttaacct ttaccatcag tgctgtcata	540
tggtccttt atggtcttgc tctcaaggac atctatgttg ctttcccgaa tgtgcttggt	600
tttgctctcg gtgcactcca aatgatactc tacgttgtct acaaatactg taaaacgtcg	660
ccgcatctag gagagaaaga agtcgaagct gctaagttac cggaggtgag cctcgatatg	720
ttgaagctag gcacagtttc atcccctgag ccaatctcag tggttcgtca agcgaacaag	780
tgtacctgcg gaaatgatcg aagggtgag attgaagatg gacaaacccc taaacatggc	840
aagcagtcct cttccgcagc agctacatga	870

<210> 1796

&lt;211&gt; 289

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1796

Met Ser Leu Phe Asn Thr Glu Asn Thr Trp Ala Phe Val Phe Gly Leu  
 1 5 10 15

Leu Gly Asn Leu Ile Ser Phe Ala Val Phe Leu Ser Pro Val Pro Thr  
 20 25 30

Phe Tyr Arg Ile Trp Lys Lys Lys Thr Thr Glu Gly Phe Gln Ser Ile  
 35 40 45

Pro Tyr Val Val Ala Leu Phe Ser Ala Thr Leu Trp Leu Tyr Tyr Ala  
 50 55 60

Thr Gln Lys Lys Asp Val Phe Leu Leu Val Thr Ile Asn Ala Phe Gly  
 65 70 75 80

Cys Phe Ile Glu Thr Ile Tyr Ile Ser Met Phe Leu Ala Tyr Ala Pro  
 85 90 95

Lys Pro Ala Arg Met Leu Thr Val Lys Met Leu Leu Leu Met Asn Phe  
 100 105 110

Gly Gly Phe Cys Ala Ile Leu Leu Leu Cys Gln Phe Leu Val Lys Gly  
 115 120 125

Ala Thr Arg Ala Lys Ile Ile Gly Gly Ile Cys Val Gly Phe Ser Val  
 130 135 140

Cys Val Phe Ala Ala Pro Leu Ser Ile Ile Arg Thr Val Ile Lys Thr  
 145 150 155 160

Arg Ser Val Glu Tyr Met Pro Phe Ser Leu Ser Leu Thr Leu Thr Ile  
 165 170 175

Ser Ala Val Ile Trp Leu Leu Tyr Gly Leu Ala Leu Lys Asp Ile Tyr  
 180 185 190

Val Ala Phe Pro Asn Val Leu Gly Phe Ala Leu Gly Ala Leu Gln Met  
 195 200 205



Ile Leu Tyr Val Val Tyr Lys Tyr Cys Lys Thr Ser Pro His Leu Gly  
 210 215 220

Glu Lys Glu Val Glu Ala Ala Lys Leu Pro Glu Val Ser Leu Asp Met  
 225 230 235 240

Leu Lys Leu Gly Thr Val Ser Ser Pro Glu Pro Ile Ser Val Val Arg  
 245 250 255

Gln Ala Asn Lys Cys Thr Cys Gly Asn Asp Arg Arg Ala Glu Ile Glu  
 260 265 270

Asp Gly Gln Thr Pro Lys His Gly Lys Gln Ser Ser Ser Ala Ala Ala  
 275 280 285

Thr

<210> 1797

<211> 1833

<212> DNA

<213> Arabidopsis thaliana

<400> 1797

atggcaactg tgactgcttc ttctaacttt gtgtcaagaa cttcactttt caacaatcat	60
ggtgcttctt catgctctga tgtcgtcag attaccttaa aaggccaatc cttgactcat	120
tgtgggttaa ggtcattcaa catggtggat aaccttcaga ggagatctca agctaaacct	180
gtttctgcta aatcctcaaa gagatcttct aaagttaaga ctgctggtaa gattgtgtgt	240
gagaaaggaa tgtctgtgat ttttattgga gctgaagttg gtccatggag taaaactggt	300
ggtcttggtg atgttctcgg tggctacct ccagctcttg ctgctagagg ccaccgtgtg	360
atgacaattht gtcctcggta tgaccaatat aaagatgctt gggacacttg tgttggtggt	420
cagatcaaag ttggggataa agttgagaat gttcgtttct tccattgcta caaacgagga	480
gttgatcgtg tctttgttga ccatccaatc tttcttgcta aggttggtggg caaacagga	540
tccaaaatct atggtcctat aactggagta gactacaatg acaaccaact ccggttcagt	600
ttgttggtgc aggtgctct tgaggcacca caggttctga acctgaacag cagcaagtac	660
ttctctggac catatggtga agatgtagtc tttgttgcca atgactggca cactgctcta	720
cttccatggt acctcaaadc tatgtatcaa tcccgcggag tctacatgaa tgcaaagggtg	780
gtcttctgca ttcacaacat agcctaccag ggaagatttg cttttgatga ctattccctt	840

047-E2F-PCT.ST25.txt

ctcaacttgc ccatcagctt taaaagttct ttcgacttca tggacgggta tgaaaagcca 900  
 gtaaaaggac ggaaaattaa ctggatgaag gctgcaattc tggaagctca ccgtgtctta 960  
 acagttagtc catactacgc tcaagaactc atctctggag ttgatagagg cgtggaattg 1020  
 cataaatatc ttcgaatgaa aacagtttcc ggaattatta atggaatgga tgttcaagaa 1080  
 tggaacccgt ctactgacaa gtacatcgat atcaaatacg atattaccac tgttacagat 1140  
 gctaaaccat tgatcaaaga agcacttcag gctgctgttg gacttcccgt ggacagggat 1200  
 gtcccggtta tcggtttcat agggagattg gaggagcaga agggttctga tattctagtg 1260  
 gaagctatctt ccaagttcat ggggctcaat gttcagatgg ttatccttgg gactggaaag 1320  
 aagaagatgg aggcctcagat tcttgaacta gaagagaagt tcccagggaa ggcggttgga 1380  
 gtggcgaaat tcaacgtgcc attggctcat atgatcactg ctggagctga cttcatcatt 1440  
 gtcccaagca ggtttgagcc gtgtggtctc attcagctgc acgcaatgag atatggaacc 1500  
 gtccctattg tggcatctac tgggtggactt gtggacactg tgaaagatgg ctacacaggt 1560  
 ttccacattg gaagattcaa cgtcaagtgt gaagttgtgg atccagatga tgtgatagca 1620  
 acagcaaagg ctgtgacaag agccgttgca gtatatggaa catccgcaat gcaagaaatg 1680  
 gtcaagaact gcatggacca agacttctcc tggaagggac ctgcgagggt gtgggagaag 1740  
 gtactattgt cccttaatgt ggcgggaagt gaagccggaa ccgaggggtga agagatagct 1800  
 cctctggcca aggagaacgt agcgacgccg tga 1833

<210> 1798

<211> 610

<212> PRT

<213> Arabidopsis thaliana

<400> 1798

Met Ala Thr Val Thr Ala Ser Ser Asn Phe Val Ser Arg Thr Ser Leu  
 1 5 10 15

Phe Asn Asn His Gly Ala Ser Ser Cys Ser Asp Val Ala Gln Ile Thr  
 20 25 30

Leu Lys Gly Gln Ser Leu Thr His Cys Gly Leu Arg Ser Phe Asn Met  
 35 40 45

Val Asp Asn Leu Gln Arg Arg Ser Gln Ala Lys Pro Val Ser Ala Lys  
 50 55 60

Ser Ser Lys Arg Ser Ser Lys Val Lys Thr Ala Gly Lys Ile Val Cys  
 65 70 75 80  
 Glu Lys Gly Met Ser Val Ile Phe Ile Gly Ala Glu Val Gly Pro Trp  
 85 90 95  
 Ser Lys Thr Gly Gly Leu Gly Asp Val Leu Gly Gly Leu Pro Pro Ala  
 100 105 110  
 Leu Ala Ala Arg Gly His Arg Val Met Thr Ile Cys Pro Arg Tyr Asp  
 115 120 125  
 Gln Tyr Lys Asp Ala Trp Asp Thr Cys Val Val Val Gln Ile Lys Val  
 130 135 140  
 Gly Asp Lys Val Glu Asn Val Arg Phe Phe His Cys Tyr Lys Arg Gly  
 145 150 155 160  
 Val Asp Arg Val Phe Val Asp His Pro Ile Phe Leu Ala Lys Val Val  
 165 170 175  
 Gly Lys Thr Gly Ser Lys Ile Tyr Gly Pro Ile Thr Gly Val Asp Tyr  
 180 185 190  
 Asn Asp Asn Gln Leu Arg Phe Ser Leu Leu Cys Gln Ala Ala Leu Glu  
 195 200 205  
 Ala Pro Gln Val Leu Asn Leu Asn Ser Ser Lys Tyr Phe Ser Gly Pro  
 210 215 220  
 Tyr Gly Glu Asp Val Val Phe Val Ala Asn Asp Trp His Thr Ala Leu  
 225 230 235 240  
 Leu Pro Cys Tyr Leu Lys Ser Met Tyr Gln Ser Arg Gly Val Tyr Met  
 245 250 255  
 Asn Ala Lys Val Val Phe Cys Ile His Asn Ile Ala Tyr Gln Gly Arg  
 260 265 270  
 Phe Ala Phe Asp Asp Tyr Ser Leu Leu Asn Leu Pro Ile Ser Phe Lys  
 275 280 285  
 Ser Ser Phe Asp Phe Met Asp Gly Tyr Glu Lys Pro Val Lys Gly Arg  
 290 295 300  
 Lys Ile Asn Trp Met Lys Ala Ala Ile Leu Glu Ala His Arg Val Leu  
 305 310 315 320

## 047-E2F-PCT.ST25.txt

Thr Val Ser Pro Tyr Tyr Ala Gln Glu Leu Ile Ser Gly Val Asp Arg  
 325 330 335  
 Gly Val Glu Leu His Lys Tyr Leu Arg Met Lys Thr Val Ser Gly Ile  
 340 345 350  
 Ile Asn Gly Met Asp Val Gln Glu Trp Asn Pro Ser Thr Asp Lys Tyr  
 355 360 365  
 Ile Asp Ile Lys Tyr Asp Ile Thr Thr Val Thr Asp Ala Lys Pro Leu  
 370 375 380  
 Ile Lys Glu Ala Leu Gln Ala Ala Val Gly Leu Pro Val Asp Arg Asp  
 385 390 395 400  
 Val Pro Val Ile Gly Phe Ile Gly Arg Leu Glu Glu Gln Lys Gly Ser  
 405 410 415  
 Asp Ile Leu Val Glu Ala Ile Ser Lys Phe Met Gly Leu Asn Val Gln  
 420 425 430  
 Met Val Ile Leu Gly Thr Gly Lys Lys Lys Met Glu Ala Gln Ile Leu  
 435 440 445  
 Glu Leu Glu Glu Lys Phe Pro Gly Lys Ala Val Gly Val Ala Lys Phe  
 450 455 460  
 Asn Val Pro Leu Ala His Met Ile Thr Ala Gly Ala Asp Phe Ile Ile  
 465 470 475 480  
 Val Pro Ser Arg Phe Glu Pro Cys Gly Leu Ile Gln Leu His Ala Met  
 485 490 495  
 Arg Tyr Gly Thr Val Pro Ile Val Ala Ser Thr Gly Gly Leu Val Asp  
 500 505 510  
 Thr Val Lys Asp Gly Tyr Thr Gly Phe His Ile Gly Arg Phe Asn Val  
 515 520 525  
 Lys Cys Glu Val Val Asp Pro Asp Asp Val Ile Ala Thr Ala Lys Ala  
 530 535 540  
 Val Thr Arg Ala Val Ala Val Tyr Gly Thr Ser Ala Met Gln Glu Met  
 545 550 555 560  
 Val Lys Asn Cys Met Asp Gln Asp Phe Ser Trp Lys Gly Pro Ala Arg  
 565 570 575

Leu Trp Glu Lys Val Leu Leu Ser Leu Asn Val Ala Gly Ser Glu Ala  
580 585 590

Gly Thr Glu Gly Glu Glu Ile Ala Pro Leu Ala Lys Glu Asn Val Ala  
595 600 605

Thr Pro  
610

<210> 1799

<211> 501

<212> DNA

<213> Arabidopsis thaliana

<400> 1799

atggaactgg tgtctcttcc gatccaccac cgtacggcgc cgccgaattt tccaccactc	60
gaaactggaa atccagtagc taaccggatt ggacaagctc tacgattcag caatgttaga	120
atgagaaagc ccgcgtatctt aggaacgata ttatctgaga aatcaagagc aagaacatta	180
acgacggcgg aagcagtttc cggaagtggg gtttcgcttc cgccgctgga tttgactgag	240
gataatatcc atttgggtact atccgaagct cgtatcgagc tagcacaact cttcgactca	300
tcggttggga taacaggaca agtagagtta gtggaactag acggaccatt cgttacgata	360
agtttaagag gcaagttttg gcatacgagt gcaatgggtc tagctcgact tgggaactac	420
ttaaaacaga ggatccctga gattttggag gttaatatgg aagatgaaaa gcaactcgat	480
gatagtcctg caaatttcta a	501

<210> 1800

<211> 166

<212> PRT

<213> Arabidopsis thaliana

<400> 1800

Met Glu Leu Val Ser Leu Pro Ile His His Arg Thr Ala Pro Pro Asn  
1 5 10 15

Phe Pro Pro Leu Glu Thr Gly Asn Pro Val Ala Asn Arg Ile Gly Gln  
20 25 30

047-E2F-PCT.ST25.txt

Ala Leu Arg Phe Ser Asn Val Arg Met Arg Lys Pro Ala Tyr Leu Gly  
35 40 45  
Thr Ile Leu Ser Glu Lys Ser Arg Ala Arg Thr Leu Thr Thr Ala Glu  
50 55 60  
Ala Val Ser Gly Ser Gly Val Ser Leu Pro Pro Leu Asp Leu Thr Glu  
65 70 75 80  
Asp Asn Ile His Leu Val Leu Ser Glu Ala Arg Ile Glu Leu Ala Gln  
85 90 95  
Leu Phe Asp Ser Ser Val Gly Ile Thr Gly Gln Val Glu Leu Val Glu  
100 105 110  
Leu Asp Gly Pro Phe Val Thr Ile Ser Leu Arg Gly Lys Phe Trp His  
115 120 125  
Thr Arg Ala Met Val Leu Ala Arg Leu Gly Asn Tyr Leu Lys Gln Arg  
130 135 140  
Ile Pro Glu Ile Leu Glu Val Asn Ile Glu Asp Glu Lys Gln Leu Asp  
145 150 155 160  
Asp Ser Pro Ala Asn Phe  
165

<210> 1801

<211> 477

<212> DNA

<213> Arabidopsis thaliana

<400> 1801

atgtctctgc aaaagtttaa gcttctcgca actcattgca gcaccgtcgc agagagtccg 60  
acacgtagtc cagtcattcca cctccgccgt cgtaaaacgc tgcgtttggt actcactcga 120  
tcatcagacc gatggagatt accggagatc caaaacaacg tagatgaatc gaagaaaacg 180  
gataagagag gtaagatccg atctagccgg aagcttggag atctttttgt ttcgtcgcca 240  
ccgtttgagg aaagtggcgg tggcggcggc ggagataagg ggacgaagat ggaggtggag 300  
atggagaggg atgtaccggt taacggcggt agtaataacg cagggttttg agaagagata 360  
acggctcggc gtgtgggctt taacgggtct gttaggccca tgtcatctgt tacacttcga 420  
tgtagattac ttagacgatc ttggcgtcct gtacttgtaa ctattcctga acaataa 477

&lt;210&gt; 1802

&lt;211&gt; 158

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1802

Met Ser Leu Gln Lys Phe Lys Leu Leu Ala Thr His Cys Ser Thr Val  
 1 5 10 15

Ala Glu Ser Pro Thr Arg Ser Pro Val Ile His Leu Arg Arg Arg Lys  
 20 25 30

Thr Leu Arg Leu Leu Leu Thr Arg Ser Ser Asp Arg Trp Arg Leu Pro  
 35 40 45

Glu Ile Gln Asn Asn Val Asp Glu Ser Lys Lys Thr Asp Lys Arg Gly  
 50 55 60

Lys Ile Arg Ser Ser Arg Lys Leu Gly Asp Leu Phe Val Ser Ser Pro  
 65 70 75 80

Pro Phe Glu Glu Ser Gly Gly Gly Gly Gly Gly Asp Lys Gly Thr Lys  
 85 90 95

Met Glu Val Glu Met Glu Arg Asp Val Pro Val Asn Gly Val Ser Asn  
 100 105 110

Asn Ala Gly Phe Gly Glu Glu Ile Thr Ala Arg Arg Val Gly Phe Asn  
 115 120 125

Gly Ser Val Arg Pro Met Ser Ser Val Thr Leu Arg Cys Arg Leu Leu  
 130 135 140

Arg Arg Ser Trp Arg Pro Val Leu Val Thr Ile Pro Glu Gln  
 145 150 155

&lt;210&gt; 1803

&lt;211&gt; 597

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

047-E2F-PCT.ST25.txt

<400> 1803  
atggctgtcg tcggcgctcc aatatcgtct ccggcggtc agctgcagac acaatttctc 60  
tccaatccca ttctcccccg ctttcgccgg tcttttcca ccggaaaatc accagcaact 120  
ttctccgtcg tagctatggc tccccagaaa aaggtgaaca aatatgatgc caagtggaag 180  
aaacaatggt acggagctgg attgtttttc gaagggagt agcaaataaa cgttgatggt 240  
ttcaagaagc tggagaagcg aaaagtgttg agcaacgttg agaaatctgg cctgctgtca 300  
aaagcagagg ggttgggact cacattgtca tctcttgaga agcttaaagt cttctccaaa 360  
gcagaggacc ttggtcttct cagtctcctt gagaacttag ctggaacatc gcctgcggtc 420  
ttagcctcgg ctgcattacc agctctcacg gctgctattg tagccgtggt gttgatcccg 480  
gatgactcaa ctactctagt ggttgctcag gcggttttgg ccggtgctct tgcgcttaca 540  
ggggttgttt tgttggttgg ttctgttggt ttggatggac ttcaagaagc tgactga 597

<210> 1804

<211> 198

<212> PRT

<213> Arabidopsis thaliana

<400> 1804

Met Ala Val Val Gly Ala Pro Ile Ser Ser Pro Ala Ala Gln Leu Gln  
1 5 10 15  
Thr Gln Phe Leu Ser Asn Pro Ile Leu Pro Arg Phe Arg Arg Ser Phe  
20 25 30  
Ser Thr Gly Lys Ser Pro Ala Thr Phe Ser Val Val Ala Met Ala Pro  
35 40 45  
Gln Lys Lys Val Asn Lys Tyr Asp Ala Lys Trp Lys Lys Gln Trp Tyr  
50 55 60  
Gly Ala Gly Leu Phe Phe Glu Gly Ser Glu Gln Ile Asn Val Asp Val  
65 70 75 80  
Phe Lys Lys Leu Glu Lys Arg Lys Val Leu Ser Asn Val Glu Lys Ser  
85 90 95  
Gly Leu Leu Ser Lys Ala Glu Gly Leu Gly Leu Thr Leu Ser Ser Leu  
100 105 110



Glu Lys Leu Lys Val Phe Ser Lys Ala Glu Asp Leu Gly Leu Leu Ser  
 115 120 125

Leu Leu Glu Asn Leu Ala Gly Thr Ser Pro Ala Val Leu Ala Ser Ala  
 130 135 140

Ala Leu Pro Ala Leu Thr Ala Ala Ile Val Ala Val Val Leu Ile Pro  
 145 150 155 160

Asp Asp Ser Thr Thr Leu Val Val Ala Gln Ala Val Leu Ala Gly Ala  
 165 170 175

Leu Ala Leu Thr Gly Val Val Leu Leu Val Gly Ser Val Val Leu Asp  
 180 185 190

Gly Leu Gln Glu Ala Asp  
 195

<210> 1805

<211> 627

<212> DNA

<213> Arabidopsis thaliana

<400> 1805  
 atggcgctcga ttacgaacct cgcctcttct ctctcttcac tctcgttctc ctcccaagtt 60  
 tctcaaagac ctaacaccat ttccttcccc cgcgcgaatt cagtattcgc attaccggcg 120  
 aaatccgcac gccgcgcttc tctatctatc accgccacgg tatctgctcc accggaggag 180  
 gaggagatag ttgaactgaa gaaatacgtc aaatcgaggc ttcccggagg atttgctgct 240  
 cagaagatta ttggcactgg acgacgtaag tgcgcaatcg ctagagttgt tcttcaggaa 300  
 ggtactggga aggttatcat caactatcgt gatgccagg agtaccttca gggaaatcca 360  
 ttgtggcttc agtatgttaa agtaccattg gtgacttttag gatatgagaa tagctacgac 420  
 atattttgtga aagcccatgg aggcggcttc tcagggtcaag ctcaagcaat taccttgga 480  
 gtcgcacgtg cactcctgaa ggtaagtga gaccacagat cgcctttgaa gaaggaaggt 540  
 ttgctcacta gagatgagag agtggttgaa agaaagaagg ccgggctcaa gaaggcgcgt 600  
 aaagccccac aattctccaa gcgttaa 627

<210> 1806

<211> 208

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1806

Met Ala Ser Ile Thr Asn Leu Ala Ser Ser Leu Ser Ser Leu Ser Phe  
 1 5 10 15

Ser Ser Gln Val Ser Gln Arg Pro Asn Thr Ile Ser Phe Pro Arg Ala  
 20 25 30

Asn Ser Val Phe Ala Leu Pro Ala Lys Ser Ala Arg Arg Ala Ser Leu  
 35 40 45

Ser Ile Thr Ala Thr Val Ser Ala Pro Pro Glu Glu Glu Glu Ile Val  
 50 55 60

Glu Leu Lys Lys Tyr Val Lys Ser Arg Leu Pro Gly Gly Phe Ala Ala  
 65 70 75 80

Gln Lys Ile Ile Gly Thr Gly Arg Arg Lys Cys Ala Ile Ala Arg Val  
 85 90 95

Val Leu Gln Glu Gly Thr Gly Lys Val Ile Ile Asn Tyr Arg Asp Ala  
 100 105 110

Lys Glu Tyr Leu Gln Gly Asn Pro Leu Trp Leu Gln Tyr Val Lys Val  
 115 120 125

Pro Leu Val Thr Leu Gly Tyr Glu Asn Ser Tyr Asp Ile Phe Val Lys  
 130 135 140

Ala His Gly Gly Gly Leu Ser Gly Gln Ala Gln Ala Ile Thr Leu Gly  
 145 150 155 160

Val Ala Arg Ala Leu Leu Lys Val Ser Ala Asp His Arg Ser Pro Leu  
 165 170 175

Lys Lys Glu Gly Leu Leu Thr Arg Asp Ala Arg Val Val Glu Arg Lys  
 180 185 190

Lys Ala Gly Leu Lys Lys Ala Arg Lys Ala Pro Gln Phe Ser Lys Arg  
 195 200 205

&lt;210&gt; 1807

&lt;211&gt; 2154

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1807

```

atggatcaaa tcgaagcaat gttgtgctggc ggaggagaga agacaaaagt ggcggttact    60
acgaagactt tggcagatcc attgaattgg ggttttagcag cggatcaaat gaaaggaagt   120
catttagatg aagtgaagaa gatggtcgaa gagtatcgta gaccagtcgt gaatcttggc   180
ggagaaacac tgacgatcgg acaagttgct gccatctcca ccgtaggagg cagcgttaag   240
gttgagttag cggagacttc aagagccggt gtgaaagcta gcagtgattg ggttatggag   300
agcatgaaca aaggtactga cagttacgga gtcaccaccg gctttggtgc tacttctcac   360
cggagaacca aaaacggcac cgcattacaa acagaactca ttagatTTTT gaacgccgga   420
atattcggaa acacgaagga gacatgtcac aactgcccgc aatccgccac aagagccgcc   480
atgctcgta gagtcaacac tcttctccaa ggatactccg ggatccgatt cgagatcctc   540
gaagcgatta caagtctcct caaccacaac atctctccgt cactacctct ccgtggaacc   600
attaccgcct cgggcgatct cgttcctctc tcttacatcg ccggacttct caccggccgt   660
cctaattcca aagccaccgg tcccagcggg gaatcgctaa ccgcgaaaga agcttttgag   720
aaagccggaa tcagtactgg attcttcgat ttacaacctt aggaagggtt agctctcggt   780
aatggcacgg cggttggatc tggaatggcg tcgatgggtt tattcgaagc gaatgtccaa   840
gcggtggttag cggaggtttt atcagcgatc ttcgaggagg ttatgagcgg gaaacctgag   900
tttaccgatc atctgactca tcgttttaaa catcatcccg gacaaatcga agcggcggcg   960
ataatggagc acatactcga cggaagctca tacatgaaat tagctcaaaa ggttcacgag  1020
atggatccat tgcagaaacc aaaacaagat cgttacgctc ttcgtacatc tcctcaatgg  1080
ctaggtcctc aaattgaagt aatccgtcaa gctacgaaat cgatagagcg tgaaatcaac  1140
tccgttaacg ataatccgtt gatcgatggt tcgaggaaca aggcgattca cggtggtaac  1200
ttccaaggaa caccaatcgg agtttctatg gataacacga gattggcgat tgctgcgatt  1260
gggaagctaa tgtttgctca attctctgag cttgttaatg atttctacaa caatggactt  1320
ccttcgaatc taactgcttc gagtaatcca agtttggtatt atggattcaa aggagcagag  1380
attgctatgg cttcttattg ttctgagctt caatacttgg ctaatccagt cacaagccat  1440
gttcaatcag ctgagcaaca taatcaagat gtgaactctc ttggtttgat ctcgtctcgt  1500
aaaacatctg aagctgtgga tattcttaag ctaatgtcaa caacgttcct tgtggggata  1560
tgtcaagctg ttgatttgag acatttgagg gagaatctga gacaaactgt gaagaacaca  1620
gtttctcaag ttgctaagaa agtggttaacc actggaatca acggtgagtt acatccgtca  1680

```

```

aggttttgcg agaaggactt gcttaagggtt gttgatcgtg agcaagtgtt cacgtatgtg 1740
gatgatcctt gtagcgctac gtacccgttg atgcagagac taagacaagt tattgttgat 1800
cacgctttgt ccaacggtga gactgagaag aatgcagtga cttcgatctt tcaaaagatt 1860
ggagcttttg aagaggagct taaggctgtg cttccaaagg aagttgaagc ggctagagcg 1920
gcttatggga atggaactgc gccgattcct aaccggatta aggaatgtag gtcgtatccg 1980
ttgtataggt tcgtgaggga agagcttgga acgaagttgt tgactggaga aaaggttgtg 2040
tctccgggag aggagtttga taaggcttct actgctatgt gtgaaggtaa acttattgat 2100
ccgttgatgg attgtctcaa ggaatggaac ggagctccga ttccgatttg ctaa 2154

```

&lt;210&gt; 1808

&lt;211&gt; 717

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1808

```

Met Asp Gln Ile Glu Ala Met Leu Cys Gly Gly Gly Glu Lys Thr Lys
1      5      10

```

```

Val Ala Val Thr Thr Lys Thr Leu Ala Asp Pro Leu Asn Trp Gly Leu
20      25      30

```

```

Ala Ala Asp Gln Met Lys Gly Ser His Leu Asp Glu Val Lys Lys Met
35      40      45

```

```

Val Glu Glu Tyr Arg Arg Pro Val Val Asn Leu Gly Gly Glu Thr Leu
50      55      60

```

```

Thr Ile Gly Gln Val Ala Ala Ile Ser Thr Val Gly Gly Ser Val Lys
65      70      75      80

```

```

Val Glu Leu Ala Glu Thr Ser Arg Ala Gly Val Lys Ala Ser Ser Asp
85      90      95

```

```

Trp Val Met Glu Ser Met Asn Lys Gly Thr Asp Ser Tyr Gly Val Thr
100     105     110

```

```

Thr Gly Phe Gly Ala Thr Ser His Arg Arg Thr Lys Asn Gly Thr Ala
115     120     125

```

```

Leu Gln Thr Glu Leu Ile Arg Phe Leu Asn Ala Gly Ile Phe Gly Asn
130     135     140

```

047-E2F-PCT.ST25.txt

Thr Lys Glu Thr Cys His Thr Leu Pro Gln Ser Ala Thr Arg Ala Ala  
 145 150 155 160  
 Met Leu Val Arg Val Asn Thr Leu Leu Gln Gly Tyr Ser Gly Ile Arg  
 165 170 175  
 Phe Glu Ile Leu Glu Ala Ile Thr Ser Leu Leu Asn His Asn Ile Ser  
 180 185 190  
 Pro Ser Leu Pro Leu Arg Gly Thr Ile Thr Ala Ser Gly Asp Leu Val  
 195 200 205  
 Pro Leu Ser Tyr Ile Ala Gly Leu Leu Thr Gly Arg Pro Asn Ser Lys  
 210 215 220  
 Ala Thr Gly Pro Asp Gly Glu Ser Leu Thr Ala Lys Glu Ala Phe Glu  
 225 230 235 240  
 Lys Ala Gly Ile Ser Thr Gly Phe Phe Asp Leu Gln Pro Lys Glu Gly  
 245 250 255  
 Leu Ala Leu Val Asn Gly Thr Ala Val Gly Ser Gly Met Ala Ser Met  
 260 265 270  
 Val Leu Phe Glu Ala Asn Val Gln Ala Val Leu Ala Glu Val Leu Ser  
 275 280 285  
 Ala Ile Phe Ala Glu Val Met Ser Gly Lys Pro Glu Phe Thr Asp His  
 290 295 300  
 Leu Thr His Arg Leu Lys His His Pro Gly Gln Ile Glu Ala Ala Ala  
 305 310 315 320  
 Ile Met Glu His Ile Leu Asp Gly Ser Ser Tyr Met Lys Leu Ala Gln  
 325 330 335  
 Lys Val His Glu Met Asp Pro Leu Gln Lys Pro Lys Gln Asp Arg Tyr  
 340 345 350  
 Ala Leu Arg Thr Ser Pro Gln Trp Leu Gly Pro Gln Ile Glu Val Ile  
 355 360 365  
 Arg Gln Ala Thr Lys Ser Ile Glu Arg Glu Ile Asn Ser Val Asn Asp  
 370 375 380  
 Asn Pro Leu Ile Asp Val Ser Arg Asn Lys Ala Ile His Gly Gly Asn  
 Page 2671

385 390 400  
Phe Gln Gly Thr Pro Ile Gly Val Ser Met Asp Asn Thr Arg Leu Ala  
405 410 415  
Ile Ala Ala Ile Gly Lys Leu Met Phe Ala Gln Phe Ser Glu Leu Val  
420 425 430  
Asn Asp Phe Tyr Asn Asn Gly Leu Pro Ser Asn Leu Thr Ala Ser Ser  
435 440 445  
Asn Pro Ser Leu Asp Tyr Gly Phe Lys Gly Ala Glu Ile Ala Met Ala  
450 455 460  
Ser Tyr Cys Ser Glu Leu Gln Tyr Leu Ala Asn Pro Val Thr Ser His  
465 470 475 480  
Val Gln Ser Ala Glu Gln His Asn Gln Asp Val Asn Ser Leu Gly Leu  
485 490 495  
Ile Ser Ser Arg Lys Thr Ser Glu Ala Val Asp Ile Leu Lys Leu Met  
500 505 510  
Ser Thr Thr Phe Leu Val Gly Ile Cys Gln Ala Val Asp Leu Arg His  
515 520 525  
Leu Glu Glu Asn Leu Arg Gln Thr Val Lys Asn Thr Val Ser Gln Val  
530 535 540  
Ala Lys Lys Val Leu Thr Thr Gly Ile Asn Gly Glu Leu His Pro Ser  
545 550 555 560  
Arg Phe Cys Glu Lys Asp Leu Leu Lys Val Val Asp Arg Glu Gln Val  
565 570 575  
Phe Thr Tyr Val Asp Asp Pro Cys Ser Ala Thr Tyr Pro Leu Met Gln  
580 585 590  
Arg Leu Arg Gln Val Ile Val Asp His Ala Leu Ser Asn Gly Glu Thr  
595 600 605  
Glu Lys Asn Ala Val Thr Ser Ile Phe Gln Lys Ile Gly Ala Phe Glu  
610 615 620  
Glu Glu Leu Lys Ala Val Leu Pro Lys Glu Val Glu Ala Ala Arg Ala  
625 630 635 640

Ala Tyr Gly Asn Gly Thr Ala Pro Ile Pro Asn Arg Ile Lys Glu Cys  
645 650 655

Arg Ser Tyr Pro Leu Tyr Arg Phe Val Arg Glu Glu Leu Gly Thr Lys  
660 665 670

Leu Leu Thr Gly Glu Lys Val Val Ser Pro Gly Glu Glu Phe Asp Lys  
675 680 685

Val Phe Thr Ala Met Cys Glu Gly Lys Leu Ile Asp Pro Leu Met Asp  
690 695 700

Cys Leu Lys Glu Trp Asn Gly Ala Pro Ile Pro Ile Cys  
705 710 715

<210> 1809

<211> 1029

<212> DNA

<213> Arabidopsis thaliana

<400> 1809

atgatcaaag gaaacaatgg aaacagagga tcttcttctt ctggttactc tgcagatttg	60
ttggttttggt tcccttcaag aaccacttta gctctgactc ctaagcccat ttgtagccca	120
tctcgtccct cagactcttc cactaaccgt cgtcctcacc accgtcgcca gctcagtaaa	180
ctctccggcg gcggtggagg aggacacggt agtcctgttt tgtgggctaa acaagcaagt	240
agtaagaata tgggaggtga cgaaatagca gaaccaactt ctctaaagt aacttgcgca	300
ggtcagatca aagtccggcc aagtaaatgc ggagggagag gaaagaactg gcaatcggtg	360
atggaagaga ttgagaggat acatgataat agatcgcaaa gcaagttttt tgggttgaag	420
aaagatgtga tgggtttctt gacttgtctt agaaacatca aattcgattt cagggtgtttt	480
ggtgatttcc gacatgctga tgtcactagc gacgacgatg aggaagaaga tgatgatgat	540
gatgaggaag aagaggtagt ggaaggagaa gaagaagaga attcaaagac tgttttctct	600
aaatggttta tggttttaca agaggaacag aacaacaaag atgacgacaa gaacaacaac	660
aagtgtgatg agaaacgcga tcttgaagac acagagacag aaccagcggg tccgccgcca	720
aacgcgcttt tgttgatgcg gtgtagatca gctccagcga agagttgggtt agaagagaga	780
atgaaagtaa aaacagagca agaaaagaga gaagaacaaa aagaggaaaa agaaacagag	840
gatcaagaaa cgagtatgaa gacaaagaag aaggatttga gatcattaat ggaagaagag	900
aagatggaat tgggtgttgat gagatacgat actgagtttt acagactctc ttcagacata	960

gctaaggaaa cttgggttgt cggaggaatt caagatcctc tgtctcggag tcgaagctgg 1020  
 aaaaattga 1029

<210> 1810

<211> 342

<212> PRT

<213> Arabidopsis thaliana

<400> 1810

Met Ile Lys Gly Asn Asn Gly Asn Arg Gly Ser Ser Ser Ser Gly Tyr  
 1 5 10 15

Ser Ala Asp Leu Leu Val Cys Phe Pro Ser Arg Thr His Leu Ala Leu  
 20 25 30

Thr Pro Lys Pro Ile Cys Ser Pro Ser Arg Pro Ser Asp Ser Ser Thr  
 35 40 45

Asn Arg Arg Pro His His Arg Arg Gln Leu Ser Lys Leu Ser Gly Gly  
 50 55 60

Gly Gly Gly Gly His Gly Ser Pro Val Leu Trp Ala Lys Gln Ala Ser  
 65 70 75 80

Ser Lys Asn Met Gly Gly Asp Glu Ile Ala Glu Pro Thr Ser Pro Lys  
 85 90 95

Val Thr Cys Ala Gly Gln Ile Lys Val Arg Pro Ser Lys Cys Gly Gly  
 100 105 110

Arg Gly Lys Asn Trp Gln Ser Val Met Glu Glu Ile Glu Arg Ile His  
 115 120 125

Asp Asn Arg Ser Gln Ser Lys Phe Phe Gly Leu Lys Lys Asp Val Met  
 130 135 140

Gly Phe Leu Thr Cys Leu Arg Asn Ile Lys Phe Asp Phe Arg Cys Phe  
 145 150 155 160

Gly Asp Phe Arg His Ala Asp Val Thr Ser Asp Asp Asp Glu Glu Glu  
 165 170 175

Asp Asp Asp Asp Asp Glu Glu Glu Glu Val Val Glu Gly Glu Glu Glu  
 180 185 190



047-E2F-PCT.ST25.txt

Glu Asn Ser Lys Thr Val Phe Ser Lys Trp Phe Met Val Leu Gln Glu  
195 200 205

Glu Gln Asn Asn Lys Asp Asp Asp Lys Asn Asn Asn Lys Cys Asp Glu  
210 215 220

Lys Arg Asp Leu Glu Asp Thr Glu Thr Glu Pro Ala Val Pro Pro Pro  
225 230 235 240

Asn Ala Leu Leu Leu Met Arg Cys Arg Ser Ala Pro Ala Lys Ser Trp  
245 250 255

Leu Glu Glu Arg Met Lys Val Lys Thr Glu Gln Glu Lys Arg Glu Glu  
260 265 270

Gln Lys Glu Glu Lys Glu Thr Glu Asp Gln Glu Thr Ser Met Lys Thr  
275 280 285

Lys Lys Lys Asp Leu Arg Ser Leu Met Glu Glu Glu Lys Met Glu Leu  
290 295 300

Val Leu Met Arg Tyr Asp Thr Glu Phe Tyr Arg Leu Ser Ser Asp Ile  
305 310 315 320

Ala Lys Glu Thr Trp Val Val Gly Gly Ile Gln Asp Pro Leu Ser Arg  
325 330 335

Ser Arg Ser Trp Lys Asn  
340

<210> 1811

<211> 624

<212> DNA

<213> Arabidopsis thaliana

<400> 1811  
atgacagggg tctctgtgtc tctttttgtg tcaaacttgt caaatgtggc ctcgtatttg 60  
tcgccccatct tcgagaacat cccctccacc aagggttggtc ccgcacagat cgagaaagtt 120  
gtctcttttg tctctcgtac cggtcgcat ttgcagcgtt acgatcacgc tggctatcgt 180  
caagtcgtcg gatgtgtacc gtatagatac aagaacaag aagtcaatgg agttgaaacc 240  
caagtaatcc aagttcttct tgtcagtgct caaaagggca aaggaatggt atttcaaaa 300

ggaggttggg agacggatga atcaatggag gaagctgctt tgagagagac gatcgaagaa 360  
 gcgggtgtaa caggagagct cgaagaaaag cttgggaaat ggcaatacaa aagcaaaaga 420  
 catagcataa ttcacgatgg gtatatgttt gctttgcttg tcagtcaaga gttcgagcga 480  
 tggcctgagg cggaaatgag acaacgcaga tgggtaagtt tggatgaagc aagagaagta 540  
 tgtcagaatt ggtggatgag agaagctctt gaagcattca ttaacctgaa atgtctagct 600  
 gacgatgatg aaagtgggaa ctga 624

<210> 1812

<211> 207

<212> PRT

<213> Arabidopsis thaliana

<400> 1812

Met Thr Gly Phe Ser Val Ser Leu Phe Val Ser Asn Leu Ser Asn Val  
1 5 10 15

Ala Ser Tyr Leu Ser Pro Ile Phe Glu Asn Ile Pro Ser Thr Lys Val  
20 25 30

Val Pro Ala Gln Ile Glu Lys Val Val Ser Leu Val Ser Arg Thr Gly  
35 40 45

Arg Asp Leu Gln Arg Tyr Asp His Ala Gly Tyr Arg Gln Val Val Gly  
50 55 60

Cys Val Pro Tyr Arg Tyr Lys Lys Gln Glu Val Asn Gly Val Glu Thr  
65 70 75 80

Gln Val Ile Gln Val Leu Leu Val Ser Ala Gln Lys Gly Lys Gly Met  
85 90 95

Leu Phe Pro Lys Gly Gly Trp Glu Thr Asp Glu Ser Met Glu Glu Ala  
100 105 110

Ala Leu Arg Glu Thr Ile Glu Glu Ala Gly Val Thr Gly Glu Leu Glu  
115 120 125

Glu Lys Leu Gly Lys Trp Gln Tyr Lys Ser Lys Arg His Ser Ile Ile  
130 135 140

His Asp Gly Tyr Met Phe Ala Leu Leu Val Ser Gln Glu Phe Glu Arg  
145 150 155 160

Trp Pro Glu Ala Glu Met Arg Gln Arg Arg Trp Val Ser Leu Asp Glu  
 165 170 175

Ala Arg Glu Val Cys Gln Asn Trp Trp Met Arg Glu Ala Leu Glu Ala  
 180 185 190

Phe Ile Asn Leu Lys Cys Leu Ala Asp Asp Asp Glu Ser Gly Asn  
 195 200 205

<210> 1813

<211> 1485

<212> DNA

<213> Arabidopsis thaliana

<400> 1813

atgtctgcct gtttgtgtct tgttttcctg ttctttctcta ttgttgcaga agcaacgtat	60
tctccaggag gtttccacca tctttcttct ctaagactaa agaagaagggt gtccaagtca	120
aaacatgagt taccttttga aactcgttac ttccctcaaa atcttgacca cttcagtttc	180
acaccagaca gctacaaagt cttccaccag aagtacctca tcaacaaccg tttctggcga	240
aaagggtggtc ccatctttgt ttacactgga aatgaaggag acatcgactg gtttgcttcc	300
aacaccgggtt tcatgctgga tattgctccc aagttccggg ctcttcttgt tttcattgaa	360
caccggttct atggagaatc aacgccattt gggaagaagt cgcataagtc agctgagaca	420
ttgggttacc taaactctca gcaagcgttg gctgattatg caatcctgat aagaagcttg	480
aagcagaatc tatcgtctga ggcacgcct gtggttgtct ttggtggctc ttatggtgga	540
atgcttgcag cgtggttcag actcaagtat cccacataa caatcgggtgc attggcatcc	600
tccgctccaa tacttcattt cgataacatt gtaccattga caagcttcta tgatgccatt	660
tctcaggatt ttaaggatgc aagtattaat tgtttcaaag tcatcaagag aagctgggaa	720
gagctagagg cagtttcaac tatgaaaaat ggcttgcaag aactcagcaa aaagttccga	780
acttgcaagg gccttcattc tcaatattca gccagagatt ggttaagtgg agcatttggt	840
tatacagcca tggttaatta tccaactgca gctaatttca tggcgccact gcctggttat	900
cccgtagagc agatgtgcaa gatcatcgac gggttccctc gaggatccag taatcttgac	960
cgtgcctttg ctgctgcaag cttatactac aactattcgg gatcagaaaa atgcttcgag	1020
atggaacaac aaactgatga tcatggactt gatggttggc aatatcaggc gtgtacagag	1080
atggtgatgc caatgagctg ctcgaaccag agcatgctcc ctccgtacga aaatgactct	1140

gaggcattcc aagaacaatg catgactaga tacggagtca agcctcgacc ccattggatc 1200  
 accacagaat ttggtggaat gaggatagag acagtactga agagatttgg aagcaacatc 1260  
 atattctcca atggaatgca ggacccttgg agccgtggag gggttctgaa gaacatttca 1320  
 agtagcatcg ttgcgcttgt gaccaagaaa ggagctcacc atgcagatct cagggctgct 1380  
 acaaaagatg acccagagtg gctgaaagag cagaggaggc aagaggttgc cattatagag 1440  
 aaatggatca gtgagtatta cagagattta agagaagagc aatag 1485

<210> 1814

<211> 494

<212> PRT

<213> Arabidopsis thaliana

<400> 1814

Met Ser Ala Cys Leu Cys Leu Val Phe Leu Phe Phe Ser Ile Val Ala  
1 5 10 15

Glu Ala Thr Tyr Ser Pro Gly Gly Phe His His Leu Ser Ser Leu Arg  
20 25 30

Leu Lys Lys Lys Val Ser Lys Ser Lys His Glu Leu Pro Phe Glu Thr  
35 40 45

Arg Tyr Phe Pro Gln Asn Leu Asp His Phe Ser Phe Thr Pro Asp Ser  
50 55 60

Tyr Lys Val Phe His Gln Lys Tyr Leu Ile Asn Asn Arg Phe Trp Arg  
65 70 75 80

Lys Gly Gly Pro Ile Phe Val Tyr Thr Gly Asn Glu Gly Asp Ile Asp  
85 90 95

Trp Phe Ala Ser Asn Thr Gly Phe Met Leu Asp Ile Ala Pro Lys Phe  
100 105 110

Arg Ala Leu Leu Val Phe Ile Glu His Arg Phe Tyr Gly Glu Ser Thr  
115 120 125

Pro Phe Gly Lys Lys Ser His Lys Ser Ala Glu Thr Leu Gly Tyr Leu  
130 135 140

Asn Ser Gln Gln Ala Leu Ala Asp Tyr Ala Ile Leu Ile Arg Ser Leu  
145 150 155 160

047-E2F-PCT.ST25.txt

Lys Gln Asn Leu Ser Ser Glu Ala Ser Pro Val Val Val Phe Gly Gly  
 165 170 175  
 Ser Tyr Gly Gly Met Leu Ala Ala Trp Phe Arg Leu Lys Tyr Pro His  
 180 185 190  
 Ile Thr Ile Gly Ala Leu Ala Ser Ser Ala Pro Ile Leu His Phe Asp  
 195 200 205  
 Asn Ile Val Pro Leu Thr Ser Phe Tyr Asp Ala Ile Ser Gln Asp Phe  
 210 215 220  
 Lys Asp Ala Ser Ile Asn Cys Phe Lys Val Ile Lys Arg Ser Trp Glu  
 225 230 235 240  
 Glu Leu Glu Ala Val Ser Thr Met Lys Asn Gly Leu Gln Glu Leu Ser  
 245 250 255  
 Lys Lys Phe Arg Thr Cys Lys Gly Leu His Ser Gln Tyr Ser Ala Arg  
 260 265 270  
 Asp Trp Leu Ser Gly Ala Phe Val Tyr Thr Ala Met Val Asn Tyr Pro  
 275 280 285  
 Thr Ala Ala Asn Phe Met Ala Pro Leu Pro Gly Tyr Pro Val Glu Gln  
 290 295 300  
 Met Cys Lys Ile Ile Asp Gly Phe Pro Arg Gly Ser Ser Asn Leu Asp  
 305 310 315 320  
 Arg Ala Phe Ala Ala Ala Ser Leu Tyr Tyr Asn Tyr Ser Gly Ser Glu  
 325 330 335  
 Lys Cys Phe Glu Met Glu Gln Gln Thr Asp Asp His Gly Leu Asp Gly  
 340 345 350  
 Trp Gln Tyr Gln Ala Cys Thr Glu Met Val Met Pro Met Ser Cys Ser  
 355 360 365  
 Asn Gln Ser Met Leu Pro Pro Tyr Glu Asn Asp Ser Glu Ala Phe Gln  
 370 375 380  
 Glu Gln Cys Met Thr Arg Tyr Gly Val Lys Pro Arg Pro His Trp Ile  
 385 390 395 400  
 Thr Thr Glu Phe Gly Gly Met Arg Ile Glu Thr Val Leu Lys Arg Phe  
 Page 2679

405

410

415

Gly Ser Asn Ile Ile Phe Ser Asn Gly Met Gln Asp Pro Trp Ser Arg  
 420 425 430

Gly Gly Val Leu Lys Asn Ile Ser Ser Ser Ile Val Ala Leu Val Thr  
 435 440 445

Lys Lys Gly Ala His His Ala Asp Leu Arg Ala Ala Thr Lys Asp Asp  
 450 455 460

Pro Glu Trp Leu Lys Glu Gln Arg Arg Gln Glu Val Ala Ile Ile Glu  
 465 470 475 480

Lys Trp Ile Ser Glu Tyr Tyr Arg Asp Leu Arg Glu Glu Gln  
 485 490

&lt;210&gt; 1815

&lt;211&gt; 258

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1815

atgggttttga agttgtacca agactggaga ttttggatgc tcctttcacg agttcttgaa 60  
 ggtcaaagag agcgtgaccg tgaaagggct ctagctcgaa ccggaggcaa aggaaagaac 120  
 aaagatgatg gattaactcc tgagcaacgt cgtgaaagag atgcaaaagc attgcaagag 180  
 aagactgcaa agaaagctgc tcaagccgct gctgcagcta gttccggagg aggaggaggc 240  
 aaaggaaaca ataagtga 258

&lt;210&gt; 1816

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1816

Met Val Leu Lys Leu Tyr Gln Asp Trp Arg Phe Trp Met Leu Leu Ser  
 1 5 10 15

Arg Val Leu Glu Gly Gln Arg Glu Arg Asp Arg Glu Arg Ala Leu Ala  
 20 25 30

Arg Thr Gly Gly Lys Gly Lys Asn Lys Asp Asp Gly Leu Thr Pro Glu  
 35 40 45

Gln Arg Arg Glu Arg Asp Ala Lys Ala Leu Gln Glu Lys Thr Ala Lys  
 50 55 60

Lys Ala Ala Gln Ala Ala Ala Ala Ala Ser Ser Gly Gly Gly Gly Gly  
 65 70 75 80

Lys Gly Asn Asn Lys  
 85

<210> 1817

<211> 1026

<212> DNA

<213> Arabidopsis thaliana

<400> 1817

atgccacgcc ctttcttcca taagttgatt ttctcatcca ctatccaaga aaaacgtctg	60
agggtcccag ataagtttgt gagtaaattc aaggatgagc tttcggttgc tgttgcactc	120
acagtacctg atggtcatgt ttggcgtgta ggactaagga aagctgacaa caaaatttgg	180
tttcaagatg gttggcaaga gtttgttgac cgttactcca ttcgcattgg ttatcttttg	240
attttttagat atgaaggaaa ctctgccttc agcgtctaca ttttcaattt atccactct	300
gagatcaatt accattccac cggctcatg gattccgctc acaaccactt caaacgcgcc	360
cgtttgtttg aagaccttga agatgaagat gccgaggtca tctttccttc ttctgtgtac	420
ccatcaccac ttcctgagtc tacagtacca gccaacaaag ggtatgctag ttcagccatc	480
caaaccttgt tcaactggacc agttaagct gaagagccaa cgccaacccc aaaaatacct	540
aaaaagagag ggaggaagaa gaaaaatgct gatcctgagg aaataaactc atcagctccg	600
cgagatgatg atccagagaa ccgttcaaag ttctacgaga gtgcttctgc gagaaagaga	660
accgtgactg cagaagaaag agagagagcc atcaatgcag ccaaacggtt cgaaccaaca	720
aaccctttct tcagagtggg tctgcgacca tcctatctat acagagggtg catcatgtat	780
cttccttctg ggtttgctga gaagtaccta agtgggatct ccgggttcat caaagtccag	840
cttgcgagaga aacaatggcc tgttcgaagt ctctacaaag ccgggagagc caaattcagt	900
caaggatggg acgaattcac tctagagaac aacttaggag aaggagacgt ctgtgtgttt	960
gagctgctca gaaccagaga tttcgttttg aaagtgcag cttttcgagt caacgagtac	1020

gtctga

1026

&lt;210&gt; 1818

&lt;211&gt; 341

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1818

Met Pro Arg Pro Phe Phe His Lys Leu Ile Phe Ser Ser Thr Ile Gln  
1 5 10 15

Glu Lys Arg Leu Arg Val Pro Asp Lys Phe Val Ser Lys Phe Lys Asp  
20 25 30

Glu Leu Ser Val Ala Val Ala Leu Thr Val Pro Asp Gly His Val Trp  
35 40 45

Arg Val Gly Leu Arg Lys Ala Asp Asn Lys Ile Trp Phe Gln Asp Gly  
50 55 60

Trp Gln Glu Phe Val Asp Arg Tyr Ser Ile Arg Ile Gly Tyr Leu Leu  
65 70 75 80

Ile Phe Arg Tyr Glu Gly Asn Ser Ala Phe Ser Val Tyr Ile Phe Asn  
85 90 95

Leu Ser His Ser Glu Ile Asn Tyr His Ser Thr Gly Leu Met Asp Ser  
100 105 110

Ala His Asn His Phe Lys Arg Ala Arg Leu Phe Glu Asp Leu Glu Asp  
115 120 125

Glu Asp Ala Glu Val Ile Phe Pro Ser Ser Val Tyr Pro Ser Pro Leu  
130 135 140

Pro Glu Ser Thr Val Pro Ala Asn Lys Gly Tyr Ala Ser Ser Ala Ile  
145 150 155 160

Gln Thr Leu Phe Thr Gly Pro Val Lys Ala Glu Glu Pro Thr Pro Thr  
165 170 175

Pro Lys Ile Pro Lys Lys Arg Gly Arg Lys Lys Lys Asn Ala Asp Pro  
180 185 190



Glu Glu Ile Asn Ser Ser Ala Pro Arg Asp Asp Asp Pro Glu Asn Arg  
 195 200 205  
 Ser Lys Phe Tyr Glu Ser Ala Ser Ala Arg Lys Arg Thr Val Thr Ala  
 210 215 220  
 Glu Glu Arg Glu Arg Ala Ile Asn Ala Ala Lys Thr Phe Glu Pro Thr  
 225 230 235 240  
 Asn Pro Phe Phe Arg Val Val Leu Arg Pro Ser Tyr Leu Tyr Arg Gly  
 245 250 255  
 Cys Ile Met Tyr Leu Pro Ser Gly Phe Ala Glu Lys Tyr Leu Ser Gly  
 260 265 270  
 Ile Ser Gly Phe Ile Lys Val Gln Leu Ala Glu Lys Gln Trp Pro Val  
 275 280 285  
 Arg Cys Leu Tyr Lys Ala Gly Arg Ala Lys Phe Ser Gln Gly Trp Tyr  
 290 295 300  
 Glu Phe Thr Leu Glu Asn Asn Leu Gly Glu Gly Asp Val Cys Val Phe  
 305 310 315 320  
 Glu Leu Leu Arg Thr Arg Asp Phe Val Leu Lys Val Thr Ala Phe Arg  
 325 330 335  
 Val Asn Glu Tyr Val  
 340

&lt;210&gt; 1819

&lt;211&gt; 468

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1819

atggctcgat ctttatctcc ttcactttct ctctctcgat accgtttcgc cgcagcttct 60  
 cttctttctcc cttcatctca aaccattttc atccgatctc aatcctcaa tcgtcgggtct 120  
 aactctaacc atctcggagt aatctacgag attgatatcg ctgcggatcc tcttgtcaat 180  
 aagttggaag atgctgtcca ccggattatg gtacgccgat ccgcacctga ttggctcctt 240  
 tttgtccccc gtgcttcctt ttgggttcca cctcctagat cccagtctca tgggatcgct 300  
 aagctcgttg agaagctggc caatccgatc tctgatgaag aatctatttc aatctcatcg 360

gttcgaggat ggccttgctc tgattacttc atcaaagggtg taaagcctca atcagttgag 420  
acggagatga cttcaaatac tgcatatcac tccgaggacg aggaataa 468

<210> 1820

<211> 155

<212> PRT

<213> Arabidopsis thaliana

<400> 1820

Met Ala Arg Ser Leu Ser Pro Ser Leu Ser Leu Ser Arg Tyr Arg Phe  
1 5 10 15

Ala Ala Ala Ser Leu Leu Leu Pro Ser Ser Gln Thr Ile Phe Ile Arg  
20 25 30

Ser Gln Ser Ser Asn Arg Arg Ser Asn Ser Asn His Leu Gly Val Ile  
35 40 45

Tyr Glu Ile Asp Ile Ala Ala Asp Pro Leu Val Asn Lys Leu Glu Asp  
50 55 60

Ala Val His Arg Ile Met Val Arg Arg Ser Ala Pro Asp Trp Leu Pro  
65 70 75 80

Phe Val Pro Gly Ala Ser Phe Trp Val Pro Pro Pro Arg Ser Gln Ser  
85 90 95

His Gly Ile Ala Lys Leu Val Glu Lys Leu Ala Asn Pro Ile Ser Asp  
100 105 110

Glu Glu Ser Ile Ser Ile Ser Ser Val Arg Gly Trp Pro Cys Ser Asp  
115 120 125

Tyr Phe Ile Lys Gly Val Lys Pro Gln Ser Val Glu Thr Glu Met Thr  
130 135 140

Ser Asn Thr Ala Tyr His Ser Glu Asp Glu Glu  
145 150 155

<210> 1821

<211> 630

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1821

```

atggagataa caatatccca attgtgctct cgagttaagt tttcatcatc atcatcatca    60
tcatactttt tctgttttcta tggaaacagt aatagaaaca acctaaatgg agctgttttca    120
gtaaactgct tgagagagaa tgagcagatc agtaatatta gcttcattgc gaagaaacca    180
agaagtcatg caccggtggt gagaacaaca cgcgcctcct tggatgagaa tcaatcccca    240
acttccggag gagaacggtg gctttctcaa ccagttggcg atggagacac aagacacatt    300
ggttacaaag tggcaatgcc tgctcctttt gagatctcct ctggccaagt taccatcgga    360
cggctaccgg aaaaggctga cgtcgtgatt cctgttgcca ccgtgtcagg agtccatgcg    420
acaatcaata cgaatgaaaa gaaccttctt gtgacggata tgaacagcac caacggtaca    480
ttcatcgaag acaaacgtct aattcctggt gttgctgctc ctgcctttcc cggaacacga    540
atcacctttg gagatacaaa tctagcaatt ttccgtgttt tcaagctcca agatagtgaa    600
gaatccatag agaaaccaac tacagagtaa    630

```

&lt;210&gt; 1822

&lt;211&gt; 209

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1822

```

Met Glu Ile Thr Ile Ser Gln Leu Cys Ser Arg Val Lys Phe Ser Ser
1           5           10           15

Ser Ser Ser Ser Ser Ser Leu Phe Cys Phe Tyr Gly Asn Ser Asn Arg
          20           25           30

Asn Asn Leu Asn Gly Ala Val Ser Val Asn Cys Leu Arg Glu Asn Glu
          35           40           45

Gln Ile Ser Asn Ile Ser Phe Ile Ala Lys Lys Pro Arg Ser His Ala
50           55           60

Pro Val Val Arg Thr Thr Arg Ala Ser Leu Asp Glu Asn Gln Ser Pro
65           70           75           80

Thr Ser Gly Gly Glu Arg Trp Leu Leu Lys Pro Val Gly Asp Gly Asp
          85           90           95

```

047-E2F-PCT.ST25.txt

Thr Arg His Ile Gly Tyr Lys Val Ala Met Pro Ala Pro Phe Glu Ile  
100 105 110  
Ser Ser Gly Gln Val Thr Ile Gly Arg Leu Pro Glu Lys Ala Asp Val  
115 120 125  
Val Ile Pro Val Ala Thr Val Ser Gly Val His Ala Thr Ile Asn Thr  
130 135 140  
Asn Glu Lys Asn Leu Leu Val Thr Asp Met Asn Ser Thr Asn Gly Thr  
145 150 155 160  
Phe Ile Glu Asp Lys Arg Leu Ile Pro Gly Val Ala Ala Pro Ala Phe  
165 170 175  
Pro Gly Thr Arg Ile Thr Phe Gly Asp Thr Asn Leu Ala Ile Phe Arg  
180 185 190  
Val Phe Lys Leu Gln Asp Ser Glu Glu Ser Ile Glu Lys Pro Thr Thr  
195 200 205

Glu

<210> 1823  
<211> 504  
<212> DNA  
<213> Arabidopsis thaliana

<400> 1823  
atggcctcag taacctcagc caccgttgca atcccatctt tcaccggcct taaagcctca 60  
accatcaa at catccgccac cgtcagaatc caaactgctg ctgttgcac accgaagctt 120  
acagtgaagt catctctaaa gaacttcgga gtcgcggccg tagcggctgc agcttcaatt 180  
gctttggccg gaaacgccat ggcaatagaa gttctcttgg gaggagggga tgggtcggtta 240  
gcttttattc ccaacgactt ctctatagct aaaggagaga agattgtgtt caagaacaac 300  
gctggatacc cacacaatgt tgtcttcgat gaagacgaga tcccaagtgg cgtcgacgtg 360  
gccaa gatct cgatggacga gcaagatcta ctcaacggtg cgggagagac gtacgaggtt 420  
gctttgaccg agccagggac ttacagcttc tactgtgctg cacatcaggg tgctggtatg 480  
gtcggtaaag tcaccgttaa ctaa 504

&lt;210&gt; 1824

&lt;211&gt; 167

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1824

Met Ala Ser Val Thr Ser Ala Thr Val Ala Ile Pro Ser Phe Thr Gly  
 1 5 10 15

Leu Lys Ala Ser Thr Ile Lys Ser Ser Ala Thr Val Arg Ile Gln Thr  
 20 25 30

Ala Ala Val Ala Ser Pro Lys Leu Thr Val Lys Ser Ser Leu Lys Asn  
 35 40 45

Phe Gly Val Ala Ala Val Ala Ala Ala Ala Ser Ile Ala Leu Ala Gly  
 50 55 60

Asn Ala Met Ala Ile Glu Val Leu Leu Gly Gly Gly Asp Gly Ser Leu  
 65 70 75 80

Ala Phe Ile Pro Asn Asp Phe Ser Ile Ala Lys Gly Glu Lys Ile Val  
 85 90 95

Phe Lys Asn Asn Ala Gly Tyr Pro His Asn Val Val Phe Asp Glu Asp  
 100 105 110

Glu Ile Pro Ser Gly Val Asp Val Ala Lys Ile Ser Met Asp Glu Gln  
 115 120 125

Asp Leu Leu Asn Gly Ala Gly Glu Thr Tyr Glu Val Ala Leu Thr Glu  
 130 135 140

Pro Gly Thr Tyr Ser Phe Tyr Cys Ala Pro His Gln Gly Ala Gly Met  
 145 150 155 160

Val Gly Lys Val Thr Val Asn  
 165

&lt;210&gt; 1825

&lt;211&gt; 1374

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

<400> 1825  
atgagtgaag caaagaaggg tcacgtactg ttttttccat atccattaca aggccacatt 60  
aacccaatga tccaactcgc taaacgctta tccaaaaagg gcatcaccag cacactcatc 120  
atcgcttcca aagaccaccg tgaaccttac acctccgacg actactccat caccgtccac 180  
accatccacg acggttttctt tccacatgaa caccctcagc ccaagttcgt agatcttgac 240  
cgtttccaca actctacttc tcgaagcctg accgatttca tctctagtgc gaagttgtcg 300  
gacaatcctc caaaagctct gatctatgat ccatttatgc cttttgcatt ggacatagcc 360  
aaggacttgg atctatacgt agtggcatat ttcactcaac catgggttggc tagtcttggt 420  
tactaccata tcaacgaagg cacctacgat gttcccgttg atagacacga gaaccaaca 480  
cttgcatcgt ttcttggttt ccatttgta agccaagatg atctgccttc gttcgcctgc 540  
gaaaaagggg cgtaccctct tctacacgag tttgtggtta ggcaattctc taatttattg 600  
caagctgatt gcatttctct caacactttt gatcaacttg aaccaaaggt agtgaaatgg 660  
atgaatgata aatggccggt gaagaacatt ggaccggtgg ttccatcgaa gttcttgat 720  
aaccggttgc cagaagacaa agattacgaa ctcgagaact ccaagacaga gccagacgag 780  
tctgttttga agtgggttgg aaacaggccg gcgaagtcgg tggtttacgt ggcgtttggg 840  
acattggtgg ctttgagcga aaaacagatg aaggaaattg caatggcgat tagccaaacc 900  
ggatatcact tcttggtggtc tgtagagaa tccgagagaa gcaaactacc ctctgggttt 960  
atcgaagagg cagaggagaa agactctgga cttgtggcta agtgggttcc tcagctagag 1020  
gttttagcac atgaatcaat cgggtgtttc gtgtcacact gtggatggaa ctcgacattg 1080  
gaggcactat gcttaggggt tccaatggtg ggcgtgcctc agtggactga tcagcccaca 1140  
aatgctaagt ttatagagga tgtgtggaag attgggggtta gagtgaggac cgatggagaa 1200  
gggctttcga gtaaagaaga gattgcgaga tgcattgttg aggtcatgga aggagagaga 1260  
gggaaagaga taaggaagaa tgtagagaag cttaaggtgt tggctcgca agctatctct 1320  
gaaggaggta gttccgacaa gaagattgat gagtttgttg ctcttttgac ttaa 1374

<210> 1826

<211> 457

<212> PRT

<213> *Arabidopsis thaliana*

<400> 1826

Met Ser Glu Ala Lys Lys Gly His Val Leu Phe Phe Pro Tyr Pro Leu  
 1 5 10 15  
 Gln Gly His Ile Asn Pro Met Ile Gln Leu Ala Lys Arg Leu Ser Lys  
 20 25 30  
 Lys Gly Ile Thr Ser Thr Leu Ile Ile Ala Ser Lys Asp His Arg Glu  
 35 40 45  
 Pro Tyr Thr Ser Asp Asp Tyr Ser Ile Thr Val His Thr Ile His Asp  
 50 55 60  
 Gly Phe Phe Pro His Glu His Pro His Ala Lys Phe Val Asp Leu Asp  
 65 70 75 80  
 Arg Phe His Asn Ser Thr Ser Arg Ser Leu Thr Asp Phe Ile Ser Ser  
 85 90 95  
 Ala Lys Leu Ser Asp Asn Pro Pro Lys Ala Leu Ile Tyr Asp Pro Phe  
 100 105 110  
 Met Pro Phe Ala Leu Asp Ile Ala Lys Asp Leu Asp Leu Tyr Val Val  
 115 120 125  
 Ala Tyr Phe Thr Gln Pro Trp Leu Ala Ser Leu Val Tyr Tyr His Ile  
 130 135 140  
 Asn Glu Gly Thr Tyr Asp Val Pro Val Asp Arg His Glu Asn Pro Thr  
 145 150 155 160  
 Leu Ala Ser Phe Pro Gly Phe Pro Leu Leu Ser Gln Asp Asp Leu Pro  
 165 170 175  
 Ser Phe Ala Cys Glu Lys Gly Ser Tyr Pro Leu Leu His Glu Phe Val  
 180 185 190  
 Val Arg Gln Phe Ser Asn Leu Leu Gln Ala Asp Cys Ile Leu Cys Asn  
 195 200 205  
 Thr Phe Asp Gln Leu Glu Pro Lys Val Val Lys Trp Met Asn Asp Gln  
 210 215 220  
 Trp Pro Val Lys Asn Ile Gly Pro Val Val Pro Ser Lys Phe Leu Asp  
 225 230 235 240  
 Asn Arg Leu Pro Glu Asp Lys Asp Tyr Glu Leu Glu Asn Ser Lys Thr  
 245 250 255

047-E2F-PCT.ST25.txt

Glu Pro Asp Glu Ser Val Leu Lys Trp Leu Gly Asn Arg Pro Ala Lys  
260 265 270

Ser Val Val Tyr Val Ala Phe Gly Thr Leu Val Ala Leu Ser Glu Lys  
275 280 285

Gln Met Lys Glu Ile Ala Met Ala Ile Ser Gln Thr Gly Tyr His Phe  
290 295 300

Leu Trp Ser Val Arg Glu Ser Glu Arg Ser Lys Leu Pro Ser Gly Phe  
305 310 315 320

Ile Glu Glu Ala Glu Glu Lys Asp Ser Gly Leu Val Ala Lys Trp Val  
325 330 335

Pro Gln Leu Glu Val Leu Ala His Glu Ser Ile Gly Cys Phe Val Ser  
340 345 350

His Cys Gly Trp Asn Ser Thr Leu Glu Ala Leu Cys Leu Gly Val Pro  
355 360 365

Met Val Gly Val Pro Gln Trp Thr Asp Gln Pro Thr Asn Ala Lys Phe  
370 375 380

Ile Glu Asp Val Trp Lys Ile Gly Val Arg Val Arg Thr Asp Gly Glu  
385 390 395 400

Gly Leu Ser Ser Lys Glu Glu Ile Ala Arg Cys Ile Val Glu Val Met  
405 410 415

Glu Gly Glu Arg Gly Lys Glu Ile Arg Lys Asn Val Glu Lys Leu Lys  
420 425 430

Val Leu Ala Arg Glu Ala Ile Ser Glu Gly Gly Ser Ser Asp Lys Lys  
435 440 445

Ile Asp Glu Phe Val Ala Leu Leu Thr  
450 455

<210> 1827

<211> 753

<212> DNA

<213> Arabidopsis thaliana



047-E2F-PCT.ST25.txt

<400> 1827  
atgaagcatt ctcacgtttt gcttcttcta tttgttcaag tcattgtcct tttgcctctc 60  
ctttgtctat ccgacgattt tgттаactct agagctactt attatggcag ccccgattgc 120  
aaagcaaadc ctcggggaca ttgtgggtat ggagaatttg gaagagatat caataacggt 180  
gaagtgagtg gtgtttcatg gcgactatgg aacaatggaa ctggctgtgg tgcttgttac 240  
caggtgaggt gcaagatacc accacactgc agtgaggaag gagtatacgt agtggctacg 300  
gactccggag aaggagatgg cacggacttc atcttaagcc ctaaggcgta cggacgtatg 360  
gcgcgacccg gcacagaaaa tcagctctac tccttcggtg tagtcaacgt tgagtaccaa 420  
aggatccctt gccgatacgc aggggtataat ctggtgtata agatccatga gaaaagctac 480  
aatcctcatt atcttgccat ccttgtcttg tacgttggtg gtgttaatga catcctcgcc 540  
gttgaagtct ggcaggagga ttgcaaagag tggagacgta tgagaagagt gtttgagcgc 600  
gttcatgatt tgcagaatcc acctagaggc actctcacat tgaggttctt agtctacgga 660  
agcgcaggaa tcaattggat ccaatcgcca aacgctattc ccgctgattg gactgccgga 720  
gccacctacg actccaacat tctacttact taa 753

<210> 1828

<211> 250

<212> PRT

<213> *Arabidopsis thaliana*

<400> 1828

Met Lys His Ser His Val Leu Leu Leu Leu Phe Val Gln Val Ile Val  
1 5 10 15

Leu Leu Pro Leu Leu Cys Leu Ser Asp Asp Phe Val Asn Ser Arg Ala  
20 25 30

Thr Tyr Tyr Gly Ser Pro Asp Cys Lys Ala Asn Pro Arg Gly His Cys  
35 40 45

Gly Tyr Gly Glu Phe Gly Arg Asp Ile Asn Asn Gly Glu Val Ser Gly  
50 55 60

Val Ser Trp Arg Leu Trp Asn Asn Gly Thr Gly Cys Gly Ala Cys Tyr  
65 70 75 80

Gln Val Arg Cys Lys Ile Pro Pro His Cys Ser Glu Glu Gly Val Tyr  
85 90 95

047-E2F-PCT.ST25.txt

Val Val Ala Thr Asp Ser Gly Glu Gly Asp Gly Thr Asp Phe Ile Leu  
100 105 110

Ser Pro Lys Ala Tyr Gly Arg Met Ala Arg Pro Gly Thr Glu Asn Gln  
115 120 125

Leu Tyr Ser Phe Gly Val Val Asn Val Glu Tyr Gln Arg Ile Pro Cys  
130 135 140

Arg Tyr Ala Gly Tyr Asn Leu Val Tyr Lys Ile His Glu Lys Ser Tyr  
145 150 155 160

Asn Pro His Tyr Leu Ala Ile Leu Val Leu Tyr Val Gly Gly Val Asn  
165 170 175

Asp Ile Leu Ala Val Glu Val Trp Gln Glu Asp Cys Lys Glu Trp Arg  
180 185 190

Arg Met Arg Arg Val Phe Gly Ala Val His Asp Leu Gln Asn Pro Pro  
195 200 205

Arg Gly Thr Leu Thr Leu Arg Phe Leu Val Tyr Gly Ser Ala Gly Ile  
210 215 220

Asn Trp Ile Gln Ser Pro Asn Ala Ile Pro Ala Asp Trp Thr Ala Gly  
225 230 235 240

Ala Thr Tyr Asp Ser Asn Ile Leu Leu Thr  
245 250

<210> 1829

<211> 1359

<212> DNA

<213> Arabidopsis thaliana

<400> 1829

atggataccc tccgattcga gttaagctca gcttccttca cttccgccgt caccgcctct	60
tctttacaca gtcactcacg gtattttcttc tcctcagtgc aactcggccg agtcggctca	120
tcattctccgg cgatcacatc ggtctcgagg acgacagtga atgaaatctg cacggcggat	180
gaacttcact acgttctctgt tcccaactcc gattggcgcg tcgctctctg gcgatatctt	240
ccttccccaaggcaccgaa gaggaaccat cctttgcttc tattgtctgg gattgggacc	300
aatgctgtta catacgatct ttcccctgag tgttcctttg caagatccat gtctggatca	360

047-E2F-PCT.ST25.txt

```

ggatttgata catggattct tgagctccgt ggagccgggc tgagttctct cagtgttgat 420
acaaatcttg gtaaaggcaa taaccagcag cggatagtct cgaatctatt ggagaatttc 480
ataagtgtat ctgaaaggct ggaaaatggt cttgatggag gttccaagat ccttgggatg 540
caagaccgtc tatkgaagag agcggggagat ttcaagcagc ggtttgaact tatccctcat 600
tacaattggg attttgataa ctatctagaa gaagatgttc cttctgcat ggactatgta 660
aggactcaaa ccaagtcaaa agatggaaag ttgctagcag ttgggtcactc aatgggtggt 720
atcttggtat atgccttgct ctcaagatgt ggcttttaaag gaatggattc aggtttggct 780
ggtgtcacca ctctgcac caccatttgac tattcatcct caggaacact cctcaagtac 840
ctattaccaa tgaaagagcc tgcacaagct attaaccttc ctatcatgcc aattgacaca 900
atgctcgcta tggctcacc tctaattgtgt cgtcctccat attctttgtc ctgggtaacc 960
gctaatatct ctgctcctca aatgatggac cctgaagtta ttgagaagct tgttttgaac 1020
agcttatgca cagtaccagt caagcttctc ttgcagctaa caacagccgt ggaccacggt 1080
gggttgctg acagaaccgg tactttctgt tacaaggatc atatcagcaa aacaaatgtg 1140
cctatcttag ctcttgcatg ggactgggac ataatctgcc ctcccgatgc agtatacgat 1200
actgtaaagc tgattccaga acatctagcc acttacaaag ttgtaggatc acccgagggt 1260
ccacattatg gccaccagga tctaatttcg ggtcgaacgg ctcggaacga agtatatcct 1320
ctgattacta gatttcttca acaacaagat gagagttaa 1359

```

<210> 1830

<211> 452

<212> PRT

<213> Arabidopsis thaliana

<400> 1830

Met Asp Thr Leu Arg Phe Glu Leu Ser Ser Ala Ser Phe Thr Ser Ala  
1 5 10 15

Val Thr Ala Ser Ser Leu His Ser His Ser Arg Tyr Phe Phe Ser Ser  
20 25 30

Val Gln Leu Gly Arg Val Gly Ser Ser Ser Pro Ala Ile Thr Ser Val  
35 40 45

Ser Arg Thr Thr Val Asn Glu Ile Cys Thr Ala Asp Glu Leu His Tyr  
50 55 60

047-E2F-PCT.ST25.txt

Val Pro Val Pro Asn Ser Asp Trp Arg Val Ala Leu Trp Arg Tyr Leu  
 65 70 75 80  
 Pro Ser Pro Lys Ala Pro Lys Arg Asn His Pro Leu Leu Leu Leu Ser  
 85 90 95  
 Gly Ile Gly Thr Asn Ala Val Thr Tyr Asp Leu Ser Pro Glu Cys Ser  
 100 105 110  
 Phe Ala Arg Ser Met Ser Gly Ser Gly Phe Asp Thr Trp Ile Leu Glu  
 115 120 125  
 Leu Arg Gly Ala Gly Leu Ser Ser Leu Ser Val Asp Thr Asn Leu Gly  
 130 135 140  
 Lys Gly Asn Asn Gln Gln Arg Ile Val Ser Asn Leu Leu Glu Asn Phe  
 145 150 155 160  
 Ile Ser Val Ser Glu Arg Leu Glu Asn Val Leu Asp Gly Gly Ser Lys  
 165 170 175  
 Ile Leu Gly Met Gln Asp Arg Leu Ser Lys Arg Ala Gly Asp Phe Lys  
 180 185 190  
 Gln Arg Phe Glu Leu Ile Pro His Tyr Asn Trp Asp Phe Asp Asn Tyr  
 195 200 205  
 Leu Glu Glu Asp Val Pro Ser Ala Met Asp Tyr Val Arg Thr Gln Thr  
 210 215 220  
 Lys Ser Lys Asp Gly Lys Leu Leu Ala Val Gly His Ser Met Gly Gly  
 225 230 235 240  
 Ile Leu Leu Tyr Ala Leu Leu Ser Arg Cys Gly Phe Lys Gly Met Asp  
 245 250 255  
 Ser Gly Leu Ala Gly Val Thr Thr Leu Ala Ser Thr Phe Asp Tyr Ser  
 260 265 270  
 Ser Ser Gly Thr Leu Leu Lys Tyr Leu Leu Pro Met Lys Glu Pro Ala  
 275 280 285  
 Gln Ala Ile Asn Leu Pro Ile Met Pro Ile Asp Thr Met Leu Ala Met  
 290 295 300  
 Ala His Pro Leu Met Cys Arg Pro Pro Tyr Ser Leu Ser Trp Leu Thr  
 305 310 315 320

047-E2F-PCT.ST25.txt

Ala Asn Ile Ser Ala Pro Gln Met Met Asp Pro Glu Val Ile Glu Lys  
325 330  
Leu Val Leu Asn Ser Leu Cys Thr Val Pro Val Lys Leu Leu Leu Gln  
340 345 350  
Leu Thr Thr Ala Val Asp His Gly Gly Leu Arg Asp Arg Thr Gly Thr  
355 360 365  
Phe Cys Tyr Lys Asp His Ile Ser Lys Thr Asn Val Pro Ile Leu Ala  
370 375 380  
Leu Ala Gly Asp Trp Asp Ile Ile Cys Pro Pro Asp Ala Val Tyr Asp  
385 390 395 400  
Thr Val Lys Leu Ile Pro Glu His Leu Ala Thr Tyr Lys Val Val Gly  
405 410 415  
Ser Pro Gly Gly Pro His Tyr Gly His Gln Asp Leu Ile Ser Gly Arg  
420 425 430  
Thr Ala Arg Asn Glu Val Tyr Pro Leu Ile Thr Arg Phe Leu Gln Gln  
435 440 445  
Gln Asp Glu Ser  
450

<210> 1831

<211> 1014

<212> DNA

<213> Arabidopsis thaliana

<400> 1831

atggcgaagg aagcgggtcaa gtatgtatgg gaaggagcaa ttcctctgca gattcatctc	60
cacaaatccg acgtcgcttc tcaccctgct cctcctcctg ctcttggtgtt agcaccaaga	120
ataggatatt tgcctctggt gattcctctt ataaagcctt atttcaagga ttcacttcct	180
cctggtgaag attcaatttg gtttgattac aaaggatttc ctctaaaatg gtatatacca	240
acaggtgttc ttttcgatct cttttgtgca gaacccgaaa gaccatggaa tctcacgata	300
cacttttagag gatatacctt caacatactg ataccatgtg aaggagaaga ttctgtaaaa	360
tggaactttg ttaattcttt gaaagaggca caatatatca tcaatggaaa ttgcaagaat	420

047-E2F-PCT.ST25.txt

gttatgaaca tgtctcagag tgatcaagag gatctatgga cctctgtcat gaacggtgat 480  
cttgatgcct atacaagatt atcacccaag cttaaaatgg gaacagtcga agatgagttt 540  
tcaaggaaaa caagtttgtc atctccacaa tctcaacaag ttgtgcctga gacggagggtg 600  
gctggacaag ttaagacagc aagaattcct gttcggttgt atgttcgaag tctaaataaa 660  
gatttcgaga atcttgaaga tgtaccggag atcgatacct gggatgacat ctcgtacctt 720  
aatcgccctg ttgagttcct caaagaagaa gggaaatgct ttacgttacg tgacgccatt 780  
aaaagtctcc tccctgagtt tatgggagac agagcgcaaa cgagtgggtga agaaagaagc 840  
atagatgata cagaagaagc agatgggtcg agggagatgg gtgaaatcaa attggtgaagg 900  
atacaaggga tagaaatgaa gctagagata ccgttttcgt ggggtggtaaa taacttgatg 960  
aaccagaat tctatctcca tatctctgtc cttgtgaaag ctctcaaag gtga 1014

<210> 1832

<211> 337

<212> PRT

<213> Arabidopsis thaliana

<400> 1832

Met Ala Lys Glu Ala Val Lys Tyr Val Trp Glu Gly Ala Ile Pro Leu  
1 5 10 15

Gln Ile His Leu His Lys Ser Asp Val Ala Ser His Pro Ala Pro Pro  
20 25 30

Pro Ala Leu Val Leu Ala Pro Arg Ile Gly Tyr Leu Pro Leu Leu Ile  
35 40 45

Pro Leu Ile Lys Pro Tyr Phe Lys Asp Ser Leu Pro Pro Gly Glu Asp  
50 55 60

Ser Ile Trp Phe Asp Tyr Lys Gly Phe Pro Leu Lys Trp Tyr Ile Pro  
65 70 75 80

Thr Gly Val Leu Phe Asp Leu Leu Cys Ala Glu Pro Glu Arg Pro Trp  
85 90 95

Asn Leu Thr Ile His Phe Arg Gly Tyr Pro Cys Asn Ile Leu Ile Pro  
100 105 110

Cys Glu Gly Glu Asp Ser Val Lys Trp Asn Phe Val Asn Ser Leu Lys  
115 120 125

047-E2F-PCT.ST25.txt

Glu Ala Gln Tyr Ile Ile Asn Gly Asn Cys Lys Asn Val Met Asn Met  
 130 135 140  
 Ser Gln Ser Asp Gln Glu Asp Leu Trp Thr Ser Val Met Asn Gly Asp  
 145 150 155 160  
 Leu Asp Ala Tyr Thr Arg Leu Ser Pro Lys Leu Lys Met Gly Thr Val  
 165 170 175  
 Glu Asp Glu Phe Ser Arg Lys Thr Ser Leu Ser Ser Pro Gln Ser Gln  
 180 185 190  
 Gln Val Val Pro Glu Thr Glu Val Ala Gly Gln Val Lys Thr Ala Arg  
 195 200 205  
 Ile Pro Val Arg Leu Tyr Val Arg Ser Leu Asn Lys Asp Phe Glu Asn  
 210 215 220  
 Leu Glu Asp Val Pro Glu Ile Asp Thr Trp Asp Asp Ile Ser Tyr Leu  
 225 230 235 240  
 Asn Arg Pro Val Glu Phe Leu Lys Glu Glu Gly Lys Cys Phe Thr Leu  
 245 250 255  
 Arg Asp Ala Ile Lys Ser Leu Leu Pro Glu Phe Met Gly Asp Arg Ala  
 260 265 270  
 Gln Thr Ser Gly Glu Glu Arg Ser Ile Asp Asp Thr Glu Glu Ala Asp  
 275 280 285  
 Gly Ser Arg Glu Met Gly Glu Ile Lys Leu Val Arg Ile Gln Gly Ile  
 290 295 300  
 Glu Met Lys Leu Glu Ile Pro Phe Ser Trp Val Val Asn Asn Leu Met  
 305 310 315 320  
 Asn Pro Glu Phe Tyr Leu His Ile Ser Val Leu Val Lys Ala Pro Gln  
 325 330 335

Arg

<210> 1833

<211> 1206

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1833

```

atggctctcc aagctgccta ttctcttctt ctttctacca tttcaatcca aaaagagggc   60
aaattcaatg cttctctaaa ggagacgact tttactgggtt cttcattttc aaaccatctt   120
agagctgaaa agatatccac cctgttgacc atcaaggaac agagaagaca gaaaccgcga   180
ttttccaccg gtattcgtgc acagacagtt acagccacgc cgccggcaaa cgaagcatcg   240
ccggagcaaa agaagactga gagaaaaggc actgcagtga tctctggagc ttcgtctggt   300
ttaggtttag ctacggccaa agcttttagca gacacaggga aatggcatgt gatcatggct   360
tgcaggaact ttctcaaggc cgagaaggca gcgagatctg ttggaatgtc caaggaagat   420
tacacagtga tgcattctga tcttgcttcg cttgaaagcg tgaagcaatt cgttgaaaat   480
ttccggagaa cagaacaacc actcgatgtt cttgtctgca atgccgcggt ttaccaacca   540
actgctaaag agccttcttt tacagctgaa ggctttgaga taagcgttgg aaccaaccat   600
ctcggtcact ttcttctctc aagattgctt cttgatgacc tgaaaaaatc tgattatcca   660
tcaaaacgta tgatcatcgt aggatctata acaggaaaca caaatacttt ggctgggaat   720
gtaccgccaa aggcaaactt tggagaccta agaggcttag cgtcaggatt gaatgggcaa   780
aacagttcaa tgatagatgg aggagagttt gatggagcaa aggcttacia agacagcaaa   840
gtatgcaata tgctgacaat gcaggagctt cacagacggt accacgagga aacaggagtc   900
acgtttgctt ctcttttacc tggttgcatc gctacaacag ggttgttcag agaacacata   960
ccgctgtttc ggcttctttt tccgcctttt caaaagtata tcaccaaagg ttacgtatct  1020
gaagaggaag ctggcaaaag actagcacag gttgtgagtg accctagtct tggaagtca  1080
ggagtgtatt ggagttggaa caataactcg tcttcgtttg agaatcagct ttctaaagaa  1140
gcaagtgatg cggagaaggc aaagaaactg tgggagggtta gcgagaagct tgttggtttg  1200
gcatga                                           1206

```

&lt;210&gt; 1834

&lt;211&gt; 401

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1834

```

Met Ala Leu Gln Ala Ala Tyr Ser Leu Leu Pro Ser Thr Ile Ser Ile
1           5           10           15

```



047-E2F-PCT.ST25.txt

Gln Lys Glu Gly Lys Phe Asn Ala Ser Leu Lys Glu Thr Thr Phe Thr  
20 25 30

Gly Ser Ser Phe Ser Asn His Leu Arg Ala Glu Lys Ile Ser Thr Leu  
35 40 45

Leu Thr Ile Lys Glu Gln Arg Arg Gln Lys Pro Arg Phe Ser Thr Gly  
50 55 60

Ile Arg Ala Gln Thr Val Thr Ala Thr Pro Pro Ala Asn Glu Ala Ser  
65 70 75 80

Pro Glu Gln Lys Lys Thr Glu Arg Lys Gly Thr Ala Val Ile Thr Gly  
85 90 95

Ala Ser Ser Gly Leu Gly Leu Ala Thr Ala Lys Ala Leu Ala Asp Thr  
100 105 110

Gly Lys Trp His Val Ile Met Ala Cys Arg Asn Phe Leu Lys Ala Glu  
115 120 125

Lys Ala Ala Arg Ser Val Gly Met Ser Lys Glu Asp Tyr Thr Val Met  
130 135 140

His Leu Asp Leu Ala Ser Leu Glu Ser Val Lys Gln Phe Val Glu Asn  
145 150 155 160

Phe Arg Arg Thr Glu Gln Pro Leu Asp Val Leu Val Cys Asn Ala Ala  
165 170 175

Val Tyr Gln Pro Thr Ala Lys Glu Pro Ser Phe Thr Ala Glu Gly Phe  
180 185 190

Glu Ile Ser Val Gly Thr Asn His Leu Gly His Phe Leu Leu Ser Arg  
195 200 205

Leu Leu Leu Asp Asp Leu Lys Lys Ser Asp Tyr Pro Ser Lys Arg Met  
210 215 220

Ile Ile Val Gly Ser Ile Thr Gly Asn Thr Asn Thr Leu Ala Gly Asn  
225 230 235 240

Val Pro Pro Lys Ala Asn Leu Gly Asp Leu Arg Gly Leu Ala Ser Gly  
245 250 255

Leu Asn Gly Gln Asn Ser Ser Met Ile Asp Gly Gly Glu Phe Asp Gly

260

265

270

Ala Lys Ala Tyr Lys Asp Ser Lys Val Cys Asn Met Leu Thr Met Gln  
 275 280 285

Glu Leu His Arg Arg Tyr His Glu Glu Thr Gly Val Thr Phe Ala Ser  
 290 295 300

Leu Tyr Pro Gly Cys Ile Ala Thr Thr Gly Leu Phe Arg Glu His Ile  
 305 310 315 320

Pro Leu Phe Arg Leu Leu Phe Pro Pro Phe Gln Lys Tyr Ile Thr Lys  
 325 330 335

Gly Tyr Val Ser Glu Glu Glu Ala Gly Lys Arg Leu Ala Gln Val Val  
 340 345 350

Ser Asp Pro Ser Leu Gly Lys Ser Gly Val Tyr Trp Ser Trp Asn Asn  
 355 360 365

Asn Ser Ser Ser Phe Glu Asn Gln Leu Ser Lys Glu Ala Ser Asp Ala  
 370 375 380

Glu Lys Ala Lys Lys Leu Trp Glu Val Ser Glu Lys Leu Val Gly Leu  
 385 390 395 400

Ala

&lt;210&gt; 1835

&lt;211&gt; 822

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1835

atggccctcg aagcgatgaa cactccaact tcttctttca ccagaatcga aacgaaagaa 60

gatttgatga acgacgccgt ttccattgag ccgtggctta aacgcaaacg ctccaaacgt 120

cagcgtttctc acagcccttc ttcgtcttct tcctcaccgc ctcgatctcg acccaaattcc 180

cagaatcaag atcttacgga agaagagtat ctcgctcttt gtctcctcat gctcgctaaa 240

gatcaaccgt cgcaaacgcg atttcatcaa cagtcgcaat cgttaacgcc gccgccagaa 300

tcaaagaacc ttccgtacaa gtgtaacgct tgtgaaaaag cgtttccttc ctatcaggct 360

ttaggcgggtc acaaagcaag tcaccgaatc aaaccaccaa ccgtaatctc aacaaccgcc 420

047-E2F-PCT.ST25.txt

gatgattcaa cagctccgac catctccatc gtcgccggag aaaaacatcc gattgctgcc 480  
 tccggaaaga tccacgagtg ttcaatctgt cataaagtgt ttccgacggg tcaagcttta 540  
 ggcggtcaca aacgttgtca ctacgaaggc aacctcggcg gcggaggagg aggaggaagc 600  
 aaatcaatca gtcacagtgg aagcgtgtcg agcacggtat cggaagaaag gagccaccgt 660  
 ggattcatcg atctaaacct accggcggtta cctgaactca gccttcatca caatccaatc 720  
 gtcgacgaag agatcttgag tccgttgacc ggtaaaaaac cgcttttggt gaccgatcac 780  
 gaccaagtca tcaagaaaga agatttatct ttaaaaatct aa 822

<210> 1836

<211> 273

<212> PRT

<213> Arabidopsis thaliana

<400> 1836

Met Ala Leu Glu Ala Met Asn Thr Pro Thr Ser Ser Phe Thr Arg Ile  
 1 5 10 15

Glu Thr Lys Glu Asp Leu Met Asn Asp Ala Val Phe Ile Glu Pro Trp  
 20 25 30

Leu Lys Arg Lys Arg Ser Lys Arg Gln Arg Ser His Ser Pro Ser Ser  
 35 40 45

Ser Ser Ser Ser Pro Pro Arg Ser Arg Pro Lys Ser Gln Asn Gln Asp  
 50 55 60

Leu Thr Glu Glu Glu Tyr Leu Ala Leu Cys Leu Leu Met Leu Ala Lys  
 65 70 75 80

Asp Gln Pro Ser Gln Thr Arg Phe His Gln Gln Ser Gln Ser Leu Thr  
 85 90 95

Pro Pro Pro Glu Ser Lys Asn Leu Pro Tyr Lys Cys Asn Val Cys Glu  
 100 105 110

Lys Ala Phe Pro Ser Tyr Gln Ala Leu Gly Gly His Lys Ala Ser His  
 115 120 125

Arg Ile Lys Pro Pro Thr Val Ile Ser Thr Thr Ala Asp Asp Ser Thr  
 130 135 140

047-E2F-PCT.ST25.txt

Ala Pro Thr Ile Ser Ile Val Ala Gly Glu Lys His Pro Ile Ala Ala  
145 150 155 160

Ser Gly Lys Ile His Glu Cys Ser Ile Cys His Lys Val Phe Pro Thr  
165 170 175

Gly Gln Ala Leu Gly Gly His Lys Arg Cys His Tyr Glu Gly Asn Leu  
180 185 190

Gly Gly Gly Gly Gly Gly Gly Ser Lys Ser Ile Ser His Ser Gly Ser  
195 200 205

Val Ser Ser Thr Val Ser Glu Glu Arg Ser His Arg Gly Phe Ile Asp  
210 215 220

Leu Asn Leu Pro Ala Leu Pro Glu Leu Ser Leu His His Asn Pro Ile  
225 230 235 240

Val Asp Glu Glu Ile Leu Ser Pro Leu Thr Gly Lys Lys Pro Leu Leu  
245 250 255

Leu Thr Asp His Asp Gln Val Ile Lys Lys Glu Asp Leu Ser Leu Lys  
260 265 270

Ile

<210> 1837

<211> 798

<212> DNA

<213> Arabidopsis thaliana

<400> 1837  
atggatccaa tatcagcggg tagcgaagag ctggctgaga tcgaaggaca aatcaatgac 60  
atcttccgtg ctttatcaaa tggattccag aagctggaga agatcaaaga tgctaataagg 120  
cagagtaggc agctggaaga actcactgac aaaatgcgtg actgtaagag cttattataa 180  
gatttcgata gggaaatcaa aagcttggaa agcggtaatg atgccagcac taaccggatg 240  
ttgaacgata gacgacaatc tatggttaag gaactcaact catatgtttgc tcttaagaag 300  
aaatactcat caaacctagc aagcaataac aagcgagtag atcttttcga tggacctgga 360  
gaagaacaca tggaagaaaa tgtcttatta gcttcaaaca tgtccaatca agagttaatg 420  
gataaaggaa actcaatgat ggatgacaca gatcaagcta ttgagagagg gaaaaagatt 480

047-E2F-PCT.ST25.txt

gtacaagaaa ctataaatgt gggaacagat acttcagcag ctctcaaggc tcagaccgag 540  
 caaatgagta gagttgtcaa tgagctcgat tctattcatt tctcactcaa gaaagcctcc 600  
 aagctggtca aggaaattgg taggcaggtt gccactgaca aatgtattat ggcatttctt 660  
 ttccttatcg tcattggtgt catagcaatc atcatcgtca agattgtgaa cccaaacaac 720  
 aaagacattc gcgacatacc ggggtgtgggc ctagctccac cagccatgaa cagacgtctg 780  
 ctctggaacc attactga 798

<210> 1838

<211> 265

<212> PRT

<213> Arabidopsis thaliana

<400> 1838

Met Asp Pro Ile Ser Ala Val Ser Glu Glu Leu Ala Glu Ile Glu Gly  
 1 5 10 15

Gln Ile Asn Asp Ile Phe Arg Ala Leu Ser Asn Gly Phe Gln Lys Leu  
 20 25 30

Glu Lys Ile Lys Asp Ala Asn Arg Gln Ser Arg Gln Leu Glu Glu Leu  
 35 40 45

Thr Asp Lys Met Arg Asp Cys Lys Ser Leu Ile Lys Asp Phe Asp Arg  
 50 55 60

Glu Ile Lys Ser Leu Glu Ser Gly Asn Asp Ala Ser Thr Asn Arg Met  
 65 70 75 80

Leu Asn Asp Arg Arg Gln Ser Met Val Lys Glu Leu Asn Ser Tyr Val  
 85 90 95

Ala Leu Lys Lys Lys Tyr Ser Ser Asn Leu Ala Ser Asn Asn Lys Arg  
 100 105 110

Val Asp Leu Phe Asp Gly Pro Gly Glu Glu His Met Glu Glu Asn Val  
 115 120 125

Leu Leu Ala Ser Asn Met Ser Asn Gln Glu Leu Met Asp Lys Gly Asn  
 130 135 140

Ser Met Met Asp Asp Thr Asp Gln Ala Ile Glu Arg Gly Lys Lys Ile

145                                      150                                      155                                      160  
 Val Gln Glu Thr Ile Asn Val Gly Thr Asp Thr Ser Ala Ala Leu Lys  
    165                                      170                                      175  
 Ala Gln Thr Glu Gln Met Ser Arg Val Val Asn Glu Leu Asp Ser Ile  
    180                                      185                                      190  
 His Phe Ser Leu Lys Lys Ala Ser Lys Leu Val Lys Glu Ile Gly Arg  
    195                                      200                                      205  
 Gln Val Ala Thr Asp Lys Cys Ile Met Ala Phe Leu Phe Leu Ile Val  
    210                                      215                                      220  
 Ile Gly Val Ile Ala Ile Ile Ile Val Lys Ile Val Asn Pro Asn Asn  
    225                                      230                                      235                                      240  
 Lys Asp Ile Arg Asp Ile Pro Gly Val Gly Leu Ala Pro Pro Ala Met  
    245                                      250                                      255  
 Asn Arg Arg Leu Leu Trp Asn His Tyr  
    260                                      265

<210> 1839

<211> 1233

<212> DNA

<213> Arabidopsis thaliana

<400> 1839  
 atggagtcac gcgctgctgtt acgcgccacc gcgaatgtcg ttggaattcc gaaattgaga 60  
 cgaccaatcg gagcgatcca ccgtcaattc agcactgcat cgtcttcctc gttctcggtt 120  
 aaaccaatcg gaggaatcgg agagggagcg aatctgatct ccggtcgtca gcttcgtcca 180  
 attctttcttc tcgattcgtc ggcgatcaac ggaggagaga aaagagaaat tctcaaaccg 240  
 gttaaagccg ccgctgctga aggtggagat accgctgggg atgctaaagt tggattcctc 300  
 gccaaagtatc catggctagt cactggattc ttctttcttca tgtggtactt cttgaatgtg 360  
 attttcaaca tccttaacaa gaagatctat aattacttcc cttatcccta ttttgtatcg 420  
 gtgatacact tgttcgtggg agttgtttac tgcttgatca gctggtccgt gggctttcct 480  
 aaacgtgccc cgattgactc gaacctcctc aagggtattga taccagtcgc agtctgtcac 540  
 gccttaggcc atgtcactag caatgtctct ttcgctgcgg ttgctgtctc cttcactcac 600  
 accatcaaag cacttgagcc attcttcaat gcggctgctt ctcaattcat tatgggacaa 660

047-E2F-PCT.ST25.txt

```
tccatcccca taacactatg gttgtctcta gctcctgttg ttcttggtgt tgcaatggct 720
tcactaactg agctatcatt caactggctc ggtttcatca gtgctatgat atcaaacatt 780
tctttcactt accgaagcat cttctccaag aaagccatga ctgatatgga cagtacaaat 840
gtctacgctt acatctccat catcgcactc ttcgtctgca ttcctcctgc catcatcggt 900
gaaggtccta aactacttaa ccatggtttc gccgacgcga ttgctaaagt tggaatgact 960
aaattcatct ctgatctctt ctggggttgga atgttttacc atctctacaa tcagctggct 1020
accaatacct tggagagggt tgcaccgctg actcacgcgg ttggaaacgt tctgaaacgt 1080
gtgttcgtga tcggtttctc catcgttatc ttcggaaaca agatatcgac acagacaggt 1140
ataggaacag gaatagccat tgctggagtt gcaatgtact ctatcattaa ggccaagatc 1200
gaagaagaga aacggcaagg aaagaaagca tag 1233
```

<210> 1840

<211> 410

<212> PRT

<213> Arabidopsis thaliana

<400> 1840

```
Met Glu Ser Arg Val Leu Leu Arg Ala Thr Ala Asn Val Val Gly Ile
1 5 10 15
```

```
Pro Lys Leu Arg Arg Pro Ile Gly Ala Ile His Arg Gln Phe Ser Thr
20 25 30
```

```
Ala Ser Ser Ser Ser Phe Ser Val Lys Pro Ile Gly Gly Ile Gly Glu
35 40 45
```

```
Gly Ala Asn Leu Ile Ser Gly Arg Gln Leu Arg Pro Ile Leu Leu Leu
50 55 60
```

```
Asp Ser Ser Ala Ile Asn Gly Gly Glu Lys Arg Glu Ile Leu Lys Pro
65 70 75 80
```

```
Val Lys Ala Ala Ala Ala Glu Gly Gly Asp Thr Ala Gly Asp Ala Lys
85 90 95
```

```
Val Gly Phe Leu Ala Lys Tyr Pro Trp Leu Val Thr Gly Phe Phe Phe
100 105 110
```

```
Phe Met Trp Tyr Phe Leu Asn Val Ile Phe Asn Ile Leu Asn Lys Lys
Page 2705
```

115

120

125

Ile Tyr Asn Tyr Phe Pro Tyr Pro Tyr Phe Val Ser Val Ile His Leu  
 130 135 140  
 Phe Val Gly Val Val Tyr Cys Leu Ile Ser Trp Ser Val Gly Leu Pro  
 145 150 155 160  
 Lys Arg Ala Pro Ile Asp Ser Asn Leu Leu Lys Val Leu Ile Pro Val  
 165 170 175  
 Ala Val Cys His Ala Leu Gly His Val Thr Ser Asn Val Ser Phe Ala  
 180 185 190  
 Ala Val Ala Val Ser Phe Thr His Thr Ile Lys Ala Leu Glu Pro Phe  
 195 200 205  
 Phe Asn Ala Ala Ala Ser Gln Phe Ile Met Gly Gln Ser Ile Pro Ile  
 210 215 220  
 Thr Leu Trp Leu Ser Leu Ala Pro Val Val Leu Gly Val Ala Met Ala  
 225 230 235 240  
 Ser Leu Thr Glu Leu Ser Phe Asn Trp Leu Gly Phe Ile Ser Ala Met  
 245 250 255  
 Ile Ser Asn Ile Ser Phe Thr Tyr Arg Ser Ile Phe Ser Lys Lys Ala  
 260 265 270  
 Met Thr Asp Met Asp Ser Thr Asn Val Tyr Ala Tyr Ile Ser Ile Ile  
 275 280 285  
 Ala Leu Phe Val Cys Ile Pro Pro Ala Ile Ile Val Glu Gly Pro Lys  
 290 295 300  
 Leu Leu Asn His Gly Phe Ala Asp Ala Ile Ala Lys Val Gly Met Thr  
 305 310 315 320  
 Lys Phe Ile Ser Asp Leu Phe Trp Val Gly Met Phe Tyr His Leu Tyr  
 325 330 335  
 Asn Gln Leu Ala Thr Asn Thr Leu Glu Arg Val Ala Pro Leu Thr His  
 340 345 350  
 Ala Val Gly Asn Val Leu Lys Arg Val Phe Val Ile Gly Phe Ser Ile  
 355 360 365



Val Ile Phe Gly Asn Lys Ile Ser Thr Gln Thr Gly Ile Gly Thr Gly  
 370 375 380

Ile Ala Ile Ala Gly Val Ala Met Tyr Ser Ile Ile Lys Ala Lys Ile  
 385 390 395 400

Glu Glu Glu Lys Arg Gln Gly Lys Lys Ala  
 405 410

<210> 1841

<211> 1215

<212> DNA

<213> Arabidopsis thaliana

<400> 1841

atggagtcac cgcactcgaa tttgctccct gaagtcgatt ctttaccgga tggattcgtc	60
gacggcgcaa cagagccgcc tctcaattct cccaagaccc aggaagaaac aacaaaccat	120
gaaactgttg cgatcgagaa aacagagaag ccaagaactt ttccggttcc gttgtgtgaa	180
actgatggta atgaagatga cgaagtagct gacctaatc aagaatcaat caagcttgag	240
ttagagttcg agcagaaaga aaaagaagct tctcctccta tttctcaaac attgtcagaa	300
gggtcaactc aaaattcaac cttgtctaag gaaatggatt cactcaaacc caaaaaacaa	360
gaggtgggtg agagcaagcg taagggttca aagaatatgt tcaaatacaga gaaagagttt	420
ttggaattta tgctcaagta tcagcaagtc ctttctgaaa gagattctgc tattactggt	480
cgtgacaagc ttgaatcact ttgtagagag ttacaacgtc agaacaaaat gttaatggaa	540
gaatgcaaga gggtttcaac tgagggacag actttaagat cggatttatc gacaaagttc	600
caggatgcta taatggatgt gagcattaag ttggacgagc aaaagaatga aagcctcacg	660
caactcaaag aaaatgagat gttaaggacg aagttgaagc acctggctga tcaatttatg	720
ctttcagaac aacaacatga gcaaagggtg aagcagaaaa cacttgagct acagatctct	780
gctttaaaaa ttaaacagca cgaggagaaa ctcatccatg aacaatctca gatgaaagtt	840
tacgcagatc aagtttctca gcttttgtct actgagaaaa atttgcgggtt gcagctgact	900
tctgatggag ataaattcca gcagttccag gacgcgttgg ttaagagcaa tgaggtgttt	960
gaaacattca aacaagaaat cgataagatg tcaaaagcaa tcaaagaact cagaaaagaa	1020
aacgcattct tgaaaaacaa aactgagaag tcggatatca ctctcataga actcgtcgaa	1080
gagcgtgaaa gattgaagaa actgttggag aagacaaaga aacagaaaga caagcttgaa	1140
tcactttgca gatcccttca agctgaaaga aaacagaaag aaactaacag tactgattct	1200

gctgttcaac catga

1215

&lt;210&gt; 1842

&lt;211&gt; 404

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1842

Met Glu Ser Pro His Ser Asn Leu Leu Pro Glu Val Asp Ser Leu Pro  
1 5 10 15

Asp Gly Phe Val Asp Gly Ala Thr Glu Pro Pro Leu Asn Ser Pro Lys  
20 25 30

Thr Gln Glu Glu Thr Thr Asn His Glu Thr Val Ala Ile Glu Lys Thr  
35 40 45

Glu Lys Pro Arg Thr Phe Pro Val Pro Leu Cys Glu Thr Asp Gly Asn  
50 55 60

Glu Asp Asp Glu Val Ala Asp Leu Ile Gln Glu Ser Ile Lys Leu Glu  
65 70 75 80

Leu Glu Phe Glu Gln Lys Glu Lys Glu Ala Ser Pro Pro Ile Ser Gln  
85 90 95

Thr Leu Ser Glu Gly Ser Thr Gln Asn Ser Thr Leu Ser Lys Glu Met  
100 105 110

Asp Ser Leu Lys Pro Lys Lys Gln Glu Val Val Glu Ser Lys Arg Lys  
115 120 125

Gly Ser Lys Asn Met Phe Lys Ser Glu Lys Glu Phe Leu Glu Phe Met  
130 135 140

Leu Lys Tyr Gln Gln Val Leu Ser Glu Arg Asp Ser Ala Ile Thr Val  
145 150 155 160

Arg Asp Lys Leu Glu Ser Leu Cys Arg Glu Leu Gln Arg Gln Asn Lys  
165 170 175

Met Leu Met Glu Glu Cys Lys Arg Val Ser Thr Glu Gly Gln Thr Leu  
180 185 190

Arg Ser Asp Leu Ser Thr Lys Phe Gln Asp Ala Ile Met Asp Val Ser  
 195 200 205  
 Ile Lys Leu Asp Glu Gln Lys Asn Glu Ser Leu Thr Gln Leu Lys Glu  
 210 215 220  
 Asn Glu Met Leu Arg Thr Lys Leu Lys His Leu Ala Asp Gln Phe Met  
 225 230 235 240  
 Leu Ser Glu Gln Gln His Glu Gln Arg Leu Lys Gln Lys Thr Leu Glu  
 245 250 255  
 Leu Gln Ile Ser Ala Leu Lys Ile Lys Gln His Glu Glu Lys Leu Ile  
 260 265 270  
 His Glu Gln Ser Gln Met Lys Val Tyr Ala Asp Gln Val Ser Gln Leu  
 275 280 285  
 Leu Ser Thr Glu Lys Asn Leu Arg Leu Gln Leu Thr Ser Asp Gly Asp  
 290 295 300  
 Lys Phe Gln Gln Phe Gln Asp Ala Leu Val Lys Ser Asn Glu Val Phe  
 305 310 315 320  
 Glu Thr Phe Lys Gln Glu Ile Asp Lys Met Ser Lys Ala Ile Lys Glu  
 325 330 335  
 Leu Arg Lys Glu Asn Ala Phe Leu Lys Asn Lys Thr Glu Lys Ser Asp  
 340 345 350  
 Ile Thr Leu Ile Glu Leu Val Glu Glu Arg Glu Arg Leu Lys Lys Leu  
 355 360 365  
 Leu Glu Lys Thr Lys Lys Gln Lys Asp Lys Leu Glu Ser Leu Cys Arg  
 370 375 380  
 Ser Leu Gln Ala Glu Arg Lys Gln Lys Glu Thr Asn Ser Thr Asp Ser  
 385 390 395 400  
 Ala Val Gln Pro

&lt;210&gt; 1843

&lt;211&gt; 993

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

```

<400> 1843
atggggttcga ttctgatgca cataactccc tctactgctc tccctatacg ccatttcaga      60
gctagagtctt cttgttgctc ttctgggcat gtatcattta tcaaagatgt tgctgccact      120
gaacctccaa tgcattctca tcacttactc aaagtgcctc aaacaagagg tgagacaatc      180
atatctcctg gagctaagca gggactgacg cctcttgcta ttccgctttc gaagaattcg      240
tcaggctctg ttactgctg tttgagatgg cctactgctc caccaggaat ggatatgccg      300
gttgttgaag tttggaggag tggagtcagg cttatagcta gaaatgtaga tgaatacatt      360
caccggattc tagttgaaga agatgcacaa gagttgacag aactatatcg tgcttcggga      420
gaggcaggtg aaaaacttta cgaaaagggg gcttttgctg aatctgaaat tgacaatctc      480
gatgtctatg ttttgaaaaa gggttgactg tttccagatt tgttggagcg gaaagtatta      540
cggcattttg atgaaggaga tcatgtttca gctatggtga caggagaatt ttacacaaag      600
aaagacctct ttccaggatt tggacgacct tttgtatatt atgcaaacat actacagaag      660
gtagggcgga atgtagaagc aaaagatgag gctagggtag cattgagatc accgtggtgg      720
acattaggat gtccgtatga ggaggttgct agtatagcac aatgggaaga cgagcagatc      780
gaattcataa gggaaaaagt gagtgatgaa ggtcgttttg aagatttgca taaaggcaaa      840
gctccaatcc aagttgctgt ggatgttgct gcttttctct tggatttggc ttctatcgaa      900
ggaacttggt ccgaatcttt aaaccatatt gctaaatggt atgaggaagc tggattacac      960
catatctcta atttcgtttt gtacacagat tga                                     993

```

<210> 1844

<211> 330

<212> PRT

<213> Arabidopsis thaliana

<400> 1844

```

Met Gly Ser Ile Ser Met His Ile Thr Pro Ser Thr Ala Leu Pro Ile
1           5           10          15

```

```

Arg His Phe Arg Ala Arg Val Ser Cys Cys Ser Ser Gly His Val Ser
20          25          30

```

```

Phe Ile Lys Asp Val Ala Ala Thr Glu Pro Pro Met His Leu His His
35          40          45

```

Leu 50 Leu Lys Val Leu Gln Thr 55 Arg Gly Glu Thr 60 Ile Ile Ser Pro Gly  
 Ala 65 Lys Gln Gly Leu 70 Ile Pro Leu Ala Ile 75 Pro Leu Ser Lys Asn Ser 80  
 Ser Gly Ser Val 85 Thr Ala Leu Leu Arg 90 Trp Pro Thr Ala Pro 95 Pro Gly  
 Met Asp Met 100 Pro Val Val Glu Val 105 Trp Arg Ser Gly Val 110 Arg Leu Ile  
 Ala Arg 115 Asn Val Asp Glu Tyr 120 Ile His Arg Ile Leu 125 Val Glu Glu Asp  
 Ala Gln 130 Glu Leu Thr Glu 135 Leu Tyr Arg Ala Ser Gly 140 Glu Ala Gly Glu  
 Lys 145 Leu Tyr Glu Lys 150 Gly Ala Phe Ala Glu 155 Ser Glu Ile Asp Asn Leu 160  
 Asp Val Tyr Val 165 Leu Lys Lys Val Gly 170 Leu Phe Pro Asp Leu 175 Leu Glu  
 Arg Lys Val 180 Leu Arg His Phe Asp 185 Glu Gly Asp His Val 190 Ser Ala Met  
 Val Thr 195 Gly Glu Phe Tyr Thr 200 Lys Lys Asp Leu Phe 205 Pro Gly Phe Gly  
 Arg Pro 210 Phe Val Tyr Tyr Ala 215 Asn Ile Leu Gln 220 Lys Val Gly Arg Asn  
 Val 225 Glu Ala Lys Asp 230 Ala Ala Arg Val Ala 235 Leu Arg Ser Pro Trp Trp 240  
 Thr Leu Gly Cys 245 Pro Tyr Glu Glu Val 250 Ala Ser Ile Ala Gln 255 Trp Glu  
 Asp Glu Gln 260 Ile Glu Phe Ile Arg 265 Glu Lys Val Ser Asp 270 Glu Gly Arg  
 Phe Glu 275 Asp Leu His Lys Gly 280 Lys Ala Pro Ile Gln 285 Val Ala Leu Asp  
 Val 290 Ala Ala Phe Leu Leu 295 Asp Leu Ala Ser Ile 300 Glu Gly Thr Trp Ser

047-E2F-PCT.ST25.txt

Glu Ser Leu Asn His Ile Ala Lys Cys Tyr Glu Glu Ala Gly Leu His  
305 310 315 320

His Ile Ser Asn Phe Val Leu Tyr Thr Asp  
325 330

<210> 1845

<211> 735

<212> DNA

<213> Arabidopsis thaliana

<400> 1845

atggatcatc aatttggata tgggtgttgaa gttactgggt tatctccatc tgttactcat	60
aatgatctta tcgatttctt ctctttctct ggtactatcc aagatattga tattgtcagg	120
tcgggtgagc aagcttgtac tgcttatgtg atgtttaagg attcttattc tcaagaaact	180
gctgttttac tcaactggcg aacgatattg gatcagcgtg tttgtataac tcggtgggga	240
caacatcacg aagagttcga tttctggaat gcgacttcgc gaggttttga agatgaatcg	300
gactcacaac attatgctca acgaagcgag ttcaacgctg gagaagcagt gacaaaagct	360
caagaagtgg tgaaaataat gcttgccaca ggattcgtgc taggcaaaga cgctttaagc	420
aaagctaaag cctttgatga atcccacggc gtatcagctg cagcgggtggc tagagtatct	480
caactagaac agaggattgg tcttactgac aaaatcttta ccggacttga agctgttaga	540
atgactgacc aaaggatatca tgtttcagat acagctaaat cagctgtctt tgccacagga	600
agaaccgcgg cagcagctgc aactagtgtt gtcaatagca gttacttctc cagcggagct	660
ctttggctgt ctggtgcatt agagagagct gctaaagccg catctgatct cgggtaccgc	720
ggctcaaggc agtga	735

<210> 1846

<211> 244

<212> PRT

<213> Arabidopsis thaliana

<400> 1846

Met Asp His Gln Phe Gly Tyr Gly Val Glu Val Thr Gly Leu Ser Pro  
1 5 10 15

Ser Val Thr His Asn Asp Leu Ile Asp Phe Phe Ser Phe Ser Gly Thr  
 20 25 30  
 Ile Gln Asp Ile Asp Ile Val Arg Ser Gly Glu Gln Ala Cys Thr Ala  
 35 40 45  
 Tyr Val Met Phe Lys Asp Ser Tyr Ser Gln Glu Thr Ala Val Leu Leu  
 50 55 60  
 Thr Gly Ala Thr Ile Leu Asp Gln Arg Val Cys Ile Thr Arg Trp Gly  
 65 70 75 80  
 Gln His His Glu Glu Phe Asp Phe Trp Asn Ala Thr Ser Arg Gly Phe  
 85 90 95  
 Glu Asp Glu Ser Asp Ser Gln His Tyr Ala Gln Arg Ser Glu Phe Asn  
 100 105 110  
 Ala Gly Glu Ala Val Thr Lys Ala Gln Glu Val Val Lys Ile Met Leu  
 115 120 125  
 Ala Thr Gly Phe Val Leu Gly Lys Asp Ala Leu Ser Lys Ala Lys Ala  
 130 135 140  
 Phe Asp Glu Ser His Gly Val Ser Ala Ala Ala Val Ala Arg Val Ser  
 145 150 155 160  
 Gln Leu Glu Gln Arg Ile Gly Leu Thr Asp Lys Ile Phe Thr Gly Leu  
 165 170 175  
 Glu Ala Val Arg Met Thr Asp Gln Arg Tyr His Val Ser Asp Thr Ala  
 180 185 190  
 Lys Ser Ala Val Phe Ala Thr Gly Arg Thr Ala Ala Ala Ala Thr  
 195 200 205  
 Ser Val Val Asn Ser Ser Tyr Phe Ser Ser Gly Ala Leu Trp Leu Ser  
 210 215 220  
 Gly Ala Leu Glu Arg Ala Ala Lys Ala Ala Ser Asp Leu Gly Thr Arg  
 225 230 235 240  
 Gly Ser Arg Gln

&lt;210&gt; 1847

&lt;211&gt; 237

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1847

```

atgcttgata cgcttattgg agggattgtc ggagggattg ccggagcgat tattggaacg      60
gtggatgggt tcgccagagg gatcggaata tgccccgata gttaccagag ctgcactcgt      120
accgactgcg aggagcacia aaagaagctc ccgaccaacc ttagccgtaa cggcggtgca      180
gcagcagtga aggctaagga gaacggccgc cgtcgccgcc agaaagacag ggagtag        237

```

&lt;210&gt; 1848

&lt;211&gt; 78

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1848

```

Met Leu Asp Thr Leu Ile Gly Gly Ile Val Gly Gly Ile Ala Gly Ala
1      5      10      15
Ile Ile Gly Thr Val Asp Gly Phe Ala Arg Gly Ile Gly Ile Cys Pro
20     25     30
Asp Ser Tyr Gln Ser Cys Thr Arg Thr Asp Cys Glu Glu His Lys Lys
35     40     45
Lys Leu Pro Thr Asn Leu Ser Arg Asn Gly Gly Ala Ala Ala Val Lys
50     55     60
Ala Lys Glu Asn Gly Arg Arg Arg Arg Gln Lys Asp Arg Glu
65     70     75

```

&lt;210&gt; 1849

&lt;211&gt; 1269

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1849

```

atggcaaccc ttaagtgcac tgattggcaa ttcagcggaa gcgaggcggc caaagatgct      60
gctgcggcct ccttaggctc atatacctct gcactctatg ccctgtgcga tcctcatggc      120

```



047-E2F-PCT.ST25.txt

```

aaacccattt tgccccacg aaatgagatc ctggagacca gcaatacagc cgaaaaagca 180
gttgttaaag ctgttcttta tggctcggga aacgcctatg ctcttagctt aggcctcgcg 240
gccgccaaaa gtgccgtagc agagtatcta aaccaaggctc ttccaaagaa gcttaccgca 300
gatgacgtgt ttatgactct gggatgcaaa caagctattg agctcgcggt agacattctc 360
gctaaaccga aagccaacgt tttgcttccg agtcccggct tcccatggga cctagtccgc 420
tccatctaca agaaccttga ggtccgccac tataatttcc ttccagaaaa gaactttgaa 480
atcgactttg atagcgtccg agcgtcgtg gacgagaaca catttgccat atttataatc 540
aacccccaca accccaatgg taacacctac tccgaggctc atctcaaaca gctgggtgaa 600
ctggctaagg aactcaagat tatggtggtt tctgacgagg tttttagatg gacactcttt 660
ggtagtaacc cttttgttcc tatgggaaaa ttctcgtcga tcgtaccagt ggttacactc 720
ggatccatat caaagggatg gaaagtccca ggatggcgaa ctggttggct cacgctacat 780
gatctagacg gtgtcttcag aaacaccaag gtcttacaag ctgctcaaga ttttctccag 840
ataaacaata accctccgac agttatccag gcggctattc ctgacatctt ggagaaaact 900
cctcaagagt tttttgataa gaggcagagt tttctgaaag ataaagtaga atttggttat 960
tctaagctca agtacattcc tagcctcact tgctacatga aaccggaagc ctgcaccttc 1020
ttatggaccg agcttgattt atcgagcttt gtggacatcg aagacgatca agacttttgc 1080
aataagcttg ctaaagaaga aaacctcgtc gttttaccag ggattgcatt cagtcagaag 1140
aactggttga ggcattctat cgatatggag actccggtat tggaggatgc attggaaaga 1200
ttgaagagct tctgcgatcg ccattccaac aaaaaagctc ccctcaaaga cgtcaatggt 1260
gttaagtaa 1269

```

<210> 1850

<211> 422

<212> PRT

<213> Arabidopsis thaliana

<400> 1850

Met Ala Thr Leu Lys Cys Ile Asp Trp Gln Phe Ser Gly Ser Glu Ala  
1 5 10 15

Ala Lys Asp Ala Ala Ala Ala Ser Leu Gly Ser Tyr Thr Ser Ala Leu  
20 25 30

Tyr Ala Leu Cys Asp Pro His Gly Lys Pro Ile Leu Pro Pro Arg Asn  
Page 2715

35

40

45

Glu Ile Leu Glu Thr Ser Asn Thr Ala Glu Lys Ala Val Val Lys Ala  
 50 55 60  
 Val Leu Tyr Gly Ser Gly Asn Ala Tyr Ala Pro Ser Leu Gly Leu Ala  
 65 70 75 80  
 Ala Ala Lys Ser Ala Val Ala Glu Tyr Leu Asn Gln Gly Leu Pro Lys  
 85 90 95  
 Lys Leu Thr Ala Asp Asp Val Phe Met Thr Leu Gly Cys Lys Gln Ala  
 100 105 110  
 Ile Glu Leu Ala Val Asp Ile Leu Ala Lys Pro Lys Ala Asn Val Leu  
 115 120 125  
 Leu Pro Ser Pro Gly Phe Pro Trp Asp Leu Val Arg Ser Ile Tyr Lys  
 130 135 140  
 Asn Leu Glu Val Arg His Tyr Asn Phe Leu Pro Glu Lys Asn Phe Glu  
 145 150 155 160  
 Ile Asp Phe Asp Ser Val Arg Ala Leu Val Asp Glu Asn Thr Phe Ala  
 165 170 175  
 Ile Phe Ile Ile Asn Pro His Asn Pro Asn Gly Asn Thr Tyr Ser Glu  
 180 185 190  
 Ala His Leu Lys Gln Leu Ala Glu Leu Ala Lys Glu Leu Lys Ile Met  
 195 200 205  
 Val Val Ser Asp Glu Val Phe Arg Trp Thr Leu Phe Gly Ser Asn Pro  
 210 215 220  
 Phe Val Pro Met Gly Lys Phe Ser Ser Ile Val Pro Val Val Thr Leu  
 225 230 235 240  
 Gly Ser Ile Ser Lys Gly Trp Lys Val Pro Gly Trp Arg Thr Gly Trp  
 245 250 255  
 Leu Thr Leu His Asp Leu Asp Gly Val Phe Arg Asn Thr Lys Val Leu  
 260 265 270  
 Gln Ala Ala Gln Asp Phe Leu Gln Ile Asn Asn Asn Pro Pro Thr Val  
 275 280 285

047-E2F-PCT.ST25.txt

Ile Gln Ala Ala Ile Pro Asp Ile Leu Glu Lys Thr Pro Gln Glu Phe  
290 295 300

Phe Asp Lys Arg Gln Ser Phe Leu Lys Asp Lys Val Glu Phe Gly Tyr  
305 310 315 320

Ser Lys Leu Lys Tyr Ile Pro Ser Leu Thr Cys Tyr Met Lys Pro Glu  
325 330 335

Ala Cys Thr Phe Leu Trp Thr Glu Leu Asp Leu Ser Ser Phe Val Asp  
340 345 350

Ile Glu Asp Asp Gln Asp Phe Cys Asn Lys Leu Ala Lys Glu Glu Asn  
355 360 365

Leu Val Val Leu Pro Gly Ile Ala Phe Ser Gln Lys Asn Trp Leu Arg  
370 375 380

His Ser Ile Asp Met Glu Thr Pro Val Leu Glu Asp Ala Leu Glu Arg  
385 390 395 400

Leu Lys Ser Phe Cys Asp Arg His Ser Asn Lys Lys Ala Pro Leu Lys  
405 410 415

Asp Val Asn Gly Val Lys  
420

<210> 1851

<211> 654

<212> DNA

<213> Arabidopsis thaliana

<400> 1851

atgcaaatat acaatcctat ttctccggtg aaaaccatgg tgaagattta tcctcacctg	60
gcgtttccgg tggatatgga cgtcgtacaa gacaagattt tgccctactt aacgacggag	120
caagagaggt tcacgatttg gatgaaatct ttggtgttca atagcaaagg ctgcacagtt	180
tttgattcca aaggaaactt aatctatcga gtggataatt atgattccaa gagttggagt	240
aatgaagttt actttatgga tttaaacggc aaaattttgt ttactttacg tcaaagaaa	300
ctgggattct tcaaatcttg ggaaggatat aactcaaccg ggaccagatt tcgactaaga	360
aagattttca agattttgcc aagagaatca tcttcgtctt acaaagttgt aatgggatca	420
cgcatagttg atggtgatca acaatcttgt tataagattg taaatcgtgg atcagttttc	480

gcaatcaagg atggatcggg aagattaatg gcagaagtta aaaacaaact atcggatatt 540  
 agtgggtttgg atcttggaga tgatgttttg acaatgatgg tggagccaca actagatcat 600  
 tctttaataa tgggtattgt tatagcttat aaacttacca aatgtaaatt gtga 654

<210> 1852

<211> 217

<212> PRT

<213> Arabidopsis thaliana

<400> 1852

Met Gln Ile Tyr Asn Pro Ile Ser Pro Val Lys Thr Met Val Lys Ile  
 1 5 10 15  
 Tyr Pro His Leu Ala Phe Pro Val Asp Met Asp Val Val Gln Asp Lys  
 20 25 30  
 Ile Leu Pro Tyr Leu Thr Thr Glu Gln Glu Arg Phe Thr Ile Trp Met  
 35 40 45  
 Lys Ser Leu Val Phe Asn Ser Lys Gly Cys Thr Val Phe Asp Ser Lys  
 50 55 60  
 Gly Asn Leu Ile Tyr Arg Val Asp Asn Tyr Asp Ser Lys Ser Trp Ser  
 65 70 75 80  
 Asn Glu Val Tyr Phe Met Asp Leu Asn Gly Lys Ile Leu Phe Thr Leu  
 85 90 95  
 Arg Gln Lys Lys Leu Gly Phe Phe Lys Ser Trp Glu Gly Tyr Asn Ser  
 100 105 110  
 Thr Gly Thr Arg Phe Arg Leu Arg Lys Ile Phe Lys Ile Leu Pro Arg  
 115 120 125  
 Glu Ser Ser Ser Ser Tyr Lys Val Val Met Gly Ser Arg Ile Val Asp  
 130 135 140  
 Gly Asp Gln Gln Ser Cys Tyr Lys Ile Val Asn Arg Gly Ser Val Phe  
 145 150 155 160  
 Ala Ile Lys Asp Gly Ser Gly Arg Leu Met Ala Glu Val Lys Asn Lys  
 165 170 175

Leu Ser Asp Ile Ser Gly Leu Asp Leu Gly Asp Asp Val Leu Thr Met  
 180 185 190

Met Val Glu Pro Gln Leu Asp His Ser Leu Ile Met Gly Ile Val Ile  
 195 200 205

Ala Tyr Lys Leu Thr Lys Cys Lys Leu  
 210 215

<210> 1853

<211> 1629

<212> DNA

<213> Arabidopsis thaliana

<400> 1853

atgatggcgg tgggcagatc cggaggcacc atcctattgt tctgcctatc attcttcgcc	60
gcggtaaccg cggagagtcc ataccgattc tttgactgga atgtaacata cggcgacatt	120
taccactcg gtgttcgtca gcagggaata ttgattaatg ggcaatttcc gggaccagac	180
attcacagtg tgacaaacga caatctcatc attaacgtac acaacagctt agacgagcct	240
ttcttaatct catggaacgg agtacaaaac agaagaaatt cttatgttga tggaatgtac	300
ggaaccacgt gtccaattcc accgagaagc aactacacat acattttgca agtgaaagac	360
caaattggaa gtttctatta cttcccatct cttgcctttc acaaggcagc tgggtggattc	420
ggaggtatca gaatccttag ccgtcctgga attccagttc catttgctga ccctgcagga	480
gattacactg tcctcattgg agattggtac aaatttaatc acacggattt gaagtctcgt	540
cttgatagag gaaggaagtt accttcgcct gatgggtattc ttatcaatgg ccgaagtaac	600
ggtgctacct taaacgttga acaaggaaaa acataccgat tgaggatatc aaacgttgga	660
ttacaagatt ctctgaactt ccgaatccaa aaccacagaa tgaagcttgt ggaagtcgaa	720
gggacgcaca cacttcaaac catgttttcc tctcttgacg ttcacgttgg ccagtcttac	780
tccgttctaa ttactgctga ccaatctcct cgtgactact acgtggttgt ttcgtctcga	840
ttcacggata aaatcataac caccaccggg gttcttcgct acagtggctc gtctaccct	900
gcttctggtc ctattcctgg cgggccact attcaggttg attggtcctt gaaccaagca	960
cgtgccatca gaaccaattt gacagctagt ggaccaagac caaaccgcga aggctcatac	1020
cattatggtc ttataccgct cattaggaca attgtgttcg gtagttcagc cggacagata	1080
aacgggaaac aaagatatgg tgtcaatagt gtgtcatttg tgccagctga taccctcta	1140
aaactggctg acttcttcaa gattagcggg gtctataaga tcaacagcat ctacagacaaa	1200

```

cccacatatg gaggtttata ccttgacacc tcagttttgc aagtcgacta tcgaaccttt 1260
atcgagattg tattcgagaa ccaagaagat atcgtccaaa gttatcatct caatggttac 1320
tccttttggg tggtcgggat ggatggtgga cagtggaaga caggaagcag aaatggttat 1380
aatttacgcg atgcagtttc acgttccaca gtccaagtgt acccaaaatc atggacagcc 1440
atatacattg cattagacaa cgttggaatg tggaacttaa gatcagaatt ttgggcaaga 1500
cagtacttgg gacaacaact ttacttacgt gtcttcacgt catctacgtc tttgagagat 1560
gagtacccta tcccgaagaa ttcgcgtttg tgcggccggg caagaggacg acatactagg 1620
cctttgtaa 1629

```

&lt;210&gt; 1854

&lt;211&gt; 542

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1854

```

Met Met Ala Val Gly Arg Ser Gly Gly Thr Ile Leu Leu Phe Cys Leu
1      5      10
Ser Phe Phe Ala Ala Val Thr Ala Glu Ser Pro Tyr Arg Phe Phe Asp
20     25     30
Trp Asn Val Thr Tyr Gly Asp Ile Tyr Pro Leu Gly Val Arg Gln Gln
35     40     45
Gly Ile Leu Ile Asn Gly Gln Phe Pro Gly Pro Asp Ile His Ser Val
50     55     60
Thr Asn Asp Asn Leu Ile Ile Asn Val His Asn Ser Leu Asp Glu Pro
65     70     75     80
Phe Leu Ile Ser Trp Asn Gly Val Gln Asn Arg Arg Asn Ser Tyr Val
85     90     95
Asp Gly Met Tyr Gly Thr Thr Cys Pro Ile Pro Pro Arg Ser Asn Tyr
100    105    110
Thr Tyr Ile Leu Gln Val Lys Asp Gln Ile Gly Ser Phe Tyr Tyr Phe
115    120    125
Pro Ser Leu Ala Phe His Lys Ala Ala Gly Gly Phe Gly Gly Ile Arg
130    135    140

```

047-E2F-PCT.ST25.txt

Ile Leu Ser Arg Pro Gly Ile Pro Val Pro Phe Ala Asp Pro Ala Gly  
145 150 155 160

Asp Tyr Thr Val Leu Ile Gly Asp Trp Tyr Lys Phe Asn His Thr Asp  
165 170 175

Leu Lys Ser Arg Leu Asp Arg Gly Arg Lys Leu Pro Ser Pro Asp Gly  
180 185 190

Ile Leu Ile Asn Gly Arg Ser Asn Gly Ala Thr Leu Asn Val Glu Gln  
195 200 205

Gly Lys Thr Tyr Arg Leu Arg Ile Ser Asn Val Gly Leu Gln Asp Ser  
210 215 220

Leu Asn Phe Arg Ile Gln Asn His Arg Met Lys Leu Val Glu Val Glu  
225 230 235 240

Gly Thr His Thr Leu Gln Thr Met Phe Ser Ser Leu Asp Val His Val  
245 250 255

Gly Gln Ser Tyr Ser Val Leu Ile Thr Ala Asp Gln Ser Pro Arg Asp  
260 265 270

Tyr Tyr Val Val Val Ser Ser Arg Phe Thr Asp Lys Ile Ile Thr Thr  
275 280 285

Thr Gly Val Leu Arg Tyr Ser Gly Ser Ser Thr Pro Ala Ser Gly Pro  
290 295 300

Ile Pro Gly Gly Pro Thr Ile Gln Val Asp Trp Ser Leu Asn Gln Ala  
305 310 315 320

Arg Ala Ile Arg Thr Asn Leu Thr Ala Ser Gly Pro Arg Pro Asn Pro  
325 330 335

Gln Gly Ser Tyr His Tyr Gly Leu Ile Pro Leu Ile Arg Thr Ile Val  
340 345 350

Phe Gly Ser Ser Ala Gly Gln Ile Asn Gly Lys Gln Arg Tyr Gly Val  
355 360 365

Asn Ser Val Ser Phe Val Pro Ala Asp Thr Pro Leu Lys Leu Ala Asp  
370 375 380

Phe Phe Lys Ile Ser Gly Val Tyr Lys Ile Asn Ser Ile Ser Asp Lys  
Page 2721

047-E2F-PCT.ST25.txt

385 390 395 400

Pro Thr Tyr Gly Gly Leu Tyr Leu Asp Thr Ser Val Leu Gln Val Asp  
405 410 415

Tyr Arg Thr Phe Ile Glu Ile Val Phe Glu Asn Gln Glu Asp Ile Val  
420 425 430

Gln Ser Tyr His Leu Asn Gly Tyr Ser Phe Trp Val Val Gly Met Asp  
435 440 445

Gly Gly Gln Trp Lys Thr Gly Ser Arg Asn Gly Tyr Asn Leu Arg Asp  
450 455 460

Ala Val Ser Arg Ser Thr Val Gln Val Tyr Pro Lys Ser Trp Thr Ala  
465 470 475 480

Ile Tyr Ile Ala Leu Asp Asn Val Gly Met Trp Asn Leu Arg Ser Glu  
485 490 495

Phe Trp Ala Arg Gln Tyr Leu Gly Gln Gln Leu Tyr Leu Arg Val Phe  
500 505 510

Thr Ser Ser Thr Ser Leu Arg Asp Glu Tyr Pro Ile Pro Lys Asn Ser  
515 520 525

Arg Leu Cys Gly Arg Ala Arg Gly Arg His Thr Arg Pro Leu  
530 535 540

<210> 1855

<211> 648

<212> DNA

<213> Arabidopsis thaliana

<400>	1855
-------	------

atgagtcctct ttggggttagg aagaaatcag aagactttcc gacctaagaa gagtgcacct 60

tctggaagca agggtgcaca gcttcgaaag catatagatg ccaccctagg aagtgggaac 120

ttgagagaag ctgtaagact tcctccggga gaggatgcaa atgaatggct tgctgtaaac 180

actgtggatt tctttaatca ggtgaatttg ctatatggca cccttaccga gttctgcaca 240

cctgataact gtcctacaat qactgctggc ccaaagtacg agtatagatg ggcagatggt 300

gtacaqatca aqaagcccat cgaggtttct gctccaaagt atgtcgaqta cttgatggat 360

tggatcgaga cccaactcga tgatgaqact ttatttcctc aaaggccttgq agcaccattt 420



047-E2F-PCT.ST25.txt

cctcagaact tcaaagatgt ggtgaaaacg atctttaaac ggctattccg agtttatgct 480  
cacatatacc actctcattt ccagaaaatc gttagcctaa aagaagaagc tcattctcaac 540  
acttgcttca aacacttcat cctctttact catgaatttg gactgataga caagaaagaa 600  
ctcgcgcctc tacaagagct catagaatct atcatttcac cttattga 648

<210> 1856

<211> 215

<212> PRT

<213> Arabidopsis thaliana

<400> 1856

Met Ser Leu Phe Gly Leu Gly Arg Asn Gln Lys Thr Phe Arg Pro Lys  
1 5 10 15

Lys Ser Ala Pro Ser Gly Ser Lys Gly Ala Gln Leu Arg Lys His Ile  
20 25 30

Asp Ala Thr Leu Gly Ser Gly Asn Leu Arg Glu Ala Val Arg Leu Pro  
35 40 45

Pro Gly Glu Asp Ala Asn Glu Trp Leu Ala Val Asn Thr Val Asp Phe  
50 55 60

Phe Asn Gln Val Asn Leu Leu Tyr Gly Thr Leu Thr Glu Phe Cys Thr  
65 70 75 80

Pro Asp Asn Cys Pro Thr Met Thr Ala Gly Pro Lys Tyr Glu Tyr Arg  
85 90 95

Trp Ala Asp Gly Val Gln Ile Lys Lys Pro Ile Glu Val Ser Ala Pro  
100 105 110

Lys Tyr Val Glu Tyr Leu Met Asp Trp Ile Glu Thr Gln Leu Asp Asp  
115 120 125

Glu Thr Leu Phe Pro Gln Arg Leu Gly Ala Pro Phe Pro Gln Asn Phe  
130 135 140

Lys Asp Val Val Lys Thr Ile Phe Lys Arg Leu Phe Arg Val Tyr Ala  
145 150 155 160

His Ile Tyr His Ser His Phe Gln Lys Ile Val Ser Leu Lys Glu Glu  
Page 2723

165

175

Ala His Leu Asn Thr Cys Phe Lys His Phe Ile Leu Phe Thr His Glu  
180 185 190

Phe Gly Leu Ile Asp Lys Lys Glu Leu Ala Pro Leu Gln Glu Leu Ile  
195 200 205

Glu Ser Ile Ile Ser Pro Tyr  
210 215

<210> 1857

<211> 2766

<212> DNA

<213> Arabidopsis thaliana

<400> 1857

```
atgggactgg gcattgaccc atctgtcgct attacggcac tgattgtggt cattctggtg      60
gttccaatgg attgccaaag acctcaactg gtgaacatcg gtgctgtttt tgcttttgat      120
tcggttatcg gaagagctgc aaaagtagct ctagaggcag ctgtttccga tgtgaacaat      180
gataaaagct ttctcaaaga aacggagcta cggctattaa tggaggattc tgcctgcaat      240
gtctttcgtg ggtccttttg agcttttgaa ttgcttgaga aagaagtggg ggctatgatc      300
gggtccaattt catcctctgt tgctcataca atttccgata ttgcaaaagg gctccacttt      360
cctcttgtct catttgtagc aactgatcca actctctctg ccctccaatt tcccttcttt      420
cttcggacta cacctaataa tgcccaccaa atgtctgccc ttgtggatct tatcaatttt      480
tatggatgga aagaagtgat ctacgtttac tcggatgatg agctcggaag aaatggagtt      540
tctgctctag atgatgaact gtacaagaaa agatccagaa tttcctataa agtgccgctc      600
tcagttcatt ctgatgaaaa attccttact aatgctttga acaaatacaa gtccatcggt      660
cctcgagttt atattcttca ttttggtccg gaccattgac tcagaatttt tgatatagcg      720
caaaagctgc agatgatgac ccatgaatac gtatggctcg ccacagactg gctctctggt      780
accttagatt ctttgagtga caaagggtact ctaaaacgcc ttgaaggagt agtggggcctt      840
cgtcaacata tcccagaatc cgtaaagatg gaacatttca cgcataaact gcagagcaac      900
agatcaatga atgcctacgc attacatgcc tatgatacag tgtggatgat tgcgcatggc      960
atcgaggaat tgctgaatga aggaatcaac ataacgtttt cttactccga aaagtacttt     1020
catgcacggg gaaccaaact gcacttgag aaatcaaact ttttcaacag tggggagtta     1080
ctacttgaga aacttctgaa agtaaacttt actggtatag ccggtcaagt tcagtttggt     1140
```

047-E2F-PCT.ST25.txt

tctggccgaa	acgttatcgg	ctgtgactac	gaaattatca	atgtaaaca	aaccgatgtt	1200
catactgtcg	gtttctggtc	gaaaaatgga	ggcttttcgg	ttgtagcccc	aaaaacccgt	1260
cattcacaga	agaagactag	ctttgtttct	gatgaaaaac	ttggagatat	aacctggcct	1320
ggtggtggcc	gtgaaaagcc	acgtggttgg	gtcattgcag	attctgcaga	tccattgaag	1380
attgtttgtcc	cgagaagagt	gagttttgtc	gagttttgtga	ctgaagaaaa	gaacagtagc	1440
catcggatcc	aaggattttg	catcgatgtc	ttcattgaag	cattaaagtt	cgtcccttac	1500
agtgttcctt	acatatttga	gcctttcggg	aatggtcatt	caagtcctaa	ttacaaccac	1560
cttattcaaa	tggtcacgga	tggtgtatat	gatgctgctg	ttggggatat	tgcaatagtc	1620
ccaagccggt	ccaagttagt	ggattttctc	cagccatatg	cttcacacagg	ccttgtagtg	1680
gtgattcctg	ctaatgatga	caatgcgact	tggatctttc	tgagaccctt	caccagccgg	1740
ttatggtgtg	ttgttctagt	ttcattcctg	gttattgccg	tagtcatctg	gatcctcgaa	1800
catcgcatca	atgaagattt	cagagggcca	ccccgaagac	aactcagcac	aatgctcttg	1860
ttcagcttct	caactctttt	caagagaaac	caggaagata	caataagtaa	tctagcaaga	1920
ctagtgatga	ttgtatggct	cttcctattg	atggtttcta	ccgcgagcta	cacagcgaac	1980
ctcacctcaa	tcctcacagt	tcaacagctt	ccctctgcta	ttaccggtat	tgatagcttg	2040
cgggcaagtg	aggtacctat	cgggtaccag	gctgggacgt	tcactttaga	gtatttaacc	2100
tacagtcttg	gcatggctcg	gtctagactg	gtcccacttg	actcgaccga	ggagtatgaa	2160
aaggctctaa	agctggggcc	aaccaattgg	ggaggtgttg	ctgccattgt	cgacgaactc	2220
ccttacatcg	aactgtttct	agcagaacga	acaggcttca	agattgttgg	agaacccttt	2280
atgcaccgtg	gttggggatt	tgcgtttaag	agagattctc	cattggctat	agacatgtca	2340
acagctatct	tgaaactctc	tgagacgagg	aaattgcaag	aaattcgaaa	gaaatggtta	2400
tgcaagacga	attgcgcagg	gaaatcaaat	tggaaccag	agccaaacca	gcttcattctc	2460
aaaagcttca	aagggtgtga	ccttgtctgc	attgcaatca	cagtctctgc	gtttttggtg	2520
tttgtttctca	ggatgatacg	ccagttcgtg	cgggtacagac	ggatggagag	aacatcctcg	2580
atgccacgcg	cttcttggtc	agcttctcct	acattgcggt	tgagagaatt	agtgtttgat	2640
tttggtggagt	ttgtggatga	gaaagaagaa	gctattaaga	gaatgttcag	aagaagcgat	2700
gactctaata	acaacccatc	tcatgtaggg	gaagtccaag	ctgatactga	ggtaccacga	2760
aattga						2766

<210> 1858

<211> 921

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1858

```

Met Gly Leu Gly Ile Asp Pro Ser Val Ala Ile Thr Ala Leu Ile Val
 1      5      10      15

Val Ile Leu Val Val Pro Met Asp Cys Gln Arg Pro Gln Leu Val Asn
 20      25      30

Ile Gly Ala Val Phe Ala Phe Asp Ser Val Ile Gly Arg Ala Ala Lys
 35      40      45

Val Ala Leu Glu Ala Ala Val Ser Asp Val Asn Asn Asp Lys Ser Phe
 50      55      60

Leu Lys Glu Thr Glu Leu Arg Leu Leu Met Glu Asp Ser Ala Cys Asn
 65      70      75      80

Val Phe Arg Gly Ser Phe Gly Ala Phe Glu Leu Leu Glu Lys Glu Val
 85      90      95

Val Ala Met Ile Gly Pro Ile Ser Ser Ser Val Ala His Thr Ile Ser
100      105      110

Asp Ile Ala Lys Gly Leu His Phe Pro Leu Val Ser Phe Ala Ala Thr
115      120      125

Asp Pro Thr Leu Ser Ala Leu Gln Phe Pro Phe Phe Leu Arg Thr Thr
130      135      140

Pro Asn Asp Ala His Gln Met Ser Ala Leu Val Asp Leu Ile Asn Phe
145      150      155      160

Tyr Gly Trp Lys Glu Val Ile Ser Val Tyr Ser Asp Asp Glu Leu Gly
165      170      175

Arg Asn Gly Val Ser Ala Leu Asp Asp Glu Leu Tyr Lys Lys Arg Ser
180      185      190

Arg Ile Ser Tyr Lys Val Pro Leu Ser Val His Ser Asp Glu Lys Phe
195      200      205

Leu Thr Asn Ala Leu Asn Lys Ser Lys Ser Ile Gly Pro Arg Val Tyr
210      215      220

```

Ile Leu His Phe Gly Pro Asp Pro Leu Leu Arg Ile Phe Asp Ile Ala  
 225 230 235 240  
 Gln Lys Leu Gln Met Met Thr His Glu Tyr Val Trp Leu Ala Thr Asp  
 245 250 255  
 Trp Leu Ser Val Thr Leu Asp Ser Leu Ser Asp Lys Gly Thr Leu Lys  
 260 265 270  
 Arg Leu Glu Gly Val Val Gly Leu Arg Gln His Ile Pro Glu Ser Val  
 275 280 285  
 Lys Met Glu His Phe Thr His Lys Leu Gln Ser Asn Arg Ser Met Asn  
 290 295 300  
 Ala Tyr Ala Leu His Ala Tyr Asp Thr Val Trp Met Ile Ala His Gly  
 305 310 315 320  
 Ile Glu Glu Leu Leu Asn Glu Gly Ile Asn Ile Thr Phe Ser Tyr Ser  
 325 330 335  
 Glu Lys Leu Leu His Ala Arg Gly Thr Lys Leu His Leu Glu Lys Ile  
 340 345 350  
 Lys Phe Phe Asn Ser Gly Glu Leu Leu Leu Glu Lys Leu Leu Lys Val  
 355 360 365  
 Asn Phe Thr Gly Ile Ala Gly Gln Val Gln Phe Gly Ser Gly Arg Asn  
 370 375 380  
 Val Ile Gly Cys Asp Tyr Glu Ile Ile Asn Val Asn Lys Thr Asp Val  
 385 390 395 400  
 His Thr Val Gly Phe Trp Ser Lys Asn Gly Gly Phe Ser Val Val Ala  
 405 410 415  
 Pro Lys Thr Arg His Ser Gln Lys Lys Thr Ser Phe Val Ser Asp Glu  
 420 425 430  
 Lys Leu Gly Asp Ile Thr Trp Pro Gly Gly Gly Arg Glu Lys Pro Arg  
 435 440 445  
 Gly Trp Val Ile Ala Asp Ser Ala Asp Pro Leu Lys Ile Val Val Pro  
 450 455 460  
 Arg Arg Val Ser Phe Val Glu Phe Val Thr Glu Glu Lys Asn Ser Ser  
 465 470 475 480

047-E2F-PCT.ST25.txt

His Arg Ile Gln Gly Phe Cys Ile Asp Val Phe Ile Glu Ala Leu Lys  
485 490 495

Phe Val Pro Tyr Ser Val Pro Tyr Ile Phe Glu Pro Phe Gly Asn Gly  
500 505 510

His Ser Ser Pro Asn Tyr Asn His Leu Ile Gln Met Val Thr Asp Gly  
515 520 525

Val Tyr Asp Ala Ala Val Gly Asp Ile Ala Ile Val Pro Ser Arg Ser  
530 535 540

Lys Leu Val Asp Phe Ser Gln Pro Tyr Ala Ser Thr Gly Leu Val Val  
545 550 555 560

Val Ile Pro Ala Asn Asp Asp Asn Ala Thr Trp Ile Phe Leu Arg Pro  
565 570 575

Phe Thr Ser Arg Leu Trp Cys Val Val Leu Val Ser Phe Leu Val Ile  
580 585 590

Ala Val Val Ile Trp Ile Leu Glu His Arg Ile Asn Glu Asp Phe Arg  
595 600 605

Gly Pro Pro Arg Arg Gln Leu Ser Thr Met Leu Leu Phe Ser Phe Ser  
610 615 620

Thr Leu Phe Lys Arg Asn Gln Glu Asp Thr Ile Ser Asn Leu Ala Arg  
625 630 635 640

Leu Val Met Ile Val Trp Leu Phe Leu Leu Met Val Leu Thr Ala Ser  
645 650 655

Tyr Thr Ala Asn Leu Thr Ser Ile Leu Thr Val Gln Gln Leu Pro Ser  
660 665 670

Ala Ile Thr Gly Ile Asp Ser Leu Arg Ala Ser Glu Val Pro Ile Gly  
675 680 685

Tyr Gln Ala Gly Thr Phe Thr Leu Glu Tyr Leu Thr Tyr Ser Leu Gly  
690 695 700

Met Ala Arg Ser Arg Leu Val Pro Leu Asp Ser Thr Glu Glu Tyr Glu  
705 710 715 720

Lys Ala Leu Lys Leu Gly Pro Thr Asn Trp Gly Gly Val Ala Ala Ile  
725 730 735

047-E2F-PCT.ST25.txt

Val Asp Glu Leu Pro Tyr Ile Glu Leu Phe Leu Ala Glu Arg Thr Gly  
740 745 750

Phe Lys Ile Val Gly Glu Pro Phe Met His Arg Gly Trp Gly Phe Ala  
755 760 765

Phe Lys Arg Asp Ser Pro Leu Ala Ile Asp Met Ser Thr Ala Ile Leu  
770 775 780

Lys Leu Ser Glu Thr Arg Lys Leu Gln Glu Ile Arg Lys Lys Trp Leu  
785 790 795 800

Cys Lys Thr Asn Cys Ala Gly Lys Ser Asn Trp Asn Pro Glu Pro Asn  
805 810 815

Gln Leu His Leu Lys Ser Phe Lys Gly Leu Tyr Leu Val Cys Ile Ala  
820 825 830

Ile Thr Val Ser Ala Phe Leu Val Phe Val Leu Arg Met Ile Arg Gln  
835 840 845

Phe Val Arg Tyr Arg Arg Met Glu Arg Thr Ser Ser Met Pro Arg Ala  
850 855 860

Ser Trp Ser Ala Ser Pro Thr Leu Arg Leu Arg Glu Leu Val Phe Asp  
865 870 875 880

Phe Val Glu Phe Val Asp Glu Lys Glu Glu Ala Ile Lys Arg Met Phe  
885 890 895

Arg Arg Ser Asp Asp Ser Asn Asn Asn Pro Ser His Val Gly Glu Val  
900 905 910

Gln Ala Asp Thr Glu Val Pro Arg Asn  
915 920

<210> 1859

<211> 2115

<212> DNA

<213> Arabidopsis thaliana

<400> 1859  
atggaaacaa accagtggcg gtcgaggaaa aagatagaat cagctgcaga aacactccaa 60

gtttcttcta	gaagaggcag	aggacaggca	cgtatggttc	ctcctgtaag	tgaggttaga	120
tccgagagag	ctcgaaaaag	tctaagttag	aagctagaga	ctgtagcttt	aaactctcct	180
aagaaagatg	ctcgtgtgag	tctttatggc	gagaaaagtg	tagtagatga	gatttttcta	240
gaagatgaag	aaatgggtca	tgaaactggt	ttgaagaatg	gagagtcgtc	gcctttttgt	300
ggtgtatcgg	acaagcttct	gcagcgaatc	gagcttcttg	ggagagacca	tgaggcaacg	360
agacttgata	acaacaagtt	caggtcaatc	gaatctatga	aaaagagaca	agaagaatcg	420
gcatgtgatg	atctagttga	tatgaagaca	aagattcaaa	cgttagctgc	ggagaacact	480
cagcttaaga	agtctcttgt	ggcgaaagaa	gagcttgctg	taagtcttca	agagcgtaaa	540
tttcaggtgg	aatcagaatt	cgaagcgtta	atgactagat	tagattcaac	ggagaaagaa	600
aacgcattct	tgagatatga	gtatactggt	cttgagaaag	atcttcaggt	aaaaacagag	660
gaaacagagc	atactcgcag	gtctatggag	ctaacgcata	agcagcaact	taggaatgtg	720
aacaagattg	ttgagcttga	agctgaatgc	caaagggttaa	gacttctctt	tcgaaagaag	780
tttccagaga	agtctatatc	tatgaggaat	gaagggtgaag	aaaagaagat	ggagatgaga	840
agacgaaacg	ctaataagag	cgatatgatg	atgagagatg	aagttcagag	caggaagctg	900
aagtatgatc	ttttgatgga	gcagattggg	aatgttaggg	cagagaacaa	gaatctaattg	960
gacataatta	tgaagaaaaa	cattgagatc	aaagatctta	gccgcgggca	gaaaccgtta	1020
gaggcttcga	gtttcgatat	tcaaagcgaa	agtagtgtga	tgagcccctg	tggttccaag	1080
gagatgaagt	tactgatgga	tgattttaat	gagatggaga	agttagccat	tgtgtgtact	1140
gagaaagatc	caagagtgga	tgatgagaag	gaaggatctt	ttgattggat	tcaagttggt	1200
ttgagcgcta	taacgaagca	agagaggata	tcgaaacgcg	gtgttaaaga	actcttacia	1260
gacattaaga	ttgcttttag	atgtatggat	gaaaatgata	atgtagaaag	aaagaaaggt	1320
gaagaagatc	ctctctgcat	cacatggaaa	tctaataacg	aatcgggtcc	aatgactaag	1380
gatgagatca	agagacattt	gggtttgacg	aaatcagata	aggtggagaa	gattgaatct	1440
gatgaaaagc	aagaactgag	aaagaagctt	gaggaatcag	tgagagaagat	cagaaactta	1500
gaagcagaga	tgaaaacatt	gagagagaat	aaggaaaagg	tagaggcaga	gatggaaacg	1560
gagaaatcga	tgaaggaaga	tcttgataca	aagctgaaca	taacaagagc	taacctcaac	1620
gagacacaga	agaagttgtc	ttctcttgaa	gtagaatttg	attacagaaa	gagctgttgt	1680
gaagaactcg	aagggacttg	catcgagctt	cagcttcagc	tagaaagtgt	tgaaacaaag	1740
aaaccgacgc	agagaaacaa	aaacgggtgg	gatatagcaa	cagcttctgt	gaagttatca	1800
gagtgtcaag	aaacgattac	cagtttacgg	aagcaactaa	gagcgttatc	tacaacagaa	1860
acaagcagca	ccattaaatt	tctacacaaa	agatcttctc	tccgggaaaa	tatagcagag	1920
gatgatacta	acagagttgc	tcaagatgat	gatggtaacc	gttacaacgc	tttgatcgtg	1980



047-E2F-PCT.ST25.txt

tacgaaccag tgaaggcgag aggtgagaag atggagatgg taccgagaaa gaagcaagga 2040  
 ttagggttct tgaaaaaact gttgttcagg aggaaaagag tgagcagcaa gaaatgtctt 2100  
 gccttgacta tgtga 2115

<210> 1860

<211> 704

<212> PRT

<213> Arabidopsis thaliana

<400> 1860

Met Glu Thr Asn Gln Trp Arg Ser Arg Lys Lys Ile Glu Ser Ala Ala  
 1 5 10 15

Glu Thr Leu Gln Val Ser Ser Arg Arg Gly Arg Gly Gln Ala Arg Met  
 20 25 30

Val Pro Pro Val Ser Gly Val Arg Ser Glu Arg Ala Arg Lys Ser Leu  
 35 40 45

Ser Glu Lys Leu Glu Thr Val Ala Leu Asn Ser Pro Lys Lys Asp Ala  
 50 55 60

Arg Val Ser Leu Tyr Gly Glu Lys Ser Val Val Asp Glu Ile Phe Leu  
 65 70 75 80

Glu Asp Glu Glu Met Gly His Glu Thr Gly Leu Lys Asn Gly Glu Ser  
 85 90 95

Ser Pro Phe Cys Gly Val Ser Asp Lys Leu Leu Gln Arg Ile Glu Leu  
 100 105 110

Leu Gly Arg Asp His Glu Ala Thr Arg Leu Asp Asn Asn Lys Phe Arg  
 115 120 125

Ser Ile Glu Ser Met Lys Lys Arg Gln Glu Glu Ser Ala Cys Asp Asp  
 130 135 140

Leu Val Asp Met Lys Thr Lys Ile Gln Thr Leu Ala Ala Glu Asn Thr  
 145 150 155 160

Gln Leu Lys Lys Ser Leu Val Ala Lys Glu Glu Leu Ala Val Ser Leu  
 165 170 175

## 047-E2F-PCT.ST25.txt

Gln Glu Arg Lys Phe Gln Val Glu Ser Glu Phe Glu Ala Leu Met Thr  
 180 185 190  
 Arg Leu Asp Ser Thr Glu Lys Glu Asn Ala Phe Leu Arg Tyr Glu Tyr  
 195 200 205  
 Thr Val Leu Glu Lys Asp Leu Gln Val Lys Thr Glu Glu Thr Glu His  
 210 215 220  
 Thr Arg Arg Ser Met Glu Leu Thr His Lys Gln Gln Leu Arg Asn Val  
 225 230 235 240  
 Asn Lys Ile Val Glu Leu Glu Ala Glu Cys Gln Arg Leu Arg Leu Leu  
 245 250 255  
 Phe Arg Lys Lys Phe Pro Glu Lys Ser Ile Ser Met Arg Asn Glu Gly  
 260 265 270  
 Glu Glu Lys Lys Met Glu Met Arg Arg Arg Asn Ala Asn Lys Ser Asp  
 275 280 285  
 Met Met Met Arg Asp Glu Val Gln Ser Arg Lys Leu Lys Tyr Asp Leu  
 290 295 300  
 Leu Met Glu Gln Ile Gly Asn Val Arg Ala Glu Asn Lys Asn Leu Met  
 305 310 315 320  
 Asp Ile Ile Met Lys Lys Asn Ile Glu Ile Lys Asp Leu Ser Arg Gly  
 325 330 335  
 Gln Lys Pro Leu Glu Ala Ser Ser Phe Asp Ile Gln Ser Glu Ser Ser  
 340 345 350  
 Val Met Ser Pro Cys Gly Ser Lys Glu Met Lys Leu Leu Met Asp Asp  
 355 360 365  
 Phe Asn Glu Met Glu Lys Leu Ala Ile Val Cys Thr Glu Lys Asp Pro  
 370 375 380  
 Arg Val Asp Asp Glu Lys Glu Gly Ser Phe Asp Trp Ile Gln Val Val  
 385 390 395 400  
 Leu Ser Ala Ile Thr Lys Gln Glu Arg Ile Ser Lys Arg Gly Val Lys  
 405 410 415  
 Glu Leu Leu Gln Asp Ile Lys Ile Ala Leu Gly Cys Met Asp Glu Asn  
 420 425 430

047-E2F-PCT.ST25.txt

Asp Asn Val Glu Arg Lys Lys Gly Glu Glu Asp Pro Leu Cys Ile Thr  
435 440 445

Trp Lys Ser Asn Asn Glu Ser Gly Pro Met Thr Lys Asp Glu Ile Lys  
450 455 460

Arg His Leu Gly Leu Thr Lys Ser Asp Lys Val Glu Lys Ile Glu Ser  
465 470 475 480

Asp Glu Lys Gln Glu Leu Arg Lys Lys Leu Glu Glu Ser Val Glu Lys  
485 490 495

Ile Arg Asn Leu Glu Ala Glu Met Lys Thr Leu Arg Glu Asn Lys Glu  
500 505 510

Lys Val Glu Ala Glu Met Glu Thr Glu Lys Ser Met Lys Glu Asp Leu  
515 520 525

Asp Thr Lys Leu Asn Ile Thr Arg Ala Asn Leu Asn Glu Thr Gln Lys  
530 535 540

Lys Leu Ser Ser Leu Glu Val Glu Phe Asp Tyr Arg Lys Ser Cys Cys  
545 550 555 560

Glu Glu Leu Glu Gly Thr Cys Ile Glu Leu Gln Leu Gln Leu Glu Ser  
565 570 575

Val Glu Thr Lys Lys Pro Thr Gln Arg Asn Lys Asn Gly Trp Asp Ile  
580 585 590

Ala Thr Ala Ser Val Lys Leu Ser Glu Cys Gln Glu Thr Ile Thr Ser  
595 600 605

Leu Arg Lys Gln Leu Arg Ala Leu Ser Thr Thr Glu Thr Ser Ser Thr  
610 615 620

Ile Lys Phe Leu His Lys Arg Ser Ser Leu Arg Glu Asn Ile Ala Glu  
625 630 635 640

Asp Asp Thr Asn Arg Val Ala Gln Asp Asp Asp Gly Asn Arg Tyr Asn  
645 650 655

Ala Leu Ile Val Tyr Glu Pro Val Lys Ala Arg Gly Glu Lys Met Glu  
660 665 670

Met Val Pro Arg Lys Lys Gln Gly Leu Gly Phe Leu Lys Lys Leu Leu

675

047-E2F-PCT.ST25.txt  
680 685

Phe Arg Arg Lys Arg Val Ser Ser Lys Lys Cys Leu Ala Leu Thr Met  
690 695 700

&lt;210&gt; 1861

&lt;211&gt; 1848

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1861

```

atggcgacga agaactcaaa gcaaaacatg tccgtgttgt taactaagct cggagatcga      60
gatactttca caatggcggc tcgtgagctt gattttaatgg ctagacagat tgatccttct      120
tcctcctccg ggaatctcca gtcgtttatt tccgttatac tctccgtcga caccggagat      180
aaaccggcgg ttcgtaagca ttgtattcac ttgctcgccg ttttatcagt ttctcttcct      240
ctcaattctc tatctccttt cctctctaag atcctcactc gcatcacgag acgtctccgt      300
gatcccgact cttcgattcg atcaacttgc gtcgcggctg tgcgcggcga ctcttcacgc      360
acgacgaagc ctccgtttta ctcggcgttt atgaagccgt tagcagatac acttttact      420
gagcaggagg ttaatgcgca gatcggagcg gcgctttgtc tcgcggcggc gattgattca      480
gcgtctgatc cggatccggt tcggttaggg cagacacttt tgcctaggct agagaagctc      540
gtgaagtgtg acgcgtttta ggcgaaatcg gcgggagttg ttgtgatcgg aagtgtgatt      600
ggtgctgggt gtttgtcttg aaccagtgtg agctccggtg gattgaaagg acttgtggat      660
tgcttattga gcttcttggt tagtgaagat tgggcggcga ggaaagcagc tgctgaagct      720
ttggggaggt tagctacaat ggagagaaat gagctaggtg agttcaaggc taagtgcctg      780
aagatctttg aaagcaggaa atatgataag gtgaaagctg tgagagaggt gatgaatcag      840
atgatggagg cttggaaaca gggtccagat ttatcagaag aggtttctcc acccagatct      900
aatgcttctt ctaaaggtga tgcaagtgat ggacgatatc cttcaggggtc tagagttggt      960
tcaacacctg ctaaatacaag aactcatctg gttaacagat cgactccacc ggggagttca     1020
ctagccacca cggttaggaa gcaggctaata agaaaaagca ttgatcagaa gaaaaccagt     1080
ctaacagcat cacttacaaa accaaacgtg aggagaagat tggaatggaa agctggagga     1140
gctagtattc cactgggtgt gtctcttgaa gacgaacaac attgtgatca tgacgagaat     1200
gcgaaggaaa cgagtcattc tagtcacaat acggtgcaga agttaggagg tgtttccagt     1260
tctcttaatg gcaatatccc accatccggt gctacaatgg taacagggca tcacgtcttg     1320
tctgaaaacc caaatagtaa taactgcaaa gggcttgaag atatatcttt gatccgtaat     1380

```

047-E2F-PCT.ST25.txt

cagcttggtc agattgaaca acagcaagcc aatctaattg atcttcttca gagatttgct 1440  
ggaagctcgc aacacggaat gcgtggtctg gaaacacgag ttcacggatt agaacttgct 1500  
ctggacgaaa tatcttatga cttggcgggt tcaaattgga gaatgagtaa cggttcaagc 1560  
agaaacaact gttgtctcct tccttctgga agtttcatca aatctaaatt ctggaagaaa 1620  
cacgattcca agtattcagc atcgagaatg tccacttata ggaacagaaa tgcagaaacc 1680  
accgagatac aaaactcgag gcatcggttt aatggctctc ctggatttat agtcaacca 1740  
ttagctgaaa ttcgaccaga taatgatctg caggtctgcc tcacaattga gggacgacga 1800  
gaaacaaaac cttcaaaagc ttctgagact ttaaaaacca ctgtgtga 1848

<210> 1862

<211> 615

<212> PRT

<213> Arabidopsis thaliana

<400> 1862

Met Ala Thr Lys Asn Ser Lys Gln Asn Met Ser Val Leu Leu Thr Lys  
1 5 10 15

Leu Gly Asp Arg Asp Thr Phe Thr Met Ala Ala Arg Glu Leu Asp Leu  
20 25 30

Met Ala Arg Gln Ile Asp Pro Ser Ser Ser Gly Asn Leu Gln Ser  
35 40 45

Phe Ile Ser Val Ile Leu Ser Val Asp Thr Gly Asp Lys Pro Ala Val  
50 55 60

Arg Lys His Cys Ile His Leu Leu Ala Val Leu Ser Val Ser Leu Pro  
65 70 75 80

Leu Asn Ser Leu Ser Pro Phe Leu Ser Lys Ile Leu Thr Arg Ile Thr  
85 90 95

Arg Arg Leu Arg Asp Pro Asp Ser Ser Ile Arg Ser Thr Cys Val Ala  
100 105 110

Ala Val Ser Ala Ile Ser Ser Arg Thr Thr Lys Pro Pro Phe Tyr Ser  
115 120 125

Ala Phe Met Lys Pro Leu Ala Asp Thr Leu Phe Thr Glu Gln Glu Val  
Page 2735

130

135

Asn Ala Gln Ile Gly Ala Ala Leu Cys Leu Ala Ala Ala Ile Asp Ser  
145 150 155 160

Ala Ser Asp Pro Asp Pro Val Arg Leu Gly Gln Thr Leu Leu Pro Arg  
165 170 175

Leu Glu Lys Leu Val Lys Cys Asn Ala Phe Lys Ala Lys Ser Ala Gly  
180 185 190

Val Val Val Ile Gly Ser Val Ile Gly Ala Gly Gly Leu Ser Gly Thr  
195 200 205

Ser Val Ser Ser Gly Gly Leu Lys Gly Leu Val Asp Cys Leu Leu Ser  
210 215 220

Phe Leu Val Ser Glu Asp Trp Ala Ala Arg Lys Ala Ala Ala Glu Ala  
225 230 235 240

Leu Gly Arg Leu Ala Thr Met Glu Arg Asn Glu Leu Gly Glu Phe Lys  
245 250 255

Ala Lys Cys Leu Lys Ile Phe Glu Ser Arg Lys Tyr Asp Lys Val Lys  
260 265 270

Ala Val Arg Glu Val Met Asn Gln Met Met Glu Ala Trp Lys Gln Val  
275 280 285

Pro Asp Leu Ser Glu Glu Val Ser Pro Pro Arg Ser Asn Ala Ser Ser  
290 295 300

Lys Gly Asp Ala Ser Asp Gly Arg Tyr Pro Ser Gly Ser Arg Val Gly  
305 310 315 320

Ser Thr Pro Ala Lys Ser Arg Thr His Leu Val Asn Arg Ser Thr Pro  
325 330 335

Pro Gly Ser Ser Leu Ala Thr Thr Ala Arg Lys Gln Ala Asn Arg Lys  
340 345 350

Ser Ile Asp Gln Lys Lys Thr Ser Leu Thr Ala Ser Leu Thr Lys Pro  
355 360 365

Asn Val Arg Arg Arg Leu Glu Trp Lys Ala Gly Gly Ala Ser Ile Pro  
370 375 380

047-E2F-PCT.ST25.txt

Thr Gly Val Ser Leu Glu Asp Glu Gln His Cys Asp His Asp Glu Asn  
385 390 395 400

Ala Lys Glu Thr Ser His Ser Ser His Asn Thr Val Gln Lys Leu Gly  
405 410 415

Gly Val Ser Ser Ser Leu Asn Gly Asn Ile Pro Pro Ser Gly Ala Thr  
420 425 430

Met Val Thr Gly His His Val Leu Ser Glu Asn Pro Asn Ser Asn Asn  
435 440 445

Cys Lys Gly Leu Glu Asp Ile Ser Leu Ile Arg Asn Gln Leu Val Gln  
450 455 460

Ile Glu Gln Gln Gln Ala Asn Leu Met Asp Leu Leu Gln Arg Phe Val  
465 470 475 480

Gly Ser Ser Gln His Gly Met Arg Gly Leu Glu Thr Arg Val His Gly  
485 490 495

Leu Glu Leu Ala Leu Asp Glu Ile Ser Tyr Asp Leu Ala Val Ser Asn  
500 505 510

Gly Arg Met Ser Asn Gly Ser Ser Arg Asn Asn Cys Cys Leu Leu Pro  
515 520 525

Ser Gly Ser Phe Ile Lys Ser Lys Phe Trp Lys Lys His Asp Ser Lys  
530 535 540

Tyr Ser Ala Ser Arg Met Ser Thr Tyr Arg Asn Arg Asn Ala Glu Thr  
545 550 555 560

Thr Glu Ile Gln Asn Ser Arg His Arg Phe Asn Gly Ser Pro Gly Phe  
565 570 575

Ile Val Asn Pro Leu Ala Glu Ile Arg Pro Asp Asn Asp Leu Gln Val  
580 585 590

Cys Leu Thr Ile Glu Gly Arg Arg Glu Thr Lys Pro Ser Lys Ala Ser  
595 600 605

Glu Thr Leu Lys Thr Thr Val  
610 615

<210> 1863

<211> 981

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1863

```

atggcgggtgg cttctcttag tatttgcttc tctgctcggc cacatcttct tcttcgcaac    60
ttctctcctc gacccaaatt tgttgctatg gctgcaatga gtgaggatcc aattcgtgaa    120
tggattctta cagaaggaaa agcaactcag ataacaaaga ttggttctgt tgggtggtgga    180
tgcattaatc ttgcaagtca ttatcaaact gatgctggtt ctttcttcgt taaaactaac    240
aggagtattg gacctgccat gtttgagggg gaggctcttg gtcttgaggc tatgtatgaa    300
accagaacaa tccgtgttcc aaatccacac aaagctgggg aattgccaac aggtggatct    360
tatatcatca tggagtttat agattttggg ggatcaagag gcaatcaggc tgaattagga    420
aggaagctag ctgagatgca taaagccggg aaaacttcga aaggttttgg ctttgagggt    480
gacaacacta ttggcagtac cccgcagatc aatacttggt cttcggattg gattgaattt    540
tatggtgaga agagattggg ttaccagctt aagttagcta gggatcagta tggtgactct    600
gctattttatc agaaagggtca tacactgata cagaacatgg cacctctctt tgagaatggt    660
gtcatagaac cgtgcttggt acatggtgat ctctggagcg ggaatatcgc atacgacaag    720
aacaacgaac ctgtcattct tgatcctgcc tgttactatg ggcataacga ggcggatttt    780
ggaatgtcgt ggtgcgaggg atttggagaa tctttctaca atgcctatct caaggtaatg    840
ccaaaacaag cgggatatga gaagaggagg gatctgtatt tgctctatca ttacttgaac    900
cattataacc tgtttggctc gggctaccga tcatctgcga tgtcaatcat cgatgattat    960
ctacggatgc tcaaagctta a                                     981

```

&lt;210&gt; 1864

&lt;211&gt; 326

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1864

```

Met Ala Val Ala Ser Leu Ser Ile Cys Phe Ser Ala Arg Pro His Leu
1           5           10           15
Leu Leu Arg Asn Phe Ser Pro Arg Pro Lys Phe Val Ala Met Ala Ala
                20                25                30

```



Met Ser Glu Asp Pro Ile Arg Glu Trp Ile Leu Thr Glu Gly Lys Ala  
 35 40 45  
 Thr Gln Ile Thr Lys Ile Gly Ser Val Gly Gly Gly Cys Ile Asn Leu  
 50 55 60  
 Ala Ser His Tyr Gln Thr Asp Ala Gly Ser Phe Phe Val Lys Thr Asn  
 65 70 75 80  
 Arg Ser Ile Gly Pro Ala Met Phe Glu Gly Glu Ala Leu Gly Leu Glu  
 85 90 95  
 Ala Met Tyr Glu Thr Arg Thr Ile Arg Val Pro Asn Pro His Lys Ala  
 100 105 110  
 Gly Glu Leu Pro Thr Gly Gly Ser Tyr Ile Ile Met Glu Phe Ile Asp  
 115 120 125  
 Phe Gly Gly Ser Arg Gly Asn Gln Ala Glu Leu Gly Arg Lys Leu Ala  
 130 135 140  
 Glu Met His Lys Ala Gly Lys Thr Ser Lys Gly Phe Gly Phe Glu Val  
 145 150 155 160  
 Asp Asn Thr Ile Gly Ser Thr Pro Gln Ile Asn Thr Trp Ser Ser Asp  
 165 170 175  
 Trp Ile Glu Phe Tyr Gly Glu Lys Arg Leu Gly Tyr Gln Leu Lys Leu  
 180 185 190  
 Ala Arg Asp Gln Tyr Gly Asp Ser Ala Ile Tyr Gln Lys Gly His Thr  
 195 200 205  
 Leu Ile Gln Asn Met Ala Pro Leu Phe Glu Asn Val Val Ile Glu Pro  
 210 215 220  
 Cys Leu Leu His Gly Asp Leu Trp Ser Gly Asn Ile Ala Tyr Asp Lys  
 225 230 235 240  
 Asn Asn Glu Pro Val Ile Leu Asp Pro Ala Cys Tyr Tyr Gly His Asn  
 245 250 255  
 Glu Ala Asp Phe Gly Met Ser Trp Cys Ala Gly Phe Gly Glu Ser Phe  
 260 265 270  
 Tyr Asn Ala Tyr Phe Lys Val Met Pro Lys Gln Ala Gly Tyr Glu Lys  
 275 280 285

047-E2F-PCT.ST25.txt

Arg Arg Asp Leu Tyr Leu Leu Tyr His Tyr Leu Asn His Tyr Asn Leu  
290 295 300

Phe Gly Ser Gly Tyr Arg Ser Ser Ala Met Ser Ile Ile Asp Asp Tyr  
305 310 315 320

Leu Arg Met Leu Lys Ala  
325

<210> 1865

<211> 1182

<212> DNA

<213> Arabidopsis thaliana

<400> 1865

```
atggactgca acatggtatc ttcgtcccag tgggattggg agcatttgat catgtccaat      60
ccgtcaagga ctgaagatga cagcaaacag ctacctactg agtgggaaat tgaaaaaggt      120
gaaggaattg aatctatagt tccacatttc tcaggccttg agagagtcag tagtggctct      180
gccaccagct tctggcacac tgctgtatcg aaaagctcac agtcgacctc tatcaactca      240
tcatctcccg aagccaaacg atgcaagctt gcatcagaaa gttcccctgg agattcttgc      300
agcaacatag actttgtcca ggtgaaggct cccacagctc tcgaggatc cgttgcctca      360
gctgaatcag atctttgttt aaaactagga aagcggacat actctgaaga atactggggt      420
agaaacaata atgaaatttc agcggtttct atgaagtgtg taactccatc tgttgctgct      480
gggaaatcca aattgtgtgg tcagagcatg ccagtcccgc gttgccaaat tgatggctgt      540
gaactggatc tctcatctgc taagggttat catcgtaagc acaaagtctg cgaaaagcat      600
tcaaagtgcc caaaagttag cgtgagtggc ctggaacgtc ggttctgcca acagtgtagc      660
aggttccatg ctgtctctga atttgatgag aagaaacgaa gctgccgaaa acgtctttct      720
catcataatg cgaggcgctg taagccacaa ggagtatttt caatgaatcc cgagaggggtg      780
tatgatcgaa gacagcatac aaatatgttg tggaatgggg tgtcccttaa cgcgagatct      840
gaagaaatgt atgaatgggg taataacact tatgatacaa agcctagaca aacggaaaaa      900
agctttactc tgagcttcca gagaggtaat ggctctgagg accagctggg tgctagtagc      960
agccgtatgt tctctacatc tcaaacctca ggtgggttcc cagcaggaaa gtccaagttt     1020
caacttcatg gcgaagatgt gggagaatac tcaggagtcc tccatgaatc tcaagatatc     1080
caccgtgctc tctctcttct gtcaacctct tcggatcccc tggcccaacc acatgtgcag     1140
ccattttctc tactctgttc atatgatgtt gtacaaaaat ag                               1182
```

&lt;210&gt; 1866

&lt;211&gt; 393

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1866

Met Asp Cys Asn Met Val Ser Ser Ser Gln Trp Asp Trp Glu His Leu  
 1 5 10 15

Ile Met Ser Asn Pro Ser Arg Thr Glu Asp Asp Ser Lys Gln Leu Pro  
 20 25 30

Thr Glu Trp Glu Ile Glu Lys Gly Glu Gly Ile Glu Ser Ile Val Pro  
 35 40 45

His Phe Ser Gly Leu Glu Arg Val Ser Ser Gly Ser Ala Thr Ser Phe  
 50 55 60

Trp His Thr Ala Val Ser Lys Ser Ser Gln Ser Thr Ser Ile Asn Ser  
 65 70 75 80

Ser Ser Pro Glu Ala Lys Arg Cys Lys Leu Ala Ser Glu Ser Ser Pro  
 85 90 95

Gly Asp Ser Cys Ser Asn Ile Asp Phe Val Gln Val Lys Ala Pro Thr  
 100 105 110

Ala Leu Glu Val Ser Val Ala Ser Ala Glu Ser Asp Leu Cys Leu Lys  
 115 120 125

Leu Gly Lys Arg Thr Tyr Ser Glu Glu Tyr Trp Gly Arg Asn Asn Asn  
 130 135 140

Glu Ile Ser Ala Val Ser Met Lys Leu Leu Thr Pro Ser Val Val Ala  
 145 150 155 160

Gly Lys Ser Lys Leu Cys Gly Gln Ser Met Pro Val Pro Arg Cys Gln  
 165 170 175

Ile Asp Gly Cys Glu Leu Asp Leu Ser Ser Ala Lys Gly Tyr His Arg  
 180 185 190

Lys His Lys Val Cys Glu Lys His Ser Lys Cys Pro Lys Val Ser Val  
 Page 2741

195

200

205

Ser Gly Leu Glu Arg Arg Phe Cys Gln Gln Cys Ser Arg Phe His Ala  
 210 215 220  
 Val Ser Glu Phe Asp Glu Lys Lys Arg Ser Cys Arg Lys Arg Leu Ser  
 225 230 235 240  
 His His Asn Ala Arg Arg Arg Lys Pro Gln Gly Val Phe Ser Met Asn  
 245 250 255  
 Pro Glu Arg Val Tyr Asp Arg Arg Gln His Thr Asn Met Leu Trp Asn  
 260 265 270  
 Gly Val Ser Leu Asn Ala Arg Ser Glu Glu Met Tyr Glu Trp Gly Asn  
 275 280 285  
 Asn Thr Tyr Asp Thr Lys Pro Arg Gln Thr Glu Lys Ser Phe Thr Leu  
 290 295 300  
 Ser Phe Gln Arg Gly Asn Gly Ser Glu Asp Gln Leu Val Ala Ser Ser  
 305 310 315 320  
 Ser Arg Met Phe Ser Thr Ser Gln Thr Ser Gly Gly Phe Pro Ala Gly  
 325 330 335  
 Lys Ser Lys Phe Gln Leu His Gly Glu Asp Val Gly Glu Tyr Ser Gly  
 340 345 350  
 Val Leu His Glu Ser Gln Asp Ile His Arg Ala Leu Ser Leu Leu Ser  
 355 360 365  
 Thr Ser Ser Asp Pro Leu Ala Gln Pro His Val Gln Pro Phe Ser Leu  
 370 375 380  
 Leu Cys Ser Tyr Asp Val Val Pro Lys  
 385 390

&lt;210&gt; 1867

&lt;211&gt; 3252

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1867

atggcaagaa atgattggat aaacagttac ctggaagcta ttcttgatgt tggaactagc

60

## 047-E2F-PCT.ST25.txt

aagaaaaaga	ggtttgagag	caactccaag	atcgtccaga	agcttggaga	tatcaacagt	120
aaggatcatc	aggagaaggt	gtttggagat	atgaatggga	aggatcatca	agagaaggtg	180
tttagtccca	tcaaatactt	tgtggaagag	gtcgtcaaca	gtttcgatga	gtctgacctg	240
tataaaacat	ggattaaggt	gatagcaaca	aggaatactc	gtgaacgcag	taacaggctt	300
gagaatatat	gctggcgcag	ttggcatctc	gcacgcaaga	aaaagcagat	tgtgtgggat	360
gacgggggta	gacttttcaa	acgaagaatt	gaacgtgaac	aagggtcgaa	tgatgcagaa	420
gaggatcttc	tttctgagct	ttctgaagga	gagaaggata	agaatgatgg	agagaaggag	480
aagagtgaag	ttgttacaac	tctcgaacca	cctcgagatc	acatgccccg	tatccgctct	540
gaaatgcaaa	tttggtcaga	agatgataaa	tcaagtcgaa	acctttacat	tgtcttaatc	600
aggcaagtag	agattggttt	ttctgactta	tttgttgttt	tcaatatgct	cgtgggactt	660
acctggtgcc	tctatttggt	tccatgcttt	accaactgca	gcatgcatgg	actcgtgcgt	720
ggagaaaaca	tggagcttgg	aagagactct	gatactggtg	ggcaggtgaa	atatgttggt	780
gagcttgctc	gtgcgttggc	caacactgaa	ggtgtccaca	gggtcgatct	cttaacacgg	840
cagatcagtt	caccagaggt	tgactacagc	tacggcgagc	cagttgagat	gttatcatgc	900
cctccagaag	gtagcgacag	ctgtggctcc	tacattatcc	gcatcccctg	tggttctcgg	960
gacaagtaca	taccaaagga	gtcactctgg	ccccatattc	ccgagtttgt	tgacggggcg	1020
ctaaatcaca	tagtgagcat	agcaagggtcg	ctaggagagc	aagtgaatgg	agggaaacca	1080
atatggcctt	atgtaattca	tggccactat	gctgatgcag	gagaagtagc	tgacatcttg	1140
gcaggagcgt	taaatgtgcc	aatggttcta	actggtcact	ctttgggaag	gaataagttt	1200
gagcagttgc	ttcaacaagg	gagaattacc	agagaggata	ttgacagaac	atataagatc	1260
atgaggagaa	tagaagctga	agaacagagc	ctagatgcag	cggagatggt	ggtgacaagc	1320
acacgacaag	agattgacgc	gcagtggggg	ctgtatgatg	gttttgatat	caagctggag	1380
aggaagctca	gggttagaag	acggcgtgga	gtcagctgcc	ttggtagata	catgccacga	1440
atggtgggta	tacccccagg	catggatttc	agctatgtct	tgacacaaga	ttcacaggaa	1500
cccgatggtg	atcttaagtc	gctaattggc	cctgaccgaa	accagataaa	aaagcctgtg	1560
cctccaatat	ggtccgagat	aatgagattt	ttctcaaata	ctcataaacc	aaccatactt	1620
gcgctgtctc	gtcctgacca	caagaaaaat	gtcaccacat	tggtcaaagc	ttttggtgaa	1680
tgtcagcctc	ttcgagaact	agccaacctg	gtacttatac	taggtaaccg	agatgacatc	1740
gaagagatgc	ctaatagcag	ctcagttggt	ctcatgaatg	tactaaagct	gatagaccag	1800
tacgacttgt	acggccaagt	agcttatcca	aagcatcata	aacaatctga	agttccagat	1860
atttaccgct	tagcagccaa	aactaagggg	gttttcatca	atccagctct	ggtggagccg	1920

```

tttggtctca cgctcattga ggcagctgct tatggctctgc ccattggtgc caccagaaat 1980
ggagggcctg ttgatattgt gaaggcacta aataatgggc tcctagtcga ccccatgac 2040
caacaagcca tttctgatgc ctttctaaag ctagtgtgcta acaaacatct ctgggctgag 2100
tgtagaaaaa acggactcaa gaacatccac cgtttttcat ggccagagca ctgccgtaac 2160
tacctatccc atgtcgaaca ttgcagaaac cgtcacccta ccagtagtct cgacatcatg 2220
aaagttccag aagagctcac aagtgattct ctacgagatg tcgatgacat atctttgaga 2280
ttctccacag aaggagattt cactctcaac ggagaactag atgcaggtac cagacagaag 2340
aaactagtcg atgccataag tcaaatgaat tcaatgaaag gttgctcagc tgctatctac 2400
agccctggta gaaggcagat gctctttgtg gttgctgttg attcctatga tgacaacgga 2460
aacatcaaag cgaatttgaa cgaaatcatc aagaatatga taaaagctgc agatttgaca 2520
tcgggtaaag gaaaaatagg ttttgtgcta gcctcagggt caagcttaca agaagttgtg 2580
gatattacgc agaaaaacct gattaatctg gaagattttg atgcaatagt ttgcaacagc 2640
ggaagtgaga tctactatcc atggagagat atgatggttg atgcagacta cgaaactcat 2700
gtggaataca aatggcctgg tgaaagtata aggtcgggtga ttctgagact tatatgtacg 2760
gaacctgcag ctgaggatga tatcacagag tatgcgagtt catgcagtac aagatgctat 2820
gcaatttctg tgaaacaagg agtcaagact cgaagagtcg atgaccttag gcagaggcctt 2880
cggatgagag gtttaagggt caacattgtc tatactcatg cagcaacaag gctaaatggt 2940
ataccactat gtgcatcaag aatacaagca ctcagggtatc tttctataag gtggggaatt 3000
gacatgtcga agactgtttt ctttttggga gagaaaggag acacagacta tgaggactta 3060
ctgggtggcc tccacaaaac catcattcta aaaggtgtag tgggatcaga cagtgagaag 3120
cttcttcgca gtgaagaaaa cttcaaaaga gaagacgcag ttccacaaga gagccctaac 3180
atttcctatg tcaaagagaa tggcggatct caggaaatta tgtccacttt agaggcctat 3240
gggatcaagt aa 3252

```

<210> 1868

<211> 1083

<212> PRT

<213> Arabidopsis thaliana

<400> 1868

Met Ala Arg Asn Asp Trp Ile Asn Ser Tyr Leu Glu Ala Ile Leu Asp  
1 5 10 15

Val Gly Thr Ser Lys Lys Lys Arg Phe Glu Ser Asn Ser Lys Ile Val  
 20 25 30  
 Gln Lys Leu Gly Asp Ile Asn Ser Lys Asp His Gln Glu Lys Val Phe  
 35 40 45  
 Gly Asp Met Asn Gly Lys Asp His Gln Glu Lys Val Phe Ser Pro Ile  
 50 55 60  
 Lys Tyr Phe Val Glu Glu Val Val Asn Ser Phe Asp Glu Ser Asp Leu  
 65 70 75 80  
 Tyr Lys Thr Trp Ile Lys Val Ile Ala Thr Arg Asn Thr Arg Glu Arg  
 85 90 95  
 Ser Asn Arg Leu Glu Asn Ile Cys Trp Arg Ile Trp His Leu Ala Arg  
 100 105 110  
 Lys Lys Lys Gln Ile Val Trp Asp Asp Gly Val Arg Leu Ser Lys Arg  
 115 120 125  
 Arg Ile Glu Arg Glu Gln Gly Arg Asn Asp Ala Glu Glu Asp Leu Leu  
 130 135 140  
 Ser Glu Leu Ser Glu Gly Glu Lys Asp Lys Asn Asp Gly Glu Lys Glu  
 145 150 155 160  
 Lys Ser Glu Val Val Thr Thr Leu Glu Pro Pro Arg Asp His Met Pro  
 165 170 175  
 Arg Ile Arg Ser Glu Met Gln Ile Trp Ser Glu Asp Asp Lys Ser Ser  
 180 185 190  
 Arg Asn Leu Tyr Ile Val Leu Ile Arg Gln Val Glu Ile Gly Phe Ser  
 195 200 205  
 Asp Leu Phe Val Val Phe Asn Met Leu Val Gly Leu Thr Trp Cys Leu  
 210 215 220  
 Tyr Leu Val Pro Cys Phe Thr Asn Cys Ser Met His Gly Leu Val Arg  
 225 230 235 240  
 Gly Glu Asn Met Glu Leu Gly Arg Asp Ser Asp Thr Gly Gly Gln Val  
 245 250 255  
 Lys Tyr Val Val Glu Leu Ala Arg Ala Leu Ala Asn Thr Glu Gly Val  
 260 265 270

047-E2F-PCT.ST25.txt

His Arg Val Asp Leu Leu Thr Arg Gln Ile Ser Ser Pro Glu Val Asp  
 275 280 285  
 Tyr Ser Tyr Gly Glu Pro Val Glu Met Leu Ser Cys Pro Pro Glu Gly  
 290 295 300  
 Ser Asp Ser Cys Gly Ser Tyr Ile Ile Arg Ile Pro Cys Gly Ser Arg  
 305 310 315 320  
 Asp Lys Tyr Ile Pro Lys Glu Ser Leu Trp Pro His Ile Pro Glu Phe  
 325 330 335  
 Val Asp Gly Ala Leu Asn His Ile Val Ser Ile Ala Arg Ser Leu Gly  
 340 345 350  
 Glu Gln Val Asn Gly Gly Lys Pro Ile Trp Pro Tyr Val Ile His Gly  
 355 360 365  
 His Tyr Ala Asp Ala Gly Glu Val Ala Ala His Leu Ala Gly Ala Leu  
 370 375 380  
 Asn Val Pro Met Val Leu Thr Gly His Ser Leu Gly Arg Asn Lys Phe  
 385 390 395 400  
 Glu Gln Leu Leu Gln Gln Gly Arg Ile Thr Arg Glu Asp Ile Asp Arg  
 405 410 415  
 Thr Tyr Lys Ile Met Arg Arg Ile Glu Ala Glu Glu Gln Ser Leu Asp  
 420 425 430  
 Ala Ala Glu Met Val Val Thr Ser Thr Arg Gln Glu Ile Asp Ala Gln  
 435 440 445  
 Trp Gly Leu Tyr Asp Gly Phe Asp Ile Lys Leu Glu Arg Lys Leu Arg  
 450 455 460  
 Val Arg Arg Arg Arg Gly Val Ser Cys Leu Gly Arg Tyr Met Pro Arg  
 465 470 475 480  
 Met Val Val Ile Pro Pro Gly Met Asp Phe Ser Tyr Val Leu Thr Gln  
 485 490 495  
 Asp Ser Gln Glu Pro Asp Gly Asp Leu Lys Ser Leu Ile Gly Pro Asp  
 500 505 510  
 Arg Asn Gln Ile Lys Lys Pro Val Pro Pro Ile Trp Ser Glu Ile Met  
 515 520 525



047-E2F-PCT.ST25.txt

Arg Phe Phe Ser Asn Pro His Lys Pro Thr Ile Leu Ala Leu Ser Arg  
530 535 540

Pro Asp His Lys Lys Asn Val Thr Thr Leu Val Lys Ala Phe Gly Glu  
545 550 555 560

Cys Gln Pro Leu Arg Glu Leu Ala Asn Leu Val Leu Ile Leu Gly Asn  
565 570 575

Arg Asp Asp Ile Glu Glu Met Pro Asn Ser Ser Ser Val Val Leu Met  
580 585 590

Asn Val Leu Lys Leu Ile Asp Gln Tyr Asp Leu Tyr Gly Gln Val Ala  
595 600 605

Tyr Pro Lys His His Lys Gln Ser Glu Val Pro Asp Ile Tyr Arg Leu  
610 615 620

Ala Ala Lys Thr Lys Gly Val Phe Ile Asn Pro Ala Leu Val Glu Pro  
625 630 635 640

Phe Gly Leu Thr Leu Ile Glu Ala Ala Ala Tyr Gly Leu Pro Ile Val  
645 650 655

Ala Thr Arg Asn Gly Gly Pro Val Asp Ile Val Lys Ala Leu Asn Asn  
660 665 670

Gly Leu Leu Val Asp Pro His Asp Gln Gln Ala Ile Ser Asp Ala Leu  
675 680 685

Leu Lys Leu Val Ala Asn Lys His Leu Trp Ala Glu Cys Arg Lys Asn  
690 695 700

Gly Leu Lys Asn Ile His Arg Phe Ser Trp Pro Glu His Cys Arg Asn  
705 710 715 720

Tyr Leu Ser His Val Glu His Cys Arg Asn Arg His Pro Thr Ser Ser  
725 730 735

Leu Asp Ile Met Lys Val Pro Glu Glu Leu Thr Ser Asp Ser Leu Arg  
740 745 750

Asp Val Asp Asp Ile Ser Leu Arg Phe Ser Thr Glu Gly Asp Phe Thr  
755 760 765

Leu Asn Gly Glu Leu Asp Ala Gly Thr Arg Gln Lys Lys Leu Val Asp

770

775

Ala Ile Ser Gln Met Asn Ser Met Lys Gly Cys Ser Ala Ala Ile Tyr  
785 790 795 800

Ser Pro Gly Arg Arg Gln Met Leu Phe Val Val Ala Val Asp Ser Tyr  
805 810 815

Asp Asp Asn Gly Asn Ile Lys Ala Asn Leu Asn Glu Ile Ile Lys Asn  
820 825 830

Met Ile Lys Ala Ala Asp Leu Thr Ser Gly Lys Gly Lys Ile Gly Phe  
835 840 845

Val Leu Ala Ser Gly Ser Ser Leu Gln Glu Val Val Asp Ile Thr Gln  
850 855 860

Lys Asn Leu Ile Asn Leu Glu Asp Phe Asp Ala Ile Val Cys Asn Ser  
865 870 875 880

Gly Ser Glu Ile Tyr Tyr Pro Trp Arg Asp Met Met Val Asp Ala Asp  
885 890 895

Tyr Glu Thr His Val Glu Tyr Lys Trp Pro Gly Glu Ser Ile Arg Ser  
900 905 910

Val Ile Leu Arg Leu Ile Cys Thr Glu Pro Ala Ala Glu Asp Asp Ile  
915 920 925

Thr Glu Tyr Ala Ser Ser Cys Ser Thr Arg Cys Tyr Ala Ile Ser Val  
930 935 940

Lys Gln Gly Val Lys Thr Arg Arg Val Asp Asp Leu Arg Gln Arg Leu  
945 950 955 960

Arg Met Arg Gly Leu Arg Cys Asn Ile Val Tyr Thr His Ala Ala Thr  
965 970 975

Arg Leu Asn Val Ile Pro Leu Cys Ala Ser Arg Ile Gln Ala Leu Arg  
980 985 990

Tyr Leu Ser Ile Arg Trp Gly Ile Asp Met Ser Lys Thr Val Phe Phe  
995 1000 1005

Leu Gly Glu Lys Gly Asp Thr Asp Tyr Glu Asp Leu Leu Gly Gly  
1010 1015 1020

Leu His Lys Thr Ile Ile Leu Lys Gly Val Val Gly Ser Asp Ser  
 1025 1030 1035

Glu Lys Leu Leu Arg Ser Glu Glu Asn Phe Lys Arg Glu Asp Ala  
 1040 1045 1050

Val Pro Gln Glu Ser Pro Asn Ile Ser Tyr Val Lys Glu Asn Gly  
 1055 1060 1065

Gly Ser Gln Glu Ile Met Ser Thr Leu Glu Ala Tyr Gly Ile Lys  
 1070 1075 1080

<210> 1869

<211> 1365

<212> DNA

<213> Arabidopsis thaliana

<400> 1869

```

atggccttag ctgttacttc ttcttcaact gcaatctctg gatcgagttt ctctcgttct    60
ggagcttctt ctgaatctaa agctcttcaa atatgttcga ttaggttatc tgatcgaacc    120
catttgcttc agagacgtta ctctatgaaa cctttaaacg ctgagtcaca ttcacgaagc    180
gaatcttggg ttactcgtgc ttcaactcta attgctcctg aagttgaaga gaaaggagga    240
gaagttgaag actttgagca acttgctaaa aagcttgaag atgcttctcc acttgaaatc    300
atggataaag ctcttgagag attcggagac caaatcgcaa ttgcttttag tggagctgaa    360
gatgttgcac tgattgaata tgcacgttta actggaaagc catttagggg ttttagttta    420
gatacagggg gattaaaccc tgaaacgtac aggctctttg acgcagtcga gaagcagtac    480
gggattcgaa ttgagtacat gtttcctgat gcagttgagg ttcaagcttt agtgaggaac    540
aagggtttgt tctcattcta tgaagatggg catcaagagt gttgccgtgt gaggaaagtt    600
agacctttgc gtcgtgctct taagggtctt aaagcttgga ttacaggaca gaggaaagac    660
caatctccgg gtacgagatc tgagatccct attgttcagg ttgatccagt gtttgaaggg    720
ttagatggcg gtgttggaag tcttgtgaag tggaatcctt tggctaattg tgaaggagct    780
gatgtgtgga actttctgag aactatggat gttccggtga atgcattgca cgcacaaggg    840
tatgtgtcaa tcgggtgtga gccgtgtact aggccggtgc ttccaggcca acatgagaga    900
gaaggaaggt ggtggtggga agatgctaaa gctaaagaat gtggtctaca caaaggggaa    960
atcaaggagg aagatggtgc tgcagactca aagcctgctg ctgtgcaaga gatatttgaa   1020
agcaacaatg tggttgcatt gagcaaagga ggggttgaga atcttttgaa gctagagaac   1080

```

047-E2F-PCT.ST25.txt

cgtaaagagg cgtggttggt cgtactttac gctccttggt gccctttctg ccaggcgatg 1140  
 gaagcatcgt acatcgaatt ggctgagaaa cttgcgggaa aaggagttaa agtggcgaaa 1200  
 ttccgagctg acggtgagca gaaggagttt gctaagcaag agcttcagtt agggagcttc 1260  
 ccgacgatac ttctctttcc gaaaagagct ccacgggcta ttaagtaccc ttcagagcat 1320  
 agagatgttg attcactcat gtcgtttgtg aatcttcttc ggtga 1365

<210> 1870

<211> 454

<212> PRT

<213> Arabidopsis thaliana

<400> 1870

Met Ala Leu Ala Val Thr Ser Ser Ser Thr Ala Ile Ser Gly Ser Ser  
 1 5 10 15

Phe Ser Arg Ser Gly Ala Ser Ser Glu Ser Lys Ala Leu Gln Ile Cys  
 20 25 30

Ser Ile Arg Leu Ser Asp Arg Thr His Leu Ser Gln Arg Arg Tyr Ser  
 35 40 45

Met Lys Pro Leu Asn Ala Glu Ser His Ser Arg Ser Glu Ser Trp Val  
 50 55 60

Thr Arg Ala Ser Thr Leu Ile Ala Pro Glu Val Glu Glu Lys Gly Gly  
 65 70 75 80

Glu Val Glu Asp Phe Glu Gln Leu Ala Lys Lys Leu Glu Asp Ala Ser  
 85 90 95

Pro Leu Glu Ile Met Asp Lys Ala Leu Glu Arg Phe Gly Asp Gln Ile  
 100 105 110

Ala Ile Ala Phe Ser Gly Ala Glu Asp Val Ala Leu Ile Glu Tyr Ala  
 115 120 125

Arg Leu Thr Gly Lys Pro Phe Arg Val Phe Ser Leu Asp Thr Gly Arg  
 130 135 140

Leu Asn Pro Glu Thr Tyr Arg Leu Phe Asp Ala Val Glu Lys Gln Tyr  
 145 150 155 160

Gly Ile Arg Ile Glu Tyr Met Phe Pro Asp Ala Val Glu Val Gln Ala  
 165 170 175  
 Leu Val Arg Asn Lys Gly Leu Phe Ser Phe Tyr Glu Asp Gly His Gln  
 180 185 190  
 Glu Cys Cys Arg Val Arg Lys Val Arg Pro Leu Arg Arg Ala Leu Lys  
 195 200 205  
 Gly Leu Lys Ala Trp Ile Thr Gly Gln Arg Lys Asp Gln Ser Pro Gly  
 210 215 220  
 Thr Arg Ser Glu Ile Pro Ile Val Gln Val Asp Pro Val Phe Glu Gly  
 225 230 235 240  
 Leu Asp Gly Gly Val Gly Ser Leu Val Lys Trp Asn Pro Leu Ala Asn  
 245 250 255  
 Val Glu Gly Ala Asp Val Trp Asn Phe Leu Arg Thr Met Asp Val Pro  
 260 265 270  
 Val Asn Ala Leu His Ala Gln Gly Tyr Val Ser Ile Gly Cys Glu Pro  
 275 280 285  
 Cys Thr Arg Pro Val Leu Pro Gly Gln His Glu Arg Glu Gly Arg Trp  
 290 295 300  
 Trp Trp Glu Asp Ala Lys Ala Lys Glu Cys Gly Leu His Lys Gly Asn  
 305 310 315 320  
 Ile Lys Glu Glu Asp Gly Ala Ala Asp Ser Lys Pro Ala Ala Val Gln  
 325 330 335  
 Glu Ile Phe Glu Ser Asn Asn Val Val Ala Leu Ser Lys Gly Gly Val  
 340 345 350  
 Glu Asn Leu Leu Lys Leu Glu Asn Arg Lys Glu Ala Trp Leu Val Val  
 355 360 365  
 Leu Tyr Ala Pro Trp Cys Pro Phe Cys Gln Ala Met Glu Ala Ser Tyr  
 370 375 380  
 Ile Glu Leu Ala Glu Lys Leu Ala Gly Lys Gly Val Lys Val Ala Lys  
 385 390 395 400  
 Phe Arg Ala Asp Gly Glu Gln Lys Glu Phe Ala Lys Gln Glu Leu Gln  
 405 410 415

047-E2F-PCT.ST25.txt

Leu Gly Ser Phe Pro Thr Ile Leu Leu Phe Pro Lys Arg Ala Pro Arg  
420 425 430

Ala Ile Lys Tyr Pro Ser Glu His Arg Asp Val Asp Ser Leu Met Ser  
435 440 445

Phe Val Asn Leu Leu Arg  
450

<210> 1871

<211> 408

<212> DNA

<213> Arabidopsis thaliana

<400> 1871  
atggtgaagt tcttgaagca gaacaaggcc gtgaccttc ttcaaggacg ttacgccgga 60  
aagaaagccg tcatcatcaa atccttcgac gacggtaacc gtgacgtcc ttacggacac 120  
tgctctgctg cggactcaa gaagtaccg agcaaagtca tccgcaaaga ctcagctaag 180  
aagacagcta agaaatctag ggttaagtgt ttcacaaagc ttgttaatta ccagcatctg 240  
atgcctactc gttacacact cgacgtggat ctcaaggaag tggcgactct tgatgctctt 300  
cagagtaagg ataagaaggt tgctgctctt aaggaagcta aggctaagct tgaggagagg 360  
ttcaaaaccg gtaagaacag atggttcttt accaagctca ggttctga 408

<210> 1872

<211> 135

<212> PRT

<213> Arabidopsis thaliana

<400> 1872

Met Val Lys Phe Leu Lys Gln Asn Lys Ala Val Ile Leu Leu Gln Gly  
1 5 10 15

Arg Tyr Ala Gly Lys Lys Ala Val Ile Ile Lys Ser Phe Asp Asp Gly  
20 25 30

Asn Arg Asp Arg Pro Tyr Gly His Cys Leu Val Ala Gly Leu Lys Lys  
35 40 45

047-E2F-PCT.ST25.txt

Tyr Pro Ser Lys Val Ile Arg Lys Asp Ser Ala Lys Lys Thr Ala Lys  
50 55 60

Lys Ser Arg Val Lys Cys Phe Ile Lys Leu Val Asn Tyr Gln His Leu  
65 70 75 80

Met Pro Thr Arg Tyr Thr Leu Asp Val Asp Leu Lys Glu Val Ala Thr  
85 90 95

Leu Asp Ala Leu Gln Ser Lys Asp Lys Lys Val Ala Ala Leu Lys Glu  
100 105 110

Ala Lys Ala Lys Leu Glu Glu Arg Phe Lys Thr Gly Lys Asn Arg Trp  
115 120 125

Phe Phe Thr Lys Leu Arg Phe  
130 135

<210> 1873

<211> 1827

<212> DNA

<213> Arabidopsis thaliana

<400> 1873

atggagacaa attcgtcttg agaagatctg gttattaaga ctcggaagcc atatacgata	60
acaaagcaac gtgaaaggtg gactgaggaa gaacataata gattcattga agctttgagg	120
ctttatggta gagcatggca gaagattgaa gaacatgtag caacaaaaac tgctgtccag	180
ataagaagtc acgctcagaa atttttctcc aaggtagaga aagaggctga agctaaaggt	240
gtagctatgg gtcaagcgct agacatagct attcctcctc cacggcctaa gcgtaaacca	300
aacaatcctt atcctcgaaa gacgggaagt ggaacgatcc ttatgtcaaa aacgggtgtg	360
aatgatggaa aagagtcctt tggatcagaa aaagtgtcgc atcctgagat ggccaatgaa	420
gatcgacaac aatcaaagcc tgaagagaaa actctgcagg aagacaactg ttcagattgt	480
ttcactcatc agtatctctc tgctgcatcc tccatgaata aaagttgtat agagacatca	540
aacgcaagca ctttccgcga gttcttgctt tcacgggaag aggggaagtca gaataacagg	600
gtaagaaagg agtcaaactc agatttgaat gcaaaatctc tggaaaacgg taatgagcaa	660
ggacctcaga cttatccgat gcatatccct gtgctagtgc cattggggag ctcaataaca	720
agtttcttat cacatcctcc ttcagagcca gatagtcatc cccacacagt tgcaggagat	780
tatcagtcgt ttcctaataca tataatgtca acccttttac aaacaccggc tctttatact	840

047-E2F-PCT.ST25.txt

gccgcaactt tcgcctcatc attttggcct cccgattcta gtggtggctc acctgttcca 900  
 gggaactcac ctccgaatct ggctgccatg gccgcagcca ctgttgcagc tgctagtgtc 960  
 tggtgggctg ccaatggatt attaccttta tgtgctcctc ttagttcagg tggtttctact 1020  
 agtcatcctc catctacttt tggaccatca tgtgatgtag agtacacaaa agcaagcact 1080  
 ttacaacatg gttctgtgca gagccgagag caagaacact ccgaggcatc aaaggctcga 1140  
 tcttctactgg actcagagga tgttgaaaat aagagtaaac cagtttgtca tgagcagcct 1200  
 tctgcaacac ctgagagtga tgcaaagggc tcagatggag caggagacag aaaacaagtt 1260  
 gaccggctct cgtgtggctc aaacactccg tcgagtagtg atgatgttga ggcggatgca 1320  
 tcagaaaggc aagaggatgg caccaatggc gaggtgaaag aaacgaatga agacactaat 1380  
 aaacctcaaa cttcagagtc caatgcacgc cgcagtagaa tcagctccaa tataaccgat 1440  
 ccatggaagt ctgtgtctga cgagggtcga attgccttcc aagctctctt ctccagagag 1500  
 gtattgccgc aaagttttac atatcgagaa gaacacagag aggaagaaca acaacaacaa 1560  
 gaacaaagat atccaatggc acttgatctt aacttcacag ctcagttaac accagttgat 1620  
 gatcaagagg agaagagaaa cacaggatct cttggaatcg gattagatgc ttcaaagcta 1680  
 atgagtagag gaagaacagg ttttaaacca taaaaagat gttccatgga agccaaagaa 1740  
 agtagaatcc tcaacaacaa tcctatcatt catgtggaac agaaagatcc caaacggatg 1800  
 cggttggaag ctcaagcttc cacatga 1827

<210> 1874

<211> 608

<212> PRT

<213> Arabidopsis thaliana

<400> 1874

Met Glu Thr Asn Ser Ser Gly Glu Asp Leu Val Ile Lys Thr Arg Lys  
 1 5 10 15

Pro Tyr Thr Ile Thr Lys Gln Arg Glu Arg Trp Thr Glu Glu Glu His  
 20 25 30

Asn Arg Phe Ile Glu Ala Leu Arg Leu Tyr Gly Arg Ala Trp Gln Lys  
 35 40 45

Ile Glu Glu His Val Ala Thr Lys Thr Ala Val Gln Ile Arg Ser His  
 50 55 60



Ala Gln Lys Phe Phe Ser Lys Val Glu Lys Glu Ala Glu Ala Lys Gly  
 65 70 75 80  
 Val Ala Met Gly Gln Ala Leu Asp Ile Ala Ile Pro Pro Pro Arg Pro  
 85 90 95  
 Lys Arg Lys Pro Asn Asn Pro Tyr Pro Arg Lys Thr Gly Ser Gly Thr  
 100 105 110  
 Ile Leu Met Ser Lys Thr Gly Val Asn Asp Gly Lys Glu Ser Leu Gly  
 115 120 125  
 Ser Glu Lys Val Ser His Pro Glu Met Ala Asn Glu Asp Arg Gln Gln  
 130 135 140  
 Ser Lys Pro Glu Glu Lys Thr Leu Gln Glu Asp Asn Cys Ser Asp Cys  
 145 150 155 160  
 Phe Thr His Gln Tyr Leu Ser Ala Ala Ser Met Asn Lys Ser Cys  
 165 170 175  
 Ile Glu Thr Ser Asn Ala Ser Thr Phe Arg Glu Phe Leu Pro Ser Arg  
 180 185 190  
 Glu Glu Gly Ser Gln Asn Asn Arg Val Arg Lys Glu Ser Asn Ser Asp  
 195 200 205  
 Leu Asn Ala Lys Ser Leu Glu Asn Gly Asn Glu Gln Gly Pro Gln Thr  
 210 215 220  
 Tyr Pro Met His Ile Pro Val Leu Val Pro Leu Gly Ser Ser Ile Thr  
 225 230 235 240  
 Ser Ser Leu Ser His Pro Pro Ser Glu Pro Asp Ser His Pro His Thr  
 245 250 255  
 Val Ala Gly Asp Tyr Gln Ser Phe Pro Asn His Ile Met Ser Thr Leu  
 260 265 270  
 Leu Gln Thr Pro Ala Leu Tyr Thr Ala Ala Thr Phe Ala Ser Ser Phe  
 275 280 285  
 Trp Pro Pro Asp Ser Ser Gly Gly Ser Pro Val Pro Gly Asn Ser Pro  
 290 295 300  
 Pro Asn Leu Ala Ala Met Ala Ala Ala Thr Val Ala Ala Ala Ser Ala  
 305 310 315 320

047-E2F-PCT.ST25.txt

Trp Trp Ala Ala Asn Gly Leu Leu Pro Leu Cys Ala Pro Leu Ser Ser  
325 330 335

Gly Gly Phe Thr Ser His Pro Pro Ser Thr Phe Gly Pro Ser Cys Asp  
340 345 350

Val Glu Tyr Thr Lys Ala Ser Thr Leu Gln His Gly Ser Val Gln Ser  
355 360 365

Arg Glu Gln Glu His Ser Glu Ala Ser Lys Ala Arg Ser Ser Leu Asp  
370 375 380

Ser Glu Asp Val Glu Asn Lys Ser Lys Pro Val Cys His Glu Gln Pro  
385 390 395 400

Ser Ala Thr Pro Glu Ser Asp Ala Lys Gly Ser Asp Gly Ala Gly Asp  
405 410 415

Arg Lys Gln Val Asp Arg Ser Ser Cys Gly Ser Asn Thr Pro Ser Ser  
420 425 430

Ser Asp Asp Val Glu Ala Asp Ala Ser Glu Arg Gln Glu Asp Gly Thr  
435 440 445

Asn Gly Glu Val Lys Glu Thr Asn Glu Asp Thr Asn Lys Pro Gln Thr  
450 455 460

Ser Glu Ser Asn Ala Arg Arg Ser Arg Ile Ser Ser Asn Ile Thr Asp  
465 470 475 480

Pro Trp Lys Ser Val Ser Asp Glu Gly Arg Ile Ala Phe Gln Ala Leu  
485 490 495

Phe Ser Arg Glu Val Leu Pro Gln Ser Phe Thr Tyr Arg Glu Glu His  
500 505 510

Arg Glu Glu Glu Gln Gln Gln Gln Glu Gln Arg Tyr Pro Met Ala Leu  
515 520 525

Asp Leu Asn Phe Thr Ala Gln Leu Thr Pro Val Asp Asp Gln Glu Glu  
530 535 540

Lys Arg Asn Thr Gly Phe Leu Gly Ile Gly Leu Asp Ala Ser Lys Leu  
545 550 555 560

Met Ser Arg Gly Arg Thr Gly Phe Lys Pro Tyr Lys Arg Cys Ser Met  
565 570 575

Glu Ala Lys Glu Ser Arg Ile Leu Asn Asn Asn Pro Ile Ile His Val  
580 585 590

Glu Gln Lys Asp Pro Lys Arg Met Arg Leu Glu Thr Gln Ala Ser Thr  
595 600 605

<210> 1875

<211> 954

<212> DNA

<213> Arabidopsis thaliana

<400> 1875

atgggagaga gcaaacgcac cgagaaaacg cgcgttttgg tggttggagc gactggatac	60
ataggggaaga ggatagtaag ggcgtgtttg gctgaaggct acgagactta cgttttgcag	120
aggccagaga ttggtctcga aatcgagaaa gtccaactct ttctttcttt caagaaactc	180
ggcgcacgta tcgttgaagg ttctttctcc gaccatcaaa gcctcgtatc cgccgtgaaa	240
cttgttgacg tcgttgtctc cgccatgtcc ggtgttcact tccgtagcca taacattcta	300
gtccagctca agctcgtcga agctatcaaa gaggctggta acgtaaagcg gtttttacca	360
tctgaatttg gtatggatcc accacgtatg ggacatgcgc taccgcccgg aagagaaacc	420
tttgaccaga aaatggaagt gcgtcaggcg atagaggctg ccggaattcc ttacacttac	480
gttgtgggtg cttgctttgc cgcctacttc gccggaaact tgtctcagat ggtaacttta	540
cttcctccga aagaaaaagt taatatattat ggtgatggaa atgtaaaagt ggtgtttgcg	600
gatgaagatg atatcgcaaa atacaccgcg aaaacgttaa acgatccacg gacattaaac	660
aaaaccgtga atattagacc tcccgacaac gttctcacgc agttggaatt agttcagatc	720
tgggaaaagc taaccggaaa agaattggag aaaacaaata ttgctgcaca agacttcctc	780
gccaacattg aacaaatgga gattccacac caagcaggga taggacattt ctatcacatt	840
ttctatgaag gatgtctcac tgatcacgaa gtcggagaag acgaagaagc ttctagtctt	900
tatcctgacg tcaagtacaa acgcatggat gattacttaa gaatgttcct ctga	954

<210> 1876

<211> 317

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 1876

```

Met Gly Glu Ser Lys Arg Thr Glu Lys Thr Arg Val Leu Val Val Gly
 1      5      10      15

Ala Thr Gly Tyr Ile Gly Lys Arg Ile Val Arg Ala Cys Leu Ala Glu
 20      25      30

Gly His Glu Thr Tyr Val Leu Gln Arg Pro Glu Ile Gly Leu Glu Ile
 35      40      45

Glu Lys Val Gln Leu Phe Leu Ser Phe Lys Lys Leu Gly Ala Arg Ile
 50      55      60

Val Glu Gly Ser Phe Ser Asp His Gln Ser Leu Val Ser Ala Val Lys
 65      70      75      80

Leu Val Asp Val Val Val Ser Ala Met Ser Gly Val His Phe Arg Ser
 85      90      95

His Asn Ile Leu Val Gln Leu Lys Leu Val Glu Ala Ile Lys Glu Ala
100      105      110

Gly Asn Val Lys Arg Phe Leu Pro Ser Glu Phe Gly Met Asp Pro Pro
115      120      125

Arg Met Gly His Ala Leu Pro Pro Gly Arg Glu Thr Phe Asp Gln Lys
130      135      140

Met Glu Val Arg Gln Ala Ile Glu Ala Ala Gly Ile Pro Tyr Thr Tyr
145      150      155      160

Val Val Gly Ala Cys Phe Ala Ala Tyr Phe Ala Gly Asn Leu Ser Gln
165      170      175

Met Val Thr Leu Leu Pro Pro Lys Glu Lys Val Asn Ile Tyr Gly Asp
180      185      190

Gly Asn Val Lys Val Val Phe Ala Asp Glu Asp Asp Ile Ala Lys Tyr
195      200      205

Thr Ala Lys Thr Leu Asn Asp Pro Arg Thr Leu Asn Lys Thr Val Asn
210      215      220

Ile Arg Pro Pro Asp Asn Val Leu Thr Gln Leu Glu Leu Val Gln Ile
225      230      235      240

```

Trp Glu Lys Leu Thr Gly Lys Glu Leu Glu Lys Thr Asn Ile Ala Ala  
245 250 255

Gln Asp Phe Leu Ala Asn Ile Glu Gln Met Glu Ile Pro His Gln Ala  
260 265 270

Gly Ile Gly His Phe Tyr His Ile Phe Tyr Glu Gly Cys Leu Thr Asp  
275 280 285

His Glu Val Gly Glu Asp Glu Glu Ala Ser Ser Leu Tyr Pro Asp Val  
290 295 300

Lys Tyr Lys Arg Met Asp Asp Tyr Leu Arg Met Phe Leu  
305 310 315

<210> 1877

<211> 438

<212> DNA

<213> Arabidopsis thaliana

<400> 1877

atggctgaag aagctcaagt agatcgttct aatggctctg attcatcatc tcctcccata	60
aagttacctc ctttcatcac caacctattc gcctttcttc aacctaagcc tcctcctgct	120
actattgatg ccaatgctcc taaacctacc ggcgagaagg aacctctgaa atcgacctac	180
gagactgtca ctttccctta caatccaccc aaaagcgcag agccaatcaa gtttgaggct	240
gagcccagct ctggcaggac ttccaactct gtcatccttt ggcagggtata tgcacttgga	300
gggtttcttg tcctgaagtg ggcctgggca agatggaatg aaaggaacga gagaagtgac	360
aaaaaggagg cgacgggtga tgatgatcag aaagatgatg atgaggatga tcaatcatct	420
gatgggcatg aagactag	438

<210> 1878

<211> 145

<212> PRT

<213> Arabidopsis thaliana

<400> 1878

Met Ala Glu Glu Ala Gln Val Asp Arg Ser Asn Gly Ser Asp Ser Ser  
1 5 10 15

047-E2F-PCT.ST25.txt

Ser Pro Pro Ile Lys Leu Pro Pro Phe Ile Thr Asn Leu Phe Ala Phe  
20 25 30

Leu Gln Pro Lys Pro Pro Pro Ala Thr Ile Asp Ala Asn Ala Pro Lys  
35 40 45

Pro Thr Gly Glu Lys Glu Pro Leu Lys Ser Thr Tyr Glu Thr Val Thr  
50 55 60

Phe Pro Tyr Asn Pro Pro Lys Ser Ala Glu Pro Ile Lys Phe Glu Ala  
65 70 75 80

Glu Pro Ser Ser Gly Arg Thr Ser Asn Ser Val Ile Leu Trp Gln Val  
85 90 95

Tyr Ala Leu Gly Gly Phe Leu Val Leu Lys Trp Ala Trp Ala Arg Trp  
100 105 110

Asn Glu Arg Asn Glu Arg Ser Asp Lys Lys Glu Ala Thr Gly Asp Asp  
115 120 125

Asp Gln Lys Asp Asp Asp Glu Asp Asp Gln Ser Ser Asp Gly His Glu  
130 135 140

Asp  
145

<210> 1879

<211> 1245

<212> DNA

<213> Arabidopsis thaliana

<400> 1879

atggctgctt ttggagatga cattgtgatt gtagcggcat atcgtaccgc catttgcaaa	60
gcgagacgtg gaggtttcaa agacactctt cctgatgata ttcttgcttc tgttcttaag	120
gctgtagtgg aaagaacatc tttggatcca agtgaagttg gtgatatcgt tgttggtacc	180
gtgatagcgc ctggttctca gagagcaatg gagtgtagag ttgcagctta ttttgctggt	240
tttcttgact ccgtgccagt tagaactgtc aatagacaat gctcatcagg actacaagca	300
gttgctgatg ttgctgcttc cattagagct gggttattacg acattggtat tgggtgctgga	360
gtggaatcaa tgtcaactga tcatattcct ggaggcggct ttcattggctc taatccaaga	420
gcacaggatt tcccaaaagc ccgtgattgt ttgcttccaa tgggaattac ttctgaaaac	480

047-E2F-PCT.ST25.txt

```

gttgcagaaa ggttcggtgt cacaagagaa gagcaagata tggctgcggt ggagtctcac   540
aaacgcgctg cagctgcaat cgcgtctggt aaactcaagg atgaaatcat tcctgttgct   600
actaagattg tggaccctga gactaaagca gagaaggcaa tcgtcgtatc tgttgatgac   660
ggtgtacgtc caaactcaaa catggcagat ttggcaaagc tgaagactgt ctttaaacag   720
aacggttcca ccacagctgg caatgctagt cagatcagtg atggtgctgg agcagtactg   780
ctaatagaaga gaagtttggc tatgaagaag ggacttccca ttcttgagat attcaggagt   840
tttgctgtta ctggtgtgga accatctgta atgggtattg gtccagctgt tgccattccc   900
gctgcaacta agctcgcagg gctcaacgtc agcgatattg atctattcga gatcaatgag   960
gcatttgcat ctcagtatgt gtactcttgc aagaagttag agctggatat ggaaaaggtc  1020
aatgttaatg gaggagccat tgctattggc catcccctgg gtgctacagg agctcgatgt  1080
gttgcgacat tgttgcacga gatgaagcgg agaggaaaag attgccgctt tggagtaatc  1140
tcaatgtgca taggcactgg aatgggagct gcagctgttt ttgagagggg agactctgtt  1200
gataacttgt ccaacgctcg tgtggctaac ggggatagtc attag                    1245

```

<210> 1880

<211> 414

<212> PRT

<213> Arabidopsis thaliana

<400> 1880

```

Met Ala Ala Phe Gly Asp Asp Ile Val Ile Val Ala Ala Tyr Arg Thr
1           5           10          15

```

```

Ala Ile Cys Lys Ala Arg Arg Gly Gly Phe Lys Asp Thr Leu Pro Asp
          20          25          30

```

```

Asp Leu Leu Ala Ser Val Leu Lys Ala Val Val Glu Arg Thr Ser Leu
          35          40          45

```

```

Asp Pro Ser Glu Val Gly Asp Ile Val Val Gly Thr Val Ile Ala Pro
          50          55          60

```

```

Gly Ser Gln Arg Ala Met Glu Cys Arg Val Ala Ala Tyr Phe Ala Gly
65          70          75          80

```

```

Phe Pro Asp Ser Val Pro Val Arg Thr Val Asn Arg Gln Cys Ser Ser
          85          90          95

```

047-E2F-PCT.ST25.txt

Gly Leu Gln Ala Val Ala Asp Val Ala Ala Ser Ile Arg Ala Gly Tyr  
 100 105 110  
 Tyr Asp Ile Gly Ile Gly Ala Gly Val Glu Ser Met Ser Thr Asp His  
 115 120 125  
 Ile Pro Gly Gly Gly Phe His Gly Ser Asn Pro Arg Ala Gln Asp Phe  
 130 135 140  
 Pro Lys Ala Arg Asp Cys Leu Leu Pro Met Gly Ile Thr Ser Glu Asn  
 145 150 155 160  
 Val Ala Glu Arg Phe Gly Val Thr Arg Glu Glu Gln Asp Met Ala Ala  
 165 170 175  
 Val Glu Ser His Lys Arg Ala Ala Ala Ala Ile Ala Ser Gly Lys Leu  
 180 185 190  
 Lys Asp Glu Ile Ile Pro Val Ala Thr Lys Ile Val Asp Pro Glu Thr  
 195 200 205  
 Lys Ala Glu Lys Ala Ile Val Val Ser Val Asp Asp Gly Val Arg Pro  
 210 215 220  
 Asn Ser Asn Met Ala Asp Leu Ala Lys Leu Lys Thr Val Phe Lys Gln  
 225 230 235 240  
 Asn Gly Ser Thr Thr Ala Gly Asn Ala Ser Gln Ile Ser Asp Gly Ala  
 245 250 255  
 Gly Ala Val Leu Leu Met Lys Arg Ser Leu Ala Met Lys Lys Gly Leu  
 260 265 270  
 Pro Ile Leu Gly Val Phe Arg Ser Phe Ala Val Thr Gly Val Glu Pro  
 275 280 285  
 Ser Val Met Gly Ile Gly Pro Ala Val Ala Ile Pro Ala Ala Thr Lys  
 290 295 300  
 Leu Ala Gly Leu Asn Val Ser Asp Ile Asp Leu Phe Glu Ile Asn Glu  
 305 310 315 320  
 Ala Phe Ala Ser Gln Tyr Val Tyr Ser Cys Lys Lys Leu Glu Leu Asp  
 325 330 335  
 Met Glu Lys Val Asn Val Asn Gly Gly Ala Ile Ala Ile Gly His Pro  
 340 345 350



047-E2F-PCT.ST25.txt

Leu Gly Ala Thr Gly Ala Arg Cys Val Ala Thr Leu Leu His Glu Met  
355 360 365

Lys Arg Arg Gly Lys Asp Cys Arg Phe Gly Val Ile Ser Met Cys Ile  
370 375 380

Gly Thr Gly Met Gly Ala Ala Ala Val Phe Glu Arg Gly Asp Ser Val  
385 390 395 400

Asp Asn Leu Ser Asn Ala Arg Val Ala Asn Gly Asp Ser His  
405 410

<210> 1881

<211> 894

<212> DNA

<213> Arabidopsis thaliana

<400> 1881

atggcttcaa gttcaacttc attcccgtta accaccgcgc caccgcaggg tgtcagggttt	60
aaccggagaa aaccgaggtt aaccgtgtgg gctaagcaaa cggcgtttca actcgggaaa	120
acgaaggggtg atgatgactc ggagggggaaa caaaaaggga agaaccggtt ccagtttgat	180
ttcggtaagt taccggacat gaagtcactg ataccggttg tgacgaatcc ttctaccggt	240
ttagtgtttg gtaataacag aaagaaagat cctggtacta tttttgtggc tgggtgctacg	300
ggacaagctg gtatacgcat agctcaaacg ctcttacaac gaggattcag tgttcgagcc	360
ggtgttcctg accttgagc tgcccaggac ctagctcgtg tcgcggctac ttacaagatt	420
ttatcaaatg atgaagtcaa gaggctaaac gcagttcaat ccccttcca agacgctgaa	480
tcaatagcaa aagcgattgg aaacgcaacc aaagttgttg ttacggtcgg ggcaacagag	540
aatggtccgg acgccaagt ttcgacctca gacgcattgc tcgtggtcca agcagctgag	600
ctagccggcg taagccacgt ggcgatagtc tacgacggca ccatcagcgg gtccacatac	660
aacgtgctcg acgggattac ttcgtttttc ggcaatcttt tcgcaaaatc tcagccattg	720
actatctctg acctcatcga gaaagtagct caaaccgacg tggcctacac actcataaag	780
acgagtttga cggaggattt ctctccggag aaagcttata acgtcgtcgt tttagctgaa	840
gggagtaaca gcggcagtg cagtagttcg tccgaggcct acaaagtaat gtaa	894

<210> 1882

<211> 297

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1882

Met Ala Ser Ser Ser Thr Ser Phe Pro Leu Thr Thr Ala Pro Pro Gln  
 1 5 10 15

Gly Val Arg Phe Asn Arg Arg Lys Pro Arg Leu Thr Val Trp Ala Lys  
 20 25 30

Gln Thr Ala Phe Gln Leu Gly Lys Thr Lys Gly Asp Asp Asp Ser Glu  
 35 40 45

Gly Lys Gln Lys Gly Lys Asn Pro Phe Gln Phe Asp Phe Gly Lys Leu  
 50 55 60

Pro Asp Met Lys Ser Leu Ile Pro Val Val Thr Asn Pro Ser Thr Gly  
 65 70 75 80

Leu Val Phe Gly Asn Asn Arg Lys Lys Asp Pro Gly Thr Ile Phe Val  
 85 90 95

Ala Gly Ala Thr Gly Gln Ala Gly Ile Arg Ile Ala Gln Thr Leu Leu  
 100 105 110

Gln Arg Gly Phe Ser Val Arg Ala Gly Val Pro Asp Leu Gly Ala Ala  
 115 120 125

Gln Asp Leu Ala Arg Val Ala Ala Thr Tyr Lys Ile Leu Ser Asn Asp  
 130 135 140

Glu Val Lys Arg Leu Asn Ala Val Gln Ser Pro Phe Gln Asp Ala Glu  
 145 150 155 160

Ser Ile Ala Lys Ala Ile Gly Asn Ala Thr Lys Val Val Val Thr Val  
 165 170 175

Gly Ala Thr Glu Asn Gly Pro Asp Ala Gln Val Ser Thr Ser Asp Ala  
 180 185 190

Leu Leu Val Val Gln Ala Ala Glu Leu Ala Gly Val Ser His Val Ala  
 195 200 205

Ile Val Tyr Asp Gly Thr Ile Ser Gly Ser Thr Tyr Asn Val Leu Asp  
 210 215 220

Gly Ile Thr Ser Phe Phe Gly Asn Leu Phe Ala Lys Ser Gln Pro Leu  
 225 230 235 240

Thr Ile Ser Asp Leu Ile Glu Lys Val Ala Gln Thr Asp Val Ala Tyr  
 245 250 255

Thr Leu Ile Lys Thr Ser Leu Thr Glu Asp Phe Ser Pro Glu Lys Ala  
 260 265 270

Tyr Asn Val Val Val Ser Ala Glu Gly Ser Asn Ser Gly Ser Gly Ser  
 275 280 285

Ser Ser Ser Glu Ala Tyr Lys Val Met  
 290 295

<210> 1883

<211> 1938

<212> DNA

<213> Arabidopsis thaliana

<400> 1883

atggatacta atacatctgg agaagaatta ttagctaagg caagaaagcc atatacaata	60
acaaagcagc gagagcgatg gactgaggat gagcatgaga ggtttctaga agccttgagg	120
ctttatggaa gagcttggca acgaattgaa gaacatattg ggacaaagac tgctgttcag	180
atcagaagtc atgcacaaaa gttcttcaca aagttggaga aagaggctga agttaaaggc	240
atccctgttt gccaaagcttt ggacatagaa attccgcctc ctcgtcctaa acgaaaaccc	300
aatactcctt atcctcgaaa gcctgggaac aacggtacat cttcctctca agtatcatca	360
gcaaaagatg caaaacttgt ttcatcggcc tcttcttcac agttgaatca ggcgttcttg	420
gatttggaag aaatgccgtt ctctgagaaa acatcaactg gaaaagaaaa tcaagatgag	480
aattgctcgg gtgtttctac tgtgaacaag tatcccttac caacgaaaca ggtaagtggc	540
gacattgaaa caagtaagac ctcaactgtg gacaacgcgg ttcaagatgt tccaagaag	600
aacaaagaca aagatggtaa cgatgggtact actgtgcaca gcatgcaaaa ctacccttgg	660
catttccacg cagatattgt gaacgggaat atagcaaaat gccctcaaaa tcatccctca	720
ggatatggtat ctcaagactt catgtttcat cctatgagag aagaaactca cgggcacgca	780
aatcttcaag ctacaacagc atctgtctact actacagctt ctcataagc gtttccagct	840
tgtcattcac aggatgatta ccgttcgttt ctccagatat catctacttt ctccaatctt	900

attatgtcaa ctctcctaca gaatcctgca gctcatgctg cagctacatt cgctgcttcg 960  
 gtctggcctt atgcgagtgt cggaattct ggtgattcat caacccaat gagctcttct 1020  
 cctccaagta taactgccat tgccgctgct acagtagctg ctgcaactgc ttggtgggct 1080  
 tctcatggac ttcttcctgt atgcgctcca gctccaataa catgtgttcc attctcaact 1140  
 gttgcagttc caactccagc aatgactgaa atggataccg ttgaaaatac tcaaccgttt 1200  
 gagaaacaaa acacagctct gcaagatcaa aacttggtct cgaaatctcc agcttcatca 1260  
 tctgatgatt cagatgagac tggagtaacc aagctaaatg ccgactcaaa aaccaatgat 1320  
 gataaaattg aggaggttgt tgttactgcc gctgtgcatg actcaaacac tgcccagaag 1380  
 aaaaatcttg tggaccgctc atcctgtggc tcaaatacac cttcagggag tgacgcagaa 1440  
 actgatgcat tagataaaat ggagaaagat aaagaggatg tgaaggagac agatgagaat 1500  
 cagccagatg ttattgagtt aaataaccgt aagattaaaa tgagagacaa caacagcaac 1560  
 aacaatgcaa ctactgattc gtggaaggaa gtctccgaag agggtcgtat agcgtttcag 1620  
 gctctctttg caagagaaaag attgcctcaa agcttttcgc ctctcaagt ggcagagaat 1680  
 gtgaatagaa aacaaagtga cacgtcaatg ccattggctc ctaatttcaa aagccaggat 1740  
 tcttgtgctg cagaccaaga aggagtagta atgatcggg ttggaacatg caagagtctt 1800  
 aaaacgagac agacaggatt taagccatac aagagatggt caatggaagt gaaagagagc 1860  
 caagttggga acataaacia tcaaagtgat gaaaaagtct gcaaaaggct tcgattggaa 1920  
 ggagaagctt ctacatga 1938

<210> 1884

<211> 645

<212> PRT

<213> Arabidopsis thaliana

<400> 1884

Met Asp Thr Asn Thr Ser Gly Glu Glu Leu Leu Ala Lys Ala Arg Lys  
 1 5 10 15

Pro Tyr Thr Ile Thr Lys Gln Arg Glu Arg Trp Thr Glu Asp Glu His  
 20 25 30

Glu Arg Phe Leu Glu Ala Leu Arg Leu Tyr Gly Arg Ala Trp Gln Arg  
 35 40 45

Ile Glu Glu His Ile Gly Thr Lys Thr Ala Val Gln Ile Arg Ser His  
 50 55 60

047-E2F-PCT.ST25.txt

Ala Gln Lys Phe Phe Thr Lys Leu Glu Lys Glu Ala Glu Val Lys Gly  
65 70 75 80

Ile Pro Val Cys Gln Ala Leu Asp Ile Glu Ile Pro Pro Pro Arg Pro  
85 90 95

Lys Arg Lys Pro Asn Thr Pro Tyr Pro Arg Lys Pro Gly Asn Asn Gly  
100 105 110

Thr Ser Ser Ser Gln Val Ser Ser Ala Lys Asp Ala Lys Leu Val Ser  
115 120 125

Ser Ala Ser Ser Ser Gln Leu Asn Gln Ala Phe Leu Asp Leu Glu Lys  
130 135 140

Met Pro Phe Ser Glu Lys Thr Ser Thr Gly Lys Glu Asn Gln Asp Glu  
145 150 155 160

Asn Cys Ser Gly Val Ser Thr Val Asn Lys Tyr Pro Leu Pro Thr Lys  
165 170 175

Gln Val Ser Gly Asp Ile Glu Thr Ser Lys Thr Ser Thr Val Asp Asn  
180 185 190

Ala Val Gln Asp Val Pro Lys Lys Asn Lys Asp Lys Asp Gly Asn Asp  
195 200 205

Gly Thr Thr Val His Ser Met Gln Asn Tyr Pro Trp His Phe His Ala  
210 215 220

Asp Ile Val Asn Gly Asn Ile Ala Lys Cys Pro Gln Asn His Pro Ser  
225 230 235 240

Gly Met Val Ser Gln Asp Phe Met Phe His Pro Met Arg Glu Glu Thr  
245 250 255

His Gly His Ala Asn Leu Gln Ala Thr Thr Ala Ser Ala Thr Thr Thr  
260 265 270

Ala Ser His Gln Ala Phe Pro Ala Cys His Ser Gln Asp Asp Tyr Arg  
275 280 285

Ser Phe Leu Gln Ile Ser Ser Thr Phe Ser Asn Leu Ile Met Ser Thr  
290 295 300

Leu Leu Gln Asn Pro Ala Ala His Ala Ala Ala Thr Phe Ala Ala Ser

305 310 320  
Val Trp Pro Tyr Ala Ser Val Gly Asn Ser Gly Asp Ser Ser Thr Pro  
325 330 335  
Met Ser Ser Ser Pro Pro Ser Ile Thr Ala Ile Ala Ala Thr Val  
340 345 350  
Ala Ala Ala Thr Ala Trp Trp Ala Ser His Gly Leu Leu Pro Val Cys  
355 360 365  
Ala Pro Ala Pro Ile Thr Cys Val Pro Phe Ser Thr Val Ala Val Pro  
370 375 380  
Thr Pro Ala Met Thr Glu Met Asp Thr Val Glu Asn Thr Gln Pro Phe  
385 390 395 400  
Glu Lys Gln Asn Thr Ala Leu Gln Asp Gln Asn Leu Ala Ser Lys Ser  
405 410 415  
Pro Ala Ser Ser Ser Asp Asp Ser Asp Glu Thr Gly Val Thr Lys Leu  
420 425 430  
Asn Ala Asp Ser Lys Thr Asn Asp Asp Lys Ile Glu Glu Val Val Val  
435 440 445  
Thr Ala Ala Val His Asp Ser Asn Thr Ala Gln Lys Lys Asn Leu Val  
450 455 460  
Asp Arg Ser Ser Cys Gly Ser Asn Thr Pro Ser Gly Ser Asp Ala Glu  
465 470 475 480  
Thr Asp Ala Leu Asp Lys Met Glu Lys Asp Lys Glu Asp Val Lys Glu  
485 490 495  
Thr Asp Glu Asn Gln Pro Asp Val Ile Glu Leu Asn Asn Arg Lys Ile  
500 505 510  
Lys Met Arg Asp Asn Asn Ser Asn Asn Asn Ala Thr Thr Asp Ser Trp  
515 520 525  
Lys Glu Val Ser Glu Glu Gly Arg Ile Ala Phe Gln Ala Leu Phe Ala  
530 535 540  
Arg Glu Arg Leu Pro Gln Ser Phe Ser Pro Pro Gln Val Ala Glu Asn  
545 550 555 560

Val Asn Arg Lys Gln Ser Asp Thr Ser Met Pro Leu Ala Pro Asn Phe  
565 570 575

Lys Ser Gln Asp Ser Cys Ala Ala Asp Gln Glu Gly Val Val Met Ile  
580 585 590

Gly Val Gly Thr Cys Lys Ser Leu Lys Thr Arg Gln Thr Gly Phe Lys  
595 600 605

Pro Tyr Lys Arg Cys Ser Met Glu Val Lys Glu Ser Gln Val Gly Asn  
610 615 620

Ile Asn Asn Gln Ser Asp Glu Lys Val Cys Lys Arg Leu Arg Leu Glu  
625 630 635 640

Gly Glu Ala Ser Thr  
645

<210> 1885

<211> 6417

<212> DNA

<213> Arabidopsis thaliana

<400> 1885

atgcagttca agtctgcttc tcaacgaaca aatgacattg acaacatcag caactatagg	60
aacttgata aggtgaaggc tgagccttca gaaggatcca cttttttcag ggattgcctc	120
atagaatgga ggggaactgaa taccgcagaa gatttcattt tgttttatga agagatgttg	180
ccatctgtcc agagtttgag tttgattatt atgcaaaaag aaagaatctt ctcaaactctt	240
gtctctcgat tacaaatgaa agcaagattg tctctggaac ccattctcag gttgattgct	300
gctctatcaa gagatctctt gaatgacttt attcccttct tgccacaaat tgtgaactcc	360
ttcgtgactc tcctaaataa tgggtgcgcat aacgatccgg agattattca gcaggttggt	420
ggatttcaca tcatgggctt ccataatagt gtccctgcag aagtatcttg tgtgcgacat	480
cgaaggcatt ctgaggatga gcaacttgaa aaagtcccct tgatacacag tctagttgat	540
tcttctaacc taaaaattac aggtatgaag atgatccttt ctgaagttgc acatccatcc	600
aaaaaagctg gaggagttgg agtactatat aatgttatga ggggcccttg tacagtcgtg	660
gaagttgtga gtttggtttt gcagagaata tgcgaggatt tggaagcaga aaaattaagt	720
gctatgtggg aatacttgta taagaaaata aacaaatcaa tctcaaaca gaaatcagtt	780
catctaagcc ggctgttgag tgtgcttatg gcggttggtta agattaagga aggtcgcaag	840

gttcacgata	tcccatcact	gattggaatc	gtgagccgca	ttgtgtcaac	ttttttcact	900
tcctctgaga	ccgctgtaga	aggggataac	ttatctgctg	tccttgatga	agttttggaa	960
ttgatattat	gcacaatcaa	cacggtcaat	gaaatggaaa	ctgttgcttc	gctttgggct	1020
cccatttttg	ccttgaagag	ttcaagtttg	ctgacttttt	tgcgggagtt	cctaaagaaa	1080
gatcaatcag	tagtgaaagc	ctttacaaag	aatatattat	gtgcaattaa	caacatgatt	1140
tgggagtctt	ctgaggaagt	tattcctctg	ttactaacat	tgtgtgaaga	gcataagaca	1200
caacaaacaa	gtcacgacgt	cgtgaacagc	ataagtcaaa	catttgagag	tagatacgag	1260
agaattcatg	agttcttgga	agcaaagatt	aaaaagggtc	aacagaatat	tgagaatgct	1320
ggattagctc	aaattaatga	ggccgagttg	gctgcaatth	ggggagttgt	caagtgttat	1380
ccttatttta	aagtggattc	atcattattg	atttgcttta	agaaaactct	cagacagcat	1440
ttggcagtgt	cagatggtaa	gtatcaactc	atgattcact	cttttttgca	tagcttactt	1500
ggtactactt	tgaggtcatg	ttacaaaatg	acgggaatca	accacagtga	tctagaggaa	1560
gctttgtctt	ttgctaaaga	ttacaagtca	tgtgagcaag	tgttgtcccc	ggtggccgat	1620
gttttggaat	ttatgcacag	gctgattcat	ttccctatth	tgaatcgtag	gcctgcatta	1680
gctcatggta	ggtctaagcc	ttatccagaa	cttcaagcaa	ataaggctgg	agatgcttht	1740
gaaatattth	ctgaaaattt	gcgtcatccg	aacaaaaata	tccgtcttat	gactctgagg	1800
atthttgtgcc	atthttgaaac	tttgtcgtct	gacccttctt	ttgaagagca	tcctcctaag	1860
aagaaaatga	aaactgagaa	gaatgttctt	cagttattac	tcttattcga	agagactgct	1920
cccacagtgg	atactagtcg	gatgttggca	ggatacattt	ctacaataca	agataacctc	1980
tccgctggca	ggatacattc	ggcatatgtg	aagcttgtat	tgaatgggat	gttggggata	2040
ttacatatta	gttatcgtcc	tttgtgtgtt	caagcatctg	agtgtcttgc	ggttcttgtg	2100
aggaaatata	ctggtgcagt	gtggagtgat	tttgtttgtt	atthggggca	gtgccaaacta	2160
aaatthgaaa	ccctccatga	tcatagtgag	aatgcgaacc	aaagtatgtc	agagaggcat	2220
gcatgtaatt	taaatctgaa	tggccgttht	aatthgtthc	tctthccacc	atctgctatc	2280
acgcctactg	caacggtatc	tgatgtggta	tctcagttgc	tacagacctt	acaaaaagct	2340
tcaagtgttg	ctcagtctcg	ggcttctgaa	attctccctt	tgthgttaaa	atthctggga	2400
tacaacagcg	aaaatcctgg	gagtgtcgga	tcatataatg	gccgagthtg	taaaggagag	2460
gactggaaga	cgtthcttgt	acaatggthg	acgttgctaa	aatthaatgaa	gaatcctagg	2520
thcttgatg	ataatgatgc	tgaaatccaa	acgaatgttc	tagagtgcct	tctgttggcg	2580
aatgacttht	tactcccaca	ccgccagcat	thgttgaaat	tgatcaaacc	aaaagaatthg	2640
agagaagaac	tcacaacctg	gaacttgtcc	gaaaacatcg	gagaacctca	cagatcttat	2700
atthththctc	thgtaattcg	catccttatg	ccaaaagtta	ggacattaaa	aaatthcggt	2760



## 047-E2F-PCT.ST25.txt

tcaaggaagc	atacaagtat	ccgtcaccgg	aaggcagttc	tttgctttat	atctcagctg	2820
gatgttaatg	aacttgcggt	gttctttgca	ttgttgataa	aacctttgaa	catcatatca	2880
gaggaaacaa	tggactcatt	ttggagttca	ggcaaaagtt	ctctcgacta	tttccaaaac	2940
tccaattttc	tgaaatattt	cactgttgat	actattttcaa	cgttatccag	aaatcagaaa	3000
tttgggtttc	ttcatgtcat	ccaacatatc	cttgaagtct	ttgatgaact	tcgtgtccga	3060
ccttttctag	acttttatgat	gggatgtggt	gtccggctat	tggtaaatta	tgctccaaat	3120
gttgatgaag	aaatgaacat	tgattctttg	gcactaagaa	atgtcactgc	tgcccatca	3180
acttcggatg	ataaagaaaa	tgcttcaata	aatcacgacc	aggctggcac	tgcttttaag	3240
cagtttaag	agttgagatc	cttatgtctg	aaaatcattg	ctcatgttct	tgataaatac	3300
gaggattgtg	atcttggtc	cgagttctgg	gacctcttct	tttcagctgt	gagtccgtta	3360
attaagagtt	tcaagcagga	gggttctagt	agtgagaaac	caagttcctt	gttctcatgc	3420
ttcttgtcaa	tgagtaaaag	ccgtaatctc	gtgaatctct	tatgtcggga	agagtccctt	3480
gttccagaca	ttttttcaat	tctaactgtc	accacggctt	cagaagctat	aaagtcttct	3540
gccttgaagt	tcattgagaa	tctgctttgt	cttgacaatg	tgttgggtga	ggatgaaaat	3600
atgatccgtg	gattcgtaga	tccgtatata	gaagcactga	ttaacagctt	gcattctctt	3660
ttcattgggg	atattttgaa	aaggaaatca	gtcaagtatc	atggggaaag	agagattaaa	3720
attcttaaat	tattgtcaaa	gcgtatgcaa	gatcgtccc	atgttatgaa	gtatttggat	3780
gtcttgctgt	ctttcttgaa	taaaagtgtt	aaagatcctg	gtatggtgtc	attgctttta	3840
ttgctaaatg	atatccgtcg	tgaagctttg	ctagccattc	aggacatcat	agcgtatctt	3900
gggatggaga	gtaccagcaa	gattataaat	acagtctctc	ctctacttgt	tgatgctgaa	3960
cttgatgtta	gattatgcat	ttgtgatctt	cttgagtctc	ttgcaaaaat	cgacttttca	4020
ctggatgatg	tgcgcacaga	agctcttgct	ttctttattg	atttttcagc	ctcaatactt	4080
tgccgagaag	ctccagctca	ctctgaattt	ggaaaagagg	tcaaaaacgc	tgatgtaagc	4140
tggacaggag	atcgtgtact	gtgcattttg	agaaatttta	ttttgaaaca	cattggagat	4200
gcaataaaca	gagggggcat	tataataaag	gaatggattc	ttttgatacg	cgagatggtg	4260
accaaacttc	cagatgccgc	aaatctttct	gcattcagac	ctctatgctc	tgaagacgag	4320
aatgtagatt	tttttaagc	tattgttcac	attcaggcac	accgtagagc	tagggcaatt	4380
tcacgtttca	gtagtgtggt	taaagatagc	agtctgcctg	agggagtagt	gagaaaactt	4440
ttggtctcgg	tctttttcaa	tatgttactc	gaaggacaag	atggaaaaga	taataatgtc	4500
agaaatgcat	gcacagaagc	ccttgcatct	atatctgctc	atatgagttg	gacatcgtac	4560
tatgctttac	tgaatcgggtg	tttccgagag	atgaacaagc	acaccaaaaa	aggaaaaatt	4620

ctgctgcgac ttatctgctt gatcttggat aaatttcatt ttgcaaaaaga tggctaccca 4680  
 catgaggctg aggaaattag gacttgcctt cagaaaattg tggtcccgag gatgcagaag 4740  
 ctgatgaatt ctgattctga taatgttaat gttaacagta gtgtggctgc gcttaagggtt 4800  
 ctaaagctac tccctgaaga tgtattggac tcaaacctat catctatagt tcacaaaatt 4860  
 gccagttttt taaagaaccg gttggagagc acacgtgatg aagccagatt ggctctgggtt 4920  
 gcttgtttga aagaacttgg gctggagtag ttgcaagttg tagtcaacat ttacgtgct 4980  
 atcttaaaac gaggatctga ggtgcatgtg ctgggggtaca ctctcaattc tatcttatca 5040  
 aagtgccttg ccaatcctac atgtgggaag ttagatcatt gtttggttga tctccttgct 5100  
 gtggtggaaa ccgatatcct tggagagggtt gctgaacaga aagagggtgga aaaatttgca 5160  
 tccaaaatga aagaacaag aaaacggaag tcatttgaga ctctgaaatt gattgctgaa 5220  
 aatgtaacgt tcagaagcca tggattaaag ttactttctc cggtcactgc tcagctgcag 5280  
 cggcatctaa ctccaaagat caaaacaaat ctggagaaga tgtaaaaaca aattgcagct 5340  
 ggtattgaag gcaatacatc tgttgaccaa ggagatcttt ttctttttat atatggccta 5400  
 gttgatgatg gtattaataa caggagtggg cttggagatc aagtgtcttt accaccctcc 5460  
 aaaaagaaga agaatcaag agatctgaaa gagacttctg gggtgtgttt tgggtccgaag 5520  
 tcatgtccac atcttataac cgtgtttgct ctggacttat ttataaccg aatgaaaaaa 5580  
 ttgagactcg acaacactga tgaagagcta ctgtcgaaat gttttacttc attagtaaag 5640  
 ttccactgc cttccctcac gtctgaagca gatgaactga aaacagcatt gttaaccatt 5700  
 gctcagtctg cagttagttc cagcagtcct cttgtgcagt catgccttaa gctgcttaca 5760  
 acgcttctca aaaatataaa tataacttta tcatctgagc agttgaaaat gttgattcag 5820  
 ttccccatat ttattgatct ggagctctgat tcatcctttg ttactctttc acttctcaag 5880  
 gccatcatga accggaagct tgtagttcca gagatatatg acattgcaat tcagggtttca 5940  
 aagctgatgg taaatagtca gttggaatca atccgcaaga aatgtaaaca tatactggtg 6000  
 caatttatgg tccactatac actttctgaa aaacgttttag agcaacatgt gaactttctg 6060  
 ctggaaaatc tgagggtatga gtttccaact ggaagagaag cagttcttga catgcttcat 6120  
 gccctaattc taaaattctc agaacctaat cttggcaagc agtctgttct tgaccagcag 6180  
 tcgcaaaaat tgtttattca acttactgtc tgtttgcca atgaaactga tagaaaagtg 6240  
 ctgcccttgg ttggtgctgt gatagaagtt ctgataggcc gcatgagtaa agatcaagtt 6300  
 gattccagtc tcttgtagtg tttgtgttgg tataagcagc agaacttaag tgctgcggcg 6360  
 gcacaggtaa atgctgtggg tgtatattca ttaaacctcat ttcgtgacaa tagttag 6417

&lt;211&gt; 2138

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1886

Met Gln Phe Lys Ser Ala Ser Gln Arg Thr Asn Asp Ile Asp Asn Ile  
 1 5 10 15

Ser Asn Tyr Arg Asn Leu Asp Lys Val Lys Ala Glu Pro Ser Glu Gly  
 20 25 30

Ser Thr Phe Phe Arg Asp Cys Leu Ile Glu Trp Arg Glu Leu Asn Thr  
 35 40 45

Ala Glu Asp Phe Ile Leu Phe Tyr Glu Glu Met Leu Pro Ser Val Gln  
 50 55 60

Ser Leu Ser Leu Ile Ile Met Gln Lys Glu Arg Ile Phe Ser Asn Leu  
 65 70 75 80

Val Ser Arg Leu Gln Met Lys Ala Arg Leu Ser Leu Glu Pro Ile Leu  
 85 90 95

Arg Leu Ile Ala Ala Leu Ser Arg Asp Leu Leu Asn Asp Phe Ile Pro  
 100 105 110

Phe Leu Pro Gln Ile Val Asn Ser Phe Val Thr Leu Leu Asn Asn Gly  
 115 120 125

Ala His Asn Asp Pro Glu Ile Ile Gln Gln Val Val Gly Ile His Ile  
 130 135 140

Met Gly Phe His Asn Ser Val Pro Ala Glu Val Ser Cys Val Arg His  
 145 150 155 160

Arg Arg His Ser Gln Asp Glu Gln Leu Glu Lys Val Pro Leu Ile His  
 165 170 175

Ser Leu Val Asp Ser Ser Asn Leu Lys Ile Thr Gly Met Lys Met Ile  
 180 185 190

Leu Ser Glu Val Ala His Pro Ser Lys Lys Ala Gly Gly Val Gly Val  
 195 200 205

Leu Tyr Asn Val Met Arg Gly Pro Cys Thr Val Val Glu Val Val Ser  
 Page 2773

210

215

Leu Val Leu Gln Arg Ile Cys Glu Asp Leu Glu Ala Glu Lys Leu Ser  
225 230 235 240

Ala Met Trp Glu Tyr Leu Tyr Lys Lys Ile Asn Lys Ser Ile Ser Asn  
245 250 255

Lys Lys Ser Val His Leu Ser Arg Leu Leu Ser Val Leu Met Ala Val  
260 265 270

Val Lys Ile Lys Glu Gly Arg Lys Val His Asp Ile Pro Ser Leu Ile  
275 280 285

Gly Ile Val Ser Arg Ile Val Ser Thr Phe Phe Thr Ser Ser Glu Thr  
290 295 300

Ala Val Glu Gly Asp Asn Leu Ser Ala Val Leu Asp Glu Val Leu Glu  
305 310 315 320

Leu Ile Leu Cys Thr Ile Asn Thr Val Asn Glu Met Glu Thr Val Ala  
325 330 335

Ser Leu Trp Ala Pro Ile Phe Ala Leu Lys Ser Ser Ser Leu Leu Thr  
340 345 350

Phe Leu Arg Glu Phe Leu Lys Lys Asp Gln Ser Val Val Lys Ala Phe  
355 360 365

Thr Lys Asn Ile Leu Cys Ala Ile Asn Asn Met Ile Trp Glu Ser Ser  
370 375 380

Glu Glu Val Ile Pro Leu Leu Leu Thr Leu Cys Glu Glu His Lys Thr  
385 390 395 400

Gln Gln Thr Ser His Asp Val Val Asn Ser Ile Ser Gln Thr Phe Glu  
405 410 415

Ser Arg Tyr Glu Arg Ile His Glu Phe Leu Glu Ala Lys Ile Lys Lys  
420 425 430

Val Gln Gln Asn Ile Glu Asn Ala Gly Leu Ala Gln Ile Asn Glu Ala  
435 440 445

Glu Leu Ala Ala Ile Trp Gly Val Val Lys Cys Tyr Pro Tyr Phe Lys  
450 455 460

Val Asp Ser Ser Leu Leu Ile Cys Phe Lys Lys Thr Leu Arg Gln His  
 465 470 475 480  
 Leu Ala Val Ser Asp Gly Lys Tyr Gln Leu Met Ile His Ser Phe Leu  
 485 490 495  
 His Ser Leu Leu Gly Thr Thr Leu Arg Ser Cys Tyr Lys Met Thr Gly  
 500 505 510  
 Ile Asn His Ser Asp Leu Glu Glu Ala Leu Ser Phe Ala Lys Asp Tyr  
 515 520 525  
 Lys Ser Cys Glu Gln Val Leu Ser Pro Val Ala Asp Val Leu Glu Phe  
 530 535 540  
 Met His Arg Leu Ile His Phe Pro Ile Leu Asn Arg Arg Pro Ala Leu  
 545 550 555 560  
 Ala His Gly Arg Ser Lys Pro Tyr Pro Glu Leu Gln Ala Asn Lys Ala  
 565 570 575  
 Gly Asp Ala Phe Glu Ile Phe Ser Glu Asn Leu Arg His Pro Asn Lys  
 580 585 590  
 Asn Ile Arg Leu Met Thr Leu Arg Ile Leu Cys His Phe Glu Thr Leu  
 595 600 605  
 Ser Ser Asp Pro Ser Phe Glu Glu His Pro Pro Lys Lys Lys Met Lys  
 610 615 620  
 Thr Glu Lys Asn Val Leu Gln Leu Leu Leu Leu Phe Glu Glu Thr Ala  
 625 630 635 640  
 Pro Thr Val Asp Thr Ser Arg Met Leu Ala Gly Tyr Ile Ser Thr Ile  
 645 650 655  
 Gln Asp Asn Leu Ser Ala Gly Arg Ile His Ser Ala Tyr Val Lys Leu  
 660 665 670  
 Val Leu Asn Gly Met Leu Gly Ile Leu His Ile Ser Tyr Arg Pro Leu  
 675 680 685  
 Cys Val Gln Ala Ser Glu Cys Leu Ala Val Leu Val Arg Lys Tyr Thr  
 690 695 700  
 Gly Ala Val Trp Ser Asp Phe Val Cys Tyr Leu Gly Gln Cys Gln Leu  
 705 710 715 720

047-E2F-PCT.ST25.txt

Lys Phe Glu Thr Leu His Asp His Ser Glu Asn Ala Asn Gln Ser Met  
 725 730 735  
 Ser Glu Arg His Ala Cys Asn Leu Asn Leu Asn Gly Arg Phe Asn Leu  
 740 745 750  
 Phe Leu Phe Pro Pro Ser Ala Ile Thr Pro Thr Ala Thr Val Ser Asp  
 755 760 765  
 Val Val Ser Gln Leu Leu Gln Thr Leu Gln Lys Ala Ser Ser Val Ala  
 770 775 780  
 Gln Ser Arg Ala Ser Glu Ile Leu Pro Leu Leu Leu Lys Phe Leu Gly  
 785 790 795 800  
 Tyr Asn Ser Glu Asn Pro Gly Ser Val Gly Ser Tyr Asn Gly Arg Val  
 805 810 815  
 Cys Lys Gly Glu Asp Trp Lys Thr Val Leu Val Gln Trp Leu Thr Leu  
 820 825 830  
 Leu Lys Leu Met Lys Asn Pro Arg Phe Leu Asp Asp Asn Asp Ala Glu  
 835 840 845  
 Ile Gln Thr Asn Val Leu Glu Cys Leu Leu Leu Ala Asn Asp Phe Leu  
 850 855 860  
 Leu Pro His Arg Gln His Leu Leu Asn Leu Ile Lys Pro Lys Glu Leu  
 865 870 875 880  
 Arg Glu Glu Leu Thr Thr Trp Asn Leu Ser Glu Asn Ile Gly Glu Pro  
 885 890 895  
 His Arg Ser Tyr Ile Phe Ser Leu Val Ile Arg Ile Leu Met Pro Lys  
 900 905 910  
 Val Arg Thr Leu Lys Asn Ser Ala Ser Arg Lys His Thr Ser Ile Arg  
 915 920 925  
 His Arg Lys Ala Val Leu Cys Phe Ile Ser Gln Leu Asp Val Asn Glu  
 930 935 940  
 Leu Ala Leu Phe Phe Ala Leu Leu Ile Lys Pro Leu Asn Ile Ile Ser  
 945 950 955 960  
 Glu Glu Thr Met Asp Ser Phe Trp Ser Ser Gly Lys Ser Ser Leu Asp  
 965 970 975

047-E2F-PCT.ST25.txt

Tyr Phe Gln Asn Ser Asn Phe Leu Lys Tyr Phe Thr Val Asp Thr Ile  
 980 985 990  
 Ser Thr Leu Ser Arg Asn Gln Lys Phe Gly Phe Leu His Val Ile Gln  
 995 1000 1005  
 His Ile Leu Glu Val Phe Asp Glu Leu Arg Val Arg Pro Phe Leu  
 1010 1015 1020  
 Asp Phe Met Met Gly Cys Val Val Arg Leu Leu Val Asn Tyr Ala  
 1025 1030 1035  
 Pro Asn Val Asp Glu Glu Met Asn Ile Asp Ser Leu Ala Leu Arg  
 1040 1045 1050  
 Asn Val Thr Ala Ala Pro Ser Thr Ser Asp Asp Lys Glu Asn Ala  
 1055 1060 1065  
 Ser Ile Asn His Asp Gln Ala Gly Thr Ala Phe Lys Gln Phe Lys  
 1070 1075 1080  
 Glu Leu Arg Ser Leu Cys Leu Lys Ile Ile Ala His Val Leu Asp  
 1085 1090 1095  
 Lys Tyr Glu Asp Cys Asp Leu Gly Ser Glu Phe Trp Asp Leu Phe  
 1100 1105 1110  
 Phe Ser Ala Val Ser Pro Leu Ile Lys Ser Phe Lys Gln Glu Gly  
 1115 1120 1125  
 Ser Ser Ser Glu Lys Pro Ser Ser Leu Phe Ser Cys Phe Leu Ser  
 1130 1135 1140  
 Met Ser Lys Ser Arg Asn Leu Val Asn Leu Leu Cys Arg Glu Glu  
 1145 1150 1155  
 Ser Leu Val Pro Asp Ile Phe Ser Ile Leu Thr Val Thr Thr Ala  
 1160 1165 1170  
 Ser Glu Ala Ile Lys Ser Ser Ala Leu Lys Phe Ile Glu Asn Leu  
 1175 1180 1185  
 Leu Cys Leu Asp Asn Val Leu Gly Glu Asp Glu Asn Met Ile Arg  
 1190 1195 1200  
 Gly Phe Val Asp Pro Tyr Ile Glu Ala Leu Ile Asn Ser Leu His

1205						1210						1215		
Ser	Leu	Phe	Ile	Gly	Asp	Ile	Leu	Lys	Arg	Lys	Ser	Val	Lys	Tyr
	1220					1225					1230			
His	Gly	Glu	Arg	Glu	Ile	Lys	Ile	Leu	Lys	Leu	Leu	Ser	Lys	Arg
	1235					1240					1245			
Met	Gln	Asp	Arg	Ser	His	Val	Met	Lys	Tyr	Leu	Asp	Val	Leu	Leu
	1250					1255					1260			
Ser	Phe	Leu	Asn	Lys	Ser	Val	Lys	Asp	Pro	Gly	Met	Val	Ser	Leu
	1265					1270					1275			
Leu	Leu	Leu	Leu	Asn	Asp	Ile	Arg	Arg	Glu	Ala	Leu	Leu	Ala	Ile
	1280					1285					1290			
Gln	Asp	Ile	Ile	Ala	Tyr	Leu	Gly	Met	Glu	Ser	Thr	Ser	Lys	Ile
	1295					1300					1305			
Ile	Asn	Thr	Val	Ser	Pro	Leu	Leu	Val	Asp	Ala	Glu	Leu	Asp	Val
	1310					1315					1320			
Arg	Leu	Cys	Ile	Cys	Asp	Leu	Leu	Glu	Ser	Leu	Ala	Lys	Ile	Asp
	1325					1330					1335			
Phe	Ser	Leu	Asp	Asp	Val	Arg	Thr	Glu	Ala	Leu	Val	Phe	Phe	Ile
	1340					1345					1350			
Asp	Phe	Ser	Ala	Ser	Ile	Leu	Cys	Arg	Glu	Ala	Pro	Ala	His	Ser
	1355					1360					1365			
Glu	Phe	Gly	Lys	Glu	Val	Lys	Asn	Ala	Asp	Val	Ser	Trp	Thr	Gly
	1370					1375					1380			
Asp	Arg	Val	Leu	Cys	Ile	Leu	Arg	Asn	Phe	Ile	Leu	Lys	His	Ile
	1385					1390					1395			
Gly	Asp	Ala	Ile	Asn	Arg	Gly	Gly	Ile	Ile	Ile	Lys	Glu	Trp	Ile
	1400					1405					1410			
Leu	Leu	Ile	Arg	Glu	Met	Val	Thr	Lys	Leu	Pro	Asp	Ala	Ala	Asn
	1415					1420					1425			
Leu	Ser	Ala	Phe	Arg	Pro	Leu	Cys	Ser	Glu	Asp	Glu	Asn	Val	Asp
	1430					1435					1440			



Phe	Phe	Lys	Ala	Ile	Val	His	Ile	Gln	Ala	His	Arg	Arg	Ala	Arg
	1445					1450					1455			
Ala	Ile	Ser	Arg	Phe	Ser	Ser	Val	Val	Lys	Asp	Ser	Ser	Leu	Pro
	1460					1465					1470			
Glu	Gly	Val	Val	Arg	Lys	Leu	Leu	Val	Ser	Val	Phe	Phe	Asn	Met
	1475					1480					1485			
Leu	Leu	Glu	Gly	Gln	Asp	Gly	Lys	Asp	Asn	Asn	Val	Arg	Asn	Ala
	1490					1495					1500			
Cys	Thr	Glu	Ala	Leu	Ala	Ser	Ile	Ser	Ala	His	Met	Ser	Trp	Thr
	1505					1510					1515			
Ser	Tyr	Tyr	Ala	Leu	Leu	Asn	Arg	Cys	Phe	Arg	Glu	Met	Asn	Lys
	1520					1525					1530			
His	Thr	Lys	Lys	Gly	Lys	Ile	Leu	Leu	Arg	Leu	Ile	Cys	Leu	Ile
	1535					1540					1545			
Leu	Asp	Lys	Phe	His	Phe	Ala	Lys	Asp	Gly	Tyr	Pro	His	Glu	Ala
	1550					1555					1560			
Glu	Glu	Ile	Arg	Thr	Cys	Leu	Gln	Lys	Ile	Val	Phe	Pro	Arg	Met
	1565					1570					1575			
Gln	Lys	Leu	Met	Asn	Ser	Asp	Ser	Asp	Asn	Val	Asn	Val	Asn	Ser
	1580					1585					1590			
Ser	Val	Ala	Ala	Leu	Lys	Val	Leu	Lys	Leu	Leu	Pro	Glu	Asp	Val
	1595					1600					1605			
Leu	Asp	Ser	Asn	Leu	Ser	Ser	Ile	Val	His	Lys	Ile	Ala	Ser	Phe
	1610					1615					1620			
Leu	Lys	Asn	Arg	Leu	Glu	Ser	Thr	Arg	Asp	Glu	Ala	Arg	Leu	Ala
	1625					1630					1635			
Leu	Val	Ala	Cys	Leu	Lys	Glu	Leu	Gly	Leu	Glu	Tyr	Leu	Gln	Val
	1640					1645					1650			
Val	Val	Asn	Ile	Leu	Arg	Ala	Ile	Leu	Lys	Arg	Gly	Ser	Glu	Val
	1655					1660					1665			
His	Val	Leu	Gly	Tyr	Thr	Leu	Asn	Ser	Ile	Leu	Ser	Lys	Cys	Leu
	1670					1675					1680			

## 047-E2F-PCT.ST25.txt

Ser	Asn 1685	Pro	Thr	Cys	Gly	Lys 1690	Leu	Asp	His	Cys	Leu 1695	Val	Asp	Leu
Leu	Ala 1700	Val	Val	Glu	Thr	Asp 1705	Ile	Leu	Gly	Glu	Val 1710	Ala	Glu	Gln
Lys	Glu 1715	Val	Glu	Lys	Phe	Ala 1720	Ser	Lys	Met	Lys	Glu 1725	Thr	Arg	Lys
Arg	Lys 1730	Ser	Phe	Glu	Thr	Leu 1735	Lys	Leu	Ile	Ala	Glu 1740	Asn	Val	Thr
Phe	Arg 1745	Ser	His	Gly	Leu	Lys 1750	Leu	Leu	Ser	Pro	Val 1755	Thr	Ala	Gln
Leu	Gln 1760	Arg	His	Leu	Thr	Pro 1765	Lys	Ile	Lys	Thr	Asn 1770	Leu	Glu	Lys
Met	Leu 1775	Lys	Gln	Ile	Ala	Ala 1780	Gly	Ile	Glu	Gly	Asn 1785	Thr	Ser	Val
Asp	Gln 1790	Gly	Asp	Leu	Phe	Leu 1795	Phe	Ile	Tyr	Gly	Leu 1800	Val	Asp	Asp
Gly	Ile 1805	Asn	Asn	Arg	Ser	Gly 1810	Leu	Gly	Asp	Gln	Val 1815	Ser	Leu	Pro
Pro	Ser 1820	Lys	Lys	Lys	Lys	Lys 1825	Ser	Arg	Asp	Leu	Lys 1830	Glu	Thr	Ser
Gly	Leu 1835	Cys	Phe	Gly	Pro	Lys 1840	Ser	Cys	Pro	His	Leu 1845	Ile	Thr	Val
Phe	Ala 1850	Leu	Asp	Leu	Phe	Tyr 1855	Asn	Arg	Met	Lys	Lys 1860	Leu	Arg	Leu
Asp	Asn 1865	Thr	Asp	Glu	Glu	Leu 1870	Leu	Ser	Lys	Cys	Phe 1875	Thr	Ser	Leu
Val	Lys 1880	Phe	Pro	Leu	Pro	Ser 1885	Leu	Thr	Ser	Glu	Ala 1890	Asp	Glu	Leu
Lys	Thr 1895	Ala	Leu	Leu	Thr	Ile 1900	Ala	Gln	Ser	Ala	Val 1905	Ser	Ser	Ser
Ser	Pro 1910	Leu	Val	Gln	Ser	Cys 1915	Leu	Lys	Leu	Leu	Thr 1920	Thr	Leu	Leu

## 047-E2F-PCT.ST25.txt

Lys Asn Ile Asn Ile Thr Leu Ser Ser Glu Gln Leu Lys Met Leu  
 1925 1930 1935  
 Ile Gln Phe Pro Ile Phe Ile Asp Leu Glu Ser Asp Ser Ser Phe  
 1940 1945 1950  
 Val Thr Leu Ser Leu Leu Lys Ala Ile Met Asn Arg Lys Leu Val  
 1955 1960 1965  
 Val Pro Glu Ile Tyr Asp Ile Ala Ile Gln Val Ser Lys Leu Met  
 1970 1975 1980  
 Val Asn Ser Gln Leu Glu Ser Ile Arg Lys Lys Cys Lys His Ile  
 1985 1990 1995  
 Leu Leu Gln Phe Met Val His Tyr Thr Leu Ser Glu Lys Arg Leu  
 2000 2005 2010  
 Glu Gln His Val Asn Phe Leu Leu Glu Asn Leu Arg Tyr Glu Phe  
 2015 2020 2025  
 Pro Thr Gly Arg Glu Ala Val Leu Asp Met Leu His Ala Leu Ile  
 2030 2035 2040  
 Leu Lys Phe Ser Glu Pro Asn Leu Gly Lys Gln Ser Val Leu Asp  
 2045 2050 2055  
 Gln Gln Ser Gln Lys Leu Phe Ile Gln Leu Thr Val Cys Leu Ser  
 2060 2065 2070  
 Asn Glu Thr Asp Arg Lys Val Leu Pro Leu Val Gly Ala Val Ile  
 2075 2080 2085  
 Glu Val Leu Ile Gly Arg Met Ser Lys Asp Gln Val Asp Ser Ser  
 2090 2095 2100  
 Leu Leu Tyr Cys Leu Cys Trp Tyr Lys Gln Gln Asn Leu Ser Ala  
 2105 2110 2115  
 Ala Ala Ala Gln Val Asn Ala Val Gly Val Tyr Ser Leu Asn Ser  
 2120 2125 2130  
 Phe Arg Asp Asn Ser  
 2135

&lt;210&gt; 1887

&lt;211&gt; 894

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1887

```

atggcttcaa gttcaacttc attcccgтта accaccgcgc caccgcaggg tgtcaggттт 60
aaccggagaa aaccgaggтт aaccgtgtgg gctaagcaaa cggcgтттca actcgggaaa 120
acgaagggtg atgatgactc ggaggggaaa caaaaaggga agaacccgтт ccagттtgat 180
ttcggtaaagt taccggacat gaagtcactg ataccggттg tgacgaatcc ttctaccggт 240
ttagtгттг gtaataacag aaagaaagat cctggтacta тттгггггc тggтgctacg 300
ggacaagctg gtatacgcat agctcaaacg ctcttacaac gaggattcag тгттcgagcc 360
ggтгттсctg acттггagc тgcccaggac ctagctcггг тсгсгггсac ttacaagatt 420
ttatcaaatg atgaagtcaa gaggctaaac gcagттcaat cccсттcca agacггtgaa 480
tcaatagcaa aagcgattgg aaacgcaacc aaagtтгттг ttacggгсгг ggcaacagag 540
aatggтссгг acgссcaagt тtcgacctca gacгcattгс тсгггггсca agcagгtgag 600
ctagссгггсг таagccacгг ggсgatagтс tacgacггсca ccatcagсгг gtccacatac 660
aacгггсгсг acgггgattac тtcгтттттс ggcaatсттт тсгcaaaatс тcagсcattг 720
actatстсгг acctcatсga gaaagtagгс caaacггacг тggссtacac actcataaag 780
acgagттtgа сggaggattт ctctссггag aaagгттata acггсггсгг тtcagгtgaa 840
gggagtaaca gcggсagггг cagtagттсг тсгgaggссс acaaagtaat gtaa 894

```

&lt;210&gt; 1888

&lt;211&gt; 297

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1888

```

Met Ala Ser Ser 5 Thr Ser Phe Pro Leu Thr Thr Ala Pro Pro Gln
1          5          10          15

Gly Val Arg Phe Asn Arg Arg Lys 20 Pro Arg Leu Thr Val Trp Ala Lys
          20          25          30

Gln Thr Ala Phe Gln Leu Gly 35 Lys Thr Lys Gly Asp Asp Asp Ser Glu
          35          40          45

```

047-E2F-PCT.ST25.txt

Gly Lys Gln Lys Gly Lys Asn Pro Phe Gln Phe Asp Phe Gly Lys Leu  
 50 55 60  
 Pro Asp Met Lys Ser Leu Ile Pro Val Val Thr Asn Pro Ser Thr Gly  
 65 70 75 80  
 Leu Val Phe Gly Asn Asn Arg Lys Lys Asp Pro Gly Thr Ile Phe Val  
 85 90 95  
 Ala Gly Ala Thr Gly Gln Ala Gly Ile Arg Ile Ala Gln Thr Leu Leu  
 100 105 110  
 Gln Arg Gly Phe Ser Val Arg Ala Gly Val Pro Asp Leu Gly Ala Ala  
 115 120 125  
 Gln Asp Leu Ala Arg Val Ala Ala Thr Tyr Lys Ile Leu Ser Asn Asp  
 130 135 140  
 Glu Val Lys Arg Leu Asn Ala Val Gln Ser Pro Phe Gln Asp Ala Glu  
 145 150 155 160  
 Ser Ile Ala Lys Ala Ile Gly Asn Ala Thr Lys Val Val Val Thr Val  
 165 170 175  
 Gly Ala Thr Glu Asn Gly Pro Asp Ala Gln Val Ser Thr Ser Asp Ala  
 180 185 190  
 Leu Leu Val Val Gln Ala Ala Glu Leu Ala Gly Val Ser His Val Ala  
 195 200 205  
 Ile Val Tyr Asp Gly Thr Ile Ser Gly Ser Thr Tyr Asn Val Leu Asp  
 210 215 220  
 Gly Ile Thr Ser Phe Phe Gly Asn Leu Phe Ala Lys Ser Gln Pro Leu  
 225 230 235 240  
 Thr Ile Ser Asp Leu Ile Glu Lys Val Ala Gln Thr Asp Val Ala Tyr  
 245 250 255  
 Thr Leu Ile Lys Thr Ser Leu Thr Glu Asp Phe Ser Pro Glu Lys Ala  
 260 265 270  
 Tyr Asn Val Val Val Ser Ala Glu Gly Ser Asn Ser Gly Ser Gly Ser  
 275 280 285  
 Ser Ser Ser Glu Ala Tyr Lys Val Met

290

295

&lt;210&gt; 1889

&lt;211&gt; 1008

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1889

```

atggcctttct ccactagagg ctccctctta ttctttcttca ctacacttgt tcttctctcc    60
acccaaatcc atgcaagaga cagttacttc tttggaaaat tccacagaga atcccccaaa    120
gatcaaaacc ctaacagttt catccctctt gagactagcg agaaaaccac agtagaagaa    180
tccgtcctca acaagaaaga gcaagaacaa gatcctacct ttgtccccga gtccggaaac    240
gggtatggct tgtatgggtca cgagaccaca tacaacaaca acaacgacaa caaagaagag    300
ttcaacaaca acaacaagaa cgatgaaaaa gtcaacagca agactttctc cactccaagc    360
ctgagcgaga ccgaagagtc tttcaacaac tacgaggaaa attaccgaa gaagacagag    420
aactacggca ctaaagggtta taacaatgag gagttcaaca acaacaaca caagtacgat    480
gcaaacttca aggaagagtt caacaacaac aagtacgatg aaaattacgc caaggaagag    540
ttcaacaaca acaacaaca caacaactac aactacaagt acgatgaaaa cgttaaggaa    600
gagtctttcc ccgagaacaa tgaagacaac aagaaaaacg tctacaactc taacgcttac    660
gggacagagt tagaacgtga aacaccgtac aaaggttaca gccacaactt ggagagacaa    720
ggcatgagtg acacaagggt catggagaaa ggtagctact actacgacct ttacaacgac    780
agaaaccacg gccattacta ccggaagtca cacagtaaaa gccccgccgg ttactattct    840
tctcccgcg cagagactaa ctacgaacag caatcgtagt cgtacggaaa caacaacgag    900
gagaacagtt ttaaggatcc gtacaactcc aagtgggaga agaacttgat gaacgaacag    960
cctgaagagt ttgttgagga gcaaggcact aatcagttca agccttga    1008

```

&lt;210&gt; 1890

&lt;211&gt; 335

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1890

```

Met Ala Phe Ser Thr Arg Gly Ser Leu Leu Phe Phe Phe Thr Thr Leu
1           5           10           15

```

047-E2F-PCT.ST25.txt

Val Leu Leu Ser Thr Gln Ile His Ala Arg Asp Ser Tyr Phe Phe Gly  
20 25 30

Lys Phe His Arg Glu Ser Pro Lys Asp Gln Asn Pro Asn Ser Phe Ile  
35 40 45

Pro Leu Glu Thr Ser Glu Lys Thr Thr Val Glu Glu Ser Val Leu Asn  
50 55 60

Lys Lys Glu Gln Glu Gln Asp Pro Thr Phe Val Pro Glu Ser Gly Asn  
65 70 75 80

Gly Tyr Gly Leu Tyr Gly His Glu Thr Thr Tyr Asn Asn Asn Asn Asp  
85 90 95

Asn Lys Glu Glu Phe Asn Asn Asn Asn Lys Asn Asp Glu Lys Val Asn  
100 105 110

Ser Lys Thr Phe Ser Thr Pro Ser Leu Ser Glu Thr Glu Glu Ser Phe  
115 120 125

Asn Asn Tyr Glu Glu Asn Tyr Pro Lys Lys Thr Glu Asn Tyr Gly Thr  
130 135 140

Lys Gly Tyr Asn Asn Glu Glu Phe Asn Asn Asn Asn Asn Lys Tyr Asp  
145 150 155 160

Ala Asn Phe Lys Glu Glu Phe Asn Asn Asn Lys Tyr Asp Glu Asn Tyr  
165 170 175

Ala Lys Glu Glu Phe Asn Asn Asn Asn Asn Asn Asn Tyr Asn Tyr  
180 185 190

Lys Tyr Asp Glu Asn Val Lys Glu Glu Ser Phe Pro Glu Asn Asn Glu  
195 200 205

Asp Asn Lys Lys Asn Val Tyr Asn Ser Asn Ala Tyr Gly Thr Glu Leu  
210 215 220

Glu Arg Glu Thr Pro Tyr Lys Gly Tyr Ser His Asn Leu Glu Arg Gln  
225 230 235 240

Gly Met Ser Asp Thr Arg Phe Met Glu Lys Gly Ser Tyr Tyr Tyr Asp  
245 250 255

Leu Tyr Asn Asp Arg Asn His Gly His Tyr Tyr Arg Lys Ser His Ser  
Page 2785

260

265

270

Lys Ser Pro Ala Gly Tyr Tyr Ser Ser Pro Ala Thr Glu Thr Asn Tyr  
275 280 285

Glu Gln Gln Ser Tyr Ser Tyr Gly Asn Asn Asn Glu Glu Asn Ser Phe  
290 295 300

Lys Asp Pro Tyr Asn Ser Lys Trp Glu Lys Asn Leu Met Asn Glu Gln  
305 310 315 320

Pro Glu Glu Phe Val Glu Glu Gln Gly Thr Asn Gln Phe Lys Pro  
325 330 335

<210> 1891

<211> 726

<212> DNA

<213> Arabidopsis thaliana

<400> 1891

atggcaacta aacaagaagc tttagccatc gatttcataa gccaacacct tctcacagac	60
tttgttttcca tggaaactga tcacccatct cttttttacca accaacttca caactttcac	120
tcagaaacag gccctagaac catcaccaac caatccccta aaccgaattc gactcttaac	180
cagcgtaaac cgcccttacc gaatctatcc gtctcgagaa cggtttcaac aaagacagag	240
aaagaggaag aagagaggca ctacagggga gtgagacgaa gaccgtgggg aaaatacgcg	300
gcggagatta gggatccgaa caaaaagggg tgtaggatct ggcttgggac ttacgacact	360
gccgtggaag ctggaagagc ttatgaccaa gcggcgtttc aattacgtgg aagaaaagca	420
atcttgaatt tccctctcga tgttaggggt acgtcagaaa cttgttctgg ggaaggagtt	480
atcggattag ggaaacgaaa gcgagataag ggttctccgc cggaagagga gaaggcggct	540
agggttaaag tggaggaaga agagagtaat acgtcggaga cgacggaggc tgaggttgag	600
ccggtggtac cattgacgcc gtcaagttgg atggggtttt gggatgtggg agcaggagat	660
ggtattttca gtattcctcc gttatctccg acgtctccca acttttccgt tatctccgtc	720
acttaa	726

<210> 1892

<211> 241

<212> PRT



<213> *Arabidopsis thaliana*

&lt;400&gt; 1892

Met Ala Thr Lys Gln Glu Ala Leu Ala Ile Asp Phe Ile Ser Gln His  
 1 5 10 15

Leu Leu Thr Asp Phe Val Ser Met Glu Thr Asp His Pro Ser Leu Phe  
 20 25 30

Thr Asn Gln Leu His Asn Phe His Ser Glu Thr Gly Pro Arg Thr Ile  
 35 40 45

Thr Asn Gln Ser Pro Lys Pro Asn Ser Thr Leu Asn Gln Arg Lys Pro  
 50 55 60

Pro Leu Pro Asn Leu Ser Val Ser Arg Thr Val Ser Thr Lys Thr Glu  
 65 70 75 80

Lys Glu Glu Glu Glu Arg His Tyr Arg Gly Val Arg Arg Arg Pro Trp  
 85 90 95

Gly Lys Tyr Ala Ala Glu Ile Arg Asp Pro Asn Lys Lys Gly Cys Arg  
 100 105 110

Ile Trp Leu Gly Thr Tyr Asp Thr Ala Val Glu Ala Gly Arg Ala Tyr  
 115 120 125

Asp Gln Ala Ala Phe Gln Leu Arg Gly Arg Lys Ala Ile Leu Asn Phe  
 130 135 140

Pro Leu Asp Val Arg Val Thr Ser Glu Thr Cys Ser Gly Glu Gly Val  
 145 150 155 160

Ile Gly Leu Gly Lys Arg Lys Arg Asp Lys Gly Ser Pro Pro Glu Glu  
 165 170 175

Glu Lys Ala Ala Arg Val Lys Val Glu Glu Glu Glu Ser Asn Thr Ser  
 180 185 190

Glu Thr Thr Glu Ala Glu Val Glu Pro Val Val Pro Leu Thr Pro Ser  
 195 200 205

Ser Trp Met Gly Phe Trp Asp Val Gly Ala Gly Asp Gly Ile Phe Ser  
 210 215 220

Ile Pro Pro Leu Ser Pro Thr Ser Pro Asn Phe Ser Val Ile Ser Val  
 Page 2787

225

230

240

Thr

<210> 1893

<211> 1152

<212> DNA

<213> *Arabidopsis thaliana*

<400> 1893

atggtagcag aagcagaggt tgtgtttcaa cagagtttac cggcggttct ggagattgag	60
ttgtttgacg gagtttcctc cgccgttaaa tctcccgttt cttctccgaa attgggtttt	120
actcagtcaa cggcgtcggt ttccggaagt ttaacgactt ctctgtggc tgatatcttt	180
ccagaggggtg attgcatcc tagtgtcttg gattatattc cgaccatccg gtctggaagc	240
tttgctgata ttgggcaaaa gagaaacatg gaagatgaac acattcgcat agacgattta	300
tcttctcaag ttggttccct ttttgagttg ccgaagccta gtgctttcta tgcggttttt	360
gacgggcatg gaggaccaga agcagcagca tacgtacggg aaaatgccat taggtttttc	420
tttgaagatg agcagtttcc acagacatcg gaagtgaagta gtgtttatgt ggaagaagtt	480
gagacttcat tgagaaatgc gtttcttcaa gctgatctag ctttggcaga ggattgcagt	540
atcagcgatt cttgtggtac caccgctctg actgctctta tttgtggaag actcttaatg	600
gttgcaaatg ccggagactg cagagcgggt ctatgcagga aaggcagagc gatagacatg	660
tctgaagacc ataaaccgat taatctactt gagagaagaa gagtggagga atccggcgggt	720
ttcatcacta atgacggtta cctaaatgaa gtcctagctg taacccgagc tctgggcgac	780
tgggatttaa aactgccaca cggctctcaa tctccactga tctcggaacc agaaatcaag	840
cagataactc taactgaaga cgatgagttt cttgtgattg ggtgcatgg gatttgggat	900
gtcttgacga gccaagaagc ggtagcatt gttaggcgtg gcttaaaccg gcacaacgat	960
ccaacaagat gtgcgcgaga gctagtgatg gaggctctgg ggcggaactc atttgataat	1020
ttaactgcgg tgggtggtatg tttcatgaca atggacagag gggacaagcc ggtggtgcca	1080
ttggagaaga gaaggtgttt tagtctttcg cctgaagctt tctgtagctt gaggaatctg	1140
ttggatggct ga	1152

<210> 1894

<211> 383

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1894

Met Val Ala Glu Ala Glu Val Val Phe Gln Gln Ser Leu Pro Ala Val  
 1 5 10 15

Leu Glu Ile Glu Leu Phe Asp Gly Val Ser Ser Ala Val Lys Ser Pro  
 20 25 30

Val Ser Ser Pro Lys Leu Gly Phe Thr Gln Ser Thr Ala Ser Val Ser  
 35 40 45

Gly Ser Leu Thr Thr Ser Pro Val Ala Asp Ile Phe Pro Glu Gly Asp  
 50 55 60

Cys Asp Pro Ser Val Leu Asp Tyr Ile Pro Thr Ile Arg Ser Gly Ser  
 65 70 75 80

Phe Ala Asp Ile Gly Pro Lys Arg Asn Met Glu Asp Glu His Ile Arg  
 85 90 95

Ile Asp Asp Leu Ser Ser Gln Val Gly Ser Leu Phe Glu Leu Pro Lys  
 100 105 110

Pro Ser Ala Phe Tyr Ala Val Phe Asp Gly His Gly Gly Pro Glu Ala  
 115 120 125

Ala Ala Tyr Val Arg Glu Asn Ala Ile Arg Phe Phe Phe Glu Asp Glu  
 130 135 140

Gln Phe Pro Gln Thr Ser Glu Val Ser Ser Val Tyr Val Glu Glu Val  
 145 150 155 160

Glu Thr Ser Leu Arg Asn Ala Phe Leu Gln Ala Asp Leu Ala Leu Ala  
 165 170 175

Glu Asp Cys Ser Ile Ser Asp Ser Cys Gly Thr Thr Ala Leu Thr Ala  
 180 185 190

Leu Ile Cys Gly Arg Leu Leu Met Val Ala Asn Ala Gly Asp Cys Arg  
 195 200 205

Ala Val Leu Cys Arg Lys Gly Arg Ala Ile Asp Met Ser Glu Asp His  
 210 215 220

047-E2F-PCT.ST25.txt

Lys Pro Ile Asn Leu Leu Glu Arg Arg Arg Val Glu Glu Ser Gly Gly  
 225 230 235 240  
 Phe Ile Thr Asn Asp Gly Tyr Leu Asn Glu Val Leu Ala Val Thr Arg  
 245 250 255  
 Ala Leu Gly Asp Trp Asp Leu Lys Leu Pro His Gly Ser Gln Ser Pro  
 260 265 270  
 Leu Ile Ser Glu Pro Glu Ile Lys Gln Ile Thr Leu Thr Glu Asp Asp  
 275 280 285  
 Glu Phe Leu Val Ile Gly Cys Asp Gly Ile Trp Asp Val Leu Thr Ser  
 290 295 300  
 Gln Glu Ala Val Ser Ile Val Arg Arg Gly Leu Asn Arg His Asn Asp  
 305 310 315 320  
 Pro Thr Arg Cys Ala Arg Glu Leu Val Met Glu Ala Leu Gly Arg Asn  
 325 330 335  
 Ser Phe Asp Asn Leu Thr Ala Val Val Val Cys Phe Met Thr Met Asp  
 340 345 350  
 Arg Gly Asp Lys Pro Val Val Pro Leu Glu Lys Arg Arg Cys Phe Ser  
 355 360 365  
 Leu Ser Pro Glu Ala Phe Cys Ser Leu Arg Asn Leu Leu Asp Gly  
 370 375 380

<210> 1895

<211> 948

<212> DNA

<213> Arabidopsis thaliana

<400> 1895  
 atgatgatcg gcgaaaataa aaaccggcca catccaacga tccatatccc tcaatgggat 60  
 caaatcaacg atccaacggc cacaatctct tcaccattct cttccgtcaa ccttaacagc 120  
 gttaacgact acccacactc tccgtcaccg tatctcgact ccttcgcttc tctcttcggt 180  
 tacctcccgt caaacgagtt aacaaacgat tcagactcat caagtggcga cgagtcatca 240  
 ccactcaccg actcattctc ctccgacgag tttcgcatct acgagttcaa aatccggcga 300  
 tgcgctcgag gtcgatctca tgattggacg gagtgtccgt tcgcacatcc cggagaaaaa 360

047-E2F-PCT.ST25.txt

```

gctcgacgac gtgatccgag aaagtttcat tactccggca ccgcttgtcc tgagtttcgt 420
aaaggaagtt gtagaagagg tgattcgtgt gagttctctc atggagtttt cgagtgttgg 480
ctccatcctt ctcgttaccg tactcagccg tgtaaagacg gaactagctg ccggagaaga 540
atctgtttct tcgctcatac gacggagcag ttacgtgtat taccttggtc gttagatcca 600
gatcttggat tcttctcagg attagctact tctccgactt cgattcttgt ttctccttcg 660
ttttcaccac cgtcggaaac tccgccgctt tctccgagta ccggtgaact tattgcgtcg 720
atgaggaaaa tgcaattgaa cggaggtggt tgttcgtgga gttctccgat gagatctgca 780
gttaggttac ctttttcgtc gtctctgcgt ccgattcagg cggcaacgtg gccgaggata 840
agagagtttg agatcgaaga agctccggcg atggaatttg tggaatctgg gaaagagctg 900
agagcggaga tgtatgcaag actcagtaga gagaactcac tcggttga 948

```

<210> 1896

<211> 315

<212> PRT

<213> Arabidopsis thaliana

<400> 1896

Met Met Ile Gly Glu Asn Lys Asn Arg Pro His Pro Thr Ile His Ile  
1 5 10 15

Pro Gln Trp Asp Gln Ile Asn Asp Pro Thr Ala Thr Ile Ser Ser Pro  
20 25 30

Phe Ser Ser Val Asn Leu Asn Ser Val Asn Asp Tyr Pro His Ser Pro  
35 40 45

Ser Pro Tyr Leu Asp Ser Phe Ala Ser Leu Phe Arg Tyr Leu Pro Ser  
50 55 60

Asn Glu Leu Thr Asn Asp Ser Asp Ser Ser Ser Gly Asp Glu Ser Ser  
65 70 75 80

Pro Leu Thr Asp Ser Phe Ser Ser Asp Glu Phe Arg Ile Tyr Glu Phe  
85 90 95

Lys Ile Arg Arg Cys Ala Arg Gly Arg Ser His Asp Trp Thr Glu Cys  
100 105 110

Pro Phe Ala His Pro Gly Glu Lys Ala Arg Arg Arg Asp Pro Arg Lys  
Page 2791

115

120

125

Phe His Tyr Ser Gly Thr Ala Cys Pro Glu Phe Arg Lys Gly Ser Cys  
 130 135 140  
 Arg Arg Gly Asp Ser Cys Glu Phe Ser His Gly Val Phe Glu Cys Trp  
 145 150 155 160  
 Leu His Pro Ser Arg Tyr Arg Thr Gln Pro Cys Lys Asp Gly Thr Ser  
 165 170 175  
 Cys Arg Arg Arg Ile Cys Phe Phe Ala His Thr Thr Glu Gln Leu Arg  
 180 185 190  
 Val Leu Pro Cys Ser Leu Asp Pro Asp Leu Gly Phe Phe Ser Gly Leu  
 195 200 205  
 Ala Thr Ser Pro Thr Ser Ile Leu Val Ser Pro Ser Phe Ser Pro Pro  
 210 215 220  
 Ser Glu Ser Pro Pro Leu Ser Pro Ser Thr Gly Glu Leu Ile Ala Ser  
 225 230 235 240  
 Met Arg Lys Met Gln Leu Asn Gly Gly Gly Cys Ser Trp Ser Ser Pro  
 245 250 255  
 Met Arg Ser Ala Val Arg Leu Pro Phe Ser Ser Ser Leu Arg Pro Ile  
 260 265 270  
 Gln Ala Ala Thr Trp Pro Arg Ile Arg Glu Phe Glu Ile Glu Glu Ala  
 275 280 285  
 Pro Ala Met Glu Phe Val Glu Ser Gly Lys Glu Leu Arg Ala Glu Met  
 290 295 300  
 Tyr Ala Arg Leu Ser Arg Glu Asn Ser Leu Gly  
 305 310 315

&lt;210&gt; 1897

&lt;211&gt; 447

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1897

atggcttcga aacggatctt gaaggagctg aaggatctcc agaaagaccc tccaacctcc

60

047-E2F-PCT.ST25.txt

tgcaagtgcag gtccagttgc tgaagacatg tttcattggc aagctacaat tatgggtcct	120
gcagagagtc cgtattcagg cggtgtgttt ctcgttacca ttcacttccc tccggactat	180
ccattcaaac caccaaaggt tgcatttagg acgaaggtgt ttcaccctaa tatcaacagc	240
aacggaagca tttgccttga cattttgaaa gaacaatgga gccctgccct caccatttcc	300
aaggtgtttgc tctcgatatg ttcgctgtta acagatccaa atccagatga ccctttggta	360
ccagagattg cacacatgta caaaaccgac agagccaaat acgaggctac tgcaagaaac	420
tggactcaga agtatgccat gggctaa	447

<210> 1898

<211> 148

<212> PRT

<213> Arabidopsis thaliana

<400> 1898

Met Ala Ser Lys Arg Ile Leu Lys Glu Leu Lys Asp Leu Gln Lys Asp	1	5	10	15
Pro Pro Thr Ser Cys Ser Ala Gly Pro Val Ala Glu Asp Met Phe His	20	25	30	
Trp Gln Ala Thr Ile Met Gly Pro Ala Glu Ser Pro Tyr Ser Gly Gly	35	40	45	
Val Phe Leu Val Thr Ile His Phe Pro Pro Asp Tyr Pro Phe Lys Pro	50	55	60	
Pro Lys Val Ala Phe Arg Thr Lys Val Phe His Pro Asn Ile Asn Ser	65	70	75	80
Asn Gly Ser Ile Cys Leu Asp Ile Leu Lys Glu Gln Trp Ser Pro Ala	85	90	95	
Leu Thr Ile Ser Lys Val Leu Leu Ser Ile Cys Ser Leu Leu Thr Asp	100	105	110	
Pro Asn Pro Asp Asp Pro Leu Val Pro Glu Ile Ala His Met Tyr Lys	115	120	125	
Thr Asp Arg Ala Lys Tyr Glu Ala Thr Ala Arg Asn Trp Thr Gln Lys	130	135	140	

Tyr Ala Met Gly  
145

<210> 1899

<211> 1065

<212> DNA

<213> *Arabidopsis thaliana*

<400> 1899

atggagtttc gtggagatgc caaccagagg attgctagga tttcagctca tctcactcct	60
cagatggagg ccaagaactc tgtaatcgga cgggaaaact gcagagctaa aggtggtaat	120
ccaggattca aagtagcaat tcttgagact gcagggtgaa ttggacaatc tttatctttg	180
ctgatgaaga tgaaccctct tgtctcttta cttcatctct acgatgttgt caatgctcct	240
ggcgctcactg ctgacgtcag tcatatggac actggagctg ttgtccgcgg gttcttgga	300
gcgaagcagc ttgaggacgc gctaacgggt atggatcttg tgatcatacc agccggtata	360
ccgaggaaac cagggatgac ccgcgatgat ctgtttaaaa tcaatgctgg gattgttaaa	420
acactatgtg aaggtgtagc aaaatgttgt cctaattgcta ttgtcaactt gatcagcaac	480
cctgtgaact ctactgtccc cattgccgct gaggttttca agaaagctgg aacttatgat	540
cctaagaagc tccttgagat tactacactc gatgttgctc gtgccaacac atttgtggca	600
gaagtctctg gccttgatcc aagagaagtc gatgtgccag tagttggggg acacgccgga	660
gtcacaatct tgccactact gtcacagggt aaacctccta gcagcttcac acctcaagaa	720
attgagtacc tgacaaaccg gattcaaaat ggtggaactg aagttgtgga ggcaaaagct	780
ggagctgggt ctgcaacact ttcaatggca tatgctgcag ccaagtttgc agatgcttgc	840
cttcgcgggt taagaggaga tgcgaatgtc gtagaatgct cttttgttgc ttcacaggtg	900
acagaattag ctttctttgc aacaaaagtg cgccttggcc gtacaggagc agaggaagtg	960
tatcagcttg gacccttaaa cgaatacgaa aggattggtc tggagaaagc aaaagatgaa	1020
ttagccggaa gtattcagaa aggtgttgaa ttcacagaa aatga	1065

<210> 1900

<211> 354

<212> PRT

<213> *Arabidopsis thaliana*



&lt;400&gt; 1900

Met Glu Phe Arg Gly Asp Ala Asn Gln Arg Ile Ala Arg Ile Ser Ala  
 1 5 10 15

His Leu Thr Pro Gln Met Glu Ala Lys Asn Ser Val Ile Gly Arg Glu  
 20 25 30

Asn Cys Arg Ala Lys Gly Gly Asn Pro Gly Phe Lys Val Ala Ile Leu  
 35 40 45

Gly Ala Ala Gly Gly Ile Gly Gln Ser Leu Ser Leu Leu Met Lys Met  
 50 55 60

Asn Pro Leu Val Ser Leu Leu His Leu Tyr Asp Val Val Asn Ala Pro  
 65 70 75 80

Gly Val Thr Ala Asp Val Ser His Met Asp Thr Gly Ala Val Val Arg  
 85 90 95

Gly Phe Leu Gly Ala Lys Gln Leu Glu Asp Ala Leu Thr Gly Met Asp  
 100 105 110

Leu Val Ile Ile Pro Ala Gly Ile Pro Arg Lys Pro Gly Met Thr Arg  
 115 120 125

Asp Asp Leu Phe Lys Ile Asn Ala Gly Ile Val Lys Thr Leu Cys Glu  
 130 135 140

Gly Val Ala Lys Cys Cys Pro Asn Ala Ile Val Asn Leu Ile Ser Asn  
 145 150 155 160

Pro Val Asn Ser Thr Val Pro Ile Ala Ala Glu Val Phe Lys Lys Ala  
 165 170 175

Gly Thr Tyr Asp Pro Lys Lys Leu Leu Gly Val Thr Thr Leu Asp Val  
 180 185 190

Ala Arg Ala Asn Thr Phe Val Ala Glu Val Leu Gly Leu Asp Pro Arg  
 195 200 205

Glu Val Asp Val Pro Val Val Gly Gly His Ala Gly Val Thr Ile Leu  
 210 215 220

Pro Leu Leu Ser Gln Val Lys Pro Pro Ser Ser Phe Thr Pro Gln Glu  
 225 230 235 240

Ile Glu Tyr Leu Thr Asn Arg Ile Gln Asn Gly Gly Thr Glu Val Val  
 Page 2795

245

255

Glu Ala Lys Ala Gly Ala Gly Ser Ala Thr Leu Ser Met Ala Tyr Ala  
260 265 270  
Ala Ala Lys Phe Ala Asp Ala Cys Leu Arg Gly Leu Arg Gly Asp Ala  
275 280 285  
Asn Val Val Glu Cys Ser Phe Val Ala Ser Gln Val Thr Glu Leu Ala  
290 295 300  
Phe Phe Ala Thr Lys Val Arg Leu Gly Arg Thr Gly Ala Glu Glu Val  
305 310 315 320  
Tyr Gln Leu Gly Pro Leu Asn Glu Tyr Glu Arg Ile Gly Leu Glu Lys  
325 330 335  
Ala Lys Asp Glu Leu Ala Gly Ser Ile Gln Lys Gly Val Glu Phe Ile  
340 345 350

Arg Lys

<210> 1901

<211> 1191

<212> DNA

<213> Arabidopsis thaliana

<400> 1901

atggcttcgg ttactttctc tgtccccaag ggtttcactg aattctcagg attgcgaagc	60
tcctctgctt ctcttccctt cggcaagaaa ctttcttccg atgagttcgt ttccatcgtc	120
tccttccaga cttctgcaat gggaagcagt ggtggataca ggaaaggtgt gactgaggcc	180
aagcttaagg tggccattaa tggattcggg aggatcggga ggaacttcct gagatgttgg	240
catggtcgca aggactctcc tcttgatatac attgccatta atgacactgg tggcgtcaag	300
caggcttcgc atttacttaa atacgactct actctcggaa tctttgatgc tgatgtcaaa	360
ccttctggag agactgcaat ctctgttgat ggaaagatca tccaagttgt ctctaaccga	420
aaccctctc ttctcccttg gaaggagcta ggaattgaca ttgtcatcga aggaaccgga	480
gtgtttgtgg atagagaagg tgcagggaaa cacattgaag ctggtgccaa gaaggttatc	540
attactgctc caggcaaagg agatattcca acttatgtcg ttggtgtcaa tgcagatgct	600
tacagtcatg atgaacctat catcagcaat gcatcttgca ctaccaactg tcttgctccc	660

047-E2F-PCT.ST25.txt

```

tttgtcaaag ttcttgacca gaaattcggt atcataaagg gtacaatgac gactactcac    720
tcttacaccg gtgaccagag gttgctagac gcgagtcacc gtgatctaag gagagcaaga    780
gcagctgctt tgaacattgt tcctacttct acaggagcag ctaaagctgt ggctcttgtg    840
ctccctaacc tcaaaggaaa actcaacggg atcgctctcc gtgtaccaac accaaacgta    900
tcagtggttg atctcgttgt gcaggtctca aagaagacat ttgctgagga agtcaacgct    960
gctttcagag attctgcaga gaaagagctt aaaggtatac tcgatgtctg cgatgagcca   1020
ctagtgtccg ttgatttcag atgctcagat ttttcaacga ccattgattc atcactcact   1080
atggttatgg gagatgatat ggttaagggt attgcttggt atgataatga atggggttac   1140
tcacagagag ttgttgactt ggctgacatt gttgccaaca actggaagtg a             1191

```

<210> 1902

<211> 396

<212> PRT

<213> Arabidopsis thaliana

<400> 1902

```

Met Ala Ser Val Thr Phe Ser Val Pro Lys Gly Phe Thr Glu Phe Ser
1          5          10          15

```

```

Gly Leu Arg Ser Ser Ser Ala Ser Leu Pro Phe Gly Lys Lys Leu Ser
          20          25          30

```

```

Ser Asp Glu Phe Val Ser Ile Val Ser Phe Gln Thr Ser Ala Met Gly
          35          40          45

```

```

Ser Ser Gly Gly Tyr Arg Lys Gly Val Thr Glu Ala Lys Leu Lys Val
          50          55          60

```

```

Ala Ile Asn Gly Phe Gly Arg Ile Gly Arg Asn Phe Leu Arg Cys Trp
65          70          75          80

```

```

His Gly Arg Lys Asp Ser Pro Leu Asp Ile Ile Ala Ile Asn Asp Thr
          85          90          95

```

```

Gly Gly Val Lys Gln Ala Ser His Leu Leu Lys Tyr Asp Ser Thr Leu
          100          105          110

```

```

Gly Ile Phe Asp Ala Asp Val Lys Pro Ser Gly Glu Thr Ala Ile Ser
          115          120          125

```

047-E2F-PCT.ST25.txt

Val Asp Gly Lys Ile Ile Gln Val Val Ser Asn Arg Asn Pro Ser Leu  
 130 135 140  
 Leu Pro Trp Lys Glu Leu Gly Ile Asp Ile Val Ile Glu Gly Thr Gly  
 145 150 155 160  
 Val Phe Val Asp Arg Glu Gly Ala Gly Lys His Ile Glu Ala Gly Ala  
 165 170 175  
 Lys Lys Val Ile Ile Thr Ala Pro Gly Lys Gly Asp Ile Pro Thr Tyr  
 180 185 190  
 Val Val Gly Val Asn Ala Asp Ala Tyr Ser His Asp Glu Pro Ile Ile  
 195 200 205  
 Ser Asn Ala Ser Cys Thr Thr Asn Cys Leu Ala Pro Phe Val Lys Val  
 210 215 220  
 Leu Asp Gln Lys Phe Gly Ile Ile Lys Gly Thr Met Thr Thr Thr His  
 225 230 235 240  
 Ser Tyr Thr Gly Asp Gln Arg Leu Leu Asp Ala Ser His Arg Asp Leu  
 245 250 255  
 Arg Arg Ala Arg Ala Ala Ala Leu Asn Ile Val Pro Thr Ser Thr Gly  
 260 265 270  
 Ala Ala Lys Ala Val Ala Leu Val Leu Pro Asn Leu Lys Gly Lys Leu  
 275 280 285  
 Asn Gly Ile Ala Leu Arg Val Pro Thr Pro Asn Val Ser Val Val Asp  
 290 295 300  
 Leu Val Val Gln Val Ser Lys Lys Thr Phe Ala Glu Glu Val Asn Ala  
 305 310 315 320  
 Ala Phe Arg Asp Ser Ala Glu Lys Glu Leu Lys Gly Ile Leu Asp Val  
 325 330 335  
 Cys Asp Glu Pro Leu Val Ser Val Asp Phe Arg Cys Ser Asp Phe Ser  
 340 345 350  
 Thr Thr Ile Asp Ser Ser Leu Thr Met Val Met Gly Asp Asp Met Val  
 355 360 365  
 Lys Val Ile Ala Trp Tyr Asp Asn Glu Trp Gly Tyr Ser Gln Arg Val  
 370 375 380

Val Asp Leu Ala Asp Ile Val Ala Asn Asn Trp Lys  
 385 390 395

<210> 1903

<211> 1065

<212> DNA

<213> Arabidopsis thaliana

<400> 1903

```

atggagtttc gtggagatgc caaccagagg attgctagga tttcagctca tctcactcct    60
cagatggagg ccaagaactc tgtaatcgga cgggaaaact gcagagctaa aggtggtaat    120
ccaggattca aagtagcaat tcttggagct gcagggtggaa ttggacaatc tttatctttg    180
ctgatgaaga tgaaccctct tgtctcttta cttcatctct acgatgttgt caatgctcct    240
ggcgtcactg ctgacgtcag tcatatggac actggagctg ttgtccgcgg gttcttggga    300
gcgaagcagc ttgaggacgc gctaacgggt atggatcttg tgatcatacc agccggtata    360
ccgaggaaac cagggatgac ccgcgatgat ctgttttaaa tcaatgctgg gattgttaaa    420
acactatgtg aaggtgtagc aaaatgttgt cctaattgcta ttgtcaactt gatcagcaac    480
cctgtgaact ctactgtccc cattgccgct gaggttttca agaaagctgg aacttatgat    540
cctaagaagc tccttggagt tactacactc gatgttgctc gtgccaacac atttgtggca    600
gaagttcttg gccttgatcc aagagaagtc gatgtgccag tagttggggg acacgccgga    660
gtcacaatct tgccactact gtcacagggt aaacctccta gcagcttcac acctcaagaa    720
attgagtacc tgacaaaccg gattcaaaat ggtggaactg aagttgtgga ggcaaaagct    780
ggagctgggt ctgcaacact ttcaatggca tatgctgcag ccaagtttgc agatgcttgc    840
cttcgcgggt taagaggaga tgcgaatgtc gtagaatgct cttttgttgc ttcacagggtg    900
acagaattag ctttctttgc aacaaaagtg cgccttggcc gtacaggagc agaggaagtg    960
tatcagcttg gacccttaaa cgaatacgaa aggattggtc tggagaaagc aaaagatgaa   1020
ttagccggaa gtattcagaa aggtgttgaa ttcacagaa aatga                       1065

```

<210> 1904

<211> 354

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 1904

```

Met Glu Phe Arg Gly Asp Ala Asn Gln Arg Ile Ala Arg Ile Ser Ala
1      5      10      15

His Leu Thr Pro Gln Met Glu Ala Lys Asn Ser Val Ile Gly Arg Glu
20      25      30

Asn Cys Arg Ala Lys Gly Gly Asn Pro Gly Phe Lys Val Ala Ile Leu
35      40      45

Gly Ala Ala Gly Gly Ile Gly Gln Ser Leu Ser Leu Leu Met Lys Met
50      55      60

Asn Pro Leu Val Ser Leu Leu His Leu Tyr Asp Val Val Asn Ala Pro
65      70      75      80

Gly Val Thr Ala Asp Val Ser His Met Asp Thr Gly Ala Val Val Arg
85      90      95

Gly Phe Leu Gly Ala Lys Gln Leu Glu Asp Ala Leu Thr Gly Met Asp
100     105     110

Leu Val Ile Ile Pro Ala Gly Ile Pro Arg Lys Pro Gly Met Thr Arg
115     120     125

Asp Asp Leu Phe Lys Ile Asn Ala Gly Ile Val Lys Thr Leu Cys Glu
130     135     140

Gly Val Ala Lys Cys Cys Pro Asn Ala Ile Val Asn Leu Ile Ser Asn
145     150     155     160

Pro Val Asn Ser Thr Val Pro Ile Ala Ala Glu Val Phe Lys Lys Ala
165     170     175

Gly Thr Tyr Asp Pro Lys Lys Leu Leu Gly Val Thr Thr Leu Asp Val
180     185     190

Ala Arg Ala Asn Thr Phe Val Ala Glu Val Leu Gly Leu Asp Pro Arg
195     200     205

Glu Val Asp Val Pro Val Val Gly Gly His Ala Gly Val Thr Ile Leu
210     215     220

Pro Leu Leu Ser Gln Val Lys Pro Pro Ser Ser Phe Thr Pro Gln Glu
225     230     235     240

```

Ile Glu Tyr Leu Thr Asn Arg Ile Gln Asn Gly Gly Thr Glu Val Val  
 245 250 255

Glu Ala Lys Ala Gly Ala Gly Ser Ala Thr Leu Ser Met Ala Tyr Ala  
 260 265 270

Ala Ala Lys Phe Ala Asp Ala Cys Leu Arg Gly Leu Arg Gly Asp Ala  
 275 280 285

Asn Val Val Glu Cys Ser Phe Val Ala Ser Gln Val Thr Glu Leu Ala  
 290 295 300

Phe Phe Ala Thr Lys Val Arg Leu Gly Arg Thr Gly Ala Glu Glu Val  
 305 310 315 320

Tyr Gln Leu Gly Pro Leu Asn Glu Tyr Glu Arg Ile Gly Leu Glu Lys  
 325 330 335

Ala Lys Asp Glu Leu Ala Gly Ser Ile Gln Lys Gly Val Glu Phe Ile  
 340 345 350

Arg Lys

<210> 1905

<211> 1182

<212> DNA

<213> Arabidopsis thaliana

<400> 1905

atggagacca gcatcgctg ctactcacgt gggatccttc cccaagtgt ctcttctcaa	60
cgatcctcta cattggtctc tcctccttcc tactccacat cctccagctt caagcgtcta	120
aaatcgagct caatcttcgg agattcacta cgattagcac caaaatcgca acttaaagcc	180
acaaaagcta agagcaatgg tgcttcaact gtgaccaa atgtgaaattgg ccaaagcttg	240
gaagagtttt tggcacaagc aactcctgac aagggtattga gaactttgct gatgtgtatg	300
ggagaagcat tgagaacaat agctttttaa gttagaacag cttcttgctg tggaacagct	360
tgtgttaatt cctttggtga tgaacaactc gctgttgata tgcttgctga taagcttctc	420
tttgaggctt tgcaatactc gcatgtgtgc aagtatgctt gctctgaaga agtacctgag	480
cttcaagaca tgggaggtcc agtggaaggt gggtttagtg ttgcgtttga tccattggat	540
ggatcaagca ttgtggatac aaatttcact gtgggaacca tattcggtgt ttggcctgga	600

gacaagttaa ccggaatcac tggaggagat caagtggctg cagccatggg aatctacggt 660  
 ccacgaacca cttatgtttt ggctgttaag ggctttccag gaactcatga gttcttgctt 720  
 cttgatgaag ggaaatggca gcatgtaaag gagacaacag agatcgcaga agggaaaatg 780  
 ttctcaccag gaaacttaag agccacattc gacaactccg aatacagcaa gctgattgat 840  
 tactacgtga aagagaaata cactctgcga tacaccggag gaatggttcc tgatgttaac 900  
 cagattattg tgaaggagaa aggaatcttc acaaagtgtga cttctcctac ggctaaggca 960  
 aagttgaggc tgttgtttga agtggctcct cttggcctgc tcatagagaa tgctggtgga 1020  
 ttcagcagtg atggacacaa gtccgtgctt gacaagacca tcatcaacct cgacgataga 1080  
 actcaagttg cttatggctc aaagaacgag atcatccgct tcgaagaaac cttttatgga 1140  
 acatcaagac tcaagaatgt tcccattgga gttaccgctt ag 1182

<210> 1906

<211> 393

<212> PRT

<213> *Arabidopsis thaliana*

<400> 1906

Met Glu Thr Ser Ile Ala Cys Tyr Ser Arg Gly Ile Leu Pro Pro Ser  
1 5 10 15

Val Ser Ser Gln Arg Ser Ser Thr Leu Val Ser Pro Pro Ser Tyr Ser  
20 25 30

Thr Ser Ser Ser Phe Lys Arg Leu Lys Ser Ser Ser Ile Phe Gly Asp  
35 40 45

Ser Leu Arg Leu Ala Pro Lys Ser Gln Leu Lys Ala Thr Lys Ala Lys  
50 55 60

Ser Asn Gly Ala Ser Thr Val Thr Lys Cys Glu Ile Gly Gln Ser Leu  
65 70 75 80

Glu Glu Phe Leu Ala Gln Ala Thr Pro Asp Lys Gly Leu Arg Thr Leu  
85 90 95

Leu Met Cys Met Gly Glu Ala Leu Arg Thr Ile Ala Phe Lys Val Arg  
100 105 110

Thr Ala Ser Cys Gly Gly Thr Ala Cys Val Asn Ser Phe Gly Asp Glu  
115 120 125



047-E2F-PCT.ST25.txt

Gln Leu Ala Val Asp Met Leu Ala Asp Lys Leu Leu Phe Glu Ala Leu  
130 135 140

Gln Tyr Ser His Val Cys Lys Tyr Ala Cys Ser Glu Glu Val Pro Glu  
145 150 155 160

Leu Gln Asp Met Gly Gly Pro Val Glu Gly Gly Phe Ser Val Ala Phe  
165 170 175

Asp Pro Leu Asp Gly Ser Ser Ile Val Asp Thr Asn Phe Thr Val Gly  
180 185 190

Thr Ile Phe Gly Val Trp Pro Gly Asp Lys Leu Thr Gly Ile Thr Gly  
195 200 205

Gly Asp Gln Val Ala Ala Ala Met Gly Ile Tyr Gly Pro Arg Thr Thr  
210 215 220

Tyr Val Leu Ala Val Lys Gly Phe Pro Gly Thr His Glu Phe Leu Leu  
225 230 235 240

Leu Asp Glu Gly Lys Trp Gln His Val Lys Glu Thr Thr Glu Ile Ala  
245 250 255

Glu Gly Lys Met Phe Ser Pro Gly Asn Leu Arg Ala Thr Phe Asp Asn  
260 265 270

Ser Glu Tyr Ser Lys Leu Ile Asp Tyr Tyr Val Lys Glu Lys Tyr Thr  
275 280 285

Leu Arg Tyr Thr Gly Gly Met Val Pro Asp Val Asn Gln Ile Ile Val  
290 295 300

Lys Glu Lys Gly Ile Phe Thr Asn Val Thr Ser Pro Thr Ala Lys Ala  
305 310 315 320

Lys Leu Arg Leu Leu Phe Glu Val Ala Pro Leu Gly Leu Leu Ile Glu  
325 330 335

Asn Ala Gly Gly Phe Ser Ser Asp Gly His Lys Ser Val Leu Asp Lys  
340 345 350

Thr Ile Ile Asn Leu Asp Asp Arg Thr Gln Val Ala Tyr Gly Ser Lys  
355 360 365

Asn Glu Ile Ile Arg Phe Glu Glu Thr Leu Tyr Gly Thr Ser Arg Leu  
Page 2803

370

375

Lys Asn Val Pro Ile Gly Val Thr Ala  
385 390

<210> 1907

<211> 1020

<212> DNA

<213> Arabidopsis thaliana

<400> 1907

atgaagacta agaacgtgaa actcttattc ttcttcttct ccgtctccct ctttctcatc	60
gccgtcgtca acgccgccga aggccattca catggtggac caaaatgtga atgctcacac	120
gaagacgacc atgaaaacaa agccggagct cggaaataca agatcgccgc aattcctaca	180
gttctaatag ccggcataat cggagttctt ttccctttgt taggcaaagt cttcccttct	240
ttgcgtccag aaacatgttt cttcttcgtc acgaaagctt tcgcagccgg agttatcttg	300
gctaccggat ttatgcatgt cttgcctgag gcttacgaga tgcttaactc tccatgtttg	360
acatctgaag catgggaatt tccgttcacc ggatttattg cgatgattgc tgcgatcttg	420
acgttatccg ttgatacatt tgccacttcg agtttctata aatcgcatcg caaagcgtct	480
aagaggggtca gtgatggaga aaccggcgag tcctccgttg actccgagaa ggtccaaatt	540
ctccggacta gagttattgc acaggtattg gagttgggaa taatagtaca ctcagtggta	600
ataggaatat cactaggagc ttcacagagc ccagatgctg caaaagctct gtttattgcc	660
ttaatgtttc atcaatgctt cgaagggtcta ggccttggtg gttgtattgc tcagggaaaa	720
ttcaagtgtt tgtcagtaac aatcatgtcg acgttcttcg caataacgac accgatagga	780
atcgtttgtg gaatgggaat agcaaattct tacgatgagt cttcaccaac ggctctgatc	840
gttcaaggag ttttgaacgc tgcattccga ggcattctca tctacatgtc tttggttgac	900
cttctcgcag cagatttcac gcaccctaaa atgcaatcca atactgggct tcaaattatg	960
gcccataattg ctctccttct tgggtgctggc ctcatgtctc tattgggctaa atgggcttga	1020

<210> 1908

<211> 339

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 1908

```

Met Lys Thr Lys Asn Val Lys Leu Leu Phe Phe Phe Phe Ser Val Ser
 1      5      10      15

Leu Leu Leu Ile Ala Val Val Asn Ala Ala Glu Gly His Ser His Gly
 20      25      30

Gly Pro Lys Cys Glu Cys Ser His Glu Asp Asp His Glu Asn Lys Ala
 35      40      45

Gly Ala Arg Lys Tyr Lys Ile Ala Ala Ile Pro Thr Val Leu Ile Ala
 50      55      60

Gly Ile Ile Gly Val Leu Phe Pro Leu Leu Gly Lys Val Phe Pro Ser
 65      70      75      80

Leu Arg Pro Glu Thr Cys Phe Phe Phe Val Thr Lys Ala Phe Ala Ala
 85      90      95

Gly Val Ile Leu Ala Thr Gly Phe Met His Val Leu Pro Glu Ala Tyr
100     105     110

Glu Met Leu Asn Ser Pro Cys Leu Thr Ser Glu Ala Trp Glu Phe Pro
115     120     125

Phe Thr Gly Phe Ile Ala Met Ile Ala Ala Ile Leu Thr Leu Ser Val
130     135     140

Asp Thr Phe Ala Thr Ser Ser Phe Tyr Lys Ser His Cys Lys Ala Ser
145     150     155     160

Lys Arg Val Ser Asp Gly Glu Thr Gly Glu Ser Ser Val Asp Ser Glu
165     170     175

Lys Val Gln Ile Leu Arg Thr Arg Val Ile Ala Gln Val Leu Glu Leu
180     185     190

Gly Ile Ile Val His Ser Val Val Ile Gly Ile Ser Leu Gly Ala Ser
195     200     205

Gln Ser Pro Asp Ala Ala Lys Ala Leu Phe Ile Ala Leu Met Phe His
210     215     220

Gln Cys Phe Glu Gly Leu Gly Leu Gly Gly Cys Ile Ala Gln Gly Lys
225     230     235     240

Phe Lys Cys Leu Ser Val Thr Ile Met Ser Thr Phe Phe Ala Ile Thr

```

Thr Pro Ile Gly Ile Val Val Gly Met Gly Ile Ala Asn Ser Tyr Asp  
260 265 270

Glu Ser Ser Pro Thr Ala Leu Ile Val Gln Gly Val Leu Asn Ala Ala  
275 280 285

Ser Ala Gly Ile Leu Ile Tyr Met Ser Leu Val Asp Leu Leu Ala Ala  
290 295 300

Asp Phe Thr His Pro Lys Met Gln Ser Asn Thr Gly Leu Gln Ile Met  
305 310 315 320

Ala His Ile Ala Leu Leu Leu Gly Ala Gly Leu Met Ser Leu Leu Ala  
325 330 335

Lys Trp Ala

<210> 1909

<211> 666

<212> DNA

<213> Arabidopsis thaliana

<400> 1909

atgaagagtc tctcatttct tgcagtgctc tctctcttgg ctttaacact tccattagcc	60
attgcttctg atccaagcca acttcaagac ttttgtgtca gcgccaacac ctcagccaat	120
ggcgtttttg ttaatggaaa gttctgcaag gacccaaagc tggtcacagc agatgacttc	180
tttttctcag ggcttcaaac tgcaagaccc attactagtc ccgttggggtc gaccgtgaca	240
gccgtcaatg ttaacaacct tcttggatta aacactcttg gaatctccct tgtccgtatt	300
gattatgcgg ttaacggaca gaaccacct cacaccacc cacgtgccac agagatcttg	360
gttgtcgaac aaggaacact tctcgtaggg tttgtcacat caaaccgga taatcgcta	420
ttctcaaaag ttctcaacga gggatgatgta tttgtgtttc ccgagggact catccatttt	480
caagcaaaca ttggcaaggc accagcgggt gcattcgccg ctctaagcag ccaaaacct	540
gggtgcatca ctattgccaa caccgtgttt ggggctaacc cagccataaa cccaactatt	600
cttgcaaagg cattccagtt gaaccaagg gttgtcatgg atctacagac caagttcaag	660
aaataa	666

&lt;210&gt; 1910

&lt;211&gt; 221

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1910

Met Lys Ser Leu Ser Phe Leu Ala Val Leu Ser Leu Leu Ala Leu Thr  
 1 5 10 15

Leu Pro Leu Ala Ile Ala Ser Asp Pro Ser Gln Leu Gln Asp Phe Cys  
 20 25 30

Val Ser Ala Asn Thr Ser Ala Asn Gly Val Phe Val Asn Gly Lys Phe  
 35 40 45

Cys Lys Asp Pro Lys Leu Val Thr Ala Asp Asp Phe Phe Phe Ser Gly  
 50 55 60

Leu Gln Thr Ala Arg Pro Ile Thr Ser Pro Val Gly Ser Thr Val Thr  
 65 70 75 80

Ala Val Asn Val Asn Asn Leu Leu Gly Leu Asn Thr Leu Gly Ile Ser  
 85 90 95

Leu Val Arg Ile Asp Tyr Ala Val Asn Gly Gln Asn Pro Pro His Thr  
 100 105 110

His Pro Arg Ala Thr Glu Ile Leu Val Val Glu Gln Gly Thr Leu Leu  
 115 120 125

Val Gly Phe Val Thr Ser Asn Pro Asp Asn Arg Leu Phe Ser Lys Val  
 130 135 140

Leu Asn Glu Gly Asp Val Phe Val Phe Pro Glu Gly Leu Ile His Phe  
 145 150 155 160

Gln Ala Asn Ile Gly Lys Ala Pro Ala Val Ala Phe Ala Ala Leu Ser  
 165 170 175

Ser Gln Asn Pro Gly Val Ile Thr Ile Ala Asn Thr Val Phe Gly Ala  
 180 185 190

Asn Pro Ala Ile Asn Pro Thr Ile Leu Ala Lys Ala Phe Gln Leu Asn  
 195 200 205

Pro Arg Val Val Met Asp Leu Gln Thr Lys Phe Lys Lys  
 210 215 220

<210> 1911

<211> 1182

<212> DNA

<213> Arabidopsis thaliana

<400> 1911

```

atgCGttcac tgcttcaccg tactatctta ctcacatctc cgtctcattc tcttatccgg      60
cgcactttctc tctccgccat ggccaccacc gcctcctctt ccttgctcct cccttccata      120
tctctcaaca atctctcctc ctctaaaaat gcctcctttg gcttcgccgc caagaatctc      180
agccgatcta ggatttctat gagcgtctct gctggatctc agagtactac tgttcacgat      240
tctctgtttcg ctgattacaa acccacctct gcttttctct ttcccgggtca gggagctcaa      300
gcagtaggaa tgggaaaaga gtctcagagt gttggagcag ctggagagtt gtataagaaa      360
gctaatagata tcttagggta tgatcttttg gatatttgtg ttaatggacc aaaagagaag      420
cttgattcta cggtcataag ccagcctgct atttatgtca caagtttagc agcagttgaa      480
ttgctccgtg ttcgtgaagg cggagaacaa ataattaact cggttgatgt gacttgcggt      540
ctcagtttgg gagagtatac tgctctggct tttgctggag ccttcagctt cgaggacggg      600
ctgaagcttg taaaacttag aggagaagct atgcaggctg ctgcagatgc tgctaagagt      660
gccatggtta gtatcatagg gttggactca gaaaagggtc agcagttgtg tgatgcagca      720
aatcaagaag tagatgaagc tgacaaagtt cagatcgcaa attacttatg tccgggtaat      780
tacgcagtat ctggaggtct taaaggaatc gaagttgttg aagccaaagc taagtcattc      840
aaagcacgaa tgacggtgcg tctagctggt gcaggtgctt tccacactag tttcatggaa      900
ccagcagtct cgagattaga agctgcattg gcagccacag agatcagaag tccgaggatc      960
ccagtgatct cgaatgtcga tgcacagcct catgcagatc cagacacgat caagaagata     1020
cttgcacgcc aggtgacatc tccagtccaa tgggagacaa cagtaaagac tctcttatcc     1080
aaaggactta aaagcagcta cgaattggga cctggaaagg taattgcagg gatattcaag     1140
agagtagata aaagcgcaag tttcgaaaac atcagtgcct ga                        1182

```

<210> 1912

<211> 393

<212> PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1912

Met Arg Ser Leu Leu His Arg Thr Ile Leu Leu Thr Ser Pro Ser His  
 1 5 10 15

Ser Leu Ile Arg Arg Thr Ser Leu Ser Ala Met Ala Thr Thr Ala Ser  
 20 25 30

Ser Ser Leu Leu Leu Pro Ser Ile Ser Leu Asn Asn Leu Ser Ser Ser  
 35 40 45

Lys Asn Ala Ser Phe Gly Phe Ala Ala Lys Asn Leu Ser Arg Ser Arg  
 50 55 60

Ile Ser Met Ser Val Ser Ala Gly Ser Gln Ser Thr Thr Val His Asp  
 65 70 75 80

Ser Leu Phe Ala Asp Tyr Lys Pro Thr Ser Ala Phe Leu Phe Pro Gly  
 85 90 95

Gln Gly Ala Gln Ala Val Gly Met Gly Lys Glu Ser Gln Ser Val Gly  
 100 105 110

Ala Ala Gly Glu Leu Tyr Lys Lys Ala Asn Asp Ile Leu Gly Tyr Asp  
 115 120 125

Leu Leu Asp Ile Cys Val Asn Gly Pro Lys Glu Lys Leu Asp Ser Thr  
 130 135 140

Val Ile Ser Gln Pro Ala Ile Tyr Val Thr Ser Leu Ala Ala Val Glu  
 145 150 155 160

Leu Leu Arg Val Arg Glu Gly Gly Glu Gln Ile Ile Asn Ser Val Asp  
 165 170 175

Val Thr Cys Gly Leu Ser Leu Gly Glu Tyr Thr Ala Leu Ala Phe Ala  
 180 185 190

Gly Ala Phe Ser Phe Glu Asp Gly Leu Lys Leu Val Lys Leu Arg Gly  
 195 200 205

Glu Ala Met Gln Ala Ala Ala Asp Ala Ala Lys Ser Ala Met Val Ser  
 210 215 220

Ile Ile Gly Leu Asp Ser Glu Lys Val Gln Gln Leu Cys Asp Ala Ala  
 Page 2809

047-E2F-PCT.ST25.txt

225                      230                      235                      240

Asn Gln Glu Val Asp Glu Ala Asp Lys Val Gln Ile Ala Asn Tyr Leu  
245 250 255

Cys Pro Gly Asn Tyr Ala Val Ser Gly Gly Leu Lys Gly Ile Glu Val  
260 265 270

Val Glu Ala Lys Ala Lys Ser Phe Lys Ala Arg Met Thr Val Arg Leu  
275 280 285

Ala Val Ala Gly Ala Phe His Thr Ser Phe Met Glu Pro Ala Val Ser  
290 295 300

Arg Leu Glu Ala Ala Leu Ala Ala Thr Glu Ile Arg Ser Pro Arg Ile  
305 310 315 320

Pro Val Ile Ser Asn Val Asp Ala Gln Pro His Ala Asp Pro Asp Thr  
325 330 335

Ile Lys Lys Ile Leu Ala Arg Gln Val Thr Ser Pro Val Gln Trp Glu  
340 345 350

Thr Thr Val Lys Thr Leu Leu Ser Lys Gly Leu Lys Ser Ser Tyr Glu  
355 360 365

Leu Gly Pro Gly Lys Val Ile Ala Gly Ile Phe Lys Arg Val Asp Lys  
370 375 380

Ser Ala Ser Phe Glu Asn Ile Ser Ala  
385 390

<210> 1913

<211> 858

<212> DNA

<213> *Arabidopsis thaliana*

<400>	1913						
atggccgccc	ttagtagttc	gtcggagacc	ggagactgcg	gcgttacggg	aaagagagat		60
gagatcatgt	tgttcggagt	tagagtcgtg	gttgatccga	tgagaaagtg	tgtgagtttg		120
aacaatctct	ctgattatga	aaagtcttct	ccggaggatg	agatccctaa	gatagtcacc		180
gccggagctg	gagatggtga	agataagaac	gaaacggatg	cgacggtgat	tgtcgctgac		240
ggttacgcct	ccgccaatga	cgtctgtccag	atttcgtctt	cttccggcgg	gaggaaacga		300



047-E2F-PCT.ST25.txt

```

gggggttccat ggacagagaa cgagcataag aggttcttga ttgggttgca gaaagtagga 360
aaaggagatt ggaaaggaat atcaagaaac tttgtgaaga gtaggactcc tactcaagta 420
gctagtcatg ctccagaaata cttcctccga cgaaccaacc tcaaccgtcg ccgaagaaga 480
tctagccttt ttgatatac tactgagacg gttacagaaa tggccatgga gcaagatcct 540
actcaggaga actcaccact acctgaaacc aacatcagct ctggacagca agcgatgcaa 600
gtttttactg acgtgccgac aaaaactgag aatgcaccag agacatttca tctcaacgat 660
ccatatctgg ttccagtaac cttccaagca aagccaacat tcaatctaaa cacagatgct 720
gctccacttt ctctcaacct ttgtctggca tcctcattta atcttaacga gcaaccaaac 780
tcaagacact cggctttcac gatgatgcca agcttcagcg atggagatag caatagcagc 840
atcatcagag ttgcttag 858

```

<210> 1914

<211> 285

<212> PRT

<213> *Arabidopsis thaliana*

<400> 1914

Met Ala Ala Val Ser Ser Ser Ser Glu Thr Gly Asp Cys Gly Val Thr  
1 5 10 15

Gly Lys Arg Asp Glu Ile Met Leu Phe Gly Val Arg Val Val Val Asp  
20 25 30

Pro Met Arg Lys Cys Val Ser Leu Asn Asn Leu Ser Asp Tyr Glu Lys  
35 40 45

Ser Ser Pro Glu Asp Glu Ile Pro Lys Ile Val Thr Ala Gly Ala Gly  
50 55 60

Asp Gly Glu Asp Lys Asn Glu Thr Asp Ala Thr Val Ile Val Ala Asp  
65 70 75 80

Gly Tyr Ala Ser Ala Asn Asp Ala Val Gln Ile Ser Ser Ser Ser Gly  
85 90 95

Gly Arg Lys Arg Gly Val Pro Trp Thr Glu Asn Glu His Lys Arg Phe  
100 105 110

Leu Ile Gly Leu Gln Lys Val Gly Lys Gly Asp Trp Lys Gly Ile Ser  
Page 2811

115

120

125

Arg Asn Phe Val Lys Ser Arg Thr Pro Thr Gln Val Ala Ser His Ala  
 130 135 140

Gln Lys Tyr Phe Leu Arg Arg Thr Asn Leu Asn Arg Arg Arg Arg Arg  
 145 150 155 160

Ser Ser Leu Phe Asp Ile Thr Thr Glu Thr Val Thr Glu Met Ala Met  
 165 170 175

Glu Gln Asp Pro Thr Gln Glu Asn Ser Pro Leu Pro Glu Thr Asn Ile  
 180 185 190

Ser Ser Gly Gln Gln Ala Met Gln Val Phe Thr Asp Val Pro Thr Lys  
 195 200 205

Thr Glu Asn Ala Pro Glu Thr Phe His Leu Asn Asp Pro Tyr Leu Val  
 210 215 220

Pro Val Thr Phe Gln Ala Lys Pro Thr Phe Asn Leu Asn Thr Asp Ala  
 225 230 235 240

Ala Pro Leu Ser Leu Asn Leu Cys Leu Ala Ser Ser Phe Asn Leu Asn  
 245 250 255

Glu Gln Pro Asn Ser Arg His Ser Ala Phe Thr Met Met Pro Ser Phe  
 260 265 270

Ser Asp Gly Asp Ser Asn Ser Ser Ile Ile Arg Val Ala  
 275 280 285

&lt;210&gt; 1915

&lt;211&gt; 2244

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1915

atggatgatac atgaaacccc tcttttgtcc aaggacttat catcatcatc atcatcatca	60
tcatcatcat catctgtggt ggtttcatct ttgaaatgga tattgaaagt tgtaatgtct	120
gtgatttttg tgacttgggt tgtgttcctt atgatgtatc ctggatcact cggtgatcaa	180
atcctcacia actggagagc aatctcctcc aacactctct ttggcctcac aggaagcatg	240
ttcttaattt tcagtgggtcc gattcttgtc atcgccatct tggcttctct ctatctgata	300

## 047-E2F-PCT.ST25.txt

atctcagggg	aagagacggt	tttactaag	aagaagataa	cgaaattccc	gaggtttagg	360
ctatggacat	ttcctgttct	tgtggatgga	ccatttgag	ttgtttctgc	agctgagttt	420
cttgaatta	tggctctctc	tgttttttct	ctttgggcta	tctatgctta	taccttgagg	480
aatctcaacg	ttcttgacta	cttccacgtg	cttcccaata	acagaagtat	ttttctgttg	540
gagttaacgg	gtctgcgttt	tgggatgatt	ggattgttgt	gtatggtggt	tttgtttctt	600
ccaatctcga	gaggctctat	tcttctccgg	cttattgata	tccctttcga	gcatgctaca	660
agataccatg	tttggcttgg	tcatatcacc	atgactttct	tctctttaca	tggcctctgt	720
tatgttggtg	gatggacat	tcaagggtcaa	cttttagagc	ttttatttga	atggaaagct	780
actggaatcg	ctgttttacc	cggagttatc	agtctagtgg	ctggtttact	catgtgggtc	840
acatcgcttc	acaccgtgag	aaagaattac	tttgagctct	tcttctacac	acatcaacta	900
tacattgtct	ttgtcgtctt	cttggcactt	catgttggtg	actacttatt	cagtatagtt	960
gctggaggaa	tctttctctt	cattctagac	cgcttcttga	ggttctacca	atcaagaagg	1020
actgttgatg	ttatctctgc	aaagagttta	ccttgtggaa	ctcttgaact	tgtcctttca	1080
aaaccaccaa	atatgcgata	caacgcgctt	agctttatct	ttcttcaagt	gaaggaactg	1140
tcttggttac	agtggcatcc	tttcagtgtt	tcatcaagtc	ctctagatgg	gaaccatcat	1200
gttgcggttc	ttataaaagt	tcttggtgga	tggactgcaa	agcttaggga	tcaattgtca	1260
actctatatg	aggcagaaaa	tcaagaccag	cttatttctc	ctgagtcata	tcccaaatc	1320
acaacttggtg	tggagggacc	ttatggccat	gaatctccat	accacttagc	gtatgagaac	1380
ctggtattag	tagcaggagg	aatcgggatt	acgccttttt	ttgccatctt	aagcgatatc	1440
ctacaccgta	aaagagatgg	gaaagattgt	ttacctggta	aggttttagt	tgtatgggcc	1500
attaaaaact	cagacgagct	ctctctgctc	tcagcaattg	acataccttc	catttgccat	1560
ttcttctcta	agaaactaaa	ccttgagatt	cacatatatg	tactcgcaca	atccgagcct	1620
tgtttggaag	atgggatggt	tcacaagggtg	gtgcacacct	ctgtcaaaac	accatggacc	1680
aacggatggt	ccatgtcggg	tttagttggt	acaggggata	acatatgggtc	tggactctat	1740
ctaattatct	ccaccattgg	gtttattgca	atgatcacat	tggatggacat	cttttacata	1800
aacaagtaca	acataacaac	atggtggtac	aagggacttc	tgtttgttgt	ttgtatggtt	1860
gcaagtgtgt	tgatttttgg	aggctttgtg	gttgttttct	ggcatcgctg	ggaacacaaa	1920
accggtgaag	tggaagcaaa	tggcaacgac	aaggtagatt	tgaatggaga	agaaacccat	1980
aatccatctg	cagcagagct	taagggcttg	gcaatagaag	aagatgtcca	gaattacacc	2040
actattcggt	atggcaccag	accggccttt	agagagatat	ttgagtcatt	gaatgggaaa	2100
tgggggagtg	tggatgttgg	agtgatagta	tgcgggtccag	cgactcttca	gacgaccgta	2160

gccaaagaaa tacggtcaca tagcatctgg cgatcggcga atcatcctct tttccacttc 2220  
 aacagccaca gtttcgatct ctaa 2244

<210> 1916

<211> 747

<212> PRT

<213> Arabidopsis thaliana

<400> 1916

Met Asp Asp His Glu Thr Pro Leu Leu Ser Lys Asp Leu Ser Ser Ser  
 1 5 10 15

Ser Ser Ser Ser Ser Ser Ser Ser Ser Val Val Val Ser Ser Leu Lys  
 20 25 30

Trp Ile Leu Lys Val Val Met Ser Val Ile Phe Val Thr Trp Val Val  
 35 40 45

Phe Leu Met Met Tyr Pro Gly Ser Leu Gly Asp Gln Ile Leu Thr Asn  
 50 55 60

Trp Arg Ala Ile Ser Ser Asn Thr Leu Phe Gly Leu Thr Gly Ser Met  
 65 70 75 80

Phe Leu Ile Phe Ser Gly Pro Ile Leu Val Ile Ala Ile Leu Ala Ser  
 85 90 95

Leu Tyr Leu Ile Ile Ser Gly Glu Glu Thr Val Phe Thr Lys Lys Lys  
 100 105 110

Ile Thr Lys Phe Pro Arg Phe Arg Leu Trp Thr Phe Pro Val Leu Val  
 115 120 125

Asp Gly Pro Phe Gly Val Val Ser Ala Ala Glu Phe Leu Gly Ile Met  
 130 135 140

Val Phe Ser Val Phe Phe Leu Trp Ala Ile Tyr Ala Tyr Thr Leu Arg  
 145 150 155 160

Asn Leu Asn Val Leu Asp Tyr Phe His Val Leu Pro Asn Asn Arg Ser  
 165 170 175

Ile Phe Leu Leu Glu Leu Thr Gly Leu Arg Phe Gly Met Ile Gly Leu  
 180 185 190

047-E2F-PCT.ST25.txt

Leu Cys Met Val Phe Leu Phe Leu Pro Ile Ser Arg Gly Ser Ile Leu  
 195 200 205  
 Leu Arg Leu Ile Asp Ile Pro Phe Glu His Ala Thr Arg Tyr His Val  
 210 215 220  
 Trp Leu Gly His Ile Thr Met Thr Phe Phe Ser Leu His Gly Leu Cys  
 225 230 235 240  
 Tyr Val Val Gly Trp Thr Ile Gln Gly Gln Leu Leu Glu Leu Leu Phe  
 245 250 255  
 Glu Trp Lys Ala Thr Gly Ile Ala Val Leu Pro Gly Val Ile Ser Leu  
 260 265 270  
 Val Ala Gly Leu Leu Met Trp Val Thr Ser Leu His Thr Val Arg Lys  
 275 280 285  
 Asn Tyr Phe Glu Leu Phe Phe Tyr Thr His Gln Leu Tyr Ile Val Phe  
 290 295 300  
 Val Val Phe Leu Ala Leu His Val Gly Asp Tyr Leu Phe Ser Ile Val  
 305 310 315 320  
 Ala Gly Gly Ile Phe Leu Phe Ile Leu Asp Arg Phe Leu Arg Phe Tyr  
 325 330 335  
 Gln Ser Arg Arg Thr Val Asp Val Ile Ser Ala Lys Ser Leu Pro Cys  
 340 345 350  
 Gly Thr Leu Glu Leu Val Leu Ser Lys Pro Pro Asn Met Arg Tyr Asn  
 355 360 365  
 Ala Leu Ser Phe Ile Phe Leu Gln Val Lys Glu Leu Ser Trp Leu Gln  
 370 375 380  
 Trp His Pro Phe Ser Val Ser Ser Ser Pro Leu Asp Gly Asn His His  
 385 390 395 400  
 Val Ala Val Leu Ile Lys Val Leu Gly Gly Trp Thr Ala Lys Leu Arg  
 405 410 415  
 Asp Gln Leu Ser Thr Leu Tyr Glu Ala Glu Asn Gln Asp Gln Leu Ile  
 420 425 430

Ser Pro Glu Ser Tyr Pro Lys Ile Thr Thr Cys Val Glu Gly Pro Tyr  
 Page 2815

435

440

445

Gly His Glu Ser Pro Tyr His Leu Ala Tyr Glu Asn Leu Val Leu Val  
 450 455 460

Ala Gly Gly Ile Gly Ile Thr Pro Phe Phe Ala Ile Leu Ser Asp Ile  
 465 470 475 480

Leu His Arg Lys Arg Asp Gly Lys Asp Cys Leu Pro Gly Lys Val Leu  
 485 490 495

Val Val Trp Ala Ile Lys Asn Ser Asp Glu Leu Ser Leu Leu Ser Ala  
 500 505 510

Ile Asp Ile Pro Ser Ile Cys His Phe Phe Ser Lys Lys Leu Asn Leu  
 515 520 525

Glu Ile His Ile Tyr Val Thr Arg Gln Ser Glu Pro Cys Leu Glu Asp  
 530 535 540

Gly Met Val His Lys Val Val His Pro Ser Val Lys Thr Pro Trp Thr  
 545 550 555 560

Asn Gly Cys Ser Met Ser Val Leu Val Gly Thr Gly Asp Asn Ile Trp  
 565 570 575

Ser Gly Leu Tyr Leu Ile Ile Ser Thr Ile Gly Phe Ile Ala Met Ile  
 580 585 590

Thr Leu Val Asp Ile Phe Tyr Ile Asn Lys Tyr Asn Ile Thr Thr Trp  
 595 600 605

Trp Tyr Lys Gly Leu Leu Phe Val Val Cys Met Val Ala Ser Val Leu  
 610 615 620

Ile Phe Gly Gly Leu Val Val Val Phe Trp His Arg Trp Glu His Lys  
 625 630 635 640

Thr Gly Glu Val Glu Ala Asn Gly Asn Asp Lys Val Asp Leu Asn Gly  
 645 650 655

Glu Glu Thr His Asn Pro Ser Ala Ala Glu Leu Lys Gly Leu Ala Ile  
 660 665 670

Glu Glu Asp Val Gln Asn Tyr Thr Thr Ile Arg Tyr Gly Thr Arg Pro  
 675 680 685

Ala Phe Arg Glu Ile Phe Glu Ser Leu Asn Gly Lys Trp Gly Ser Val  
690 695 700

Asp Val Gly Val Ile Val Cys Gly Pro Ala Thr Leu Gln Thr Thr Val  
705 710 715 720

Ala Lys Glu Ile Arg Ser His Ser Ile Trp Arg Ser Ala Asn His Pro  
725 730 735

Leu Phe His Phe Asn Ser His Ser Phe Asp Leu  
740 745

<210> 1917

<211> 492

<212> DNA

<213> Arabidopsis thaliana

<400> 1917

atgacaattg ctttaacgat cggaggaaac gggttttcgg gtctaccagg atcgtcgttt	60
tcttcatcat cttcgtcggt tcgattaaaa aacagcagaa gaaagaacac gaagatgctc	120
aacagatcaa aagtcgtttg ttctttcttca tcttctgtaa tggatccgta taagactctt	180
aagatccgac cggattcatc tgaatacgag gtcaagaaag ctttcagaca actcgctaaa	240
aagtatcatc ctgatgtttg tagaggaagc aattgtgggg tacagtttca gacaattaac	300
gaagcttacg atattgtgtt gaagcaaatt aaaaatcaga tggaaggagc ggaggaattt	360
gagccgttcg atgtatacga cgagggattg aacggaatga atgatccaga ttgacgacacg	420
tggaagaat ggatgggatg ggagggagca ggaacccgtg attactcctc tcacgttaat	480
ccttacgctt ga	492

<210> 1918

<211> 163

<212> PRT

<213> Arabidopsis thaliana

<400> 1918

Met Thr Ile Ala Leu Thr Ile Gly Gly Asn Gly Phe Ser Gly Leu Pro  
1 5 10 15

Gly Ser Ser Phe Ser Ser Ser Ser Ser Ser Phe Arg Leu Lys Asn Ser  
Page 2817

Arg Arg Lys Asn Thr Lys Met Leu Asn Arg Ser Lys Val Val Cys Ser  
 35 40 45  
 Ser Ser Ser Ser Val Met Asp Pro Tyr Lys Thr Leu Lys Ile Arg Pro  
 50 55 60  
 Asp Ser Ser Glu Tyr Glu Val Lys Lys Ala Phe Arg Gln Leu Ala Lys  
 65 70 75 80  
 Lys Tyr His Pro Asp Val Cys Arg Gly Ser Asn Cys Gly Val Gln Phe  
 85 90 95  
 Gln Thr Ile Asn Glu Ala Tyr Asp Ile Val Leu Lys Gln Ile Lys Asn  
 100 105 110  
 Gln Met Glu Gly Thr Glu Glu Phe Glu Pro Phe Asp Val Tyr Asp Glu  
 115 120 125  
 Gly Leu Asn Gly Met Asn Asp Pro Asp Cys Asp Thr Trp Glu Glu Trp  
 130 135 140  
 Met Gly Trp Glu Gly Ala Gly Thr Arg Asp Tyr Ser Ser His Val Asn  
 145 150 155 160

Pro Tyr Ala

<210> 1919

<211> 441

<212> DNA

<213> Arabidopsis thaliana

<400> 1919

atggccttat ctcaagtgtc tgcgtctctc gccttttctc ttcccaattc tggtagccta 60  
 aagctagcca caatcacaaa cccaacttct acatgtcggg ttcatgttcc gcaacttgct 120  
 ggaatccgat ccaccttcgc ttctggttct cctctcttgc cattgaagtt gagtatgacc 180  
 cgtagaggag gaaacagagc agcatcagtt tccataagaa gtgagcaaag tacagaagga 240  
 agcagtgggtt tggatatatg gcttggtcgt ggcgccatgg ttgggttttgc agttgccatt 300  
 actgttgaga tttccactgg aaaaggactt cttgagaatt ttggagtagc aagtccattg 360  
 cctacggttg ctttagctgt tacagcattg gttggtgttc tagctgcggt tttcatcttc 420



caatcttctt ctaaaaactg a

441

&lt;210&gt; 1920

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1920

Met Ala Leu Ser Gln Val Ser Ala Ser Leu Ala Phe Ser Leu Pro Asn  
 1 5 10 15

Ser Gly Ala Leu Lys Leu Ala Thr Ile Thr Asn Pro Thr Ser Thr Cys  
 20 25 30

Arg Val His Val Pro Gln Leu Ala Gly Ile Arg Ser Thr Phe Ala Ser  
 35 40 45

Gly Ser Pro Leu Leu Pro Leu Lys Leu Ser Met Thr Arg Arg Gly Gly  
 50 55 60

Asn Arg Ala Ala Ser Val Ser Ile Arg Ser Glu Gln Ser Thr Glu Gly  
 65 70 75 80

Ser Ser Gly Leu Asp Ile Trp Leu Gly Arg Gly Ala Met Val Gly Phe  
 85 90 95

Ala Val Ala Ile Thr Val Glu Ile Ser Thr Gly Lys Gly Leu Leu Glu  
 100 105 110

Asn Phe Gly Val Ala Ser Pro Leu Pro Thr Val Ala Leu Ala Val Thr  
 115 120 125

Ala Leu Val Gly Val Leu Ala Ala Val Phe Ile Phe Gln Ser Ser Ser  
 130 135 140

Lys Asn  
 145

&lt;210&gt; 1921

&lt;211&gt; 1212

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1921

```

atggcgtctc tgcaactctg cgacggttat cttctcttca agccctctgt ttctcctcga      60
ttcctctctc aacgcatttc tcatcgccta atccctaaag cctcatcttc tcctcctcca      120
tctccatcac catcatcgtc ctcttcatcc ttatctttca gtcggcgggg gcttctgtac      180
caatcggcag ctgtatcact ctcgctttct tccattgttg gaccagcgag agctgatgaa      240
cagttatccg aatgggaaag agtggtttct ccaatcgatc ccggtgttgt tcttctcgac      300
attgctttcg tccccgacga acctagccga ggggtttttac ttggaacgag acagactttg      360
ttagagacta aagatggtgg aagcacttgg aatccacggt cgattccttc agctgaagaa      420
gaagatttca attatagatt caattcgatt agctttaaaag gcaaagaagg atggattatt      480
ggcaaacctg cgattttatt gtacactgct gatgctggag agaattggga taggattcct      540
ctaagttctc agcttcctgg agatatggtg ttataaaaag cgacagaaga taagagtgca      600
gagatggtta ctgatgaagg tgctatttat gttacttcaa acaggggata taactggaaa      660
gctgctattc aggaaactgt ttcagctacc ttgaacagaa cagtatccag tggaatcagt      720
ggtgctagtt actacacggg aactttcagt gctgttaatc gttcacctga tggaagatat      780
gtcgtgtttt cgagccgtgg taacttcttt ctgacatggg agcctgggca gccttactgg      840
caaccacaca atagagctgt tgctagaaga attcagaaca tgggatggag agctgatggt      900
ggtcttttggc ttcttgttcg tgggtggagga ctttatctta gcaaaggtag tgggattaca      960
gaggagtttg aagaagttcc agtacaaagc cgtggctttg gcattctaga tgttggatat     1020
cgctcagagg aagaagcatg ggcagcagga ggcagtggca tactactgag aacaagaaat     1080
ggaggcaaat catggaaccg tgacaaagct gctgataata tcgcagctaa cctatacgca     1140
gtcaaatttg tggatgacaa gaaaggattt gtgcttggca acgatggagt cttgctccga     1200
tatgttggct ga                                                                1212

```

&lt;210&gt; 1922

&lt;211&gt; 403

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1922

```

Met Ala Ser Leu Gln Leu Cys Asp Gly Tyr Leu Leu Phe Lys Pro Ser
1           5           10           15

```

Val Ser Pro Arg Phe Leu Ser Gln Arg Ile Ser His Arg Leu Ile Pro  
 20 25 30  
 Lys Ala Ser Ser Ser Pro Pro Pro Ser Pro Ser Pro Ser Ser Ser Ser  
 35 40 45  
 Ser Ser Leu Ser Phe Ser Arg Arg Glu Leu Leu Tyr Gln Ser Ala Ala  
 50 55 60  
 Val Ser Leu Ser Leu Ser Ser Ile Val Gly Pro Ala Arg Ala Asp Glu  
 65 70 75 80  
 Gln Leu Ser Glu Trp Glu Arg Val Phe Leu Pro Ile Asp Pro Gly Val  
 85 90 95  
 Val Leu Leu Asp Ile Ala Phe Val Pro Asp Glu Pro Ser Arg Gly Phe  
 100 105 110  
 Leu Leu Gly Thr Arg Gln Thr Leu Leu Glu Thr Lys Asp Gly Gly Ser  
 115 120 125  
 Thr Trp Asn Pro Arg Ser Ile Pro Ser Ala Glu Glu Glu Asp Phe Asn  
 130 135 140  
 Tyr Arg Phe Asn Ser Ile Ser Phe Lys Gly Lys Glu Gly Trp Ile Ile  
 145 150 155 160  
 Gly Lys Pro Ala Ile Leu Leu Tyr Thr Ala Asp Ala Gly Glu Asn Trp  
 165 170 175  
 Asp Arg Ile Pro Leu Ser Ser Gln Leu Pro Gly Asp Met Val Phe Ile  
 180 185 190  
 Lys Ala Thr Glu Asp Lys Ser Ala Glu Met Val Thr Asp Glu Gly Ala  
 195 200 205  
 Ile Tyr Val Thr Ser Asn Arg Gly Tyr Asn Trp Lys Ala Ala Ile Gln  
 210 215 220  
 Glu Thr Val Ser Ala Thr Leu Asn Arg Thr Val Ser Ser Gly Ile Ser  
 225 230 235 240  
 Gly Ala Ser Tyr Tyr Thr Gly Thr Phe Ser Ala Val Asn Arg Ser Pro  
 245 250 255  
 Asp Gly Arg Tyr Val Ala Val Ser Ser Arg Gly Asn Phe Phe Leu Thr  
 260 265 270

047-E2F-PCT.ST25.txt

Trp Glu Pro Gly Gln Pro Tyr Trp Gln Pro His Asn Arg Ala Val Ala  
275 280 285

Arg Arg Ile Gln Asn Met Gly Trp Arg Ala Asp Gly Gly Leu Trp Leu  
290 300

Leu Val Arg Gly Gly Gly Leu Tyr Leu Ser Lys Gly Thr Gly Ile Thr  
305 310 315 320

Glu Glu Phe Glu Glu Val Pro Val Gln Ser Arg Gly Phe Gly Ile Leu  
325 330 335

Asp Val Gly Tyr Arg Ser Glu Glu Glu Ala Trp Ala Ala Gly Gly Ser  
340 345 350

Gly Ile Leu Leu Arg Thr Arg Asn Gly Gly Lys Ser Trp Asn Arg Asp  
355 360 365

Lys Ala Ala Asp Asn Ile Ala Ala Asn Leu Tyr Ala Val Lys Phe Val  
370 375 380

Asp Asp Lys Lys Gly Phe Val Leu Gly Asn Asp Gly Val Leu Leu Arg  
385 390 395 400

Tyr Val Gly

<210> 1923

<211> 678

<212> DNA

<213> Arabidopsis thaliana

<400> 1923

atgagtttgg tcgccagttt gcaactcatc ctcccgccac ggccgagaag caccaagttg	60
ttgtgctcat tgcaaagccc aaaacaagaa caagaactct cttctacttc tcctccaatc	120
tctcttttac caaaactaat ctcttttgct cttgctatct ctctaacttc cttttcccct	180
gccttagcca ttcctttctct ctctctttct cagccactca ccactccttt cacccaatcc	240
aagttcgtcc agaccggtct tctcaatggc aaaattaggc cttgcccttc cacgaacca	300
ggatgtgtat cgacgaatcc aacctcatct tccttctctt ttccattgac gatcccagaa	360
accgatacac aggatcccat tgagaaactg aaagaagcaa taatgagcac ccagaagaac	420
cccaagtttg tggttcttga agatactccc tatgggaggt atgtggaggc agaggtagaa	480

047-E2F-PCT.ST25.txt

ggaggaggat ttagcagaga tgtgatggag tttttggtga agcaagatgt ggttgcttac 540  
 aggtgtatgg ccactaaggt tacctttgtg taccctttca ccactgcttt tggagactcc 600  
 aagggacaag aagagagggt gaagaagctc atcgatcagc ttggttggta tgctcctacc 660  
 tttgaatcta tggaataa 678

<210> 1924

<211> 225

<212> PRT

<213> Arabidopsis thaliana

<400> 1924

Met Ser Leu Val Ala Ser Leu Gln Leu Ile Leu Pro Pro Arg Pro Arg  
 1 5 10 15

Ser Thr Lys Leu Leu Cys Ser Leu Gln Ser Pro Lys Gln Glu Gln Glu  
 20 25 30

Leu Ser Ser Thr Ser Pro Pro Ile Ser Leu Leu Pro Lys Leu Ile Ser  
 35 40 45

Phe Ala Leu Ala Ile Ser Leu Thr Ser Phe Ser Pro Ala Leu Ala Ile  
 50 55 60

Pro Ser Leu Ser Ser Ser Gln Pro Leu Thr Thr Pro Phe Thr Gln Ser  
 65 70 75 80

Lys Phe Val Gln Thr Gly Leu Leu Asn Gly Lys Ile Arg Pro Cys Pro  
 85 90 95

Ser Thr Asn Pro Gly Cys Val Ser Thr Asn Pro Thr Ser Ser Ser Phe  
 100 105 110

Ser Phe Pro Leu Thr Ile Pro Glu Thr Asp Thr Gln Asp Pro Ile Glu  
 115 120 125

Lys Leu Lys Glu Ala Ile Met Ser Thr Gln Lys Asn Pro Lys Phe Val  
 130 135 140

Val Leu Glu Asp Thr Pro Tyr Gly Arg Tyr Val Glu Ala Glu Val Glu  
 145 150 155 160

Gly Gly Gly Phe Ser Arg Asp Val Met Glu Phe Leu Val Lys Gln Asp

165

175

Val Val Ala Tyr Arg Cys Met Ala Thr Lys Val Thr Phe Val Tyr Pro  
180 185 190

Phe Thr Thr Ala Phe Gly Asp Ser Lys Gly Gln Glu Glu Arg Leu Lys  
195 200 205

Lys Leu Ile Asp Gln Leu Gly Trp Tyr Ala Pro Thr Phe Glu Ser Met  
210 215 220

Glu  
225

<210> 1925

<211> 822

<212> DNA

<213> Arabidopsis thaliana

<400> 1925

atgtcaatgg cgtctatagc ttctttcttct tccaccaccc tactctcttc ctctaggggtt	60
cttctttccct ccaagtcttc tcttttatct cctaccgtct ctttccccag aatcataccc	120
tcttcctcgg catcatcttc ttctctctgt tccgggttct ccagtctcgg ttccctcacc	180
accaaccgct ccgcctcacg ccggaacttc gccgtcaagg ctcaggctga tgatttacca	240
ctggtcggta ataaggcgcc tgattttgaa gctgaggcag tttttgatca agagttcata	300
aagggtgaagc tctctgagta cattggcaaa aagtatgtta ttctattctt ctaccctttg	360
gacttcactt ttgtctgccc cactgagatt actgccttca gtgaccgtta tgaagaattt	420
gagaagctaa acaccgaagt attaggggtc tctgtcgaca gtgtgttctc gcatcttgcg	480
tgggtccaaa cagacagaaa gtcgggaggg ctcggtgatc tgaattatcc tcttgtttcg	540
gatatcacta aatccatttc aaaatcgttt ggagtgtc tccctgatca gggcattgca	600
ctgagagggc ttttcatcat agacaaggaa ggagtcattc agcattccac catcaacaac	660
ctcgggtattg gccgaagtgt tgatgagaca atgagaaccc tccaggcatt acagtatgtt	720
caagaaaacc cggatgaagt gtgccctgcg ggatggaagc caggggagaa atcaatgaaa	780
cctgacccca agctcagcaa agaatacttt tcagctatct ag	822

<210> 1926

<211> 273

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1926

```

Met Ser Met Ala Ser Ile Ala Ser Ser Ser Ser Thr Thr Leu Leu Ser
1      5      10      15

Ser Ser Arg Val Leu Leu Pro Ser Lys Ser Ser Leu Leu Ser Pro Thr
20      25      30

Val Ser Phe Pro Arg Ile Ile Pro Ser Ser Ser Ala Ser Ser Ser Ser
35      40      45

Leu Cys Ser Gly Phe Ser Ser Leu Gly Ser Leu Thr Thr Asn Arg Ser
50      55      60

Ala Ser Arg Arg Asn Phe Ala Val Lys Ala Gln Ala Asp Asp Leu Pro
65      70      75      80

Leu Val Gly Asn Lys Ala Pro Asp Phe Glu Ala Glu Ala Val Phe Asp
85      90      95

Gln Glu Phe Ile Lys Val Lys Leu Ser Glu Tyr Ile Gly Lys Lys Tyr
100     105     110

Val Ile Leu Phe Phe Tyr Pro Leu Asp Phe Thr Phe Val Cys Pro Thr
115     120     125

Glu Ile Thr Ala Phe Ser Asp Arg Tyr Glu Glu Phe Glu Lys Leu Asn
130     135     140

Thr Glu Val Leu Gly Val Ser Val Asp Ser Val Phe Ser His Leu Ala
145     150     155     160

Trp Val Gln Thr Asp Arg Lys Ser Gly Gly Leu Gly Asp Leu Asn Tyr
165     170     175

Pro Leu Val Ser Asp Ile Thr Lys Ser Ile Ser Lys Ser Phe Gly Val
180     185     190

Leu Ile Pro Asp Gln Gly Ile Ala Leu Arg Gly Leu Phe Ile Ile Asp
195     200     205

Lys Glu Gly Val Ile Gln His Ser Thr Ile Asn Asn Leu Gly Ile Gly
210     215     220

```

047-E2F-PCT.ST25.txt

Arg Ser Val Asp Glu Thr Met Arg Thr Leu Gln Ala Leu Gln Tyr Val  
225 230 235 240

Gln Glu Asn Pro Asp Glu Val Cys Pro Ala Gly Trp Lys Pro Gly Glu  
245 250 255

Lys Ser Met Lys Pro Asp Pro Lys Leu Ser Lys Glu Tyr Phe Ser Ala  
260 265 270

Ile

<210> 1927

<211> 408

<212> DNA

<213> Arabidopsis thaliana

<400> 1927

atggacatta ctgttcgaat ctccggctta aaatcctcca atctaattcg gataaccctt	60
agattctcat cttcctctag attccggttg tccaacaacg aacctcctcg aaagggaaac	120
gagtccaacg gtggtggtgg tgataaagcg tcgacggact gggacaaggc gtggaagaat	180
ttcaagaagc agagcaagaa gtcattgttc tcgcaattca acgtggacaa gtacgtgact	240
tggaatcctc ccagatcgga gtttgatttg tcggaagaag tcgatactat aaaaagaaca	300
gagagatcca atctcatgct ctggacaagt ccaagggttca cacttggttg agccatcgtc	360
attgtctcat tcctccttct ctacaccatt cttgctcctg tcaagtga	408

<210> 1928

<211> 135

<212> PRT

<213> Arabidopsis thaliana

<400> 1928

Met Asp Ile Thr Val Arg Ile Ser Gly Leu Lys Ser Ser Asn Leu Ile  
1 5 10 15

Arg Ile Thr Pro Arg Phe Ser Ser Ser Arg Phe Arg Cys Ser Asn  
20 25 30



Asn Glu Pro Pro Arg Lys Gly Asn Glu Ser Asn Gly Gly Gly Gly Asp  
 35 40 45  
 Lys Ala Ser Thr Asp Trp Asp Lys Ala Trp Lys Asn Phe Lys Lys Gln  
 50 55 60  
 Ser Lys Lys Ser Leu Phe Ser Gln Phe Asn Val Asp Lys Tyr Val Thr  
 65 70 75 80  
 Trp Asn Pro Pro Arg Ser Glu Phe Asp Leu Ser Glu Glu Val Asp Pro  
 85 90 95  
 Ile Lys Arg Thr Glu Arg Ser Asn Leu Met Leu Trp Thr Ser Pro Arg  
 100 105 110  
 Phe Thr Leu Val Gly Ala Ile Val Ile Val Ser Phe Leu Leu Leu Tyr  
 115 120 125  
 Thr Ile Leu Ala Pro Val Lys  
 130 135

<210> 1929

<211> 369

<212> DNA

<213> Arabidopsis thaliana

<400> 1929

atgggtaag caagaggagt gaacaatggc gtgaatgaaa gttctctcgg ttatcttttt	60
ggttccggcc agccttcttc cgctgctgct gccacaatgg ggactactac tactacaacc	120
accacaacta ccaccgatgg gaccggaggc agaccgataa ccaccacgac gaccacagtc	180
actgataaca agaagacatc tgcaggtggt agaggaagtc ctaataatta cttcagatca	240
gaaggccaaa actgtggaaa ctttctcacg gacaggccat ctactaaggt tcatgcagct	300
cctggtggag gatcttctct tgattatctg tttggaggac caagtcctgc tggatctgga	360
aacaaatga	369

<210> 1930

<211> 122

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 1930

Met Gly Lys Ala Arg Gly Val Asn Asn Gly Val Asn Glu Ser Ser Leu  
 1 5 10 15  
 Gly Tyr Leu Phe Gly Ser Gly Gln Pro Ser Ser Ala Ala Ala Thr  
 20 25 30  
 Met Gly Thr Thr Thr Thr Thr Thr Thr Thr Thr Thr Thr Asp Gly Thr  
 35 40 45  
 Gly Gly Arg Pro Ile Thr Thr Thr Thr Thr Thr Val Thr Asp Asn Lys  
 50 55 60  
 Lys Thr Ser Ala Gly Val Arg Gly Ser Pro Asn Asn Tyr Phe Arg Ser  
 65 70 75 80  
 Glu Gly Gln Asn Cys Gly Asn Phe Leu Thr Asp Arg Pro Ser Thr Lys  
 85 90 95  
 Val His Ala Ala Pro Gly Gly Gly Ser Ser Leu Asp Tyr Leu Phe Gly  
 100 105 110  
 Gly Pro Ser Pro Ala Gly Ser Gly Asn Lys  
 115 120

&lt;210&gt; 1931

&lt;211&gt; 1227

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1931

atgtctccat tgccttatag ttcttggcct ctgatactat tgtagtatt gtggtgcatg 60  
 gtagctagat tatcaaacgg agcttccaac aatgtaaagg ttggaatcat ttcaaagggtg 120  
 gaagatgcta cgaatttcca tatctattat ggacagacct ttaaagtcac caaaaacgcc 180  
 attgatggca agagctatct ccttattcag aacacttcta gaatggcggt tcggacaaag 240  
 tattgtactt ccaggataaa gtcttatgtg attccacttc taaattactc attagacact 300  
 caatcttctc aaggaagtgt tccggtttct ttctttgagt tacttggatt actcggaagc 360  
 ttgaagggaa taacatcgga tgaggtagtt tcaccgtgtc ttctgaaact gtgtgaggca 420  
 ggggaagtag ttaagcttga caaaggtgaa caactatctc aattcgcggc gcatttcac 480  
 agcgatactg atcaacctca gacttgcaat ttgcaaact tttttccact tagtgaagga 540

047-E2F-PCT.ST25.txt

acacctcttc agcgagcgga gtggatcaaa ttccttggag cgtttacaaa tcttgaaact 600  
aaagccaatc aagtctatga ctcggttaaa gcaagctata cttgcttgtc tcaaattggct 660  
gccacaaga caaaatcctt caagccgatt gtagcctgga tgggatatga tcaaaatgga 720  
ggcatgtgga gttttactaa ggaatcacac aagctaaagt ttgtagaaga tgctggtggt 780  
gaaaatatcg acaagtctat taacaagggtc tcttacaatg tctctgatcc tgatgatttg 840  
gaagcactcc atgccatttt atgtactgtg gatgctgtga tcgatgaaac gctatcatct 900  
gacctcaaa actacacaca gacaacgttc ttggcgaaca taaacgtgga tgataactct 960  
tgttttgcgt ttcttgctaa tcaaagcatc tggagatatg acaaaagggc cagaaacaga 1020  
acaactcttg actggtatga cggagcaatc tcgcaaccaa atcttgtact ggctgacatt 1080  
gttgaagcct tgtttccaac gggaaactat acaacttcgt acttcagaaa cattgctaag 1140  
ggtgaaggag tcataaacat tagtccggat atgtgtgata gagacgcatc attgccgtta 1200  
gttccttcaa ttccagcttg tggatga 1227

<210> 1932

<211> 408

<212> PRT

<213> Arabidopsis thaliana

<400> 1932

Met Ser Pro Leu Pro Tyr Ser Ser Trp Pro Leu Ile Leu Leu Leu Val  
1 5 10 15

Leu Trp Cys Met Val Ala Arg Leu Ser Asn Gly Ala Ser Asn Asn Val  
20 25 30

Lys Val Gly Ile Ile Ser Lys Val Glu Asp Ala Thr Asn Phe His Ile  
35 40 45

Tyr Tyr Gly Gln Thr Phe Lys Val Ile Lys Asn Ala Ile Asp Gly Lys  
50 55 60

Ser Tyr Leu Leu Ile Gln Asn Thr Ser Arg Met Ala Val Arg Thr Lys  
65 70 75 80

Tyr Cys Thr Ser Arg Ile Lys Ser Tyr Val Ile Pro Leu Leu Asn Tyr  
85 90 95

Ser Leu Asp Thr Gln Ser Ser Gln Gly Ser Val Pro Val Ser Phe Phe  
Page 2829

100  
 105  
 110  
 Glu Leu Leu Gly Leu Leu Gly Ser Leu Lys Gly Ile Thr Ser Asp Glu  
 115 120 125  
 Val Val Ser Pro Cys Leu Leu Lys Leu Cys Glu Ala Gly Glu Val Val  
 130 135 140  
 Lys Leu Asp Lys Gly Glu Gln Leu Ser Gln Phe Ala Ala His Phe Ile  
 145 150 155 160  
 Ser Asp Thr Asp Gln Pro Gln Thr Cys Asn Phe Ala Asn Phe Phe Pro  
 165 170 175  
 Leu Ser Glu Gly Thr Pro Leu Gln Arg Ala Glu Trp Ile Lys Phe Leu  
 180 185 190  
 Gly Ala Phe Thr Asn Leu Glu Thr Lys Ala Asn Gln Val Tyr Asp Ser  
 195 200 205  
 Val Lys Ala Ser Tyr Thr Cys Leu Ser Gln Met Ala Ala Asn Lys Thr  
 210 215 220  
 Lys Ser Phe Lys Pro Ile Val Ala Trp Met Gly Tyr Asp Gln Asn Gly  
 225 230 235 240  
 Gly Met Trp Ser Phe Thr Lys Glu Ser His Lys Leu Lys Phe Val Glu  
 245 250 255  
 Asp Ala Gly Gly Glu Asn Ile Asp Lys Ser Ile Asn Lys Val Ser Tyr  
 260 265 270  
 Asn Val Ser Asp Pro Asp Asp Leu Glu Ala Leu His Ala Ile Leu Cys  
 275 280 285  
 Thr Val Asp Ala Val Ile Asp Glu Thr Leu Ser Ser Asp Pro Gln Asn  
 290 295 300  
 Tyr Thr Gln Thr Thr Phe Leu Ala Asn Ile Asn Val Asp Asp Asn Ser  
 305 310 315 320  
 Cys Phe Ala Phe Leu Ala Asn Gln Ser Ile Trp Arg Tyr Asp Lys Arg  
 325 330 335  
 Val Arg Asn Arg Thr Thr Leu Asp Trp Tyr Asp Gly Ala Ile Ser Gln  
 340 345 350

Pro Asn Leu Val Leu Ala Asp Ile Val Glu Ala Leu Phe Pro Thr Gly  
 355 360 365

Asn Tyr Thr Thr Ser Tyr Phe Arg Asn Ile Ala Lys Gly Glu Gly Val  
 370 375 380

Ile Asn Ile Ser Pro Asp Met Cys Asp Arg Asp Ala Ser Leu Pro Leu  
 385 390 395 400

Val Pro Ser Ile Pro Ala Cys Gly  
 405

<210> 1933

<211> 957

<212> DNA

<213> Arabidopsis thaliana

<400> 1933

atggcgacgg taccattggt caccagttt ccctgcaaaa ccctaaatcc aagctcatca	60
aacactaaac accaatcgaa atctccgata ctactaccga ttaactcaat aaatcggcga	120
tcggagattg gagtctctgt tcatcggcca gatttcaaaa tccgagcgac ggacatcgac	180
gacgaatggg gtcaagatgg agtggagaga gtatttgcct catcttcaac cgtatcggta	240
gcagataaag caatcgaatc cgtggaggag acggagaggc taaagagatc actagcggat	300
tcgttgtacg gaacagatcg aggtttaagc gtatcgagtg atacgagagc tgagatcagc	360
gagctcatca cacagctcga gtctaagaac cctactccag ctcttaacga agctctgttt	420
ctcctcaacg gcaaattgat cctcgcttac acgtcgttcg tgggggtgtt cccattgctc	480
tcacgaagaa ttgaaccgtt ggttaaagtg gatgagatct cacaaccat tgattccgat	540
agcttcaccg ttcaaaactc tgtccggttc gctgggtccgt tttccacaac gtcgttttagc	600
accaacgcta agtttgaaat ccgaagtcct aaacgtgtcc agattaagtt cgagcaagg	660
gttataggga ctctcagct aacggattcg attgaaatac cggaatccgt ggaggttctt	720
ggtcagaaaa tcgatctcaa tccattaaa ggtttactta catcagtcca agacactgct	780
tcttcagtgg ctagaacat ttcaaacc aaacattga agttttctct gcctagtgc	840
aacacgcagt cgtggctgct cacaattat ctcgacaagg accttcggat ctcgagaggc	900
gatggtggaa gcgtctatgt gctcatcaaa gaaggaagct ctctcttaaa cccttaa	957

<210> 1934

<211> 318

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1934

Met Ala Thr Val Pro Leu Phe Thr Gln Phe Pro Cys Lys Thr Leu Asn  
 1 5 10 15

Pro Ser Ser Ser Asn Thr Lys His Gln Ser Lys Ser Pro Ile Leu Leu  
 20 25 30

Pro Ile Asn Ser Ile Asn Arg Arg Ser Glu Ile Gly Val Ser Val His  
 35 40 45

Arg Pro Asp Phe Lys Ile Arg Ala Thr Asp Ile Asp Asp Glu Trp Gly  
 50 55 60

Gln Asp Gly Val Glu Arg Val Phe Ala Ser Ser Ser Thr Val Ser Val  
 65 70 75 80

Ala Asp Lys Ala Ile Glu Ser Val Glu Glu Thr Glu Arg Leu Lys Arg  
 85 90 95

Ser Leu Ala Asp Ser Leu Tyr Gly Thr Asp Arg Gly Leu Ser Val Ser  
 100 105 110

Ser Asp Thr Arg Ala Glu Ile Ser Glu Leu Ile Thr Gln Leu Glu Ser  
 115 120 125

Lys Asn Pro Thr Pro Ala Pro Asn Glu Ala Leu Phe Leu Leu Asn Gly  
 130 135 140

Lys Trp Ile Leu Ala Tyr Thr Ser Phe Val Gly Leu Phe Pro Leu Leu  
 145 150 155 160

Ser Arg Arg Ile Glu Pro Leu Val Lys Val Asp Glu Ile Ser Gln Thr  
 165 170 175

Ile Asp Ser Asp Ser Phe Thr Val Gln Asn Ser Val Arg Phe Ala Gly  
 180 185 190

Pro Phe Ser Thr Thr Ser Phe Ser Thr Asn Ala Lys Phe Glu Ile Arg  
 195 200 205

Ser Pro Lys Arg Val Gln Ile Lys Phe Glu Gln Gly Val Ile Gly Thr  
 210 215 220

047-E2F-PCT.ST25.txt

Pro Gln Leu Thr Asp Ser Ile Glu Ile Pro Glu Ser Val Glu Val Leu  
225 230 235 240

Gly Gln Lys Ile Asp Leu Asn Pro Ile Lys Gly Leu Leu Thr Ser Val  
245 250 255

Gln Asp Thr Ala Ser Ser Val Ala Arg Thr Ile Ser Asn Gln Pro Pro  
260 265 270

Leu Lys Phe Ser Leu Pro Ser Asp Asn Thr Gln Ser Trp Leu Leu Thr  
275 280 285

Thr Tyr Leu Asp Lys Asp Leu Arg Ile Ser Arg Gly Asp Gly Gly Ser  
290 295 300

Val Tyr Val Leu Ile Lys Glu Gly Ser Ser Leu Leu Asn Pro  
305 310 315

<210> 1935

<211> 1791

<212> DNA

<213> Arabidopsis thaliana

<400> 1935

atggagggttt cgtcttcact caagctctca tcgtcgttat ctccttccat catcaaactt	60
caggggttctt catcaagtat tgatataaaa ttctctaagt acacttcact tcctaaaccg	120
tttcttcaac ttgatgataa aagccgacgt cttcgtgacc aacaagtttc acattctctc	180
gagctaaggt cttacagaaa acgggtcact gcgaaatcag gttctcaagg ttgggacttt	240
ggtagattcg tcaaaacatt gtactttttc aatggaccac catctcctct aaagtttggt	300
tcatacgggtg ttgagaaact tactaacgga gcaacggagg aaccggttgc tgaaatggga	360
acttctggaa tcatacttgt ggctggagct actggtggtg taggaagaag gattgttgat	420
atcttgagga aaagaggggt gcctgttaaa gcattgggtta gaaatgaaga gaaggctcgg	480
aagatgttag gacctgagat tgacttgatt gttgcagata ttacaaagga gaatacattg	540
gttcctgaaa agttcaaagg agtgaggaaa gtgatcaatg ctgtttctgt tattgttggt	600
ccaaaggaag gagatacacc tgagagacaa aaatataatc agggagtcag gttcttcgag	660
ccagagataa aaggcgactc tcccaggtta gtggaataca ttggaatgaa gaacttaatc	720
aatgctgtta gagatggtgt tggacttgag aatgggaagc ttatTTTTTgg tgtcggggat	780

047-E2F-PCT.ST25.txt

aacacgttta aggatctacc ttggggagca ttggatgatg ttgtaatggg aggtgtcagc 840  
gaaagtaact tcatagtaga tctaaccgct ggtgaaaacg gtggacctac cggaattttt 900  
aaaggaattg tttccacaac aaataatggc ggattttacga gtgtccgaac caagaacttt 960  
cccgaggcgg agaatgtctc tgcatatgat ggtctagagc taagactaaa aggtgatgga 1020  
ctccgttata agctaatacgt ccgaacaagc caagattggg atactgttgg ttacaccgcc 1080  
agttttgaca cttcaccagg ccaatggcaa tctgtacgct tacctttctc gtctttaaga 1140  
cctgtatttc ggcacgtac agttacagat gcaccacctt ttaatgcaag cagtatcatt 1200  
tcactacagc ttatgttttag caaatttgag tatgatggta agcttaaccc tacattcaaa 1260  
gaaggacctt tcgagcttcc tttatctagc attcgagctt atatccaaga ccccgtcact 1320  
ccaaggtttg ttcacgttgg ctctgcggga gttactcgac cagagagacc cggtttgat 1380  
ctaagcaaac aacctccggc cgtgagatta aacaagagc ttgatttcatt tctcacttac 1440  
aagttaaagg gagaggatct gatacgcgac agcgggattc catttgcaat tgtacggcca 1500  
tgtgtcttaa cagaagagcc tgccggagct gatctcattt tcgaacaagg agacaacatt 1560  
acggggaagg tatcaagaga cgaagtagcg cgtatatgca tcgctgcttt agaaagcccg 1620  
tatgctctta acaagacctt cgagggttaa agtacggttc cgtttagcga gcctttcacg 1680  
gtagatcctg agaatacctc accggagaaa gactacaatg agtatttcaa gactctgaaa 1740  
gatggaatca ccggtaaaga agcttttagaa cagagcactg ttgcagttta a 1791

<210> 1936  
<211> 596  
<212> PRT  
<213> Arabidopsis thaliana

<400> 1936  
Met Glu Val Ser Ser Ser Leu Lys Leu Ser Ser Ser Leu Ser Pro Ser  
1 5 10 15  
Ile Ile Lys Leu Gln Gly Ser Ser Ser Ser Ile Asp Ile Lys Phe Ser  
20 25 30  
Lys Tyr Thr Ser Leu Pro Lys Pro Phe Leu Gln Leu Asp Asp Lys Ser  
35 40 45  
Arg Arg Leu Arg Asp Gln Gln Val Ser His Ser Leu Glu Leu Arg Ser  
50 55 60



Tyr Arg Lys Arg Val Thr Ala Lys Ser Gly Ser Gln Gly Trp Asp Phe  
 65 70 75 80  
 Gly Arg Phe Val Lys Thr Leu Tyr Phe Phe Asn Gly Pro Pro Ser Pro  
 85 90 95  
 Leu Lys Phe Val Ser Ser Val Phe Glu Lys Leu Thr Asn Gly Ala Thr  
 100 105 110  
 Glu Glu Pro Val Ala Glu Met Gly Thr Ser Gly Ile Ile Leu Val Ala  
 115 120 125  
 Gly Ala Thr Gly Gly Val Gly Arg Arg Ile Val Asp Ile Leu Arg Lys  
 130 135 140  
 Arg Gly Leu Pro Val Lys Ala Leu Val Arg Asn Glu Glu Lys Ala Arg  
 145 150 155 160  
 Lys Met Leu Gly Pro Glu Ile Asp Leu Ile Val Ala Asp Ile Thr Lys  
 165 170 175  
 Glu Asn Thr Leu Val Pro Glu Lys Phe Lys Gly Val Arg Lys Val Ile  
 180 185 190  
 Asn Ala Val Ser Val Ile Val Gly Pro Lys Glu Gly Asp Thr Pro Glu  
 195 200 205  
 Arg Gln Lys Tyr Asn Gln Gly Val Arg Phe Phe Glu Pro Glu Ile Lys  
 210 215 220  
 Gly Asp Ser Pro Glu Leu Val Glu Tyr Ile Gly Met Lys Asn Leu Ile  
 225 230 235 240  
 Asn Ala Val Arg Asp Gly Val Gly Leu Glu Asn Gly Lys Leu Ile Phe  
 245 250 255  
 Gly Val Gly Asp Asn Thr Phe Lys Asp Leu Pro Trp Gly Ala Leu Asp  
 260 265 270  
 Asp Val Val Met Gly Gly Val Ser Glu Ser Asn Phe Ile Val Asp Leu  
 275 280 285  
 Thr Ala Gly Glu Asn Gly Gly Pro Thr Gly Ile Phe Lys Gly Ile Val  
 290 295 300  
 Ser Thr Thr Asn Asn Gly Gly Phe Thr Ser Val Arg Thr Lys Asn Phe  
 305 310 315 320

047-E2F-PCT.ST25.txt

Pro Glu Ala Glu Asn Val Ser Ala Tyr Asp Gly Leu Glu Leu Arg Leu  
325 330 335

Lys Gly Asp Gly Leu Arg Tyr Lys Leu Ile Val Arg Thr Ser Gln Asp  
340 345 350

Trp Asp Thr Val Gly Tyr Thr Ala Ser Phe Asp Thr Ser Pro Gly Gln  
355 360 365

Trp Gln Ser Val Arg Leu Pro Phe Ser Ser Leu Arg Pro Val Phe Arg  
370 375 380

Ala Arg Thr Val Thr Asp Ala Pro Pro Phe Asn Ala Ser Ser Ile Ile  
385 390 395 400

Ser Leu Gln Leu Met Phe Ser Lys Phe Glu Tyr Asp Gly Lys Leu Asn  
405 410 415

Pro Thr Phe Lys Glu Gly Pro Phe Glu Leu Pro Leu Ser Ser Ile Arg  
420 425 430

Ala Tyr Ile Gln Asp Pro Val Thr Pro Arg Phe Val His Val Gly Ser  
435 440 445

Ala Gly Val Thr Arg Pro Glu Arg Pro Gly Leu Asp Leu Ser Lys Gln  
450 455 460

Pro Pro Ala Val Arg Leu Asn Lys Glu Leu Asp Phe Ile Leu Thr Tyr  
465 470 475 480

Lys Leu Lys Gly Glu Asp Leu Ile Arg Asp Ser Gly Ile Pro Phe Ala  
485 490 495

Ile Val Arg Pro Cys Ala Leu Thr Glu Glu Pro Ala Gly Ala Asp Leu  
500 505 510

Ile Phe Glu Gln Gly Asp Asn Ile Thr Gly Lys Val Ser Arg Asp Glu  
515 520 525

Val Ala Arg Ile Cys Ile Ala Ala Leu Glu Ser Pro Tyr Ala Leu Asn  
530 535 540

Lys Thr Phe Glu Val Lys Ser Thr Val Pro Phe Ser Glu Pro Phe Thr  
545 550 555 560

Val Asp Pro Glu Asn Pro Pro Pro Glu Lys Asp Tyr Asn Glu Tyr Phe  
565 570 575

Lys Thr Leu Lys Asp Gly Ile Thr Gly Lys Glu Ala Leu Glu Gln Ser  
 580 585 590

Thr Val Ala Val  
 595

<210> 1937

<211> 3066

<212> DNA

<213> *Arabidopsis thaliana*

<400> 1937

```

atgtctgcta caaaaggtct agctgacgtt cagtcagata tgaagagtgc tgtcaaagta      60
aattctccac ccactgagga ttttgtggga ttcccaaccc aagaggagat aaaaagttca      120
ggtaacccaa cactggacaa attggaaaat acatcccgca ctgttaaagg tgcacaagtt      180
ataggtgaaa atgataaagc attggacctt gttttgctgt cactggaaag attttcaaaa      240
tcgccagatt ctaaaaggga caaagatgtt gcttgctctg ttcagtcctt caggatcatc      300
tccaatttgg ttgcaactcg tgccatagtt tcagttggac tgattgagaa aataacatgt      360
gcactgctag actttactga cgctcttggt gggatgaaat caccgagtt caacaacata      420
ataccaaaga gtctttcagt cactaaaaac ttggtagggc atgttgaagg caataacata      480
catagttctt acatcaggca ctggaccaa gtagtggaat tcttcataca ggtcgttaga      540
tggaagaag agggaaactg tagaattata tatgaggcct gttcttgcac cacaacaatg      600
ttatctcgag ttgcccaaga tcttaaatct tcaactcctg attctgtttc taaacagatt      660
ttggagcatg ctaacatgtc tcgcatagtt gatcatttgt gtctttgtct ggcttcttct      720
gggtcgagtt taacttccgg ctcttcgcaa atgttagcag ctgcctgtga agcttgtcga      780
gcaatatgga ttctcataga tacttccgaa acattcttca agaacgatga tgtaaacata      840
ttacctctag atgccttgca gaaccgtctc tctcagcatg acataggaaa cagtgagtgg      900
ggtccgttat ctgagaaact tgtcgatata gtgacaagag catatctccg atcaaagcat      960
gtgcaagttg ctgttgggtc ttgccttcac caacgagtgg aggctccatt ggtttctgca     1020
attcagctct tgtcaagatg ctgccttcat aatggaattc tgcctagcat gctttgtggt     1080
cttccagtt cactgcctat tacgaccgta gtcagtggtg gagaggatgg tacagttatt     1140
tcagaaatat tttctatact atcatacgca acattatcaa gcaaagacca gcaaacagga     1200
gaaaaagata acttcgaggg cagactaaac aatctggtgt tccattcatg ccttatgttg     1260

```

gcaacagttg ctcaatgttt gaagttaact gggagaaatt ctgttctgtt aatgcttaca	1320
actttctcaa agaagcatca acatcgtctt tctgctatag ccaatcacat tgcctcagat	1380
gataaaatcg aagctttctt tcagaatcac tctgcttcag ctatgcttgc tctcgcattt	1440
attctcgctc ttgaaaaagg atcttctgct ggatcttctg tctctgagct agtggtgtct	1500
ctgattcctc gagctactaa gctttgttat catcttaggc ctatgccaaag taatgaagggt	1560
gaagtcattt ctcatcttgc caattatgcc aaatggcacg gacttctgga tggatgtatc	1620
ggttttattag aatccagatt gaagtggggg ggacctctag ctgtgcagca gcttattgct	1680
agtggtacgc cattgcttct cataaatctg ttagctggca aactttcaaa tgcttcccca	1740
gaggacatca agaagacatc caaccggatt ggcttgtccc ctattggcgt tgtatggact	1800
atttcgtcca tatgccactg tctttcgggt ggcacaactt tccgtcaggt tcttgtgaaa	1860
atcgaaacca tgaagctaata tacttgttta ctatctgatg ctcatatcaa gctagtaaag	1920
agctggggag gtccgggggg aggaaaagat ggggtcagag agacaataaa tgtgataatt	1980
gatctcctag catttccttt tgttgctctg caaagtcaac caggttcgtt atctgccaca	2040
gcttctgtaa atagtggatt cattctcaac attggctctc ctggtgtgag agtatgcatg	2100
gaagatagag atttgctaaa agctatagaa gaggatatgg acaatacat aatagtcctc	2160
ctggagggtg gagtgccgag tttaatccta cgttgcttgg atcatttgga attaaaagat	2220
ttagtaaggc ccgttgcttt tcttgccaaa atggtgggtc gtccacgtct tgctgtagat	2280
ctcgtgagca aagggtctgtt agatcctaata agaataaaa aattactcaa ccaatcaagt	2340
ccaagagaag tcatacttga tattttgatg atcatatctg atctatcgag gatggataag	2400
gctttttata aatacatcgg cgaggcttct gttttacagc ctttgaaaga atatcttacc	2460
catgtggatc caaatatacg tgcaaaagct tgtagtgtc tttggcaatat gtgcagacac	2520
aatggatatt tctacagcgc tcttgcgga catcaaatca tcggtctcct cattgatcga	2580
tgcgtgatc cggacaaacg aacacagaaa ttcgcttggt ttgctattgg aaatgaggct	2640
taccataacg acacgtgtg tgaagagcta agaagatcta taacgcagct agcaaacgtt	2700
ttgaccacgg ctgaagaaga caagacaaaa gcaaacgcgg ctggtgcatt gagcaacctt	2760
gtccgaaact ccaacaaact ctgtgaagat atagtctcca agggagcttt acaaacgtta	2820
ctgaggctag ttgctgattg ctgactctt gccttgaacc caagcaagaa agagacagcg	2880
agtgagtcac cgctcaagat tgcactcttc tcattggcta aaatgtgttc gaaccaccag	2940
atttgcagac agtttgtgaa gtcacagag ttgttcccgg tcattgcaag gcttaaacia	3000
tcccctgagg ctaacattgc tcaactatgt tcagttattg tcgccaaagt cagtgggtgag	3060
tcttaa	3066

&lt;210&gt; 1938

&lt;211&gt; 1021

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1938

Met Ser Ala Thr Lys Gly Leu Ala Asp Val Gln Ser Asp Met Lys Ser  
1 5 10 15

Ala Val Lys Val Asn Ser Pro Pro Thr Glu Asp Phe Val Gly Phe Pro  
20 25 30

Thr Gln Glu Glu Ile Lys Ser Ser Gly Asn Pro Thr Leu Asp Lys Leu  
35 40 45

Glu Asn Thr Ser Arg Thr Val Lys Gly Ala Gln Val Ile Gly Glu Asn  
50 55 60

Asp Lys Ala Leu Asp Leu Val Leu Leu Ser Leu Glu Arg Phe Ser Lys  
65 70 75 80

Ser Pro Asp Ser Lys Arg Asp Lys Asp Val Ala Cys Ser Val Gln Ser  
85 90 95

Leu Arg Ile Ile Ser Asn Leu Val Ala Thr Arg Ala Ile Val Ser Val  
100 105 110

Gly Leu Ile Glu Lys Ile Thr Cys Ala Leu Leu Asp Phe Thr Asp Ala  
115 120 125

Leu Val Gly Met Lys Ser Pro Glu Phe Asn Asn Ile Ile Pro Lys Ser  
130 135 140

Leu Ser Val Thr Lys Asn Leu Val Gly His Val Glu Gly Asn Asn Ile  
145 150 155 160

His Ser Ser Tyr Ile Arg His Trp Thr Lys Val Val Glu Ile Phe Ile  
165 170 175

Gln Val Val Arg Trp Glu Glu Glu Gly Thr Gly Arg Ile Ile Tyr Glu  
180 185 190

Ala Cys Ser Cys Ile Thr Thr Met Leu Ser Arg Val Ala Gln Asp Leu  
195 200 205

047-E2F-PCT.ST25.txt

Lys Ser Ser Thr Pro Asp Ser Val Ser Lys Gln Ile Leu Glu His Ala  
 210 215 220  
 Asn Met Ser Arg Ile Val Asp His Leu Cys Leu Cys Leu Ala Ser Ser  
 225 230 235 240  
 Gly Ser Ser Leu Thr Ser Gly Ser Ser Gln Met Leu Ala Ala Ala Cys  
 245 250 255  
 Glu Ala Cys Arg Ala Ile Trp Ile Leu Ile Asp Thr Ser Glu Thr Phe  
 260 265 270  
 Phe Lys Asn Asp Asp Val Asn Ile Leu Pro Leu Asp Ala Leu Gln Asn  
 275 280 285  
 Arg Leu Ser Gln His Asp Ile Gly Asn Ser Glu Trp Gly Pro Leu Ser  
 290 295 300  
 Glu Lys Leu Val Asp Thr Val Thr Arg Ala Tyr Leu Arg Ser Lys His  
 305 310 315 320  
 Val Gln Val Ala Val Gly His Cys Leu His Gln Arg Val Glu Ala Pro  
 325 330 335  
 Leu Val Ser Ala Ile Gln Leu Leu Ser Arg Cys Cys Leu His Asn Gly  
 340 345 350  
 Ile Leu Pro Ser Met Leu Cys Gly Leu Pro Ser Ser Leu Pro Ile Thr  
 355 360 365  
 Thr Val Val Ser Gly Gly Glu Asp Gly Thr Val Ile Ser Glu Ile Phe  
 370 375 380  
 Ser Ile Leu Ser Tyr Ala Thr Leu Ser Ser Lys Asp Gln Gln Thr Gly  
 385 390 395 400  
 Glu Lys Asp Asn Phe Glu Gly Arg Leu Asn Asn Leu Val Phe His Ser  
 405 410 415  
 Cys Leu Met Leu Ala Thr Val Ala Gln Cys Leu Lys Leu Thr Gly Arg  
 420 425 430  
 Asn Ser Val Leu Leu Met Leu Thr Thr Ser Pro Lys Lys His Gln His  
 435 440 445  
 Arg Leu Ser Ala Ile Ala Asn His Ile Ala Ser Asp Asp Lys Ile Glu  
 450 455 460

047-E2F-PCT.ST25.txt

Ala Ser Leu Gln Asn His Ser Ala Ser Ala Met Leu Ala Leu Ala Ser  
465 470 475 480

Ile Leu Ala Leu Glu Lys Gly Ser Ser Ala Gly Ser Ser Val Ser Glu  
485 490 495

Leu Val Val Ser Leu Ile Pro Arg Ala Thr Lys Leu Cys Tyr His Leu  
500 505 510

Arg Pro Met Pro Ser Asn Glu Gly Glu Val Ile Ser His Ser Ala Asn  
515 520 525

Tyr Ala Lys Trp His Gly Leu Leu Asp Gly Cys Ile Gly Leu Leu Glu  
530 535 540

Ser Arg Leu Lys Trp Gly Gly Pro Leu Ala Val Gln Gln Leu Ile Ala  
545 550 555 560

Ser Gly Thr Pro Leu Leu Leu Ile Asn Leu Leu Ala Gly Lys Leu Ser  
565 570 575

Asn Ala Ser Pro Glu Asp Ile Lys Lys Thr Ser Asn Arg Ile Gly Leu  
580 585 590

Ser Pro Ile Gly Val Val Trp Thr Ile Ser Ser Ile Cys His Cys Leu  
595 600 605

Ser Gly Gly Thr Thr Phe Arg Gln Val Leu Val Lys Ile Glu Thr Met  
610 615 620

Lys Leu Ile Thr Cys Leu Leu Ser Asp Ala His Ile Lys Leu Val Lys  
625 630 635 640

Ser Trp Gly Gly Pro Gly Gly Gly Lys Asp Gly Val Arg Glu Thr Ile  
645 650 655

Asn Val Ile Ile Asp Leu Leu Ala Phe Pro Phe Val Ala Leu Gln Ser  
660 665 670

Gln Pro Gly Ser Leu Ser Ala Thr Ala Ser Val Asn Ser Gly Phe Ile  
675 680 685

Leu Asn Ile Gly Ser Pro Gly Val Arg Val Cys Met Glu Asp Arg Asp  
690 695 700

Leu Leu Lys Ala Ile Glu Glu Asp Met Asp Lys Tyr Ile Ile Val Leu

705                      710                      715                      720  
 Leu Glu Val Gly Val Pro Ser Leu Ile Leu Arg Cys Leu Asp His Leu  
                                  725                                   730                                   735  
 Glu Leu Lys Asp Leu Val Arg Pro Val Ala Phe Leu Ala Lys Met Val  
                                  740                                   745                                   750  
 Gly Arg Pro Arg Leu Ala Val Asp Leu Val Ser Lys Gly Leu Leu Asp  
                                  755                                   760                                   765  
 Pro Asn Arg Met Lys Lys Leu Leu Asn Gln Ser Ser Pro Arg Glu Val  
                                  770                                   775                                   780  
 Ile Leu Asp Ile Leu Met Ile Ile Ser Asp Leu Ser Arg Met Asp Lys  
                                  785                                   790                                   795                                   800  
 Ala Phe Tyr Lys Tyr Ile Gly Glu Ala Ser Val Leu Gln Pro Leu Lys  
                                  805                                   810                                   815  
 Glu Tyr Leu Thr His Val Asp Pro Asn Ile Arg Ala Lys Ala Cys Ser  
                                  820                                   825                                   830  
 Ala Leu Gly Asn Met Cys Arg His Asn Gly Tyr Phe Tyr Ser Ala Leu  
                                  835                                   840                                   845  
 Ala Glu His Gln Ile Ile Gly Leu Leu Ile Asp Arg Cys Ala Asp Pro  
                                  850                                   855                                   860  
 Asp Lys Arg Thr Gln Lys Phe Ala Cys Phe Ala Ile Gly Asn Ala Ala  
                                  865                                   870                                   875                                   880  
 Tyr His Asn Asp Thr Leu Tyr Glu Glu Leu Arg Arg Ser Ile Thr Gln  
                                  885                                   890                                   895  
 Leu Ala Asn Val Leu Thr Thr Ala Glu Glu Asp Lys Thr Lys Ala Asn  
                                  900                                   905                                   910  
 Ala Ala Gly Ala Leu Ser Asn Leu Val Arg Asn Ser Asn Lys Leu Cys  
                                  915                                   920                                   925  
 Glu Asp Ile Val Ser Lys Gly Ala Leu Gln Thr Leu Leu Arg Leu Val  
                                  930                                   935                                   940  
 Ala Asp Cys Ser Thr Leu Ala Leu Asn Pro Ser Lys Lys Glu Thr Ala  
                                  945                                   950                                   955                                   960



Ser Glu Ser Pro Leu Lys Ile Ala Leu Phe Ser Leu Ala Lys Met Cys  
                   965                  970                  975

Ser Asn His Gln Ile Cys Arg Gln Phe Val Lys Ser Ser Glu Leu Phe  
                   980                  985                  990

Pro Val Ile Ala Arg Leu Lys Gln Ser Pro Glu Ala Asn Ile Ala His  
                   995                  1000                  1005

Tyr Ala Ser Val Ile Val Ala Lys Val Ser Gly Glu Ser  
           1010                  1015                  1020

<210> 1939

<211> 792

<212> DNA

<213> Arabidopsis thaliana

<400> 1939

```

atgcttagaa acaaacctag agcagccgtg acgactaaga aacaaacatc tctgttaatg      60
gctgatcaac ctccacctcc aaagcctaac acttgccact gctcaccatc tctcttttagc      120
tctcccaagt ttaggttttt cacttctaag atgatgatga ctccctttga ctctgatttc      180
tcactcgtta gccctacgtc tatactcgaa gctaaccatc ccatctttctc ctccaaaaac      240
cctaaacccg tttcctatctt cgagccaact atccctaatac cccagcgttt tcactctcca      300
gacgtctttg gcctagccga tctcgtgaaa gacggagaca gtaacagaga ccactctaga      360
aaacctgtca acaagatggg ctttttcggg tcaaagctca gagtccagat cccatcatca      420
gctgattttg gaactaaaac cggcatcaga taccctcctt gtcaacttag tccttggtgct      480
caaacgaagg tcttagcagt gagcgagatt gaccagacgg aggactacac gcgcgtcatc      540
tctcacggtc ctaaccaaac catcactcat atcttcgaca actctgtttt cgtggagggt      600
actccttgct ctgttccttt accccaacca gccatggaga ccaagagcac cgagagtttt      660
ctaagccgtt gcttcacctg caagaagaat cttgaccaga aacaggacat ctacatatac      720
aggggagaga aagggtttttg cagcagcgag tgcaggtacc aggagatgct tcttgatcaa      780
atggagacct ag                                     792

```

<210> 1940

<211> 263

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 1940

```

Met Leu Arg Asn Lys Pro Arg Ala Ala Val Thr Thr Lys Lys Gln Thr
1      5      10      15

Ser Leu Leu Met Ala Asp Gln Pro Pro Pro Pro Lys Pro Asn Thr Cys
20     25     30

His Cys Ser Pro Ser Leu Phe Ser Ser Pro Lys Phe Arg Phe Phe Thr
35     40     45

Ser Lys Met Met Met Thr Pro Phe Asp Ser Asp Phe Ser Leu Val Ser
50     55     60

Pro Thr Ser Ile Leu Glu Ala Asn Pro Ser Ile Phe Ser Ser Lys Asn
65     70     75     80

Pro Lys Pro Val Ser Tyr Phe Glu Pro Thr Ile Pro Asn Pro Gln Arg
85     90     95

Phe His Ser Pro Asp Val Phe Gly Leu Ala Asp Leu Val Lys Asp Gly
100    105    110

Asp Ser Asn Arg Asp His Ser Arg Lys Pro Val Asn Lys Met Val Leu
115    120    125

Phe Gly Ser Lys Leu Arg Val Gln Ile Pro Ser Ser Ala Asp Phe Gly
130    135    140

Thr Lys Thr Gly Ile Arg Tyr Pro Pro Cys Gln Leu Ser Pro Cys Val
145    150    155    160

Gln Thr Lys Val Leu Ala Val Ser Glu Ile Asp Gln Thr Glu Asp Tyr
165    170    175

Thr Arg Val Ile Ser His Gly Pro Asn Pro Thr Ile Thr His Ile Phe
180    185    190

Asp Asn Ser Val Phe Val Glu Ala Thr Pro Cys Ser Val Pro Leu Pro
195    200    205

Gln Pro Ala Met Glu Thr Lys Ser Thr Glu Ser Phe Leu Ser Arg Cys
210    215    220

Phe Thr Cys Lys Lys Asn Leu Asp Gln Lys Gln Asp Ile Tyr Ile Tyr
225    230    235    240

```

Arg Gly Glu Lys Gly Phe Cys Ser Ser Glu Cys Arg Tyr Gln Glu Met  
                   245                                  250                                  255

Leu Leu Asp Gln Met Glu Thr  
                   260

<210> 1941

<211> 942

<212> DNA

<213> Arabidopsis thaliana

<400> 1941

```

atgggtctac tgtcacttga agacaccata aaagagaagc taaaggaccg caaaaacgct      60
cacttcatgt tggttgacgg aatgtctaag ctactgacgg aaaaagttaa gaattgtcag      120
tcattggatt tccaagtttc tgggtgtcaaa tggaggttgg ttatacgctt atctagggga      180
agaaaagacc atctatcttt tgttctggag atcacagatg aaaagtgtac cgggtctact      240
tgggacgtca aattcaactt caaaatcggc atagtccctc agactggacc agattattgc      300
ttcgtttttg tggggcatca aaacgaaaaa aaacgtagtc aagggttagc caacttcata      360
tcacacacgg atttgaagga gaggtttctt gtgaacgaca aagcgggggtt ctatgccgag      420
ataagcgatg tccaaccaa cttccccgtt acccgatatc ctcgaacaat ggggacagca      480
gaacgcttta aactgataga gttttctccg aaaaactcca gattcacctg gaagatcacg      540
cagttttcct ctttcgatgg tgaagagcat tcttcttacg agttcacggt tggaccacgg      600
agatggaaac tagtaatgta cccaaaagga aacggagatg gaaaaggaaa ttcgttgtct      660
ttgtatttgt ttgcatccga ttacgtcacc aatggtccta aggggtggaac attggccatc      720
tataaattga gagtgttgga ccaactcaat cgcaatcact gtgaaactga gtgtagatat      780
tggtttcctt ataaccctgt taatcaaagt gattccttat ggggacgtcc caagtttttg      840
ccgctggagg aactccacaa atcttcgagg ggatttctag tgaacgatca gatatatatc      900
ggtgttgaga tctcaattgt atccactact gagtatctct ga                        942

```

<210> 1942

<211> 313

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 1942

```

Met Gly Leu Leu Ser Leu Glu Asp Thr Ile Lys Glu Lys Leu Lys Asp
 1      5      10     15
Arg Lys Asn Ala His Phe Met Leu Val Asp Gly Met Ser Lys Leu Leu
      20     25     30
Thr Glu Lys Val Lys Asn Cys Gln Ser Leu Asp Phe Gln Val Ser Gly
      35     40     45
Val Lys Trp Arg Leu Val Ile Arg Leu Ser Arg Gly Arg Lys Asp His
      50     55     60
Leu Ser Phe Val Leu Glu Ile Thr Asp Glu Lys Cys Thr Gly Ser Thr
65      70     75     80
Trp Asp Val Lys Phe Asn Phe Lys Ile Gly Ile Val Pro Gln Thr Gly
      85     90     95
Pro Asp Tyr Cys Phe Val Leu Val Gly His Gln Asn Glu Lys Lys Arg
      100    105    110
Ser Gln Gly Leu Ala Asn Phe Ile Ser His Thr Asp Leu Lys Glu Arg
      115    120    125
Phe Leu Val Asn Asp Lys Ala Gly Phe Tyr Ala Glu Ile Ser Asp Val
      130    135    140
Gln Pro Asn Phe Pro Val Thr Arg Ile Pro Arg Thr Met Gly Thr Ala
145    150    155    160
Glu Arg Phe Lys Leu Ile Glu Phe Ser Pro Lys Asn Ser Arg Phe Thr
      165    170    175
Trp Lys Ile Thr Gln Phe Ser Ser Phe Asp Gly Glu Glu His Ser Ser
      180    185    190
Tyr Glu Phe Thr Val Gly Pro Arg Arg Trp Lys Leu Val Met Tyr Pro
      195    200    205
Lys Gly Asn Gly Asp Gly Lys Gly Asn Ser Leu Ser Leu Tyr Leu Phe
      210    215    220
Ala Ser Asp Tyr Val Thr Asn Gly Pro Lys Gly Gly Thr Leu Ala Ile
225    230    235    240

```

Tyr Lys Leu Arg Val Leu Asp Gln Leu Asn Arg Asn His Cys Glu Thr  
 245 250 255

Glu Cys Arg Tyr Trp Phe Pro Tyr Asn Pro Val Asn Gln Met Asp Ser  
 260 265 270

Leu Trp Gly Arg Pro Lys Phe Leu Pro Leu Glu Glu Leu His Lys Ser  
 275 280 285

Ser Arg Gly Phe Leu Val Asn Asp Gln Ile Tyr Ile Gly Val Glu Ile  
 290 295 300

Ser Ile Val Ser Thr Thr Glu Tyr Leu  
 305 310

<210> 1943

<211> 1569

<212> DNA

<213> Arabidopsis thaliana

<400> 1943

atggtggtct ctgctgactg cagaatctcc ctctctgccc ctagctgcat acgtagtagc	60
tccacgggat tgactaggca cattaagctt ggcagcttct gcaatggtga gctcatgggg	120
aagaagctca acttgtctca gcttccaaac attcgtcttc gatcttctac taacttctct	180
cagaagagaa ttttaatgtc tctaaatagt gtagctgggg agagtaaggt acaagaactt	240
gagactgaga aaagggatcc aaggacagtt gcttccatta ttcttggagg tggagcagga	300
actcgactct ttcctctcac aaaacgccgc gccaaagcctg ccgttcctat cgggggagcc	360
tataggttga tagatgtacc aatgagcaat tgtattaaca gcggaatcaa caaagtctac	420
atactcacac aatataactc agcatcattg aacaggcatt tagcccgtgc ttacaactcc	480
aatggacttg gctttggaga tggctatggt gaggttcttg cggccactca aacgccagga	540
gaatctggta aaaggtggtt ccaaggtaca gcagatgcgg ttcggcaatt ccattggctt	600
ttcgaggatg caagaagcaa ggacatagag gatgtattga tcctttcttg agatcacctc	660
tacaggatgg attaccatgga ttttatacag gatcatcggc agagtggcgc ggatataagc	720
atttcctgca taccaataga tgacagacgt gcctcagatt ttgggcttat gaagatagat	780
gacaaaggaa gagttatctc attcagtga aaacctaag gagacgacct gaaagcaatg	840
gcagtagaca caactatfff aggactttcc aaggaggaag ctgaaaagaa accatacata	900
gcttcaatgg gagtttatgt tttcaaaaaa gaaatactgt taaatctctt gagatggcgt	960

```

ttccccacag caaacgactt tggttcagag attataccct tctcagctaa agaattctat 1020
gtgaatgctt atctctttta tgactactgg gaagatatag gaacaataag atctttcttc 1080
gaggcgaatc ttgcactcac tgagcatcct ggggcattta gtttctacga cgcggaacaa 1140
ccaatatata catcaaggag aaacctgcca ccatcaaaaa tagacaactc taagctcatc 1200
gattcaatca ttttctatgg aagcttctta accaactgct tgattgagca tagcattgtg 1260
ggaattagat caagagtagg cagtaatgtt cagttgaagg acactgtgat gcttggggca 1320
gattactacg aaactgaagc agaagttgca gcactacttg ctgagggaaa cgttcccatt 1380
ggaataggag agaacacaaa aattcaagaa tgcataatag acaagaatgc tagagttgga 1440
aagaatgtaa tcatcgcaaa ctcgaggagg atacaagaag cagatagggtc atccgatgga 1500
ttttacatca gatctggcat tactgtaatc ttgaagaact cagtaattaa agatggagtt 1560
gtgatatga 1569

```

&lt;210&gt; 1944

&lt;211&gt; 522

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1944

```

Met Val Val Ser Ala Asp Cys Arg Ile Ser Leu Ser Ala Pro Ser Cys
1      5      10      15

```

```

Ile Arg Ser Ser Ser Thr Gly Leu Thr Arg His Ile Lys Leu Gly Ser
20      25      30

```

```

Phe Cys Asn Gly Glu Leu Met Gly Lys Lys Leu Asn Leu Ser Gln Leu
35      40      45

```

```

Pro Asn Ile Arg Leu Arg Ser Ser Thr Asn Phe Ser Gln Lys Arg Ile
50      55      60

```

```

Leu Met Ser Leu Asn Ser Val Ala Gly Glu Ser Lys Val Gln Glu Leu
65      70      75      80

```

```

Glu Thr Glu Lys Arg Asp Pro Arg Thr Val Ala Ser Ile Ile Leu Gly
85      90      95

```

```

Gly Gly Ala Gly Thr Arg Leu Phe Pro Leu Thr Lys Arg Arg Ala Lys
100     105     110

```

Pro Ala Val Pro Ile Gly Gly Ala Tyr Arg Leu Ile Asp Val Pro Met  
 115 120 125  
 Ser Asn Cys Ile Asn Ser Gly Ile Asn Lys Val Tyr Ile Leu Thr Gln  
 130 135 140  
 Tyr Asn Ser Ala Ser Leu Asn Arg His Leu Ala Arg Ala Tyr Asn Ser  
 145 150 155 160  
 Asn Gly Leu Gly Phe Gly Asp Gly Tyr Val Glu Val Leu Ala Ala Thr  
 165 170 175  
 Gln Thr Pro Gly Glu Ser Gly Lys Arg Trp Phe Gln Gly Thr Ala Asp  
 180 185 190  
 Ala Val Arg Gln Phe His Trp Leu Phe Glu Asp Ala Arg Ser Lys Asp  
 195 200 205  
 Ile Glu Asp Val Leu Ile Leu Ser Gly Asp His Leu Tyr Arg Met Asp  
 210 215 220  
 Tyr Met Asp Phe Ile Gln Asp His Arg Gln Ser Gly Ala Asp Ile Ser  
 225 230 235 240  
 Ile Ser Cys Ile Pro Ile Asp Asp Arg Arg Ala Ser Asp Phe Gly Leu  
 245 250 255  
 Met Lys Ile Asp Asp Lys Gly Arg Val Ile Ser Phe Ser Glu Lys Pro  
 260 265 270  
 Lys Gly Asp Asp Leu Lys Ala Met Ala Val Asp Thr Thr Ile Leu Gly  
 275 280 285  
 Leu Ser Lys Glu Glu Ala Glu Lys Lys Pro Tyr Ile Ala Ser Met Gly  
 290 295 300  
 Val Tyr Val Phe Lys Lys Glu Ile Leu Leu Asn Leu Leu Arg Trp Arg  
 305 310 315 320  
 Phe Pro Thr Ala Asn Asp Phe Gly Ser Glu Ile Ile Pro Phe Ser Ala  
 325 330 335  
 Lys Glu Phe Tyr Val Asn Ala Tyr Leu Phe Asn Asp Tyr Trp Glu Asp  
 340 345 350  
 Ile Gly Thr Ile Arg Ser Phe Phe Glu Ala Asn Leu Ala Leu Thr Glu  
 355 360 365

047-E2F-PCT.ST25.txt

His Pro Gly Ala Phe Ser Phe Tyr Asp Ala Ala Lys Pro Ile Tyr Thr  
 370 375 380  
 Ser Arg Arg Asn Leu Pro Pro Ser Lys Ile Asp Asn Ser Lys Leu Ile  
 385 390 395 400  
 Asp Ser Ile Ile Ser His Gly Ser Phe Leu Thr Asn Cys Leu Ile Glu  
 405 410 415  
 His Ser Ile Val Gly Ile Arg Ser Arg Val Gly Ser Asn Val Gln Leu  
 420 425 430  
 Lys Asp Thr Val Met Leu Gly Ala Asp Tyr Tyr Glu Thr Glu Ala Glu  
 435 440 445  
 Val Ala Ala Leu Leu Ala Glu Gly Asn Val Pro Ile Gly Ile Gly Glu  
 450 455 460  
 Asn Thr Lys Ile Gln Glu Cys Ile Ile Asp Lys Asn Ala Arg Val Gly  
 465 470 475 480  
 Lys Asn Val Ile Ile Ala Asn Ser Glu Gly Ile Gln Glu Ala Asp Arg  
 485 490 495  
 Ser Ser Asp Gly Phe Tyr Ile Arg Ser Gly Ile Thr Val Ile Leu Lys  
 500 505 510  
 Asn Ser Val Ile Lys Asp Gly Val Val Ile  
 515 520

<210> 1945

<211> 723

<212> DNA

<213> Arabidopsis thaliana

<400> 1945  
 atggtagctt ctctttcctt tcattccatc gccaccgtta atccaatctt ctccggcgat 60  
 ggtggtcgtt caatcttccg gactaatcgc cgattcgaag caactggagt gagttgccga 120  
 ggacagaatc ctactgacga gccacagaca agtaaaggac ccgagccgga taatgttcta 180  
 ctcaaaatcg cttggtacgg atctgagcta ctcggaatag ctgcttctgt tttccgatct 240  
 ccggagactt ctccgattgt gacaggcttt gaggttcctg ttgattgttc tggtcgagcc 300  
 gttcgtgtag ctgtcgtgga ctcgattaaa caagacttta aacgataccta cttcgtcaca 360



047-E2F-PCT.ST25.txt

ggtaatttga cgccggaggt ttatgaggag aagtgtgaat tcgctgatcc ggctggatcc 420  
 ttcaagggtc ttgctcgttt caaaaggaat tgcactaatt tcggaagcct tatcgagaaa 480  
 tccaatatga agctcatgaa atgggagaat tttgaggata aaggaattgg acattggaaa 540  
 tttagctgtg tcatgtcggt tccatggaaa cccattcttt cagcaactgg ttacacggag 600  
 tattattttcg acacagaatc cgggaaaatt tgcaggcacg tggagcattg gaatgtccct 660  
 aagattgctc tgttcaaaca acttctgaga cccagccgtg gtttagtggg gacacaaaac 720  
 tag 723

<210> 1946

<211> 240

<212> PRT

<213> Arabidopsis thaliana

<400> 1946

Met Val Ala Ser Leu Ser Phe His Ser Ile Ala Thr Val Asn Pro Ile  
 1 5 10 15

Phe Ser Gly Asp Gly Gly Arg Ser Ile Phe Arg Thr Asn Arg Arg Phe  
 20 25 30

Glu Ala Thr Gly Val Ser Cys Arg Gly Gln Asn Pro Thr Asp Glu Pro  
 35 40 45

Gln Thr Ser Lys Gly Pro Glu Pro Asp Asn Val Leu Leu Lys Ile Ala  
 50 55 60

Trp Tyr Gly Ser Glu Leu Leu Gly Ile Ala Ala Ser Val Phe Arg Ser  
 65 70 75 80

Pro Glu Thr Ser Pro Ile Val Thr Gly Phe Glu Val Pro Val Asp Cys  
 85 90 95

Ser Gly Arg Ala Val Arg Val Ala Val Val Asp Ser Ile Lys Gln Asp  
 100 105 110

Phe Lys Arg Ser Tyr Phe Val Thr Gly Asn Leu Thr Pro Glu Val Tyr  
 115 120 125

Glu Glu Lys Cys Glu Phe Ala Asp Pro Ala Gly Ser Phe Lys Gly Leu  
 130 135 140

047-E2F-PCT.ST25.txt

Ala Arg Phe Lys Arg Asn Cys Thr Asn Phe Gly Ser Leu Ile Glu Lys  
145 150 155 160

Ser Asn Met Lys Leu Met Lys Trp Glu Asn Phe Glu Asp Lys Gly Ile  
165 170 175

Gly His Trp Lys Phe Ser Cys Val Met Ser Phe Pro Trp Lys Pro Ile  
180 185 190

Leu Ser Ala Thr Gly Tyr Thr Glu Tyr Tyr Phe Asp Thr Glu Ser Gly  
195 200 205

Lys Ile Cys Arg His Val Glu His Trp Asn Val Pro Lys Ile Ala Leu  
210 215 220

Phe Lys Gln Leu Leu Arg Pro Ser Arg Gly Leu Val Gly Thr Gln Asn  
225 230 235 240

<210> 1947

<211> 1155

<212> DNA

<213> Arabidopsis thaliana

<400> 1947

atgagtgtga gttgttgttg taggaatctg ggcaagacaa taaaaaaggc aataccttca	60
catcatttgc atctgagaag tcttggtggg agtctctatc gtcgtcgtat ccaaagctct	120
tcaatggaga ccgatctcaa gtcaaccttt ctcaacgttt attctgttct caagtctgac	180
cttcttcatg acccttcctt cgaattcacc aatgaatctc gtctctgggt tgatcggatg	240
ctggactaca atgtacgtgg agggaaactc aatcggggtc tctctgttgt tgacagtttc	300
aaacttttga agcaaggcaa tgatttgact gagcaagagg ttttcctctc ttgtgctctc	360
ggttggtgca ttgaatggct ccaagcttat ttccttgtgc ttgatgatat tatggataac	420
tctgtcactc gccgtggtca accttgctgg ttcagagttc ctcaggttgg tatggttgcc	480
atcaatgatg ggattctact tcgcaatcac atccacagga ttctcaaaaa gcatttccgt	540
gataagcctt actatgttga ccttgttgat ttgtttaatg aggttgagtt gcaaacagct	600
tgtggccaga tgatagattt gatcaccacc tttgaaggag aaaaggattt ggccaagtac	660
tcattgtcaa tccaccgtcg tattgtccag tacaaaacgg cttattactc attttatctc	720
cctgttgctt gtgcgttgct tatggccggc gaaaatttgg aaaaccatat tgatgtgaag	780
aatgttcttg ttgacatggg aatctacttc caagtgcagg atgattatct ggattgtttt	840

047-E2F-PCT.ST25.txt

gctgatcccg agacgcttgg caagatagga acagatatag aagatttcaa atgctcgtgg 900  
 ttggtggtta aggcattaga gcgctgcagc gaagaacaaa ctaagatatt atatgagaac 960  
 tatggtaaac ccgacccatc gaacgttgct aaagtgaagg atctctacaa agagctggat 1020  
 cttgagggag ttttcatgga gtatgagagc aaaagctacg agaagctgac tggagcgatt 1080  
 gagggacacc aaagtaaagc aatccaagca gtgctaaaat ctttcttggc taagatctac 1140  
 aagaggcaga agtag 1155

<210> 1948

<211> 384

<212> PRT

<213> Arabidopsis thaliana

<400> 1948

Met Ser Val Ser Cys Cys Cys Arg Asn Leu Gly Lys Thr Ile Lys Lys  
 1 5 10 15

Ala Ile Pro Ser His His Leu His Leu Arg Ser Leu Gly Gly Ser Leu  
 20 25 30

Tyr Arg Arg Arg Ile Gln Ser Ser Ser Met Glu Thr Asp Leu Lys Ser  
 35 40 45

Thr Phe Leu Asn Val Tyr Ser Val Leu Lys Ser Asp Leu Leu His Asp  
 50 55 60

Pro Ser Phe Glu Phe Thr Asn Glu Ser Arg Leu Trp Val Asp Arg Met  
 65 70 75 80

Leu Asp Tyr Asn Val Arg Gly Gly Lys Leu Asn Arg Gly Leu Ser Val  
 85 90 95

Val Asp Ser Phe Lys Leu Leu Lys Gln Gly Asn Asp Leu Thr Glu Gln  
 100 105 110

Glu Val Phe Leu Ser Cys Ala Leu Gly Trp Cys Ile Glu Trp Leu Gln  
 115 120 125

Ala Tyr Phe Leu Val Leu Asp Asp Ile Met Asp Asn Ser Val Thr Arg  
 130 135 140

Arg Gly Gln Pro Cys Trp Phe Arg Val Pro Gln Val Gly Met Val Ala  
 Page 2853

145                      150                      155                      160  
 Ile Asn Asp Gly Ile Leu Leu Arg Asn His Ile His Arg Ile Leu Lys  
                                  165                                   170                                   175  
 Lys His Phe Arg Asp Lys Pro Tyr Tyr Val Asp Leu Val Asp Leu Phe  
                                  180                                   185                                   190  
 Asn Glu Val Glu Leu Gln Thr Ala Cys Gly Gln Met Ile Asp Leu Ile  
                                  195                                   200                                   205  
 Thr Thr Phe Glu Gly Glu Lys Asp Leu Ala Lys Tyr Ser Leu Ser Ile  
                                  210                                   215                                   220  
 His Arg Arg Ile Val Gln Tyr Lys Thr Ala Tyr Tyr Ser Phe Tyr Leu  
                                  225                                   230                                   235                                   240  
 Pro Val Ala Cys Ala Leu Leu Met Ala Gly Glu Asn Leu Glu Asn His  
                                  245                                   250                                   255  
 Ile Asp Val Lys Asn Val Leu Val Asp Met Gly Ile Tyr Phe Gln Val  
                                  260                                   265                                   270  
 Gln Asp Asp Tyr Leu Asp Cys Phe Ala Asp Pro Glu Thr Leu Gly Lys  
                                  275                                   280                                   285  
 Ile Gly Thr Asp Ile Glu Asp Phe Lys Cys Ser Trp Leu Val Val Lys  
                                  290                                   295                                   300  
 Ala Leu Glu Arg Cys Ser Glu Glu Gln Thr Lys Ile Leu Tyr Glu Asn  
                                  305                                   310                                   315                                   320  
 Tyr Gly Lys Pro Asp Pro Ser Asn Val Ala Lys Val Lys Asp Leu Tyr  
                                  325                                   330                                   335  
 Lys Glu Leu Asp Leu Glu Gly Val Phe Met Glu Tyr Glu Ser Lys Ser  
                                  340                                   345                                   350  
 Tyr Glu Lys Leu Thr Gly Ala Ile Glu Gly His Gln Ser Lys Ala Ile  
                                  355                                   360                                   365  
 Gln Ala Val Leu Lys Ser Phe Leu Ala Lys Ile Tyr Lys Arg Gln Lys  
                                  370                                   375                                   380

<210> 1949

<211> 930

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1949

```

atggaaggaa ccggcgttgt ggcggtgtac ggtaacggtg cgataacgga ggcgaagaaa      60
tctcccttct ccgtgaagggt cggtttggct cagatgctcc gtggtggtgt tatcatggat      120
gtcgtcaacg ccgagcaagc tcgtatcgcc gaggaggctg gtgcttgccg cgtcatggct      180
ttggagcgtg ttcctgctga tatccgcgct caaggaggcg tcgctcgtat gagcgatcca      240
caaatgatta aagaaatcaa acaagccggt acgattccgg tgatggctaa ggctaggatt      300
ggtcatttctg ttgaagctca gatccttgaa gcaattggaa tcgattacat cgatgagagc      360
gaggttttga ctcttgctga tgaagatcat cacatcaaca agcataattt ccggatcccg      420
ttcgtttgcg gttgccggaa tctcggcgag gctctgagga ggatccgtga aggtgcggcg      480
atgattagga ccaaagggtga agctggaacc ggtaacatta ttgaagctgt gaggcattgt      540
aggtctgtta atggtgacat tagggttttg cgaaacatgg atgatgatga ggttttcact      600
ttcgctaaga aattagccgc tccgtacgat ctcgtgatgc agactaagca gcttggtcgt      660
cttcctgtag tccaattcgc cgccggtgga gtggctactc cggctgatgc agctctcatg      720
atgcagcttg gatgtgatgg tgtctttgtt ggttctggta tcttcaagag cggtgacca      780
gctcgtcgtg cacgtgccat tgttcaggct gtgactcatt acagtgacct tgagatgctt      840
gtggagggtga gctgtgggct tggagaagcc atggttggga tcaatctcaa cgatgagaag      900
gttgagaggt tcgctaatcg ctccgagtga      930

```

&lt;210&gt; 1950

&lt;211&gt; 309

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1950

```

Met Glu Gly Thr Gly Val Val Ala Val Tyr Gly Asn Gly Ala Ile Thr
1          5          10          15

Glu Ala Lys Lys Ser Pro Phe Ser Val Lys Val Gly Leu Ala Gln Met
          20          25          30

Leu Arg Gly Gly Val Ile Met Asp Val Val Asn Ala Glu Gln Ala Arg
          35          40          45

```

047-E2F-PCT.ST25.txt

Ile Ala Glu Glu Ala Gly Ala Cys Ala Val Met Ala Leu Glu Arg Val  
50 55 60

Pro Ala Asp Ile Arg Ala Gln Gly Gly Val Ala Arg Met Ser Asp Pro  
65 70 75 80

Gln Met Ile Lys Glu Ile Lys Gln Ala Val Thr Ile Pro Val Met Ala  
85 90 95

Lys Ala Arg Ile Gly His Phe Val Glu Ala Gln Ile Leu Glu Ala Ile  
100 105 110

Gly Ile Asp Tyr Ile Asp Glu Ser Glu Val Leu Thr Leu Ala Asp Glu  
115 120 125

Asp His His Ile Asn Lys His Asn Phe Arg Ile Pro Phe Val Cys Gly  
130 135 140

Cys Arg Asn Leu Gly Glu Ala Leu Arg Arg Ile Arg Glu Gly Ala Ala  
145 150 155 160

Met Ile Arg Thr Lys Gly Glu Ala Gly Thr Gly Asn Ile Ile Glu Ala  
165 170 175

Val Arg His Val Arg Ser Val Asn Gly Asp Ile Arg Val Leu Arg Asn  
180 185 190

Met Asp Asp Asp Glu Val Phe Thr Phe Ala Lys Lys Leu Ala Ala Pro  
195 200 205

Tyr Asp Leu Val Met Gln Thr Lys Gln Leu Gly Arg Leu Pro Val Val  
210 215 220

Gln Phe Ala Ala Gly Gly Val Ala Thr Pro Ala Asp Ala Ala Leu Met  
225 230 235 240

Met Gln Leu Gly Cys Asp Gly Val Phe Val Gly Ser Gly Ile Phe Lys  
245 250 255

Ser Gly Asp Pro Ala Arg Arg Ala Arg Ala Ile Val Gln Ala Val Thr  
260 265 270

His Tyr Ser Asp Pro Glu Met Leu Val Glu Val Ser Cys Gly Leu Gly  
275 280 285

Glu Ala Met Val Gly Ile Asn Leu Asn Asp Glu Lys Val Glu Arg Phe  
290 295 300

Ala Asn Arg Ser Glu  
305

<210> 1951

<211> 1314

<212> DNA

<213> *Arabidopsis thaliana*

<400> 1951

atggaagaat catcaaacca acaaatacctc aactccgaga cccgacccga cccgattcaa	60
aaaccaccgg aatcaccagc caccaaactc tcattcccga gactcttcct ctggtttgat	120
caatcaaata gcatcaaaac tctgctctca tgggtccatct tcttcctcct cgccgtcatc	180
gtcccaatga tctcacactt cgtgctaata tgcgccgatt gcgatttcaa acaccgtcgt	240
ccttacgacg gtttagtgca gctttcgta tcgatcttcg ccggaatctc gttcgttagt	300
ctctcagatt ggtccaagaa atatggaatc cgaagggttc tcttcctcga taagcttaaa	360
gatgtttagcg ataaagttag gatcggatac gaagctaaaa tccagagatc aatgaagcta	420
ctagctatct ttgtccttcc atcgacaacg cttcaagcta tctatcgcat ttggtggtat	480
gcttcaggct ttaaccaaata cccttacatt ataaacccaa cgctgagcca tgtcttagcc	540
tgcacactcc agctctcttc ttggctctac cgtacatcac tcttcatcat tgcttgatc	600
ctctacaaaa acatctgcca cctccaggct ctcgctcttg atgaattcgc acgctgcttc	660
gcctctgaga tcaaagattt cagttccata ctcgccgagc atctcaaaat ccgctcgtgaa	720
ctgaagattg tcagtcaccg gttcagacga ttcattcttt tgtcattggt tttcgtcact	780
gccactcagt tcatggcatt gctgactacc atcagagcta gtgttccttt taatatctac	840
gaagttggcg agctcgcgtt atgtccaca agcttggtgt caggactatt catatgcttg	900
aaaagtgcaa cacaaatgac tcacaaagct caatcagtaa cgagcatcgc cacaaagtgg	960
aacgtgtgcg cgtctttaga tacatttgat gttctttatg acggagagac tcctaaatgt	1020
ccaacaacta cacaaattc ccagatttta tcgctcgtc gtaatgttgt tcaatcgtct	1080
gatgatgatg aagaaggaga aggagatgac aatgatcttg agatacatcc aatctttgcc	1140
cgcgccattt cttctcagaa acgtcaagct ctagtgcct atctagagaa caacagagca	1200
gggatcactg ttacggatt cttggtggat aaaacatggt tgcgtatgat cttcagcatc	1260
gaacttgctc ttcttctatg gctgctcaaa aagacaatca tgaacataac atga	1314

<210> 1952

&lt;211&gt; 437

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1952

Met Glu Glu Ser Ser Asn Gln Gln Ile Leu Asn Ser Glu Thr Arg Pro  
 1 5 10 15

Asp Pro Ile Gln Lys Pro Pro Glu Ser Pro Ala Thr Lys Leu Ser Phe  
 20 25 30

Pro Arg Leu Phe Leu Trp Phe Asp Gln Ser Asn Arg Ile Lys Thr Leu  
 35 40 45

Leu Ser Trp Ser Ile Phe Phe Leu Leu Ala Val Ile Val Pro Met Ile  
 50 55 60

Ser His Phe Val Leu Ile Cys Ala Asp Cys Asp Phe Lys His Arg Arg  
 65 70 75 80

Pro Tyr Asp Gly Leu Val Gln Leu Ser Leu Ser Ile Phe Ala Gly Ile  
 85 90 95

Ser Phe Val Ser Leu Ser Asp Trp Ser Lys Lys Tyr Gly Ile Arg Arg  
 100 105 110

Phe Leu Phe Phe Asp Lys Leu Lys Asp Val Ser Asp Lys Val Arg Ile  
 115 120 125

Gly Tyr Glu Ala Lys Ile Gln Arg Ser Met Lys Leu Leu Ala Ile Phe  
 130 135 140

Val Leu Pro Ser Thr Thr Leu Gln Ala Ile Tyr Arg Ile Trp Trp Tyr  
 145 150 155 160

Ala Ser Gly Phe Asn Gln Ile Pro Tyr Ile Ile Asn Pro Thr Leu Ser  
 165 170 175

His Val Leu Ala Cys Thr Leu Gln Leu Ser Ser Trp Leu Tyr Arg Thr  
 180 185 190

Ser Leu Phe Ile Ile Ala Cys Ile Leu Tyr Gln Asn Ile Cys His Leu  
 195 200 205



Gln Val Leu Arg Leu Asp Glu Phe Ala Arg Cys Phe Ala Ser Glu Ile  
 210 215 220  
 Lys Asp Phe Ser Ser Ile Leu Ala Glu His Leu Lys Ile Arg Arg Glu  
 225 230 235 240  
 Leu Lys Ile Val Ser His Arg Phe Arg Arg Phe Ile Leu Leu Ser Leu  
 245 250 255  
 Phe Phe Val Thr Ala Thr Gln Phe Met Ala Leu Leu Thr Thr Ile Arg  
 260 265 270  
 Ala Ser Val Pro Phe Asn Ile Tyr Glu Val Gly Glu Leu Ala Leu Cys  
 275 280 285  
 Ser Thr Ser Leu Val Ser Gly Leu Phe Ile Cys Leu Lys Ser Ala Thr  
 290 295 300  
 Gln Met Thr His Lys Ala Gln Ser Val Thr Ser Ile Ala Thr Lys Trp  
 305 310 315 320  
 Asn Val Cys Ala Ser Leu Asp Thr Phe Asp Val Leu Tyr Asp Gly Glu  
 325 330 335  
 Thr Pro Lys Cys Pro Thr Thr Thr Gln His Ser Gln Ile Leu Ser Arg  
 340 345 350  
 Arg Arg Asn Val Val Gln Ser Ser Asp Asp Asp Glu Glu Gly Glu Gly  
 355 360 365  
 Asp Asp Asn Asp Leu Glu Ile His Pro Ile Phe Ala Arg Ala Ile Ser  
 370 375 380  
 Ser Gln Lys Arg Gln Ala Leu Val Thr Tyr Leu Glu Asn Asn Arg Ala  
 385 390 395 400  
 Gly Ile Thr Val Tyr Gly Phe Leu Val Asp Lys Thr Trp Leu Arg Met  
 405 410 415  
 Ile Phe Ser Ile Glu Leu Ala Leu Leu Trp Leu Leu Lys Lys Thr  
 420 425 430  
 Ile Met Asn Ile Thr  
 435

&lt;210&gt; 1953

&lt;211&gt; 1377

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1953

```

atggcgaaga tgtaccggaa gttggcactc tgcggtggtg agggaggaca agaatgggac    60
gacgatgtat atgaggggtgt aagaaaagtg tatgtagggc aagatctcaa ccgtatcact    120
tacaatcaagt ttgagtacgt gcaggaagac ggcgaagtag taacaactga atatgggaca    180
acaaatcagc accctaaaga gttttgtaatt caatacccgg acgaacacat catagcagtg    240
gaggggaagtt accaccaagt ggctctcatt gccacagagg tgattacgtc cctcgtcttc    300
aagacctcaa agggtagaaa gtctccattg tttggtccaa acttacttgg aattacgacc    360
ggtacaaagt ttgtttttga ggatgagggg aagaagatcg tagggtttca tggacgggca    420
ggtgatgctg tcgacgctct tggagtttac tttgtattgg ataccacgcc gttccctctt    480
tacaagcttg atgcccaagg tggtagagac gggcgtgttt gggatgatgg ttcttacgat    540
ggcattaaaa cgctgcgtat tgatcaagat aattctcgtc tcacttattt agaggttgag    600
tacgagaaag acggggaagc aaaaacatgt aaccatgggg ggaaaggaga tacaccatcc    660
gagtttgtgc ttgggttacc agatgaatac atcaaatcgg tggaagcaac ctatcagaag    720
ccaaacattt ttagcaatac ggcaattacg tcacttaagt tcttaacatc aaaggggaga    780
acatcattct ttgggtataa tgtgggtaag aagtttgtgt tggagcaaaa ggggtcatagg    840
cttgtcgggt tccatggaaa ggaagatgca gctattgatg ctcttggagc atattttgga    900
cctgttccta ctctactcc cttgattcca tctaagaaac taccagcgat aggcggcaac    960
gaaggagtta catgggatga tgggtgtctac gacgggtgtaa ggaagatact tgtaggacaa   1020
ggtaacgatg gtgtatcctt tgtcaaattt gagtacagta agggcaaaga ctttgtaccc   1080
ggagatgacc atgggaagaa gacattactc ggagctgaag agtttgtgct tgaagatggt   1140
gaatatctca tgaacataga tggctactac gataagatct tcggagttga ggaaccaata   1200
attgtatgtc ttcagtttaa gaccaacaaa agggagtcaa tgccgtttgg aatggattct   1260
ggtaagaagt tctcgtttgg agaggaaggc cacaagatcg ttggattcca tggacaagct   1320
agtgatgttg ttcacagcat cggagtcact atcgtgcca tcaccaccac cgagtga    1377

```

&lt;210&gt; 1954

&lt;211&gt; 458

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1954

```

Met Ala Lys Met Tyr Arg Lys Leu Ala Leu Cys Gly Gly Glu Gly Gly
 1      5      10      15

Gln Glu Trp Asp Asp Asp Val Tyr Glu Gly Val Arg Lys Val Tyr Val
 20      25      30

Gly Gln Asp Leu Asn Arg Ile Thr Tyr Ile Lys Phe Glu Tyr Val Gln
 35      40      45

Glu Asp Gly Glu Val Val Thr Thr Glu Tyr Gly Thr Thr Asn Gln His
 50      55      60

Pro Lys Glu Phe Val Ile Gln Tyr Pro Asp Glu His Ile Ile Ala Val
 65      70      75      80

Glu Gly Ser Tyr His Gln Val Ala Leu Ile Ala Thr Glu Val Ile Thr
 85      90      95

Ser Leu Val Phe Lys Thr Ser Lys Gly Arg Lys Ser Pro Leu Phe Gly
100      105      110

Pro Asn Leu Leu Gly Ile Thr Thr Gly Thr Lys Phe Val Phe Glu Asp
115      120      125

Glu Gly Lys Lys Ile Val Gly Phe His Gly Arg Ala Gly Asp Ala Val
130      135      140

Asp Ala Leu Gly Val Tyr Phe Val Leu Asp Thr Thr Pro Phe Pro Leu
145      150      155      160

Tyr Lys Leu Asp Ala Gln Gly Gly Thr Asp Gly Arg Val Trp Asp Asp
165      170      175

Gly Ser Tyr Asp Gly Ile Lys Thr Leu Arg Ile Asp Gln Asp Asn Ser
180      185      190

Arg Ile Thr Tyr Leu Glu Val Glu Tyr Glu Lys Asp Gly Glu Ala Lys
195      200      205

Thr Cys Asn His Gly Gly Lys Gly Asp Thr Pro Ser Glu Phe Val Leu
210      215      220

Gly Tyr Pro Asp Glu Tyr Ile Lys Ser Val Glu Ala Thr Tyr Gln Lys
225      230      235      240

```

047-E2F-PCT.ST25.txt

Pro Asn Ile Phe Ser<sub>245</sub> Asn Thr Ala Ile Thr<sub>250</sub> Ser Leu Lys Phe Leu<sub>255</sub> Thr  
 Ser Lys Gly Arg<sub>260</sub> Thr Ser Phe Phe Gly<sub>265</sub> Tyr Asn Val Gly Lys<sub>270</sub> Lys Phe  
 Val Leu Glu<sub>275</sub> Gln Lys Gly His Arg<sub>280</sub> Leu Val Gly Phe His<sub>285</sub> Gly Lys Glu  
 Asp Ala<sub>290</sub> Ala Ile Asp Ala Leu<sub>295</sub> Gly Ala Tyr Phe Gly<sub>300</sub> Pro Val Pro Thr  
 Pro Thr Pro Leu Ile Pro<sub>310</sub> Ser Lys Lys Leu Pro<sub>315</sub> Ala Ile Gly Gly Asn<sub>320</sub>  
 Glu Gly Val Thr Trp<sub>325</sub> Asp Asp Gly Val Tyr<sub>330</sub> Asp Gly Val Arg Lys<sub>335</sub> Ile  
 Leu Val Gly Gln<sub>340</sub> Gly Asn Asp Gly Val<sub>345</sub> Ser Phe Val Lys Phe<sub>350</sub> Glu Tyr  
 Ser Lys Gly<sub>355</sub> Lys Asp Leu Val Pro<sub>360</sub> Gly Asp Asp His Gly<sub>365</sub> Lys Lys Thr  
 Leu Leu<sub>370</sub> Gly Ala Glu Glu Phe<sub>375</sub> Val Leu Glu Asp Gly<sub>380</sub> Glu Tyr Leu Met  
 Asn Ile Asp Gly Tyr Tyr<sub>390</sub> Asp Lys Ile Phe Gly<sub>395</sub> Val Glu Glu Pro Ile<sub>400</sub>  
 Ile Val Cys Leu Gln<sub>405</sub> Phe Lys Thr Asn Lys<sub>410</sub> Arg Glu Ser Met Pro<sub>415</sub> Phe  
 Gly Met Asp Ser<sub>420</sub> Gly Lys Lys Phe Ser<sub>425</sub> Leu Gly Glu Glu Gly<sub>430</sub> His Lys  
 Ile Val Gly<sub>435</sub> Phe His Gly Gln Ala<sub>440</sub> Ser Asp Val Val His<sub>445</sub> Ser Ile Gly  
 Val Thr<sub>450</sub> Ile Val Pro Ile Thr<sub>455</sub> Thr Thr Glu

<210> 1955

<211> 609

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1955

```

atggggttgatg ttcgctgcaa atcatcagat ccatggcaaa catctgccaa tgcctttgaa      60
tccgtcgatg aatccggaat caacgaagcc tgggttgaga tctccagccg cagatcattt      120
gtcgccggcg aaggtagtcg gaagaagcta gagaggaaga agagccaagt gttactggaa      180
ggttacgttg agactgcttc ttcttcctcg gtggatgatc aaaaggacga tctgacgaga      240
tccaagagtt tgacggatga cgacctcgaa gatcttagag gttgtttaga tctaggggtt      300
ggtttttagct acgacgagat ccctgagctc tgcaacactt tacctgcttt ggagctttgc      360
tattcaatga gccagaagtt cttagacgat aagcaaaata aatcaccgga aacttcgctg      420
gtggaagatt gtccgtcgcc tccactggtc accgccactc cgattgccaa ttggaagatc      480
tctagtcccg gtgataatcc ggatgatgtg aaagctaggc tcaaatactg ggcacaagcc      540
gttgcccttg tgagagactt tgtgtttatg agagctatca ctaactgggt atggacctcc      600
acttgctga                                     609

```

&lt;210&gt; 1956

&lt;211&gt; 202

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1956

```

Met Gly Cys Val Arg Cys Lys Ser Ser Asp Pro Trp Gln Thr Ser Ala
1          5          10          15

Asn Ala Phe Glu Ser Val Asp Glu Ser Gly Ile Asn Glu Ala Trp Val
          20          25          30

Glu Ile Ser Ser Arg Arg Ser Phe Val Ala Gly Glu Gly Ser Arg Lys
          35          40          45

Lys Leu Glu Arg Lys Lys Ser Gln Val Leu Leu Glu Gly Tyr Val Glu
          50          55          60

Thr Ala Ser Ser Ser Ser Val Asp Asp Gln Lys Asp Asp Leu Thr Arg
65          70          75          80

Ser Lys Ser Leu Thr Asp Asp Asp Leu Glu Asp Leu Arg Gly Cys Leu
          85          90          95

```

047-E2F-PCT.ST25.txt

Asp Leu Gly Phe Gly Phe Ser Tyr Asp Glu Ile Pro Glu Leu Cys Asn  
100 105 110

Thr Leu Pro Ala Leu Glu Leu Cys Tyr Ser Met Ser Gln Lys Phe Leu  
115 120 125

Asp Asp Lys Gln Asn Lys Ser Pro Glu Thr Ser Ser Val Glu Asp Cys  
130 135 140

Pro Ser Pro Pro Leu Val Thr Ala Thr Pro Ile Ala Asn Trp Lys Ile  
145 150 155 160

Ser Ser Pro Gly Asp Asn Pro Asp Asp Val Lys Ala Arg Leu Lys Tyr  
165 170 175

Trp Ala Gln Ala Val Ala Leu Leu Arg Asp Phe Val Phe Met Arg Ala  
180 185 190

Ile Thr Asn Trp Leu Trp Thr Ser Thr Cys  
195 200

<210> 1957

<211> 858

<212> DNA

<213> Arabidopsis thaliana

<400> 1957

atggagcatg aatctatcac cgctcgacgc aggcctcgctg ccttcgccgc tcacttcccg	60
gcaaccagtt acgattccgc ctccaccgca tctctcgctc ccttgaactg cagcagcagt	120
ttgaacactg tcatccaaag gtgtgacaac aaaatctctt ttgcccgga agcatcatct	180
gaacagggct tttttatgag gccagcttca cccgatgatg tccttgagaa cttaggtatg	240
aatttgaaga aactgtcgt tagaaggggt gacaacaggc tgtattttgc tcggcaagca	300
tcttctgcac aagggttttt tatgagacag gcttcgacta atgagaggac cataccacat	360
gatgctgctg catctaccaa gttttctgct accaaaacaa ctggcttcga ttcttcttca	420
cctgcgtacg ctgcaccaca cttttctaag cctgcaaaag aggacatctt ttttccttct	480
ttatcaccaa atctgcaaaa ggaaaggcct aagcttgatc ttcctaagtt agccaattta	540
ggtactgttt ggtctcccag atcgaatggt gctgaatcga cacacagcta tgttgtggca	600
atagagctac caggagccag tatcaatgat ataagagtgg aggttgacaa cacaaacttg	660
actgtgacag gtagacgcac atctatctgt caaaaagtgt atgcaggcac caaagcttcg	720

047-E2F-PCT.ST25.txt

atccttggat atcataagca agaaatacta caaggaccat tcaaagtttc ctggccactc 780  
cccagcaatg tgaacaagga taatgtttcc gctgaattta tggatgggat tctgagaata 840  
gtaattccaa agctttga 858

<210> 1958

<211> 285

<212> PRT

<213> Arabidopsis thaliana

<400> 1958

Met Glu His Glu Ser Ile Thr Ala Arg Arg Arg Leu Ala Ala Phe Ala  
1 5 10 15

Ala His Phe Pro Ala Thr Ser Tyr Asp Ser Ala Ser Thr Ala Ser Leu  
20 25 30

Val Pro Leu Asn Cys Ser Ser Ser Leu Asn Thr Val Ile Gln Arg Cys  
35 40 45

Asp Asn Lys Ile Ser Phe Ala Arg Gln Ala Ser Ser Glu Gln Gly Phe  
50 55 60

Phe Met Arg Pro Ala Ser Pro Asp Asp Val Leu Glu Asn Leu Gly Met  
65 70 75 80

Asn Leu Lys Asn Thr Val Val Arg Arg Gly Asp Asn Arg Leu Tyr Phe  
85 90 95

Ala Arg Gln Ala Ser Ser Ala Gln Gly Phe Phe Met Arg Gln Ala Ser  
100 105 110

Thr Asn Glu Arg Thr Ile Pro His Asp Ala Ala Ala Ser Thr Lys Phe  
115 120 125

Ser Ala Thr Lys Thr Thr Gly Phe Asp Ser Ser Ser Pro Ala Tyr Ala  
130 135 140

Ala Pro His Phe Ser Lys Pro Ala Lys Glu Asp Ile Phe Phe Pro Ser  
145 150 155 160

Leu Ser Pro Asn Leu Gln Lys Glu Arg Pro Lys Leu Asp Leu Pro Lys  
165 170 175

047-E2F-PCT.ST25.txt

Leu Ala Asn Leu Gly Thr Val Trp Ser Pro Arg Ser Asn Val Ala Glu  
180 185 190

Ser Thr His Ser Tyr Val Val Ala Ile Glu Leu Pro Gly Ala Ser Ile  
195 200 205

Asn Asp Ile Arg Val Glu Val Asp Asn Thr Asn Leu Thr Val Thr Gly  
210 215 220

Arg Arg Thr Ser Ile Cys Gln Lys Val Asp Ala Gly Thr Lys Ala Ser  
225 230 235 240

Ile Leu Gly Tyr His Lys Gln Glu Ile Leu Gln Gly Pro Phe Lys Val  
245 250 255

Ser Trp Pro Leu Pro Ser Asn Val Asn Lys Asp Asn Val Ser Ala Glu  
260 265 270

Phe Met Asp Gly Ile Leu Arg Ile Val Ile Pro Lys Leu  
275 280 285

<210> 1959

<211> 1464

<212> DNA

<213> Arabidopsis thaliana

<400> 1959  
atgcaaacgc ttctctgtca gccatgtaag tctcttccta tactcactgc ttcgtcgtcg 60  
tcgtcggttg ttcgtagctc cggatgatgtg cgagaatgta tcgatttttag agcgtcggag 120  
aaagtctcga agtttcaatt tcatgtaacc ctaagcccct ttgcctttcg tggtttctca 180  
atatgtcgcg aatttgctgt tcgtggagct tatgggatta gattttgctc acgagaagat 240  
gtttccggtg ttggaaatgg aggaatcgtg gcggaggagg agattgagct attgaacaag 300  
ccgaatcctt taccaaaatc agaaaatgag gagagtggta aagcagacga tgacgcgatt 360  
ctggagccgt ttttgaaatt ctttaaaccg gaagaagaag gggaaggaat tgaatcgga 420  
gtttcggatg agacggatag agtcagcgta gagtattatg atcctaaacc aggtgatttt 480  
gtggttggtg ttgtggtttc gggtaatgag aataagcttg atgtgaatat tgggtgcagat 540  
atgttgggaa ctatgttgac gaaagagata cttcctttgt atgataaaga gttggattat 600  
ttgttgtgtg atttgaagta tgatgctgaa gagtttttgg ttaatgggaa aatggggatt 660  
gttaaggatg atgatgaagg tgttgagatt gcggagtttg ctcggcaagg taggccggtg 720



047-E2F-PCT.ST25.txt

gtggagattg ggacggttgt tttcgcgag gttttagggg ggacgttgag tggaagacct 780  
 ttgctttctt ctagacggta ttttcggaga atcgcttggc accgagtgag gcagatcaaa 840  
 caacttaatg agcctattga agttaagata acagagtggg atactggagg gcttctcacc 900  
 agaattgagg gcttgagagc ttttattccg aagcaggaac tgggtgggtcg tagattcctt 960  
 gtgcagataa cgcgattgaa cgaagacaaa aacgacttga tactgagtga aaaagtagcc 1020  
 tgggagaagc tgtaccttcg agaaggaaca ctcttagaag gaacagttgt caaaatctta 1080  
 ccatatggag ctcaagtcaa acttggggat agtagcagaa gtggactgct acacatttca 1140  
 aacataactc gaagaagaat tggatcgggtg agcgatgtgc ttcaggtgga cgaaagtgta 1200  
 aaggttcttg ttgtgaaatc tctatttcca gacaagatct ctcttagcat tgctgatctt 1260  
 gaaagcgaac caggattgtt catctcagac agagagaaaag tgtttacgga agctgaagag 1320  
 atggcgaaga agtacagaga aaaaatgcct ttggtggcta caagtccaat ttctgacgt 1380  
 cctccgatca caagcagttt cccacagggc aaggatgaag aaatctatgc taactgggag 1440  
 tggttcaagt tcgagagtca gtga 1464

<210> 1960

<211> 487

<212> PRT

<213> Arabidopsis thaliana

<400> 1960

Met Gln Thr Leu Leu Cys Gln Pro Cys Lys Ser Leu Pro Ile Leu Thr  
 1 5 10 15

Ala Ser Ser Ser Ser Leu Ile Arg Ser Ser Gly Asp Val Arg Glu  
 20 25 30

Cys Ile Asp Phe Arg Ala Ser Glu Lys Val Ser Lys Phe Gln Phe His  
 35 40 45

Val Thr Leu Ser Pro Phe Ala Phe Arg Gly Phe Ser Ile Cys Arg Glu  
 50 55 60

Phe Ala Val Arg Gly Ala Tyr Gly Ile Arg Phe Cys Ser Arg Glu Asp  
 65 70 75 80

Val Ser Gly Val Gly Asn Gly Gly Ile Val Ala Glu Glu Glu Ile Glu  
 85 90 95

047-E2F-PCT.ST25.txt

Leu Leu Asn Lys Pro Asn Pro Leu Pro Lys Ser Glu Asn Glu Glu Ser  
 100 105 110  
 Gly Lys Ala Asp Asp Asp Ala Ile Leu Glu Pro Phe Leu Lys Phe Phe  
 115 120 125  
 Lys Pro Glu Glu Glu Gly Glu Gly Ile Glu Ser Glu Val Ser Asp Glu  
 130 135 140  
 Thr Asp Arg Val Ser Val Glu Tyr Tyr Asp Pro Lys Pro Gly Asp Phe  
 145 150 155 160  
 Val Val Gly Val Val Val Ser Gly Asn Glu Asn Lys Leu Asp Val Asn  
 165 170 175  
 Ile Gly Ala Asp Met Leu Gly Thr Met Leu Thr Lys Glu Ile Leu Pro  
 180 185 190  
 Leu Tyr Asp Lys Glu Leu Asp Tyr Leu Leu Cys Asp Leu Lys Tyr Asp  
 195 200 205  
 Ala Glu Glu Phe Leu Val Asn Gly Lys Met Gly Ile Val Lys Asp Asp  
 210 215 220  
 Asp Glu Gly Val Glu Ile Ala Glu Phe Ala Arg Gln Gly Arg Pro Val  
 225 230 235 240  
 Val Glu Ile Gly Thr Val Val Phe Ala Glu Val Leu Gly Arg Thr Leu  
 245 250 255  
 Ser Gly Arg Pro Leu Leu Ser Ser Arg Arg Tyr Phe Arg Arg Ile Ala  
 260 265 270  
 Trp His Arg Val Arg Gln Ile Lys Gln Leu Asn Glu Pro Ile Glu Val  
 275 280 285  
 Lys Ile Thr Glu Trp Asn Thr Gly Gly Leu Leu Thr Arg Ile Glu Gly  
 290 295 300  
 Leu Arg Ala Phe Ile Pro Lys Gln Glu Leu Val Gly Arg Arg Phe Leu  
 305 310 315 320  
 Val Gln Ile Thr Arg Leu Asn Glu Asp Lys Asn Asp Leu Ile Leu Ser  
 325 330 335  
 Glu Lys Val Ala Trp Glu Lys Leu Tyr Leu Arg Glu Gly Thr Leu Leu  
 340 345 350

047-E2F-PCT.ST25.txt

Glu Gly Thr Val Val Lys Ile Leu Pro Tyr Gly Ala Gln Val Lys Leu  
355 360 365

Gly Asp Ser Ser Arg Ser Gly Leu Leu His Ile Ser Asn Ile Thr Arg  
370 375 380

Arg Arg Ile Gly Ser Val Ser Asp Val Leu Gln Val Asp Glu Ser Val  
385 390 395 400

Lys Val Leu Val Val Lys Ser Leu Phe Pro Asp Lys Ile Ser Leu Ser  
405 410 415

Ile Ala Asp Leu Glu Ser Glu Pro Gly Leu Phe Ile Ser Asp Arg Glu  
420 425 430

Lys Val Phe Thr Glu Ala Glu Glu Met Ala Lys Lys Tyr Arg Glu Lys  
435 440 445

Met Pro Leu Val Ala Thr Ser Pro Ile Ser Asp Arg Pro Pro Ile Thr  
450 455 460

Ser Ser Phe Pro Gln Gly Lys Asp Glu Glu Ile Tyr Ala Asn Trp Glu  
465 470 475 480

Trp Phe Lys Phe Glu Ser Gln  
485

<210> 1961

<211> 2352

<212> DNA

<213> Arabidopsis thaliana

<400> 1961

atggcggcgg atgctctgag aatctcgagt tctagttctg gttcgttggt ttgtaatctt	60
aatgggttcac aaagacgacc tggtcttctt cctctgtctc atcgtgctac ctttctgggt	120
cttcctcctc gtgcttcata ttcttcgatt tcttcttcaa ttcctcagtt tctgggtact	180
tctcgtattg ggctagggtc ttccaagctc tcacaaaaga agaaacaatt ctcaagtctc	240
gctgcagctg aagccgaggc gaagcgggct gtaccgctta aagattaccg aaacatcggt	300
attatggctc acatagacgc gggaaagacg acaacaaccg agaggattct ttactacaca	360
ggaagaaact acaaaatcgg tgaagtgcac gaagggacag ctacaatgga ttggatggaa	420

caagagcaag aacgaggaat caccattact tcagctgcaa ccacaacgtt ttgggataaa	480
cacaggatca atattattga tacaccgggt cacgtcgatt tcactctgga agttgaacgt	540
gctttaagag ttctcgatgg agctatatgc ttgttcgata gtgttgctgg tgttgagcct	600
cagtctgaga ctgtgtggag acaagctgat aaatatggtg tgcctaggat ttgctttggt	660
aacaagatgg acaggcttgg agctaacttt ttcaggacta gggacatgat tgtgaccaat	720
ttgggtgcta agccgctggg gcttcagata ccaattggtg ctgaagatgt ctttaaaggt	780
gttgttgatc ttgtgaggat gaaagctata gtttggtcag gagaagagct tgggtgcaaag	840
ttcagttacg aggatattcc agaagatcct gaagatttgg ctcaagagta tcgggcggcg	900
atgatggaat tgattgttga tttggatgat gaggtcatgg agaactatctt agaaggagtt	960
gagcctgacg aggccacggg aaagagattg gttagaaaag gaaccatcac gggcaagttt	1020
gtgccaattc tatgtggttc agcctttaag aacaaaggag tgcagccatt gctcgacgct	1080
gtggctgatt atctgccttc gcccgttgaa gtcccgccga tgaatggaac agatcctgag	1140
aaccggaaa ttaccattat acggaaacca gatgatgacg agccatttgc tgggctagca	1200
ttcaagatca tgagtgatcc ttttgtgggt tctcttacat ttgtgagggt ttactcaggg	1260
aaaatctcag ctggttctta cgtgttgaat gctaacaaag gaaagaagga gagaatcgga	1320
agactcttgg aaatgcacgc aaacagcaga gaagatgtta aagtggcttt gacaggtgac	1380
attatcgctc ttgcggttct caaagataca atcactggtg aaaccttgag tgatccagaa	1440
aaccccgttg ttcttgaacg aatggacttc cctgatcccg tcatcaaggt agcgattgag	1500
ccaaaaacaa aagcagacat cgacaaaatg gcgacagggt tgatcaagct cgctcaagaa	1560
gacccgtctt tccatttttc tcgtgatgaa gagatgaacc aaaccgtcat tgaaggaatg	1620
ggagaacttc atctcgagat tatcgttgac agacttaaaa gagagttcaa ggtggaggct	1680
aacgttggtg caccgcaagt caactaccgt gagagtatct ccaaaatagc tgaagtgaaa	1740
tacacacaca agaagcaatc aggtggacaa ggtcagtttg ctgatattac agtccggttt	1800
gagccattgg aagcaggggc aggatacgaa ttcaagagtg agatcaaagg aggagctgtg	1860
ccaagagagt atattcctgg tgtcatgaaa ggacttgagg agtgtatgag caccggtgtg	1920
cttgctgggt tcccggttgt tgatgtccgt gcttgtctag ttgacggatc ttaccatgac	1980
gtagactcaa gcgtgctagc tttccagctt gctgcaagag gagctttccg tgaagggatg	2040
aggaaagcgg gtccgagaat gcttgaacct atcatgagag ttgaagttgt tacaccagaa	2100
gaacatcttg gtgatgtcat tggatgatctt aactcacgaa gaggtcaaata taacagcttc	2160
ggagacaaac ccggtgggtc caaggtgggt gactctcttg ttccattggc agagatgttt	2220
cagtacgtga gtacattgag agggatgaca aaaggctgag cttcttacac aatgcaactg	2280
gctaagttcg acgttggtcc tcaacatatt cagaaccaac tttcatccaa ggatcaagaa	2340

gttgctgctt aa

2352

&lt;210&gt; 1962

&lt;211&gt; 783

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1962

Met Ala Ala Asp Ala Leu Arg Ile Ser Ser Ser Ser Ser Gly Ser Leu  
 1 5 10 15

Val Cys Asn Leu Asn Gly Ser Gln Arg Arg Pro Val Leu Leu Pro Leu  
 20 25 30

Ser His Arg Ala Thr Phe Leu Gly Leu Pro Pro Arg Ala Ser Ser Ser  
 35 40 45

Ser Ile Ser Ser Ser Ile Pro Gln Phe Leu Gly Thr Ser Arg Ile Gly  
 50 55 60

Leu Gly Ser Ser Lys Leu Ser Gln Lys Lys Lys Gln Phe Ser Val Phe  
 65 70 75 80

Ala Ala Ala Glu Ala Glu Ala Lys Arg Ala Val Pro Leu Lys Asp Tyr  
 85 90 95

Arg Asn Ile Gly Ile Met Ala His Ile Asp Ala Gly Lys Thr Thr Thr  
 100 105 110

Thr Glu Arg Ile Leu Tyr Tyr Thr Gly Arg Asn Tyr Lys Ile Gly Glu  
 115 120 125

Val His Glu Gly Thr Ala Thr Met Asp Trp Met Glu Gln Glu Gln Glu  
 130 135 140

Arg Gly Ile Thr Ile Thr Ser Ala Ala Thr Thr Thr Phe Trp Asp Lys  
 145 150 155 160

His Arg Ile Asn Ile Ile Asp Thr Pro Gly His Val Asp Phe Thr Leu  
 165 170 175

Glu Val Glu Arg Ala Leu Arg Val Leu Asp Gly Ala Ile Cys Leu Phe  
 180 185 190

## 047-E2F-PCT.ST25.txt

Asp Ser Val Ala Gly Val Glu Pro Gln Ser Glu Thr Val Trp Arg Gln  
 195 200 205  
 Ala Asp Lys Tyr Gly Val Pro Arg Ile Cys Phe Val Asn Lys Met Asp  
 210 215 220  
 Arg Leu Gly Ala Asn Phe Phe Arg Thr Arg Asp Met Ile Val Thr Asn  
 225 230 235 240  
 Leu Gly Ala Lys Pro Leu Val Leu Gln Ile Pro Ile Gly Ala Glu Asp  
 245 250 255  
 Val Phe Lys Gly Val Val Asp Leu Val Arg Met Lys Ala Ile Val Trp  
 260 265 270  
 Ser Gly Glu Glu Leu Gly Ala Lys Phe Ser Tyr Glu Asp Ile Pro Glu  
 275 280 285  
 Asp Leu Glu Asp Leu Ala Gln Glu Tyr Arg Ala Ala Met Met Glu Leu  
 290 295 300  
 Ile Val Asp Leu Asp Asp Glu Val Met Glu Asn Tyr Leu Glu Gly Val  
 305 310 315 320  
 Glu Pro Asp Glu Ala Thr Val Lys Arg Leu Val Arg Lys Gly Thr Ile  
 325 330 335  
 Thr Gly Lys Phe Val Pro Ile Leu Cys Gly Ser Ala Phe Lys Asn Lys  
 340 345 350  
 Gly Val Gln Pro Leu Leu Asp Ala Val Val Asp Tyr Leu Pro Ser Pro  
 355 360 365  
 Val Glu Val Pro Pro Met Asn Gly Thr Asp Pro Glu Asn Pro Glu Ile  
 370 375 380  
 Thr Ile Ile Arg Lys Pro Asp Asp Asp Glu Pro Phe Ala Gly Leu Ala  
 385 390 395 400  
 Phe Lys Ile Met Ser Asp Pro Phe Val Gly Ser Leu Thr Phe Val Arg  
 405 410 415  
 Val Tyr Ser Gly Lys Ile Ser Ala Gly Ser Tyr Val Leu Asn Ala Asn  
 420 425 430  
 Lys Gly Lys Lys Glu Arg Ile Gly Arg Leu Leu Glu Met His Ala Asn  
 435 440 445

047-E2F-PCT.ST25.txt

Ser Arg Glu Asp Val Lys Val Ala Leu Thr Gly Asp Ile Ile Ala Leu  
450 455 460

Ala Gly Leu Lys Asp Thr Ile Thr Gly Glu Thr Leu Ser Asp Pro Glu  
465 470 475 480

Asn Pro Val Val Leu Glu Arg Met Asp Phe Pro Asp Pro Val Ile Lys  
485 490 495

Val Ala Ile Glu Pro Lys Thr Lys Ala Asp Ile Asp Lys Met Ala Thr  
500 505 510

Gly Leu Ile Lys Leu Ala Gln Glu Asp Pro Ser Phe His Phe Ser Arg  
515 520 525

Asp Glu Glu Met Asn Gln Thr Val Ile Glu Gly Met Gly Glu Leu His  
530 535 540

Leu Glu Ile Ile Val Asp Arg Leu Lys Arg Glu Phe Lys Val Glu Ala  
545 550 555 560

Asn Val Gly Ala Pro Gln Val Asn Tyr Arg Glu Ser Ile Ser Lys Ile  
565 570 575

Ala Glu Val Lys Tyr Thr His Lys Lys Gln Ser Gly Gly Gln Gly Gln  
580 585 590

Phe Ala Asp Ile Thr Val Arg Phe Glu Pro Leu Glu Ala Gly Ser Gly  
595 600 605

Tyr Glu Phe Lys Ser Glu Ile Lys Gly Gly Ala Val Pro Arg Glu Tyr  
610 615 620

Ile Pro Gly Val Met Lys Gly Leu Glu Glu Cys Met Ser Thr Gly Val  
625 630 635 640

Leu Ala Gly Phe Pro Val Val Asp Val Arg Ala Cys Leu Val Asp Gly  
645 650 655

Ser Tyr His Asp Val Asp Ser Ser Val Leu Ala Phe Gln Leu Ala Ala  
660 665 670

Arg Gly Ala Phe Arg Glu Gly Met Arg Lys Ala Gly Pro Arg Met Leu  
675 680 685

Glu Pro Ile Met Arg Val Glu Val Val Thr Pro Glu Glu His Leu Gly

690

695

Asp Val Ile Gly Asp Leu Asn Ser Arg Arg Gly Gln Ile Asn Ser Phe  
705 710 715 720

Gly Asp Lys Pro Gly Gly Leu Lys Val Val Asp Ser Leu Val Pro Leu  
725 730 735

Ala Glu Met Phe Gln Tyr Val Ser Thr Leu Arg Gly Met Thr Lys Gly  
740 745 750

Arg Ala Ser Tyr Thr Met Gln Leu Ala Lys Phe Asp Val Val Pro Gln  
755 760 765

His Ile Gln Asn Gln Leu Ser Ser Lys Asp Gln Glu Val Ala Ala  
770 775 780

<210> 1963

<211> 2667

<212> DNA

<213> Arabidopsis thaliana

<400> 1963

```
atggcggaaa cagtggagct cccgagtagg ttagcgattc ttcctttcag gaataagggtt 60
ctcttacctg gcgccattat tcgaatccgt tgtactttct atagcagcgt cacactagtg 120
gagcaagagc tatggcagaa agaagagaaa ggtttaattg gcattttacc tgttcgtgat 180
gatgccgagg gttcttcaat tgggacgatg attaatccag gtgctggaag tgattctgga 240
gaaagaagct tgaaatttct agttggtaca acagatgctc agaagtctga tgctaaagat 300
cagcaggatc ttcaatggca caccagggga gtagcagctc gtgctctgca tctttcaaga 360
ggggtggaaa aaccaagtgg aagagttacg tatgtggttg tccttgaagg tctgagcagg 420
tttaatgttc aggagcttgg aaagagagga ccatattcgg ttgctcggat tacatcgctc 480
gagatgacaa aggcagagtt ggagcaagta aaacaagatc cagattttgt agcactgtca 540
cgccagttta aaaccacagc tatggagctt gtctctgtgc ttgagcagaa acaaaaaact 600
ggtggaagga caaaagtgct tttggagaca gttcctatcc ataaactagc agacatattt 660
gttgctagct ttgagatgag ttttgaagag caactatcta tgctggattc agttgacctt 720
aaagtaagac tttcaaaggc tactgaacta gttgatcggc atctgcagtc aattcgctgtg 780
gcagagaaga ttacgcagaa ggtggagggc cagttgtcaa agtctcagaa ggagtatctc 840
ttgcgccagc agatgagagc tattaaagag gagcttggtg acaacgatga tgatgaagat 900
```



## 047-E2F-PCT.ST25.txt

gatgtagctg cacttgaaag aaagatgcaa gctgcgggaa tgccgtcaaa catatggaag	960
catgctcaaa gggaattgag gcgtctaaaa aagatgcaac ctcagcaacc tggctataac	1020
agttcacgag tttacctgga gctgttggct gatcttcctt gggataaggc aagcgaagaa	1080
catgagttgg atctaaaagc agcaaaagaa cgtcttgaca gtgatcacta tggtttagcc	1140
aagggtcaagc aacggatcat tgaatatctg gctgttcgaa agcttaaacc agatgcgaga	1200
ggcccagtat tgtgctttgt tgggtccacca ggtgtgggca agacgtcttt ggcatcatct	1260
attgcagctg cattaggtag aaaatttggt cgcttatctt tgggtggtgt gaaagatgaa	1320
gctgacatta gaggacacag aagaacttat ataggaagca tgccagggcg cctcattgat	1380
ggcctaaaga gggttggtgt ttgcaatcca gttatgctgt tggatgagat tgacaaaaca	1440
ggctcagacg ttcggggtga tccagcttct gcactgctcg aggttttgga tccagagcag	1500
aacaaatctt ttaatgatca ctatctgaat gttccatatg acttatcaaa ggtgggtttt	1560
gttgccactg ctaatagggt tcaacctatt ccacctctc ttctagacag gatggagcta	1620
attgagttgc ctggttatac gcaagaggaa aaacttaaga tagctatgcg ccatctgatt	1680
cctcgagttc tagatcagca tgggcttagt tccgagttcc tcaagattcc agaggctatg	1740
gtaaagaata taattcagag gtatacaagg gaagccggtg ttcgtagtct agagaggaac	1800
ttggctgctt tagctcgtgc agctgctgtg atggtggcag agcatgaaca aagtcttccg	1860
ttgagcaaag atgtgcagaa acttacatct cctctgctta atggtagaat ggccgaagga	1920
ggcgaagtgg aaatggaagt tattccaatg ggtgtaaata atcatgagat tggaggcacc	1980
ttccagagtc cctcagcttt ggtggtggat gagaccatgc ttgaaaaaat cctcgggcct	2040
ccaaggtttg atgacagtga agccgctgat cgagtggcgt cagctggcgt ttcagtgggt	2100
ctcgtttgga ctacttttgg tgggtgaagtc cagttcgtgg aggctacatc tatggtgggc	2160
aaaggcgaaa tgcatttgac gggccaactc ggagatgtta tcaaagaatc tgctcaatta	2220
gctcttacat gggtaagagc tcgtgcgtcg gatttttaagc tggcacttgc aggggatatg	2280
aatgttcttg atggacgaga catccacatt cactttcctg ctggtgcagt gccgaaagac	2340
gggccttctg cgggagtgc tttggtgaca gctttggttt cgttgttcag tcagaaacga	2400
gttagagcag acacagccat gaccggagag atgacactca gaggtctcgt tctgcctggt	2460
ggtggcatca aagataagat attggctgca caccggtatg gtatcaaaag agtgattcta	2520
ccgcaaagga actcgaaaga cttagttgaa gtacccgccg ctgtactttc cagtctggag	2580
gtgatattgg caaagagaat ggaagacgtc ctggaaaatg cattcgaagg aggttgtcca	2640
tggcggaaca actactctaa attatga	2667

&lt;211&gt; 888

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1964

Met Ala Glu Thr Val Glu Leu Pro Ser Arg Leu Ala Ile Leu Pro Phe  
 1 5 10 15

Arg Asn Lys Val Leu Leu Pro Gly Ala Ile Ile Arg Ile Arg Cys Thr  
 20 25 30

Ser His Ser Ser Val Thr Leu Val Glu Gln Glu Leu Trp Gln Lys Glu  
 35 40 45

Glu Lys Gly Leu Ile Gly Ile Leu Pro Val Arg Asp Asp Ala Glu Gly  
 50 55 60

Ser Ser Ile Gly Thr Met Ile Asn Pro Gly Ala Gly Ser Asp Ser Gly  
 65 70 75 80

Glu Arg Ser Leu Lys Phe Leu Val Gly Thr Thr Asp Ala Gln Lys Ser  
 85 90 95

Asp Ala Lys Asp Gln Gln Asp Leu Gln Trp His Thr Arg Gly Val Ala  
 100 105 110

Ala Arg Ala Leu His Leu Ser Arg Gly Val Glu Lys Pro Ser Gly Arg  
 115 120 125

Val Thr Tyr Val Val Val Leu Glu Gly Leu Ser Arg Phe Asn Val Gln  
 130 135 140

Glu Leu Gly Lys Arg Gly Pro Tyr Ser Val Ala Arg Ile Thr Ser Leu  
 145 150 155 160

Glu Met Thr Lys Ala Glu Leu Glu Gln Val Lys Gln Asp Pro Asp Phe  
 165 170 175

Val Ala Leu Ser Arg Gln Phe Lys Thr Thr Ala Met Glu Leu Val Ser  
 180 185 190

Val Leu Glu Gln Lys Gln Lys Thr Gly Gly Arg Thr Lys Val Leu Leu  
 195 200 205

Glu Thr Val Pro Ile His Lys Leu Ala Asp Ile Phe Val Ala Ser Phe  
 210 215 220  
 Glu Met Ser Phe Glu Glu Gln Leu Ser Met Leu Asp Ser Val Asp Leu  
 225 230 235 240  
 Lys Val Arg Leu Ser Lys Ala Thr Glu Leu Val Asp Arg His Leu Gln  
 245 250 255  
 Ser Ile Arg Val Ala Glu Lys Ile Thr Gln Lys Val Glu Gly Gln Leu  
 260 265 270  
 Ser Lys Ser Gln Lys Glu Tyr Leu Leu Arg Gln Gln Met Arg Ala Ile  
 275 280 285  
 Lys Glu Glu Leu Gly Asp Asn Asp Asp Asp Glu Asp Asp Val Ala Ala  
 290 295 300  
 Leu Glu Arg Lys Met Gln Ala Ala Gly Met Pro Ser Asn Ile Trp Lys  
 305 310 315 320  
 His Ala Gln Arg Glu Leu Arg Arg Leu Lys Lys Met Gln Pro Gln Gln  
 325 330 335  
 Pro Gly Tyr Asn Ser Ser Arg Val Tyr Leu Glu Leu Leu Ala Asp Leu  
 340 345 350  
 Pro Trp Asp Lys Ala Ser Glu Glu His Glu Leu Asp Leu Lys Ala Ala  
 355 360 365  
 Lys Glu Arg Leu Asp Ser Asp His Tyr Gly Leu Ala Lys Val Lys Gln  
 370 375 380  
 Arg Ile Ile Glu Tyr Leu Ala Val Arg Lys Leu Lys Pro Asp Ala Arg  
 385 390 395 400  
 Gly Pro Val Leu Cys Phe Val Gly Pro Pro Gly Val Gly Lys Thr Ser  
 405 410 415  
 Leu Ala Ser Ser Ile Ala Ala Ala Leu Gly Arg Lys Phe Val Arg Leu  
 420 425 430  
 Ser Leu Gly Gly Val Lys Asp Glu Ala Asp Ile Arg Gly His Arg Arg  
 435 440 445  
 Thr Tyr Ile Gly Ser Met Pro Gly Arg Leu Ile Asp Gly Leu Lys Arg  
 450 455 460

047-E2F-PCT.ST25.txt

Val Gly Val Cys Asn Pro Val Met Leu Leu Asp Glu Ile Asp Lys Thr  
465 470 475 480

Gly Ser Asp Val Arg Gly Asp Pro Ala Ser Ala Leu Leu Glu Val Leu  
485 490 495

Asp Pro Glu Gln Asn Lys Ser Phe Asn Asp His Tyr Leu Asn Val Pro  
500 505 510

Tyr Asp Leu Ser Lys Val Val Phe Val Ala Thr Ala Asn Arg Val Gln  
515 520 525

Pro Ile Pro Pro Pro Leu Leu Asp Arg Met Glu Leu Ile Glu Leu Pro  
530 535 540

Gly Tyr Thr Gln Glu Glu Lys Leu Lys Ile Ala Met Arg His Leu Ile  
545 550 555 560

Pro Arg Val Leu Asp Gln His Gly Leu Ser Ser Glu Phe Leu Lys Ile  
565 570 575

Pro Glu Ala Met Val Lys Asn Ile Ile Gln Arg Tyr Thr Arg Glu Ala  
580 585 590

Gly Val Arg Ser Leu Glu Arg Asn Leu Ala Ala Leu Ala Arg Ala Ala  
595 600 605

Ala Val Met Val Ala Glu His Gly Gln Ser Leu Pro Leu Ser Lys Asp  
610 615 620

Val Gln Lys Leu Thr Ser Pro Leu Leu Asn Gly Arg Met Ala Glu Gly  
625 630 635 640

Gly Glu Val Glu Met Glu Val Ile Pro Met Gly Val Asn Asp His Glu  
645 650 655

Ile Gly Gly Thr Phe Gln Ser Pro Ser Ala Leu Val Val Asp Glu Thr  
660 665 670

Met Leu Glu Lys Ile Leu Gly Pro Pro Arg Phe Asp Asp Ser Glu Ala  
675 680 685

Ala Asp Arg Val Ala Ser Ala Gly Val Ser Val Gly Leu Val Trp Thr  
690 695 700

Thr Phe Gly Gly Glu Val Gln Phe Val Glu Ala Thr Ser Met Val Gly  
705 710 715 720

047-E2F-PCT.ST25.txt

Lys Gly Glu Met His Leu Thr Gly Gln Leu Gly Asp Val Ile Lys Glu  
725 730 735

Ser Ala Gln Leu Ala Leu Thr Trp Val Arg Ala Arg Ala Ser Asp Phe  
740 745 750

Lys Leu Ala Leu Ala Gly Asp Met Asn Val Leu Asp Gly Arg Asp Ile  
755 760 765

His Ile His Phe Pro Ala Gly Ala Val Pro Lys Asp Gly Pro Ser Ala  
770 775 780

Gly Val Thr Leu Val Thr Ala Leu Val Ser Leu Phe Ser Gln Lys Arg  
785 790 795 800

Val Arg Ala Asp Thr Ala Met Thr Gly Glu Met Thr Leu Arg Gly Leu  
805 810 815

Val Leu Pro Val Gly Gly Ile Lys Asp Lys Ile Leu Ala Ala His Arg  
820 825 830

Tyr Gly Ile Lys Arg Val Ile Leu Pro Gln Arg Asn Ser Lys Asp Leu  
835 840 845

Val Glu Val Pro Ala Ala Val Leu Ser Ser Leu Glu Val Ile Leu Ala  
850 855 860

Lys Arg Met Glu Asp Val Leu Glu Asn Ala Phe Glu Gly Gly Cys Pro  
865 870 875 880

Trp Arg Asn Asn Tyr Ser Lys Leu  
885

<210> 1965

<211> 339

<212> DNA

<213> Arabidopsis thaliana

<400> 1965  
atggcgctcgt tcgacgaagc acctcccgga aaccccaaag ccggtgaaaa gatcttcaga 60  
accaagtgcg ctcaagtgtca caccgtcgag aaaggtgccg gtcacaaaca aggaccgaat 120  
ttgaatggat tgtttggaag acaatctgga acaactccag gatattctta ctctgctgct 180

aacaaaagca tggctgtgaa ttggggaggag aagactcttt acgattactt gttgaatcct 240  
 aagaagtaca tccctggaac aaaaatggtg tttcctggac tgaaaaaacc gcaagatcgt 300  
 gccgatctca tcgcttattt gaaggaaggt actgcttag 339

<210> 1966

<211> 112

<212> PRT

<213> Arabidopsis thaliana

<400> 1966

Met Ala Ser Phe Asp Glu Ala Pro Pro Gly Asn Pro Lys Ala Gly Glu  
 1 5 10 15  
 Lys Ile Phe Arg Thr Lys Cys Ala Gln Cys His Thr Val Glu Lys Gly  
 20 25 30  
 Ala Gly His Lys Gln Gly Pro Asn Leu Asn Gly Leu Phe Gly Arg Gln  
 35 40 45  
 Ser Gly Thr Thr Pro Gly Tyr Ser Tyr Ser Ala Ala Asn Lys Ser Met  
 50 55 60  
 Ala Val Asn Trp Glu Glu Lys Thr Leu Tyr Asp Tyr Leu Leu Asn Pro  
 65 70 75 80  
 Lys Lys Tyr Ile Pro Gly Thr Lys Met Val Phe Pro Gly Leu Lys Lys  
 85 90 95  
 Pro Gln Asp Arg Ala Asp Leu Ile Ala Tyr Leu Lys Glu Gly Thr Ala  
 100 105 110

<210> 1967

<211> 933

<212> DNA

<213> Arabidopsis thaliana

<400> 1967

atggtgtttg gaaaagggtc aaaccttgac agattccttc attgcacaac acctgtagtg 60  
 ccacccaat ctctatccaa ggcggagatt aggagtttga ataggatttg gcatccatgg 120  
 gagagacaaa aggttgagtt tttcagattg agtgatctat gggattgtta tgatgaatgg 180

047-E2F-PCT.ST25.txt

```

agtgcattatg gagctggtgt tccaattcgt ctctctaatag gagaatctct tgttcaatat 240
tatgttcctt atctctctgc tattcagatt ttcacctctc gttcttcctt gatccgctta 300
agggatgatt ctgaagatgg ggaaagcaga gattcgttta gtgattcata tagtgatgag 360
agtgaaagtg ataaactttc gagatgtgct tctgatgaag gacttgaaca tgacgctctc 420
ttgcataccta atgatcgggtt gggatatctt tatctgcaat actttgagag atcagctcct 480
tatgctcgag ttcctctcat ggataagatc aatgaattgg ctcaaaggta cccgggacta 540
atgtcgttgc gaagcgtaga tctttcccg gcaagttgga tggcggtagc gtggtaccct 600
atttaccata ttccaatggg aaggaccatc aaagatttgt ccacttgttt cctcacttat 660
cacactcttt catcttcttt ccaagatatg gagccagaag aaaatggcgg ggaaaaggag 720
aggatccgga aggaaggaga aggtgtaact ttgcttcctt ttgggttagc cacttataag 780
atgcaaggca atgtttggct ctcggaagac gatcaaggtc aagatcaaga gcgagttctt 840
tcgcttctaa gtgttgcgga ttcttggcta aaacagctaa gagtccaaca ccatgacttc 900
aactacttct caagaatggc tcaccgtggc tga 933

```

<210> 1968

<211> 310

<212> PRT

<213> Arabidopsis thaliana

<400> 1968

Met Val Phe Gly Lys Gly Ser Asn Leu Asp Arg Phe Leu His Cys Thr  
1 5 10 15

Thr Pro Val Val Pro Pro Gln Ser Leu Ser Lys Ala Glu Ile Arg Ser  
20 25 30

Leu Asn Arg Ile Trp His Pro Trp Glu Arg Gln Lys Val Glu Phe Phe  
35 40 45

Arg Leu Ser Asp Leu Trp Asp Cys Tyr Asp Glu Trp Ser Ala Tyr Gly  
50 55 60

Ala Gly Val Pro Ile Arg Leu Ser Asn Gly Glu Ser Leu Val Gln Tyr  
65 70 75 80

Tyr Val Pro Tyr Leu Ser Ala Ile Gln Ile Phe Thr Ser Arg Ser Ser  
85 90 95

047-E2F-PCT.ST25.txt

Leu Ile Arg Leu Arg Asp Asp Ser Glu Asp Gly Glu Ser Arg Asp Ser  
 100 105 110  
 Phe Ser Asp Ser Tyr Ser Asp Glu Ser Glu Ser Asp Lys Leu Ser Arg  
 115 120 125  
 Cys Ala Ser Asp Glu Gly Leu Glu His Asp Ala Leu Leu His Pro Asn  
 130 135 140  
 Asp Arg Leu Gly Tyr Leu Tyr Leu Gln Tyr Phe Glu Arg Ser Ala Pro  
 145 150 155 160  
 Tyr Ala Arg Val Pro Leu Met Asp Lys Ile Asn Glu Leu Ala Gln Arg  
 165 170 175  
 Tyr Pro Gly Leu Met Ser Leu Arg Ser Val Asp Leu Ser Pro Ala Ser  
 180 185 190  
 Trp Met Ala Val Ala Trp Tyr Pro Ile Tyr His Ile Pro Met Gly Arg  
 195 200 205  
 Thr Ile Lys Asp Leu Ser Thr Cys Phe Leu Thr Tyr His Thr Leu Ser  
 210 215 220  
 Ser Ser Phe Gln Asp Met Glu Pro Glu Glu Asn Gly Gly Glu Lys Glu  
 225 230 235 240  
 Arg Ile Arg Lys Glu Gly Glu Gly Val Thr Leu Leu Pro Phe Gly Leu  
 245 250 255  
 Ala Thr Tyr Lys Met Gln Gly Asn Val Trp Leu Ser Glu Asp Asp Gln  
 260 265 270  
 Gly Gln Asp Gln Glu Arg Val Leu Ser Leu Leu Ser Val Ala Asp Ser  
 275 280 285  
 Trp Leu Lys Gln Leu Arg Val Gln His His Asp Phe Asn Tyr Phe Ser  
 290 295 300  
 Arg Met Ala His Arg Gly  
 305 310

<210> 1969

<211> 828

<212> DNA



<213> *Arabidopsis thaliana*

&lt;400&gt; 1969

```

atgacaagtt taattgcatt tcttttctact gtccttgtca tcgtatcttc tgttcattgt      60
cgtatgacaa ctgctagtag tccagggttat gggataaagc aggaggatcg tctatgcatc      120
caaggacaag aaggaacaaa gttatgtagt tctggaacaa gtcgcgactg ccttaacttt      180
tgtttaattc gtgggttatgc tgaagcagtc gcggatctca atttcagggtg tttgcgattc      240
cgatttaggt ttgatcggtt gaaatTTTTT ccgatgggtg atcattacca agttctaggc      300
gttacgagaa acgcgacgaa gaaggagggt aaagatgcgt ttaggagatt ggcgattaag      360
tatcatccgg ataagcacgc tcagtctccg gagcatgttc gtcataacgc caccgtgcgg      420
tttaagcttg tatcggaggc gtacgaagtt ttgaatgatg atctgaaacg cgcgtcttat      480
aacgctggta gcgattctga ttgctttcgc cgtacgagcg gttcgtatag taatccgtat      540
ggaaatcgtg gtggcagagc gcaaggttct ggttacggtt atggttatgg ttactctacg      600
aggaatcgtc aggcctctag cttcagcagc gggtttgatt cgacgtttcg ttatttgact      660
acgcgagcgt ttctattgaa tctcgcatta gctgggtggtc tgtactttgc gtttactgcg      720
attgatacaa gcggagaaac actatggaaa atgcgtaact cagggaatc attcgaagaa      780
gcaatggaat caatcgagaa atcaaagtca cataaagatg aagggtga                      828

```

&lt;210&gt; 1970

&lt;211&gt; 275

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1970

```

Met Thr Ser Leu Ile Ala Phe Leu Phe Thr Val Leu Val Ile Val Ser
1           5           10          15

```

```

Ser Val His Cys Arg Met Thr Thr Ala Ser Thr Pro Gly Tyr Gly Ile
          20          25          30

```

```

Lys Gln Glu Asp Arg Leu Cys Ile Gln Gly Gln Glu Gly Thr Lys Leu
          35          40          45

```

```

Cys Ser Ser Gly Thr Ser Arg Asp Cys Leu Asn Phe Cys Leu Ile Arg
50          55          60

```

```

Gly Tyr Ala Glu Ala Val Ala Asp Leu Asn Phe Arg Cys Leu Arg Phe

```

[illegible]

<210>	1971
<211>	606
<212>	DNA
<213>	<i>Arabidopsis thaliana</i>

```

<400> 1971
atggcgatga tgcttctgca aattcctcct tcgtcttcct tgttgaacac cagaaacctt    60
caaatccgat tcttccactc ttcagtttca gcttcctcga agaaattcag atgcagagcc    120
gtccgtgaga aggcggagga cattgataag aacatttcgc cgccgtcttc ttctcctcct    180
cctccttccg ccgaagaagt taccaagaaa tatggccttg aagttggtct atggaagata    240
ttaagctcta aggatgatga aggaagtgat ggagacaata agaagaagaa atcaaaaaca    300
gatgaggcta aagagttact tgcaaagtat ggtggtgctt atctcgctac atctattact    360
ctttctctca tttccttctc actctgctat gtccttgtga cttccggtgt tgatgttcaa    420
gctcttcttc taaaggtttg gatttcgacg aatgagacag gagagaaagt aggagccttt    480
gctttggctt acgcagcgca taaagctgca tctccgataa ggtttccgcc tacagtggct    540
ttgactccta ttgtagccaa ttggattggg aagaaagtgg acaaggagaa ggatgatgac    600
aagtag                                         606

```

<210> 1972

<211> 201

<212> PRT

<213> Arabidopsis thaliana

<400> 1972

```

Met Ala Met Met Leu Leu Gln Ile Pro Pro Ser Ser Ser Leu Leu Asn
1          5          10

```

```

Thr Arg Asn Leu Gln Ile Arg Phe Phe His Ser Ser Val Ser Ala Ser
          20          25          30

```

```

Ser Lys Lys Phe Arg Cys Arg Ala Val Arg Glu Lys Ala Glu Asp Ile
          35          40          45

```

```

Asp Lys Asn Ile Ser Pro Pro Ser Ser Ser Pro Pro Pro Pro Ser Ala
50          55          60

```

```

Glu Glu Val Thr Lys Lys Tyr Gly Leu Glu Val Gly Leu Trp Lys Ile
65          70          75          80

```

```

Leu Ser Ser Lys Asp Asp Glu Gly Ser Asp Gly Asp Asn Lys Lys Lys
          85          90          95

```

```

Lys Ser Lys Thr Asp Glu Ala Lys Glu Leu Leu Ala Lys Tyr Gly Gly
                                         Page 2885

```

100

105

110

Ala Tyr Leu Ala Thr Ser Ile Thr Leu Ser Leu Ile Ser Phe Ser Leu  
 115 120 125

Cys Tyr Val Leu Val Thr Ser Gly Val Asp Val Gln Ala Leu Leu Leu  
 130 135 140

Lys Val Gly Ile Ser Thr Asn Glu Thr Gly Glu Lys Val Gly Ala Phe  
 145 150 155 160

Ala Leu Ala Tyr Ala Ala His Lys Ala Ala Ser Pro Ile Arg Phe Pro  
 165 170 175

Pro Thr Val Ala Leu Thr Pro Ile Val Ala Asn Trp Ile Gly Lys Lys  
 180 185 190

Val Asp Lys Glu Lys Asp Asp Asp Lys  
 195 200

&lt;210&gt; 1973

&lt;211&gt; 645

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1973

atggcaacga gaggagctgt tgctgctgct gcatccacaa tatggaagca ccgaagaaac	60
ccttctcttc gatcattatc tcgccatttc aatcccaatt tcaatcatag aatcatccca	120
acagggttta aatatcaagt tagggcgata caaggaacaa gtactgatcc tgtcattaca	180
ccattaaaga acagagagga accaaagcca caaaactgga aaatcaaaat gctttatgat	240
ggagattgtc ctctctgtat gcgtgaggtt aatatgctta tggaaaggaa tgaaaaacat	300
ggaactataa agtttgtcga cataagttca aatgattatt ccccggaaga taatcaaggg	360
cttgattaca aaacagtgat ggggcagatt catgccattc agtctgatgg taacgttggt	420
aaggggtgtg aggcathtag gagattgtat gaagaagttg ggcttgatg ggtttacact	480
atcaccaa at ttgaaccaat aggggaagtta gcagatgttg tgtatgatgt atgggctaaa	540
taccgacttc aagtcacagg gaggccatct atagaagcta ttcttgaagc aagaaagaaa	600
gataaggtag agacatgtgg tgaaagcaag aactgcaaga tatga	645

&lt;210&gt; 1974

&lt;211&gt; 214

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1974

Met Ala Thr Arg Gly Ala Val Ala Ala Ala Ala Ser Thr Ile Trp Lys  
 1 5 10 15

His Arg Arg Asn Pro Ser Leu Arg Ser Leu Ser Arg His Phe Asn Pro  
 20 25 30

Asn Phe Asn His Arg Ile Ile Pro Thr Gly Phe Lys Tyr Gln Val Arg  
 35 40 45

Ala Ile Gln Gly Thr Ser Thr Asp Pro Val Ile Thr Pro Leu Lys Asn  
 50 55 60

Arg Glu Glu Pro Lys Pro Gln Asn Trp Lys Ile Lys Met Leu Tyr Asp  
 65 70 75 80

Gly Asp Cys Pro Leu Cys Met Arg Glu Val Asn Met Leu Met Glu Arg  
 85 90 95

Asn Glu Lys His Gly Thr Ile Lys Phe Val Asp Ile Ser Ser Asn Asp  
 100 105 110

Tyr Ser Pro Glu Asp Asn Gln Gly Leu Asp Tyr Lys Thr Val Met Gly  
 115 120 125

Gln Ile His Ala Ile Gln Ser Asp Gly Asn Val Val Lys Gly Val Glu  
 130 135 140

Ala Phe Arg Arg Leu Tyr Glu Glu Val Gly Leu Gly Trp Val Tyr Thr  
 145 150 155 160

Ile Thr Lys Phe Glu Pro Ile Gly Lys Leu Ala Asp Val Val Tyr Asp  
 165 170 175

Val Trp Ala Lys Tyr Arg Leu Gln Val Thr Gly Arg Pro Ser Ile Glu  
 180 185 190

Ala Ile Leu Glu Ala Arg Lys Lys Asp Lys Val Glu Thr Cys Gly Glu  
 195 200 205

Ser Lys Asn Cys Lys Ile

210

&lt;210&gt; 1975

&lt;211&gt; 1269

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1975

```

atgtcttctt ctgtagcagt gttatgggtt gctacttctt ctctaaatcc agacccaatg      60
aacaattgtg gggttgtaag gggttctagaa tcttcttagac tggtctctcc ttgtcagaat    120
cagagactaa acaaaggtaa gaagaagcag ataccaactt ggagttcttc ttttgtaagg      180
aaccgaagta gaagaattgg tggtgtgtct tcaagcttag tagcaagtcc ttctggagag      240
atagctcttt catctgaaga gaaggtttac aatgttgtgt tgaaacaagc tgctttgggtg      300
aacaacagc taaggctctt tcttatgac cttgatgtga agaaaccaca agatgttggt      360
cttcctggga gtttgagttt gttgggtgaa gcttatgata gatgcggtga agtttgcgct      420
gaatatgcta agacgtttta tcttggaact ttgcttatga caccgaaag gcgaaaggcg      480
atttgggcaa tctacgtttg gtgtagaaga actgatgaac ttgtggatgg gccaaatgct      540
tcacatataa ctcccatggc tttagataga tgggaagcaa ggtagaaga tcttttccgt      600
ggtcgctctt tcgatatgct tgatgctgct ctcgctgata cagttgctag ataccgggtc      660
gatattcagc catttcgaga catgatcgaa ggaatgagaa tggacttgaa gaaatcgaga      720
taccagaact tcgatgatct atacctttac tgctactacg tcgctggaac cgtcggattg      780
atgagcgttc cggttatggg aatcgatcct aagtcgaaag caacaaccga aagtgtttac      840
aacgctgcct tggcccttgg tatagccaat cagcttacta acatactcag agacgtaggc      900
gaagatgcga gaagaggaag ggtttatctg cctcaggatg aattggctca ggctgggtctt      960
tcagatgaag acatattcgc cggaaaagta actgataaat ggagaaactt catgaaaatg    1020
cagcttaaac gagcaagaat gttcttcgac gaagctgaga aaggcgtcac cgagctcagt    1080
gccgctagca gatggcctgt atgggcttca ttgctattgt acaggagaat actggacgag    1140
attgaagcga atgattacaa caattttact aagagagctt atgtggggaa agtcaagaaa    1200
attgcagctt tgccattggc ttatgctaaa tcagtactaa agacttcaag ttcaagacta    1260
tcgatatga                                     1269

```

&lt;210&gt; 1976

&lt;211&gt; 422

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1976

Met Ser Ser Ser Val Ala Val Leu Trp Val Ala Thr Ser Ser Leu Asn  
 1 5 10 15

Pro Asp Pro Met Asn Asn Cys Gly Leu Val Arg Val Leu Glu Ser Ser  
 20 25 30

Arg Leu Phe Ser Pro Cys Gln Asn Gln Arg Leu Asn Lys Gly Lys Lys  
 35 40 45

Lys Gln Ile Pro Thr Trp Ser Ser Ser Phe Val Arg Asn Arg Ser Arg  
 50 55 60

Arg Ile Gly Val Val Ser Ser Ser Leu Val Ala Ser Pro Ser Gly Glu  
 65 70 75 80

Ile Ala Leu Ser Ser Glu Glu Lys Val Tyr Asn Val Val Leu Lys Gln  
 85 90 95

Ala Ala Leu Val Asn Lys Gln Leu Arg Ser Ser Ser Tyr Asp Leu Asp  
 100 105 110

Val Lys Lys Pro Gln Asp Val Val Leu Pro Gly Ser Leu Ser Leu Leu  
 115 120 125

Gly Glu Ala Tyr Asp Arg Cys Gly Glu Val Cys Ala Glu Tyr Ala Lys  
 130 135 140

Thr Phe Tyr Leu Gly Thr Leu Leu Met Thr Pro Glu Arg Arg Lys Ala  
 145 150 155 160

Ile Trp Ala Ile Tyr Val Trp Cys Arg Arg Thr Asp Glu Leu Val Asp  
 165 170 175

Gly Pro Asn Ala Ser His Ile Thr Pro Met Ala Leu Asp Arg Trp Glu  
 180 185 190

Ala Arg Leu Glu Asp Leu Phe Arg Gly Arg Pro Phe Asp Met Leu Asp  
 195 200 205

Ala Ala Leu Ala Asp Thr Val Ala Arg Tyr Pro Val Asp Ile Gln Pro  
 210 215 220

047-E2F-PCT.ST25.txt

Phe Arg Asp Met Ile Glu Gly Met Arg Met Asp Leu Lys Lys Ser Arg  
 225 230 235 240  
 Tyr Gln Asn Phe Asp Asp Leu Tyr Leu Tyr Cys Tyr Tyr Val Ala Gly  
 245 250 255  
 Thr Val Gly Leu Met Ser Val Pro Val Met Gly Ile Asp Pro Lys Ser  
 260 265 270  
 Lys Ala Thr Thr Glu Ser Val Tyr Asn Ala Ala Leu Ala Leu Gly Ile  
 275 280 285  
 Ala Asn Gln Leu Thr Asn Ile Leu Arg Asp Val Gly Glu Asp Ala Arg  
 290 295 300  
 Arg Gly Arg Val Tyr Leu Pro Gln Asp Glu Leu Ala Gln Ala Gly Leu  
 305 310 315 320  
 Ser Asp Glu Asp Ile Phe Ala Gly Lys Val Thr Asp Lys Trp Arg Asn  
 325 330 335  
 Phe Met Lys Met Gln Leu Lys Arg Ala Arg Met Phe Phe Asp Glu Ala  
 340 345 350  
 Glu Lys Gly Val Thr Glu Leu Ser Ala Ala Ser Arg Trp Pro Val Trp  
 355 360 365  
 Ala Ser Leu Leu Leu Tyr Arg Arg Ile Leu Asp Glu Ile Glu Ala Asn  
 370 375 380  
 Asp Tyr Asn Asn Phe Thr Lys Arg Ala Tyr Val Gly Lys Val Lys Lys  
 385 390 395 400  
 Ile Ala Ala Leu Pro Leu Ala Tyr Ala Lys Ser Val Leu Lys Thr Ser  
 405 410 415  
 Ser Ser Arg Leu Ser Ile  
 420

<210> 1977

<211> 1209

<212> DNA

<213> Arabidopsis thaliana



047-E2F-PCT.ST25.txt

<400> 1977  
atgacatcaa ttgaggcaac agaaacgctt aacgctcctc caaagcttca gatctggaac 60  
aacgctgcct tcgacgatgg agattctcaa atcacttccg ccatcgaagc ttcttcttgg 120  
tctcacctca acgaatcatt cgattccgat tgtagcaagg agaatcagtt tccgatttcg 180  
gtttcctctt cgctccaatc ctcagtctcg atcaccgaag ctccgtcagc aaaatccaag 240  
accgtgaaga ccaaatccgc cgcagatcgg agtaaaaagc gagatatcga tgcagagatc 300  
gaagaagtag agaaggagat cggacgatta tcgacgaaat tggagtcgct ccgattagag 360  
aaggcggagc aaaccgcaag aagcattgct atacgtggaa gaatcgttcc ggcgaagttc 420  
atggaatcat ctcagaaaca agtgaaattc gacgattcgt gttttacagg atcgaaatca 480  
agagccactc gtagaggcgt tagtcttggg ccagcggaga tattcaattc cgcgaagaaa 540  
tctgaaactg tgactcctct tcaatcagct cagaatcgac gcaagtcttg tttctttaag 600  
cttcctggaa tcgaagaagg tcaagtgacg acacgaggta aaggaagaac gagtttgagt 660  
ctgagtccga gatctcgcaa agcgaaaatg acggcagctc agaagcaagc agctacgacg 720  
gtgggggtcaa agagagctgt gaagaaagaa gaaggagttc tcttaacaat ccagcctaag 780  
aggctattca aagaagatga aaagaatggt tctttaagga aaccattgaa accaggaaga 840  
gttggtggcta gtaggtacag tcaaatgggt aaaacgcaga ctggagagaa agatgttagg 900  
aaaaggtcgt tgcctgagga tgaagagaaa gagaatcata agaggtcggg gaagagaaga 960  
gcttctgatg aaagtaacaa gagtgaaggg agagtgaaga agagatggga gattccaagt 1020  
gaagttgatc tgtatagcag tggtgagaac ggtgacgagt ctcttatagt taaggagcta 1080  
cctaagatca gaacgcttcg tcgtgtggga gggagccctc gtgattcagg tgctgctaag 1140  
agagttgcag aattacaagc caaggatcgt aacttcactt tttgccagct tctgaagttt 1200  
gaagaatga 1209

<210> 1978

<211> 402

<212> PRT

<213> Arabidopsis thaliana

<400> 1978

Met Thr Ser Ile Glu Ala Thr Glu Thr Leu Asn Ala Pro Pro Lys Leu  
1 5 10 15

Gln Ile Trp Asn Asn Ala Ala Phe Asp Asp Gly Asp Ser Gln Ile Thr  
20 25 30

047-E2F-PCT.ST25.txt

Ser Ala Ile Glu Ala Ser Ser Trp Ser His Leu Asn Glu Ser Phe Asp  
35 40 45

Ser Asp Cys Ser Lys Glu Asn Gln Phe Pro Ile Ser Val Ser Ser Ser  
50 55 60

Leu Gln Ser Ser Val Ser Ile Thr Glu Ala Pro Ser Ala Lys Ser Lys  
65 70 75 80

Thr Val Lys Thr Lys Ser Ala Ala Asp Arg Ser Lys Lys Arg Asp Ile  
85 90 95

Asp Ala Glu Ile Glu Glu Val Glu Lys Glu Ile Gly Arg Leu Ser Thr  
100 105 110

Lys Leu Glu Ser Leu Arg Leu Glu Lys Ala Glu Gln Thr Ala Arg Ser  
115 120 125

Ile Ala Ile Arg Gly Arg Ile Val Pro Ala Lys Phe Met Glu Ser Ser  
130 135 140

Gln Lys Gln Val Lys Phe Asp Asp Ser Cys Phe Thr Gly Ser Lys Ser  
145 150 155 160

Arg Ala Thr Arg Arg Gly Val Ser Leu Gly Pro Ala Glu Ile Phe Asn  
165 170 175

Ser Ala Lys Lys Ser Glu Thr Val Thr Pro Leu Gln Ser Ala Gln Asn  
180 185 190

Arg Arg Lys Ser Cys Phe Phe Lys Leu Pro Gly Ile Glu Glu Gly Gln  
195 200 205

Val Thr Thr Arg Gly Lys Gly Arg Thr Ser Leu Ser Leu Ser Pro Arg  
210 215 220

Ser Arg Lys Ala Lys Met Thr Ala Ala Gln Lys Gln Ala Ala Thr Thr  
225 230 235 240

Val Gly Ser Lys Arg Ala Val Lys Lys Glu Glu Gly Val Leu Leu Thr  
245 250 255

Ile Gln Pro Lys Arg Leu Phe Lys Glu Asp Glu Lys Asn Val Ser Leu  
260 265 270

Arg Lys Pro Leu Lys Pro Gly Arg Val Val Ala Ser Arg Tyr Ser Gln  
275 280 285

047-E2F-PCT.ST25.txt

Met Gly Lys Thr Gln Thr Gly Glu Lys Asp Val Arg Lys Arg Ser Leu  
 290 295 300

Pro Glu Asp Glu Glu Lys Glu Asn His Lys Arg Ser Glu Lys Arg Arg  
 305 310 315 320

Ala Ser Asp Glu Ser Asn Lys Ser Glu Gly Arg Val Lys Lys Arg Trp  
 325 330 335

Glu Ile Pro Ser Glu Val Asp Leu Tyr Ser Ser Gly Glu Asn Gly Asp  
 340 345 350

Glu Ser Pro Ile Val Lys Glu Leu Pro Lys Ile Arg Thr Leu Arg Arg  
 355 360 365

Val Gly Gly Ser Pro Arg Asp Ser Gly Ala Ala Lys Arg Val Ala Glu  
 370 375 380

Leu Gln Ala Lys Asp Arg Asn Phe Thr Phe Cys Gln Leu Leu Lys Phe  
 385 390 395 400

Glu Glu

<210> 1979

<211> 1110

<212> DNA

<213> Arabidopsis thaliana

<400> 1979

atgttgggtg ctggatttca gttgacgaga ggcagacacg gcgacgatcc tttctacact	60
tccgcaaaaa ctcgcagggc caatcagcgc atcgatcagc tccgtagagc tcagagcgac	120
gtctctaacg ttccatcatc agctccttct cgcataaac aacaactcga gccgtccgat	180
ttatctttcca gtaatctaga tcggtttttta gagtcggtca caccatccgt accggctcag	240
tttttatcca agacattgct acgagaaaga agagcagatg atgattataa taaacttggtg	300
ccttattttg tgcttggtga tatatgggac tcatttgcag agtggagtgc ttacggcacc	360
ggtgtgcctc ttgttttgaa taacaacaag gatcgtgtta tccaatacta tgtcccttct	420
ttgtcagcca ttcaaatacta tgctcattct catgccttgg attcatctct taaatcaagg	480
cgctcctggtg atagtagcga cagtgatttt cgggattcaa gtagcgatgt tagcagcgat	540

047-E2F-PCT.ST25.txt

agtgattccg agcggggtttc tgctagagta gactgtatct cattgagggg tcaacatcag 600  
gaagactcctt ccagtgatga tggcgaacct ttaggctctc aaggctcgttt gatgtttgag 660  
tatcttgaaa gagaccttcc atacatccgt gaaccttttg ctgataaggt cttggacctc 720  
gcagctcagt ttcccgagct aatgacgctg agaagctgtg acttacttcg gtcaagctgg 780  
ttttctgttg catggtaccc aatttacaga ataccacag gaccgacact gaaggacctg 840  
gatgcttggt tcttgacgta tcattcccta cacacatctt ttggagggtga aggcagtga 900  
caatcaatga gccttacgca accaaggag agcgagaaga tgtcattgcc tgtgtttggg 960  
cttgcttcat acaagttcag aggttcatta tggacacca ttgggggttc ggagcaccag 1020  
ctcgtgaact ctctgttcca agccgctgac aaatggctgc attcttgtca tgtcagccac 1080  
cctgatttcc tcttcttctg ccgtcgttga 1110

<210> 1980

<211> 369

<212> PRT

<213> Arabidopsis thaliana

<400> 1980

Met Leu Gly Ala Gly Phe Gln Leu Thr Arg Gly Arg His Gly Asp Asp  
1 5 10 15

Pro Phe Tyr Thr Ser Ala Lys Thr Arg Arg Ala Asn Gln Arg Ile Asp  
20 25 30

Gln Leu Arg Arg Ala Gln Ser Asp Val Ser Asn Val Pro Ser Ser Ala  
35 40 45

Pro Ser Pro His Lys Gln Gln Leu Glu Pro Ser Asp Leu Ser Ser Ser  
50 55 60

Asn Leu Asp Arg Phe Leu Glu Ser Val Thr Pro Ser Val Pro Ala Gln  
65 70 75 80

Phe Leu Ser Lys Thr Leu Leu Arg Glu Arg Arg Ala Asp Asp Asp Tyr  
85 90 95

Asn Lys Leu Val Pro Tyr Phe Val Leu Gly Asp Ile Trp Asp Ser Phe  
100 105 110

Ala Glu Trp Ser Ala Tyr Gly Thr Gly Val Pro Leu Val Leu Asn Asn  
115 120 125

047-E2F-PCT.ST25.txt

Asn Lys Asp Arg Val Ile Gln Tyr Tyr Val Pro Ser Leu Ser Ala Ile  
 130 135 140  
 Gln Ile Tyr Ala His Ser His Ala Leu Asp Ser Ser Leu Lys Ser Arg  
 145 150 155 160  
 Arg Pro Gly Asp Ser Ser Asp Ser Asp Phe Arg Asp Ser Ser Ser Asp  
 165 170 175  
 Val Ser Ser Asp Ser Asp Ser Glu Arg Val Ser Ala Arg Val Asp Cys  
 180 185 190  
 Ile Ser Leu Arg Asp Gln His Gln Glu Asp Ser Ser Ser Asp Asp Gly  
 195 200 205  
 Glu Pro Leu Gly Ser Gln Gly Arg Leu Met Phe Glu Tyr Leu Glu Arg  
 210 215 220  
 Asp Leu Pro Tyr Ile Arg Glu Pro Phe Ala Asp Lys Val Leu Asp Leu  
 225 230 235 240  
 Ala Ala Gln Phe Pro Glu Leu Met Thr Leu Arg Ser Cys Asp Leu Leu  
 245 250 255  
 Arg Ser Ser Trp Phe Ser Val Ala Trp Tyr Pro Ile Tyr Arg Ile Pro  
 260 265 270  
 Thr Gly Pro Thr Leu Lys Asp Leu Asp Ala Cys Phe Leu Thr Tyr His  
 275 280 285  
 Ser Leu His Thr Ser Phe Gly Gly Glu Gly Ser Glu Gln Ser Met Ser  
 290 295 300  
 Leu Thr Gln Pro Arg Glu Ser Glu Lys Met Ser Leu Pro Val Phe Gly  
 305 310 315 320  
 Leu Ala Ser Tyr Lys Phe Arg Gly Ser Leu Trp Thr Pro Ile Gly Gly  
 325 330 335  
 Ser Glu His Gln Leu Val Asn Ser Leu Phe Gln Ala Ala Asp Lys Trp  
 340 345 350  
 Leu His Ser Cys His Val Ser His Pro Asp Phe Leu Phe Phe Cys Arg  
 355 360 365

Arg

&lt;210&gt; 1981

&lt;211&gt; 897

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 1981

```

atgggggttag agaggaaagt gtacggtttg gttatggtat ctttggtact tatggctatt      60
gcaacgatgt gttgtgtcca agctacgata gaggaagaag cggctaagga tgaatcatgg      120
actgattggg caaaggagaa gatcgggtctc aagcacgaag acaacatcca acccactcac      180
accaccacga ccgttcaaga cgacgcttgg agagcgagtc aaaaagccga ggacgcaaag      240
gaggcggcta aacgcaaagc agaggaagcg gttggagccg cgaaggagaa agcgggttcg      300
gcatacgaga cagctaaatc gaaagttgag gagggtttgg cttctgtaaa agacaaggcc      360
tcgcagagtt acgactcagc tgggtcaagtt aaggatgacg tgtctcacia gtcaaagcaa      420
gttaaagata gcttgtcggg agacgaaaac gatgagtctt ggaccggttg ggccaaagag      480
aaaatcggaa tcaagaacga agacatcaac agccctaact tgggagagac ggtatctgag      540
aaggcaaaag aagctaagga agcggctaaa cgcaaagcag gagatgctaa agagaagttg      600
gcgagagacag ttgagacggc gaaagagaag gcgagcgata tgacgagtg agctaaggag      660
aaggcggaga agttgaagga ggaagcagag agagagagta agagtgcgaa ggagaaaatt      720
aaagaaagtt atgagactgc aaaatcaaaa gccgatgaga ctttagagtc cgcgaaagat      780
aaggcgctgc agagttacga ctacgtgctg cgtaaatacg aggaagctaa agataccgtg      840
tctcacaagt caaaacgtgt taaagagagc ttgaccgacg atgatgctga gctctga      897

```

&lt;210&gt; 1982

&lt;211&gt; 298

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 1982

```

Met Gly Leu Glu Arg Lys Val Tyr Gly Leu Val Met Val Ser Leu Val
1           5           10           15

```

```

Leu Met Ala Ile Ala Thr Met Cys Cys Val Gln Ala Thr Ile Glu Glu
20           25           30

```

047-E2F-PCT.ST25.txt

Glu Ala Ala Lys Asp Glu Ser Trp Thr Asp Trp Ala Lys Glu Lys Ile  
 35 40 45  
 Gly Leu Lys His Glu Asp Asn Ile Gln Pro Thr His Thr Thr Thr Thr  
 50 55 60  
 Val Gln Asp Asp Ala Trp Arg Ala Ser Gln Lys Ala Glu Asp Ala Lys  
 65 70 75 80  
 Glu Ala Ala Lys Arg Lys Ala Glu Glu Ala Val Gly Ala Ala Lys Glu  
 85 90 95  
 Lys Ala Gly Ser Ala Tyr Glu Thr Ala Lys Ser Lys Val Glu Glu Gly  
 100 105 110  
 Leu Ala Ser Val Lys Asp Lys Ala Ser Gln Ser Tyr Asp Ser Ala Gly  
 115 120 125  
 Gln Val Lys Asp Asp Val Ser His Lys Ser Lys Gln Val Lys Asp Ser  
 130 135 140  
 Leu Ser Gly Asp Glu Asn Asp Glu Ser Trp Thr Gly Trp Ala Lys Glu  
 145 150 155 160  
 Lys Ile Gly Ile Lys Asn Glu Asp Ile Asn Ser Pro Asn Leu Gly Glu  
 165 170 175  
 Thr Val Ser Glu Lys Ala Lys Glu Ala Lys Glu Ala Ala Lys Arg Lys  
 180 185 190  
 Ala Gly Asp Ala Lys Glu Lys Leu Ala Glu Thr Val Glu Thr Ala Lys  
 195 200 205  
 Glu Lys Ala Ser Asp Met Thr Ser Ala Ala Lys Glu Lys Ala Glu Lys  
 210 215 220  
 Leu Lys Glu Glu Ala Glu Arg Glu Ser Lys Ser Ala Lys Glu Lys Ile  
 225 230 235 240  
 Lys Glu Ser Tyr Glu Thr Ala Lys Ser Lys Ala Asp Glu Thr Leu Glu  
 245 250 255  
 Ser Ala Lys Asp Lys Ala Ser Gln Ser Tyr Asp Ser Ala Ala Arg Lys  
 260 265 270  
 Ser Glu Glu Ala Lys Asp Thr Val Ser His Lys Ser Lys Arg Val Lys

275

280

Glu Ser Leu Thr Asp Asp Asp Ala Glu Leu  
290 295

<210> 1983

<211> 654

<212> DNA

<213> Arabidopsis thaliana

<400> 1983

```
atggcgagca ttagcaacga gcccgagcgt gagaacagag acgaagaaga gactggagcc 60
aacgaagatg aagacaccgg tgctcagggtt gctcctatcg tcaggcttga agaagtcgcc 120
gtcaccaccg gtgaagaaga cgaagacacc atcctcgatc tgaaatcgaa gttgtatcga 180
tttgataaag atggaagtca gtggaaggag agagggtgctg gtactgttaa gtttttgaaa 240
catagagttt ctggaagat tcgtctcggtt atgaggcaat cgaaaacttt gaagatctgt 300
gctaatactc ttgttggatc gggatatgagt gttcaggaac acgctgggaa tgataagtct 360
tgtgtatggc acgctcgtga tttctccgat ggtgaattga aggatgagct cttctgtatc 420
cggtttgctt cagttgagaa ttgcaaagca tttatgcaaa agttcaagga agtagctgaa 480
tctgaagaag agaaagaaga gagcaaagat gcctctgata ccgctgggtct tcttgagaag 540
ttaacagtgg aagagaagga aagtgagaag aaaccagtgg agaaggcaga ggaaaacaaa 600
aagagtgaag ctggtgaaga aaagaaaaca gaggagtctg ttccctcagc ttaa 654
```

<210> 1984

<211> 217

<212> PRT

<213> Arabidopsis thaliana

<400> 1984

```
Met Ala Ser Ile Ser Asn Glu Pro Glu Arg Glu Asn Arg Asp Glu Glu
1          5          10          15

Glu Thr Gly Ala Asn Glu Asp Glu Asp Thr Gly Ala Gln Val Ala Pro
20          25          30

Ile Val Arg Leu Glu Glu Val Ala Val Thr Thr Gly Glu Glu Asp Glu
35          40          45
```



047-E2F-PCT.ST25.txt

Asp Thr Ile Leu Asp Leu Lys Ser Lys Leu Tyr Arg Phe Asp Lys Asp  
50 55 60

Gly Ser Gln Trp Lys Glu Arg Gly Ala Gly Thr Val Lys Phe Leu Lys  
65 70 75 80

His Arg Val Ser Gly Lys Ile Arg Leu Val Met Arg Gln Ser Lys Thr  
85 90 95

Leu Lys Ile Cys Ala Asn His Leu Val Gly Ser Gly Met Ser Val Gln  
100 105 110

Glu His Ala Gly Asn Asp Lys Ser Cys Val Trp His Ala Arg Asp Phe  
115 120 125

Ser Asp Gly Glu Leu Lys Asp Glu Leu Phe Cys Ile Arg Phe Ala Ser  
130 135 140

Val Glu Asn Cys Lys Ala Phe Met Gln Lys Phe Lys Glu Val Ala Glu  
145 150 155 160

Ser Glu Glu Glu Lys Glu Glu Ser Lys Asp Ala Ser Asp Thr Ala Gly  
165 170 175

Leu Leu Glu Lys Leu Thr Val Glu Glu Lys Glu Ser Glu Lys Lys Pro  
180 185 190

Val Glu Lys Ala Glu Glu Asn Lys Lys Ser Glu Ala Val Glu Glu Lys  
195 200 205

Lys Thr Glu Glu Ser Val Pro Ser Ala  
210 215

<210> 1985

<211> 2352

<212> DNA

<213> Arabidopsis thaliana

<400> 1985

atggggtttct ctcaggccat tcgcttgaat cttgcttcct tctcctctcc ctctccctgc	60
gattattggtt tgacaagagt agtaaaccat aagcagaaga gtcttgctgc attcccgcgc	120
attacaagga gaaagagaca tcttttactg agtggttcaat cagtcttgca caatacaaga	180

cccaacatca	acgacaatgg	ctcagctgag	tctgcaaatg	ttcttttcga	taaattat	240
gctcggacac	acagattgga	gagacaaacc	aatcaacact	cggtttatcc	tgacgatgat	300
gatctccctt	attcaaacct	tggcgtgctt	gagtctgacc	ttgaggctgc	gctagtggcc	360
ttgttgaaaa	gggaagagga	cctgcacgat	gctgagagga	agcttctctc	tgacaaaaat	420
aaacttaacc	gggcaaagga	ggagttagaa	aaacgtgaga	aaacaatctc	tgaagcttcg	480
ttgaagcatg	agagtctaca	agaggagctg	aagcgggcaa	atgtggagtt	agcttctcaa	540
gccagggaga	tagaagagtt	aaagcataag	ctaagggaaa	gagacgagga	acgtgctgct	600
ttgcaatcgt	ccttgacttt	gaaagaggaa	gagctagaga	agatgcgtca	agagattgca	660
aacagaagca	aggaggtttc	tatggctatt	tctgaatttg	aaagcaagtc	acaactctta	720
agcaaagcca	acgaagtgtg	caagagacaa	gaaggtgaaa	tatatgcaact	tcagagagct	780
cttgaggaga	aggaagaaga	attagagatt	tctaaggcta	cgaagaaact	tgaacaagaa	840
aagcttagag	aaacagaagc	caacttgaag	aaacagacag	aagagtggct	gatagcccag	900
gatgaagtga	ataagcttaa	agaggaaacc	gtgaaacgtt	taggagaagc	caatgaaacc	960
atggaggact	tcatgaaagt	gaaaaagctt	ctgactgatg	taagattcga	gcttatttct	1020
tctcgggaag	ctttggtatt	ttccaggagg	caaatggaag	aaaaagagct	actattggaa	1080
aaacaattgg	aggaactcga	ggaacagagg	aaaagtgtgt	tgtcatatat	gcaaagcttg	1140
agggatgcgc	acactgaagt	tgaaagtgag	agagtaaagc	tcagagttgt	tgaggctaaa	1200
aattttgcgc	ttgagcggga	aatatcggtc	caaaaagaat	tgctggagga	tttacgagag	1260
gagttgcaga	aagagaaacc	attgttggag	ctagctatgc	atgatataatc	cgttattcaa	1320
gatgagcttt	acaaaaaagc	taatgcgttt	caggatcac	aaaatctact	tcaggagaaa	1380
gagtcaagtt	tggtggaggc	caaactagag	attcagcatc	tgaagtccga	acaggcttct	1440
ctagaactat	tactgcaaga	aaaggatgaa	gaactcgctg	aagctcgaaa	taaattggga	1500
gaagtgaacc	aggaggtaac	agagctaaag	gcacttatga	tcagtagaga	agatcagctt	1560
atggaggcaa	ctgagatgct	gaaggagaaa	gatgtccacc	ttcacagaat	agaaggtgag	1620
ttgggcagtt	ccaagctgaa	agtcactgaa	gctgaaatgg	tggtggaaaag	aattgcagaa	1680
ttgacgaaca	gactgcttat	gtcaaccacc	aacgggtcaa	atcagaatgc	aatgaggatt	1740
aacaatgaga	taagcattga	ctcaatgcag	caaccactag	agaaacctca	tgatgattac	1800
ggaatggaga	acaaacggct	ggtgatggag	ttaagcttca	ccagagaaaa	tctacggatg	1860
aaagaaatgg	aagttctagc	ggtgcagagg	gctttgacat	ttaaagacga	agagatcaac	1920
gtggtcatgg	gaagattaga	agccaaggag	caggaactca	agaaattgaa	agaagaaacg	1980
atcaatgaca	gtgaagat	gaaagtgcta	tatgccttgg	cacaagagag	agtcggggaa	2040
aaaacaatgg	gtgatctggc	catagagatg	cttcagcttg	aggcagctaa	ccttgaagtt	2100

047-E2F-PCT.ST25.txt

gaagctgcga ccagtgcatt acagaagctt gcaaaaatga gcacggaact gttaactcaa 2160  
gctgacatga gcattgaggc cgacacaact cacactgtaa tgccagagag agggatttca 2220  
gaaggaagta atgagtgtct tggtaggta aaaacagaag ttgtcaggct ctggtccttg 2280  
acagagaaac tcctggagaa cgcaggaatc gttgctggta catctacatg catggaaggt 2340  
gtaattttat aa 2352

<210> 1986

<211> 783

<212> PRT

<213> Arabidopsis thaliana

<400> 1986

Met Gly Phe Ser Gln Ala Ile Arg Leu Asn Leu Ala Ser Phe Ser Ser  
1 5 10 15

Pro Ser Pro Cys Asp Tyr Cys Leu Thr Arg Val Val Asn His Lys Gln  
20 25 30

Lys Ser Leu Val Ala Phe Pro Ser Ile Thr Arg Arg Lys Arg His Leu  
35 40 45

Leu Leu Ser Val Gln Ser Val Leu His Asn Thr Arg Pro Asn Ile Asn  
50 55 60

Asp Asn Gly Ser Ala Glu Ser Ala Asn Val Leu Phe Asp Lys Leu Phe  
65 70 75 80

Ala Arg Thr His Arg Leu Glu Arg Gln Thr Asn Gln His Ser Val Tyr  
85 90 95

Pro Asp Asp Asp Asp Leu Pro Tyr Ser Asn Leu Gly Val Leu Glu Ser  
100 105 110

Asp Leu Glu Ala Ala Leu Val Ala Leu Leu Lys Arg Glu Glu Asp Leu  
115 120 125

His Asp Ala Glu Arg Lys Leu Leu Ser Asp Lys Asn Lys Leu Asn Arg  
130 135 140

Ala Lys Glu Glu Leu Glu Lys Arg Glu Lys Thr Ile Ser Glu Ala Ser  
145 150 155 160

047-E2F-PCT.ST25.txt

Leu Lys His Glu Ser Leu Gln Glu Glu Leu Lys Arg Ala Asn Val Glu  
 165 170 175  
 Leu Ala Ser Gln Ala Arg Glu Ile Glu Glu Leu Lys His Lys Leu Arg  
 180 185 190  
 Glu Arg Asp Glu Glu Arg Ala Ala Leu Gln Ser Ser Leu Thr Leu Lys  
 195 200 205  
 Glu Glu Glu Leu Glu Lys Met Arg Gln Glu Ile Ala Asn Arg Ser Lys  
 210 215 220  
 Glu Val Ser Met Ala Ile Ser Glu Phe Glu Ser Lys Ser Gln Leu Leu  
 225 230 235 240  
 Ser Lys Ala Asn Glu Val Val Lys Arg Gln Glu Gly Glu Ile Tyr Ala  
 245 250 255  
 Leu Gln Arg Ala Leu Glu Glu Lys Glu Glu Glu Leu Glu Ile Ser Lys  
 260 265 270  
 Ala Thr Lys Lys Leu Glu Gln Glu Lys Leu Arg Glu Thr Glu Ala Asn  
 275 280 285  
 Leu Lys Lys Gln Thr Glu Glu Trp Leu Ile Ala Gln Asp Glu Val Asn  
 290 295 300  
 Lys Leu Lys Glu Glu Thr Val Lys Arg Leu Gly Glu Ala Asn Glu Thr  
 305 310 315 320  
 Met Glu Asp Phe Met Lys Val Lys Lys Leu Leu Thr Asp Val Arg Phe  
 325 330 335  
 Glu Leu Ile Ser Ser Arg Glu Ala Leu Val Phe Ser Arg Glu Gln Met  
 340 345 350  
 Glu Glu Lys Glu Leu Leu Leu Glu Lys Gln Leu Glu Glu Leu Glu Glu  
 355 360 365  
 Gln Arg Lys Ser Val Leu Ser Tyr Met Gln Ser Leu Arg Asp Ala His  
 370 375 380  
 Thr Glu Val Glu Ser Glu Arg Val Lys Leu Arg Val Val Glu Ala Lys  
 385 390 395 400  
 Asn Phe Ala Leu Glu Arg Glu Ile Ser Val Gln Lys Glu Leu Leu Glu  
 405 410 415

047-E2F-PCT.ST25.txt

Asp Leu Arg Glu Glu Leu Gln Lys Glu Lys Pro Leu Leu Glu Leu Ala  
420 425 430

Met His Asp Ile Ser Val Ile Gln Asp Glu Leu Tyr Lys Lys Ala Asn  
435 440 445

Ala Phe Gln Val Ser Gln Asn Leu Leu Gln Glu Lys Glu Ser Ser Leu  
450 455 460

Val Glu Ala Lys Leu Glu Ile Gln His Leu Lys Ser Glu Gln Ala Ser  
465 470 475 480

Leu Glu Leu Leu Leu Gln Glu Lys Asp Glu Glu Leu Ala Glu Ala Arg  
485 490 495

Asn Lys Leu Gly Glu Val Asn Gln Glu Val Thr Glu Leu Lys Ala Leu  
500 505 510

Met Ile Ser Arg Glu Asp Gln Leu Met Glu Ala Thr Glu Met Leu Lys  
515 520 525

Glu Lys Asp Val His Leu His Arg Ile Glu Gly Glu Leu Gly Ser Ser  
530 535 540

Lys Leu Lys Val Thr Glu Ala Glu Met Val Val Glu Arg Ile Ala Glu  
545 550 555 560

Leu Thr Asn Arg Leu Leu Met Ser Thr Thr Asn Gly Gln Asn Gln Asn  
565 570 575

Ala Met Arg Ile Asn Asn Glu Ile Ser Ile Asp Ser Met Gln Gln Pro  
580 585 590

Leu Glu Lys Pro His Asp Asp Tyr Gly Met Glu Asn Lys Arg Leu Val  
595 600 605

Met Glu Leu Ser Phe Thr Arg Glu Asn Leu Arg Met Lys Glu Met Glu  
610 615 620

Val Leu Ala Val Gln Arg Ala Leu Thr Phe Lys Asp Glu Glu Ile Asn  
625 630 635 640

Val Val Met Gly Arg Leu Glu Ala Lys Glu Gln Glu Leu Lys Lys Leu  
645 650 655

Lys Glu Glu Thr Ile Asn Asp Ser Glu Asp Leu Lys Val Leu Tyr Ala

660

665

670

Leu Ala Gln Glu Arg Val Gly Glu Lys Thr Met Gly Asp Leu Ala Ile  
 675 680 685

Glu Met Leu Gln Leu Glu Ala Ala Asn Leu Glu Val Glu Ala Ala Thr  
 690 695 700

Ser Ala Leu Gln Lys Leu Ala Lys Met Ser Thr Glu Leu Leu Thr Gln  
 705 710 715 720

Ala Asp Met Ser Ile Glu Ala Asp Thr Thr His Thr Val Met Pro Glu  
 725 730 735

Arg Gly Tyr Ser Glu Gly Ser Asn Glu Cys Leu Gly Glu Val Lys Thr  
 740 745 750

Glu Val Val Arg Leu Trp Ser Leu Thr Glu Lys Leu Leu Glu Asn Ala  
 755 760 765

Gly Ile Val Ala Gly Thr Ser Thr Cys Met Glu Gly Val Ile Leu  
 770 775 780

&lt;210&gt; 1987

&lt;211&gt; 912

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1987

atggaggagc cttgtgagac acttgacagt ggtgaagcct atcaaatac tagatatcat 60  
 aactataacc aacacagctc cagaagctca tctccctggt tggatttgag agtggttctat 120  
 gtccggataa gcaatttcgt ggtggaagat tcaactcctg aggtcctcac tatcaatcac 180  
 attcctctgg atccagatac gcttttggag attaacggtg ttagaatggg aatgtactca 240  
 gaaggagggt cttcacagct taggagagat cgggttgata agaaatctga agaagctact 300  
 tatgtcagca cagacaatat cagggttaact ggtagtgtga agtttgaggt ttatgacaaa 360  
 aatgagctag ttttgtctgg aactcttgag atgtctggta gtaatgggtt cactggggaa 420  
 tcaaagaatc gatggaaaat gaattgtgag gctgagggtc ctgcagggtc tggtttcctt 480  
 aaggagaaga gcataaacgg tcaagagtta tcgtctccat tgccaactat cgagggtctat 540  
 gttactgggt gcttctcagg aacacccatc atcttaacca agactctgca acttggtttg 600  
 aaaaagaagc agagtagaag aatggcattg gatgcaattc ctgagtatga aactgcagag 660

047-E2F-PCT.ST25.txt

cctcagaaag acacctccta tgcacttgat cttcaggcaa caacagagta cgggaattac 720  
aaagaggaat acgaaggaga catgtattgg agaagtgagt gcattgatgg ggagatgtca 780  
tggtttaatg caggtgtaag gggttggtgtt gggataggac ttggtgtctg tgttggtctt 840  
gggattggtg tcggtcttct cgttcgtact tatcaatcaa ctaccagaac cttcaggagg 900  
aggcttctct ag 912

<210> 1988

<211> 303

<212> PRT

<213> Arabidopsis thaliana

<400> 1988

Met Glu Glu Pro Cys Glu Thr Leu Asp Ser Gly Glu Ala Tyr Gln Ile  
1 5 10 15

Ser Arg Tyr His Asn Tyr Asn Gln His Ser Ser Arg Ser Ser Ser Pro  
20 25 30

Trp Leu Asp Leu Arg Val Phe Tyr Val Arg Ile Ser Asn Phe Val Val  
35 40 45

Glu Asp Ser Thr Pro Glu Val Leu Thr Ile Asn His Ile Pro Leu Asp  
50 55 60

Pro Asp Thr Leu Leu Glu Ile Asn Gly Val Arg Met Gly Met Tyr Ser  
65 70 75 80

Glu Gly Gly Ser Ser Gln Leu Arg Arg Asp Arg Val Asp Lys Lys Ser  
85 90 95

Glu Glu Ala Thr Tyr Val Ser Thr Asp Asn Ile Arg Leu Thr Gly Ser  
100 105 110

Val Lys Phe Glu Val Tyr Asp Lys Asn Glu Leu Val Leu Ser Gly Thr  
115 120 125

Leu Glu Met Ser Gly Ser Asn Gly Phe Thr Gly Glu Ser Lys Asn Arg  
130 135 140

Trp Lys Met Asn Cys Glu Ala Glu Val Thr Ala Gly Ser Gly Phe Leu  
145 150 155 160

047-E2F-PCT.ST25.txt

Lys Glu Lys Ser Ile Asn Gly Gln Glu Leu Ser Ser Pro Leu Pro Thr  
165 170 175  
Ile Glu Val Tyr Val Thr Gly Cys Phe Ser Gly Thr Pro Ile Ile Leu  
180 185 190  
Thr Lys Thr Leu Gln Leu Gly Leu Lys Lys Lys Gln Ser Arg Arg Met  
195 200 205  
Ala Leu Asp Ala Ile Pro Glu Tyr Glu Thr Ala Glu Pro Gln Lys Asp  
210 215 220  
Thr Ser Tyr Ala Leu Asp Leu Gln Ala Thr Thr Glu Tyr Gly Asn Tyr  
225 230 235 240  
Lys Glu Glu Tyr Glu Gly Asp Met Tyr Trp Arg Ser Glu Cys Ile Asp  
245 250 255  
Gly Glu Met Ser Trp Phe Asn Ala Gly Val Arg Val Gly Val Gly Ile  
260 265 270  
Gly Leu Gly Val Cys Val Gly Leu Gly Ile Gly Val Gly Leu Leu Val  
275 280 285  
Arg Thr Tyr Gln Ser Thr Thr Arg Thr Phe Arg Arg Arg Leu Leu  
290 295 300

<210> 1989

<211> 3132

<212> DNA

<213> Arabidopsis thaliana

<400> 1989

atggccggga acgattgggt aaacagttac ttagaggcga ttctcgacgt cggtcagggt	60
cttgacgatg ctcgctcttc tccatcactt cttcttaggg agagagggtcg attcactccc	120
agccgttact ttgttgagga agttatcact ggttacgatg agactgatct tcatagatcc	180
tgggttaagg ctgttgctac gaggagtcca caagagagga acacgagggt agagaatatg	240
tgttggagga tctggaatct tgctcgtcaa aagaagcagc atgaggaaaa agaagcacag	300
aggctggcta agcgcaggct tgaacgtgag aaaggctcga gagaggcaac agctgatatg	360
tctgaggagt tttcagaggg agaaaaagga gatatcatca gtgatatatc tactcatggt	420
gaaagcacca aaccaagggt gcccagaatt aattctgctg agtccatgga gttatgggct	480



agccaacaga	agggaaataa	gctctatctt	gttttgatta	gtcttcatgg	tctcatatcg	540
ggtgaaaaca	tggagctcgg	ccgcgactct	gacaccggtg	gacagggtta	atatgttggtg	600
gaacttgca	gtgcactggg	ttcaatgcc	ggagtttata	gggttgactt	gcttactaga	660
caagtgtctt	caccagatgt	tgactatagt	tatggtgaac	ctacggaaat	gctgactcct	720
agagattctg	aagattttct	ggatgagatg	ggggagagta	gcggtgctta	tattgtgagg	780
ataccatttg	gtccaaagga	caagtatat	ccaaaagaac	ttctatggcc	tcacattccg	840
gaatttggtg	atggtgctat	gagccacatc	atgcaaagt	caaagtgtct	cggcgagcaa	900
gttggtggtg	ggaagcctat	ttggccttct	gccatccatg	gacactatgc	tgatgctggt	960
gatgccactg	ccctgctgtc	gggtgcacta	aatgtgccta	tgctccttac	tggtcactca	1020
ctcgggagag	ataaattgga	gcagcttttg	agacaaggcc	gcctttcaaa	agaagaaata	1080
aattcaacgt	acaagattat	gcgtcggata	gaggggtgagg	aattatctct	tgatgtttct	1140
gaaatggtaa	taactagcac	tcgacaggag	attgatgagc	aatggagact	gtatgatgga	1200
tttgaccca	tattggagcg	caaattgaga	gccagaatca	agcggaatgt	gagctgctat	1260
ggacggttca	tgctcgcac	ggttaaaatt	ccacctggga	tgaggttcaa	tcataattgtc	1320
ccacatggtg	gtgatattga	agacacagat	gggaacgagg	aacatccaac	ttctccagat	1380
ccaccaatat	gggctgagat	aatgcgtttc	ttttcgaatt	cccgaagcc	tatgatactt	1440
gcccttgcca	ggcctgaccc	aaaaaagaac	atcacgacgt	tagtgaaggc	ctttggagaa	1500
tgctcgccac	tgagagagct	tgctaacctg	gcacttatta	tgggcaaccg	agatgggatt	1560
gatgaaatgt	cgagcacaag	ttcttctgtt	ctcctttctg	ttctgaagct	aattgacaag	1620
tatgatctct	acggtcaagt	tgcgctacct	aaacatcaca	aacaatcaga	tgttccagac	1680
atatatcgcc	tagctgcaaa	gtcaaaggg	gttttcatca	atccagctat	cattgaacca	1740
tttggaactta	ctctaattga	ggctgcagct	catggtttac	ctatggttgc	tacaaaaaat	1800
ggtggtcctg	tagatattca	ccgggtcctg	gataatggcc	ttcttgtgga	tcctcatgat	1860
cagcagtcta	tttctgaagc	tcttcttaag	cttggtgctg	ataagcacct	atgggcaaag	1920
tgctggcaaa	acgggttgaa	gaacattcac	caattctctt	ggccagagca	ctgcaaaact	1980
tatctatctc	gcataaccag	cttcaaacca	agacatccac	agtggcaaag	tgatgatggc	2040
ggtgataatt	cagaacccga	gtcacctagt	gattctttga	gggatataca	ggatatatcc	2100
ttgaacttaa	agttttcatt	tgatggaagt	gggaatgata	attacatgaa	ccaagaagg	2160
agctccatgg	ataggaagag	caaaatcgaa	gctgctgtcc	aaaattgggtc	taaaggcaaa	2220
gatagccgca	aaatgggatc	actggagagg	tcagagggtta	actctggaaa	attcccagca	2280
gtgcggagaa	ggaagtttat	tgttgttatt	gctcttgatt	ttgatgggga	agaagacacg	2340

ctagaggcta caaaaagaat tcttgatgcg gttgaaaagg aaagagcaga aggatctggt 2400  
 gggttcatac tgtcgacatc tctaacgacg tctgaggtac aatctttctt ggtgtcagga 2460  
 ggcttaaacc cgaatgattt cgacgctttc atatgtaaca gcggaagtga tctccactac 2520  
 acatccctca acaacgaaga cggtcctttt gtcgtagact ttactacca ctcccacata 2580  
 gaatataggt ggggcggtga agggctgagg aagactttga tccgttgggc atcttcgctt 2640  
 aacgagaaaa aggctgacaa tgacgagcag attgtcactc ttgctgagca tctttcaact 2700  
 gactactgct acacatttac agtcaaaaag cctgcagcgg tacctccagt aagagagctt 2760  
 aggaagctgc tgagaatcca ggctttacgt tgccatgtcg tttatagtca gaatggcacc 2820  
 cgaataaacg tcataccggt gctggcttct cgtatacaag ctctgaggta tttgttcgtc 2880  
 cgggtggggaa ttgacatggc gaaaatggcg gtatttgtgg gggaatcagg tgatactgat 2940  
 tacgaaggat tgcttggtgg gcttcacaag agcgttggtc taaaggaggt gtcgtgcagt 3000  
 gcatgcttgc acgctaaccg gagctatcct ctcaccgacg tgatctcctt tgagagcaac 3060  
 aacgtggttc acgcatcacc agattcggat gttcgtgatg ccctgaagaa attagagctt 3120  
 ctcaaggact ga 3132

<210> 1990

<211> 1043

<212> PRT

<213> Arabidopsis thaliana

<400> 1990

Met Ala Gly Asn Asp Trp Val Asn Ser Tyr Leu Glu Ala Ile Leu Asp  
1 5 10 15

Val Gly Gln Gly Leu Asp Asp Ala Arg Ser Ser Pro Ser Leu Leu Leu  
20 25 30

Arg Glu Arg Gly Arg Phe Thr Pro Ser Arg Tyr Phe Val Glu Glu Val  
35 40 45

Ile Thr Gly Tyr Asp Glu Thr Asp Leu His Arg Ser Trp Val Lys Ala  
50 55 60

Val Ala Thr Arg Ser Pro Gln Glu Arg Asn Thr Arg Leu Glu Asn Met  
65 70 75 80

Cys Trp Arg Ile Trp Asn Leu Ala Arg Gln Lys Lys Gln His Glu Glu  
85 90 95

047-E2F-PCT.ST25.txt

Lys Glu Ala Gln Arg Leu Ala Lys Arg Arg Leu Glu Arg Glu Lys Gly  
 100 105 110  
 Arg Arg Glu Ala Thr Ala Asp Met Ser Glu Glu Phe Ser Glu Gly Glu  
 115 120 125  
 Lys Gly Asp Ile Ile Ser Asp Ile Ser Thr His Gly Glu Ser Thr Lys  
 130 135 140  
 Pro Arg Leu Pro Arg Ile Asn Ser Ala Glu Ser Met Glu Leu Trp Ala  
 145 150 155 160  
 Ser Gln Gln Lys Gly Asn Lys Leu Tyr Leu Val Leu Ile Ser Leu His  
 165 170 175  
 Gly Leu Ile Arg Gly Glu Asn Met Glu Leu Gly Arg Asp Ser Asp Thr  
 180 185 190  
 Gly Gly Gln Val Lys Tyr Val Val Glu Leu Ala Arg Ala Leu Gly Ser  
 195 200 205  
 Met Pro Gly Val Tyr Arg Val Asp Leu Leu Thr Arg Gln Val Ser Ser  
 210 215 220  
 Pro Asp Val Asp Tyr Ser Tyr Gly Glu Pro Thr Glu Met Leu Thr Pro  
 225 230 235 240  
 Arg Asp Ser Glu Asp Phe Ser Asp Glu Met Gly Glu Ser Ser Gly Ala  
 245 250 255  
 Tyr Ile Val Arg Ile Pro Phe Gly Pro Lys Asp Lys Tyr Ile Pro Lys  
 260 265 270  
 Glu Leu Leu Trp Pro His Ile Pro Glu Phe Val Asp Gly Ala Met Ser  
 275 280 285  
 His Ile Met Gln Met Ser Asn Val Leu Gly Glu Gln Val Gly Val Gly  
 290 295 300  
 Lys Pro Ile Trp Pro Ser Ala Ile His Gly His Tyr Ala Asp Ala Gly  
 305 310 315 320  
 Asp Ala Thr Ala Leu Leu Ser Gly Ala Leu Asn Val Pro Met Leu Leu  
 325 330 335  
 Thr Gly His Ser Leu Gly Arg Asp Lys Leu Glu Gln Leu Leu Arg Gln  
 Page 2909

340

345

350

Gly Arg Leu Ser Lys Glu Glu Ile Asn Ser Thr Tyr Lys Ile Met Arg  
 355 360 365  
 Arg Ile Glu Gly Glu Glu Leu Ser Leu Asp Val Ser Glu Met Val Ile  
 370 375 380  
 Thr Ser Thr Arg Gln Glu Ile Asp Glu Gln Trp Arg Leu Tyr Asp Gly  
 385 390 395 400  
 Phe Asp Pro Ile Leu Glu Arg Lys Leu Arg Ala Arg Ile Lys Arg Asn  
 405 410 415  
 Val Ser Cys Tyr Gly Arg Phe Met Pro Arg Met Val Lys Ile Pro Pro  
 420 425 430  
 Gly Met Glu Phe Asn His Ile Val Pro His Gly Gly Asp Met Glu Asp  
 435 440 445  
 Thr Asp Gly Asn Glu Glu His Pro Thr Ser Pro Asp Pro Pro Ile Trp  
 450 455 460  
 Ala Glu Ile Met Arg Phe Phe Ser Asn Ser Arg Lys Pro Met Ile Leu  
 465 470 475 480  
 Ala Leu Ala Arg Pro Asp Pro Lys Lys Asn Ile Thr Thr Leu Val Lys  
 485 490 495  
 Ala Phe Gly Glu Cys Arg Pro Leu Arg Glu Leu Ala Asn Leu Ala Leu  
 500 505 510  
 Ile Met Gly Asn Arg Asp Gly Ile Asp Glu Met Ser Ser Thr Ser Ser  
 515 520 525  
 Ser Val Leu Leu Ser Val Leu Lys Leu Ile Asp Lys Tyr Asp Leu Tyr  
 530 535 540  
 Gly Gln Val Ala Tyr Pro Lys His His Lys Gln Ser Asp Val Pro Asp  
 545 550 555 560  
 Ile Tyr Arg Leu Ala Ala Lys Ser Lys Gly Val Phe Ile Asn Pro Ala  
 565 570 575  
 Ile Ile Glu Pro Phe Gly Leu Thr Leu Ile Glu Ala Ala Ala His Gly  
 580 585 590

Leu Pro Met Val Ala Thr Lys Asn Gly Gly Pro Val Asp Ile His Arg  
 595 600 605  
 Val Leu Asp Asn Gly Leu Leu Val Asp Pro His Asp Gln Gln Ser Ile  
 610 615 620  
 Ser Glu Ala Leu Leu Lys Leu Val Ala Asp Lys His Leu Trp Ala Lys  
 625 630 635 640  
 Cys Arg Gln Asn Gly Leu Lys Asn Ile His Gln Phe Ser Trp Pro Glu  
 645 650 655  
 His Cys Lys Thr Tyr Leu Ser Arg Ile Thr Ser Phe Lys Pro Arg His  
 660 665 670  
 Pro Gln Trp Gln Ser Asp Asp Gly Gly Asp Asn Ser Glu Pro Glu Ser  
 675 680 685  
 Pro Ser Asp Ser Leu Arg Asp Ile Gln Asp Ile Ser Leu Asn Leu Lys  
 690 695 700  
 Phe Ser Phe Asp Gly Ser Gly Asn Asp Asn Tyr Met Asn Gln Glu Gly  
 705 710 715 720  
 Ser Ser Met Asp Arg Lys Ser Lys Ile Glu Ala Ala Val Gln Asn Trp  
 725 730 735  
 Ser Lys Gly Lys Asp Ser Arg Lys Met Gly Ser Leu Glu Arg Ser Glu  
 740 745 750  
 Val Asn Ser Gly Lys Phe Pro Ala Val Arg Arg Arg Lys Phe Ile Val  
 755 760 765  
 Val Ile Ala Leu Asp Phe Asp Gly Glu Glu Asp Thr Leu Glu Ala Thr  
 770 775 780  
 Lys Arg Ile Leu Asp Ala Val Glu Lys Glu Arg Ala Glu Gly Ser Val  
 785 790 795 800  
 Gly Phe Ile Leu Ser Thr Ser Leu Thr Ile Ser Glu Val Gln Ser Phe  
 805 810 815  
 Leu Val Ser Gly Gly Leu Asn Pro Asn Asp Phe Asp Ala Phe Ile Cys  
 820 825 830  
 Asn Ser Gly Ser Asp Leu His Tyr Thr Ser Leu Asn Asn Glu Asp Gly  
 835 840 845

047-E2F-PCT.ST25.txt

Pro Phe Val Val Asp Phe Tyr Tyr His Ser His Ile Glu Tyr Arg Trp  
850 855 860

Gly Gly Glu Gly Leu Arg Lys Thr Leu Ile Arg Trp Ala Ser Ser Leu  
865 870 875 880

Asn Glu Lys Lys Ala Asp Asn Asp Glu Gln Ile Val Thr Leu Ala Glu  
885 890 895

His Leu Ser Thr Asp Tyr Cys Tyr Thr Phe Thr Val Lys Lys Pro Ala  
900 905 910

Ala Val Pro Pro Val Arg Glu Leu Arg Lys Leu Leu Arg Ile Gln Ala  
915 920 925

Leu Arg Cys His Val Val Tyr Ser Gln Asn Gly Thr Arg Ile Asn Val  
930 935 940

Ile Pro Val Leu Ala Ser Arg Ile Gln Ala Leu Arg Tyr Leu Phe Val  
945 950 955 960

Arg Trp Gly Ile Asp Met Ala Lys Met Ala Val Phe Val Gly Glu Ser  
965 970 975

Gly Asp Thr Asp Tyr Glu Gly Leu Leu Gly Gly Leu His Lys Ser Val  
980 985 990

Val Leu Lys Gly Val Ser Cys Ser Ala Cys Leu His Ala Asn Arg Ser  
995 1000 1005

Tyr Pro Leu Thr Asp Val Ile Ser Phe Glu Ser Asn Asn Val Val  
1010 1015 1020

His Ala Ser Pro Asp Ser Asp Val Arg Asp Ala Leu Lys Lys Leu  
1025 1030 1035

Glu Leu Leu Lys Asp  
1040

<210> 1991

<211> 213

<212> DNA

<213> Arabidopsis thaliana

<400> 1991  
 atggtgatga tgatgatgat gaggattgtg tgtgaatgga gcgatgaaga ttgcatgaag 60  
 gttgatgaag acaagcttga tgtgtctttt gttatccctc gtttgggcaa cttcgatcct 120  
 ttggcaagct tcggttcccc tcggaatcag cagattatga ttactatagc tcttatatgt 180  
 ttatgttccg tgtttacttt gtttccggtt tag 213

<210> 1992

<211> 70

<212> PRT

<213> *Arabidopsis thaliana*

<400> 1992

Met Val Met Met Met Met Met Arg Ile Val Cys Glu Trp Ser Asp Glu  
 1 5 10 15

Asp Cys Met Lys Val Asp Glu Asp Lys Leu Asp Val Ser Phe Val Ile  
 20 25 30

Pro Arg Leu Gly Asn Phe Asp Pro Leu Ala Ser Phe Gly Ser Pro Arg  
 35 40 45

Asn Gln Gln Ile Met Ile Thr Ile Ala Leu Ile Cys Leu Cys Ser Val  
 50 55 60

Phe Thr Leu Phe Pro Val  
 65 70

<210> 1993

<211> 768

<212> DNA

<213> *Arabidopsis thaliana*

<400> 1993  
 atggcgtcat tgtcgttacc ttgcgtcaag atctgtgctc tgaacaggcg ggtcggatct 60  
 ctccctggaa tctctactca aagatggcag ccgcaacca atgggatctc ctttccctcc 120  
 gatgtttctc agaatcattc tgcattctgg aggttgcgtg caacaactaa tgaggttgtt 180  
 tctaactcca ctccaatgac taatggtggg tatatgaacg gaaaagcgaa aaccaatggt 240  
 cctgaacccg ccgagctctc tgaatttatg gctaaagtct ctggtcttct taagcttgtg 300

gattcaaaag acatagtgga acttgaacta aagcagctcg actgtgagat cgttattcga 360  
aagaaggaag ctttacagca agctgtacca ccagctccag tttatcactc aatgcctcct 420  
gtaatggcag acttttcaat gcctccagct caaccagtgg ctcttcctcc ttctcctact 480  
cctacctcaa cgcttgcaac agcaaaacca acatccgccc catcctcgtc tcatcctcca 540  
ctcaagagtc ccatggctgg tactttctat agatctcctg gacccggtga accccctttt 600  
gtaaagggtg gagataaggt acagaagggt caaattgttt gtattatcga agctatgaaa 660  
ctgatgaacg agattgaggc tgagaagtca ggaaccatca tggaactact ggctgaagat 720  
ggaaaaccag tcagcgttga cagcctctt tttgtcatcg caccttga 768

<210> 1994

<211> 255

<212> PRT

<213> Arabidopsis thaliana

<400> 1994

Met Ala Ser Leu Ser Val Pro Cys Val Lys Ile Cys Ala Leu Asn Arg  
1 5 10 15

Arg Val Gly Ser Leu Pro Gly Ile Ser Thr Gln Arg Trp Gln Pro Gln  
20 25 30

Pro Asn Gly Ile Ser Phe Pro Ser Asp Val Ser Gln Asn His Ser Ala  
35 40 45

Phe Trp Arg Leu Arg Ala Thr Thr Asn Glu Val Val Ser Asn Ser Thr  
50 55 60

Pro Met Thr Asn Gly Gly Tyr Met Asn Gly Lys Ala Lys Thr Asn Val  
65 70 75 80

Pro Glu Pro Ala Glu Leu Ser Glu Phe Met Ala Lys Val Ser Gly Leu  
85 90 95

Leu Lys Leu Val Asp Ser Lys Asp Ile Val Glu Leu Glu Leu Lys Gln  
100 105 110

Leu Asp Cys Glu Ile Val Ile Arg Lys Lys Glu Ala Leu Gln Gln Ala  
115 120 125

Val Pro Pro Ala Pro Val Tyr His Ser Met Pro Pro Val Met Ala Asp  
130 135 140



047-E2F-PCT.ST25.txt

Phe Ser Met Pro Pro Ala Gln Pro Val Ala Leu Pro Pro Ser Pro Thr  
145 150 155 160

Pro Thr Ser Thr Pro Ala Thr Ala Lys Pro Thr Ser Ala Pro Ser Ser  
165 170 175

Ser His Pro Pro Leu Lys Ser Pro Met Ala Gly Thr Phe Tyr Arg Ser  
180 185 190

Pro Gly Pro Gly Glu Pro Pro Phe Val Lys Val Gly Asp Lys Val Gln  
195 200 205

Lys Gly Gln Ile Val Cys Ile Ile Glu Ala Met Lys Leu Met Asn Glu  
210 215 220

Ile Glu Ala Glu Lys Ser Gly Thr Ile Met Glu Leu Leu Ala Glu Asp  
225 230 235 240

Gly Lys Pro Val Ser Val Asp Thr Pro Leu Phe Val Ile Ala Pro  
245 250 255

<210> 1995

<211> 822

<212> DNA

<213> Arabidopsis thaliana

<400> 1995

atggccttttc ttcctttctaa tctatcatct ccgtcaatcc atcttcaaac cggaaaatac	60
ccaaacctta aaccatttt cagtcaatct ctatcgctct cgtcttctgt tagctacgaa	120
tttgtagaag agaattctatc tacactctct ctattgagca tccagtctcc tcctcttaaa	180
gacacgcaag ttcagacaag acacagttcg caagataagc ataataacca cgacagagat	240
gaattctata tcaatcttgg tgtcgctgtc cgtacacttc gtgaagattt gcctttgctc	300
ttcactagag atcttaatta cgacatctac agggatgata taacatttgt ggatccgatg	360
aacacattca ctgggatgga caactacaag attatcttct gggcactcag atttcatggg	420
aagatattgt tcagagatat ctacttgag atcttcagag tatggcaacc atcagagaac	480
atgatttctca tcaggtggaa tctcaagggg gtgcctagag ttccatggga agctaaagga	540
gagtttcaag gcacttctcg gtataaactc gaccgtaatg gcaaaatcta tgagcataaa	600
gtcgataact tggccttcaa tttccctcaa cagctcaaac ctgcagcttc ggttttggat	660

ttggtgactg cttcccctgc aagcagtcct aatcctacgt tctttttcag tcctgtggac 720  
 tcttattcat cttcatgggt taagttttat caagcgggtga gagggacatt ggagacagag 780  
 gatatgtttg taacaacaga ctgttttagtc acatgctcat ag 822

<210> 1996

<211> 273

<212> PRT

<213> Arabidopsis thaliana

<400> 1996

Met Ala Phe Leu Leu Ser Asn Leu Ser Ser Pro Ser Ile His Leu Gln  
 1 5 10 15

Thr Gly Lys Tyr Pro Asn Leu Lys Pro Ile Phe Ser Gln Ser Leu Ser  
 20 25 30

Ser Ser Ser Ser Val Ser Tyr Glu Phe Val Glu Glu Asn Leu Ser Thr  
 35 40 45

Leu Ser Leu Leu Ser Ile Gln Ser Pro Pro Leu Lys Asp Thr Gln Val  
 50 55 60

Gln Thr Arg His Ser Ser Gln Asp Lys His Asn Asn His Asp Arg Asp  
 65 70 75 80

Glu Phe Tyr Ile Asn Leu Gly Val Ala Val Arg Thr Leu Arg Glu Asp  
 85 90 95

Leu Pro Leu Leu Phe Thr Arg Asp Leu Asn Tyr Asp Ile Tyr Arg Asp  
 100 105 110

Asp Ile Thr Phe Val Asp Pro Met Asn Thr Phe Thr Gly Met Asp Asn  
 115 120 125

Tyr Lys Ile Ile Phe Trp Ala Leu Arg Phe His Gly Lys Ile Leu Phe  
 130 135 140

Arg Asp Ile Ser Leu Glu Ile Phe Arg Val Trp Gln Pro Ser Glu Asn  
 145 150 155 160

Met Ile Leu Ile Arg Trp Asn Leu Lys Gly Val Pro Arg Val Pro Trp  
 165 170 175

Glu Ala Lys Gly Glu Phe Gln Gly Thr Ser Arg Tyr Lys Leu Asp Arg  
180 185 190

Asn Gly Lys Ile Tyr Glu His Lys Val Asp Asn Leu Ala Phe Asn Phe  
195 200 205

Pro Gln Gln Leu Lys Pro Ala Ala Ser Val Leu Asp Leu Val Thr Ala  
210 215 220

Ser Pro Ala Ser Ser Pro Asn Pro Thr Phe Phe Phe Ser Pro Val Asp  
225 230 235 240

Ser Tyr Ser Ser Ser Trp Val Lys Phe Tyr Gln Ala Val Arg Gly Thr  
245 250 255

Leu Glu Thr Glu Asp Met Phe Val Thr Thr Asp Cys Leu Val Thr Cys  
260 265 270

Ser

<210> 1997

<211> 750

<212> DNA

<213> Arabidopsis thaliana

<400> 1997

atgcaactct cactggttca agtctcttca gtgtccaact tcagatccca atcaacgatt	60
cctactctct ccaactcaaa cccatcttgt ttacttcttc aaaagtccat ctttcctggg	120
tccaagttaa ccctccatcg aatttttcgt tatccgaaga aaatctcaaa tggctctact	180
cgtgcttcac tgcttgagac ccctatctta tgggctgggc ggatttgtgt cttctacgct	240
ctcgtgaaag ctggctttgc tggatccaag tctaacccta tcgtttctgg tttggatact	300
ggtggtgttg atgttgaata tgatgatggt gctgatcttg gtttctcaaa gtggcttcag	360
aacattaagg gcaacaaacc agataaggat gcagctgata agaggaagct agtgagcaaa	420
tggcacccaa cgacaaaggg aacacttaga aggaactaca ggataccttc gaaagccgaa	480
ggaaaccggt tgcttaaagc cattgcgtct cttctctcag atgatgatca ttttagagat	540
gcaacatctc acaagggttg tcaaatacgg agggagagtg cgcacggtca aagcgtatgt	600
tgcaacaatg tgagagctct gtttgatgag ttaccgacgc cacatttggt ggtggagatc	660
acaccttttc cagccggacc gctcacagag aatgattacc ttaaggctga gaagctggag	720

aggattctta ggtctggcgc caacatttga

750

&lt;210&gt; 1998

&lt;211&gt; 249

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 1998

Met Gln Leu Ser Leu Val Gln Val Ser Ser Val Ser Asn Phe Arg Ser  
 1 5 10 15

Gln Ser Thr Ile Pro Thr Leu Ser Asn Ser Asn Pro Ser Cys Leu Leu  
 20 25 30

Leu Gln Lys Ser Ile Phe Pro Gly Ser Lys Leu Thr Leu His Arg Ile  
 35 40 45

Phe Arg Tyr Pro Lys Lys Ile Ser Asn Gly Ser Thr Arg Ala Ser Leu  
 50 55 60

Leu Glu Thr Pro Ile Leu Trp Ala Gly Arg Ile Cys Val Phe Tyr Ala  
 65 70 75 80

Leu Val Lys Ala Gly Phe Ala Gly Ser Lys Ser Asn Pro Ile Val Ser  
 85 90 95

Gly Leu Asp Thr Gly Gly Val Asp Val Glu Tyr Asp Asp Gly Ala Asp  
 100 105 110

Leu Gly Phe Ser Lys Trp Leu Gln Asn Ile Lys Gly Asn Lys Pro Asp  
 115 120 125

Lys Asp Ala Ala Asp Lys Arg Lys Leu Val Ser Lys Trp His Pro Thr  
 130 135 140

Thr Lys Gly Thr Leu Arg Arg Asn Tyr Arg Ile Pro Ser Lys Ala Glu  
 145 150 155 160

Gly Asn Arg Leu Leu Lys Ala Ile Ala Ser Leu Leu Ser Asp Asp Asp  
 165 170 175

His Phe Arg Asp Ala Thr Ser His Lys Gly Cys Gln Ile Arg Arg Glu  
 180 185 190

Ser Ala His Gly Gln Ser Val Cys Cys Asn Asn Val Arg Ala Leu Phe  
 195 200 205

Asp Glu Leu Pro Thr Pro His Leu Val Val Glu Ile Thr Pro Phe Pro  
 210 215 220

Ala Gly Pro Leu Thr Glu Asn Asp Tyr Leu Lys Ala Glu Lys Leu Glu  
 225 230 235 240

Arg Ile Leu Arg Ser Gly Ala Asn Ile  
 245

<210> 1999

<211> 2739

<212> DNA

<213> Arabidopsis thaliana

<400> 1999

atgttttggg ttttggttct gttgagcttc attgttctta ttggtgatgg gatgatttca	60
gagggagctg gtttaaggcc tcgttatggt gatgttggag caatattcag tttagggact	120
ttacaggggtg aagttacaaa tattgctatg aaagctgcag aggaagatgt aaattctgat	180
cctagcttcc ttggtggatc aaaattgcgt ataacgacgt atgatgcaaa gcgtaatgga	240
ttcctcacca tcatgggagc tttgcaattc atggagactg atgctgtggc tatcattggt	300
cctcagacat caataatggc tcatgtactg tctcatcttg caaatgagct tagtgtgcct	360
atgttgtcat tcacagcttt agaccctagt ctctcggcgc ttcagttccc gttctttgtc	420
cagacagcac ctagtgatct ctttctgatg cgtgccattg cggaatgat aagttactac	480
ggttggtcag aggtgattgc attgtataat gatgatgaca acagtagaaa cggataaca	540
gctttaggcg atgagctcga aggaaggcgc tgcaagatth catacaaggc tgtgcttcct	600
ttggatgtgg tgattacgag tcctcgtgag attataaatg agttgggttaa gattcaaggg	660
atggaatctc gggtaatcat tgtgaacact ttccctaaaa caggtaagaa aatctttgag	720
gaagcccaga agcttggcat gatggagaaa ggctatgttt ggatagctac aacttggttg	780
acttctctgt tagattctgt taaccggtta cctgccaaaga ctgctgaatc tcttagaggc	840
gtgcttactc ttcgtattca cagccaaat tcaaaaaaga aaaaagatth cgtggcacgg	900
tggaacaagt tgagtaacgg gactgtcggg ttaaactgtt atgggtctcta tgcttatgat	960
actgtctgga tcattgctcg agctgttaag agacttctag atagcagagc taacatttcc	1020
ttctctagtg acccaaagtt aaccagcatg aaggaggagg ggtcactgaa tctaggtgca	1080

## 047-E2F-PCT.ST25.txt

```

ttgagcatat ttgaccaagg atcacaatTT cttgattata ttgtgaatac aaatatgact 1140
ggtgttacag gtcaaataca gtttcttcct gacagatcaa tgatacagcc ctcatatgac 1200
atcataaacg tggttgatga cgggttttagg cagataggggt attggtctaa ccattccggg 1260
ctctctatta tacctccaga gtcactatac aaaaagcttt caaatcgttc gagctcaaac 1320
caacatctga acaatgtgac ttggcctggg gggacttctg agacaccacg tggttggggt 1380
tttcctaaca acgggagacg attgagaatc ggtgtaccg atagagcaag ttttaaggag 1440
tttgtgtcaa ggttgatgg aagcaacaaa gtgcaagggt atgccattga tgtctttgaa 1500
gctgcggtaa aactgatttc ttatccgggt cctcatgagt tcgtcctatt tggagacggt 1560
ctcaagaacc caaacttcaa tgaatttgtc aacaatgtca ctattgggggt atttgatgct 1620
gttgtaggag acatagctat tgttacgaaa cgaacaagga ttgtggattt cactcagcct 1680
tacatagaat cagggttgt cgtggttgct cctgtcaca agctaaatga tactccgtgg 1740
gcgtttttac gcccttttac acctccaatg tgggctgtta cagcagcttt tttcctcatc 1800
gttgatcag taatatggat tcttgaacat agaatcaacg atgagttccg cggacctcca 1860
aggaaacaaa ttgttactat tctctggttc agcttctcca cgatgttttt ctcccacaga 1920
gagaacacag tgagtacact cggctcgtgct gttctgctca tctggctatt tgtggtacta 1980
atcataacat caagctacac agcgagtctt acatcgattc ttacagtga acagctaaac 2040
tcaccaatca gaggagtaga cacactcatc agcagcagtg gacgagttgg gtttcaggta 2100
ggttcttatg cagaaaacta catgattgat gagcttaaca ttgccagatc cagacttgta 2160
ccactcggct ctctaaaga atacgtgca gctcttcaaa acggaactgt tgctgcaatt 2220
gttgatgagc gtccttacgt tgatctcttc ctctcagaat tctgcggatt tgccattaga 2280
ggccaagaat tcaccagaag tggctgggga tttgcatttc caagagactc tccattagca 2340
atcgacatgt caaccgcat cttaggtcta tcagaaaccg gacagcttca aaagatccat 2400
gacaagtggc tttcaagatc taactgcagt aacctcaacg gttcagtgtc agatgaagat 2460
tcagaacagc ttaaactccg aagcttctgg ggattattcc ttgtgtgtgg gatctcttgt 2520
tttatcgctc tcttcatcta cttcttcaag atagtccgag acttcttccg ccacggcaaa 2580
tatgatgaag aagccacagt accttcacca gaaagttcac gttctaaatc attgcagaca 2640
tttctagctt attttgatga aaaagaagac gaatccaaga gaaggatgaa gcgtaaacga 2700
aacgatgatc tttctttaaa gccttctaga ccaatatga 2739

```

&lt;210&gt; 2000

&lt;211&gt; 912

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2000

Met Phe Trp Val Leu Val Leu Leu Ser Phe Ile Val Leu Ile Gly Asp  
 1 5 10 15

Gly Met Ile Ser Glu Gly Ala Gly Leu Arg Pro Arg Tyr Val Asp Val  
 20 25 30

Gly Ala Ile Phe Ser Leu Gly Thr Leu Gln Gly Glu Val Thr Asn Ile  
 35 40 45

Ala Met Lys Ala Ala Glu Glu Asp Val Asn Ser Asp Pro Ser Phe Leu  
 50 55 60

Gly Gly Ser Lys Leu Arg Ile Thr Thr Tyr Asp Ala Lys Arg Asn Gly  
 65 70 75 80

Phe Leu Thr Ile Met Gly Ala Leu Gln Phe Met Glu Thr Asp Ala Val  
 85 90 95

Ala Ile Ile Gly Pro Gln Thr Ser Ile Met Ala His Val Leu Ser His  
 100 105 110

Leu Ala Asn Glu Leu Ser Val Pro Met Leu Ser Phe Thr Ala Leu Asp  
 115 120 125

Pro Ser Leu Ser Ala Leu Gln Phe Pro Phe Phe Val Gln Thr Ala Pro  
 130 135 140

Ser Asp Leu Phe Leu Met Arg Ala Ile Ala Glu Met Ile Ser Tyr Tyr  
 145 150 155 160

Gly Trp Ser Glu Val Ile Ala Leu Tyr Asn Asp Asp Asp Asn Ser Arg  
 165 170 175

Asn Gly Ile Thr Ala Leu Gly Asp Glu Leu Glu Gly Arg Arg Cys Lys  
 180 185 190

Ile Ser Tyr Lys Ala Val Leu Pro Leu Asp Val Val Ile Thr Ser Pro  
 195 200 205

Arg Glu Ile Ile Asn Glu Leu Val Lys Ile Gln Gly Met Glu Ser Arg  
 210 215 220

Val Ile Ile Val Asn Thr Phe Pro Lys Thr Gly Lys Lys Ile Phe Glu  
 Page 2921

225                      230                      235                      240  
 Glu Ala Gln Lys Leu Gly Met Met Glu Lys Gly Tyr Val Trp Ile Ala  
                                  245                      250                      255  
 Thr Thr Trp Leu Thr Ser Leu Leu Asp Ser Val Asn Pro Leu Pro Ala  
                                  260                      265                      270  
 Lys Thr Ala Glu Ser Leu Arg Gly Val Leu Thr Leu Arg Ile His Thr  
                                  275                      280                      285  
 Pro Asn Ser Lys Lys Lys Lys Asp Phe Val Ala Arg Trp Asn Lys Leu  
                                  290                      295                      300  
 Ser Asn Gly Thr Val Gly Leu Asn Val Tyr Gly Leu Tyr Ala Tyr Asp  
 305                                   310                      315                      320  
 Thr Val Trp Ile Ile Ala Arg Ala Val Lys Arg Leu Leu Asp Ser Arg  
                                  325                      330                      335  
 Ala Asn Ile Ser Phe Ser Ser Asp Pro Lys Leu Thr Ser Met Lys Gly  
                                  340                      345                      350  
 Gly Gly Ser Leu Asn Leu Gly Ala Leu Ser Ile Phe Asp Gln Gly Ser  
                                  355                      360                      365  
 Gln Phe Leu Asp Tyr Ile Val Asn Thr Asn Met Thr Gly Val Thr Gly  
                                  370                      375                      380  
 Gln Ile Gln Phe Leu Pro Asp Arg Ser Met Ile Gln Pro Ser Tyr Asp  
 385                                   390                      395                      400  
 Ile Ile Asn Val Val Asp Asp Gly Phe Arg Gln Ile Gly Tyr Trp Ser  
                                  405                      410                      415  
 Asn His Ser Gly Leu Ser Ile Ile Pro Pro Glu Ser Leu Tyr Lys Lys  
                                  420                      425                      430  
 Leu Ser Asn Arg Ser Ser Ser Asn Gln His Leu Asn Asn Val Thr Trp  
                                  435                      440                      445  
 Pro Gly Gly Thr Ser Glu Thr Pro Arg Gly Trp Val Phe Pro Asn Asn  
                                  450                      455                      460  
 Gly Arg Arg Leu Arg Ile Gly Val Pro Asp Arg Ala Ser Phe Lys Glu  
 465                                   470                      475                      480



Phe Val Ser Arg Leu Asp Gly Ser Asn Lys Val Gln Gly Tyr Ala Ile  
 485 490 495  
 Asp Val Phe Glu Ala Ala Val Lys Leu Ile Ser Tyr Pro Val Pro His  
 500 505 510  
 Glu Phe Val Leu Phe Gly Asp Gly Leu Lys Asn Pro Asn Phe Asn Glu  
 515 520 525  
 Phe Val Asn Asn Val Thr Ile Gly Val Phe Asp Ala Val Val Gly Asp  
 530 535 540  
 Ile Ala Ile Val Thr Lys Arg Thr Arg Ile Val Asp Phe Thr Gln Pro  
 545 550 555 560  
 Tyr Ile Glu Ser Gly Leu Val Val Val Ala Pro Val Thr Lys Leu Asn  
 565 570 575  
 Asp Thr Pro Trp Ala Phe Leu Arg Pro Phe Thr Pro Pro Met Trp Ala  
 580 585 590  
 Val Thr Ala Ala Phe Phe Leu Ile Val Gly Ser Val Ile Trp Ile Leu  
 595 600 605  
 Glu His Arg Ile Asn Asp Glu Phe Arg Gly Pro Pro Arg Lys Gln Ile  
 610 615 620  
 Val Thr Ile Leu Trp Phe Ser Phe Ser Thr Met Phe Phe Ser His Arg  
 625 630 635 640  
 Glu Asn Thr Val Ser Thr Leu Gly Arg Ala Val Leu Leu Ile Trp Leu  
 645 650 655  
 Phe Val Val Leu Ile Ile Thr Ser Ser Tyr Thr Ala Ser Leu Thr Ser  
 660 665 670  
 Ile Leu Thr Val Gln Gln Leu Asn Ser Pro Ile Arg Gly Val Asp Thr  
 675 680 685  
 Leu Ile Ser Ser Ser Gly Arg Val Gly Phe Gln Val Gly Ser Tyr Ala  
 690 695 700  
 Glu Asn Tyr Met Ile Asp Glu Leu Asn Ile Ala Arg Ser Arg Leu Val  
 705 710 715 720  
 Pro Leu Gly Ser Pro Lys Glu Tyr Ala Ala Ala Leu Gln Asn Gly Thr  
 725 730 735

047-E2F-PCT.ST25.txt

Val Ala Ala Ile Val Asp Glu Arg Pro Tyr Val Asp Leu Phe Leu Ser  
740 745 750  
Glu Phe Cys Gly Phe Ala Ile Arg Gly Gln Glu Phe Thr Arg Ser Gly  
755 760 765  
Trp Gly Phe Ala Phe Pro Arg Asp Ser Pro Leu Ala Ile Asp Met Ser  
770 775 780  
Thr Ala Ile Leu Gly Leu Ser Glu Thr Gly Gln Leu Gln Lys Ile His  
785 790 795 800  
Asp Lys Trp Leu Ser Arg Ser Asn Cys Ser Asn Leu Asn Gly Ser Val  
805 810 815  
Ser Asp Glu Asp Ser Glu Gln Leu Lys Leu Arg Ser Phe Trp Gly Leu  
820 825 830  
Phe Leu Val Cys Gly Ile Ser Cys Phe Ile Ala Leu Phe Ile Tyr Phe  
835 840 845  
Phe Lys Ile Val Arg Asp Phe Phe Arg His Gly Lys Tyr Asp Glu Glu  
850 855 860  
Ala Thr Val Pro Ser Pro Glu Ser Ser Arg Ser Lys Ser Leu Gln Thr  
865 870 875 880  
Phe Leu Ala Tyr Phe Asp Glu Lys Glu Asp Glu Ser Lys Arg Arg Met  
885 890 895  
Lys Arg Lys Arg Asn Asp Asp Leu Ser Leu Lys Pro Ser Arg Pro Ile  
900 905 910

<210> 2001

<211> 645

<212> DNA

<213> Arabidopsis thaliana

<400> 2001

atggtttgtga aactatatgg acaggttaaca gcagcttgtc cacaaagagt cttgctttgt	60
tttctcgaga aaggaattga atttgagatt attcatatcg atcttgatac atttgagcaa	120
aaaaaaccag aacatcttct tcgtcagcca tttggtcaag ttccagccat agaagatgga	180
gatttcaagc tttttgaatc acgagccatc gcgagatact acgctaccaa gttcgcggac	240

047-E2F-PCT.ST25.txt

caaggcacga accttttggg caagtctcta gagcaccgag ccatcgtgga ccagtgggct 300  
gacgtggaga cctattactt caacgttctg gcccaacccc tcgtgattaa cctaatacgc 360  
aagcctaggt taggcgagaa atgtgacgtc gttttgggtcg aggatctcaa agtgaagcta 420  
ggagtgggtct tggacatata caataaccgg ctttcttcga accgggttttt ggctggtgaa 480  
gaattcacta tggctgattt gacgcacatg ccggcgatgg ggtacttgat gagtataacc 540  
gatataaacc agatgggttaa ggctcgggggt agttttaacc ggtgggtggga agagatttcg 600  
gatagaccgt cttggaagaa gcttatggtg ctggctggtc actga 645

<210> 2002

<211> 214

<212> PRT

<213> Arabidopsis thaliana

<400> 2002

Met Val Val Lys Leu Tyr Gly Gln Val Thr Ala Ala Cys Pro Gln Arg  
1 5 10 15  
Val Leu Leu Cys Phe Leu Glu Lys Gly Ile Glu Phe Glu Ile Ile His  
20 25 30  
Ile Asp Leu Asp Thr Phe Glu Gln Lys Lys Pro Glu His Leu Leu Arg  
35 40 45  
Gln Pro Phe Gly Gln Val Pro Ala Ile Glu Asp Gly Asp Phe Lys Leu  
50 55 60  
Phe Glu Ser Arg Ala Ile Ala Arg Tyr Tyr Ala Thr Lys Phe Ala Asp  
65 70 75 80  
Gln Gly Thr Asn Leu Leu Gly Lys Ser Leu Glu His Arg Ala Ile Val  
85 90 95  
Asp Gln Trp Ala Asp Val Glu Thr Tyr Tyr Phe Asn Val Leu Ala Gln  
100 105 110  
Pro Leu Val Ile Asn Leu Ile Ile Lys Pro Arg Leu Gly Glu Lys Cys  
115 120 125  
Asp Val Val Leu Val Glu Asp Leu Lys Val Lys Leu Gly Val Val Leu  
130 135 140

047-E2F-PCT.ST25.txt

Asp Ile Tyr Asn Asn Arg Leu Ser Ser Asn Arg Phe Leu Ala Gly Glu  
145 150 155 160

Glu Phe Thr Met Ala Asp Leu Thr His Met Pro Ala Met Gly Tyr Leu  
165 170 175

Met Ser Ile Thr Asp Ile Asn Gln Met Val Lys Ala Arg Gly Ser Phe  
180 185 190

Asn Arg Trp Trp Glu Glu Ile Ser Asp Arg Pro Ser Trp Lys Lys Leu  
195 200 205

Met Val Leu Ala Gly His  
210

<210> 2003

<211> 1026

<212> DNA

<213> Arabidopsis thaliana

<400> 2003

atggatcacg cagcagatgc tcaccgtacg gatttgatga ccattacaag attcgtgttg	60
aatgaacaat caaagtatcc agaatctcgt ggtgatttca ccattttgct tagtcacatc	120
gttttggtt gcaaattcgt ttgcagtgtt gtttaataagg ctggtttggc taagttaatt	180
ggacttgcag gggaaacaaa cattcagggg gaagagcaaa agaaacttga tgtgctctct	240
aatgatgtct ttgtcaacgc tttggttagc agtggttagaa cttctgttct tgtctcggag	300
gaagatgagg aagctacgtt tgtggagcca tccaagcgtg gaaagtactg tgttggtttt	360
gatccgcttg atggatcttc aaacattgac tgtggtgttt ccattggcac aatttttgga	420
atttacacgt tggaccacac tgatgagcca accactgcag atgttctgaa acctgggaat	480
gaaatggtgg ctgcaggtta ttgtatgtac ggaagctcct gcatgcttgt gttgagcact	540
ggaaccggtg tccacggatt tacactggac ccatctctag gagagtcat tctaactcac	600
ccggacatta agattccaaa taagggaac atttattcgg tgaatgaagg caatgcgcag	660
aactgggatg gtccaactac aaagtatgta gagaaatgca agtttcctaa agatggttct	720
cctgcaaagt ctctgagata cgtaggaagt atggtagctg atgttcatcg tacactactt	780
tatggaggaa tcttcttgta cccggctgac aagaaaagcc ccaatggaaa attgcgtgtc	840
ttgtatgaag ttttccgat gtcgtttttg atggagcaag ccggaggtca ggcctttacg	900
ggaaagaaaa gggcgctaga cttgtcccg gagaagatcc atgagcgttc tccgatattt	960

047-E2F-PCT.ST25.txt

cttggtagct acgatgatgt agaagagatt aaagctctct atgctgagga ggaaaagaag 1020  
aactaa 1026

<210> 2004

<211> 341

<212> PRT

<213> Arabidopsis thaliana

<400> 2004

Met Asp His Ala Ala Asp Ala His Arg Thr Asp Leu Met Thr Ile Thr  
1 5 10 15

Arg Phe Val Leu Asn Glu Gln Ser Lys Tyr Pro Glu Ser Arg Gly Asp  
20 25 30

Phe Thr Ile Leu Leu Ser His Ile Val Leu Gly Cys Lys Phe Val Cys  
35 40 45

Ser Ala Val Asn Lys Ala Gly Leu Ala Lys Leu Ile Gly Leu Ala Gly  
50 55 60

Glu Thr Asn Ile Gln Gly Glu Glu Gln Lys Lys Leu Asp Val Leu Ser  
65 70 75 80

Asn Asp Val Phe Val Asn Ala Leu Val Ser Ser Gly Arg Thr Ser Val  
85 90 95

Leu Val Ser Glu Glu Asp Glu Glu Ala Thr Phe Val Glu Pro Ser Lys  
100 105 110

Arg Gly Lys Tyr Cys Val Val Phe Asp Pro Leu Asp Gly Ser Ser Asn  
115 120 125

Ile Asp Cys Gly Val Ser Ile Gly Thr Ile Phe Gly Ile Tyr Thr Leu  
130 135 140

Asp His Thr Asp Glu Pro Thr Thr Ala Asp Val Leu Lys Pro Gly Asn  
145 150 155 160

Glu Met Val Ala Ala Gly Tyr Cys Met Tyr Gly Ser Ser Cys Met Leu  
165 170 175

Val Leu Ser Thr Gly Thr Gly Val His Gly Phe Thr Leu Asp Pro Ser

180

185

190

Leu Gly Glu Phe Ile Leu Thr His Pro Asp Ile Lys Ile Pro Asn Lys  
 195 200 205

Gly Asn Ile Tyr Ser Val Asn Glu Gly Asn Ala Gln Asn Trp Asp Gly  
 210 215 220

Pro Thr Thr Lys Tyr Val Glu Lys Cys Lys Phe Pro Lys Asp Gly Ser  
 225 230 235 240

Pro Ala Lys Ser Leu Arg Tyr Val Gly Ser Met Val Ala Asp Val His  
 245 250 255

Arg Thr Leu Leu Tyr Gly Gly Ile Phe Leu Tyr Pro Ala Asp Lys Lys  
 260 265 270

Ser Pro Asn Gly Lys Leu Arg Val Leu Tyr Glu Val Phe Pro Met Ser  
 275 280 285

Phe Leu Met Glu Gln Ala Gly Gly Gln Ala Phe Thr Gly Lys Lys Arg  
 290 295 300

Ala Leu Asp Leu Val Pro Glu Lys Ile His Glu Arg Ser Pro Ile Phe  
 305 310 315 320

Leu Gly Ser Tyr Asp Asp Val Glu Glu Ile Lys Ala Leu Tyr Ala Glu  
 325 330 335

Glu Glu Lys Lys Asn  
 340

<210> 2005

<211> 780

<212> DNA

<213> Arabidopsis thaliana

<400> 2005

atggcgacct tgtcgatgac tctgtcaaact ccgaagtcgc tctcagctcc tccacgaaga 60

ctttctccga tcaataacctc cgctttcaca tctacctctt tccgattgcg caccaaactt 120

tccttcgatt caatctcggt ctcgtcttca actcccttct ccgcctcatc gctcctcctt 180

cacacgtctt ataccaaaag aaaccaccgc tgtttctctg ttcaatccaa tgctgaggtg 240

gttactgaac cgcaatcgaa aataacacac aaggtgtatt tcgatataag tgttggcaat 300

047-E2F-PCT.ST25.txt

ccagtgggga agttagctgg gaggattggt attggattgt atggtgatga tgttccccaa 360  
 actgtggaga actttcgtgc tctatgcaca ggtgaaaagg gatttggtta caagggttct 420  
 acattccatc gtgtcatcag agatttcattg attcagggag gagactttga gaagggcaat 480  
 ggaactggag gtaaaagtgt atatggccgt acattcaagg atgagaattt caagttatcc 540  
 catgtcggac caggagttct aagtatggca aatgctggcc ctaatacaaa tggaagtcag 600  
 ttctttatct gcactattaa gacgtcatgg ttggacggaa gacatgtggt gttcgggcaa 660  
 gtaatagaag gaatggaagt ggtgaagctg atagaggaac aagagacaga cagaggagac 720  
 cgtcccagaa agaaagtggg gatagcagac tgtggtcaac ttccaatgtc tgaagcttaa 780

<210> 2006

<211> 259

<212> PRT

<213> Arabidopsis thaliana

<400> 2006

Met Ala Thr Leu Ser Met Thr Leu Ser Asn Pro Lys Ser Leu Ser Ala  
 1 5 10 15

Pro Pro Arg Arg Leu Ser Pro Ile Asn Thr Ser Ala Phe Thr Ser Thr  
 20 25 30

Ser Phe Arg Leu Arg Thr Lys Ser Ser Phe Asp Ser Ile Ser Phe Ser  
 35 40 45

Ser Ser Thr Pro Phe Ser Ala Ser Ser Leu Leu Leu His Thr Ser Tyr  
 50 55 60

Thr Lys Arg Asn His Arg Cys Phe Ser Val Gln Ser Asn Ala Glu Val  
 65 70 75 80

Val Thr Glu Pro Gln Ser Lys Ile Thr His Lys Val Tyr Phe Asp Ile  
 85 90 95

Ser Val Gly Asn Pro Val Gly Lys Leu Ala Gly Arg Ile Val Ile Gly  
 100 105 110

Leu Tyr Gly Asp Asp Val Pro Gln Thr Val Glu Asn Phe Arg Ala Leu  
 115 120 125

Cys Thr Gly Glu Lys Gly Phe Gly Tyr Lys Gly Ser Thr Phe His Arg  
 Page 2929

130

135

Val Ile Arg Asp Phe Met Ile Gln Gly Gly Asp Phe Glu Lys Gly Asn  
145 150 155 160

Gly Thr Gly Gly Lys Ser Val Tyr Gly Arg Thr Phe Lys Asp Glu Asn  
165 170 175

Phe Lys Leu Ser His Val Gly Pro Gly Val Leu Ser Met Ala Asn Ala  
180 185 190

Gly Pro Asn Thr Asn Gly Ser Gln Phe Phe Ile Cys Thr Ile Lys Thr  
195 200 205

Ser Trp Leu Asp Gly Arg His Val Val Phe Gly Gln Val Ile Glu Gly  
210 215 220

Met Glu Val Val Lys Leu Ile Glu Glu Gln Glu Thr Asp Arg Gly Asp  
225 230 235 240

Arg Pro Arg Lys Lys Val Val Ile Ala Asp Cys Gly Gln Leu Pro Met  
245 250 255

Ser Glu Ala

<210> 2007

<211> 1098

<212> DNA

<213> Arabidopsis thaliana

<400> 2007

atgattggag atctaataa gaataacaac aatggcgacg ttgtggataa cgaagtgaac	60
aaccgggttaa gccggtggca tcacaattct tcccggataa ttaggggtttc acgagcttcc	120
ggtggtaaag atcgacacag caaagtcttg acttctaaag gaccacgtga ccgtcgtgtc	180
cggttatcag tctccaccgc tcttcaattc tatgatcttc aagatcgggtt aggttatgat	240
caacctagca aagctgttga atgggttaatc aaagctgctg aagattcaat ctctgagctt	300
ccttcactca acaacactca ttttccgacc gatgacgaga atcaccagaa tcagacatta	360
acaacagttg ctgctaattc cttgtctaaa tctgcttgta gtagcaattc agacacgagc	420
aagaactctt ctggtttgtc tttatcaaga tcggagctta gagataaagc tagagagagg	480
gctagagaga gaacagctaa agagaccaag gaaagagatc ataaccacac ttcgttttacg	540



047-E2F-PCT.ST25.txt

gatttggttaa attccgggtc agatccgggtt aactcaaacc ggcaatggat ggcttcagct 600  
 ccttcttcat ctccaatgga gtatttcagt tcgggtttta ttctcgggtc gggtaacaa 660  
 acccatttcc ctatttcaac aaatttctcat ccttttctcat caatctccga tcatcatcat 720  
 catcatcctc atcatcagca tcaagagttt tcattcgttc ccgaccattt gatatcaccg 780  
 gcagaatcca acggcgaggc attcaatctt gattttaata tgtcaacacc ctccggcgcc 840  
 ggagctgccg tctccgccgc atcaggtggt ggcttcagtg gtttcaacag ggggaccctt 900  
 cagttcaatt caacaaatca gcatcagtc ttcctcgcta atctacagag gtttccaaca 960  
 tcagaaagtg gaggaggtcc acagttctta ttcggtgcac tgcctgcaga gaatcaccac 1020  
 cacaatcacc agtttcagct ttactatgaa aatggatgca gaaactcatc agaacataag 1080  
 ggtaaaggca agaactga 1098

<210> 2008

<211> 365

<212> PRT

<213> Arabidopsis thaliana

<400> 2008

Met Ile Gly Asp Leu Met Lys Asn Asn Asn Asn Gly Asp Val Val Asp  
 1 5 10 15  
 Asn Glu Val Asn Asn Arg Leu Ser Arg Trp His His Asn Ser Ser Arg  
 20 25 30  
 Ile Ile Arg Val Ser Arg Ala Ser Gly Gly Lys Asp Arg His Ser Lys  
 35 40 45  
 Val Leu Thr Ser Lys Gly Pro Arg Asp Arg Arg Val Arg Leu Ser Val  
 50 55 60  
 Ser Thr Ala Leu Gln Phe Tyr Asp Leu Gln Asp Arg Leu Gly Tyr Asp  
 65 70 75 80  
 Gln Pro Ser Lys Ala Val Glu Trp Leu Ile Lys Ala Ala Glu Asp Ser  
 85 90 95  
 Ile Ser Glu Leu Pro Ser Leu Asn Asn Thr His Phe Pro Thr Asp Asp  
 100 105 110

Glu Asn His Gln Asn Gln Thr Leu Thr Thr Val Ala Ala Asn Ser Leu  
 Page 2931

115

120

125

Ser Lys Ser Ala Cys Ser Ser Asn Ser Asp Thr Ser Lys Asn Ser Ser  
 130 135 140  
 Gly Leu Ser Leu Ser Arg Ser Glu Leu Arg Asp Lys Ala Arg Glu Arg  
 145 150 155 160  
 Ala Arg Glu Arg Thr Ala Lys Glu Thr Lys Glu Arg Asp His Asn His  
 165 170 175  
 Thr Ser Phe Thr Asp Leu Leu Asn Ser Gly Ser Asp Pro Val Asn Ser  
 180 185 190  
 Asn Arg Gln Trp Met Ala Ser Ala Pro Ser Ser Ser Pro Met Glu Tyr  
 195 200 205  
 Phe Ser Ser Gly Leu Ile Leu Gly Ser Gly Gln Gln Thr His Phe Pro  
 210 215 220  
 Ile Ser Thr Asn Ser His Pro Phe Ser Ser Ile Ser Asp His His His  
 225 230 235 240  
 His His Pro His His Gln His Gln Glu Phe Ser Phe Val Pro Asp His  
 245 250 255  
 Leu Ile Ser Pro Ala Glu Ser Asn Gly Gly Ala Phe Asn Leu Asp Phe  
 260 265 270  
 Asn Met Ser Thr Pro Ser Gly Ala Gly Ala Ala Val Ser Ala Ala Ser  
 275 280 285  
 Gly Gly Gly Phe Ser Gly Phe Asn Arg Gly Thr Leu Gln Ser Asn Ser  
 290 295 300  
 Thr Asn Gln His Gln Ser Phe Leu Ala Asn Leu Gln Arg Phe Pro Thr  
 305 310 315 320  
 Ser Glu Ser Gly Gly Gly Pro Gln Phe Leu Phe Gly Ala Leu Pro Ala  
 325 330 335  
 Glu Asn His His His Asn His Gln Phe Gln Leu Tyr Tyr Glu Asn Gly  
 340 345 350  
 Cys Arg Asn Ser Ser Glu His Lys Gly Lys Gly Lys Asn  
 355 360 365

&lt;210&gt; 2009

&lt;211&gt; 945

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2009

```

atgggtgggtt ccagagagtt ccgagctgag gaacattcaa atcaattcca ctctatcatc   60
gccatggcca tctggcttgg cgccattcac ttcaacgtcg ctcttgttct ctgttctctc   120
attttccttc ctcttctct atctctcatg gtcttgggct tgctctctct gtttatcttt   180
atcccaatcg atcatcgtag caaatatggt cgtaagctcg ctaggtacat atgcaagcac   240
gcgtgtaatt atttcccgt ctctctgtac gtcgaggatt acgaagcttt ccagcctaata  300
cgtgcctatg tctttgggta tgaaccacat tcggtgctac cgattggagt tgttgctctt   360
tgtgatctca cagggtttat gcctattcct aacattaaag ttcttgcaag tagtgctata   420
ttctacactc cttttctaag gcatatatgg acatggtttag ggctcaccgc tgcttctagg   480
aagaatttca cttccctttt ggattctggc tacagttgtg ttcttgtagc tgggtggtgtg   540
caggagactt ttcatatgca acatgatgct gagaatgtct tcctttcaag gagaagagga   600
tttgtgcgca tagccatgga acaggggagc cctctgggtc cagtattctg ctttggtcag   660
gcacgcgtgt acaaatggtg gaagccggat tgtgatctct atcttaaact atctagagca   720
atcagattca ccccgatctg cttctgggga gtttttggat caccattacc gtgtcgacag   780
cctatgcatg tggtcgttgg taaaccaata gaagtcacaa aaactctgaa gccaaactgac   840
gaagagattg ctaagtttca tggccagtat gtggaagcgc ttagggatct gtttgagagg   900
cacaagtccc gagtcggcta tgatcttgag ctgaaaattc tttga                       945

```

&lt;210&gt; 2010

&lt;211&gt; 314

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2010

```

Met Gly Gly Ser Arg Glu Phe Arg Ala Glu Glu His Ser Asn Gln Phe
1           5           10           15

```

```

His Ser Ile Ile Ala Met Ala Ile Trp Leu Gly Ala Ile His Phe Asn
20           25           30

```

047-E2F-PCT.ST25.txt

Val Ala Leu Val Leu Cys Ser Leu Ile Phe Leu Pro Pro Ser Leu Ser  
35 40 45

Leu Met Val Leu Gly Leu Leu Ser Leu Phe Ile Phe Ile Pro Ile Asp  
50 55 60

His Arg Ser Lys Tyr Gly Arg Lys Leu Ala Arg Tyr Ile Cys Lys His  
65 70 75 80

Ala Cys Asn Tyr Phe Pro Val Ser Leu Tyr Val Glu Asp Tyr Glu Ala  
85 90 95

Phe Gln Pro Asn Arg Ala Tyr Val Phe Gly Tyr Glu Pro His Ser Val  
100 105 110

Leu Pro Ile Gly Val Val Ala Leu Cys Asp Leu Thr Gly Phe Met Pro  
115 120 125

Ile Pro Asn Ile Lys Val Leu Ala Ser Ser Ala Ile Phe Tyr Thr Pro  
130 135 140

Phe Leu Arg His Ile Trp Thr Trp Leu Gly Leu Thr Ala Ala Ser Arg  
145 150 155 160

Lys Asn Phe Thr Ser Leu Leu Asp Ser Gly Tyr Ser Cys Val Leu Val  
165 170 175

Pro Gly Gly Val Gln Glu Thr Phe His Met Gln His Asp Ala Glu Asn  
180 185 190

Val Phe Leu Ser Arg Arg Arg Gly Phe Val Arg Ile Ala Met Glu Gln  
195 200 205

Gly Ser Pro Leu Val Pro Val Phe Cys Phe Gly Gln Ala Arg Val Tyr  
210 215 220

Lys Trp Trp Lys Pro Asp Cys Asp Leu Tyr Leu Lys Leu Ser Arg Ala  
225 230 235 240

Ile Arg Phe Thr Pro Ile Cys Phe Trp Gly Val Phe Gly Ser Pro Leu  
245 250 255

Pro Cys Arg Gln Pro Met His Val Val Val Gly Lys Pro Ile Glu Val  
260 265 270

Thr Lys Thr Leu Lys Pro Thr Asp Glu Glu Ile Ala Lys Phe His Gly  
275 280 285

Gln Tyr Val Glu Ala Leu Arg Asp Leu Phe Glu Arg His Lys Ser Arg  
 290 295 300

Val Gly Tyr Asp Leu Glu Leu Lys Ile Leu  
 305 310

<210> 2011

<211> 852

<212> DNA

<213> *Arabidopsis thaliana*

<400> 2011

atggctgagg cttctgattt gttggaatgg cctaagaagg ataaccgtcg ttttctccat	60
gttgtctacc gcgttggtga tcttgatcgc accattgagt tttaactga ggtctttggt	120
atgaagctgt tgaggaaaag agatatccct gaggagaagt attctaatagc ttttcttggt	180
tttggacctg aaacatctaa ctttggtgtg gagctcacat ataactatgg tgtagctca	240
tatgatattg gaactggctt tgggcatttt gccatttcaa ctcaagatgt ttccaaactg	300
gttgagaacg tccgtgccaa gggtggaat gtgactaggg aacctggtcc agtcaaaggt	360
ggaggcagtg tcattgcgtt tgtgaaggac cctgatggct acacttttga gctcatccag	420
agagggtcaa ctctgaacc tttctgccaa gtcattgctt gtgttggtga tctcgaccgt	480
gccatcaaat tctatgaaaa ggccctcggg atgagactct tgagaaagat tgagagacct	540
gagtacaagt acaccatagg catgatgggg tatgctgaag aatacgagtc gatagttttg	600
gagctgacct ataactacga cgtgactgag tacacaaagg gcaatgcata tgcacagatt	660
gcaataggca cagatgatgt gtacaaaagc ggtgaagtta ttaagatagt caaccaagag	720
ctaggaggaa agatcactag agaagccgga cctcttctctg gactcggcac caagattgtc	780
tcattccttg atccagatgg ctggaaaacg gttttggtgg acaacaaaga ttttctcaag	840
gaactggaat ga	852

<210> 2012

<211> 283

<212> PRT

<213> *Arabidopsis thaliana*

<400> 2012

047-E2F-PCT.ST25.txt

Met Ala Glu Ala Ser Asp Leu Leu Glu Trp Pro Lys Lys Asp Asn Arg  
1 5 10 15  
Arg Phe Leu His Val Val Tyr Arg Val Gly Asp Leu Asp Arg Thr Ile  
20 25 30  
Glu Phe Tyr Thr Glu Val Phe Gly Met Lys Leu Leu Arg Lys Arg Asp  
35 40 45  
Ile Pro Glu Glu Lys Tyr Ser Asn Ala Phe Leu Gly Phe Gly Pro Glu  
50 55 60  
Thr Ser Asn Phe Val Val Glu Leu Thr Tyr Asn Tyr Gly Val Ser Ser  
65 70 75 80  
Tyr Asp Ile Gly Thr Gly Phe Gly His Phe Ala Ile Ser Thr Gln Asp  
85 90 95  
Val Ser Lys Leu Val Glu Asn Val Arg Ala Lys Gly Gly Asn Val Thr  
100 105 110  
Arg Glu Pro Gly Pro Val Lys Gly Gly Gly Ser Val Ile Ala Phe Val  
115 120 125  
Lys Asp Pro Asp Gly Tyr Thr Phe Glu Leu Ile Gln Arg Gly Pro Thr  
130 135 140  
Pro Glu Pro Phe Cys Gln Val Met Leu Arg Val Gly Asp Leu Asp Arg  
145 150 155 160  
Ala Ile Lys Phe Tyr Glu Lys Ala Leu Gly Met Arg Leu Leu Arg Lys  
165 170 175  
Ile Glu Arg Pro Glu Tyr Lys Tyr Thr Ile Gly Met Met Gly Tyr Ala  
180 185 190  
Glu Glu Tyr Glu Ser Ile Val Leu Glu Leu Thr Tyr Asn Tyr Asp Val  
195 200 205  
Thr Glu Tyr Thr Lys Gly Asn Ala Tyr Ala Gln Ile Ala Ile Gly Thr  
210 215 220  
Asp Asp Val Tyr Lys Ser Gly Glu Val Ile Lys Ile Val Asn Gln Glu  
225 230 235 240  
Leu Gly Gly Lys Ile Thr Arg Glu Ala Gly Pro Leu Pro Gly Leu Gly  
245 250 255

Thr Lys Ile Val Ser Phe Leu Asp Pro Asp Gly Trp Lys Thr Val Leu  
260 265 270

Val Asp Asn Lys Asp Phe Leu Lys Glu Leu Glu  
275 280

<210> 2013

<211> 477

<212> DNA

<213> Arabidopsis thaliana

<400> 2013

atgcagtcga tgaagaaac agcttcgaat attgcagctt ctgcaaaatc tggcatggac	60
aaaaccaaag ctaccttga ggaaaaggcg gagaagatga agacacgaga ccctgttcag	120
aaacagatgg ctacacaggt taaagaagat aagatcaatc aagctgagat gcagaagaga	180
gaaacgcgtc agcacaacgc ggccatgaaa gaagcggctg gagccggaac cggtttaggt	240
ttggggacgg ccactcactc gaccactgga caagtcggac acggcactgg gacacatcag	300
atgtcggctc tgcctggtca cggaacggga caactgaccg accgcgttgt ggagggcacg	360
gctgtgaccg acccgattgg aaggaacact ggaactggtc ggacaaccgc tcataacact	420
cacgttggtg gtggtggtgc caccgggtac ggaaccggcg ggggatatac tggataa	477

<210> 2014

<211> 158

<212> PRT

<213> Arabidopsis thaliana

<400> 2014

Met Gln Ser Met Lys Glu Thr Ala Ser Asn Ile Ala Ala Ser Ala Lys  
1 5 10 15

Ser Gly Met Asp Lys Thr Lys Ala Thr Leu Glu Glu Lys Ala Glu Lys  
20 25 30

Met Lys Thr Arg Asp Pro Val Gln Lys Gln Met Ala Thr Gln Val Lys  
35 40 45

Glu Asp Lys Ile Asn Gln Ala Glu Met Gln Lys Arg Glu Thr Arg Gln  
Page 2937

50

55

His Asn Ala Ala Met Lys Glu Ala Ala Gly Ala Gly Thr Gly Leu Gly  
65 70 75 80

Leu Gly Thr Ala Thr His Ser Thr Thr Gly Gln Val Gly His Gly Thr  
85 90 95

Gly Thr His Gln Met Ser Ala Leu Pro Gly His Gly Thr Gly Gln Leu  
100 105 110

Thr Asp Arg Val Val Glu Gly Thr Ala Val Thr Asp Pro Ile Gly Arg  
115 120 125

Asn Thr Gly Thr Gly Arg Thr Thr Ala His Asn Thr His Val Gly Gly  
130 135 140

Gly Gly Ala Thr Gly Tyr Gly Thr Gly Gly Gly Tyr Thr Gly  
145 150 155

<210> 2015

<211> 456

<212> DNA

<213> Arabidopsis thaliana

<400> 2015

atgaagattt ctctcttcct cctctctatc ctcatctctt taccatctc cctacaagat	60
cctactcctg aagtcaagaa accaactcgt gcacacgcag agctcacgaa tcatggattc	120
ccaattggac tcctaccttt atctgtcaaa gattacttcc tcaaccaaac ctccggcgac	180
ttctctcttt tcctcaacgg agcatgcaaa atcacgcttc cacctgataa ctacatcgct	240
acttattcta acaaagtaac gggtcggatc tctcagggtg agatcgcgga gctccaaggg	300
attcgggttc gggcgttttt caagtcgtgg tctattactg ggattcgatc ttctggagat	360
aatcttgtct ttgaggttgc tgggataact gctaaatacc cttcgaagaa tttcgatgag	420
agtcttgatt gtgaagggaa acgatcttct tcttga	456

<210> 2016

<211> 151

<212> PRT

<213> Arabidopsis thaliana



&lt;400&gt; 2016

Met Lys Ile Ser Leu Phe Leu Leu Ser Ile Leu Ile Leu Leu Pro Ile  
 1 5 10 15  
 Ser Leu Gln Asp Pro Thr Pro Glu Val Lys Lys Pro Thr Arg Ala His  
 20 25 30  
 Ala Glu Leu Thr Asn His Gly Phe Pro Ile Gly Leu Leu Pro Leu Ser  
 35 40 45  
 Val Lys Asp Tyr Phe Leu Asn Gln Thr Ser Gly Asp Phe Ser Leu Phe  
 50 55 60  
 Leu Asn Gly Ala Cys Lys Ile Thr Leu Pro Pro Asp Asn Tyr Ile Ala  
 65 70 75 80  
 Thr Tyr Ser Asn Lys Val Thr Gly Arg Ile Ser Gln Gly Lys Ile Ala  
 85 90 95  
 Glu Leu Gln Gly Ile Arg Val Arg Ala Phe Phe Lys Ser Trp Ser Ile  
 100 105 110  
 Thr Gly Ile Arg Ser Ser Gly Asp Asn Leu Val Phe Glu Val Ala Gly  
 115 120 125  
 Ile Thr Ala Lys Tyr Pro Ser Lys Asn Phe Asp Glu Ser Leu Asp Cys  
 130 135 140  
 Glu Gly Lys Arg Ser Ser Ser  
 145 150

&lt;210&gt; 2017

&lt;211&gt; 828

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2017

atggcggcctt ctttctcttc cactgctccc acgacaccgg ttcttcgatt cagagccaac 60  
 tactccaagc ctctcctctc tctcccagat tcgtgtttga ggataatctc ttcggcgata 120  
 tctccctcta cacgcttaat tgcgtgttcg ttcaagacag acaagcttcc gctcggtgcc 180  
 ggcgtcaatc tctccggtgg ccccgttgtc aagcgctctc tacagaagag attggtgata 240

```

aggctctgcta ctattgaaga aatagaagca gagaagtctg ctattgagac tgatgttaaa 300
tcaaagatgg agaagactat tgaaacgctt cggacgagtt tcaactccat aaggactggg 360
agatccaatg cagcgatgct tgacaagatt gaggtggaat actatggaag tccagtaagt 420
ttgaaaagca tagcccaaata cagtactccg gatggaagtt ctcttttgct gcaaccatat 480
gacaaatcca gcttgaaggc tatagagaaa gccattgtga attctgatct tgggtgtgacc 540
cctaataacg atggagatgt tattcgactg tccttgccctc ccctcacatc tgacagaaga 600
aaggaactat caaaggttgt tgctaaacag tctgaagaag ggaaggttgc actgaggaac 660
attaggagag atgccttgaa atcttatgat aaactcgaga aggagaagaa gctgtcagaa 720
gacaacgtga aggatttgtc aagtgatttg cagaaactaa ttgatgtata catgaagaag 780
atagaggagc tctacaaaca gaaagaaaag gaattgatga aggtgtga 828

```

&lt;210&gt; 2018

&lt;211&gt; 275

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2018

```

Met Ala Ala Ser Phe Ser Ser Thr Ala Pro Thr Thr Pro Val Leu Arg
1          5          10

```

```

Phe Arg Ala Asn Tyr Ser Lys Pro Leu Leu Ser Leu Pro Asp Ser Cys
          20          25          30

```

```

Leu Arg Ile Ile Ser Ser Ala Ile Ser Pro Ser Thr Arg Leu Ile Ala
          35          40          45

```

```

Cys Ser Phe Lys Thr Asp Lys Leu Pro Leu Gly Ala Gly Val Asn Leu
          50          55          60

```

```

Ser Gly Gly Pro Val Val Lys Arg Ser Leu Gln Lys Arg Leu Val Ile
65          70          75          80

```

```

Arg Ser Ala Thr Ile Glu Glu Ile Glu Ala Glu Lys Ser Ala Ile Glu
          85          90          95

```

```

Thr Asp Val Lys Ser Lys Met Glu Lys Thr Ile Glu Thr Leu Arg Thr
          100          105          110

```

```

Ser Phe Asn Ser Ile Arg Thr Gly Arg Ser Asn Ala Ala Met Leu Asp
          115          120          125

```

047-E2F-PCT.ST25.txt

Lys Ile Glu Val Glu Tyr Tyr Gly Ser Pro Val Ser Leu Lys Ser Ile  
130 135 140

Ala Gln Ile Ser Thr Pro Asp Gly Ser Ser Leu Leu Leu Gln Pro Tyr  
145 150 155 160

Asp Lys Ser Ser Leu Lys Ala Ile Glu Lys Ala Ile Val Asn Ser Asp  
165 170 175

Leu Gly Val Thr Pro Asn Asn Asp Gly Asp Val Ile Arg Leu Ser Leu  
180 185 190

Pro Pro Leu Thr Ser Asp Arg Arg Lys Glu Leu Ser Lys Val Val Ala  
195 200 205

Lys Gln Ser Glu Glu Gly Lys Val Ala Leu Arg Asn Ile Arg Arg Asp  
210 215 220

Ala Leu Lys Ser Tyr Asp Lys Leu Glu Lys Glu Lys Lys Leu Ser Glu  
225 230 235 240

Asp Asn Val Lys Asp Leu Ser Ser Asp Leu Gln Lys Leu Ile Asp Val  
245 250 255

Tyr Met Lys Lys Ile Glu Glu Leu Tyr Lys Gln Lys Glu Lys Glu Leu  
260 265 270

Met Lys Val  
275

<210> 2019

<211> 414

<212> DNA

<213> Arabidopsis thaliana

<400> 2019  
atggaagacg tgaaagggaa ggagattatt gatgatgctc ctattgacaa caaggtttca 60  
gatgaaatgg agagtgagga aaatgcatc aagaaaaagt atggaggatt gttgcctaag 120  
aagattcctt tgatatctaa ggaccatgaa cgtgcgtttt ttgactcagc tgattgggct 180  
ttaggcaagc aaaaaggaca gaagccgaaa gggccttttg aagctctccg cccaaaactg 240  
cagccaaccc cgcaacagca accaagagca agacgaatgg cttattcttc aggcgaaact 300

gaagacactg agattgataa caacgaagct ccggatgacc aagcctgcgc atcagctgtg 360  
 gatagtacca atttaaagga cgatggaggc gcaaaagaca acatcaaadc atga 414

<210> 2020

<211> 137

<212> PRT

<213> Arabidopsis thaliana

<400> 2020

Met Glu Asp Val Lys Gly Lys Glu Ile Ile Asp Asp Ala Pro Ile Asp  
 1 5 10 15

Asn Lys Val Ser Asp Glu Met Glu Ser Glu Glu Asn Ala Ile Lys Lys  
 20 25 30

Lys Tyr Gly Gly Leu Leu Pro Lys Lys Ile Pro Leu Ile Ser Lys Asp  
 35 40 45

His Glu Arg Ala Phe Phe Asp Ser Ala Asp Trp Ala Leu Gly Lys Gln  
 50 55 60

Lys Gly Gln Lys Pro Lys Gly Pro Leu Glu Ala Leu Arg Pro Lys Leu  
 65 70 75 80

Gln Pro Thr Pro Gln Gln Gln Pro Arg Ala Arg Arg Met Ala Tyr Ser  
 85 90 95

Ser Gly Glu Thr Glu Asp Thr Glu Ile Asp Asn Asn Glu Ala Pro Asp  
 100 105 110

Asp Gln Ala Cys Ala Ser Ala Val Asp Ser Thr Asn Leu Lys Asp Asp  
 115 120 125

Gly Gly Ala Lys Asp Asn Ile Lys Ser  
 130 135

<210> 2021

<211> 1392

<212> DNA

<213> Arabidopsis thaliana

## 047-E2F-PCT.ST25.txt

&lt;400&gt; 2021

```

atggagaaac agaacattat ctcaaact tcttcttctt cgtcttcttg gattcgtggt      60
tcttgtgttg gaagagggtg ttttggtaca gtaagcaaag ctttgagtaa aatcgacggt    120
ggacttttctg ccgtgaagtc gatagatctc gccacgtgtc ttccttctca agcagagtcg    180
ttagagaacg aaatcgttat tctacggtcg atgaagtctc atccaaacat agtgagggtt    240
ctcggtgatg atgtgtctaa agaaggaacg gcgtcgtttc gaaatcttca tttagagtat    300
tcaccggaag gtgacgttgc taacgggtgga atcggttaacg aaacgcttct caggcgttac    360
gtgtggtgtc ttgtctctgc tttgagtcac gttcattcta acggaattgt tcaactgcgac    420
gttaaatacta agaacgttct tgtttttaac ggtggttagct ccgttaagct agcggatttt    480
ggatcggcgg ttgagtttga gaaatctacg attcatgttt cgccacgtgg aagtccgctt    540
tggtatggctc cggagggtgg tagaagagag taccaaggac cggagagtga cgtgtggtct    600
ttagggtgta ccgtcatcga gatgctcacc ggaaaaccag cttgggaaga tcacggtttc    660
gactcgtcga gtcggatcgg gttctctaac gatttgcctt ttattccggt ggggttatcg    720
gaactcggga gagatttctt agagaaatgc ttgaaacgtg atcggagtca gcgttgagc    780
tgtgatcagc tcttgcagca tccgtttctg tgtcaagatc atcatgactc gttcttctact    840
gagtcgtctc cgcgttgtgt tcttgactgg gtcaactcgg agtttgacga agaagaagag    900
agcgacgaat ggagaccaga atccatggtt tcggcgatgg caaggataag taaattagct    960
ataaccggag gagcaaattg ggaatctaata ggttggtactg aggttagaga cacttccgaa   1020
gagtcagagg caaaaaagga agttcttggt tctccaaggg tagaattgga atcttacata   1080
tcattggagt cgtcaagcga tgattccgta agacaaccga ggaatgaaga gtcggcgacg   1140
gagttggcgt cggcagtgac gtgtgaagca atattgttgg tgatgatatt ggtggttagag   1200
aatattcaaa tatatgccac gttttacacc agtagtatta ttatgcatat tctatattgt   1260
tgtagttggt gttgttatta tcattatcaa aacaataata agaagaataa tttttcgaaa   1320
tctacatctt tcattctcag ccttaacttt ttgtttggta ttgcatgtga ttcggatcgg   1380
tctatctatt aa                                     1392

```

&lt;210&gt; 2022

&lt;211&gt; 463

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2022

Met Glu Lys Gln Asn Ile Ile Ser Asn Thr Ser Ser Ser Ser Ser Ser

1 5 15

Trp Ile Arg Gly Ser Cys Val Gly Arg Gly Cys Phe Gly Thr Val Ser  
20 25 30

Lys Ala Leu Ser Lys Ile Asp Gly Gly Leu Phe Ala Val Lys Ser Ile  
35 40 45

Asp Leu Ala Thr Cys Leu Pro Ser Gln Ala Glu Ser Leu Glu Asn Glu  
50 55 60

Ile Val Ile Leu Arg Ser Met Lys Ser His Pro Asn Ile Val Arg Phe  
65 70 75 80

Leu Gly Asp Asp Val Ser Lys Glu Gly Thr Ala Ser Phe Arg Asn Leu  
85 90 95

His Leu Glu Tyr Ser Pro Glu Gly Asp Val Ala Asn Gly Gly Ile Val  
100 105 110

Asn Glu Thr Leu Leu Arg Arg Tyr Val Trp Cys Leu Val Ser Ala Leu  
115 120 125

Ser His Val His Ser Asn Gly Ile Val His Cys Asp Val Lys Ser Lys  
130 135 140

Asn Val Leu Val Phe Asn Gly Gly Ser Ser Val Lys Leu Ala Asp Phe  
145 150 155 160

Gly Ser Ala Val Glu Phe Glu Lys Ser Thr Ile His Val Ser Pro Arg  
165 170 175

Gly Ser Pro Leu Trp Met Ala Pro Glu Val Val Arg Arg Glu Tyr Gln  
180 185 190

Gly Pro Glu Ser Asp Val Trp Ser Leu Gly Cys Thr Val Ile Glu Met  
195 200 205

Leu Thr Gly Lys Pro Ala Trp Glu Asp His Gly Phe Asp Ser Leu Ser  
210 215 220

Arg Ile Gly Phe Ser Asn Asp Leu Pro Phe Ile Pro Val Gly Leu Ser  
225 230 235 240

Glu Leu Gly Arg Asp Phe Leu Glu Lys Cys Leu Lys Arg Asp Arg Ser  
245 250 255

Gln Arg Trp Ser Cys Asp Gln Leu Leu Gln His Pro Phe Leu Cys Gln  
 260 265 270  
 Asp His His Asp Ser Phe Phe Thr Glu Ser Ser Pro Arg Cys Val Leu  
 275 280 285  
 Asp Trp Val Asn Ser Glu Phe Asp Glu Glu Glu Glu Ser Asp Glu Trp  
 290 295 300  
 Arg Pro Glu Ser Met Val Ser Ala Met Ala Arg Ile Ser Lys Leu Ala  
 305 310 315 320  
 Ile Thr Gly Gly Ala Asn Trp Glu Ser Asn Gly Trp Thr Glu Val Arg  
 325 330 335  
 Asp Thr Ser Glu Glu Ser Glu Ala Lys Lys Glu Val Leu Val Ser Pro  
 340 345 350  
 Arg Val Glu Leu Glu Ser Tyr Ile Ser Leu Glu Ser Ser Ser Asp Asp  
 355 360 365  
 Ser Val Arg Gln Pro Arg Asn Glu Glu Ser Ala Thr Glu Leu Ala Ser  
 370 375 380  
 Ala Val Thr Cys Glu Ala Ile Leu Leu Val Met Ile Leu Val Val Glu  
 385 390 395 400  
 Asn Ile Gln Ile Tyr Ala Thr Phe Tyr Thr Ser Ser Ile Ile Met His  
 405 410 415  
 Ile Leu Tyr Cys Cys Ser Cys Cys Cys Tyr Tyr His Tyr Gln Asn Asn  
 420 425 430  
 Asn Lys Lys Asn Asn Phe Ser Lys Ser Thr Ser Phe Ile Leu Ser Leu  
 435 440 445  
 Asn Phe Leu Phe Gly Ile Ala Cys Asp Ser Asp Arg Ser Ile Tyr  
 450 455 460

&lt;210&gt; 2023

&lt;211&gt; 882

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2023

```

atggcctttgt ctcttatctt tctagctctc ttagtggttg gccctagtag tggtcacagc    60
caacgttctc cttcaccggg atactaccgc agttcccgag taccgacttc accttttgat    120
cgtgaattcc gtactttatg gggctctcaa caccaacgta gagagcaaga cgttggtcact    180
ctttggctcg acaaatccac tgggagtggg ttcaagtctc ttcgtccata ccggtcgggc    240
tactttggtg cttccattaa gctccaacca ggcttcactg ctggagtgga tacatccctc    300
tatctctcaa acaaccaaga gcatcctgga gaccacgatg aggtcgatat cgagtttcta    360
gggacaacgc caggaagcc ttattccctt caaacgaatg tcttcgtag gggaagtggc    420
gaccgaaatg tcattggaag agaaatgaaa ttaccttgt ggtttgacct tactcaagat    480
tttcaccatt acgcaatttt gtggaaccct aaccaaattg tattctttgt agacgatgta    540
ccgatacgta catataatag aaagaatgaa gctatatctc ccacaagacc gatgtggggt    600
tacggatcga tatgggatgc atcggactgg gccacagaaa atggaaggat caaagccgac    660
tatcgatacc aaccatttgt ggctaagtac aaaaacttta agctagcggg atgcacagcg    720
gatagctcta gctcatgcag accgccatcg cctgcacca tgcgcaaccg cgggttgagc    780
cggcagcaga tggcggcatt gacatgggca cagaggaact tcttggtcta taactattgc    840
catgatccga aaagagacca tacccaaaca ccagaatggt aa                        882

```

&lt;210&gt; 2024

&lt;211&gt; 293

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2024

```

Met Ala Leu Ser Leu Ile Phe Leu Ala Leu Leu Val Leu Cys Pro Ser
1           5           10          15

```

```

Ser Gly His Ser Gln Arg Ser Pro Ser Pro Gly Tyr Tyr Pro Ser Ser
20          25          30

```

```

Arg Val Pro Thr Ser Pro Phe Asp Arg Glu Phe Arg Thr Leu Trp Gly
35          40          45

```

```

Ser Gln His Gln Arg Arg Glu Gln Asp Val Val Thr Leu Trp Leu Asp
50          55          60

```

```

Lys Ser Thr Gly Ser Gly Phe Lys Ser Leu Arg Pro Tyr Arg Ser Gly
65          70          75          80

```



Tyr Phe Gly Ala Ser Ile Lys Leu Gln Pro Gly Phe Thr Ala Gly Val  
85 90 95

Asp Thr Ser Leu Tyr Leu Ser Asn Asn Gln Glu His Pro Gly Asp His  
100 105 110

Asp Glu Val Asp Ile Glu Phe Leu Gly Thr Thr Pro Gly Lys Pro Tyr  
115 120 125

Ser Leu Gln Thr Asn Val Phe Val Arg Gly Ser Gly Asp Arg Asn Val  
130 135 140

Ile Gly Arg Glu Met Lys Phe Thr Leu Trp Phe Asp Pro Thr Gln Asp  
145 150 155 160

Phe His His Tyr Ala Ile Leu Trp Asn Pro Asn Gln Ile Val Phe Phe  
165 170 175

Val Asp Asp Val Pro Ile Arg Thr Tyr Asn Arg Lys Asn Glu Ala Ile  
180 185 190

Phe Pro Thr Arg Pro Met Trp Val Tyr Gly Ser Ile Trp Asp Ala Ser  
195 200 205

Asp Trp Ala Thr Glu Asn Gly Arg Ile Lys Ala Asp Tyr Arg Tyr Gln  
210 215 220

Pro Phe Val Ala Lys Tyr Lys Asn Phe Lys Leu Ala Gly Cys Thr Ala  
225 230 235 240

Asp Ser Ser Ser Ser Cys Arg Pro Pro Ser Pro Ala Pro Met Arg Asn  
245 250 255

Arg Gly Leu Ser Arg Gln Gln Met Ala Ala Leu Thr Trp Ala Gln Arg  
260 265 270

Asn Phe Leu Val Tyr Asn Tyr Cys His Asp Pro Lys Arg Asp His Thr  
275 280 285

Gln Thr Pro Glu Cys  
290

<210> 2025

<211> 699

<212> DNA

<213> Arabidopsis thaliana

<400> 2025  
 atgcttcgct cctcaattcg acttctctat ataagaagaa ccagtcctct gcttcgaagt 60  
 ttatcatcat catcatcatc atcatcatca aaacgattcg attctgcgaa accacttttc 120  
 aattctcatc ggattatttc tcttccaatt tctacaacgg gagctaaact atctagatcg 180  
 gagcattcaa tggctgcttc ttccgaaccc aaatctcttt acgatttcac cgtcaaggat 240  
 gctaagggaa acgatgttga tctaagcatc tacaaaggga aggttctttt gattgtgaac 300  
 gttgcttctc aatgtggctt gactaattcg aattatactg agcttgcgca gctgtatgag 360  
 aagtacaaag gccatggttt cgagattctt gcgtttccgt gtaaccagtt tgggaatcaa 420  
 gagcctggta ctaatgaaga gattgttcag tttgcttgta ctcgtttcaa ggctgagtac 480  
 ccgattttcg acaaggttga tgттаacggt gacaaagctg cccagtccta caagtttctg 540  
 aaatcaagca aaggcgggct ctttgagac ggcattaagt ggaacttcgc aaagttcttg 600  
 gttgacaaag atggaaatgt tgtcgatcgt ttcgcaccaa ctacctacc tctcagcatt 660  
 gagaaggatg tgaagaagtt gttgggagtt actgcttaa 699

<210> 2026

<211> 232

<212> PRT

<213> Arabidopsis thaliana

<400> 2026

Met Leu Arg Ser Ser Ile Arg Leu Leu Tyr Ile Arg Arg Thr Ser Pro  
 1 5 10 15  
 Leu Leu Arg Ser Leu Ser Ser Ser Ser Ser Ser Ser Ser Ser Lys Arg  
 20 25 30  
 Phe Asp Ser Ala Lys Pro Leu Phe Asn Ser His Arg Ile Ile Ser Leu  
 35 40 45  
 Pro Ile Ser Thr Thr Gly Ala Lys Leu Ser Arg Ser Glu His Ser Met  
 50 55 60  
 Ala Ala Ser Ser Glu Pro Lys Ser Leu Tyr Asp Phe Thr Val Lys Asp  
 65 70 75 80  
 Ala Lys Gly Asn Asp Val Asp Leu Ser Ile Tyr Lys Gly Lys Val Leu  
 85 90 95

047-E2F-PCT.ST25.txt

Leu Ile Val Asn Val Ala Ser Gln Cys Gly Leu Thr Asn Ser Asn Tyr  
100 105 110

Thr Glu Leu Ala Gln Leu Tyr Glu Lys Tyr Lys Gly His Gly Phe Glu  
115 120 125

Ile Leu Ala Phe Pro Cys Asn Gln Phe Gly Asn Gln Glu Pro Gly Thr  
130 135 140

Asn Glu Glu Ile Val Gln Phe Ala Cys Thr Arg Phe Lys Ala Glu Tyr  
145 150 155 160

Pro Ile Phe Asp Lys Val Asp Val Asn Gly Asp Lys Ala Ala Pro Val  
165 170 175

Tyr Lys Phe Leu Lys Ser Ser Lys Gly Gly Leu Phe Gly Asp Gly Ile  
180 185 190

Lys Trp Asn Phe Ala Lys Phe Leu Val Asp Lys Asp Gly Asn Val Val  
195 200 205

Asp Arg Phe Ala Pro Thr Thr Ser Pro Leu Ser Ile Glu Lys Asp Val  
210 215 220

Lys Lys Leu Leu Gly Val Thr Ala  
225 230

<210> 2027

<211> 1182

<212> DNA

<213> Arabidopsis thaliana

<400> 2027

atggagacca gcatcgctg ctactcacgt gggatccttc cccaagtgt ctcttctcaa	60
cgatcctcta cattggtctc tcctccttc tactccacat cctccagctt caagcgtcta	120
aaatcgagct caatcttcgg agattcacta cgattagcac caaaatcgca acttaaagcc	180
acaaaagcta agagcaatgg tgcttcaact gtgaccaaat gtgaaattgg ccaaagcttg	240
gaagagtttt tggcacaagc aactcctgac aagggttgga gaactttgct gatgtgtatg	300
ggagaagcat tgagaacaat agcttttaaa gttagaacag cttcttgctg tggaacagct	360
tgtgttaatt cctttggtga tgaacaactc gctgttgata tgcttgctga taagcttctc	420

```

tttgaggctt tgcaatactc gcatgtgtgc aagtatgctt gctctgaaga agtacctgag 480
cttcaagaca tgggaggtcc agtggaaggt gggtttagtg ttgcgtttga tccattggat 540
ggatcaagca ttgtggatac aaatttcact gtgggaacca tattcggtgt ttggcctgga 600
gacaagttaa ccggaatcac tggaggagat caagtggctg cagccatggg aatctacggt 660
ccacgaacca cttatgtttt ggctgttaag ggctttccag gaactcatga gttcttgctt 720
cttgatgaag ggaaatggca gcatgtaaag gagacaacag agatcgcaga agggaaaatg 780
ttctcaccag gaaacttaag agccacattc gacaactccg aatacagcaa gctgattgat 840
tactacgtga aagagaaata cacactgcga tacaccggag gaatggttcc tgatgttaac 900
cagattattg tgaaggagaa aggaatcttc acaaagtga cttctcctac ggctaaggca 960
aagttgaggc tgttgtttga agtggctcct cttggcctgc tcatagagaa tgctggtgga 1020
ttcagcagtg atggacacaa gtccgtgctt gacaagacca tcatcaacct cgacgataga 1080
actcaagttg cttatggctc aaagaacgag atcatccgct tcgaagaaac cttttatgga 1140
acatcaagac tcaagaatgt tcccattgga gttaccgctt ag 1182

```

&lt;210&gt; 2028

&lt;211&gt; 393

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2028

```

Met Glu Thr Ser Ile Ala Cys Tyr Ser Arg Gly Ile Leu Pro Pro Ser
1      5      10     15

```

```

Val Ser Ser Gln Arg Ser Ser Thr Leu Val Ser Pro Pro Ser Tyr Ser
20     25     30

```

```

Thr Ser Ser Ser Phe Lys Arg Leu Lys Ser Ser Ser Ile Phe Gly Asp
35     40     45

```

```

Ser Leu Arg Leu Ala Pro Lys Ser Gln Leu Lys Ala Thr Lys Ala Lys
50     55     60

```

```

Ser Asn Gly Ala Ser Thr Val Thr Lys Cys Glu Ile Gly Gln Ser Leu
65     70     75     80

```

```

Glu Glu Phe Leu Ala Gln Ala Thr Pro Asp Lys Gly Leu Arg Thr Leu
85     90     95

```

Leu Met Cys Met Gly Glu Ala Leu Arg Thr Ile Ala Phe Lys Val Arg  
 100 105 110  
 Thr Ala Ser Cys Gly Gly Thr Ala Cys Val Asn Ser Phe Gly Asp Glu  
 115 120 125  
 Gln Leu Ala Val Asp Met Leu Ala Asp Lys Leu Leu Phe Glu Ala Leu  
 130 135 140  
 Gln Tyr Ser His Val Cys Lys Tyr Ala Cys Ser Glu Glu Val Pro Glu  
 145 150 155 160  
 Leu Gln Asp Met Gly Gly Pro Val Glu Gly Gly Phe Ser Val Ala Phe  
 165 170 175  
 Asp Pro Leu Asp Gly Ser Ser Ile Val Asp Thr Asn Phe Thr Val Gly  
 180 185 190  
 Thr Ile Phe Gly Val Trp Pro Gly Asp Lys Leu Thr Gly Ile Thr Gly  
 195 200 205  
 Gly Asp Gln Val Ala Ala Ala Met Gly Ile Tyr Gly Pro Arg Thr Thr  
 210 215 220  
 Tyr Val Leu Ala Val Lys Gly Phe Pro Gly Thr His Glu Phe Leu Leu  
 225 230 235 240  
 Leu Asp Glu Gly Lys Trp Gln His Val Lys Glu Thr Thr Glu Ile Ala  
 245 250 255  
 Glu Gly Lys Met Phe Ser Pro Gly Asn Leu Arg Ala Thr Phe Asp Asn  
 260 265 270  
 Ser Glu Tyr Ser Lys Leu Ile Asp Tyr Tyr Val Lys Glu Lys Tyr Thr  
 275 280 285  
 Leu Arg Tyr Thr Gly Gly Met Val Pro Asp Val Asn Gln Ile Ile Val  
 290 295 300  
 Lys Glu Lys Gly Ile Phe Thr Asn Val Thr Ser Pro Thr Ala Lys Ala  
 305 310 315 320  
 Lys Leu Arg Leu Leu Phe Glu Val Ala Pro Leu Gly Leu Leu Ile Glu  
 325 330 335  
 Asn Ala Gly Gly Phe Ser Ser Asp Gly His Lys Ser Val Leu Asp Lys  
 340 345 350

047-E2F-PCT.ST25.txt

Thr Ile Ile Asn Leu Asp Asp Arg Thr Gln Val Ala Tyr Gly Ser Lys  
 355 360 365

Asn Glu Ile Ile Arg Phe Glu Glu Thr Leu Tyr Gly Thr Ser Arg Leu  
 370 375 380

Lys Asn Val Pro Ile Gly Val Thr Ala  
 385 390

<210> 2029

<211> 918

<212> DNA

<213> Arabidopsis thaliana

<400> 2029

atggaggtag cagcagcgac tgcgacgagc ttcacaacgc ttcgagctcg tacgtcagcg	60
attatcccgt cttctacacg taatctgaga tctaaaccga gattttcttc atcttcatct	120
ctcagagctt ctctttcgaa tggctttctt tcgccgtata ccggaggaag catctctagt	180
gacttatgcg gcgctaagct tcgtgcggaa tcgcttaatc cgttaaattt ttccagttcc	240
aagcctaaac gcggagttgt cactatgggt atacctttct caaagggaag tgcacacgaa	300
caacctctc ctgatttggc atcatatttg ttcaagaacc gaattgtata tttgggaatg	360
tctctcgtag cttcagttac tgagttgata cttgcggagt ttctttacct tcagtatgaa	420
gacgaggaaa agcctattta cttttacata aactcgactg ggacaaccaa gaatggtgaa	480
aagttgggct atgatactga ggcttttgca atctatgatg tcatggggta tgtcaaacca	540
ccaatcttta ctctttgcgt cgggaatgct tgggggtgaag ctgctttgct tctgactgct	600
ggtgcaaaag gaaatcgatc tgcgttgccc tcatcaacta ttatgataaa gcagcccatt	660
gctcgatttc aaggccaagc aactgatgtt gaaattgcaa ggaaagaaat caagcacata	720
aagacagaaa tgggtcaagct gtattcaaag catattggta aatccccgga gcagattgaa	780
gctgacatga aacgcccga atatttttagt cccactgagg ctgttgaata tgggatcatt	840
gataaggtgg tttaaatga aaggggcagc caagacagag gagttgtgtc tgaccttaaa	900
aaggcacaac tcatttga	918

<210> 2030

<211> 305

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2030

Met Glu Val Ala Ala Ala Thr Ala Thr Ser Phe Thr Thr Leu Arg Ala  
 1 5 10 15

Arg Thr Ser Ala Ile Ile Pro Ser Ser Thr Arg Asn Leu Arg Ser Lys  
 20 25 30

Pro Arg Phe Ser Ser Ser Ser Ser Leu Arg Ala Ser Leu Ser Asn Gly  
 35 40 45

Phe Leu Ser Pro Tyr Thr Gly Gly Ser Ile Ser Ser Asp Leu Cys Gly  
 50 55 60

Ala Lys Leu Arg Ala Glu Ser Leu Asn Pro Leu Asn Phe Ser Ser Ser  
 65 70 75 80

Lys Pro Lys Arg Gly Val Val Thr Met Val Ile Pro Phe Ser Lys Gly  
 85 90 95

Ser Ala His Glu Gln Pro Pro Pro Asp Leu Ala Ser Tyr Leu Phe Lys  
 100 105 110

Asn Arg Ile Val Tyr Leu Gly Met Ser Leu Val Pro Ser Val Thr Glu  
 115 120 125

Leu Ile Leu Ala Glu Phe Leu Tyr Leu Gln Tyr Glu Asp Glu Glu Lys  
 130 135 140

Pro Ile Tyr Leu Tyr Ile Asn Ser Thr Gly Thr Thr Lys Asn Gly Glu  
 145 150 155 160

Lys Leu Gly Tyr Asp Thr Glu Ala Phe Ala Ile Tyr Asp Val Met Gly  
 165 170 175

Tyr Val Lys Pro Pro Ile Phe Thr Leu Cys Val Gly Asn Ala Trp Gly  
 180 185 190

Glu Ala Ala Leu Leu Leu Thr Ala Gly Ala Lys Gly Asn Arg Ser Ala  
 195 200 205

Leu Pro Ser Ser Thr Ile Met Ile Lys Gln Pro Ile Ala Arg Phe Gln  
 210 215 220

Gly Gln Ala Thr Asp Val Glu Ile Ala Arg Lys Glu Ile Lys His Ile  
 Page 2953

225 230 235 240

Lys Thr Glu Met Val Lys Leu Tyr Ser Lys His Ile Gly Lys Ser Pro  
245 250 255

Glu Gln Ile Glu Ala Asp Met Lys Arg Pro Lys Tyr Phe Ser Pro Thr  
260 265 270

Glu Ala Val Glu Tyr Gly Ile Ile Asp Lys Val Val Tyr Asn Glu Arg  
275 280 285

Gly Ser Gln Asp Arg Gly Val Val Ser Asp Leu Lys Lys Ala Gln Leu  
290 295 300

Ile  
305

<210>	2031
<211>	708
<212>	DNA
<213>	Arabidopsis thaliana

<400>	2031						
atgtcgaatg	tcttgctatc	cccaaacggc	tacgtatttg	catcgcctaa	acctcttggc		60
agattcatca	attcaaagtc	cggcggacgg	aaacttttct	tctccgtcgt	tagagcttct		120
tccgatgatg	ctgattgtaa	tgccgaagaa	tgtgctcccg	agaaggaggt	aggaacagtg		180
agtatggaat	ggttagctgg	agagaagacg	aaagtgggtg	gaacatttcc	tcctcggaa		240
ccgcgtggtt	ggactggcta	tgttgagaaa	gatactgctg	gtcagactaa	tgtttactcc		300
attgagcctg	cagtatatgt	tgcagagagc	gcgattagct	cagggtactgc	aggatcatcg		360
gctgatgggg	ctgagaacac	agcagcaatc	gtagcaggca	ttgtctttat	cgcagtcgct		420
gcagcttcct	ctatactcct	ccaagtcggg	aaagatgccc	caactcgacc	caaagcagtg		480
gattacagtg	gaccgtctct	tagctactac	atcaacaagt	tcaagccttc	tgaaattggt		540
caaccttcta	ccccctccgt	cacagaagcc	ccaccgggtg	ccgagctaga	aacttcactg		600
ccagaaaactc	catcgggtgg	tcagcaagaa	acctcactgc	cggaaactat	ggctagtgag		660
gctcagccag	aggcgtcttc	tgttccaaca	acaagtagta	cctcttag			708

$\langle 210 \rangle$	2032
$\langle 211 \rangle$	235



&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2032

```

Met Ser Asn Val Leu Leu Ser Pro Asn Gly Tyr Val Phe Ala Ser Pro
1      5      10      15

Lys Pro Leu Gly Arg Phe Ile Asn Ser Lys Ser Gly Gly Arg Lys Leu
20      25      30

Phe Phe Ser Val Val Arg Ala Ser Ser Asp Asp Ala Asp Cys Asn Ala
35      40      45

Glu Glu Cys Ala Pro Glu Lys Glu Val Gly Thr Val Ser Met Glu Trp
50      55      60

Leu Ala Gly Glu Lys Thr Lys Val Val Gly Thr Phe Pro Pro Arg Lys
65      70      75      80

Pro Arg Gly Trp Thr Gly Tyr Val Glu Lys Asp Thr Ala Gly Gln Thr
85      90      95

Asn Val Tyr Ser Ile Glu Pro Ala Val Tyr Val Ala Glu Ser Ala Ile
100     105     110

Ser Ser Gly Thr Ala Gly Ser Ser Ala Asp Gly Ala Glu Asn Thr Ala
115     120     125

Ala Ile Val Ala Gly Ile Ala Leu Ile Ala Val Ala Ala Ala Ser Ser
130     135     140

Ile Leu Leu Gln Val Gly Lys Asp Ala Pro Thr Arg Pro Lys Ala Val
145     150     155     160

Asp Tyr Ser Gly Pro Ser Leu Ser Tyr Tyr Ile Asn Lys Phe Lys Pro
165     170     175

Ser Glu Ile Val Gln Pro Ser Thr Pro Ser Val Thr Glu Ala Pro Pro
180     185     190

Val Ala Glu Leu Glu Thr Ser Leu Pro Glu Thr Pro Ser Val Ala Gln
195     200     205

Gln Glu Thr Ser Leu Pro Glu Thr Met Ala Ser Glu Ala Gln Pro Glu
210     215     220

```

Ala Ser Ser Val Pro Thr Thr Ser Ser Thr Ser  
 225 230 235

<210> 2033

<211> 327

<212> DNA

<213> Arabidopsis thaliana

<400> 2033

atggctatca tcgcaagcac gttcggcacg gggctaagtt acgccgggga gcttccattc 60  
 aagccagtca cggggggaga ggtgggacga aagcagcaga gaatggtggt ggtgagagca 120  
 gaaggcgggtg gaggtatcaa tccggagatc agaaagaacg aagataaggt tgttgactcc 180  
 gtcgttgtca ccgagctttc caagaacata actccctatt gcagggtgttg gaggtcgggg 240  
 acgtttccat tgtgtgatgg gagtcatgtg aagcacaaca aagctaattg agataacggt 300  
 ggccctcttc ttctcaagaa acagtag 327

<210> 2034

<211> 108

<212> PRT

<213> Arabidopsis thaliana

<400> 2034

Met Ala Ile Ile Ala Ser Thr Phe Gly Thr Gly Leu Ser Tyr Ala Gly  
 1 5 10 15  
 Glu Leu Pro Phe Lys Pro Val Thr Gly Gly Glu Val Gly Arg Lys Gln  
 20 25 30  
 Gln Arg Met Val Val Val Arg Ala Glu Gly Gly Gly Gly Ile Asn Pro  
 35 40 45  
 Glu Ile Arg Lys Asn Glu Asp Lys Val Val Asp Ser Val Val Val Thr  
 50 55 60  
 Glu Leu Ser Lys Asn Ile Thr Pro Tyr Cys Arg Cys Trp Arg Ser Gly  
 65 70 75 80  
 Thr Phe Pro Leu Cys Asp Gly Ser His Val Lys His Asn Lys Ala Asn  
 85 90 95

Gly Asp Asn Val Gly Pro Leu Leu Leu Lys Lys Gln  
 100 105

<210> 2035

<211> 1779

<212> DNA

<213> Arabidopsis thaliana

<400> 2035

```

atgaggacac cgacgacgat tctccttctt gtcggagcta tcctcttctc cggcgccggc 60
tatgtcagat cgcagcctc cgaccaccgt tacaaggaag gagacaccgt tcctctctac 120
gccacaagg tcggcccatt tcacaatcca agtgagacgt atcgatatatt tgatcttccc 180
ttctgtatcc cagaggggtgt gaaagagaag aaggaagctc ttggcgaggt tctaaacggg 240
gatcggctag ttagcgctcc atacaagctc aacttcagag atgaaaaaga gtctgaggta 300
tactgcaaca agaagttgag taaagaagag gtcaaacagt tcagaaaagc tgttgagaag 360
gactactact tccagatgta ctatgatgat ctacctatct ggggattcat tggaaagggt 420
gacaaggata tcaaactctga tccgagtga ttcaaatatt tcttgtaaa gcacattcag 480
tttgagattc tatacaataa ggaccgtgtg atcgagatca gtgctagaat ggatcctcat 540
tcgcttggtg atctcactga ggataaggaa gttgatgcag agtttatgta cactgtgaag 600
tggaaggaaa ctgagactcc ttttgagaaa agaattggaga agtactctat gtcttcttct 660
cttccacatc atttggaaat ccaactggtc tccattatta actcctgtgt cactgtcctt 720
cttttgactg gattccttgc aactatcttg atgcgagtcc tcaagaacga tttcatgaag 780
tatgctcaag atgaggaagc tgctgatgat caagaggaaa ctggatggaa gtacattcat 840
ggcgatgtgt ttcggttccc tactcacaat tctttatttg ctgcatcgct cggtagtggc 900
actcaattgt tcacgctcac catatatttatt ttcatgcttg ctcttgttgg agtgttctac 960
ccatacaacc gaggagcact ctttaccgct ttggtggtca tttacgctct cacttctgga 1020
attgccggat acacatctgc ctctttctac tgtcaacttg aaggaaaaag ctgggtgagg 1080
aacttgttac tcaactggatg tctcttctgt ggcccattat tcctaaccctt ttgcttcctt 1140
aacaccgtag ccatcaccta cactgcaacc gctgcattac cttttggaac cattgtggtg 1200
atcgtcctta tatggactct agttacctca cctttactcg ttttggtggg tatcgcggtg 1260
aaaaacagca aagcagagtt ccaagcacca tgccgtacaa ccaaatatcc tcgtgagatt 1320
ccaccactcc cttggtacag aagtgtctatt cctcagatgg ccatggctgg ttttcttcct 1380

```

047-E2F-PCT.ST25.txt

ttcagtgcc a tctacatcga gctttactac attttcgcta gtgtctgggg tcaccggatc 1440  
 tacaccatct acagcatctt attcatcggtt ttcattcattc tcatcatcgt cactgctttt 1500  
 ataaccgttg ccttgactta cttccaactc gctgctgaag atcaccaatg gtggtggaga 1560  
 tcattcctat gtggtggatc gaccggtttg tttatctacg catactgctt atactattac 1620  
 tacgcacgat cagacatgtc gggttttatg caaacctcgt ttttcttcgg atacatggct 1680  
 tgcatttgct acggattctt cttaatgctc ggaacagttg gcttccgcgc agccctcttc 1740  
 tttgtccgtc acattttaccg gtcgatcaaa tgcgagtaa 1779

<210> 2036

<211> 592

<212> PRT

<213> Arabidopsis thaliana

<400> 2036

Met Arg Thr Pro Thr Thr Ile Leu Leu Leu Val Gly Ala Ile Leu Phe  
 1 5 10 15

Ser Gly Ala Gly Tyr Val Arg Ser Asp Ala Ser Asp His Arg Tyr Lys  
 20 25 30

Glu Gly Asp Thr Val Pro Leu Tyr Ala Asn Lys Val Gly Pro Phe His  
 35 40 45

Asn Pro Ser Glu Thr Tyr Arg Tyr Phe Asp Leu Pro Phe Cys Ile Pro  
 50 55 60

Glu Gly Val Lys Glu Lys Lys Glu Ala Leu Gly Glu Val Leu Asn Gly  
 65 70 75 80

Asp Arg Leu Val Ser Ala Pro Tyr Lys Leu Asn Phe Arg Asp Glu Lys  
 85 90 95

Glu Ser Glu Val Tyr Cys Asn Lys Lys Leu Ser Lys Glu Glu Val Lys  
 100 105 110

Gln Phe Arg Lys Ala Val Glu Lys Asp Tyr Tyr Phe Gln Met Tyr Tyr  
 115 120 125

Asp Asp Leu Pro Ile Trp Gly Phe Ile Gly Lys Val Asp Lys Asp Ile  
 130 135 140

Lys Ser Asp Pro Ser Glu Phe Lys Tyr Phe Leu Tyr Lys His Ile Gln  
 145 150 155 160  
 Phe Glu Ile Leu Tyr Asn Lys Asp Arg Val Ile Glu Ile Ser Ala Arg  
 165 170 175  
 Met Asp Pro His Ser Leu Val Asp Leu Thr Glu Asp Lys Glu Val Asp  
 180 185 190  
 Ala Glu Phe Met Tyr Thr Val Lys Trp Lys Glu Thr Glu Thr Pro Phe  
 195 200 205  
 Glu Lys Arg Met Glu Lys Tyr Ser Met Ser Ser Ser Leu Pro His His  
 210 215 220  
 Leu Glu Ile His Trp Phe Ser Ile Ile Asn Ser Cys Val Thr Val Leu  
 225 230 235 240  
 Leu Leu Thr Gly Phe Leu Ala Thr Ile Leu Met Arg Val Leu Lys Asn  
 245 250 255  
 Asp Phe Met Lys Tyr Ala Gln Asp Glu Glu Ala Ala Asp Asp Gln Glu  
 260 265 270  
 Glu Thr Gly Trp Lys Tyr Ile His Gly Asp Val Phe Arg Phe Pro Thr  
 275 280 285  
 His Asn Ser Leu Phe Ala Ala Ser Leu Gly Ser Gly Thr Gln Leu Phe  
 290 295 300  
 Thr Leu Thr Ile Phe Ile Phe Met Leu Ala Leu Val Gly Val Phe Tyr  
 305 310 315 320  
 Pro Tyr Asn Arg Gly Ala Leu Phe Thr Ala Leu Val Val Ile Tyr Ala  
 325 330 335  
 Leu Thr Ser Gly Ile Ala Gly Tyr Thr Ser Ala Ser Phe Tyr Cys Gln  
 340 345 350  
 Leu Glu Gly Lys Ser Trp Val Arg Asn Leu Leu Leu Thr Gly Cys Leu  
 355 360 365  
 Phe Cys Gly Pro Leu Phe Leu Thr Phe Cys Phe Leu Asn Thr Val Ala  
 370 375 380  
 Ile Thr Tyr Thr Ala Thr Ala Ala Leu Pro Phe Gly Thr Ile Val Val  
 385 390 395 400

047-E2F-PCT.ST25.txt

Ile Val Leu Ile Trp Thr Leu Val Thr Ser Pro Leu Leu Val Leu Gly  
405 410 415

Gly Ile Ala Gly Lys Asn Ser Lys Ala Glu Phe Gln Ala Pro Cys Arg  
420 425 430

Thr Thr Lys Tyr Pro Arg Glu Ile Pro Pro Leu Pro Trp Tyr Arg Ser  
435 440 445

Ala Ile Pro Gln Met Ala Met Ala Gly Phe Leu Pro Phe Ser Ala Ile  
450 455 460

Tyr Ile Glu Leu Tyr Tyr Ile Phe Ala Ser Val Trp Gly His Arg Ile  
465 470 475 480

Tyr Thr Ile Tyr Ser Ile Leu Phe Ile Val Phe Ile Ile Leu Ile Ile  
485 490 495

Val Thr Ala Phe Ile Thr Val Ala Leu Thr Tyr Phe Gln Leu Ala Ala  
500 505 510

Glu Asp His Gln Trp Trp Trp Arg Ser Phe Leu Cys Gly Gly Ser Thr  
515 520 525

Gly Leu Phe Ile Tyr Ala Tyr Cys Leu Tyr Tyr Tyr Tyr Ala Arg Ser  
530 535 540

Asp Met Ser Gly Phe Met Gln Thr Ser Phe Phe Phe Gly Tyr Met Ala  
545 550 555 560

Cys Ile Cys Tyr Gly Phe Phe Leu Met Leu Gly Thr Val Gly Phe Arg  
565 570 575

Ala Ala Leu Leu Phe Val Arg His Ile Tyr Arg Ser Ile Lys Cys Glu  
580 585 590

<210> 2037

<211> 741

<212> DNA

<213> Arabidopsis thaliana

<400> 2037

atggcggcga aaattcccgg agtgatcgct ttgttcgacg tcgacggtac tctcacagct 60

ccaaggaagg aagctactcc agaattgctc gattttatcc gagaattgcg aaaggtcgtc 120

047-E2F-PCT.ST25.txt

actattggag tcgtcgggtgg atctgatcta agtaagatat ctgagcagct tggcaaaaca 180  
 gtcacaaacg actatgatta ttgtttctct gagaatggtc ttgtcgccca taaagatggg 240  
 aaatccattg gaattcagag cctgaagctg caccttggag acgataaact caaggagtgtg 300  
 ataaatttca cgctgcacta cattgcagac ctggatattc caattaagag gggaacattt 360  
 attgaattcc gaaatggaat gctcaatgta tcaccattg gtcgcaactg cagccaagaa 420  
 gaaagagatg aatttgagag atatgataag gttcaaaaca tccgaccaa gatggtagct 480  
 gaacttcgtg agcggtttgc acatcttaac cttactttct caattggggg acagataagc 540  
 ttcgatgtct tccctaaagg ttgggataag acttactgct tgcaatacct cgaggacttc 600  
 agtgaaatcc atttcttcgg tgacaagacc tatgaggggtg gaaatgacta tgaaatctat 660  
 gaatcaccaa aaacaattgg ccattcagtt acgagtccag atgacacagt ggcaaaatgc 720  
 aaggctctgt tcatgtcttg a 741

<210> 2038

<211> 246

<212> PRT

<213> Arabidopsis thaliana

<400> 2038

Met	Ala	Ala	Lys	Ile	Pro	Gly	Val	Ile	Ala	Leu	Phe	Asp	Val	Asp	Gly
1			5						10					15	
Thr	Leu	Thr	Ala	Pro	Arg	Lys	Glu	Ala	Thr	Pro	Glu	Leu	Leu	Asp	Phe
			20					25					30		
Ile	Arg	Glu	Leu	Arg	Lys	Val	Val	Thr	Ile	Gly	Val	Val	Gly	Gly	Ser
		35					40					45			
Asp	Leu	Ser	Lys	Ile	Ser	Glu	Gln	Leu	Gly	Lys	Thr	Val	Thr	Asn	Asp
	50					55					60				
Tyr	Asp	Tyr	Cys	Phe	Ser	Glu	Asn	Gly	Leu	Val	Ala	His	Lys	Asp	Gly
65					70				75					80	
Lys	Ser	Ile	Gly	Ile	Gln	Ser	Leu	Lys	Leu	His	Leu	Gly	Asp	Asp	Lys
			85						90					95	
Leu	Lys	Glu	Leu	Ile	Asn	Phe	Thr	Leu	His	Tyr	Ile	Ala	Asp	Leu	Asp
			100					105					110		

047-E2F-PCT.ST25.txt

Ile Pro Ile Lys Arg Gly Thr Phe Ile Glu Phe Arg Asn Gly Met Leu  
115 120 125  
Asn Val Ser Pro Ile Gly Arg Asn Cys Ser Gln Glu Glu Arg Asp Glu  
130 135 140  
Phe Glu Arg Tyr Asp Lys Val Gln Asn Ile Arg Pro Lys Met Val Ala  
145 150 155 160  
Glu Leu Arg Glu Arg Phe Ala His Leu Asn Leu Thr Phe Ser Ile Gly  
165 170 175  
Gly Gln Ile Ser Phe Asp Val Phe Pro Lys Gly Trp Asp Lys Thr Tyr  
180 185 190  
Cys Leu Gln Tyr Leu Glu Asp Phe Ser Glu Ile His Phe Phe Gly Asp  
195 200 205  
Lys Thr Tyr Glu Gly Gly Asn Asp Tyr Glu Ile Tyr Glu Ser Pro Lys  
210 215 220  
Thr Ile Gly His Ser Val Thr Ser Pro Asp Asp Thr Val Ala Lys Cys  
225 230 235 240  
Lys Ala Leu Phe Met Ser  
245

<210> 2039

<211> 393

<212> DNA

<213> Arabidopsis thaliana

<400> 2039  
atggcgctcac caaagtcacc cacaagacca acccaacaaa acccacaacc caatttccac 60  
gattttcttc ctaccatggc cggaaccta ggcggtgaag gtctgatcgg agagctatgc 120  
aacggcttcg agcttttgat ggacagagag aaaggtgtca tcacgttcga gagtctccga 180  
cgtaacgctg cggcggttct gggtttagga gatttgactg atgaagatgt cgggtgtatg 240  
attaaagaag gtgattttga ctgcgacggt gcgttgaatc agatggagtt ttgtgtgttg 300  
atgttttaggc ttagccctga tttgatggaa gcgtcgcggt gtctcgtcac ggaggtcatt 360  
gaggaggagt ttggcttcac gcgccggcat tga 393



&lt;210&gt; 2040

&lt;211&gt; 130

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2040

Met Ala Ser Pro Lys Ser Pro Thr Arg Pro Thr Gln Gln Asn Pro Gln  
 1 5 10 15

Pro Asn Phe His Asp Phe Leu Pro Thr Met Ala Gly Asn Leu Gly Gly  
 20 25 30

Glu Gly Leu Ile Gly Glu Leu Cys Asn Gly Phe Glu Leu Leu Met Asp  
 35 40 45

Arg Glu Lys Gly Val Ile Thr Phe Glu Ser Leu Arg Arg Asn Ala Ala  
 50 55 60

Ala Val Leu Gly Leu Gly Asp Leu Thr Asp Glu Asp Val Arg Cys Met  
 65 70 75 80

Ile Lys Glu Gly Asp Phe Asp Cys Asp Gly Ala Leu Asn Gln Met Glu  
 85 90 95

Phe Cys Val Leu Met Phe Arg Leu Ser Pro Asp Leu Met Glu Ala Ser  
 100 105 110

Arg Cys Leu Val Thr Glu Val Ile Glu Glu Glu Phe Gly Phe Thr Arg  
 115 120 125

Arg His  
 130

&lt;210&gt; 2041

&lt;211&gt; 1599

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2041

atgccgcttc ttcattccaca gtcgttgccg catccttctt tcgagattca gacccaaaga 60

agaagcaatt ccacaacaag attgcttctt tctcacaagt ttctccattc tcaagcttcc 120

## 047-E2F-PCT.ST25.txt

attatctcaa tctccaggac aagaatcctc aaacgggtct ctcagaatct ctctgtagct 180  
 aaagctgctt cagctcaagc tagtagtagt gttggtgaga gtgttgctca aacatcagaa 240  
 aaagatgtgt tgaaggctct gtctcagatt attgatcctg attttgggac agatattgtt 300  
 tcttgtggtt ttgtgaaaga tttggggatt aatgaagctt tgggtgaggt ttcgttccgt 360  
 ttggagctga caacacccgc atgtccagtc aaagacatgt ttgagaacaa ggcaaatgag 420  
 gtagttgcag cccttccatg ggtgaagaag gtaaattgtga caatgtcagc acaaccagcc 480  
 aagcccatth ttgcagggca gcttccctth ggattatcaa gaatttcgaa catcatcgct 540  
 gtttctagtt gcaagggttg tgttgggaaa tcaacagtag ctgtaaatct tgcttataca 600  
 ttagctggta tgggtgctag agttggtatc tttgatgctg atgtctatgg tccaagtcta 660  
 ccaaccatgg tcaatcctga gagccgtata ttggaaatga acccgagaa gaagaccatc 720  
 attccaacag aatacatggg cgtcaagcta gtctcatttg gatttgcagg acaagggcgt 780  
 gccattatga gaggtcctat ggtgtctggt gttataaacc aactccttac aacaactgaa 840  
 tggggagagc tggactatct tgttatcgac atgcctcctg gaactggtga tatacaactg 900  
 accttatgcc aggttgcgcc attgacagca gcggtaatg tcaccacccc tcaaaagttg 960  
 gcgtttattg atgttgcaaa aggtgtaagg atgttctcaa aacttaaggt gccttgcggt 1020  
 gctgttgtgg agaatatgtg ccactttgac gctgatggga aacgttatta cccttttggg 1080  
 aaaggttcag gttctgaggt ggtcaagcaa ttcggcatac ctcacctctt tgacctcccc 1140  
 attagaccaa cgttatctgc ttcgggggat agcggaaactc ctgaagtagt gtcggatcct 1200  
 ctaagtgcg ttgccagaac gttccaggat cttggtgtat gtgtagtgca acaatgcgcc 1260  
 aagatacgcc agcaagtatc aacggccgtg acatacgaca agtatctcaa ggcaattaga 1320  
 gtgaaggtag caaactcaga cgaagagttc ttactgcacc ctgcaaccgt cagaagaaat 1380  
 gatagatctg cacaaagtgt ggatgaatgg actggagagc aaaaagttct atatggcgat 1440  
 gtagcggaag atatcgaacc tgaggacata cgaccaatgg gaaactacgc tgtctcgata 1500  
 acctggcccc acgggttttag ccagattgct ccatatgacc agttggaaga aattgaaagg 1560  
 ctagtagatg ttcctccatt gtctccagtc gaagtctag 1599

&lt;210&gt; 2042

&lt;211&gt; 532

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2042

Met Pro Leu Leu His Pro Gln Ser Leu Arg His Pro Ser Phe Glu Ile  
 1 5 10 15  
 Gln Thr Gln Arg Arg Ser Asn Ser Thr Thr Arg Leu Leu Leu Ser His  
 20 25 30  
 Lys Phe Leu His Ser Gln Ala Ser Ile Ile Ser Ile Ser Arg Thr Arg  
 35 40 45  
 Ile Leu Lys Arg Val Ser Gln Asn Leu Ser Val Ala Lys Ala Ala Ser  
 50 55 60  
 Ala Gln Ala Ser Ser Ser Val Gly Glu Ser Val Ala Gln Thr Ser Glu  
 65 70 75 80  
 Lys Asp Val Leu Lys Ala Leu Ser Gln Ile Ile Asp Pro Asp Phe Gly  
 85 90 95  
 Thr Asp Ile Val Ser Cys Gly Phe Val Lys Asp Leu Gly Ile Asn Glu  
 100 105 110  
 Ala Leu Gly Glu Val Ser Phe Arg Leu Glu Leu Thr Thr Pro Ala Cys  
 115 120 125  
 Pro Val Lys Asp Met Phe Glu Asn Lys Ala Asn Glu Val Val Ala Ala  
 130 135 140  
 Leu Pro Trp Val Lys Lys Val Asn Val Thr Met Ser Ala Gln Pro Ala  
 145 150 155 160  
 Lys Pro Ile Phe Ala Gly Gln Leu Pro Phe Gly Leu Ser Arg Ile Ser  
 165 170 175  
 Asn Ile Ile Ala Val Ser Ser Cys Lys Gly Gly Val Gly Lys Ser Thr  
 180 185 190  
 Val Ala Val Asn Leu Ala Tyr Thr Leu Ala Gly Met Gly Ala Arg Val  
 195 200 205  
 Gly Ile Phe Asp Ala Asp Val Tyr Gly Pro Ser Leu Pro Thr Met Val  
 210 215 220  
 Asn Pro Glu Ser Arg Ile Leu Glu Met Asn Pro Glu Lys Lys Thr Ile  
 225 230 235 240  
 Ile Pro Thr Glu Tyr Met Gly Val Lys Leu Val Ser Phe Gly Phe Ala  
 245 250 255

047-E2F-PCT.ST25.txt

Gly Gln Gly Arg Ala Ile Met Arg Gly Pro Met Val Ser Gly Val Ile  
 260 265 270  
 Asn Gln Leu Leu Thr Thr Thr Glu Trp Gly Glu Leu Asp Tyr Leu Val  
 275 280 285  
 Ile Asp Met Pro Pro Gly Thr Gly Asp Ile Gln Leu Thr Leu Cys Gln  
 290 300  
 Val Ala Pro Leu Thr Ala Ala Val Ile Val Thr Thr Pro Gln Lys Leu  
 305 310 315 320  
 Ala Phe Ile Asp Val Ala Lys Gly Val Arg Met Phe Ser Lys Leu Lys  
 325 330 335  
 Val Pro Cys Val Ala Val Val Glu Asn Met Cys His Phe Asp Ala Asp  
 340 345 350  
 Gly Lys Arg Tyr Tyr Pro Phe Gly Lys Gly Ser Gly Ser Glu Val Val  
 355 360 365  
 Lys Gln Phe Gly Ile Pro His Leu Phe Asp Leu Pro Ile Arg Pro Thr  
 370 375 380  
 Leu Ser Ala Ser Gly Asp Ser Gly Thr Pro Glu Val Val Ser Asp Pro  
 385 390 395 400  
 Leu Ser Asp Val Ala Arg Thr Phe Gln Asp Leu Gly Val Cys Val Val  
 405 410 415  
 Gln Gln Cys Ala Lys Ile Arg Gln Gln Val Ser Thr Ala Val Thr Tyr  
 420 425 430  
 Asp Lys Tyr Leu Lys Ala Ile Arg Val Lys Val Pro Asn Ser Asp Glu  
 435 440 445  
 Glu Phe Leu Leu His Pro Ala Thr Val Arg Arg Asn Asp Arg Ser Ala  
 450 455 460  
 Gln Ser Val Asp Glu Trp Thr Gly Glu Gln Lys Val Leu Tyr Gly Asp  
 465 470 475 480  
 Val Ala Glu Asp Ile Glu Pro Glu Asp Ile Arg Pro Met Gly Asn Tyr  
 485 490 495  
 Ala Val Ser Ile Thr Trp Pro Asp Gly Phe Ser Gln Ile Ala Pro Tyr  
 500 505 510

Asp Gln Leu Glu Glu Ile Glu Arg Leu Val Asp Val Pro Pro Leu Ser  
 515 520 525

Pro Val Glu Val  
 530

<210> 2043

<211> 387

<212> DNA

<213> Arabidopsis thaliana

<400> 2043  
 atggctggga gagctacgat ccctgctcgc aactctgccc tcatcgcaat gatcgccgat 60  
 gaggacactg ttgttggatt tttgatggct ggagttggta atgttgacat aaggaggaag 120  
 acaaattacc tcatcgtgga ttcaaagaca actgtgagac aaattgagga tgctttcaag 180  
 gaattctcag caagggatga tatcgctatc attcttttaa gccaatatat cgccaatatg 240  
 atccggttct tgggtgatag ctacaacaag ccagttcctg caatcttgga gatcccttcc 300  
 aaggaccatc cctatgatcc tgctcatgat tcagttctct ctcgtgtcaa gtacctcttt 360  
 tctgcagaat ctgtgtcaca gcgttaa 387

<210> 2044

<211> 128

<212> PRT

<213> Arabidopsis thaliana

<400> 2044

Met Ala Gly Arg Ala Thr Ile Pro Ala Arg Asn Ser Ala Leu Ile Ala  
 1 5 10 15

Met Ile Ala Asp Glu Asp Thr Val Val Gly Phe Leu Met Ala Gly Val  
 20 25 30

Gly Asn Val Asp Ile Arg Arg Lys Thr Asn Tyr Leu Ile Val Asp Ser  
 35 40 45

Lys Thr Thr Val Arg Gln Ile Glu Asp Ala Phe Lys Glu Phe Ser Ala  
 50 55 60

047-E2F-PCT.ST25.txt

Arg Asp Asp Ile Ala Ile Ile Leu Leu Ser Gln Tyr Ile Ala Asn Met  
65 70 75 80

Ile Arg Phe Leu Val Asp Ser Tyr Asn Lys Pro Val Pro Ala Ile Leu  
85 90 95

Glu Ile Pro Ser Lys Asp His Pro Tyr Asp Pro Ala His Asp Ser Val  
100 105 110

Leu Ser Arg Val Lys Tyr Leu Phe Ser Ala Glu Ser Val Ser Gln Arg  
115 120 125

<210> 2045

<211> 1842

<212> DNA

<213> Arabidopsis thaliana

<400> 2045

atgcaaattcc attttcatca tcatcaatat catcaccaac ttcatttctca tcatccatgg	60
cccattttctc atctatacat gactcttctt tatcgtttct cttccgtttag aaaccactca	120
cttctactta agactttctca tctctgcaca ccagatcag ctcttggttg ttgtttctct	180
cccaaggaat cccctttctt caggaagaac actgcccaat tcctttctcc tcagaaacac	240
acttctcttc ctctgaaact tgtctgccct ttagctagtt tctcttctta tgcggattct	300
gagggagaag agcaacacca tgctgatcaa ccgatacaga accctcacga atcttctacc	360
gtttcaaacg aatcagatgg gaaaggtaat gcagaagcta ctggagactt ttctggaatg	420
gctcaagcct ttcacatttc ttccacaaca gcaagggcaa tctctatagt catcgccttc	480
tctgctctca cccttccaat cttcatgaag tccctgggac aaggactggc tctcaagacc	540
aagcttctct cttacgcaac actactcttt gggtttctaca tggcctggaa catcggagct	600
aatgatgtcg caaatgccat ggggacttct gttggatctg gagccttgac aatccggcaa	660
gctgtgatga cagctgcagt tctcgaattc tcaggtgctc ttttgatggg aactcacgtg	720
actagcacga tgcagaaagg aattctcatg gctaattgtg tccaagggaa agatatgttg	780
ctctttgctg gtctcctctc ttcttagct gcagctggaa cttgggttaca ggtagcttct	840
tactatggat ggccagtatc aacaactcac tgtatcgtcg gatcaatggg tgggtttggg	900
cttgatatatg gaggagctgg tgccgttttc tggagttccc tagctaaagt agcttcatct	960
tgggtcatct ctctatact gggagctctt gtctccttcc tagtctacaa atgcatcagg	1020
agatttgttt acagtgcacc aaaccagga caagcagcgg ctgctgccgc tcccgtcgct	1080

047-E2F-PCT.ST25.txt

gtattttag gtgtggccag tatctcctca gccgcattgc ctctaagtaa gatctttcca 1140  
 atagctctat cacaagcctt agcctgtgga gtagcaggag ccatagtatt cgacagaatc 1200  
 atccgcaaac agctcgggtca cctcctagct aaaacaaaat caccagaaac atctcaaaac 1260  
 caacccaaaa ccattgggtt cctctccgat atcgcaggac caacaggtac acaactcgaa 1320  
 atagtctacg gaatctttgg ctatatgcaa gtcctctccg cttgcttcat gtcattcgct 1380  
 cacggaggca acgacgtctc caacgcaatc ggaccattag ccgccgcatt aagcattctc 1440  
 caaacgggag cagctgcagg aggagccgag atcgttatcc caatggatgt tctcgcttgg 1500  
 ggaggattcg gaatcgttgc tgggtctaca atgtggggat acagagtcac cgcaacgata 1560  
 gggaagaaga tcaactgagct aacaccaaca agaggattcg ctgcggaatt cgccgccgcg 1620  
 tcggttggtt tgtttgcttc gaaattaggg cttccgattt ctgcgactca tacacttggt 1680  
 ggtgctgtga tgggtgttgg tttcgctaga gggcttaata gtgtgagagc tgagactgtg 1740  
 agagagatcg ttgcttcgtg gcttgtcacc attcccgttg gtgctacact cgccggtatc 1800  
 tacacttgga ttttcaccaa gatcttatct tttgtattgt ga 1842

<210> 2046

<211> 613

<212> PRT

<213> Arabidopsis thaliana

<400> 2046

Met Gln Ile His Phe His His His Gln Tyr His His Gln Leu His Ser  
 1 5 10 15

His His Pro Trp Pro Ile Ser His Leu Tyr Met Thr Leu Pro Tyr Arg  
 20 25 30

Phe Ser Ser Val Arg Asn His Ser Leu Leu Leu Lys Thr Ser His Leu  
 35 40 45

Cys Thr Pro Arg Ser Ala Leu Gly Cys Cys Phe Ser Pro Lys Glu Ser  
 50 55 60

Pro Phe Phe Arg Lys Asn Thr Ala Gln Phe Leu Ser Pro Gln Lys His  
 65 70 75 80

Thr Ser Leu Pro Leu Lys Leu Val Cys Pro Leu Ala Ser Phe Ser Ser  
 85 90 95

047-E2F-PCT.ST25.txt

Tyr Ala Asp Ser<sub>100</sub> Glu Gly Glu Glu Gln<sub>105</sub> His His Ala Asp Gln<sub>110</sub> Pro Ile  
 Gln Asn Pro<sub>115</sub> His Glu Ser Ser Thr<sub>120</sub> Val Ser Asn Glu Ser<sub>125</sub> Asp Gly Lys  
 Gly Asn<sub>130</sub> Ala Glu Ala Thr Gly<sub>135</sub> Asp Phe Ser Gly Met<sub>140</sub> Ala Gln Ala Phe  
 His<sub>145</sub> Ile Ser Ser Thr Thr<sub>150</sub> Ala Arg Ala Ile Ser<sub>155</sub> Ile Val Ile Ala Phe<sub>160</sub>  
 Ser Ala Leu Thr Leu<sub>165</sub> Pro Ile Phe Met Lys<sub>170</sub> Ser Leu Gly Gln Gly<sub>175</sub> Leu  
 Ala Leu Lys Thr<sub>180</sub> Lys Leu Leu Ser Tyr<sub>185</sub> Ala Thr Leu Leu Phe Gly Phe  
 Tyr Met Ala<sub>195</sub> Trp Asn Ile Gly Ala<sub>200</sub> Asn Asp Val Ala Asn<sub>205</sub> Ala Met Gly  
 Thr Ser<sub>210</sub> Val Gly Ser Gly Ala<sub>215</sub> Leu Thr Ile Arg Gln<sub>220</sub> Ala Val Met Thr  
 Ala Ala Val Leu Glu Phe<sub>230</sub> Ser Gly Ala Leu Leu<sub>235</sub> Met Gly Thr His Val<sub>240</sub>  
 Thr Ser Thr Met Gln<sub>245</sub> Lys Gly Ile Leu Met<sub>250</sub> Ala Asn Val Phe Gln<sub>255</sub> Gly  
 Lys Asp Met Leu<sub>260</sub> Leu Phe Ala Gly Leu<sub>265</sub> Leu Ser Ser Leu Ala Ala Ala  
 Gly Thr Trp<sub>275</sub> Leu Gln Val Ala Ser<sub>280</sub> Tyr Tyr Gly Trp Pro<sub>285</sub> Val Ser Thr  
 Thr His<sub>290</sub> Cys Ile Val Gly Ser<sub>295</sub> Met Val Gly Phe Gly<sub>300</sub> Leu Val Tyr Gly  
 Gly Ala Gly Ala Val Phe<sub>310</sub> Trp Ser Ser Leu Ala<sub>315</sub> Lys Val Ala Ser Ser<sub>320</sub>  
 Trp Val Ile Ser Pro<sub>325</sub> Ile Leu Gly Ala Leu<sub>330</sub> Val Ser Phe Leu Val Tyr  
 Lys Cys Ile Arg<sub>340</sub> Arg Phe Val Tyr Ser<sub>345</sub> Ala Pro Asn Pro Gly<sub>350</sub> Gln Ala



047-E2F-PCT.ST25.txt

Ala Ala Ala Ala Ala Pro Val Ala Val Phe Val Gly Val Ala Ser Ile  
355 360 365

Ser Ser Ala Ala Leu Pro Leu Ser Lys Ile Phe Pro Ile Ala Leu Ser  
370 375 380

Gln Ala Leu Ala Cys Gly Val Ala Gly Ala Ile Val Phe Asp Arg Ile  
385 390 395 400

Ile Arg Lys Gln Leu Gly His Leu Leu Ala Lys Thr Lys Ser Pro Glu  
405 410 415

Thr Ser Gln Asn Gln Pro Lys Thr Ile Gly Phe Leu Ser Asp Ile Ala  
420 425 430

Gly Pro Thr Gly Thr Gln Leu Glu Ile Val Tyr Gly Ile Phe Gly Tyr  
435 440 445

Met Gln Val Leu Ser Ala Cys Phe Met Ser Phe Ala His Gly Gly Asn  
450 455 460

Asp Val Ser Asn Ala Ile Gly Pro Leu Ala Ala Ala Leu Ser Ile Leu  
465 470 475 480

Gln Asn Gly Ala Ala Ala Gly Gly Ala Glu Ile Val Ile Pro Met Asp  
485 490 495

Val Leu Ala Trp Gly Gly Phe Gly Ile Val Ala Gly Leu Thr Met Trp  
500 505 510

Gly Tyr Arg Val Ile Ala Thr Ile Gly Lys Lys Ile Thr Glu Leu Thr  
515 520 525

Pro Thr Arg Gly Phe Ala Ala Glu Phe Ala Ala Ala Ser Val Val Leu  
530 535 540

Phe Ala Ser Lys Leu Gly Leu Pro Ile Ser Ala Thr His Thr Leu Val  
545 550 555 560

Gly Ala Val Met Gly Val Gly Phe Ala Arg Gly Leu Asn Ser Val Arg  
565 570 575

Ala Glu Thr Val Arg Glu Ile Val Ala Ser Trp Leu Val Thr Ile Pro  
580 585 590

Val Gly Ala Thr Leu Ala Val Ile Tyr Thr Trp Ile Phe Thr Lys Ile

595 047-E2F-PCT.ST25.txt 600 605

Leu Ser Phe Val Leu  
610

<210> 2047

<211> 690

<212> DNA

<213> Arabidopsis thaliana

<400> 2047

atggatattt tgcacaactc tgatcttgaa taccttggtg atgaatttca cgctgatttc	60
gatgatgatg agccctttgg agaggttgat gtcaccagtg agtctgattc cgatttcatg	120
gactccgatt ttgatttcga gctgagttag agtaagacga acaatgaaac atcagcggtta	180
gaagctagga atggaaaaga tattcaaggg attccatggg agagcttgaa ttacacgagg	240
gatagatacc gtgagaatag attgctgcac tataaaaact ttgagagtct gtttcgatcc	300
agagaagagc ttgataagga atgcttgcaa gtagagaaag gaaagaactt ttatgacttt	360
cagttcaata caaggcttgt caagtccaca atagcgcatt ttcagctgag gaacttggtta	420
tgggcaacat caaagcacga tgtgtatttc atgaacaact actctctcat gcactggtca	480
tccttggtgc aaaggggcaa agaagtactt aatgtggcaa agcccatgtg tccttcaatg	540
aagcagcatg gatcgttgtc acagtctgta tcaagagtcc agataagcac catggcagtt	600
aaagacgatt tgaagttgcg ggagggttcc aaggagagct tatctgtaag aaaatcaacg	660
aacctgaggt tgctttctgc actaaactaa	690

<210> 2048

<211> 229

<212> PRT

<213> Arabidopsis thaliana

<400> 2048

Met	Asp	Ile	Phe	Asp	Asn	Ser	Asp	Leu	Glu	Tyr	Leu	Val	Asp	Glu	Phe
1				5					10					15	

His	Ala	Asp	Phe	Asp	Asp	Asp	Glu	Pro	Phe	Gly	Glu	Val	Asp	Val	Thr
			20					25					30		

Ser Glu Ser Asp Ser Asp Phe Met Asp Ser Asp Phe Asp Phe Glu Leu  
 35 40 45  
 Ser Glu Ser Lys Thr Asn Asn Glu Thr Ser Ala Leu Glu Ala Arg Asn  
 50 55 60  
 Gly Lys Asp Ile Gln Gly Ile Pro Trp Glu Ser Leu Asn Tyr Thr Arg  
 65 70 75 80  
 Asp Arg Tyr Arg Glu Asn Arg Leu Leu His Tyr Lys Asn Phe Glu Ser  
 85 90 95  
 Leu Phe Arg Ser Arg Glu Glu Leu Asp Lys Glu Cys Leu Gln Val Glu  
 100 105 110  
 Lys Gly Lys Asn Phe Tyr Asp Phe Gln Phe Asn Thr Arg Leu Val Lys  
 115 120 125  
 Ser Thr Ile Ala His Phe Gln Leu Arg Asn Leu Val Trp Ala Thr Ser  
 130 135 140  
 Lys His Asp Val Tyr Phe Met Asn Asn Tyr Ser Leu Met His Trp Ser  
 145 150 155 160  
 Ser Leu Leu Gln Arg Gly Lys Glu Val Leu Asn Val Ala Lys Pro Ile  
 165 170 175  
 Val Pro Ser Met Lys Gln His Gly Ser Leu Ser Gln Ser Val Ser Arg  
 180 185 190  
 Val Gln Ile Ser Thr Met Ala Val Lys Asp Asp Leu Lys Leu Arg Glu  
 195 200 205  
 Gly Ser Lys Glu Ser Leu Ser Val Arg Lys Ser Thr Asn Leu Arg Leu  
 210 215 220  
 Leu Ser Ala Leu Asn  
 225

&lt;210&gt; 2049

&lt;211&gt; 1461

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2049

atgtttggaga aagagttttt cacggagtat ggtgaagcaa gtcaatatca gatccaagaa	60
gttgtttggca aaggaagcta cggagttggt gcttctgcgg aatgtccaca cacgggaggc	120
aaagtagcca tcaagaagat gacaaatgtg tttgaacatg tctcagatgc tattcgtatc	180
ctcagagaga tcaagcttct caggcttctt cgacatcctg atatcgtgga gatcaagcat	240
atcatgcttc ctccttgtcg caaggaattc aaagatatat atgtttgttt tgagttgatg	300
gagtctgac ttcaccacgt tcttaaggta aatgacgacc tcactcctca gcatcatcaa	360
ttcttcttgt accaacttct tcgtggctta aaattcatgc actcagctca tgtgttccat	420
agagatctga agcctaagaa catcctcgct aatgctgatt gcaaaatcaa gatctgtgat	480
ttaggacttg ctcgtgtctc ctttactgat tccccttctg ctgtgttttg gactgactac	540
gttgctacaa gatggtaccg tgcgccagag ctctgtgggt ccttctattc taactacacg	600
ccggcgattg acatgtggag tgttgggtgc atatttgcag agatgctaac tggaaaacct	660
ttgtttcctg gcaaaaacgt tgtgcaccag ctagaactcg tgactgatct gcttggaact	720
ccgtcgccga taactctatc caggattcgg aatgagaagg ctagaaagta tttgggaaac	780
atgaggcgaa aggatcctgt acctttcacc cataaattcc ccaatatcga tcctgtggcg	840
ctgaagttac ttcagcgttt gatcgctttt gacccaaagg accgtccctc tgcagaagag	900
gcattggctg atccgtattt tcaaggattg gcaaattgtg actatgaacc atcgaggcaa	960
cctatctcga aacttgagtt tgagtttgag aggaggaaat tgactcgcga tgacgtgagg	1020
gaactcatgt acagagagat tttggagtat catccacaga tgttgcaaga gtatctacaa	1080
ggagaagaga acataaactc tcattttcta taccgaagcg gagttgatca gttcaaacaa	1140
gagtttgccc gactcgaaga acacaacgac gatgaagagg aacacaactc cccaccacat	1200
cagagaaagt acacttcaact ccctagagaa cgggtgtgct catcagaaga cgaaggttct	1260
gattcagttc atgctcaatc gtcttcagct tcagtgggtg ttacacctcc acagactcca	1320
aacacagcaa ctggcttatc atcacagaag gcgtcacaag tagacaaagc agcaactccg	1380
gtaaaacggt ctgcatgtct aatgaggagt gatagtatct gtgcttcaag atgtgttggt	1440
gtctcctctg cagtgtcata g	1461

&lt;210&gt; 2050

&lt;211&gt; 486

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2050

Met Leu Glu Lys Glu Phe Phe Thr Glu Tyr Gly Glu Ala Ser Gln Tyr  
 1 5 10 15  
 Gln Ile Gln Glu Val Val Gly Lys Gly Ser Tyr Gly Val Val Ala Ser  
 20 25 30  
 Ala Glu Cys Pro His Thr Gly Gly Lys Val Ala Ile Lys Lys Met Thr  
 35 40 45  
 Asn Val Phe Glu His Val Ser Asp Ala Ile Arg Ile Leu Arg Glu Ile  
 50 55 60  
 Lys Leu Leu Arg Leu Leu Arg His Pro Asp Ile Val Glu Ile Lys His  
 65 70 75 80  
 Ile Met Leu Pro Pro Cys Arg Lys Glu Phe Lys Asp Ile Tyr Val Val  
 85 90 95  
 Phe Glu Leu Met Glu Ser Asp Leu His His Val Leu Lys Val Asn Asp  
 100 105 110  
 Asp Leu Thr Pro Gln His His Gln Phe Phe Leu Tyr Gln Leu Leu Arg  
 115 120 125  
 Gly Leu Lys Phe Met His Ser Ala His Val Phe His Arg Asp Leu Lys  
 130 135 140  
 Pro Lys Asn Ile Leu Ala Asn Ala Asp Cys Lys Ile Lys Ile Cys Asp  
 145 150 155 160  
 Leu Gly Leu Ala Arg Val Ser Phe Thr Asp Ser Pro Ser Ala Val Phe  
 165 170 175  
 Trp Thr Asp Tyr Val Ala Thr Arg Trp Tyr Arg Ala Pro Glu Leu Cys  
 180 185 190  
 Gly Ser Phe Tyr Ser Asn Tyr Thr Pro Ala Ile Asp Met Trp Ser Val  
 195 200 205  
 Gly Cys Ile Phe Ala Glu Met Leu Thr Gly Lys Pro Leu Phe Pro Gly  
 210 215 220  
 Lys Asn Val Val His Gln Leu Glu Leu Val Thr Asp Leu Leu Gly Thr  
 225 230 235 240  
 Pro Ser Pro Ile Thr Leu Ser Arg Ile Arg Asn Glu Lys Ala Arg Lys  
 245 250 255

047-E2F-PCT.ST25.txt

Tyr Leu Gly Asn Met Arg Arg Lys Asp Pro Val Pro Phe Thr His Lys  
 260 265 270  
 Phe Pro Asn Ile Asp Pro Val Ala Leu Lys Leu Leu Gln Arg Leu Ile  
 275 280 285  
 Ala Phe Asp Pro Lys Asp Arg Pro Ser Ala Glu Glu Ala Leu Ala Asp  
 290 295 300  
 Pro Tyr Phe Gln Gly Leu Ala Asn Val Asp Tyr Glu Pro Ser Arg Gln  
 305 310 315 320  
 Pro Ile Ser Lys Leu Glu Phe Glu Phe Glu Arg Arg Lys Leu Thr Arg  
 325 330 335  
 Asp Asp Val Arg Glu Leu Met Tyr Arg Glu Ile Leu Glu Tyr His Pro  
 340 345 350  
 Gln Met Leu Gln Glu Tyr Leu Gln Gly Glu Glu Asn Ile Asn Ser His  
 355 360 365  
 Phe Leu Tyr Pro Ser Gly Val Asp Gln Phe Lys Gln Glu Phe Ala Arg  
 370 375 380  
 Leu Glu Glu His Asn Asp Asp Glu Glu Glu His Asn Ser Pro Pro His  
 385 390 395 400  
 Gln Arg Lys Tyr Thr Ser Leu Pro Arg Glu Arg Val Cys Ser Ser Glu  
 405 410 415  
 Asp Glu Gly Ser Asp Ser Val His Ala Gln Ser Ser Ser Ala Ser Val  
 420 425 430  
 Val Phe Thr Pro Pro Gln Thr Pro Asn Thr Ala Thr Gly Leu Ser Ser  
 435 440 445  
 Gln Lys Ala Ser Gln Val Asp Lys Ala Ala Thr Pro Val Lys Arg Ser  
 450 455 460  
 Ala Cys Leu Met Arg Ser Asp Ser Ile Cys Ala Ser Arg Cys Val Gly  
 465 470 475 480  
 Val Ser Ser Ala Val Ser  
 485

<210> 2051

&lt;211&gt; 447

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2051

```

atgccgagca gatacccagg agcagtaaca caagactggg aaccagtagt tctccacaaa      60
tcaaaacaaa agagccaaga cctacgcat ccgaaagcgg ttaacgcagc tctgagaaac      120
ggtgtcgcgg ttcaaacggt taagaaattc gatgccggtt cgaacaaaaa ggggaaatct      180
acggcggttc cggtgattaa cacgaagaag ctggaagaag aaacagagcc tgcggcgatg      240
gatcgtgtga aagcagaggt gaggttgatg atacagaaag cgagattgga gaagaagatg      300
tcacaagcgg atttggcgaa acagatcaat gagaggactc aggtagttca ggaatatgag      360
aatggtaaag ctgttcctaa tcaggctgtg cttgcgaaga tggagaaggt tctaggtggt      420
aaacttaggg gtaaaattgg gaaatga                                         447

```

&lt;210&gt; 2052

&lt;211&gt; 148

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2052

```

Met Pro Ser Arg Tyr Pro Gly Ala Val Thr Gln Asp Trp Glu Pro Val
1      5      10      15
Val Leu His Lys Ser Lys Gln Lys Ser Gln Asp Leu Arg Asp Pro Lys
20      25      30
Ala Val Asn Ala Ala Leu Arg Asn Gly Val Ala Val Gln Thr Val Lys
35      40      45
Lys Phe Asp Ala Gly Ser Asn Lys Lys Gly Lys Ser Thr Ala Val Pro
50      55      60
Val Ile Asn Thr Lys Lys Leu Glu Glu Glu Thr Glu Pro Ala Ala Met
65      70      75      80
Asp Arg Val Lys Ala Glu Val Arg Leu Met Ile Gln Lys Ala Arg Leu
85      90      95
Glu Lys Lys Met Ser Gln Ala Asp Leu Ala Lys Gln Ile Asn Glu Arg

```

100

105

110

Thr Gln Val Val Gln Glu Tyr Glu Asn Gly Lys Ala Val Pro Asn Gln  
 115 120 125

Ala Val Leu Ala Lys Met Glu Lys Val Leu Gly Val Lys Leu Arg Gly  
 130 135 140

Lys Ile Gly Lys  
 145

&lt;210&gt; 2053

&lt;211&gt; 759

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2053

atggcgcaga ggaagatgat tgtgtttccc accaagaatg aattgtccga agcaatggct 60  
 gagtacactg ccaatctctc cgccaagtcc atcaaagaga aaggcctttt caccgttggt 120  
 ctctccggcg gtgacctaat cgattggctc tgcaagttag tgcaacctcc ttatattgat 180  
 tcaatcgaat ggccaaaatg gcacgtcttt tgggtcgatg agagggtttg tgcattggaa 240  
 gatccagaca gtaactacaa actcgccatg gaggggtttc tctctaaggt tccgattccg 300  
 gataagaaca tctacgcaat cgacaagcac ttggcggctg atggtaacgc cgagcactgc 360  
 gcgacgctct acgaggagtg tctaaagaat ctggtgaaag aaaagattat cccaatatcg 420  
 aaaaagacag ggtatcctga gtttgatcta caacttctag ggatgggtcc tgatggccac 480  
 atggcgtctc tcttcccaa ccatccacag atcaatgaga agcagaaatg ggtcacttac 540  
 atcaccgact ctccaaaacc accaccaaag agaatcacat tcactttacc ggtcatcaac 600  
 tctactttgt acaatcttat ggccatttgt gacaaagcac cggccaaatc cgtggctgag 660  
 atcatgaagc acaacaacct ctcgttacct tctgctcatc ttagtgctca agtcgaaaat 720  
 gtttggtacc ttgaccaagc agctgcctcc gagctctag 759

&lt;210&gt; 2054

&lt;211&gt; 252

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana



&lt;400&gt; 2054

Met Ala Gln Arg Lys Met Ile Val Phe Pro Thr Lys Asn Glu Leu Ser  
 1 5 10 15

Glu Ala Met Ala Glu Tyr Thr Ala Asn Leu Ser Ala Lys Phe Ile Lys  
 20 25 30

Glu Lys Gly Leu Phe Thr Val Val Leu Ser Gly Gly Asp Leu Ile Asp  
 35 40 45

Trp Leu Cys Lys Leu Val Gln Pro Pro Tyr Ile Asp Ser Ile Glu Trp  
 50 55 60

Pro Lys Trp His Val Phe Trp Val Asp Glu Arg Val Cys Ala Trp Glu  
 65 70 75 80

Asp Pro Asp Ser Asn Tyr Lys Leu Ala Met Glu Gly Phe Leu Ser Lys  
 85 90 95

Val Pro Ile Pro Asp Lys Asn Ile Tyr Ala Ile Asp Lys His Leu Ala  
 100 105 110

Ala Asp Gly Asn Ala Glu His Cys Ala Thr Leu Tyr Glu Glu Cys Leu  
 115 120 125

Lys Asn Leu Val Lys Glu Lys Ile Ile Pro Ile Ser Lys Lys Thr Gly  
 130 135 140

Tyr Pro Glu Phe Asp Leu Gln Leu Leu Gly Met Gly Pro Asp Gly His  
 145 150 155 160

Met Ala Ser Leu Phe Pro Asn His Pro Gln Ile Asn Glu Lys Gln Lys  
 165 170 175

Trp Val Thr Tyr Ile Thr Asp Ser Pro Lys Pro Pro Pro Lys Arg Ile  
 180 185 190

Thr Phe Thr Leu Pro Val Ile Asn Ser Thr Leu Tyr Asn Leu Met Ala  
 195 200 205

Ile Cys Asp Lys Ala Pro Ala Lys Ser Val Ala Glu Ile Met Lys His  
 210 215 220

Asn Asn Leu Ser Leu Pro Ser Ala His Leu Ser Ala Gln Val Glu Asn  
 225 230 235 240

Val Trp Tyr Leu Asp Gln Ala Ala Ala Ser Glu Leu  
 Page 2979

&lt;210&gt; 2055

&lt;211&gt; 1611

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2055

```

atggaagttt cagtgattgg aaatcctcaa gcgaggatct gcagagcaga attagcttac      60
agagagcttg gatttagatt tggctctgat gtaatctccg gtgaatcgag aaataggggt      120
agtttctgca accaaagctc taaatggaaa gagatcgcgga tacgttgctc ttcgagatct      180
gtcaaattgtg aagccatcgt ctccgatgac gcttctccgt ttctcaaadc cactccaaaa      240
tctaaatcgc tcgagagtgt aaaattatctt gttgggcttc cgttagacac agtttcagac      300
tgcaacaatg tgaatcactt gaaagctatt acagctgggc ttaaagcttt gaagctactt      360
gggtgtagaag gtattgagtt acctatcttt tggggagttg ttgagaaaga agctgctggg      420
aaatatgaat ggtctgggta cttggcgagta gctgagattg ttaagaaagt gggacttaag      480
cttcatgctt cactttcttt ccatggatcg aaacaaacag agataggtct tcctgattgg      540
gtggcaaaga ttggtgatgc tgaaccaggg atctatttta cagatagata tggacaacag      600
tacaaagatt gtttgctggt tgctgttgat gatgttcctg ttcttgatgg gaagactcct      660
atggagggtt acagagggtt ctgtgagagc ttcaagtctg ctttcgcaga ttacatgggc      720
aacacaatca cggaatcac attagggttg ggaccagacg gtgagctgaa atatccttct      780
catcaacata atgccaagct ctctggcgcg ggagagttcc agtgttacga caaacacatg      840
ctttctgctc ttaaaggcta cgctgaatcc actggaaacc ctctttgggg tctcggtggt      900
cctcacgatg ctctgctta cgatcaacag cctaattcct cttcattctt ctcagacggc      960
gggtcatggg aatctcagta cggcgatttc ttcttgctct ggtattcgtc tcttctcacc     1020
tcccacgcag accgagtcct ctccgttgct tcattctgcat ttagcgggat tggagtgctt     1080
ctatgtggga agctacctct cttacaccaa tggcacaagc taagatctca tccttctgag     1140
ttaacagctg gattctacag ctctaattgt caggacaggt acgaggctat cgcagagatc     1200
tttgcaaaga actcttgtag aatgataata ccaggaatgg acctatccga cgagcaccaa     1260
tcacctgaat ctctctcgag ccccgagtca ttacttggcc acatcaaaac ttcctgcaag     1320
aaacaaggag tcgttgctc agggcaaaac tcatccaccc cgggttcctg tgggtttgag     1380
aggatcgttg agaattctgaa ggatgagaat gtaggaattg atctgttcac ttaccagaga     1440
atgggagcac ttttcttctc tccagagcat ttccatgctt tcacagtctt tgtccggaac     1500

```

047-E2F-PCT.ST25.txt

ctgagccaat tcgagttgtc ctcagacgat caagcctcag aggctgaggt tgaggccgag 1560  
acagctagca taggttcagg cactggtgca cctagtttgc aaaccgctta a 1611

<210> 2056

<211> 536

<212> PRT

<213> Arabidopsis thaliana

<400> 2056

Met Glu Val Ser Val Ile Gly Asn Pro Gln Ala Arg Ile Cys Arg Ala  
1 5 10 15

Glu Leu Ala Tyr Arg Glu Leu Gly Phe Arg Phe Gly Ser Asp Val Ile  
20 25 30

Ser Gly Glu Ser Arg Asn Arg Val Ser Phe Cys Asn Gln Ser Ser Lys  
35 40 45

Trp Lys Glu Ile Ala Ile Arg Cys Ser Ser Arg Ser Val Lys Cys Glu  
50 55 60

Ala Ile Val Ser Asp Asp Ala Ser Pro Phe Leu Lys Ser Thr Pro Lys  
65 70 75 80

Ser Lys Ser Leu Glu Ser Val Lys Leu Phe Val Gly Leu Pro Leu Asp  
85 90 95

Thr Val Ser Asp Cys Asn Asn Val Asn His Leu Lys Ala Ile Thr Ala  
100 105 110

Gly Leu Lys Ala Leu Lys Leu Leu Gly Val Glu Gly Ile Glu Leu Pro  
115 120 125

Ile Phe Trp Gly Val Val Glu Lys Glu Ala Ala Gly Lys Tyr Glu Trp  
130 135 140

Ser Gly Tyr Leu Ala Val Ala Glu Ile Val Lys Lys Val Gly Leu Lys  
145 150 155 160

Leu His Ala Ser Leu Ser Phe His Gly Ser Lys Gln Thr Glu Ile Gly  
165 170 175

Leu Pro Asp Trp Val Ala Lys Ile Gly Asp Ala Glu Pro Gly Ile Tyr  
Page 2981

180

185

190

Phe Thr Asp Arg Tyr Gly Gln Gln Tyr Lys Asp Cys Leu Ser Phe Ala  
 195 200 205  
 Val Asp Asp Val Pro Val Leu Asp Gly Lys Thr Pro Met Glu Val Tyr  
 210 215 220  
 Arg Gly Phe Cys Glu Ser Phe Lys Ser Ala Phe Ala Asp Tyr Met Gly  
 225 230 235 240  
 Asn Thr Ile Thr Gly Ile Thr Leu Gly Leu Gly Pro Asp Gly Glu Leu  
 245 250 255  
 Lys Tyr Pro Ser His Gln His Asn Ala Lys Leu Ser Gly Ala Gly Glu  
 260 265 270  
 Phe Gln Cys Tyr Asp Lys His Met Leu Ser Ala Leu Lys Gly Tyr Ala  
 275 280 285  
 Glu Ser Thr Gly Asn Pro Leu Trp Gly Leu Gly Gly Pro His Asp Ala  
 290 295 300  
 Pro Ala Tyr Asp Gln Gln Pro Asn Ser Ser Ser Phe Phe Ser Asp Gly  
 305 310 315 320  
 Gly Ser Trp Glu Ser Gln Tyr Gly Asp Phe Phe Leu Ser Trp Tyr Ser  
 325 330 335  
 Ser Leu Leu Thr Ser His Ala Asp Arg Val Leu Ser Val Ala Ser Ser  
 340 345 350  
 Ala Phe Ser Gly Ile Gly Val Pro Leu Cys Gly Lys Leu Pro Leu Leu  
 355 360 365  
 His Gln Trp His Lys Leu Arg Ser His Pro Ser Glu Leu Thr Ala Gly  
 370 375 380  
 Phe Tyr Ser Ser Asn Gly Gln Asp Arg Tyr Glu Ala Ile Ala Glu Ile  
 385 390 395 400  
 Phe Ala Lys Asn Ser Cys Arg Met Ile Ile Pro Gly Met Asp Leu Ser  
 405 410 415  
 Asp Glu His Gln Ser Pro Glu Ser Leu Ser Ser Pro Glu Ser Leu Leu  
 420 425 430

Gly His Ile Lys Thr Ser Cys Lys Lys Lys Gln Gly Val Val Val Ser Gly  
 435 440 445

Gln Asn Ser Ser Thr Pro Val Pro Gly Gly Phe Glu Arg Ile Val Glu  
 450 455 460

Asn Leu Lys Asp Glu Asn Val Gly Ile Asp Leu Phe Thr Tyr Gln Arg  
 465 470 475 480

Met Gly Ala Leu Phe Phe Ser Pro Glu His Phe His Ala Phe Thr Val  
 485 490 495

Phe Val Arg Asn Leu Ser Gln Phe Glu Leu Ser Ser Asp Asp Gln Ala  
 500 505 510

Ser Glu Ala Glu Val Glu Ala Glu Thr Ala Ser Ile Gly Ser Gly Thr  
 515 520 525

Gly Ala Pro Ser Leu Gln Thr Ala  
 530 535

<210> 2057

<211> 4497

<212> DNA

<213> Arabidopsis thaliana

<400> 2057  
 atgccggtgg aggtagagag agaccaagga gaggtgtcgg tgaagggtga ttttgagaat 60  
 gcgactgaga ttaaaccgga ggtagttggt tcggccacca aagaggacgt ggtgaatggg 120  
 atcagccatg gtggtagtaa taatggcaac gggaaacgata ccgatggttc ttacgatttc 180  
 attacggaga atgataccgt tggagatgat tttgtagagt ctgattatgt taagcctggt 240  
 gatgatgcca atgtggagaa agatcttaag gaaggagaga atgtgaaggt agatgctcca 300  
 agtattgccg atgatgatgt tttgggagtt tctcaagata gtcaaaccct ggaaaagtct 360  
 gagctagaaa gtacagatga tggaccagag gaagtcgttg agatcccaa gtcggaagtt 420  
 gaggattctc ttgaaaaaag tgtcgaccag cagcatcctg gtaatgggca tctagaaagt 480  
 gggcttgagg gttaaagtga atctaaagag gaagtggagc aacttcatga ttctgaagtt 540  
 ggatccaagg atctgacaaa gaataacgta gaggagcctg aagttgaaat cgaatctgat 600  
 agtgaaacag atgtcgaggg acatcaaggg gacaagattg aagcccaaga aaaatctgat 660  
 cgggatttgg atgtttctca agatctaaaa cttaacgaga atgtagaaaa gcaccctggt 720

gactcagatg	aagtaaggga	gtctgagttg	gtgagcgcta	aggtttctcc	aactgagcct	780
agtgatggag	gcatggattt	gggacaacct	acggtaacag	atccagctga	aaccatcaat	840
ggatctgaat	ctgtgaatga	tcacgtcgga	tcagaacctg	taacagtttt	ggaacctggt	900
tctgttgaaa	acggtcaccc	tccagtagaa	tcagagttgg	agagaagtag	tgatgttcca	960
ttcacttcag	tggcggaaaa	agtcaatgct	tccgatgggtg	aagtgttgcc	agactctgga	1020
accgtggatg	ttgttgtatc	agaggtaagc	agtgacgtcc	ctgctgagac	tcaagctctc	1080
aatgccatca	gcttggaattc	ccagccttct	ggcaaagata	gtgttggttg	aaatggtaat	1140
agcaaatacag	aattctgaaga	cagcaagatg	caatcggaag	ttggagctgt	tgatgatggc	1200
tctgtgtctg	atgggagtat	aaacactcat	ccagaatctc	aagatgccag	cgatcctact	1260
tgtgatcaag	gtggaaaaca	acacatatca	tccgaagtta	aggaagttct	tgatgccctt	1320
gcttcagaag	aaataagtga	tgctgttatt	gttgccaaag	ataatggttc	agaagctgct	1380
atttctgatg	gcttatcttg	tactaaccag	cagggatcag	aaagtgatga	gatatctggg	1440
ctagttgaaa	aactcccatc	ccatgcgcta	catgaggttg	tgtcttctgc	gaatgacacg	1500
agtgtaattg	taagcgatga	caccaaaggt	caaggtttat	cagaggatca	tggagttgac	1560
actaaccaga	caattcaaga	tgattgtagt	gctgagttgg	aagaagttac	cgatgtgaat	1620
gtaaaacatg	ctccaaatga	gaaagttcaa	ggagacaata	gcgaggggaa	cttaaagtgt	1680
gggtggtgatg	tttgtctaaa	ttctgctgaa	gaagcgaaag	aattacctac	aggggatctt	1740
tctgggaatg	catcacatga	gagtgtctgag	actctctcta	caaacatcga	cgaaccattg	1800
agcttggttg	ataccaaaac	tgctgtctct	gactttgcag	aaagctcagc	aggagtggct	1860
ggcgaaatag	acgctgttgc	catggaatct	gaagctgctc	aatcaattaa	acaatgcgct	1920
gaagcacatg	tagctccatc	cattattgaa	gatggtgaaa	tagacagaga	agtcaattgt	1980
ggttcagaag	tgaacgtgac	aaagactact	cctgttgctg	tgcgcgagga	tataccacct	2040
aaagaagttt	ctgagatgga	agaatcgga	gtcaaagaaa	gatcttcgat	aaatacagat	2100
gaagaagtcg	ctactgcctc	agttgcatct	gaaatcaaga	cctgtgcaca	ggatcttgaa	2160
tctaaagtgg	ttacatctac	tgataccata	catacaggag	ctaaagactg	tgtggacagc	2220
caacctgctg	aaaacaaaga	aggtaataag	ttaattaaaa	atgaaattag	gctatgtact	2280
tctcttggtg	agaatcagaa	ggatggagtt	gacagtatat	ataaattggt	gtgttcagga	2340
aatgttggtg	atagaacaga	tgataaagta	gcctcgaccg	gtgaagtttc	tgtacttgat	2400
gcttctgaag	ggcttactgt	agcggcagag	atagagaaaa	gaccttttta	ctttctgcct	2460
agagttccta	gatatgatga	tgaaaagtta	gccgagcaac	tgaagcatgc	tgaagagcag	2520
gttgatcaga	aaacacaaaa	tcgggatgct	cttagagcgg	atatccagaa	gatacgcgca	2580
atatgtaagg	actatgatat	cagttacaag	gcggtcatgg	cagaagagag	atctgcaaga	2640

aaagcaatgc attcaaaacg gcaggaaatt gagggcccttc agtctatgat tagccggggtt	2700
aaaagtgctg cgtctgttga tgatattgat tcaagggtgc gtaatatgga acatacgatg	2760
cagcacacaa ctttatctct gaatgaagaa aaagggtttca tgcgtgaaat aaagcagttg	2820
aagcaacttc gcgagcagat atcttcgagt atgggtacca aggatgaagt aaagcaagca	2880
ttggatgaga aagagaaaac agaagaacgt ttgaagggtgt tgaggaagga actagacgca	2940
ctcagaaaacg atctatcaaa agccgaagaa atcacaaaag ctgcgaaaaa aaagtgtgat	3000
ggggaatggg aagcacagag taaactgcaa gaacagttca gagctgctga tgctgttcgc	3060
caggaagcat ttgtgcacct acaggatttg aagaaacaac aacgagaaaa gaacaaatat	3120
ttcttcaagt acagagataa ttcaagggca gcaagtgaat tggctttgaa gaaagacaga	3180
gcagcactgc aaagcctttg ttctgaccag gtggagaatt tcatgaatat gtggaacaat	3240
gacgacgagt tccgtaaata ctatgtaaaa agcaacacaa ggagtacctt tagaagacta	3300
ggaaccctag atggacgatc tcttgccct gatgaggagc cacctcggat cacttatgct	3360
ccaagaacgg acaaacttag aacttctagt gacagagcag agaaacatga ggcagttcca	3420
gcacagaaag agaaagtcgt taaatttgaa ggttcaaaaag ttgaaaacaa cggtaaggag	3480
gttgctaaac ccaccgagca aaagagtcag accactaaat ctaaaaggc cgtcaagcca	3540
gaccagcctc catcaattgt cacagaattg gtttctggaa aagaggagat agagaagtca	3600
gcaacaccgg aagaagaaga gccgcctaag ttaacaaaag aggaagagga gttaattaag	3660
aaagaagaag agaagagaaa acaaaaggaa gctgcaaaga tgaaggagca acatcggtta	3720
gaggaaatag caaaagcgaa agaggcaatg gagaggaaga agaagagaga ggagaaggca	3780
aaagcaagag ctgttctcaa ggctcagaag gaagccgaag aaaggagaga ggtaaaagca	3840
tatTTTTgtc attctgttat ccaaattgga tttcgatcag tctctctagc tagaacgaga	3900
gaagaagcta aggaagaagg agagaagaaa ggggattttt acatcagaag agacagcaac	3960
agaaaacca attccgacag cagaaactgt agtcgaaacc ccaagggaga tcgaaactcc	4020
aaagaaacaa accgtagagg agagtcaaca aatgaagaaa tctcaciaac cttcatcaca	4080
gtttctgaaa caaaacaagt caaatcggg tcctctgcct ttaagaaacc gaggaagcaa	4140
gagaaaactg cggcaatgga tgtggattgg actcatagtt gtgatcatca tcgcattggt	4200
ccttctcgaa gttctacgat tgttcgttct tgtcacataa gtcattccagg ggtggttcct	4260
catcagtgcc aagagatcgt ccatctagac ttccctagtc tttttaagga cagagcagag	4320
aaacatgaga ctgttccacc agtttcagca ctggattcag tcttatattt gccccttcac	4380
caaatcatc ttcgggatca aattttggaa cagtctatga ggcgcacgag aactgctagt	4440
cgcagtagcg ctacgttttg ccttgacaac cgcagtagtt tgactagaac gccataa	4497

&lt;210&gt; 2058

&lt;211&gt; 1498

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2058

Met Pro Val Glu Val Glu Arg Asp Gln Gly Glu Val Ser Val Lys Val  
1 5 10 15

Asp Phe Glu Asn Ala Thr Glu Ile Lys Pro Glu Val Val Val Ser Ala  
20 25 30

Thr Lys Glu Asp Val Val Asn Gly Ile Ser His Gly Gly Ser Asn Asn  
35 40 45

Gly Asn Gly Asn Asp Thr Asp Gly Ser Tyr Asp Phe Ile Thr Glu Asn  
50 55 60

Asp Thr Val Gly Asp Asp Phe Val Glu Ser Asp Tyr Val Lys Pro Val  
65 70 75 80

Asp Asp Ala Asn Val Glu Lys Asp Leu Lys Glu Gly Glu Asn Val Lys  
85 90 95

Val Asp Ala Pro Ser Ile Ala Asp Asp Asp Val Leu Gly Val Ser Gln  
100 105 110

Asp Ser Gln Thr Leu Glu Lys Ser Glu Leu Glu Ser Thr Asp Asp Gly  
115 120 125

Pro Glu Glu Val Val Glu Ile Pro Lys Ser Glu Val Glu Asp Ser Leu  
130 135 140

Glu Lys Ser Val Asp Gln Gln His Pro Gly Asn Gly His Leu Glu Ser  
145 150 155 160

Gly Leu Glu Gly Lys Val Glu Ser Lys Glu Glu Val Glu Gln Leu His  
165 170 175

Asp Ser Glu Val Gly Ser Lys Asp Leu Thr Lys Asn Asn Val Glu Glu  
180 185 190

Pro Glu Val Glu Ile Glu Ser Asp Ser Glu Thr Asp Val Glu Gly His  
195 200 205



047-E2F-PCT.ST25.txt

Gln Gly Asp Lys Ile Glu Ala Gln Glu Lys Ser Asp Arg Asp Leu Asp  
210 215 220

Val Ser Gln Asp Leu Lys Leu Asn Glu Asn Val Glu Lys His Pro Val  
225 230 235 240

Asp Ser Asp Glu Val Arg Glu Ser Glu Leu Val Ser Ala Lys Val Ser  
245 250 255

Pro Thr Glu Pro Ser Asp Gly Gly Met Asp Leu Gly Gln Pro Thr Val  
260 265 270

Thr Asp Pro Ala Glu Thr Ile Asn Gly Ser Glu Ser Val Asn Asp His  
275 280 285

Val Gly Ser Glu Pro Val Thr Val Leu Glu Pro Val Ser Val Glu Asn  
290 295 300

Gly His Pro Pro Val Glu Ser Glu Leu Glu Arg Ser Ser Asp Val Pro  
305 310 315 320

Phe Thr Ser Val Ala Glu Lys Val Asn Ala Ser Asp Gly Glu Val Leu  
325 330 335

Pro Asp Ser Gly Thr Val Asp Val Val Val Ser Glu Val Ser Ser Asp  
340 345 350

Val Pro Ala Glu Thr Gln Ala Leu Asn Ala Ile Ser Leu Asp Ser Gln  
355 360 365

Pro Ser Gly Lys Asp Ser Val Val Glu Asn Gly Asn Ser Lys Ser Glu  
370 375 380

Ser Glu Asp Ser Lys Met Gln Ser Glu Ile Gly Ala Val Asp Asp Gly  
385 390 395 400

Ser Val Ser Asp Gly Ser Ile Asn Thr His Pro Glu Ser Gln Asp Ala  
405 410 415

Ser Asp Pro Thr Cys Asp Gln Gly Gly Lys Gln His Ile Ser Ser Glu  
420 425 430

Val Lys Glu Val Leu Asp Ala Pro Ala Ser Glu Glu Ile Ser Asp Ala  
435 440 445

Val Ile Val Ala Lys Asp Asn Gly Ser Glu Ala Ala Ile Ser Asp Gly

450

455

Leu Ser Cys Thr Asn Gln Gln Gly Ser Glu Ser Asp Glu Ile Ser Gly  
465 470 475 480

Leu Val Glu Lys Leu Pro Ser His Ala Leu His Glu Val Val Ser Ser  
485 490 495

Ala Asn Asp Thr Ser Val Ile Val Ser Asp Asp Thr Lys Ser Gln Gly  
500 505 510

Leu Ser Glu Asp His Gly Val Asp Thr Asn Gln Thr Ile Gln Asp Asp  
515 520 525

Cys Ser Ala Glu Leu Glu Glu Val Thr Asp Val Asn Val Lys His Ala  
530 535 540

Pro Asn Glu Lys Val Gln Gly Asp Asn Ser Glu Gly Asn Leu Asn Val  
545 550 555 560

Gly Gly Asp Val Cys Leu Asn Ser Ala Glu Glu Ala Lys Glu Leu Pro  
565 570 575

Thr Gly Asp Leu Ser Gly Asn Ala Ser His Glu Ser Ala Glu Thr Leu  
580 585 590

Ser Thr Asn Ile Asp Glu Pro Leu Ser Leu Leu Asp Thr Lys Thr Ala  
595 600 605

Val Ser Asp Phe Ala Glu Ser Ser Ala Gly Val Ala Gly Glu Ile Asp  
610 615 620

Ala Val Ala Met Glu Ser Glu Ala Ala Gln Ser Ile Lys Gln Cys Ala  
625 630 635 640

Glu Ala His Val Ala Pro Ser Ile Ile Glu Asp Gly Glu Ile Asp Arg  
645 650 655

Glu Val Asn Cys Gly Ser Glu Val Asn Val Thr Lys Thr Thr Pro Val  
660 665 670

Ala Val Arg Glu Asp Ile Pro Pro Lys Glu Val Ser Glu Met Glu Glu  
675 680 685

Ser Asp Val Lys Glu Arg Ser Ser Ile Asn Thr Asp Glu Glu Val Ala  
690 695 700

Thr Ala Ser Val Ala Ser Glu Ile Lys Thr Cys Ala Gln Asp Leu Glu  
 705 710 715 720  
 Ser Lys Val Val Thr Ser Thr Asp Thr Ile His Thr Gly Ala Lys Asp  
 725 730 735  
 Cys Val Asp Ser Gln Pro Ala Glu Asn Lys Glu Gly Asn Lys Leu Ile  
 740 745 750  
 Lys Asn Glu Ile Arg Leu Cys Thr Ser Leu Val Glu Asn Gln Lys Asp  
 755 760 765  
 Gly Val Asp Ser Ile Tyr Lys Leu Leu Cys Ser Gly Asn Val Val Asp  
 770 775 780  
 Arg Thr Asp Asp Lys Val Ala Ser Thr Gly Glu Val Ser Val Leu Asp  
 785 790 795 800  
 Ala Ser Glu Gly Leu Thr Val Ala Ala Glu Ile Glu Lys Arg Pro Phe  
 805 810 815  
 Tyr Phe Leu Pro Arg Val Pro Arg Tyr Asp Asp Glu Lys Leu Ala Glu  
 820 825 830  
 Gln Leu Lys His Ala Glu Glu Gln Val Asp Gln Lys Thr Gln Asn Arg  
 835 840 845  
 Asp Ala Leu Arg Ala Asp Ile Gln Lys Ile Arg Ala Ile Cys Lys Asp  
 850 855 860  
 Tyr Asp Ile Ser Tyr Lys Ala Val Met Ala Glu Glu Arg Ser Ala Arg  
 865 870 875 880  
 Lys Ala Met His Ser Lys Arg Gln Glu Ile Glu Ala Leu Gln Ser Met  
 885 890 895  
 Ile Ser Arg Val Lys Ser Ala Ala Ser Val Asp Asp Ile Asp Ser Arg  
 900 905 910  
 Val Arg Asn Met Glu His Thr Met Gln His Thr Thr Leu Ser Leu Asn  
 915 920 925  
 Glu Glu Lys Gly Phe Met Arg Glu Ile Lys Gln Leu Lys Gln Leu Arg  
 930 935 940  
 Glu Gln Ile Ser Ser Ser Met Gly Thr Lys Asp Glu Val Lys Gln Ala  
 945 950 955 960

047-E2F-PCT.ST25.txt

Leu Asp Glu Lys Glu Lys Thr Glu Glu Arg Leu Lys Val Leu Arg Lys  
 965 970 975  
 Glu Leu Asp Ala Leu Arg Asn Asp Leu Ser Lys Ala Glu Glu Ile Thr  
 980 985 990  
 Lys Ala Ala Lys Lys Lys Cys Asp Gly Glu Trp Glu Ala Gln Ser Lys  
 995 1000 1005  
 Leu Gln Glu Gln Phe Arg Ala Ala Asp Ala Val Arg Gln Glu Ala  
 1010 1015 1020  
 Phe Val His Leu Gln Asp Leu Lys Lys Gln Gln Arg Glu Lys Asn  
 1025 1030 1035  
 Lys Tyr Phe Phe Lys Tyr Arg Asp Asn Ser Arg Ala Ala Ser Glu  
 1040 1045 1050  
 Met Ala Leu Lys Lys Asp Arg Ala Ala Leu Gln Ser Leu Cys Ser  
 1055 1060 1065  
 Asp Gln Val Glu Asn Phe Met Asn Met Trp Asn Asn Asp Asp Glu  
 1070 1075 1080  
 Phe Arg Lys Tyr Tyr Val Lys Ser Asn Thr Arg Ser Thr Phe Arg  
 1085 1090 1095  
 Arg Leu Gly Thr Leu Asp Gly Arg Ser Leu Gly Pro Asp Glu Glu  
 1100 1105 1110  
 Pro Pro Arg Ile Thr Tyr Ala Pro Arg Thr Asp Lys Leu Arg Thr  
 1115 1120 1125  
 Ser Ser Asp Arg Ala Glu Lys His Glu Ala Val Pro Ala Gln Lys  
 1130 1135 1140  
 Glu Lys Val Val Lys Phe Glu Gly Ser Lys Val Glu Asn Asn Gly  
 1145 1150 1155  
 Lys Glu Val Ala Lys Pro Thr Glu Gln Lys Ser Gln Thr Thr Lys  
 1160 1165 1170  
 Ser Lys Lys Ala Val Lys Pro Asp Gln Pro Pro Ser Ile Val Thr  
 1175 1180 1185  
 Glu Leu Val Ser Gly Lys Glu Glu Ile Glu Lys Ser Ala Thr Pro  
 1190 1195 1200

## 047-E2F-PCT.ST25.txt

Glu Glu Glu Glu Pro Pro Lys Leu Thr Lys Glu Glu Glu Glu Leu  
 1205 1210 1215  
 Ile Lys Lys Glu Glu Glu Lys Arg Lys Gln Lys Glu Ala Ala Lys  
 1220 1225 1230  
 Met Lys Glu Gln His Arg Leu Glu Glu Ile Ala Lys Ala Lys Glu  
 1235 1240 1245  
 Ala Met Glu Arg Lys Lys Lys Arg Glu Glu Lys Ala Lys Ala Arg  
 1250 1255 1260  
 Ala Val Leu Lys Ala Gln Lys Glu Ala Glu Glu Arg Glu Lys Val  
 1265 1270 1275  
 Lys Ala Tyr Phe Cys His Ser Val Ile Gln Ile Gly Phe Arg Ser  
 1280 1285 1290  
 Val Ser Leu Ala Arg Thr Arg Glu Glu Ala Lys Glu Glu Gly Glu  
 1295 1300 1305  
 Lys Lys Gly Asp Phe Tyr Ile Arg Arg Asp Ser Asn Arg Lys Pro  
 1310 1315 1320  
 Asn Ser Asp Ser Arg Asn Cys Ser Arg Asn Pro Lys Gly Asp Arg  
 1325 1330 1335  
 Asn Ser Lys Glu Thr Asn Arg Arg Gly Glu Ser Thr Asn Glu Glu  
 1340 1345 1350  
 Ile Ser Gln Thr Phe Ile Thr Val Ser Glu Thr Lys Gln Val Lys  
 1355 1360 1365  
 Ile Gly Ser Ser Ala Phe Lys Lys Pro Arg Lys Gln Glu Lys Thr  
 1370 1375 1380  
 Ala Ala Met Asp Val Asp Trp Thr His Ser Cys Asp His His Arg  
 1385 1390 1395  
 Ile Val Pro Ser Arg Ser Ser Thr Ile Val Arg Ser Cys His Ile  
 1400 1405 1410  
 Ser His Pro Gly Val Val Pro His Gln Cys Gln Glu Ile Val His  
 1415 1420 1425  
 Leu Asp Phe Pro Ser Leu Phe Lys Asp Arg Ala Glu Lys His Glu

1430

1435

Thr Val Pro Pro Val Ser Ala Leu Asp Ser Val Leu Tyr Leu Pro  
1445 1450 1455

Leu His Gln Asn His Leu Arg Asp Gln Ile Leu Glu Gln Ser Met  
1460 1465 1470

Arg Arg Thr Arg Thr Ala Ser Arg Ser Ser Ala Thr Phe Cys Leu  
1475 1480 1485

Asp Asn Arg Ser Ser Leu Thr Arg Thr Pro  
1490 1495

<210> 2059

<211> 435

<212> DNA

<213> Arabidopsis thaliana

<400> 2059

atggcgggttt ctctcccgaa ctcgtttctt cagattagcc catgtgttcc ttctctgcaa	60
ttaagaaagc cggatgatggc ggcagtgaaa ggaggaaaac aatcgggtgag aagaagcagc	120
aatacgggtgg ttccagataac gtgtcgtgaag aaggaattgc atcctgaatt ccacgaagac	180
gcaaagggttt actgcaatgg agagctggtg atgactacag gaggaacaaa gaaagagtat	240
gtgggttgatg tatggtcagg taaccatccg ttttacctcg ggaatcgttc ggctttgatg	300
gttgatgctg atcaagttga gaagtttcgt aagaggttcg ctgggccttc tgagattatg	360
gagattcctg tgcttaaagg agaaatcatt atgcctacta agaaaagtaa aggtcccaaa	420
gggaagaaga aatga	435

<210> 2060

<211> 144

<212> PRT

<213> Arabidopsis thaliana

<400> 2060

Met Ala Val Ser Leu Pro Asn Ser Phe Leu Gln Ile Ser Pro Cys Val	
1 5 10 15	

Pro Ser Leu Gln Leu Arg Lys Pro Val Met Ala Ala Val Lys Gly Gly  
20 25 30

Lys Gln Ser Val Arg Arg Ser Ser Asn Thr Val Val Gln Ile Thr Cys  
35 40 45

Arg Lys Lys Glu Leu His Pro Glu Phe His Glu Asp Ala Lys Val Tyr  
50 55 60

Cys Asn Gly Glu Leu Val Met Thr Thr Gly Gly Thr Lys Lys Glu Tyr  
65 70 75 80

Val Val Asp Val Trp Ser Gly Asn His Pro Phe Tyr Leu Gly Asn Arg  
85 90 95

Ser Ala Leu Met Val Asp Ala Asp Gln Val Glu Lys Phe Arg Lys Arg  
100 105 110

Phe Ala Gly Leu Ser Glu Ile Met Glu Ile Pro Val Leu Lys Gly Glu  
115 120 125

Ile Ile Met Pro Thr Lys Lys Ser Lys Gly Pro Lys Gly Lys Lys Lys  
130 135 140

<210> 2061

<211> 1488

<212> DNA

<213> Arabidopsis thaliana

<400> 2061

atggacctca cccaaatcct actcctctcc tttctctttc tcactatctc catcaaactc	60
ttgctcacia aatctaaccg gaaacctaatt cttcctctctt ctccggctta ccctttaccg	120
gttatcggcc acctccacct cctcaagcaa ccggtccacc gaacattcca ctccatctct	180
aagtcccttg gaaatgctcc aatctttcac ctccgcctgg gaaaccgcct cgtttacgtc	240
atctcctcac actccatagc cgaagaatgt ttcaccaaaa acgacgtcgt tcttgcgaaac	300
cgctctgata tcatcatggc caaacacgtc ggctataact ttaccaatat gattgcagca	360
tcttacggcg accactggag gaatctccgc cgcacgcgcg ccgtcgagat attttcttct	420
catagaatca gtaccttttc ttctatccgt aaagacgaga tccgacggct cataacacat	480
ctctctagag actccttgca cggatttggt gaagtggagt tgaaatcggt attaaccaac	540
ttggcattca acaacatcat catgatggta gccggaaaac gatattacgg taccggtaca	600

```

gaagacaatg atgaagccaa gctcgtgagg gaacttatag cggagataat ggccggcgccc 660
ggttcttgaa atttggctga ttatcttccg tccataaatt gggtcacaaa ctttgagaac 720
cagacaaaaa tcttggggaa tcgactcgat agagtcctgc aaaaactggg tgatgagaaa 780
cgtgcagaga aagaaaaggg tcaaactttg atcgatcatt tgctttcttt ccaagaaacc 840
gaacccgagt actatactga tgtcatcatc aaaggaatca tactggcttt ggttcttgcg 900
gggacagata catcttcagt gacgttggaa tgggcaatgt caaatttgct gaaccatcca 960
gagatacttg agaaagcgag agcggagatc gatgataaaa tcggttcaga ccggttagtt 1020
gaagaatcag atattgtaaa tctccattat ctccaaaaca ttgtgtcaga aacattacgt 1080
ttgtatcctg cggttccact actactccct catttctcat cggatgaatg taaagtggcg 1140
ggctacgata tgccacgtcg cacgttggtt ttaacaaacg tatgggcatg gcatagagat 1200
ccaggtttat gggaagagcc agagagggtt aagccggaga gggtcgagaa agaaggagag 1260
gctcgaaagc taatgccgtt tgggatggga cgacgagctt gtcctggagc tgagcttggg 1320
aagcggttag tgagccttgc tcttgggtgc ttgattcagt ctttcgagtg ggagagagtt 1380
gggtgcagaac ttgtggacat gactgaaggc gaagggatca ctatgcctaa agctactccg 1440
ttgcgagcta tgtgcaaggc acgtgccatt gttggtaaaa cgatataa 1488

```

&lt;210&gt; 2062

&lt;211&gt; 495

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2062

```

Met Asp Leu Thr Gln Ile Leu Leu Leu Ser Phe Leu Phe Leu Thr Ile
1           5           10           15

Ser Ile Lys Leu Leu Leu Thr Lys Ser Asn Arg Lys Pro Asn Leu Pro
20           25           30

Pro Ser Pro Ala Tyr Pro Leu Pro Val Ile Gly His Leu His Leu Leu
35           40           45

Lys Gln Pro Val His Arg Thr Phe His Ser Ile Ser Lys Ser Leu Gly
50           55           60

Asn Ala Pro Ile Phe His Leu Arg Leu Gly Asn Arg Leu Val Tyr Val
65           70           75           80

```



Ile Ser Ser His Ser Ile Ala Glu Glu Cys Phe Thr Lys Asn Asp Val  
 85 90 95  
 Val Leu Ala Asn Arg Pro Asp Ile Ile Met Ala Lys His Val Gly Tyr  
 100 105 110  
 Asn Phe Thr Asn Met Ile Ala Ala Ser Tyr Gly Asp His Trp Arg Asn  
 115 120 125  
 Leu Arg Arg Ile Ala Ala Val Glu Ile Phe Ser Ser His Arg Ile Ser  
 130 135 140  
 Thr Phe Ser Ser Ile Arg Lys Asp Glu Ile Arg Arg Leu Ile Thr His  
 145 150 155 160  
 Leu Ser Arg Asp Ser Leu His Gly Phe Val Glu Val Glu Leu Lys Ser  
 165 170 175  
 Leu Leu Thr Asn Leu Ala Phe Asn Asn Ile Ile Met Met Val Ala Gly  
 180 185 190  
 Lys Arg Tyr Tyr Gly Thr Gly Thr Glu Asp Asn Asp Glu Ala Lys Leu  
 195 200 205  
 Val Arg Glu Leu Ile Ala Glu Ile Met Ala Gly Ala Gly Ser Gly Asn  
 210 215 220  
 Leu Ala Asp Tyr Leu Pro Ser Ile Asn Trp Val Thr Asn Phe Glu Asn  
 225 230 235 240  
 Gln Thr Lys Ile Leu Gly Asn Arg Leu Asp Arg Val Leu Gln Lys Leu  
 245 250 255  
 Val Asp Glu Lys Arg Ala Glu Lys Glu Lys Gly Gln Thr Leu Ile Asp  
 260 265 270  
 His Leu Leu Ser Phe Gln Glu Thr Glu Pro Glu Tyr Tyr Thr Asp Val  
 275 280 285  
 Ile Ile Lys Gly Ile Ile Leu Ala Leu Val Leu Ala Gly Thr Asp Thr  
 290 295 300  
 Ser Ser Val Thr Leu Glu Trp Ala Met Ser Asn Leu Leu Asn His Pro  
 305 310 315 320  
 Glu Ile Leu Glu Lys Ala Arg Ala Glu Ile Asp Asp Lys Ile Gly Ser  
 325 330 335

047-E2F-PCT.ST25.txt

Asp Arg Leu Val Glu Glu Ser Asp Ile Val Asn Leu His Tyr Leu Gln  
340 345 350

Asn Ile Val Ser Glu Thr Leu Arg Leu Tyr Pro Ala Val Pro Leu Leu  
355 360 365

Leu Pro His Phe Ser Ser Asp Glu Cys Lys Val Ala Gly Tyr Asp Met  
370 375 380

Pro Arg Arg Thr Leu Leu Leu Thr Asn Val Trp Ala Met His Arg Asp  
385 390 395 400

Pro Gly Leu Trp Glu Glu Pro Glu Arg Phe Lys Pro Glu Arg Phe Glu  
405 410 415

Lys Glu Gly Glu Ala Arg Lys Leu Met Pro Phe Gly Met Gly Arg Arg  
420 425 430

Ala Cys Pro Gly Ala Glu Leu Gly Lys Arg Leu Val Ser Leu Ala Leu  
435 440 445

Gly Cys Leu Ile Gln Ser Phe Glu Trp Glu Arg Val Gly Ala Glu Leu  
450 455 460

Val Asp Met Thr Glu Gly Glu Gly Ile Thr Met Pro Lys Ala Thr Pro  
465 470 475 480

Leu Arg Ala Met Cys Lys Ala Arg Ala Ile Val Gly Lys Thr Ile  
485 490 495

<210> 2063

<211> 2568

<212> DNA

<213> Arabidopsis thaliana

<400> 2063

atgtttcacg tggaagaaga aagcagtgga ggcgatgggt ctgagattga tgaggagttt	60
ggcggagacg attcaacgac gtcattgtcg cgatgggtgt tcgatgagaa agatgattat	120
gaggttaatg aagattacga cgatgatgga tatgatgagc ataatcaccc ggaaatggat	180
tccgatgagg aggatgacaa tgtggagcag cgtttgattc gcactagccc tgccgttgac	240
tctttcgatg tagatgctct tgagattcct ggaactcaga aaaacgaaat cgaggacact	300
ggtataggaa agaaactcat acttgctttg cagacacttg gggttgtatt tggatgatt	360

ggaactagcc cattgtatac cttcactgtc atgttcagaa gatctccaat taacgacaaa 420  
 gaagatatta ttggagcctt gtcattgggt atatacactt taatattgat tcctcttgta 480  
 aagtatgtac attttgttct ttggggccaat gacgatggcg aagggtgggac gtttgctttg 540  
 tattcgttga tctgccggca tgcaaagtgt agccttatcc caaatcaact tccatcagat 600  
 gctcgcatac caggcttttg tttgaagggt ccgtctccag aacttgaaag atcattgata 660  
 attaaagaaa gacttgaggc gtcaatggcc ttgaaaaagc ttcttctgat tttagttctt 720  
 gccggcactg ctatggtgat tgctgatgct gttgttacgc cagcaatgtc agtaatgtct 780  
 gctatcgggt gtctgaagggt tggagttggt gttatagaac aagatcagggt ggtcgtgata 840  
 tcagtcagct ttcttctgat cttgttcagt gtacaaaaat atggaaccag caaattgggg 900  
 cttgttttgg gtcctgcttt acttctgtgg tttttttgtc tagcgggcat tggaatttac 960  
 aacctcgtaa aatatgacag cagcgttttt aaagcgttca atcctgcata tatctatttc 1020  
 tttttcaaga gaaactctgt aaatgcttgg tatgcacttg ggggttgctt tttatgtgca 1080  
 actggatcgg aggccatgtt tgcagatctt agctatttct ctgttcactc tatccagctt 1140  
 acttttatcc ttctggtgtt accttgcctc ttgctgggtt atttgggtca agccgcatac 1200  
 ctctctgaaa acttcagcgc tgccggggat gctttctttt cgtcagttcc aagttctttg 1260  
 ttctggccag tctttctcat ttctaagtgt gctgctttta ttgccagtcg tgcaatgaca 1320  
 acagccacat ttacatgcat caaacagtca atagcactag gctgtttccc acgtcttaaa 1380  
 atcattcaca cctcaaagaa attcattgga cagatttata taccggttct taactggtcc 1440  
 cttctggtgg tgtgtctgat cgttgtctgc tctacctcaa atatcttcgc gattggaaac 1500  
 gcttatggca tcgcagagct gggaattatg atgactacaa caattttggt gacccttatc 1560  
 atgcttctta tctggcagac gaacatcata gttgtgagca tgtttgcaat tgtttccttg 1620  
 atagtcgaac tggttttctt ctcatccgtt tgttcaagtg tggctgatgg aagttggata 1680  
 atcttggttt ttgctacaat tatgtttctc ataagtgttg tttggaacta cgggagtaaa 1740  
 ctgaagtatg aaactgaagt ccagaaaaag ctaccaatgg acctactacg agaactgggc 1800  
 agtaaccttg ggacaattag agcaccgggt attggtctac ttataatga gctagctaaa 1860  
 ggagttccgg caatatttgg tcatttttcta accacccttc ctgcaatcca ttccatggtt 1920  
 atcttcgtgt gtataaagta tgtccctgtt ccaagtgtgc ctcagaccga gagatttctt 1980  
 ttcagacgtg tatgccaag aagctatcat ttattccgct gtgtagccag gtatggatac 2040  
 aaagatgtgc ggaaggaaaag tcaccaggcg tttgagcaga tactgattga gagtctagaa 2100  
 aaatttatac gtaaggaagc acaggagcgt gcacttgaga gtgacggaga ccataatgat 2160  
 acagattctg aggatgatac gactctgtcc agagttctga tagcacccaa tggaagtgtg 2220

tattcacttg gagtgcctct cttagctgag cacatgaatt cgtcaaaca gcgacccatg 2280  
gagagaagaa aggccagcat agattttggg gcaggtcctt catcggcggtt ggatgtggag 2340  
cagagtctag aaaaagaatt gtcgtttata cacaaagcga aagagtcagg ggtggtgtat 2400  
ctactgggac atggggacat aagggctact aaggattctt ggtttctgaa gaagctggta 2460  
ataaattact tgtatgcttt cttgaggaag aactccagga gagggataac aaacctaagc 2520  
gttccgcata cacatttgat gcaagttgga atgacttata tggatatga 2568

<210> 2064

<211> 855

<212> PRT

<213> Arabidopsis thaliana

<400> 2064

Met Phe His Val Glu Glu Ser Ser Gly Gly Asp Gly Ser Glu Ile  
1 5 10 15

Asp Glu Glu Phe Gly Gly Asp Asp Ser Thr Thr Ser Leu Ser Arg Trp  
20 25 30

Val Phe Asp Glu Lys Asp Asp Tyr Glu Val Asn Glu Asp Tyr Asp Asp  
35 40 45

Asp Gly Tyr Asp Glu His Asn His Pro Glu Met Asp Ser Asp Glu Glu  
50 55 60

Asp Asp Asn Val Glu Gln Arg Leu Ile Arg Thr Ser Pro Ala Val Asp  
65 70 75 80

Ser Phe Asp Val Asp Ala Leu Glu Ile Pro Gly Thr Gln Lys Asn Glu  
85 90 95

Ile Glu Asp Thr Gly Ile Gly Lys Lys Leu Ile Leu Ala Leu Gln Thr  
100 105 110

Leu Gly Val Val Phe Gly Asp Ile Gly Thr Ser Pro Leu Tyr Thr Phe  
115 120 125

Thr Val Met Phe Arg Arg Ser Pro Ile Asn Asp Lys Glu Asp Ile Ile  
130 135 140

Gly Ala Leu Ser Leu Val Ile Tyr Thr Leu Ile Leu Ile Pro Leu Val  
145 150 155 160

047-E2F-PCT.ST25.txt

Lys Tyr Val His Phe Val Leu Trp Ala Asn Asp Asp Gly Glu Gly Gly  
 165 170 175  
 Thr Phe Ala Leu Tyr Ser Leu Ile Cys Arg His Ala Asn Val Ser Leu  
 180 185 190  
 Ile Pro Asn Gln Leu Pro Ser Asp Ala Arg Ile Ser Gly Phe Gly Leu  
 195 200 205  
 Lys Val Pro Ser Pro Glu Leu Glu Arg Ser Leu Ile Ile Lys Glu Arg  
 210 215 220  
 Leu Glu Ala Ser Met Ala Leu Lys Lys Leu Leu Leu Ile Leu Val Leu  
 225 230 235 240  
 Ala Gly Thr Ala Met Val Ile Ala Asp Ala Val Val Thr Pro Ala Met  
 245 250 255  
 Ser Val Met Ser Ala Ile Gly Gly Leu Lys Val Gly Val Gly Val Ile  
 260 265 270  
 Glu Gln Asp Gln Val Val Val Ile Ser Val Ser Phe Leu Val Ile Leu  
 275 280 285  
 Phe Ser Val Gln Lys Tyr Gly Thr Ser Lys Leu Gly Leu Val Leu Gly  
 290 295 300  
 Pro Ala Leu Leu Leu Trp Phe Phe Cys Leu Ala Gly Ile Gly Ile Tyr  
 305 310 315 320  
 Asn Leu Val Lys Tyr Asp Ser Ser Val Phe Lys Ala Phe Asn Pro Ala  
 325 330 335  
 Tyr Ile Tyr Phe Phe Phe Lys Arg Asn Ser Val Asn Ala Trp Tyr Ala  
 340 345 350  
 Leu Gly Gly Cys Val Leu Cys Ala Thr Gly Ser Glu Ala Met Phe Ala  
 355 360 365  
 Asp Leu Ser Tyr Phe Ser Val His Ser Ile Gln Leu Thr Phe Ile Leu  
 370 375 380  
 Leu Val Leu Pro Cys Leu Leu Leu Gly Tyr Leu Gly Gln Ala Ala Tyr  
 385 390 395 400  
 Leu Ser Glu Asn Phe Ser Ala Ala Gly Asp Ala Phe Phe Ser Ser Val

Pro Ser Ser Leu Phe Trp Pro Val Phe Leu Ile Ser Asn Val Ala Ala  
420 425 430

Leu Ile Ala Ser Arg Ala Met Thr Thr Ala Thr Phe Thr Cys Ile Lys  
435 440 445

Gln Ser Ile Ala Leu Gly Cys Phe Pro Arg Leu Lys Ile Ile His Thr  
450 455 460

Ser Lys Lys Phe Ile Gly Gln Ile Tyr Ile Pro Val Leu Asn Trp Ser  
465 470 475 480

Leu Leu Val Val Cys Leu Ile Val Val Cys Ser Thr Ser Asn Ile Phe  
485 490 495

Ala Ile Gly Asn Ala Tyr Gly Ile Ala Glu Leu Gly Ile Met Met Thr  
500 505 510

Thr Thr Ile Leu Val Thr Leu Ile Met Leu Leu Ile Trp Gln Thr Asn  
515 520 525

Ile Ile Val Val Ser Met Phe Ala Ile Val Ser Leu Ile Val Glu Leu  
530 535 540

Val Phe Phe Ser Ser Val Cys Ser Ser Val Ala Asp Gly Ser Trp Ile  
545 550 555 560

Ile Leu Val Phe Ala Thr Ile Met Phe Leu Ile Met Phe Val Trp Asn  
565 570 575

Tyr Gly Ser Lys Leu Lys Tyr Glu Thr Glu Val Gln Lys Lys Leu Pro  
580 585 590

Met Asp Leu Leu Arg Glu Leu Gly Ser Asn Leu Gly Thr Ile Arg Ala  
595 600 605

Pro Gly Ile Gly Leu Leu Tyr Asn Glu Leu Ala Lys Gly Val Pro Ala  
610 615 620

Ile Phe Gly His Phe Leu Thr Thr Leu Pro Ala Ile His Ser Met Val  
625 630 635 640

Ile Phe Val Cys Ile Lys Tyr Val Pro Val Pro Ser Val Pro Gln Thr  
645 650 655

Glu Arg Phe Leu Phe Arg Arg Val Cys Pro Arg Ser Tyr His Leu Phe  
 660 665 670  
 Arg Cys Val Ala Arg Tyr Gly Tyr Lys Asp Val Arg Lys Glu Ser His  
 675 680 685  
 Gln Ala Phe Glu Gln Ile Leu Ile Glu Ser Leu Glu Lys Phe Ile Arg  
 690 695 700  
 Lys Glu Ala Gln Glu Arg Ala Leu Glu Ser Asp Gly Asp His Asn Asp  
 705 710 715 720  
 Thr Asp Ser Glu Asp Asp Thr Thr Leu Ser Arg Val Leu Ile Ala Pro  
 725 730 735  
 Asn Gly Ser Val Tyr Ser Leu Gly Val Pro Leu Leu Ala Glu His Met  
 740 745 750  
 Asn Ser Ser Asn Lys Arg Pro Met Glu Arg Arg Lys Ala Ser Ile Asp  
 755 760 765  
 Phe Gly Ala Gly Pro Ser Ser Ala Leu Asp Val Glu Gln Ser Leu Glu  
 770 775 780  
 Lys Glu Leu Ser Phe Ile His Lys Ala Lys Glu Ser Gly Val Val Tyr  
 785 790 795 800  
 Leu Leu Gly His Gly Asp Ile Arg Ala Thr Lys Asp Ser Trp Phe Leu  
 805 810 815  
 Lys Lys Leu Val Ile Asn Tyr Leu Tyr Ala Phe Leu Arg Lys Asn Ser  
 820 825 830  
 Arg Arg Gly Ile Thr Asn Leu Ser Val Pro His Thr His Leu Met Gln  
 835 840 845  
 Val Gly Met Thr Tyr Met Val  
 850 855

&lt;210&gt; 2065

&lt;211&gt; 1398

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2065

```

atggttttcct ctcagcgtcc tgtccccaac aaaatccaga aacagcaata tctatccatc   60
agcccttcaa attctgtctt gaaagatgat gttgaacttg agttctctga tgtgtttggt   120
ccactccccg aagaggccaa tgatattgct tacgacgagc ctgctgttgt ctacagtcga   180
tcccactcct tggttggccc gtgttcgctc gatagtcatt ctttgaagct gaccaagctc   240
accttactag agactgagga ctcaattgac ttggtggagt gtctcgaagg tgaatcttta   300
aaagaaaatg atgattttctc tggtaatgac gacagtgaca atgagaaaagc tttagaggga   360
gatctggtga aagtctcagg tgtagtaggc atagatgatt ttgaggttat gaaggttggt   420
gggaaagggtg cgtttgggaa agtctaccag gtgaggaaaa aggagacctc tgagatatac   480
gctatgaaag tcatgaggaa agatcacatt atggagaaga accatgctga atacatgaaa   540
gctgagcgcg atattcttac aaaaattgat caccattca ttgttcaact taaatactct   600
tttcagacca agtacaggct gtatcttggtg ctcgacttta taaacggagg tcatcttttc   660
ttccaactct atcaccaagg gcttttcaga gaggacttgg ctcgagtgtg cactgcagaa   720
atcgtctctg cagtttccca tctccatgag aaaggcataa tgcacagaga tctgaaaccc   780
gaaaacatac tcatggatac agatggccac gtgatgctaa cagatttttg tttagcaaag   840
gaatttgaag aaaacacaag atcaaactcc atgtgcggaa ctacggagta tatggcacct   900
gaaattgttc gagggaaaagg acatgataaa gcagctgact ggtggagcgt agggattctt   960
ctgtatgaga tgctcacagg aaagccaccg tttctcggga gcaaaggaaa gatacagcag  1020
aaaattgtga aggacaagat caagcttccg cagtttctgt ctaatgaagc tcatgcaata  1080
ctgaaagggc tgctgcaaaa agagccagaa aggcgacttg gaagtggact gagcggagca  1140
gaggagataa aacagcacia atggttcaag ggaataaact ggaagaagct ggaggctaga  1200
gaagtgatgc caagtttcaa gccggaagta tcgggaaggc aatgcatagc aaattttgac  1260
aagtgttgga ctgacatgtc tgttttggat tctccggcga gcagtcccag ttcggatcct  1320
aaggccaacc cttttaccaaa tttcacttac gtcaggcctc ctccttcatt ccttcaccag  1380
tccacaacta ctttgtag                                     1398

```

<210> 2066

<211> 465

<212> PRT

<213> Arabidopsis thaliana

<400> 2066

Met Val Ser Ser Gln Arg Pro Val Pro Asn Lys Ile Gln Lys Gln Gln  
1 5 10 15



047-E2F-PCT.ST25.txt

Tyr Leu Ser Ile Ser Pro Ser Asn Ser Val Leu Lys Asp Asp Val Glu  
 20 25 30  
 Leu Glu Phe Ser Asp Val Phe Gly Pro Leu Pro Glu Glu Ala Asn Asp  
 35 40 45  
 Ile Ala Tyr Asp Glu Pro Ala Val Val Tyr Ser Arg Ser His Ser Leu  
 50 55 60  
 Val Gly Pro Cys Ser Leu Asp Ser His Ser Leu Lys Leu Thr Lys Leu  
 65 70 75 80  
 Thr Leu Leu Glu Thr Glu Asp Ser Ile Asp Leu Val Glu Cys Leu Glu  
 85 90 95  
 Gly Glu Ser Leu Lys Glu Asn Asp Asp Phe Ser Gly Asn Asp Asp Ser  
 100 105 110  
 Asp Asn Glu Lys Ala Leu Glu Gly Asp Leu Val Lys Val Ser Gly Val  
 115 120 125  
 Val Gly Ile Asp Asp Phe Glu Val Met Lys Val Val Gly Lys Gly Ala  
 130 135 140  
 Phe Gly Lys Val Tyr Gln Val Arg Lys Lys Glu Thr Ser Glu Ile Tyr  
 145 150 155 160  
 Ala Met Lys Val Met Arg Lys Asp His Ile Met Glu Lys Asn His Ala  
 165 170 175  
 Glu Tyr Met Lys Ala Glu Arg Asp Ile Leu Thr Lys Ile Asp His Pro  
 180 185 190  
 Phe Ile Val Gln Leu Lys Tyr Ser Phe Gln Thr Lys Tyr Arg Leu Tyr  
 195 200 205  
 Leu Val Leu Asp Phe Ile Asn Gly Gly His Leu Phe Phe Gln Leu Tyr  
 210 215 220  
 His Gln Gly Leu Phe Arg Glu Asp Leu Ala Arg Val Tyr Thr Ala Glu  
 225 230 235 240  
 Ile Val Ser Ala Val Ser His Leu His Glu Lys Gly Ile Met His Arg  
 245 250 255  
 Asp Leu Lys Pro Glu Asn Ile Leu Met Asp Thr Asp Gly His Val Met

260

265

270

Leu Thr Asp Phe Gly Leu Ala Lys Glu Phe Glu Glu Asn Thr Arg Ser  
 275 280 285

Asn Ser Met Cys Gly Thr Thr Glu Tyr Met Ala Pro Glu Ile Val Arg  
 290 295 300

Gly Lys Gly His Asp Lys Ala Ala Asp Trp Trp Ser Val Gly Ile Leu  
 305 310 315 320

Leu Tyr Glu Met Leu Thr Gly Lys Pro Pro Phe Leu Gly Ser Lys Gly  
 325 330 335

Lys Ile Gln Gln Lys Ile Val Lys Asp Lys Ile Lys Leu Pro Gln Phe  
 340 345 350

Leu Ser Asn Glu Ala His Ala Ile Leu Lys Gly Leu Leu Gln Lys Glu  
 355 360 365

Pro Glu Arg Arg Leu Gly Ser Gly Leu Ser Gly Ala Glu Glu Ile Lys  
 370 375 380

Gln His Lys Trp Phe Lys Gly Ile Asn Trp Lys Lys Leu Glu Ala Arg  
 385 390 395 400

Glu Val Met Pro Ser Phe Lys Pro Glu Val Ser Gly Arg Gln Cys Ile  
 405 410 415

Ala Asn Phe Asp Lys Cys Trp Thr Asp Met Ser Val Leu Asp Ser Pro  
 420 425 430

Ala Ser Ser Pro Ser Ser Asp Pro Lys Ala Asn Pro Phe Thr Asn Phe  
 435 440 445

Thr Tyr Val Arg Pro Pro Pro Ser Phe Leu His Gln Ser Thr Thr Thr  
 450 455 460

Leu  
 465

<210> 2067

<211> 912

<212> DNA

<213> Arabidopsis thaliana

```

<400> 2067
atgatgatga tgattcagag aagaggaggt gagagacaag actcgtcggc ggcggcgtag 60
aacgttgtcc ataagttgcc tcacggagac agtccttatg tccgagcgaa gcatgttcag 120
ttggtggaga aagatgcaga agcagcgata gagttgtttt ggatagcgat taaagcgaga 180
gatagagttg atagtgtctt taaagacatg gccttggtta tgaacaaca gaacagagct 240
gaagaagcca ttgacgctat tcaatccttt agagatcttt gttcaagaca agctcaagag 300
tcattagaca atgtcctcat cgatctatat aagaaatgtg ggagaataga agagcaagtt 360
gagttattga agcaaaagct ttggatgata tatcaaggag aagcattcaa tggcaaacca 420
acaagactg cgagatctca tggcaagaag tttcaggtca ccgtcgagaa ggaaacctct 480
aggatcttgg ggaacttggg atgggcttat atgcaactaa tggactatac agcagctgaa 540
gctgtgtatc ggaaagctca attgatagag ccagatgcaa acaaggcttg caatttatgc 600
acatgtctca tcaagcaagg gaagcacgat gaggcgaggt cgattctctt tcgtgatgta 660
ctaattggaga acaaagaagg gtctggtgat ccgaggttga tggctcgggt tcaagagcta 720
ttgagtgagc taaagccaca ggaagaagaa gcagcggctt ctgtgtctgt ggaatgtgaa 780
gttggtatag atgagatagc ggttgtcgaa ggacttgatg agtttgtgaa ggaatggagg 840
aggccttata ggacaagaag acttccgatt ttcgaagaga tcttaccact gagagatcaa 900
ttggcttggt ga 912

```

<210> 2068

<211> 303

<212> PRT

<213> Arabidopsis thaliana

<400> 2068

```

Met Met Met Met Ile Gln Arg Arg Gly Gly Glu Arg Gln Asp Ser Ser
1           5           10          15

Ala Ala Ala Tyr Asn Val Val His Lys Leu Pro His Gly Asp Ser Pro
20          25          30

Tyr Val Arg Ala Lys His Val Gln Leu Val Glu Lys Asp Ala Glu Ala
35          40          45

Ala Ile Glu Leu Phe Trp Ile Ala Ile Lys Ala Arg Asp Arg Val Asp
50          55          60

```

047-E2F-PCT.ST25.txt

Ser Ala Leu Lys Asp Met Ala Leu Leu Met Lys Gln Gln Asn Arg Ala  
65 70 75 80

Glu Glu Ala Ile Asp Ala Ile Gln Ser Phe Arg Asp Leu Cys Ser Arg  
85 90 95

Gln Ala Gln Glu Ser Leu Asp Asn Val Leu Ile Asp Leu Tyr Lys Lys  
100 105 110

Cys Gly Arg Ile Glu Glu Gln Val Glu Leu Leu Lys Gln Lys Leu Trp  
115 120 125

Met Ile Tyr Gln Gly Glu Ala Phe Asn Gly Lys Pro Thr Lys Thr Ala  
130 135 140

Arg Ser His Gly Lys Lys Phe Gln Val Thr Val Glu Lys Glu Thr Ser  
145 150 155 160

Arg Ile Leu Gly Asn Leu Gly Trp Ala Tyr Met Gln Leu Met Asp Tyr  
165 170 175

Thr Ala Ala Glu Ala Val Tyr Arg Lys Ala Gln Leu Ile Glu Pro Asp  
180 185 190

Ala Asn Lys Ala Cys Asn Leu Cys Thr Cys Leu Ile Lys Gln Gly Lys  
195 200 205

His Asp Glu Ala Arg Ser Ile Leu Phe Arg Asp Val Leu Met Glu Asn  
210 215 220

Lys Glu Gly Ser Gly Asp Pro Arg Leu Met Ala Arg Val Gln Glu Leu  
225 230 235 240

Leu Ser Glu Leu Lys Pro Gln Glu Glu Glu Ala Ala Ala Ser Val Ser  
245 250 255

Val Glu Cys Glu Val Gly Ile Asp Glu Ile Ala Val Val Glu Gly Leu  
260 265 270

Asp Glu Phe Val Lys Glu Trp Arg Arg Pro Tyr Arg Thr Arg Arg Leu  
275 280 285

Pro Ile Phe Glu Glu Ile Leu Pro Leu Arg Asp Gln Leu Ala Cys  
290 295 300

<210> 2069

&lt;211&gt; 705

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2069

```

atggatacca acaaccagca accacctccc tccgccgccg gaatccctcc tccaccacct    60
ggaaccacca tctccgccgc aggaggagga gcttcttacc accaccttct ccaacaacaa   120
caacaacagc tccaactatt ctggacctac caacgccaaag agatcgaaca agttaacgat   180
ttcaaaaacc atcagcttcc actagctagg ataaaaaaga tcatgaaagc cgatgaagat   240
gttcgtatga tctccgcaga agcaccgatt ctcttcgcga aagcttgtga gcttttcatt   300
ctcgagctca cgatcagatc ttggcttcac gctgaggaga ataaacgtcg tacgcttcag   360
aaaaacgata tcgctgctgc gattactagg actgatattct tcgatttcct tgttgatatt   420
gttcctagag atgagattaa ggacgaagcc gcagtcctcg gtggtggaat ggtggtggct   480
cctaccgcga gcggcggtgcc ttactattat ccgccgatgg gacaaccagc tggtcctgga   540
gggatgatga ttgggagacc agctatggat ccgaatggtg tttatgtcca gcctccgtct   600
caggcggtggc agagtgtttg gcagacttcg acggggacgg gagatgatgt ctcttatggt   660
agtggtggaa gttccggtca agggaatctc gacggccaag gttaa                    705

```

&lt;210&gt; 2070

&lt;211&gt; 234

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2070

```

Met Asp Thr Asn Asn Gln Gln Pro Pro Pro Ser Ala Ala Gly Ile Pro
1      5      10
Pro Pro Pro Pro Gly Thr Thr Ile Ser Ala Ala Gly Gly Gly Ala Ser
20     25     30
Tyr His His Leu Leu Gln Gln Gln Gln Gln Leu Gln Leu Phe Trp
35     40     45
Thr Tyr Gln Arg Gln Glu Ile Glu Gln Val Asn Asp Phe Lys Asn His
50     55     60
Gln Leu Pro Leu Ala Arg Ile Lys Lys Ile Met Lys Ala Asp Glu Asp

```

65					70					75					80
Val	Arg	Met	Ile	Ser <sub>85</sub>	Ala	Glu	Ala	Pro	Ile <sub>90</sub>	Leu	Phe	Ala	Lys	Ala <sub>95</sub>	Cys
Glu	Leu	Phe	Ile <sub>100</sub>	Leu	Glu	Leu	Thr	Ile <sub>105</sub>	Arg	Ser	Trp	Leu	His <sub>110</sub>	Ala	Glu
Glu	Asn	Lys <sub>115</sub>	Arg	Arg	Thr	Leu	Gln <sub>120</sub>	Lys	Asn	Asp	Ile	Ala <sub>125</sub>	Ala	Ala	Ile
Thr	Arg <sub>130</sub>	Thr	Asp	Ile	Phe	Asp <sub>135</sub>	Phe	Leu	Val	Asp	Ile <sub>140</sub>	Val	Pro	Arg	Asp
Glu <sub>145</sub>	Ile	Lys	Asp	Glu	Ala <sub>150</sub>	Ala	Val	Leu	Gly	Gly <sub>155</sub>	Gly	Met	Val	Val	Ala <sub>160</sub>
Pro	Thr	Ala	Ser	Gly <sub>165</sub>	Val	Pro	Tyr	Tyr	Tyr <sub>170</sub>	Pro	Pro	Met	Gly	Gln <sub>175</sub>	Pro
Ala	Gly	Pro	Gly <sub>180</sub>	Gly	Met	Met	Ile	Gly <sub>185</sub>	Arg	Pro	Ala	Met	Asp <sub>190</sub>	Pro	Asn
Gly	Val	Tyr <sub>195</sub>	Val	Gln	Pro	Pro	Ser <sub>200</sub>	Gln	Ala	Trp	Gln	Ser <sub>205</sub>	Val	Trp	Gln
Thr	Ser <sub>210</sub>	Thr	Gly	Thr	Gly	Asp <sub>215</sub>	Asp	Val	Ser	Tyr	Gly <sub>220</sub>	Ser	Gly	Gly	Ser
Ser <sub>225</sub>	Gly	Gln	Gly	Asn	Leu <sub>230</sub>	Asp	Gly	Gln	Gly						

<210>	2071
<211>	1317
<212>	DNA
<213>	Arabidopsis thaliana

<400> 2071						
atgcttgctc	tcttcctctc	ttcttcttcg	tatccaactc	tctcttttcct	ctccagatca	60
gtaactctaa	acttagccag	aacaacaaca	ctctcagctc	tcacaatgtc	gatgaaccta	120
aagactcatg	ccttcgcagg	caatcccttg	aagtcgaaaa	ctccgaaatc	taccgatcca	180
ttctcaccca	cctccgcttt	cgaatctctg	aaaaccctaa	ttccagtaat	ccctaatac	240
tcaacacctt	cccctgattt	taaagtcctt	cccttttagca	aggggtcgctc	actgggtgttc	300

047-E2F-PCT.ST25.txt

tcaagcgggtg gagatgctaa tacgacgccg atttggcatc tgggttgggt cagcttggct 360  
gattgtaagg ttttgttagc aagttgtggg gttgatctga atgaggactc actcgtgtat 420  
ttaggaccca agttggaaga agatttggtg tattgggctg ttgatttggc agaggatggt 480  
ttcgtttctg aattgggagg taggaagttg tgttttgttg agcttcgaac cctaattggt 540  
gctgctgatt gggcggatca acgtgctatg gatgagttgg ctattgccgg caatgccagg 600  
gcgttacttg aatggcacaa cgtgtcaciaa ttttgtggat catgtggaag taaaactttt 660  
ccaaaggaag caggaaggag aaaacaatgc tcagacgaaa catgcagaaa gagggcttat 720  
ccccgtgttg atccggtggt tataatgtta gttattgatc gagaaaatga tcgcgctactt 780  
ttaagcaggc aatctagata tgtaccgaga atgtggagtt gtttagctgg atttattgag 840  
ccaggggaaa gcttagaaga ggctgtgagg cgggaaacat gggaagagac aggcattgaa 900  
gtaggagatg ttgtatacca cagctctcag ccttggcctg tgggaccaag tagcatgcca 960  
tgccaattga tgctcggttt ctttgctttc gccaaagacgc tcgacataaa cgtagacaaa 1020  
gaagagttag aagatgctca atggcacagt agagaagagg tgaagaaagc attggcgggt 1080  
gcagaataca ggaaggctca aagaacagca gctgcaaagg tagagcagat ctgtaaagg 1140  
gtggagagaa gccagagtct atcaactgat ttcaatcttg aaagcgggtga gcttgctcct 1200  
atgtttatcc cggggccatt tgccatcgcg caccacctga tctcagcatg ggtaaatacag 1260  
gctcctgacg atgttcactc aaaacaacaa gcgggtgtct ctctctcaag tttgtag 1317

<210> 2072

<211> 438

<212> PRT

<213> Arabidopsis thaliana

<400> 2072

Met Leu Ala Leu Phe Leu Ser Ser Ser Ser Tyr Pro Thr Leu Ser Phe  
1 5 10 15

Leu Ser Arg Ser Val Thr Leu Asn Leu Ala Arg Thr Thr Thr Leu Ser  
20 25 30

Ala Leu Thr Met Ser Met Asn Leu Lys Thr His Ala Phe Ala Gly Asn  
35 40 45

Pro Leu Lys Ser Lys Thr Pro Lys Ser Thr Asp Pro Phe Ser Pro Thr  
50 55 60

047-E2F-PCT.ST25.txt

Ser Ala Phe Glu Ser Leu Lys Thr Leu Ile Pro Val Ile Pro Asn His  
 65 70 75 80  
 Ser Thr Pro Ser Pro Asp Phe Lys Val Leu Pro Phe Ser Lys Gly Arg  
 85 90 95  
 Pro Leu Val Phe Ser Ser Gly Gly Asp Ala Asn Thr Thr Pro Ile Trp  
 100 105 110  
 His Leu Gly Trp Val Ser Leu Ala Asp Cys Lys Val Leu Leu Ala Ser  
 115 120 125  
 Cys Gly Val Asp Leu Asn Gly Asp Ser Leu Val Tyr Leu Gly Pro Lys  
 130 135 140  
 Leu Glu Glu Asp Leu Val Tyr Trp Ala Val Asp Leu Ala Glu Asp Gly  
 145 150 155 160  
 Phe Val Ser Glu Leu Gly Gly Arg Lys Leu Cys Phe Val Glu Leu Arg  
 165 170 175  
 Thr Leu Met Val Ala Ala Asp Trp Ala Asp Gln Arg Ala Met Asp Glu  
 180 185 190  
 Leu Ala Ile Ala Gly Asn Ala Arg Ala Leu Leu Glu Trp His Asn Val  
 195 200 205  
 Ser Gln Phe Cys Gly Ser Cys Gly Ser Lys Thr Phe Pro Lys Glu Ala  
 210 215 220  
 Gly Arg Arg Lys Gln Cys Ser Asp Glu Thr Cys Arg Lys Arg Val Tyr  
 225 230 235 240  
 Pro Arg Val Asp Pro Val Val Ile Met Leu Val Ile Asp Arg Glu Asn  
 245 250 255  
 Asp Arg Ala Leu Leu Ser Arg Gln Ser Arg Tyr Val Pro Arg Met Trp  
 260 265 270  
 Ser Cys Leu Ala Gly Phe Ile Glu Pro Gly Glu Ser Leu Glu Glu Ala  
 275 280 285  
 Val Arg Arg Glu Thr Trp Glu Glu Thr Gly Ile Glu Val Gly Asp Val  
 290 295 300  
 Val Tyr His Ser Ser Gln Pro Trp Pro Val Gly Pro Ser Ser Met Pro  
 305 310 315 320



047-E2F-PCT.ST25.txt

Cys Gln Leu Met Leu Gly Phe Phe Ala Phe Ala Lys Thr Leu Asp Ile  
325 330 335

Asn Val Asp Lys Glu Glu Leu Glu Asp Ala Gln Trp His Ser Arg Glu  
340 345 350

Glu Val Lys Lys Ala Leu Ala Val Ala Glu Tyr Arg Lys Ala Gln Arg  
355 360 365

Thr Ala Ala Ala Lys Val Glu Gln Ile Cys Lys Gly Val Glu Arg Ser  
370 375 380

Gln Ser Leu Ser Thr Asp Phe Asn Leu Glu Ser Gly Glu Leu Ala Pro  
385 390 395 400

Met Phe Ile Pro Gly Pro Phe Ala Ile Ala His His Leu Ile Ser Ala  
405 410 415

Trp Val Asn Gln Ala Pro Asp Asp Val His Ser Lys Gln Gln Ala Gly  
420 425 430

Val Ser Leu Ser Ser Leu  
435

<210> 2073

<211> 816

<212> DNA

<213> Arabidopsis thaliana

<400> 2073

atgcagctct ttccggtcat cctaccgaca ctatgcgtct tcctccacct tctaataagt	60
ggctctggct ctactccacc gttgactcac tccaatcaac aagtggcagc cactcgttgg	120
cttcccgcca ccgcaacctg gtacggaagt gccgagggag acggcagcag cggaggagct	180
tgtggttacg gatcgttggt ggacgtgaag ccgtttaagg ctagagtcgg agcggtgagt	240
ccgattctgt tcaaaggtgg tgaaggctgc ggtgcatgct acaaggtcag gtgtctcgac	300
aagaccattt gctctaagag agcagtcacc attattgcca ccgaccagtc accgtcagga	360
ccatctgcta aagcaaaaca cactcatttc gacctcagtg gcgccgcctt tggacatatg	420
gctattcccg gccataacgg tgtcatccgc aaccgtggcc tattaacat cctctaccgc	480
cgaacggcat gcaaatacag aggggaagaac atagcgtttc atgtgaacgc aggatcaact	540

gattattggt tatcgcttct cattgagtat gaagacggtg aaggagacat tggctctatg 600  
 cacattcgtc aagcgggatc taaggagtgg atatcgatga agcacatatg gggagcgaac 660  
 tgggtgcatcg tcgaaggacc actcaaggga ccattctccg tgaagctcac aactttgtcc 720  
 aacaataaga cactctccgc caccgacgtc atccccagta actggggttcc caaagctact 780  
 tacacctctc gcctcaactt ctcccctggt ctctaa 816

<210> 2074

<211> 271

<212> PRT

<213> Arabidopsis thaliana

<400> 2074

Met Gln Leu Phe Pro Val Ile Leu Pro Thr Leu Cys Val Phe Leu His  
1 5 10 15

Leu Leu Ile Ser Gly Ser Gly Ser Thr Pro Pro Leu Thr His Ser Asn  
20 25 30

Gln Gln Val Ala Ala Thr Arg Trp Leu Pro Ala Thr Ala Thr Trp Tyr  
35 40 45

Gly Ser Ala Glu Gly Asp Gly Ser Ser Gly Gly Ala Cys Gly Tyr Gly  
50 55 60

Ser Leu Val Asp Val Lys Pro Phe Lys Ala Arg Val Gly Ala Val Ser  
65 70 75 80

Pro Ile Leu Phe Lys Gly Gly Glu Gly Cys Gly Ala Cys Tyr Lys Val  
85 90 95

Arg Cys Leu Asp Lys Thr Ile Cys Ser Lys Arg Ala Val Thr Ile Ile  
100 105 110

Ala Thr Asp Gln Ser Pro Ser Gly Pro Ser Ala Lys Ala Lys His Thr  
115 120 125

His Phe Asp Leu Ser Gly Ala Ala Phe Gly His Met Ala Ile Pro Gly  
130 135 140

His Asn Gly Val Ile Arg Asn Arg Gly Leu Leu Asn Ile Leu Tyr Arg  
145 150 155 160

Arg Thr Ala Cys Lys Tyr Arg Gly Lys Asn Ile Ala Phe His Val Asn  
 165 170 175

Ala Gly Ser Thr Asp Tyr Trp Leu Ser Leu Leu Ile Glu Tyr Glu Asp  
 180 185 190

Gly Glu Gly Asp Ile Gly Ser Met His Ile Arg Gln Ala Gly Ser Lys  
 195 200 205

Glu Trp Ile Ser Met Lys His Ile Trp Gly Ala Asn Trp Cys Ile Val  
 210 215 220

Glu Gly Pro Leu Lys Gly Pro Phe Ser Val Lys Leu Thr Thr Leu Ser  
 225 230 235 240

Asn Asn Lys Thr Leu Ser Ala Thr Asp Val Ile Pro Ser Asn Trp Val  
 245 250 255

Pro Lys Ala Thr Tyr Thr Ser Arg Leu Asn Phe Ser Pro Val Leu  
 260 265 270

<210> 2075

<211> 699

<212> DNA

<213> Arabidopsis thaliana

<400> 2075

atggccaccg gtttaggctt ctttaagctc tccttcctcc ttagcctcct ctccggtgga	60
tcagacctat taggtcccga tgccgaatcc ggagtcgccc aaattgggaa gttcccgcgcg	120
tcgtgtaaca gaatcgaatg cccgagctac gagctgggtc actccggaaa tggatacgaa	180
attcgccggt acaacaacac cgtctggggt tccactgaac cgattccaga tatctctctc	240
gttgatgcta ccagaaccgc tttcttccaa ttgtttgcat acattcaggg gaagaacgag	300
tatcatcaga agatagaaat gactgctccg gttatctctc aagtctcacc aagcgacggt	360
ccattctgtg aatcttcctt cactgtatca ttctacgttc ctaaaaagaa ccagcctgat	420
ccagctccgt cggagaatct ccacattcag aaatggaact ctaggtacgt ggccgtgaga	480
caattcagtg gattcgtgtc tgatgatagc ataggagaac aagcggcggc gctagactcg	540
agcctcaaag gtacggcttg ggctaattgca atagcgaaaa gcaaagaaga cgggtggtgtt	600
gggtcggatt cagcttacac ggtcgctcag tataactcac ctttcgagtt ctccggtcgg	660
gtcaatgaga tttggttacc gttcgagctc gatgtttaa	699

&lt;210&gt; 2076

&lt;211&gt; 232

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2076

Met Ala Thr Gly Leu Gly Phe Phe Lys Leu Ser Phe Leu Leu Ser Leu  
 1 5 10 15

Leu Ser Gly Gly Ser Asp Leu Leu Gly Pro Asp Ala Glu Ser Gly Val  
 20 25 30

Ala Gln Ile Gly Lys Phe Pro Pro Ser Cys Asn Arg Ile Glu Cys Pro  
 35 40 45

Ser Tyr Glu Leu Val His Ser Gly Asn Gly Tyr Glu Ile Arg Arg Tyr  
 50 55 60

Asn Asn Thr Val Trp Val Ser Thr Glu Pro Ile Pro Asp Ile Ser Leu  
 65 70 75 80

Val Asp Ala Thr Arg Thr Ala Phe Phe Gln Leu Phe Ala Tyr Ile Gln  
 85 90 95

Gly Lys Asn Glu Tyr His Gln Lys Ile Glu Met Thr Ala Pro Val Ile  
 100 105 110

Ser Gln Val Ser Pro Ser Asp Gly Pro Phe Cys Glu Ser Ser Phe Thr  
 115 120 125

Val Ser Phe Tyr Val Pro Lys Lys Asn Gln Pro Asp Pro Ala Pro Ser  
 130 135 140

Glu Asn Leu His Ile Gln Lys Trp Asn Ser Arg Tyr Val Ala Val Arg  
 145 150 155 160

Gln Phe Ser Gly Phe Val Ser Asp Asp Ser Ile Gly Glu Gln Ala Ala  
 165 170 175

Ala Leu Asp Ser Ser Leu Lys Gly Thr Ala Trp Ala Asn Ala Ile Ala  
 180 185 190

Lys Ser Lys Glu Asp Gly Gly Val Gly Ser Asp Ser Ala Tyr Thr Val  
 195 200 205

Ala Gln Tyr Asn Ser Pro Phe Glu Phe Ser Gly Arg Val Asn Glu Ile  
 210 215 220

Trp Leu Pro Phe Glu Leu Asp Val  
 225 230

<210> 2077

<211> 576

<212> DNA

<213> Arabidopsis thaliana

<400> 2077

atgagccggt gcggtctctt tgggctctat gcccctaatg ctttgccatc tctctccttg	60
aagccacgca gtgtcaaata tcctttctgt attacatctc acaccaaacc caacgacact	120
cttcttcata atgttaacaa gatgagagca aaggcctgtg atatacttgg agcaaagaag	180
acaatcttgg cagctcaact cggggcagtt cttgccacga ttgaccatcc agccttagca	240
ataacaggag ttaacaacca gcaggaattg agcagtgttg tgctcgatat cgggatcata	300
tccgtttggt acttcctagt aatgccacca atcatcatga actggctaag agtaagatgg	360
tacagaagga agttcttcga gatgtattta cagttcatgt tcgtcttcat gttcttcccc	420
gggctactgt tatgggcacc atttctcaac ttcaggaagt tccaagaga tcctaatatg	480
aagaatcctt gggacaaacc aacagacca gactctataa agaacgttta cctcaaatac	540
ccatatgcga cgccagaaga ttacgatctc gattaa	576

<210> 2078

<211> 191

<212> PRT

<213> Arabidopsis thaliana

<400> 2078

Met Ser Arg Cys Gly Ser Leu Gly Leu Tyr Ala Pro Asn Ala Leu Pro  
 1 5 10 15

Ser Leu Ser Leu Lys Pro Arg Ser Val Lys Ser Pro Phe Cys Ile Thr  
 20 25 30

Ser His Thr Lys Pro Asn Asp Thr Leu Leu His Asn Val Asn Lys Met  
 Page 3015

35

40

45

Arg Ala Lys Ala Cys Asp Ile Leu Gly Ala Lys Lys Thr Ile Leu Ala  
 50 55 60  
 Ala Gln Leu Gly Ala Val Leu Ala Thr Ile Asp His Pro Ala Leu Ala  
 65 70 75 80  
 Ile Thr Gly Val Asn Asn Gln Gln Glu Leu Ser Ser Val Val Leu Asp  
 85 90 95  
 Ile Gly Ile Ile Ser Val Trp Tyr Phe Leu Val Met Pro Pro Ile Ile  
 100 105 110  
 Met Asn Trp Leu Arg Val Arg Trp Tyr Arg Arg Lys Phe Phe Glu Met  
 115 120 125  
 Tyr Leu Gln Phe Met Phe Val Phe Met Phe Phe Pro Gly Leu Leu Leu  
 130 135 140  
 Trp Ala Pro Phe Leu Asn Phe Arg Lys Phe Pro Arg Asp Pro Asn Met  
 145 150 155 160  
 Lys Asn Pro Trp Asp Lys Pro Thr Asp Pro Asp Ser Ile Lys Asn Val  
 165 170 175  
 Tyr Leu Lys Tyr Pro Tyr Ala Thr Pro Glu Asp Tyr Asp Leu Asp  
 180 185 190

&lt;210&gt; 2079

&lt;211&gt; 903

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2079

atggctgcaa ctgcaatctc ttctctttcc ttcccagctt tgggtcaatc ggacaagatc 60  
 tccaatttcg catcttctcg tcctctcgcc tccgcaattc gcatctgcac aaagttttct 120  
 cgcctttctt tgaattcgcg ttccacttcg aaatctctta ttactgcat gtccaatgtt 180  
 accgccgatg tgcctcctgt atcagagaca aagtcgaaat tcctaaaagc ttacaagcga 240  
 cccatcccga gtatctacaa cacgggttttg caggagctca ttgtccagca gcatttgatg 300  
 aggtataaga agacttatcg ttatgatcct gtttttgccc ttggatttgt cactgtatat 360  
 gatcagctca tggaaggata tccgagtgat caagaccgag atgccatttt taaggcttac 420

047-E2F-PCT.ST25.txt

```
attgaagcct tgaatgagga tcctaagcaa taccgaattg atgctcagaa gatggaggaa 480
tgggcacgaa gtcagacttc tgcttcacta gttgactttt cctctaaaga aggagatatt 540
gaagcagttc ttaaggacat tgcaggaaga gctggtagta aggaggggtt tagttacagc 600
aggttcttcg ctggtgggct ctttcgtttg cttgagcttg caagtgctac tgatccaact 660
gtcttggaca agctttgtgc atccctaaat atcaacaaga aaagcgtgga tcgggacctg 720
gatgtgtatc gtaacctgct ttcaaagctt gtccaagcca aggaattgct taaggagtat 780
gtcgagaggg agaagaagaa gcaaggagaa agagcccaat ctcagaaggc taacgaaaca 840
atctccaagt gtctgggaga tactctatat aaccatctt tcttggttga acggaaatct 900
tag 903
```

<210> 2080

<211> 300

<212> PRT

<213> Arabidopsis thaliana

<400> 2080

```
Met Ala Ala Thr Ala Ile Ser Ser Leu Ser Phe Pro Ala Leu Gly Gln
1 5 10 15
```

```
Ser Asp Lys Ile Ser Asn Phe Ala Ser Ser Arg Pro Leu Ala Ser Ala
20 25 30
```

```
Ile Arg Ile Cys Thr Lys Phe Ser Arg Leu Ser Leu Asn Ser Arg Ser
35 40 45
```

```
Thr Ser Lys Ser Leu Ile His Cys Met Ser Asn Val Thr Ala Asp Val
50 55 60
```

```
Pro Pro Val Ser Glu Thr Lys Ser Lys Phe Leu Lys Ala Tyr Lys Arg
65 70 75 80
```

```
Pro Ile Pro Ser Ile Tyr Asn Thr Val Leu Gln Glu Leu Ile Val Gln
85 90 95
```

```
Gln His Leu Met Arg Tyr Lys Lys Thr Tyr Arg Tyr Asp Pro Val Phe
100 105 110
```

```
Ala Leu Gly Phe Val Thr Val Tyr Asp Gln Leu Met Glu Gly Tyr Pro
115 120 125
```

047-E2F-PCT.ST25.txt

Ser Asp Gln Asp Arg Asp Ala Ile Phe Lys Ala Tyr Ile Glu Ala Leu  
130 135 140  
Asn Glu Asp Pro Lys Gln Tyr Arg Ile Asp Ala Gln Lys Met Glu Glu  
145 150 155 160  
Trp Ala Arg Ser Gln Thr Ser Ala Ser Leu Val Asp Phe Ser Ser Lys  
165 170 175  
Glu Gly Asp Ile Glu Ala Val Leu Lys Asp Ile Ala Gly Arg Ala Gly  
180 185 190  
Ser Lys Glu Gly Phe Ser Tyr Ser Arg Phe Phe Ala Val Gly Leu Phe  
195 200 205  
Arg Leu Leu Glu Leu Ala Ser Ala Thr Asp Pro Thr Val Leu Asp Lys  
210 215 220  
Leu Cys Ala Ser Leu Asn Ile Asn Lys Lys Ser Val Asp Arg Asp Leu  
225 230 235 240  
Asp Val Tyr Arg Asn Leu Leu Ser Lys Leu Val Gln Ala Lys Glu Leu  
245 250 255  
Leu Lys Glu Tyr Val Glu Arg Glu Lys Lys Lys Gln Gly Glu Arg Ala  
260 265 270  
Gln Ser Gln Lys Ala Asn Glu Thr Ile Ser Lys Cys Leu Gly Asp Thr  
275 280 285  
Leu Tyr Asn Pro Ser Phe Leu Val Glu Arg Lys Ser  
290 295 300

<210> 2081

<211> 909

<212> DNA

<213> Arabidopsis thaliana

<400> 2081  
atgcaagcgt cgttcgtttg gttgtttcaa caagttttct ctgctactcc tactttgatg 60  
gtctctgtta tgatccttct cgctaatttc acggtttact ctattgagag caactctgct 120  
ttagccgccg ccgtaagtcc cccgacaacc ctctctttca gcttcgaaac gacggcggag 180  
ataagtgaaa ctcaagaaac gaatcagaaa ttcgattctt caatgggttaa gacgttctct 240



047-E2F-PCT.ST25.txt

```

gtttcttctc cttacgggaa aacatctttt gtcggtggtg gcggcgggaa caatatacca 300
ccgccggtac aaagcggaac agatggtgat ggatctgata agtttagaaa atctcaattc 360
tcatcatcgt ctctgggtgc aacaagtgcg gattcagatg tatctgtgtc agggcaagaa 420
gagatcagac tgtggaattc gatattggag gaaactgcga aaatggaaac gttggatcac 480
gagacgatga aggggatggt ttctccggtg gaagctcgat tagaagcaga agaattccatg 540
gattacttca agacagagct tctttaccaa acgggattgt ctcaggagcc tggaaacggt 600
ctccttcttg ctaattacgc acagtttctc taccttatca ttcattgacta cgacagagcg 660
gaaaagtatt tcaagagagc agcaaaagca gagccagcgg acgcagaggc attgaacaaa 720
tatgcgacgt ttctgtggag agcgagaaac gatatttgga gagcggagga aacctactta 780
gaagcgatct ccgctgatcc aacaaactca gtctactccg caaactacgc acatttcctc 840
tggaacaccg gtggtgatga aacgtgtttt cctctcgacg ctccatcgca acagaacaac 900
accacatga 909

```

<210> 2082

<211> 302

<212> PRT

<213> Arabidopsis thaliana

<400> 2082

Met Gln Ala Ser Phe Val Trp Leu Phe Gln Gln Val Phe Ser Ala Thr  
1 5 10 15

Pro Thr Leu Met Val Ser Val Met Ile Leu Leu Ala Asn Phe Thr Val  
20 25 30

Tyr Ser Ile Glu Ser Asn Ser Ala Leu Ala Ala Ala Val Ser Pro Pro  
35 40 45

Thr Thr Leu Ser Phe Ser Phe Glu Thr Thr Ala Glu Ile Ser Glu Thr  
50 55 60

Gln Glu Thr Asn Gln Lys Phe Asp Ser Ser Met Val Lys Thr Phe Ser  
65 70 75 80

Val Ser Ser Pro Tyr Gly Lys Thr Ser Phe Val Gly Gly Gly Gly Gly  
85 90 95

Asn Asn Ile Pro Pro Pro Val Gln Ser Gly Thr Asp Gly Asp Gly Ser

100

105

110

Asp Gln Phe Arg Lys Ser Gln Phe Ser Ser Ser Ser Leu Gly Ala Thr  
 115 120 125

Ser Ala Asp Ser Asp Val Ser Val Ser Gly Gln Glu Glu Ile Arg Leu  
 130 135 140

Trp Asn Ser Ile Leu Glu Glu Thr Ala Lys Met Glu Thr Leu Asp His  
 145 150 155 160

Glu Thr Met Lys Gly Met Val Ser Pro Val Glu Ala Arg Leu Glu Ala  
 165 170 175

Glu Glu Ser Met Asp Tyr Phe Lys Thr Glu Leu Leu Tyr Gln Thr Gly  
 180 185 190

Leu Ser Gln Glu Pro Gly Asn Val Leu Leu Leu Ala Asn Tyr Ala Gln  
 195 200 205

Phe Leu Tyr Leu Ile Ile His Asp Tyr Asp Arg Ala Glu Lys Tyr Phe  
 210 215 220

Lys Arg Ala Ala Lys Ala Glu Pro Ala Asp Ala Glu Ala Leu Asn Lys  
 225 230 235 240

Tyr Ala Thr Phe Leu Trp Arg Ala Arg Asn Asp Ile Trp Arg Ala Glu  
 245 250 255

Glu Thr Tyr Leu Glu Ala Ile Ser Ala Asp Pro Thr Asn Ser Val Tyr  
 260 265 270

Ser Ala Asn Tyr Ala His Phe Leu Trp Asn Thr Gly Gly Asp Glu Thr  
 275 280 285

Cys Phe Pro Leu Asp Ala Pro Ser Gln Gln Asn Asn Thr Thr  
 290 295 300

&lt;210&gt; 2083

&lt;211&gt; 753

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2083

atggcggcta ttgctagtct gcaagcagtt aatctcacat ttaggcgacg tagcactcga

60

047-E2F-PCT.ST25.txt

```

tgtggaattg ctgagccgag cggagagcca gctccgatgg ggctgaagac tagatacgag 120
gatgggctgg tggagagagt gttcatgggt ctcttcgcga ggaagatgga caagttcggg 180
tcgaagaaga agaaggacac gaaggagaag ggtttttggg agtacgatta cgagagcttc 240
gtggaggtgt caaagagagt gatgcagggg cgggtccagag tgcagcagca agaggccgtg 300
agggaggttc ttctctctat gctgcctcct ggtgctcctg aacagtttag gaaattgttc 360
ccaccaacga aatgggctgc agagttcaat gccgctctta cagtgccttt ctttcactgg 420
ttggttggtc catctcaggt catagaagtg gaagtgaatg gtgtgaaaca gagaagtgga 480
gttcgtatca agaaatgcag gtatctggag aacagtgggt gtgtaggaat gtgtgtgaat 540
atgtgcaaga ttccaacca agatttcttc accaatgagt ttggcctccc actcaccatg 600
aacccaaatt atgaagacat gagctgcgag atgatatacg ggcaagcacc tccggccttt 660
gaggaggatg tagccaccaa gcaaccttgt ctagcagata tatgttctat gtcgaatcca 720
agctcccaa tctgccctaa actagaggca tga 753

```

<210> 2084

<211> 250

<212> PRT

<213> Arabidopsis thaliana

<400> 2084

```

Met Ala Ala Ile Ala Ser Leu Gln Ala Val Asn Leu Thr Phe Arg Arg
1          5          10          15

```

```

Arg Ser Thr Arg Cys Gly Ile Ala Glu Pro Ser Gly Glu Pro Ala Pro
20          25          30

```

```

Met Gly Leu Lys Thr Arg Tyr Glu Asp Gly Leu Val Glu Arg Val Phe
35          40          45

```

```

Met Gly Leu Phe Ala Arg Lys Met Asp Lys Phe Gly Ser Lys Lys Lys
50          55          60

```

```

Lys Asp Thr Lys Glu Lys Gly Phe Trp Glu Tyr Asp Tyr Glu Ser Phe
65          70          75          80

```

```

Val Glu Val Ser Lys Arg Val Met Gln Gly Arg Ser Arg Val Gln Gln
85          90          95

```

```

Gln Glu Ala Val Arg Glu Val Leu Leu Ser Met Leu Pro Pro Gly Ala

```

100

105

110

Pro Glu Gln Phe Arg Lys Leu Phe Pro Pro Thr Lys Trp Ala Ala Glu  
 115 120 125  
 Phe Asn Ala Ala Leu Thr Val Pro Phe Phe His Trp Leu Val Gly Pro  
 130 135 140  
 Ser Gln Val Ile Glu Val Glu Val Asn Gly Val Lys Gln Arg Ser Gly  
 145 150 155 160  
 Val Arg Ile Lys Lys Cys Arg Tyr Leu Glu Asn Ser Gly Cys Val Gly  
 165 170 175  
 Met Cys Val Asn Met Cys Lys Ile Pro Thr Gln Asp Phe Phe Thr Asn  
 180 185 190  
 Glu Phe Gly Leu Pro Leu Thr Met Asn Pro Asn Tyr Glu Asp Met Ser  
 195 200 205  
 Cys Glu Met Ile Tyr Gly Gln Ala Pro Pro Ala Phe Glu Glu Asp Val  
 210 215 220  
 Ala Thr Lys Gln Pro Cys Leu Ala Asp Ile Cys Ser Met Ser Asn Pro  
 225 230 235 240  
 Ser Ser Pro Ile Cys Pro Lys Leu Glu Ala  
 245 250

&lt;210&gt; 2085

&lt;211&gt; 1563

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2085

atggcgtctg tatctgcaat tggagttctc aaggtacctc ctgcttcgac ttccaattcc 60  
 accggaag ccacggaggc ggttcccacg aggactcttt cttctcctc ctctgttact 120  
 tcatccgacg acaagatttc actcaaatcc accgtctccc gtctttgtaa atctgttggt 180  
 cgcaggaatc cgatcatcgt ctctcccaa gccgtctcag attctcaaaa ctctcaaact 240  
 tgtctcgatc ctgatgctag cagcagtgtt ttggggataa tcttaggagg tggagctgga 300  
 actcgtcttt atccacttac gaagaagaga gcgaaaccag ctgtgcctct tgggtgctaac 360  
 tataggctta ttgatattcc tgtgagcaac tgtttgaata gcaacatatc caagatctat 420

047-E2F-PCT.ST25.txt

```

gttcttactc agttcaattc cgcgtctttg aatcgtcatc tttcacgagc ttatgctagt 480
aacatgggag gttataagaa tgaaggattc gttgaagttc tcgctgctca acagagtcct 540
gaaaacccca actggttcca ggggacagct gatgccgtca ggcaatactt gtgggtgttc 600
gaggagcata atgtcttgga gtatctcatt cttgctgggg atcatttgta tagaatggac 660
tatgagaagt ttattcaagc acatagggag actgatgctg atatcacagt agctgcatta 720
ccaatggacg agcaacgagc cactgctttt gggctgatga agattgatga ggaaggacgt 780
attattgaat ttgctgaaaa accaaaaggg gagcacctaa aggccatgaa ggttgacaca 840
acaattctag gtcttgatga tcagagagcc aaggagatgc ctttcattgc tagtatgggt 900
atztatgttg taagcagaga tgtaatgcta gacttactac ggaatcagtt tcctggagct 960
aatgactttg gaagtgaagt cattcccggg gccacttccc ttggactgag ggtgcaagct 1020
tacctatatg atggttactg ggaagacatt ggtactatag aggcatttta taacgctaata 1080
cttggaatca ccaagaaacc agttcctgat tttagtttct atgaccgttc tgctccgata 1140
tacacacagc cgcgttattt accaccgtct aagatgcttg atgctgatgt tactgacagt 1200
gtcatcggag agggctgtgt tatcaagaac tgcaaaattc atcactctgt gggttgactc 1260
cgttcctgca tatcagaagg tgctattatt gaagattcgt tattaatggg agctgattat 1320
tacgagactg ctacggaaaa gagcctctta agcgcgaaag gaagtgtacc cataggtatt 1380
gggaaaaact cgcacatcaa aaggggccatc atcgacaaaa acgcacgtat cggtgacaat 1440
gtcaagatca taaacagcga caacgtgcaa gaggcagcga gagagactga tggatatttc 1500
ataaagagcg gaattgtaac ggttatcaaa gacgccttaa tcccaaccgg cactgtcatc 1560
tga 1563

```

<210> 2086

<211> 520

<212> PRT

<213> Arabidopsis thaliana

<400> 2086

Met Ala Ser Val Ser Ala Ile Gly Val Leu Lys Val Pro Pro Ala Ser  
1 5 10 15

Thr Ser Asn Ser Thr Gly Lys Ala Thr Glu Ala Val Pro Thr Arg Thr  
20 25 30

Leu Ser Phe Ser Ser Ser Val Thr Ser Ser Asp Asp Lys Ile Ser Leu  
Page 3023

35

40

45

Lys Ser Thr Val Ser Arg Leu Cys Lys Ser Val Val Arg Arg Asn Pro  
 50 55 60  
 Ile Ile Val Ser Pro Lys Ala Val Ser Asp Ser Gln Asn Ser Gln Thr  
 65 70 75 80  
 Cys Leu Asp Pro Asp Ala Ser Ser Ser Val Leu Gly Ile Ile Leu Gly  
 85 90 95  
 Gly Gly Ala Gly Thr Arg Leu Tyr Pro Leu Thr Lys Lys Arg Ala Lys  
 100 105 110  
 Pro Ala Val Pro Leu Gly Ala Asn Tyr Arg Leu Ile Asp Ile Pro Val  
 115 120 125  
 Ser Asn Cys Leu Asn Ser Asn Ile Ser Lys Ile Tyr Val Leu Thr Gln  
 130 135 140  
 Phe Asn Ser Ala Ser Leu Asn Arg His Leu Ser Arg Ala Tyr Ala Ser  
 145 150 155 160  
 Asn Met Gly Gly Tyr Lys Asn Glu Gly Phe Val Glu Val Leu Ala Ala  
 165 170 175  
 Gln Gln Ser Pro Glu Asn Pro Asn Trp Phe Gln Gly Thr Ala Asp Ala  
 180 185 190  
 Val Arg Gln Tyr Leu Trp Leu Phe Glu Glu His Asn Val Leu Glu Tyr  
 195 200 205  
 Leu Ile Leu Ala Gly Asp His Leu Tyr Arg Met Asp Tyr Glu Lys Phe  
 210 215 220  
 Ile Gln Ala His Arg Glu Thr Asp Ala Asp Ile Thr Val Ala Ala Leu  
 225 230 235 240  
 Pro Met Asp Glu Gln Arg Ala Thr Ala Phe Gly Leu Met Lys Ile Asp  
 245 250 255  
 Glu Glu Gly Arg Ile Ile Glu Phe Ala Glu Lys Pro Lys Gly Glu His  
 260 265 270  
 Leu Lys Ala Met Lys Val Asp Thr Thr Ile Leu Gly Leu Asp Asp Gln  
 275 280 285

Arg Ala Lys Glu Met Pro Phe Ile Ala Ser Met Gly Ile Tyr Val Val  
 290 295 300

Ser Arg Asp Val Met Leu Asp Leu Leu Arg Asn Gln Phe Pro Gly Ala  
 305 310 315 320

Asn Asp Phe Gly Ser Glu Val Ile Pro Gly Ala Thr Ser Leu Gly Leu  
 325 330 335

Arg Val Gln Ala Tyr Leu Tyr Asp Gly Tyr Trp Glu Asp Ile Gly Thr  
 340 345 350

Ile Glu Ala Phe Tyr Asn Ala Asn Leu Gly Ile Thr Lys Lys Pro Val  
 355 360 365

Pro Asp Phe Ser Phe Tyr Asp Arg Ser Ala Pro Ile Tyr Thr Gln Pro  
 370 375 380

Arg Tyr Leu Pro Pro Ser Lys Met Leu Asp Ala Asp Val Thr Asp Ser  
 385 390 395 400

Val Ile Gly Glu Gly Cys Val Ile Lys Asn Cys Lys Ile His His Ser  
 405 410 415

Val Val Gly Leu Arg Ser Cys Ile Ser Glu Gly Ala Ile Ile Glu Asp  
 420 425 430

Ser Leu Leu Met Gly Ala Asp Tyr Tyr Glu Thr Ala Thr Glu Lys Ser  
 435 440 445

Leu Leu Ser Ala Lys Gly Ser Val Pro Ile Gly Ile Gly Lys Asn Ser  
 450 455 460

His Ile Lys Arg Ala Ile Ile Asp Lys Asn Ala Arg Ile Gly Asp Asn  
 465 470 475 480

Val Lys Ile Ile Asn Ser Asp Asn Val Gln Glu Ala Ala Arg Glu Thr  
 485 490 495

Asp Gly Tyr Phe Ile Lys Ser Gly Ile Val Thr Val Ile Lys Asp Ala  
 500 505 510

Leu Ile Pro Thr Gly Thr Val Ile  
 515 520

<210> 2087

<211> 1104

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2087

```

atggagagcg attcagagat ggttccgttt cctcaactac cgatgccaat agaaaacaac      60
tacagagctt gcacaattcc ttacagattt ctttctgatg atcccaagaa agccactcca      120
aatgaaatct cgtggatcaa cgtcttcgcc aattccattc cttctttcaa gaaacgtgca      180
gagagcgata tcaactgttcc agatgctcct gctagagctg aaaaatttgc agaaagatat      240
gctgggattc ttgaagactt gaagaaagat ccagagagtc atggcggacc accagatggc      300
attcttctat gccgacttcg tgagcaagta ctcagagagt taggatttag ggacatatcc      360
aagaaagtta aggatgagga gaatgcaaag gctatatcac tatttcctca agttgtcagt      420
ctgagtgatg ctattgaaga tgacggaaaa cggttagaga atttggtgag agggatattt      480
gctggaaaca tctttgatct tggttctgca cagcttgctg aagttttctc aagggatggg      540
atgtctttct tggctagctg tcaaaacttg gttccacgac catgggtcat tgatgacttg      600
gaaaacttcc aagccaaatg gatcaataag tcttggaaga aggcagtgat ttttgttgat      660
aattctggtg cagacataat tttgggtatt ttgccgtttg caagagagtt gctccgtcga      720
ggagctcagg tgggtgctggc tgctaattgag ctgccatcta tcaatgacat aacatgtacc      780
gagcttacag aaatcttgtc acagttgaag gatgaaaatg gccaatgct aggtgttgat      840
acttcgaagc ttctgattgc aaattcgggg aatgacttac cagttatcga tctctcaaga      900
gtatcacagg agcttgctta cttttcatct gatgccgact tagtcatcgt agaaggcatg      960
ggtcgtggaa ttgagacaaa cttttatgct cagttcaagt gtgattctct caagattgga     1020
atggtgaagc atcttgaagt agcagagttt ctcggaggac ggctctatga ctgtgtcttc     1080
aaattcaatg aagttcagag ctaa                                     1104

```

&lt;210&gt; 2088

&lt;211&gt; 367

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2088

```

Met Glu Ser Asp Ser Glu Met Val Pro Phe Pro Gln Leu Pro Met Pro
1           5           10           15

```



047-E2F-PCT.ST25.txt

Ile	Glu	Asn	Asn	Tyr	Arg	Ala	Cys	Thr	Ile	Pro	Tyr	Arg	Phe	Pro	Ser
		20						25					30		
Asp	Asp	Pro	Lys	Lys	Ala	Thr	Pro	Asn	Glu	Ile	Ser	Trp	Ile	Asn	Val
		35					40					45			
Phe	Ala	Asn	Ser	Ile	Pro	Ser	Phe	Lys	Lys	Arg	Ala	Glu	Ser	Asp	Ile
	50					55					60				
Thr	Val	Pro	Asp	Ala	Pro	Ala	Arg	Ala	Glu	Lys	Phe	Ala	Glu	Arg	Tyr
65					70					75					80
Ala	Gly	Ile	Leu	Glu	Asp	Leu	Lys	Lys	Asp	Pro	Glu	Ser	His	Gly	Gly
				85					90					95	
Pro	Pro	Asp	Gly	Ile	Leu	Leu	Cys	Arg	Leu	Arg	Glu	Gln	Val	Leu	Arg
			100					105					110		
Glu	Leu	Gly	Phe	Arg	Asp	Ile	Phe	Lys	Lys	Val	Lys	Asp	Glu	Glu	Asn
		115					120					125			
Ala	Lys	Ala	Ile	Ser	Leu	Phe	Pro	Gln	Val	Val	Ser	Leu	Ser	Asp	Ala
	130					135					140				
Ile	Glu	Asp	Asp	Gly	Lys	Arg	Leu	Glu	Asn	Leu	Val	Arg	Gly	Ile	Phe
145					150					155					160
Ala	Gly	Asn	Ile	Phe	Asp	Leu	Gly	Ser	Ala	Gln	Leu	Ala	Glu	Val	Phe
				165					170					175	
Ser	Arg	Asp	Gly	Met	Ser	Phe	Leu	Ala	Ser	Cys	Gln	Asn	Leu	Val	Pro
			180					185					190		
Arg	Pro	Trp	Val	Ile	Asp	Asp	Leu	Glu	Asn	Phe	Gln	Ala	Lys	Trp	Ile
		195					200					205			
Asn	Lys	Ser	Trp	Lys	Lys	Ala	Val	Ile	Phe	Val	Asp	Asn	Ser	Gly	Ala
	210					215					220				
Asp	Ile	Ile	Leu	Gly	Ile	Leu	Pro	Phe	Ala	Arg	Glu	Leu	Leu	Arg	Arg
225					230					235					240
Gly	Ala	Gln	Val	Val	Leu	Ala	Ala	Asn	Glu	Leu	Pro	Ser	Ile	Asn	Asp
				245					250					255	
Ile	Thr	Cys	Thr	Glu	Leu	Thr	Glu	Ile	Leu	Ser	Gln	Leu	Lys	Asp	Glu
			260					265					270		

047-E2F-PCT.ST25.txt

Asn Gly Gln Leu Leu Gly Val Asp Thr Ser Lys Leu Leu Ile Ala Asn  
275 280 285

Ser Gly Asn Asp Leu Pro Val Ile Asp Leu Ser Arg Val Ser Gln Glu  
290 295 300

Leu Ala Tyr Leu Ser Ser Asp Ala Asp Leu Val Ile Val Glu Gly Met  
305 310 315 320

Gly Arg Gly Ile Glu Thr Asn Leu Tyr Ala Gln Phe Lys Cys Asp Ser  
325 330 335

Leu Lys Ile Gly Met Val Lys His Leu Glu Val Ala Glu Phe Leu Gly  
340 345 350

Gly Arg Leu Tyr Asp Cys Val Phe Lys Phe Asn Glu Val Gln Ser  
355 360 365

<210> 2089

<211> 615

<212> DNA

<213> Arabidopsis thaliana

<400> 2089

atggcgacag aacaagaagc tgaagttgga acagagacat cctctgtttc cggaagggttt	60
ttgaggaaca gagatttata tctcttcttg ccttttctct taggcttctc tgatcaagaa	120
tcatcaaacg gagatgatga tgatgttgct tcatcgctg agagaatcat tttagtcaac	180
ccttttacac aaggaatgat tgtgctcgaa ggctcatcag gaatgaatcc tctgcttcgt	240
agcttactgg agtcacgtga ggaaggctcg cctcctgcgt ccaaggcttc catcgatgcg	300
atgccgatcg ttgagattga tggctgtgaa ggagagtgtg tgatctgttt ggaggagtgg	360
aagtccgagg agacggtgaa ggagatgccg tgtaagcata ggtttcacgg tggatgtata	420
gagaaatggt tagggtttca tgggtcgtgt cctgtttgta ggtacgagat gcctgttgat	480
ggagatgaga ttgggaagaa aagaaacgat gggaatgaga tttgggtag gttcagtttc	540
aacgatggtc ggagaattag agatttttct gcgcaggacg gtggaaacag tgatggtgtt	600
gagtccgaga attag	615

<210> 2090

<211> 204

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2090

```

Met Ala Thr Glu Gln Glu Ala Glu Val Gly Thr Glu Thr Ser Ser Val
1      5      10      15
Ser Gly Arg Phe Leu Arg Asn Arg Asp Leu Tyr Leu Phe Leu Pro Phe
20      25      30
Leu Leu Gly Phe Ser Asp Gln Glu Ser Ser Asn Gly Asp Asp Asp Asp
35      40      45
Val Ala Ser Ser Arg Glu Arg Ile Ile Leu Val Asn Pro Phe Thr Gln
50      55      60
Gly Met Ile Val Leu Glu Gly Ser Ser Gly Met Asn Pro Leu Leu Arg
65      70      75      80
Ser Leu Leu Glu Ser Arg Glu Glu Gly Arg Pro Pro Ala Ser Lys Ala
85      90      95
Ser Ile Asp Ala Met Pro Ile Val Glu Ile Asp Gly Cys Glu Gly Glu
100     105     110
Cys Val Ile Cys Leu Glu Glu Trp Lys Ser Glu Glu Thr Val Lys Glu
115     120     125
Met Pro Cys Lys His Arg Phe His Gly Gly Cys Ile Glu Lys Trp Leu
130     135     140
Gly Phe His Gly Ser Cys Pro Val Cys Arg Tyr Glu Met Pro Val Asp
145     150     155     160
Gly Asp Glu Ile Gly Lys Lys Arg Asn Asp Gly Asn Glu Ile Trp Val
165     170     175
Arg Phe Ser Phe Asn Asp Gly Arg Arg Ile Arg Asp Phe Ser Ala Gln
180     185     190
Asp Gly Gly Asn Ser Asp Gly Val Glu Ser Glu Asn
195     200

```

&lt;210&gt; 2091

&lt;211&gt; 3396

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2091

atggaggaag atcgtgggga agcgatcggt ttagatattt cgccggagat taataatact	60
ccggcggtaa tgatgagagt tccacggagg attcgtgaga ggcttttgtc tgactgtagt	120
aataagaaga cagtatcttc tgttcaagat attgaagaca agcttcttca tgcccatcta	180
cgaagacagc aattttatca taacgtttcg agaaaggctc gtgctaaacc tagaagtcct	240
tcacgatcat ctgatgaaga acttggccaa cgaatcgaag caagacttct ggctgctgaa	300
caaaaaaggt tggagattct tgcgaaggca cagatgcgtt tggcgaagtt agatgagtta	360
agacaagcag cgaaaacaag tgtggagata cggtcggaga gggaacgtgt gaagcttgga	420
actcaagtgg agtctcgtgt tcaaaaggct gaagctaata gaatgaagat tctcaaggcg	480
tctcatcaga aaagggcttg tgctaaagag agaacgtcac agtctatgat gaggaggatg	540
gctagagaga gtaagtataa ggaaagagtt cgtgcttcga ttaatcagaa acgtgtagct	600
gctgagaaga aacgtcttgg gttgcttgaa gctgagaaga agaaagcacg tgctcgtgtc	660
caacaagtac gtcattgttc caactctgtt tctaatacagc gtgagataga gagaagtaaa	720
atgagggata aacttgaaga caaattgcaa agagcaaaga gatataagatc ggagtttctt	780
cgtcagagaa gaagacaacg tgattccatt agtctctatt gcgatatgat gcaggaagat	840
gctgatcttc tttctagaaa gctgtcaagg tgttggaggt gctttgtaag gcagaagagg	900
acaacttttg atttggcgaa agcttatgat ggtttgaaga ttaacgagtc attaccgttt	960
gagcagcttg cgatgctact tgaatcgctg aacactctta aaacgggttaa atctttgctt	1020
gatcgcttg aaattcgctt agaagcttct aagaatgtta ccacggtttc tcaaccgtcc	1080
atattggata atattgatca ctttcttaaa agagttgcca caccaaggag aaaggctacg	1140
ccgagtactc tgaggagcag aaagggaaaag aaggtttctt ctgttaggaa tgtggctggg	1200
acatcagtga agatgtctag gtatcctgtc agagttgttc tttctgcctt tatgatactc	1260
ggccatccag atgctgtttt taatgggtcaa ggtgatcaag aggctgctct caataacgcg	1320
gctaaaggggt ttgtgagggg gcttaagtta ttgataaacg ttattcaaga gggtcctgtt	1380
caggtttcgg gtggagaatc aaaacatcgg accttaagat ctcagttgga cttattcgat	1440
aaggcttgggt gtcctttttt gaactcattt gtgatttgga aagtcaagga tgctcggttg	1500
ttggaagatg acctgggttag agcagcttgt cagcttgagc tttctatgat tcaaaaatgc	1560
aagctaactc cagaaggggt tgacactatg ctactcatg ataagaaagc aattcaaagt	1620
caggtaacac aagatcaaga actcctaaca gagaaagtac gacacctgag tggagttgca	1680

## 047-E2F-PCT.ST25.txt

ggagttgagc gcatggaaaag tgcgttggtg gaaacacgaa caaagtactt tcaggcgaag 1740  
 gaggatggaa gccctatggc taatcagctc gcacatttct tttctccaag cccagcttca 1800  
 tctccagttc agtctgtgtc tagttccagc agcagaagta aagatagcat aggtgttgaa 1860  
 ggatcaaadc gtgttaaatcg ttctttattg aaggatgata ctccaccctc atctggaccc 1920  
 tctagagtca gtaatggcac tgtggacgag gtttcaaadc agaatgagtt gatggtgaat 1980  
 gagttcctgc atgatgggaa cctcaacttt cctggtggat ccactgtcaa ggatgaagag 2040  
 gacaatctta agagaaggat aaaggagact atggagagag ctttctggga taatgtcatg 2100  
 gaatccatga aattggagaa gccagactat agctgcatct ctaaccttat gaaagaagtg 2160  
 agtgacgaac tttgccagat ggtaccagat agctggaaaag tagaaataac tgaaactatt 2220  
 gatctggaca ttctctcaca gttgctcaac tccggcacct tggatatcga ttaccttgga 2280  
 aagatgcttg agtttgctgt ggctactctg cggaaaactct ctgccccagc taatgaccgt 2340  
 gagaatgaaa gcacccaccg ggatttactc aaggaaacttc acaggttgtg tgaagctgaa 2400  
 gatgagtctg gtaacttccg tgctgttgca atagtcaagg ggatccgctt cattcttgag 2460  
 caaattcagg aacttaagcg agagataggc ataggctgca tagcaatcat gaaacccttt 2520  
 ttgcaaggac cagcaggctt tgattacctt acaaaagcat ttgaaaagcg ttatggacct 2580  
 cccactcaag cctacgaatc actaccagtg acacgaagggt ggatatcaac tcttttgtct 2640  
 agcaaagaag agtgggaaga acacaacaat acgctttcag ccttgaatgt ggttgagaga 2700  
 tcctccatgg gtatttctct caaaacgggt ggaagctttc tatccccagt caataccacg 2760  
 tccaagtcaa ctgttatgga cactgcaggt caactatcag aatgcaagggt agaaagagtt 2820  
 gatttggcag tgaggcttgg gttgttgaaag ctggtgaatc aggtagctgg tttaacacca 2880  
 gaagttctac cggaaaacttt tcagctcaac ctctttcgcg tgagggatat tcaagctgaa 2940  
 attcagaata taattgtggt aaccacaagc ttgctcattt ggcgtcaaag gcttgcaaag 3000  
 agcgaaaagc aaacagaaaag tatggcaaag aaattgttgg agttgttaga tgggaaggaa 3060  
 ggagcaggac taacggagat aatcgaaaca acaatgagtg aagaagatgg agagaagaag 3120  
 aagatgatga gaggattatt ggggaagagt ttgggagaag gtaacacagt gtatgagaga 3180  
 gttacaagtt gtatatacaa agcggctcga ggagctttat tggctgggaa tggagaaaat 3240  
 ggggaagaaa tggttgaaac agagatgaag aaagtaggag gaggtggagg attgaaagaa 3300  
 agggtttttag agacagctcg agcccttggt gttgtagctt gtgtctcagt cagagttcat 3360  
 ggtccatggt tgactcagct catgccacaa cattga 3396

&lt;210&gt; 2092

&lt;211&gt; 1131

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2092

Met Glu Glu Asp Arg Gly Glu Ala Ile Val Leu Asp Ile Ser Pro Glu  
 1 5 10 15

Ile Asn Asn Thr Pro Ala Val Met Met Arg Val Pro Arg Arg Ile Arg  
 20 25 30

Glu Arg Leu Leu Ser Asp Cys Ser Asn Lys Lys Thr Val Ser Ser Val  
 35 40 45

Gln Asp Ile Glu Asp Lys Leu Leu His Ala His Leu Arg Arg Gln Gln  
 50 55 60

Phe Tyr His Asn Val Ser Arg Lys Ala Arg Ala Lys Pro Arg Ser Pro  
 65 70 75 80

Ser Arg Ser Ser Asp Glu Glu Leu Gly Gln Arg Ile Glu Ala Arg Leu  
 85 90 95

Leu Ala Ala Glu Gln Lys Arg Leu Glu Ile Leu Ala Lys Ala Gln Met  
 100 105 110

Arg Leu Ala Lys Leu Asp Glu Leu Arg Gln Ala Ala Lys Thr Ser Val  
 115 120 125

Glu Ile Arg Ser Glu Arg Glu Arg Val Lys Leu Gly Thr Gln Val Glu  
 130 135 140

Ser Arg Val Gln Lys Ala Glu Ala Asn Arg Met Lys Ile Leu Lys Ala  
 145 150 155 160

Ser His Gln Lys Arg Ala Cys Ala Lys Glu Arg Thr Ser Gln Ser Met  
 165 170 175

Met Arg Arg Met Ala Arg Glu Ser Lys Tyr Lys Glu Arg Val Arg Ala  
 180 185 190

Ser Ile Asn Gln Lys Arg Val Ala Ala Glu Lys Lys Arg Leu Gly Leu  
 195 200 205

Leu Glu Ala Glu Lys Lys Lys Ala Arg Ala Arg Val Gln Gln Val Arg  
 210 215 220

047-E2F-PCT.ST25.txt

His Val Ala Asn Ser Val Ser Asn Gln Arg Glu Ile Glu Arg Ser Lys  
 225 230 235 240  
 Met Arg Asp Lys Leu Glu Asp Lys Leu Gln Arg Ala Lys Arg Tyr Arg  
 245 250 255  
 Ser Glu Phe Leu Arg Gln Arg Arg Arg Gln Arg Asp Ser Ile Ser Leu  
 260 265 270  
 Tyr Cys Asp Met Met Gln Glu Asp Ala Asp Leu Leu Ser Arg Lys Leu  
 275 280 285  
 Ser Arg Cys Trp Arg Cys Phe Val Arg Gln Lys Arg Thr Thr Leu Asp  
 290 295 300  
 Leu Ala Lys Ala Tyr Asp Gly Leu Lys Ile Asn Glu Ser Leu Pro Phe  
 305 310 315 320  
 Glu Gln Leu Ala Met Leu Leu Glu Ser Leu Asn Thr Leu Lys Thr Val  
 325 330 335  
 Lys Ser Leu Leu Asp Arg Leu Glu Ile Arg Leu Glu Ala Ser Lys Asn  
 340 345 350  
 Val Thr Thr Val Ser Gln Pro Ser Ile Leu Asp Asn Ile Asp His Leu  
 355 360 365  
 Leu Lys Arg Val Ala Thr Pro Arg Arg Lys Ala Thr Pro Ser Thr Leu  
 370 375 380  
 Arg Ser Arg Lys Gly Lys Lys Val Ser Ser Val Arg Asn Val Ala Gly  
 385 390 395 400  
 Thr Ser Val Lys Met Ser Arg Tyr Pro Val Arg Val Val Leu Ser Ala  
 405 410 415  
 Phe Met Ile Leu Gly His Pro Asp Ala Val Phe Asn Gly Gln Gly Asp  
 420 425 430  
 Gln Glu Ala Ala Leu Asn Asn Ala Ala Lys Gly Phe Val Arg Glu Leu  
 435 440 445  
 Lys Leu Leu Ile Asn Val Ile Gln Glu Gly Pro Val Gln Val Ser Gly  
 450 455 460  
 Gly Glu Ser Lys His Arg Thr Leu Arg Ser Gln Leu Asp Leu Phe Asp  
 Page 3033

465                      470                      475                      480  
 Lys Ala Trp Cys Ser Phe Leu Asn Ser Phe Val Ile Trp Lys Val Lys  
                                  485                      490                      495  
 Asp Ala Arg Leu Leu Glu Asp Asp Leu Val Arg Ala Ala Cys Gln Leu  
                                  500                      505                      510  
 Glu Leu Ser Met Ile Gln Lys Cys Lys Leu Thr Pro Glu Gly Val Asp  
                                  515                      520                      525  
 Thr Met Leu Thr His Asp Lys Lys Ala Ile Gln Met Gln Val Thr Gln  
                                  530                      535                      540  
 Asp Gln Glu Leu Leu Thr Glu Lys Val Arg His Leu Ser Gly Val Ala  
                                  545                      550                      555                      560  
 Gly Val Glu Arg Met Glu Ser Ala Leu Leu Glu Thr Arg Thr Lys Tyr  
                                  565                      570                      575  
 Phe Gln Ala Lys Glu Asp Gly Ser Pro Met Ala Asn Gln Leu Ala His  
                                  580                      585                      590  
 Phe Phe Ser Pro Ser Pro Ala Ser Ser Pro Val Gln Ser Val Ser Ser  
                                  595                      600                      605  
 Ser Ser Ser Arg Ser Lys Asp Ser Ile Gly Val Glu Gly Ser Asn Arg  
                                  610                      615                      620  
 Val Asn Arg Ser Leu Leu Lys Asp Asp Thr Pro Pro Ser Ser Gly Pro  
                                  625                      630                      635                      640  
 Ser Arg Val Ser Asn Gly Thr Val Asp Glu Val Ser Asn Gln Asn Glu  
                                  645                      650                      655  
 Leu Met Val Asn Glu Phe Leu His Asp Gly Asn Leu Asn Phe Pro Gly  
                                  660                      665                      670  
 Gly Ser Thr Val Lys Asp Glu Glu Asp Asn Leu Lys Arg Arg Ile Lys  
                                  675                      680                      685  
 Glu Thr Met Glu Arg Ala Phe Trp Asp Asn Val Met Glu Ser Met Lys  
                                  690                      695                      700  
 Leu Glu Lys Pro Asp Tyr Ser Cys Ile Ser Asn Leu Met Lys Glu Val  
                                  705                      710                      715                      720



Ser Asp Glu Leu Cys Gln Met Val Pro Asp Ser Trp Lys Val Glu Ile  
 725 730 735  
 Thr Glu Thr Ile Asp Leu Asp Ile Leu Ser Gln Leu Leu Asn Ser Gly  
 740 745 750  
 Thr Leu Asp Ile Asp Tyr Leu Gly Lys Met Leu Glu Phe Ala Leu Ala  
 755 760 765  
 Thr Leu Arg Lys Leu Ser Ala Pro Ala Asn Asp Arg Glu Asn Glu Ser  
 770 775 780  
 Thr His Arg Asp Leu Leu Lys Glu Leu His Arg Leu Cys Glu Ala Glu  
 785 790 795 800  
 Asp Glu Ser Gly Asn Phe Arg Ala Val Ala Ile Val Lys Gly Ile Arg  
 805 810 815  
 Phe Ile Leu Glu Gln Ile Gln Glu Leu Lys Arg Glu Ile Gly Ile Gly  
 820 825 830  
 Arg Ile Ala Ile Met Lys Pro Phe Leu Gln Gly Pro Ala Gly Phe Asp  
 835 840 845  
 Tyr Leu Thr Lys Ala Phe Glu Lys Arg Tyr Gly Pro Pro Thr Gln Ala  
 850 855 860  
 Tyr Glu Ser Leu Pro Val Thr Arg Arg Trp Ile Ser Thr Leu Leu Ser  
 865 870 875 880  
 Ser Lys Glu Glu Trp Glu Glu His Asn Asn Thr Leu Ser Ala Leu Asn  
 885 890 895  
 Val Val Glu Arg Ser Ser Met Gly Ile Ser Leu Lys Thr Gly Gly Ser  
 900 905 910  
 Phe Leu Ser Pro Val Asn Thr Thr Ser Lys Ser Thr Val Met Asp Thr  
 915 920 925  
 Ala Gly Gln Leu Ser Glu Cys Lys Gly Glu Arg Val Asp Leu Ala Val  
 930 935 940  
 Arg Leu Gly Leu Leu Lys Leu Val Asn Gln Val Ala Gly Leu Thr Pro  
 945 950 955 960  
 Glu Val Leu Pro Glu Thr Phe Gln Leu Asn Leu Phe Arg Val Arg Asp  
 965 970 975

047-E2F-PCT.ST25.txt

Ile Gln Ala Glu Ile Gln Asn Ile Ile Val Val Thr Thr Ser Leu Leu  
980 985 990

Ile Trp Arg Gln Met Leu Ala Lys Ser Glu Ser Glu Thr Glu Ser Met  
995 1000 1005

Ala Lys Lys Leu Leu Glu Leu Leu Asp Gly Lys Glu Gly Ala Gly  
1010 1015 1020

Leu Thr Glu Ile Ile Glu Thr Thr Met Ser Glu Glu Asp Gly Glu  
1025 1030 1035

Lys Lys Lys Met Met Arg Gly Leu Leu Gly Lys Ser Leu Gly Glu  
1040 1045 1050

Gly Asn Thr Val Tyr Glu Arg Val Thr Ser Cys Ile Tyr Lys Ala  
1055 1060 1065

Ala Arg Gly Ala Leu Leu Ala Gly Asn Gly Glu Asn Gly Lys Arg  
1070 1075 1080

Met Val Glu Thr Glu Met Lys Lys Val Gly Gly Gly Gly Gly Leu  
1085 1090 1095

Lys Glu Arg Val Leu Glu Thr Ala Arg Ala Leu Gly Val Val Ala  
1100 1105 1110

Cys Val Ser Val Arg Val His Gly Pro Trp Leu Thr Gln Leu Met  
1115 1120 1125

Pro Gln His  
1130

<210> 2093

<211> 768

<212> DNA

<213> Arabidopsis thaliana

<400> 2093

atggaaaaca aagagaccaa gcaagaacca gcagcagcag ctgagcaaaa gaccgttccg	60
ttgatcgaag atgagatcga gaggagcaaa gtcgggatca tgagagctct ctgcgaccga	120
caagatcctg aaactaagga ggtggatgat ctgatgataa ggaggtttct gagagcgcgt	180
gacctggaca ttgaaaaggc ttcaacgatg ttcttaaatt acctgacttg gaagagaagc	240

047-E2F-PCT.ST25.txt

atgctcccaa aggggcacat accagaagca gagattgcaa atgatctatc gcataacaag 300  
atgtgtatgc aaggatcatga caagatgggt cgacctatcg ctgttgccat tgggaacaga 360  
cataaccctt ccaaaggcaa ccctgacgag ttcaagcggt ttgttgtcta cacgctcgag 420  
aagatttgtg ctagaatgcc gagaggtcaa gagaaattcg tagcaattgg agatctgcaa 480  
ggctggggat attctaattg tgacatccgt ggctaccttg ctgctctttc cactttgcag 540  
gattgttacc cagagagatt agggaaactc tatatagttc atgcccccta cattttcatg 600  
accgcatgga aggtcattta tccttttatc gacgccaaca ccaagaaaaa gattgttttc 660  
gtggagaaca agaaactcac tccaacgctg cttgaagaca tagacgaaag ccaacttccc 720  
gacatctacg gaggcaaatt gccacttggt cctattcagg agacctga 768

<210> 2094

<211> 255

<212> PRT

<213> Arabidopsis thaliana

<400> 2094

Met Glu Asn Lys Glu Thr Lys Gln Glu Pro Ala Ala Ala Ala Glu Gln  
1 5 10 15

Lys Thr Val Pro Leu Ile Glu Asp Glu Ile Glu Arg Ser Lys Val Gly  
20 25 30

Ile Met Arg Ala Leu Cys Asp Arg Gln Asp Pro Glu Thr Lys Glu Val  
35 40 45

Asp Asp Leu Met Ile Arg Arg Phe Leu Arg Ala Arg Asp Leu Asp Ile  
50 55 60

Glu Lys Ala Ser Thr Met Phe Leu Asn Tyr Leu Thr Trp Lys Arg Ser  
65 70 75 80

Met Leu Pro Lys Gly His Ile Pro Glu Ala Glu Ile Ala Asn Asp Leu  
85 90 95

Ser His Asn Lys Met Cys Met Gln Gly His Asp Lys Met Gly Arg Pro  
100 105 110

Ile Ala Val Ala Ile Gly Asn Arg His Asn Pro Ser Lys Gly Asn Pro  
115 120 125

047-E2F-PCT.ST25.txt

Asp Glu Phe Lys Arg Phe Val Tyr Thr Leu Glu Lys Ile Cys Ala  
 130 135 140  
 Arg Met Pro Arg Gly Gln Glu Lys Phe Val Ala Ile Gly Asp Leu Gln  
 145 150 155 160  
 Gly Trp Gly Tyr Ser Asn Cys Asp Ile Arg Gly Tyr Leu Ala Ala Leu  
 165 170 175  
 Ser Thr Leu Gln Asp Cys Tyr Pro Glu Arg Leu Gly Lys Leu Tyr Ile  
 180 185 190  
 Val His Ala Pro Tyr Ile Phe Met Thr Ala Trp Lys Val Ile Tyr Pro  
 195 200 205  
 Phe Ile Asp Ala Asn Thr Lys Lys Lys Ile Val Phe Val Glu Asn Lys  
 210 215 220  
 Lys Leu Thr Pro Thr Leu Leu Glu Asp Ile Asp Glu Ser Gln Leu Pro  
 225 230 235 240  
 Asp Ile Tyr Gly Gly Lys Leu Pro Leu Val Pro Ile Gln Glu Thr  
 245 250 255

<210> 2095

<211> 780

<212> DNA

<213> Arabidopsis thaliana

<400> 2095

atggcgacga caacaacaga agcaacgaag acatcatcga ccaatggaga agatcagaag	60
cagtctcaga atcttcgaca tcaagaagtt ggtcacaaga gtctcttaca gagcgatgat	120
ctctaccagt atatactgga gacaagtgtg tatcctagag aaccagaatc aatgaaggaa	180
ctcaggggaag tgacagcaaa acatccatgg aacataatga ccacatcagc tgatgaagga	240
cagttcttaa acatgcttat caagctcggt aacgccaaga acacaatgga gatcggagtt	300
tacactggct actctcttct cgccaccgct cttgctctcc ctgaagacgg caaaattctg	360
gctatggatg tcaacagaga gaattacgaa ttgggtttac cgatcattga gaaagccggc	420
gttgctcaca agatcgactt caggggaaggc cctgctcttc ccgttcttga tgaaatcgtt	480
gctgacgaga agaaccatgg aacatatgac tttatattcg ttgatgctga caaagacaac	540
tacatcaact accacaagcg tttgatcgat cttgtgaaaa ttggaggagt gattggctac	600

047-E2F-PCT.ST25.txt

gacaacactc tgtggaatgg ttctgtcgtg gctcctcctg atgcaccaat gaggaagtac 660  
gttcgttact acagagactt tgttcttgag ctttaacaagg ctcttgctgc tgaccctcgg 720  
atcgagatct gtatgctccc tgttggtgat ggaatcacta tctgccgtcg gatcagttga 780

<210> 2096

<211> 259

<212> PRT

<213> Arabidopsis thaliana

<400> 2096

Met Ala Thr Thr Thr Thr Glu Ala Thr Lys Thr Ser Ser Thr Asn Gly  
1 5 10 15  
Glu Asp Gln Lys Gln Ser Gln Asn Leu Arg His Gln Glu Val Gly His  
20 25 30  
Lys Ser Leu Leu Gln Ser Asp Asp Leu Tyr Gln Tyr Ile Leu Glu Thr  
35 40 45  
Ser Val Tyr Pro Arg Glu Pro Glu Ser Met Lys Glu Leu Arg Glu Val  
50 55 60  
Thr Ala Lys His Pro Trp Asn Ile Met Thr Thr Ser Ala Asp Glu Gly  
65 70 75 80  
Gln Phe Leu Asn Met Leu Ile Lys Leu Val Asn Ala Lys Asn Thr Met  
85 90 95  
Glu Ile Gly Val Tyr Thr Gly Tyr Ser Leu Leu Ala Thr Ala Leu Ala  
100 105 110  
Leu Pro Glu Asp Gly Lys Ile Leu Ala Met Asp Val Asn Arg Glu Asn  
115 120 125  
Tyr Glu Leu Gly Leu Pro Ile Ile Glu Lys Ala Gly Val Ala His Lys  
130 135 140  
Ile Asp Phe Arg Glu Gly Pro Ala Leu Pro Val Leu Asp Glu Ile Val  
145 150 155 160  
Ala Asp Glu Lys Asn His Gly Thr Tyr Asp Phe Ile Phe Val Asp Ala  
165 170 175

047-E2F-PCT.ST25.txt

Asp Lys Asp Asn Tyr Ile Asn Tyr His Lys Arg Leu Ile Asp Leu Val  
180 185 190

Lys Ile Gly Gly Val Ile Gly Tyr Asp Asn Thr Leu Trp Asn Gly Ser  
195 200 205

Val Val Ala Pro Pro Asp Ala Pro Met Arg Lys Tyr Val Arg Tyr Tyr  
210 215 220

Arg Asp Phe Val Leu Glu Leu Asn Lys Ala Leu Ala Ala Asp Pro Arg  
225 230 235 240

Ile Glu Ile Cys Met Leu Pro Val Gly Asp Gly Ile Thr Ile Cys Arg  
245 250 255

Arg Ile Ser

<210> 2097

<211> 1764

<212> DNA

<213> Arabidopsis thaliana

<400> 2097

atgggttacg acaggctcgg tccatccgga ccatcaaacc cgaaccagaa ggaccctgcc	60
acgtcactcc cggaactaca gaagaaaact aaaacgaagc tgattctctt cactttggcc	120
gttttggtag ttggagtagt ctgcttcggt atctttgccg gcatccgagc cgtagactcg	180
ggtaaaaccg agccgaaact aacccgtaaa ccgacccaag caatctcccg aacctgtagc	240
aaatccttat acccgaacct atgcatcgac acacttcttg actttccggg atctttaacc	300
gccgacgaga acgagctcat tcacatatca ttcaacgcaa cgcttcaaaa attcagcaaa	360
gctctttata cttcttcgac gatcacatac actcagatgc cccacgtgt acggtcagct	420
tacgattctt gccttgagtt acttgatgat tcagtggacg cgctcacacg cgctctttcc	480
tccgtcgttg tcgtctccgg agatgagtct cattccgatg tgatgacgtg gcttagctct	540
gcgatgacta accacgacac ttgcactgac ggattcgatg aaattgaagg tcaaggagga	600
gaagtgaagg atcaagtgat cggagcgggt aaagatttgt cggagatggt gagtaattgt	660
ttggctatat tcgccgaaa agttaaggat ttatctggag ttccgggtggt gaataatagg	720
aagttacttg ggactgaaga aacagaggaa ttacctaatt ggttgaagag agaagacaga	780
gagcttcttg gtactccaac gtcggcgatt caagctgata tcacggtgtc gaaagacggt	840

047-E2F-PCT.ST25.txt

```

agcggaaacgt ttaagacgat cgcggaggcg atcaagaaag ccccgaggca tagtagccga 900
cgattcgtca tctacgttaa agcaggaaga tacgaagaag agaattctgaa agttggtagg 960
aagaagacaa acttgatggt catcggggac ggcaagggtta aaacgggtcat aaccgggtggg 1020
aaaagtatcg ccgatgatct aactactttt cacaccgcca ctttcgctgc gactggtgct 1080
ggattttatag tgagggacat gacgtttgag aattacgccg gaccgggctaa gcatcaggcc 1140
gtggcactcc gtgttggtgg agaccacgcg gtgggtttacc gttgcaacat tatcgggttac 1200
caagacgcgc ttacgtaca ttctaaccga cagtttttcc gcgaatgcga aatttatgga 1260
acgggtcgatt ttatatcggg gaatgcgggt gtgatcttac agagttgtaa ctttatgcg 1320
cgtaaaccaa tggctcagca gaagattact attacggctc agaaccgaaa agatccgaat 1380
cagaatacgg ggatttcgat tcatgcttgt aagctactag caacaccgga tcttgaagcc 1440
tctaagggtta gttatccgac gtatctcggc cgtccgtgga agttgtattc tagagttgtg 1500
tacatgatgt cggatatggg tgaccatatt gaccgcgag gatggttgga gtggaatggt 1560
ccgtttgcat tggactcgtt gtactatggt gagtatatga acaaagggtt gggttcagga 1620
attggtcaac gagtcaaatt gcctgggttat catgttatta cctcaacggt agaggctagt 1680
aagtttacgg tggctcagtt ctttctggt tcttcgtggt tgccatccac cgggtgtgtcc 1740
ttcttctccg ggttgtcaca atag 1764

```

<210> 2098

<211> 587

<212> PRT

<213> *Arabidopsis thaliana*

<400> 2098

Met Gly Tyr Asp Arg Leu Gly Pro Ser Gly Pro Ser Asn Pro Asn Gln  
1 5 10 15

Lys Asp Pro Ala Thr Ser Leu Pro Glu Leu Gln Lys Lys Thr Lys Thr  
20 25 30

Lys Leu Ile Leu Phe Thr Leu Ala Val Leu Val Val Gly Val Val Cys  
35 40 45

Phe Gly Ile Phe Ala Gly Ile Arg Ala Val Asp Ser Gly Lys Thr Glu  
50 55 60

Pro Lys Leu Thr Arg Lys Pro Thr Gln Ala Ile Ser Arg Thr Cys Ser  
Page 3041

65		70		75		80									
Lys	Ser	Leu	Tyr	Pro <sub>85</sub>	Asn	Leu	Cys	Ile	Asp <sub>90</sub>	Thr	Leu	Leu	Asp	Phe <sub>95</sub>	Pro
Gly	Ser	Leu	Thr <sub>100</sub>	Ala	Asp	Glu	Asn	Glu <sub>105</sub>	Leu	Ile	His	Ile	Ser <sub>110</sub>	Phe	Asn
Ala	Thr	Leu <sub>115</sub>	Gln	Lys	Phe	Ser	Lys <sub>120</sub>	Ala	Leu	Tyr	Thr	Ser <sub>125</sub>	Ser	Thr	Ile
Thr	Tyr <sub>130</sub>	Thr	Gln	Met	Pro	Pro <sub>135</sub>	Arg	Val	Arg	Ser	Ala <sub>140</sub>	Tyr	Asp	Ser	Cys
Leu	Glu	Leu	Leu	Asp	Asp <sub>150</sub>	Ser	Val	Asp	Ala	Leu <sub>155</sub>	Thr	Arg	Ala	Leu	Ser <sub>160</sub>
Ser	Val	Val	Val	Val <sub>165</sub>	Ser	Gly	Asp	Glu	Ser <sub>170</sub>	His	Ser	Asp	Val	Met <sub>175</sub>	Thr
Trp	Leu	Ser	Ser <sub>180</sub>	Ala	Met	Thr	Asn	His <sub>185</sub>	Asp	Thr	Cys	Thr	Asp <sub>190</sub>	Gly	Phe
Asp	Glu	Ile <sub>195</sub>	Glu	Gly	Gln	Gly	Gly <sub>200</sub>	Glu	Val	Lys	Asp	Gln <sub>205</sub>	Val	Ile	Gly
Ala	Val <sub>210</sub>	Lys	Asp	Leu	Ser	Glu <sub>215</sub>	Met	Val	Ser	Asn	Cys <sub>220</sub>	Leu	Ala	Ile	Phe
Ala	Gly	Lys	Val	Lys	Asp <sub>230</sub>	Leu	Ser	Gly	Val	Pro <sub>235</sub>	Val	Val	Asn	Asn	Arg <sub>240</sub>
Lys	Leu	Leu	Gly	Thr <sub>245</sub>	Glu	Glu	Thr	Glu	Glu <sub>250</sub>	Leu	Pro	Asn	Trp	Leu <sub>255</sub>	Lys
Arg	Glu	Asp	Arg <sub>260</sub>	Glu	Leu	Leu	Gly	Thr <sub>265</sub>	Pro	Thr	Ser	Ala	Ile <sub>270</sub>	Gln	Ala
Asp	Ile	Thr <sub>275</sub>	Val	Ser	Lys	Asp	Gly <sub>280</sub>	Ser	Gly	Thr	Phe	Lys <sub>285</sub>	Thr	Ile	Ala
Glu	Ala <sub>290</sub>	Ile	Lys	Lys	Ala	Pro <sub>295</sub>	Glu	His	Ser	Ser	Arg <sub>300</sub>	Arg	Phe	Val	Ile
Tyr	Val	Lys	Ala	Gly	Arg <sub>310</sub>	Tyr	Glu	Glu	Glu	Asn <sub>315</sub>	Leu	Lys	Val	Gly	Arg <sub>320</sub>



Lys Lys Thr Asn Leu Met Phe Ile Gly Asp Gly Lys Gly Lys Thr Val  
 325 330 335  
 Ile Thr Gly Gly Lys Ser Ile Ala Asp Asp Leu Thr Thr Phe His Thr  
 340 345 350  
 Ala Thr Phe Ala Ala Thr Gly Ala Gly Phe Ile Val Arg Asp Met Thr  
 355 360 365  
 Phe Glu Asn Tyr Ala Gly Pro Ala Lys His Gln Ala Val Ala Leu Arg  
 370 375 380  
 Val Gly Gly Asp His Ala Val Val Tyr Arg Cys Asn Ile Ile Gly Tyr  
 385 390 395 400  
 Gln Asp Ala Leu Tyr Val His Ser Asn Arg Gln Phe Phe Arg Glu Cys  
 405 410 415  
 Glu Ile Tyr Gly Thr Val Asp Phe Ile Phe Gly Asn Ala Ala Val Ile  
 420 425 430  
 Leu Gln Ser Cys Asn Ile Tyr Ala Arg Lys Pro Met Ala Gln Gln Lys  
 435 440 445  
 Ile Thr Ile Thr Ala Gln Asn Arg Lys Asp Pro Asn Gln Asn Thr Gly  
 450 455 460  
 Ile Ser Ile His Ala Cys Lys Leu Leu Ala Thr Pro Asp Leu Glu Ala  
 465 470 475 480  
 Ser Lys Gly Ser Tyr Pro Thr Tyr Leu Gly Arg Pro Trp Lys Leu Tyr  
 485 490 495  
 Ser Arg Val Val Tyr Met Met Ser Asp Met Gly Asp His Ile Asp Pro  
 500 505 510  
 Arg Gly Trp Leu Glu Trp Asn Gly Pro Phe Ala Leu Asp Ser Leu Tyr  
 515 520 525  
 Tyr Gly Glu Tyr Met Asn Lys Gly Leu Gly Ser Gly Ile Gly Gln Arg  
 530 535 540  
 Val Lys Trp Pro Gly Tyr His Val Ile Thr Ser Thr Val Glu Ala Ser  
 545 550 555 560  
 Lys Phe Thr Val Ala Gln Phe Ile Ser Gly Ser Ser Trp Leu Pro Ser  
 565 570 575

Thr Gly Val Ser Phe Phe Ser Gly Leu Ser Gln  
 580 585

<210> 2099

<211> 537

<212> DNA

<213> Arabidopsis thaliana

<400> 2099

```

atgcagtact acgaaaaccg tgagaaagac tactacgagg tggctcaagg ccaacgcaat    60
ggttatggcc agagccagag ccacaaccac gagggatatg gccagagcca gagccgtggg    120
ggatatggcc agatccataa ccgtgagggg tataaccaa accgtgaggg atatagccaa    180
agccagagtc gcccagtata tgggcttagc ccgactttga accaccgtag ccacgggtggg    240
tttcttgatg ggctcttcaa ggggtcaaaat ggccaaaagg gtcagagtgg gctaggcacg    300
tttctagggc aacacaagag ccaagaggct aaaaagagtc aaggacatgg gaagctcttg    360
gggcaacatg accagaagaa aactcatgag acaaacagtg gtcttaatgg ccttggaatg    420
ttcattaaca atggtgagaa gaaacatagg aggaaaagtg agcacaagaa gaagaacaag    480
gatgggcatg gcagtggtaa tgagagtgga agcagcagcg gtagcgacag cgactga      537

```

<210> 2100

<211> 178

<212> PRT

<213> Arabidopsis thaliana

<400> 2100

```

Met Gln Tyr Tyr Glu Asn Arg Glu Lys Asp Tyr Tyr Glu Val Ala Gln
1      5      10      15
Gly Gln Arg Asn Gly Tyr Gly Gln Ser Gln Ser His Asn His Glu Gly
20     25     30
Tyr Gly Gln Ser Gln Ser Arg Gly Gly Tyr Gly Gln Ile His Asn Arg
35     40     45
Glu Gly Tyr Asn Gln Asn Arg Glu Gly Tyr Ser Gln Ser Gln Ser Arg
50     55     60

```

Pro Val Tyr Gly Leu Ser Pro Thr Leu Asn His Arg Ser His Gly Gly  
65 70 75 80

Phe Leu Asp Gly Leu Phe Lys Gly Gln Asn Gly Gln Lys Gly Gln Ser  
85 90 95

Gly Leu Gly Thr Phe Leu Gly Gln His Lys Ser Gln Glu Ala Lys Lys  
100 105 110

Ser Gln Gly His Gly Lys Leu Leu Gly Gln His Asp Gln Lys Lys Thr  
115 120 125

His Glu Thr Asn Ser Gly Leu Asn Gly Leu Gly Met Phe Ile Asn Asn  
130 135 140

Gly Glu Lys Lys His Arg Arg Lys Ser Glu His Lys Lys Lys Asn Lys  
145 150 155 160

Asp Gly His Gly Ser Gly Asn Glu Ser Gly Ser Ser Ser Gly Ser Asp  
165 170 175

Ser Asp

<210> 2101

<211> 1089

<212> DNA

<213> Arabidopsis thaliana

<400> 2101

atgctgagta gatcagttgc ttctgctggt acaccggtct catcttcttc tctcttacca	60
aactcaaagc ctatcttctg tctgaaaacc ctctccggtt atcgttcttc ttctttctgt	120
ggcggctgta ttcgtaaaat caaccataag cctcttcgaa tgacgagttc caatattaca	180
ccaagagcta tggccacaca acagcttgag aacgctgac agctcattga ttctgtcgaa	240
acttttatct tcgattgtga tgggtgtgatt tggaagggag ataaattgat agagggagtt	300
cctgaaactc ttgatatgct tcgtgccaaag ggaaagagat tggtttttgt gacaaacaac	360
tcaacaaaat ctaggaaaca gtatggaaaa aagttcgaga ctcttggcct gaatgttaac	420
gaggaggaga tatttgcttc atcttttgct gctgctgcat acttgcagtc tattaatttc	480
ccaaaagata agaaggtcta tgtgattggt gaggaaggta tcttgaaaga gctagagctt	540
gctggttttc aataccttgg aggtccggat gatggtaaaa gacagattga attgaagcca	600

047-E2F-PCT.ST25.txt

ggtttttctaa tggagcatga tcatgatggt ggagctggtg tggttggatt tgatcgctat 660  
 ttcaactact acaaaattca gtatggaaca ctctgtatcc gtgaaaaccc ggggtgtctt 720  
 ttcacgcta caaacgaga tgctgtcact caccttactg atgctcaaga atgggcaggt 780  
 ggtggctcta tggttggtgc tcttggttga tccactcaac gtgagcctct tgttggttga 840  
 aaaccctcaa cttttatgat ggactattta gcagacaaat ttggaatcca aaagtcacag 900  
 atatgcatgg ttggtgatag attggacact gacattttat tcgggcagaa tggcggttgt 960  
 aagactctac tcgtcctctc ggggtgttact tcaatctcta tgttggaag ccctgagaac 1020  
 aagatacaac cagatttcta caccagcaag atctccgatt ttctgtctcc gaaagccgca 1080  
 actgtataa 1089

<210> 2102

<211> 362

<212> PRT

<213> Arabidopsis thaliana

<400> 2102

Met Leu Ser Arg Ser Val Ala Ser Ala Val Thr Pro Val Ser Ser Ser  
 1 5 10 15

Ser Leu Leu Pro Asn Ser Lys Pro Ile Phe Cys Leu Lys Thr Leu Ser  
 20 25 30

Gly Tyr Arg Ser Ser Ser Phe Cys Gly Gly Cys Ile Arg Lys Ile Asn  
 35 40 45

His Lys Pro Leu Arg Met Thr Ser Ser Asn Ile Thr Pro Arg Ala Met  
 50 55 60

Ala Thr Gln Gln Leu Glu Asn Ala Asp Gln Leu Ile Asp Ser Val Glu  
 65 70 75 80

Thr Phe Ile Phe Asp Cys Asp Gly Val Ile Trp Lys Gly Asp Lys Leu  
 85 90 95

Ile Glu Gly Val Pro Glu Thr Leu Asp Met Leu Arg Ala Lys Gly Lys  
 100 105 110

Arg Leu Val Phe Val Thr Asn Asn Ser Thr Lys Ser Arg Lys Gln Tyr  
 115 120 125

Gly Lys Lys Phe Glu Thr Leu Gly Leu Asn Val Asn Glu Glu Glu Ile  
 130 135 140  
 Phe Ala Ser Ser Phe Ala Ala Ala Ala Tyr Leu Gln Ser Ile Asn Phe  
 145 150 155 160  
 Pro Lys Asp Lys Lys Val Tyr Val Ile Gly Glu Glu Gly Ile Leu Lys  
 165 170 175  
 Glu Leu Glu Leu Ala Gly Phe Gln Tyr Leu Gly Gly Pro Asp Asp Gly  
 180 185 190  
 Lys Arg Gln Ile Glu Leu Lys Pro Gly Phe Leu Met Glu His Asp His  
 195 200 205  
 Asp Val Gly Ala Val Val Val Gly Phe Asp Arg Tyr Phe Asn Tyr Tyr  
 210 215 220  
 Lys Ile Gln Tyr Gly Thr Leu Cys Ile Arg Glu Asn Pro Gly Cys Leu  
 225 230 235 240  
 Phe Ile Ala Thr Asn Arg Asp Ala Val Thr His Leu Thr Asp Ala Gln  
 245 250 255  
 Glu Trp Ala Gly Gly Gly Ser Met Val Gly Ala Leu Val Gly Ser Thr  
 260 265 270  
 Gln Arg Glu Pro Leu Val Val Gly Lys Pro Ser Thr Phe Met Met Asp  
 275 280 285  
 Tyr Leu Ala Asp Lys Phe Gly Ile Gln Lys Ser Gln Ile Cys Met Val  
 290 295 300  
 Gly Asp Arg Leu Asp Thr Asp Ile Leu Phe Gly Gln Asn Gly Gly Cys  
 305 310 315 320  
 Lys Thr Leu Leu Val Leu Ser Gly Val Thr Ser Ile Ser Met Leu Glu  
 325 330 335  
 Ser Pro Glu Asn Lys Ile Gln Pro Asp Phe Tyr Thr Ser Lys Ile Ser  
 340 345 350  
 Asp Phe Leu Ser Pro Lys Ala Ala Thr Val  
 355 360

&lt;210&gt; 2103

&lt;211&gt; 1947

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2103

```

atggaattgg tcccgtacga ttcggagacg aaatcatcga tccccacaaa tctcgcgtgg      60
caagagatgt ttcgttccgc ttcattctgt aaacctcaag accctccgtc ttcttcttct      120
tcatcgccac cgcgtaaacc ttccggcgat ggatcatcaa gcaaaacatc tttatcaacc      180
gttgattccc aagcccgtct cgctatgtac atagcaatgg ctacgcgtgg tctcgccttc      240
gccatttgtg ttctgtatct cgctcgaaag ctattacaag agtatctaag accgattcaa      300
tgggcgattc tctgttcgat tcctttacga ggtattcaag aaacccttgt tgatttctgg      360
agcgagcctt tgaaattagg gcttacggaa gttgttctcg ctgttcctgt ttctgtcttc      420
aatgttttca tcgggtcgat tgtggatatt aaaaacgtct gctttagggt ttttcttagg      480
agatcgaaac ctaagagaac gaggaagaag aacgatactg ggttttctaa actgggtaaa      540
tggttagtct cttttggtgt ctttgtcatt gcttatgaga ggattggtgg aattgggtct      600
cttgtcattc tctctttagg gtttttgttt agttccaaga atgttgattc gtctctctct      660
gcggtctctt ctctgaggag taatagtttt aggagaagcc atttcactgc ttatttcact      720
agagggataa tgacgagatt gaatactata gttgctattg gtttgattgt gctcatgatt      780
gttggatctt tgactggtgt catcttcttc tcgtataaga ttgggtgttg agggaaagat      840
gctgtttatt ctctgaaatc tcatgttgaa gagagtaatt acgctgagaa gattgggatc      900
aagcaatgga tggatgagaa tgatgttccg ggaatggttg atatgtatac aacgaagttt      960
tatgaaacgg tttctgagca gattgatagt ttggcaatgc agtataatat gacggagtta     1020
gtcactggga ttaagcattt tgtgatcggg catcctcaga acacgtcgac gccttccacg     1080
gcgcttataa ctccgtctcc ttatacagag aagctcatga gtttgaggac tcgggttaag     1140
aatcgagagt ggagtcagat atactcggag gttgatgtga tcttcaggga gcttattatc     1200
actagagaag atttagtaga gaaagctaaa ggctttgctg ttaaaggaat ggatgtatcg     1260
caacggggtt tctcagacag cgcacgggtt gttggaggcg gtgctaagtt cgttttctct     1320
attggaaact tgataatctc aggagcagca gagtttttca actttatctc tcagctaattg     1380
atcttcattt gggttttata cattcttatt acatcagaat caggcgggtg gactgagcaa     1440
gtcatgaaca tgctcccgat caacgcaagc gctagaaaca gatgtgtcga agtcttagac     1500
ttagcgatat ccggcggtgt tttagcaaca gcggaaatcg ccttcttcca aggatgtctc     1560
acttggttat tgtttagact atacaatata catttccttt acatgtcaac cgttcttgcc     1620
ttcatcagcg ctctgttacc gattttccct tactgggttc cgacaatccc agcggctttg     1680

```

047-E2F-PCT.ST25.txt

cagctcgtgc tagaaggaag atatattggt gcagtgattt tatctgtgac tcattcttgtg 1740  
 ctaatggagt atggtgcttc agagattcaa gatgacattc ctgggtccaa tgcttacctt 1800  
 actggactaa gtattattgg tggagtcact ctgtttcctt ctgctctaga gggagcgata 1860  
 atggggccgt tgataacgac ggtggtgatt gctttgaagg atctgtatgc agagtttggt 1920  
 ctgaatgagc caaagaagat caattag 1947

<210> 2104

<211> 648

<212> PRT

<213> Arabidopsis thaliana

<400> 2104

Met Glu Leu Val Pro Tyr Asp Ser Glu Thr Lys Ser Ser Ile Pro Thr  
 1 5 10 15

Asn Leu Ala Trp Gln Glu Met Phe Arg Ser Ala Ser Ser Arg Lys Pro  
 20 25 30

Gln Asp Pro Pro Ser Ser Ser Ser Ser Pro Pro Arg Lys Pro Ser  
 35 40 45

Gly Asp Gly Ser Ser Ser Lys Thr Ser Leu Ser Thr Val Asp Ser Gln  
 50 55 60

Ala Arg Leu Ala Met Tyr Ile Ala Met Ala His Ala Gly Leu Ala Phe  
 65 70 75 80

Ala Ile Cys Val Leu Tyr Phe Val Gly Lys Leu Leu Gln Glu Tyr Leu  
 85 90 95

Arg Pro Ile Gln Trp Ala Ile Leu Cys Ser Ile Pro Leu Arg Gly Ile  
 100 105 110

Gln Glu Thr Leu Val Asp Phe Trp Ser Glu Pro Leu Lys Leu Gly Leu  
 115 120 125

Thr Glu Val Val Leu Ala Val Pro Val Ser Val Phe Asn Val Phe Ile  
 130 135 140

Gly Ser Ile Val Asp Ile Lys Asn Val Cys Phe Arg Val Phe Leu Arg  
 145 150 155 160

047-E2F-PCT.ST25.txt

Arg Ser Lys Pro Lys Arg Thr Arg Lys Lys Asn Asp Thr Gly Phe Ser  
165 170 175

Lys Leu Val Lys Trp Leu Val Ser Phe Gly Val Phe Val Ile Ala Tyr  
180 185 190

Glu Arg Ile Gly Gly Ile Gly Ser Leu Val Ile Leu Ser Leu Gly Phe  
195 200 205

Leu Phe Ser Ser Lys Asn Val Asp Ser Ser Leu Ser Ala Val Ser Ser  
210 215 220

Leu Arg Ser Asn Ser Phe Arg Arg Ser His Phe Thr Ala Tyr Phe Thr  
225 230 235 240

Arg Gly Ile Met Thr Arg Leu Asn Thr Ile Val Ala Ile Gly Leu Ile  
245 250 255

Val Leu Met Ile Val Gly Ser Leu Thr Gly Val Ile Phe Phe Ser Tyr  
260 265 270

Lys Ile Gly Val Glu Gly Lys Asp Ala Val Tyr Ser Leu Lys Ser His  
275 280 285

Val Glu Glu Ser Asn Tyr Ala Glu Lys Ile Gly Ile Lys Gln Trp Met  
290 295 300

Asp Glu Asn Asp Val Pro Gly Met Val Asp Met Tyr Thr Thr Lys Phe  
305 310 315 320

Tyr Glu Thr Val Ser Glu Gln Ile Asp Ser Leu Ala Met Gln Tyr Asn  
325 330 335

Met Thr Glu Leu Val Thr Gly Ile Lys His Phe Val Ile Gly His Pro  
340 345 350

Gln Asn Thr Ser Thr Pro Ser Thr Ala Leu Ile Thr Pro Ser Pro Tyr  
355 360 365

Thr Glu Lys Leu Met Ser Leu Arg Thr Arg Val Lys Asn Arg Glu Trp  
370 375 380

Ser Gln Ile Tyr Ser Glu Val Asp Val Ile Phe Arg Glu Leu Ile Ile  
385 390 395 400

Thr Arg Glu Asp Leu Val Glu Lys Ala Lys Gly Phe Ala Val Lys Gly  
405 410 415



047-E2F-PCT.ST25.txt

Met Asp Val Ser Gln Arg Val Phe Ser Ser Ser Ala Ser Val Val Gly  
420 425 430

Gly Gly Ala Lys Phe Val Phe Ser Ile Gly Asn Leu Ile Ile Ser Gly  
435 440 445

Ala Ala Glu Phe Phe Asn Phe Ile Ser Gln Leu Met Ile Phe Ile Trp  
450 455 460

Val Leu Tyr Ile Leu Ile Thr Ser Glu Ser Gly Gly Val Thr Glu Gln  
465 470 475 480

Val Met Asn Met Leu Pro Ile Asn Ala Ser Ala Arg Asn Arg Cys Val  
485 490 495

Glu Val Leu Asp Leu Ala Ile Ser Gly Val Leu Leu Ala Thr Ala Glu  
500 505 510

Ile Ala Phe Phe Gln Gly Cys Leu Thr Trp Leu Leu Phe Arg Leu Tyr  
515 520 525

Asn Ile His Phe Leu Tyr Met Ser Thr Val Leu Ala Phe Ile Ser Ala  
530 535 540

Leu Leu Pro Ile Phe Pro Tyr Trp Phe Ala Thr Ile Pro Ala Ala Leu  
545 550 555 560

Gln Leu Val Leu Glu Gly Arg Tyr Ile Val Ala Val Ile Leu Ser Val  
565 570 575

Thr His Leu Val Leu Met Glu Tyr Gly Ala Ser Glu Ile Gln Asp Asp  
580 585 590

Ile Pro Gly Ser Asn Ala Tyr Leu Thr Gly Leu Ser Ile Ile Gly Gly  
595 600 605

Val Thr Leu Phe Pro Ser Ala Leu Glu Gly Ala Ile Met Gly Pro Leu  
610 615 620

Ile Thr Thr Val Val Ile Ala Leu Lys Asp Leu Tyr Ala Glu Phe Val  
625 630 635 640

Leu Asn Glu Pro Lys Lys Ile Asn  
645

<210> 2105

&lt;211&gt; 1338

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2105

```

atggaggaag aacggcgagt tctgttcgga aagtacgaga tgggaagggtt attaggcaaa    60
ggaaccttcg ccaaagtcta ttacggcaaa gagatcatcg gcggcgagtg cgtcgcaatc    120
aaagtcatca acaaggatca agtaatgaag agacctggaa tgatggaaca aatcaaacgc    180
gagatttcaa tcatgaagct cgttcgtcat cccaacatag ttgaattgaa agaagtcatg    240
gctacgaaga ccaagatctt cttcgtcatg gagttcgtta aaggcggcga gcttttctgc    300
aaaatctcta aaggtaagtt acacgaagac gctgctcgta gatatttcca gcaattgatc    360
tcagccgttg attattgcc a tagtagaggc gtttctcatc gcgatctgaa acctgagaat    420
cttcttttag atgagaatgg agatttgaaa atctccgatt tcggattatc tgcgttaccg    480
gaacagattc ttcaagacgg attgcttcat acgcagtgtg gaactccggc gtatgttgcg    540
ccggaggtat taaagaagaa aggatacgac ggcgcgaaag ctgatatctg gtcgtgcggc    600
gtcgttttgt atgttcttct cgccggatgt ttgccgtttc aagatgagaa tctgatgaat    660
atgtatcgga agattttcag agcggatttt gaatttccgc cgtggttttc tccggaagcg    720
aggaggttga tttcgaaact cctcgttgta gatccagatc gacggatctc gattccggcg    780
attatgagaa cgccttggct ccggaaaaac ttcactccgc cgttagcttt caaaatcgac    840
gaaccgattt gttctcaaag cagcaaaaac aacgaagaag aagaagaaga cggagattgt    900
gaaaatcaaa cagagccgat atcgccgaaa ttcttcaacg ctttcgaatt catatcctcg    960
atgtcttccg gatttgactt atcgagcttg ttcgagagca agaggaaagt gcaatcggtg   1020
tttacgtcac ggtcgtcggc gacggaggta atggagaaga tagaaacggt tacgaaggag   1080
atgaacatga aagtgaagag aacgaaggat tttaaagtga agatggaagg gaaaacggaa   1140
gggagaaaag gacggttgtc gatgacggcg gaagtgtttg aagtagcgcc ggagatatcg   1200
gtggtggagt tttgcaaatc ggcgggagat actttggagt acgatagggt atacgaagaa   1260
gaagtacggc cggcgttaaa cgacatcgtc tgggtcatggc acggtgataa taataacact   1320
tcttccgagg attgttga                                     1338

```

&lt;210&gt; 2106

&lt;211&gt; 445

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2106

Met Glu Glu Glu Arg Arg Val Leu Phe Gly Lys Tyr Glu Met Gly Arg  
 1 5 10 15  
 Leu Leu Gly Lys Gly Thr Phe Ala Lys Val Tyr Tyr Gly Lys Glu Ile  
 20 25 30  
 Ile Gly Gly Glu Cys Val Ala Ile Lys Val Ile Asn Lys Asp Gln Val  
 35 40 45  
 Met Lys Arg Pro Gly Met Met Glu Gln Ile Lys Arg Glu Ile Ser Ile  
 50 55 60  
 Met Lys Leu Val Arg His Pro Asn Ile Val Glu Leu Lys Glu Val Met  
 65 70 75 80  
 Ala Thr Lys Thr Lys Ile Phe Phe Val Met Glu Phe Val Lys Gly Gly  
 85 90 95  
 Glu Leu Phe Cys Lys Ile Ser Lys Gly Lys Leu His Glu Asp Ala Ala  
 100 105 110  
 Arg Arg Tyr Phe Gln Gln Leu Ile Ser Ala Val Asp Tyr Cys His Ser  
 115 120 125  
 Arg Gly Val Ser His Arg Asp Leu Lys Pro Glu Asn Leu Leu Leu Asp  
 130 135 140  
 Glu Asn Gly Asp Leu Lys Ile Ser Asp Phe Gly Leu Ser Ala Leu Pro  
 145 150 155 160  
 Glu Gln Ile Leu Gln Asp Gly Leu Leu His Thr Gln Cys Gly Thr Pro  
 165 170 175  
 Ala Tyr Val Ala Pro Glu Val Leu Lys Lys Lys Gly Tyr Asp Gly Ala  
 180 185 190  
 Lys Ala Asp Ile Trp Ser Cys Gly Val Val Leu Tyr Val Leu Leu Ala  
 195 200 205  
 Gly Cys Leu Pro Phe Gln Asp Glu Asn Leu Met Asn Met Tyr Arg Lys  
 210 215 220  
 Ile Phe Arg Ala Asp Phe Glu Phe Pro Pro Trp Phe Ser Pro Glu Ala

225                      230                      235                      240  
 Arg Arg Leu Ile Ser Lys Leu Leu Val Val Asp Pro Asp Arg Arg Ile  
                                  245                                   250                                   255  
 Ser Ile Pro Ala Ile Met Arg Thr Pro Trp Leu Arg Lys Asn Phe Thr  
                                  260                                   265                                   270  
 Pro Pro Leu Ala Phe Lys Ile Asp Glu Pro Ile Cys Ser Gln Ser Ser  
                                  275                                   280                                   285  
 Lys Asn Asn Glu Glu Glu Glu Glu Asp Gly Asp Cys Glu Asn Gln Thr  
                                  290                                   295                                   300  
 Glu Pro Ile Ser Pro Lys Phe Phe Asn Ala Phe Glu Phe Ile Ser Ser  
                                  305                                   310                                   315                                   320  
 Met Ser Ser Gly Phe Asp Leu Ser Ser Leu Phe Glu Ser Lys Arg Lys  
                                  325                                   330                                   335  
 Val Gln Ser Val Phe Thr Ser Arg Ser Ser Ala Thr Glu Val Met Glu  
                                  340                                   345                                   350  
 Lys Ile Glu Thr Val Thr Lys Glu Met Asn Met Lys Val Lys Arg Thr  
                                  355                                   360                                   365  
 Lys Asp Phe Lys Val Lys Met Glu Gly Lys Thr Glu Gly Arg Lys Gly  
                                  370                                   375                                   380  
 Arg Leu Ser Met Thr Ala Glu Val Phe Glu Val Ala Pro Glu Ile Ser  
                                  385                                   390                                   395                                   400  
 Val Val Glu Phe Cys Lys Ser Ala Gly Asp Thr Leu Glu Tyr Asp Arg  
                                  405                                   410                                   415  
 Leu Tyr Glu Glu Glu Val Arg Pro Ala Leu Asn Asp Ile Val Trp Ser  
                                  420                                   425                                   430  
 Trp His Gly Asp Asn Asn Asn Thr Ser Ser Glu Asp Cys  
                                  435                                   440                                   445

<210> 2107

<211> 1473

<212> DNA

<213> Arabidopsis thaliana

```

<400> 2107
atggctgaag aacctactac taccactctc gttacaccgg aaaagctacc ttctccgagc 60
ctcacgcctt ctgaagtatc tgaatctact caagatgccc taccgacaga gacagaaact 120
ctggagaaaag tgactgagac taatccaccg gaaactgcag ataccaccac caagccagaa 180
gaagaaaccg cggcagagca tcatccaccg acagtgcagg aaacagaaac tgcattgcagc 240
gagaaacaag aggtttaaaga cgaagcatcg cagaaagaag tagctgaaga gaaaaagagt 300
atgattccac agaattcttg ttcatcctaa gaagaaagca gcaaaccttc tgatctatct 360
aattccgaga agaaatcact cgatgaacta aaacatctag ttcgagaagc tctagacaat 420
caccaattca ccaacacacc agaagaagtc aagatttggg ggattccatt acttgaagac 480
gatagaagcg acgtcgtttt gttaaaattc ctaagagcta gggagttcaa ggtgaaagat 540
tcgttttgcta tgctcaagaa cacaatcaag tggagaaagg agttcaagat cgatgaattg 600
gtcgaggaag atcttgtgga tgatcttgac aagggttgtgt ttatgcatgg acatgaccga 660
gaaggtcacc ctgtttgtta caatgtctat ggtgagtttc agaacaagga gctttataat 720
aagacgtttt ctgatgagga aaagaggaaa ctttcttga ggactaggat tcagttcttg 780
gagaggagta taaggaagct agatttttagc tctggtgggg tttctactat ttttcagggt 840
aatgatatga agaattctcc ggggttaggg aagaaagagc ttagatcagc tactaagcaa 900
gctgttgagt tgcttcagga caattaccct gagtttgtct tcaaacaggc ttttatcaat 960
gttccttggt ggtaccttgt gttttatact gtgattggtc cgttcatgac accaagatca 1020
aagagcaagc ttgtgtttgc tggtccttcg cgttcagctg aaaccctatt caaatacata 1080
tcacccgagc aagttccagt acaatatggt ggattgagtg ttgatccttg cgactgcaat 1140
ccagactttt cgttggaaga ttcagcctct gagatcactg ttaagcccgg aacaaaacaa 1200
actgttgaga tcataatcta tgagaaatgt gaacttgtgt gggagataag ggtaactgga 1260
tggaagtga gctacaaggc tgaatttgtg ccggaagaga aagatgctta cacggtggtt 1320
atacaaaaac cgaggaagat gagaccatcc gatgaaccgg tgtaacccta tagcttcaaa 1380
gtgaatgagc ttggcaaggt tttactcaca gtagacaacc caacctctaa gaagaagaag 1440
ctcgtttaca ggttcaatgt caaacctctc taa 1473

```

<210> 2108

<211> 490

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2108

```

Met Ala Glu Glu Pro Thr Thr Thr Thr Leu Val Thr Pro Glu Lys Leu
 1      5      10      15

Pro Ser Pro Ser Leu Thr Pro Ser Glu Val Ser Glu Ser Thr Gln Asp
 20      25      30

Ala Leu Pro Thr Glu Thr Glu Thr Leu Glu Lys Val Thr Glu Thr Asn
 35      40      45

Pro Pro Glu Thr Ala Asp Thr Thr Thr Lys Pro Glu Glu Glu Thr Ala
 50      55      60

Ala Glu His His Pro Pro Thr Val Thr Glu Thr Glu Thr Ala Ser Thr
 65      70      75      80

Glu Lys Gln Glu Val Lys Asp Glu Ala Ser Gln Lys Glu Val Ala Glu
 85      90      95

Glu Lys Lys Ser Met Ile Pro Gln Asn Leu Gly Ser Phe Lys Glu Glu
100      105      110

Ser Ser Lys Leu Ser Asp Leu Ser Asn Ser Glu Lys Lys Ser Leu Asp
115      120      125

Glu Leu Lys His Leu Val Arg Glu Ala Leu Asp Asn His Gln Phe Thr
130      135      140

Asn Thr Pro Glu Glu Val Lys Ile Trp Gly Ile Pro Leu Leu Glu Asp
145      150      155      160

Asp Arg Ser Asp Val Val Leu Leu Lys Phe Leu Arg Ala Arg Glu Phe
165      170      175

Lys Val Lys Asp Ser Phe Ala Met Leu Lys Asn Thr Ile Lys Trp Arg
180      185      190

Lys Glu Phe Lys Ile Asp Glu Leu Val Glu Glu Asp Leu Val Asp Asp
195      200      205

Leu Asp Lys Val Val Phe Met His Gly His Asp Arg Glu Gly His Pro
210      215      220

Val Cys Tyr Asn Val Tyr Gly Glu Phe Gln Asn Lys Glu Leu Tyr Asn
225      230      235      240

```

Lys Thr Phe Ser Asp Glu Glu Lys Arg Lys His Phe Leu Arg Thr Arg  
 245 250 255  
 Ile Gln Phe Leu Glu Arg Ser Ile Arg Lys Leu Asp Phe Ser Ser Gly  
 260 265 270  
 Gly Val Ser Thr Ile Phe Gln Val Asn Asp Met Lys Asn Ser Pro Gly  
 275 280 285  
 Leu Gly Lys Lys Glu Leu Arg Ser Ala Thr Lys Gln Ala Val Glu Leu  
 290 295 300  
 Leu Gln Asp Asn Tyr Pro Glu Phe Val Phe Lys Gln Ala Phe Ile Asn  
 305 310 315 320  
 Val Pro Trp Trp Tyr Leu Val Phe Tyr Thr Val Ile Gly Pro Phe Met  
 325 330 335  
 Thr Pro Arg Ser Lys Ser Lys Leu Val Phe Ala Gly Pro Ser Arg Ser  
 340 345 350  
 Ala Glu Thr Leu Phe Lys Tyr Ile Ser Pro Glu Gln Val Pro Val Gln  
 355 360 365  
 Tyr Gly Gly Leu Ser Val Asp Pro Cys Asp Cys Asn Pro Asp Phe Ser  
 370 375 380  
 Leu Glu Asp Ser Ala Ser Glu Ile Thr Val Lys Pro Gly Thr Lys Gln  
 385 390 395 400  
 Thr Val Glu Ile Ile Ile Tyr Glu Lys Cys Glu Leu Val Trp Glu Ile  
 405 410 415  
 Arg Val Thr Gly Trp Glu Val Ser Tyr Lys Ala Glu Phe Val Pro Glu  
 420 425 430  
 Glu Lys Asp Ala Tyr Thr Val Val Ile Gln Lys Pro Arg Lys Met Arg  
 435 440 445  
 Pro Ser Asp Glu Pro Val Leu Thr His Ser Phe Lys Val Asn Glu Leu  
 450 455 460  
 Gly Lys Val Leu Leu Thr Val Asp Asn Pro Thr Ser Lys Lys Lys Lys  
 465 470 475 480  
 Leu Val Tyr Arg Phe Asn Val Lys Pro Leu  
 485 490

&lt;210&gt; 2109

&lt;211&gt; 501

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2109

```

atggctgcat ttgcaacggc agaagcgtgt gacagcaacg cagaactaat atcaaattgga      60
gacttacgcg ctcttcaccc aatcttcaag atctatggcc aaagaagatg cttctcagga      120
ccaatcgtga ctctcaaggt ctttgaagac aatgtcctcg tcagaaacca actagaaacg      180
aaaggagaag gcgagagtctt agttatagac ggtggtggaa gcatgagatg cgcgcttggt      240
ggaggaaacc tcggacagtt agctcagaac aacgggtggt cggggattgt tgtgaatgga      300
tgcgttagag atgtggatga gatcaatgac tgcgatgttg gggtcagggc attgggatct      360
aacccgttga aatctactaa gaaagggtcat ggtgagaaga atgtgccggt tcatattgga      420
ggaactttga ttagagatgg agagtggcta tatgctgata gtgatggtat cttgatctcc      480
aagaccgaac tctctgtttg a                                     501

```

&lt;210&gt; 2110

&lt;211&gt; 166

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2110

```

Met Ala Ala Phe Ala Thr Ala Glu Ala Cys Asp Ser Asn Ala Glu Leu
1          5          10          15
Ile Ser Asn Gly Asp Leu Arg Ala Leu His Pro Ile Phe Lys Ile Tyr
          20          25          30
Gly Gln Arg Arg Cys Phe Ser Gly Pro Ile Val Thr Leu Lys Val Phe
          35          40          45
Glu Asp Asn Val Leu Val Arg Asn Gln Leu Glu Thr Lys Gly Glu Gly
50          55          60
Gly Val Leu Val Ile Asp Gly Gly Gly Ser Met Arg Cys Ala Leu Val
65          70          75          80

```



Gly Gly Asn Leu Gly Gln Leu Ala Gln Asn Asn Gly Trp Ser Gly Ile  
                   85                  90                  95

Val Val Asn Gly Cys Val Arg Asp Val Asp Glu Ile Asn Asp Cys Asp  
                   100                  105                  110

Val Gly Val Arg Ala Leu Gly Ser Asn Pro Leu Lys Ser Thr Lys Lys  
                   115                  120                  125

Gly His Gly Glu Lys Asn Val Pro Val His Ile Gly Gly Thr Leu Ile  
                   130                  135                  140

Arg Asp Gly Glu Trp Leu Tyr Ala Asp Ser Asp Gly Ile Leu Ile Ser  
                   145                  150                  155                  160

Lys Thr Glu Leu Ser Val  
                   165

<210> 2111

<211> 1299

<212> DNA

<213> Arabidopsis thaliana

<400> 2111

atgtttcgtc ccaattctct ttttaatacct tcaaatttat caacaacaaa aagccaaaga	60
aacacaatgc taaattcttc atatctatcc ttcgcactta tctttttctg ctgcattttg	120
ttctccgctc tcgcttcgtc tttgcccgtt tccgaccctg agcttggtgt cgaggaagta	180
cacagaaaaa taaacgagtc catatcaaga aggaagctag ggttcttctc gtgcgggagt	240
ggtaatccaa tcgatgattg ttggcgatgc gacaaggatt gggagaaaaa ccgaaaacgg	300
ttagcagact gtggtatcgg ttttggcaag aacgctattg gcggtcgtga tggtgaaatc	360
tatgtggtca cggatccagg aaacgatgat ccagtaaacc ctagaccggg aacactaaga	420
tacgcagtca ttcaagatga accgctatgg atcattttta agcgagacat gacgatccaa	480
ctaaaagaag aactcatcat gaattctttc aaaaccctag acggacgagg agcctccgta	540
cacatctccg gtgggccatg tataaccata caatatgtaa ccaacatcat catccatggt	600
ttacacatac atgactgcaa gcaagggtggg aatacttacg tacgtgactc accagagcat	660
tacggatata gaacggtatc cgacggtgac ggtgtgtcaa tattcggtgg aagccacgtg	720
tggggttgatc attgctcgct atcgaattgc aacgacgggt taattgatgc aattcgtgga	780
tcaacggcta taacgatctc gaacaattat ttgacgcatc ataataaggt tatgttattg	840

047-E2F-PCT.ST25.txt

ggacacagtg atacgtacga acaagacaag aacatgcaag tcactatcgc ttttaaccat 900  
 tttggagaag gcctcgtcca aagaatgcca aggtgtagac atggatattt ccatgtggtg 960  
 aacaatgact atacacattg ggaaatgtat gcaattggag gaagtgctaa tcctaccatc 1020  
 aactctcaag gcaaccgttt tcttgctcct gatgactcat ctagcaaaga ggtaacaaag 1080  
 cacgaggatg cgccggaaga cgaatggaga aattggaatt ggagatctga aggagatcta 1140  
 ctgcttaatg gtgcattctt cacctattct ggtgctggac cagctaaatc atcaagctat 1200  
 tcaaaagctt cgagtctagc cgcgagaccg tcctctcatg ttggtgagat aactatagcc 1260  
 tcgggtgcac tcagctgcaa aaggggttct cattgttga 1299

<210> 2112

<211> 432

<212> PRT

<213> Arabidopsis thaliana

<400> 2112

Met Phe Arg Pro Asn Ser Leu Leu Ile Pro Ser Asn Leu Ser Thr Thr  
 1 5 10 15

Lys Ser Gln Arg Asn Thr Met Leu Asn Ser Ser Tyr Leu Ser Phe Ala  
 20 25 30

Leu Ile Phe Phe Cys Cys Ile Leu Phe Ser Ala Leu Ala Ser Ser Leu  
 35 40 45

Pro Val Ser Asp Pro Glu Leu Val Val Glu Glu Val His Arg Lys Ile  
 50 55 60

Asn Glu Ser Ile Ser Arg Arg Lys Leu Gly Phe Phe Ser Cys Gly Ser  
 65 70 75 80

Gly Asn Pro Ile Asp Asp Cys Trp Arg Cys Asp Lys Asp Trp Glu Lys  
 85 90 95

Asn Arg Lys Arg Leu Ala Asp Cys Gly Ile Gly Phe Gly Lys Asn Ala  
 100 105 110

Ile Gly Gly Arg Asp Gly Glu Ile Tyr Val Val Thr Asp Pro Gly Asn  
 115 120 125

Asp Asp Pro Val Asn Pro Arg Pro Gly Thr Leu Arg Tyr Ala Val Ile  
 130 135 140

047-E2F-PCT.ST25.txt

Gln Asp Glu Pro Leu Trp Ile Ile Phe Lys Arg Asp Met Thr Ile Gln  
 145 150 155 160  
 Leu Lys Glu Glu Leu Ile Met Asn Ser Phe Lys Thr Leu Asp Gly Arg  
 165 170 175  
 Gly Ala Ser Val His Ile Ser Gly Gly Pro Cys Ile Thr Ile Gln Tyr  
 180 185 190  
 Val Thr Asn Ile Ile Ile His Gly Leu His Ile His Asp Cys Lys Gln  
 195 200 205  
 Gly Gly Asn Thr Tyr Val Arg Asp Ser Pro Glu His Tyr Gly Tyr Arg  
 210 215 220  
 Thr Val Ser Asp Gly Asp Gly Val Ser Ile Phe Gly Gly Ser His Val  
 225 230 235 240  
 Trp Val Asp His Cys Ser Leu Ser Asn Cys Asn Asp Gly Leu Ile Asp  
 245 250 255  
 Ala Ile Arg Gly Ser Thr Ala Ile Thr Ile Ser Asn Asn Tyr Leu Thr  
 260 265 270  
 His His Asn Lys Val Met Leu Leu Gly His Ser Asp Thr Tyr Glu Gln  
 275 280 285  
 Asp Lys Asn Met Gln Val Thr Ile Ala Phe Asn His Phe Gly Glu Gly  
 290 295 300  
 Leu Val Gln Arg Met Pro Arg Cys Arg His Gly Tyr Phe His Val Val  
 305 310 315 320  
 Asn Asn Asp Tyr Thr His Trp Glu Met Tyr Ala Ile Gly Gly Ser Ala  
 325 330 335  
 Asn Pro Thr Ile Asn Ser Gln Gly Asn Arg Phe Leu Ala Pro Asp Asp  
 340 345 350  
 Ser Ser Ser Lys Glu Val Thr Lys His Glu Asp Ala Pro Glu Asp Glu  
 355 360 365  
 Trp Arg Asn Trp Asn Trp Arg Ser Glu Gly Asp Leu Leu Leu Asn Gly  
 370 375 380  
 Ala Phe Phe Thr Tyr Ser Gly Ala Gly Pro Ala Lys Ser Ser Ser Tyr  
 Page 3061

385

390

400

Ser Lys Ala Ser Ser Leu Ala Ala Arg Pro Ser Ser His Val Gly Glu  
405 410 415

Ile Thr Ile Ala Ser Gly Ala Leu Ser Cys Lys Arg Gly Ser His Cys  
420 425 430

<210> 2113

<211> 1878

<212> DNA

<213> Arabidopsis thaliana

<400> 2113

atggggttag tcaacgggag agcttcgttg acctttctcc tcgcggcggt gaccatcatc	60
gctatggtcg tcgaggctag gtttgtggtg gagaaagaaa gcataagcgt gctgaatcca	120
gaggagatga ggtcgaagca cgacggctcg atagccaatt tcggtttacc cgattacggt	180
gggttttttaa tcgggtcagt ggtttatccg gatagtaaaa ccgatggatg ctctgctttt	240
ggtaaaacct tcaagcccaa gtttcctcgt cccactattc tgcttcttga tcgtggaggt	300
tgctactttg ccttaaaagc gtggcacgcg cagcaagcag gcgcggctgc agttcttgtg	360
gcggataatg tagacgagcc attgttgaca atggattcac cagaggagag caaagatgcg	420
gatggtttca tagagaagct aacaatccca tcggtgttaa tcgataaatc atttggagat	480
gacttaagac aagggtttca gaaagggaaa aacatagtta taaaactaga ttggagagag	540
tctgtgcctc atcctgataa gagagtagaa tatgagctgt ggactaatag caatgatgag	600
tgtggtgcac ggtgtgatga acagatggac tttgtcaaga actttaaagg tcatgctcag	660
atactcga aaaggcggtta taccgcgttt acgccgcatt atattacttg gttttgcctt	720
tttcagttta taaacagtcc acattgtaag tctcagtgtg taaaccatgg gaggtattgt	780
gctcctgacc ctgaggataa tttcagagaa gggatatgaag ggaaagatgt tgtgcttgag	840
aatctgagac agcttttgtt gcatagagtt gcgaatgaga gtagcaggcc ttgggttttg	900
tgggattatg ttaccgattt tcattctcga tgttcgatga aggagaagaa atacagcata	960
gattgtgctg agagtgtcat caaatctctg aatttaccta ttgagaagat caagaaatgc	1020
attggtgatc ctgaggctga tacagagaac caagttctga gaactgagca agtatctcag	1080
attggccgag gaaaccgggg agatgttacg atattgccaa cattagtcac caataacgct	1140
caatatcgag ggagattgga gagaaccgcg gttttaaagg cgatatgcgc tggttttaat	1200
gaaacatcgg agcctgccat ttgcttaaac acaggtctag agacaaatga gtgccttgaa	1260

047-E2F-PCT.ST25.txt

aacaatggtg gttgctggca ggatacaaaa gcaaacaatca ctgcttgtca agacacattc 1320  
agaggaagac tctgcgagtg tccggttgta aaaggtgttc aatataaagg agacgggtac 1380  
acttcatgta caccttatgg gcctgcgagg tgtactatga acaatggagg ttgctgggtct 1440  
gacacaagga acggcttaac tttctctgct tgctcagact ctgtatctac tggctgcaaa 1500  
tgtcctgaag gtttccaagg cgacggtttg acgtgtgaag atattaacga atgtaaagag 1560  
cgttcgggtat gtcaatgtag cggttgcaga tgcaagaact catgggggtgg atacaaatgc 1620  
agctgttctg gtgaccggct ttacataaac gatcaagata cttgtataga gagatatgga 1680  
tccaaaacgg catggtggct cacattcttg atactggcta tcgttgcagt agccggttta 1740  
gctggttata tattctacaa ataccggttc aggtcttaca tggactcaga gattatgacg 1800  
atcatgtcac agtatatgcc acttgagagc caaagagctc gtgaagttcc atcagaagcc 1860  
gagcctttta cactctaa 1878

<210> 2114

<211> 625

<212> PRT

<213> Arabidopsis thaliana

<400> 2114

Met Gly Leu Val Asn Gly Arg Ala Ser Leu Thr Phe Leu Leu Ala Ala  
1 5 10 15  
Leu Thr Ile Ile Ala Met Val Val Glu Ala Arg Phe Val Val Glu Lys  
20 25 30  
Glu Ser Ile Ser Val Leu Asn Pro Glu Glu Met Arg Ser Lys His Asp  
35 40 45  
Gly Ser Ile Ala Asn Phe Gly Leu Pro Asp Tyr Gly Gly Phe Leu Ile  
50 55 60  
Gly Ser Val Val Tyr Pro Asp Ser Lys Thr Asp Gly Cys Ser Ala Phe  
65 70 75 80  
Gly Lys Thr Phe Lys Pro Lys Phe Pro Arg Pro Thr Ile Leu Leu Leu  
85 90 95  
Asp Arg Gly Gly Cys Tyr Phe Ala Leu Lys Ala Trp His Ala Gln Gln  
100 105 110

047-E2F-PCT.ST25.txt

Ala Gly Ala Ala Ala Val Leu Val Ala Asp Asn Val Asp Glu Pro Leu  
115 120 125

Leu Thr Met Asp Ser Pro Glu Glu Ser Lys Asp Ala Asp Gly Phe Ile  
130 135 140

Glu Lys Leu Thr Ile Pro Ser Val Leu Ile Asp Lys Ser Phe Gly Asp  
145 150 155 160

Asp Leu Arg Gln Gly Phe Gln Lys Gly Lys Asn Ile Val Ile Lys Leu  
165 170 175

Asp Trp Arg Glu Ser Val Pro His Pro Asp Lys Arg Val Glu Tyr Glu  
180 185 190

Leu Trp Thr Asn Ser Asn Asp Glu Cys Gly Ala Arg Cys Asp Glu Gln  
195 200 205

Met Asp Phe Val Lys Asn Phe Lys Gly His Ala Gln Ile Leu Glu Lys  
210 215 220

Gly Gly Tyr Thr Ala Phe Thr Pro His Tyr Ile Thr Trp Phe Cys Pro  
225 230 235 240

Phe Gln Phe Ile Asn Ser Pro His Cys Lys Ser Gln Cys Ile Asn His  
245 250 255

Gly Arg Tyr Cys Ala Pro Asp Pro Glu Asp Asn Phe Arg Glu Gly Tyr  
260 265 270

Glu Gly Lys Asp Val Val Leu Glu Asn Leu Arg Gln Leu Cys Val His  
275 280 285

Arg Val Ala Asn Glu Ser Ser Arg Pro Trp Val Trp Trp Asp Tyr Val  
290 295 300

Thr Asp Phe His Ser Arg Cys Ser Met Lys Glu Lys Lys Tyr Ser Ile  
305 310 315 320

Asp Cys Ala Glu Ser Val Ile Lys Ser Leu Asn Leu Pro Ile Glu Lys  
325 330 335

Ile Lys Lys Cys Ile Gly Asp Pro Glu Ala Asp Thr Glu Asn Gln Val  
340 345 350

Leu Arg Thr Glu Gln Val Ser Gln Ile Gly Arg Gly Asn Arg Gly Asp  
355 360 365

047-E2F-PCT.ST25.txt

Val Thr Ile Leu Pro Thr Leu Val Ile Asn Asn Ala Gln Tyr Arg Gly  
370 375 380

Arg Leu Glu Arg Thr Ala Val Leu Lys Ala Ile Cys Ala Gly Phe Asn  
385 390 395 400

Glu Thr Ser Glu Pro Ala Ile Cys Leu Asn Thr Gly Leu Glu Thr Asn  
405 410 415

Glu Cys Leu Glu Asn Asn Gly Gly Cys Trp Gln Asp Thr Lys Ala Asn  
420 425 430

Ile Thr Ala Cys Gln Asp Thr Phe Arg Gly Arg Leu Cys Glu Cys Pro  
435 440 445

Val Val Lys Gly Val Gln Tyr Lys Gly Asp Gly Tyr Thr Ser Cys Thr  
450 455 460

Pro Tyr Gly Pro Ala Arg Cys Thr Met Asn Asn Gly Gly Cys Trp Ser  
465 470 475 480

Asp Thr Arg Asn Gly Leu Thr Phe Ser Ala Cys Ser Asp Ser Val Ser  
485 490 495

Thr Gly Cys Lys Cys Pro Glu Gly Phe Gln Gly Asp Gly Leu Thr Cys  
500 505 510

Glu Asp Ile Asn Glu Cys Lys Glu Arg Ser Val Cys Gln Cys Ser Gly  
515 520 525

Cys Arg Cys Lys Asn Ser Trp Gly Gly Tyr Lys Cys Ser Cys Ser Gly  
530 535 540

Asp Arg Leu Tyr Ile Asn Asp Gln Asp Thr Cys Ile Glu Arg Tyr Gly  
545 550 555 560

Ser Lys Thr Ala Trp Trp Leu Thr Phe Leu Ile Leu Ala Ile Val Ala  
565 570 575

Val Ala Gly Leu Ala Gly Tyr Ile Phe Tyr Lys Tyr Arg Phe Arg Ser  
580 585 590

Tyr Met Asp Ser Glu Ile Met Thr Ile Met Ser Gln Tyr Met Pro Leu  
595 600 605

Glu Ser Gln Arg Ala Arg Glu Val Pro Ser Glu Ala Glu Pro Phe Thr

610

615

Leu  
625

<210> 2115

<211> 447

<212> DNA

<213> Arabidopsis thaliana

<400> 2115

atgccttcaa gcacattctc cgggactggt agcacgccga agctgtcggg ggcagtggac	60
atgggaaacc cttttctcaa tctcaccggt gatgccttcc tcaagatcgg agctgttgga	120
gtcactaaat ctcttcgaga agacacttac aaggccatcg acaaaggag tctctccaag	180
agcactttgg agcatgcgct taagaagttg tgtaaagaag gtgtttactg gggagctgct	240
ggtggagtgt acattggaac agaatacggg atcgaacgta tccgtggcag cagagattgg	300
aaaaacgcaa tgtagcagg cgcggcgaca ggagcagtcg tctcagcggg tggttaagaaa	360
ggcaaagaca ctattgtgat cgatgccatt cttggtggcg cgcttgcaac cgcttctcag	420
ttcgtaaca atcattattt ctactga	447

<210> 2116

<211> 148

<212> PRT

<213> Arabidopsis thaliana

<400> 2116

Met	Pro	Ser	Ser	Thr	Phe	Ser	Gly	Thr	Val	Ser	Thr	Pro	Lys	Leu	Ser
1				5					10					15	
Val	Ala	Val	Asp	Met	Gly	Asn	Pro	Phe	Leu	Asn	Leu	Thr	Val	Asp	Ala
			20					25					30		
Phe	Leu	Lys	Ile	Gly	Ala	Val	Gly	Val	Thr	Lys	Ser	Leu	Ala	Glu	Asp
		35					40					45			
Thr	Tyr	Lys	Ala	Ile	Asp	Lys	Gly	Ser	Leu	Ser	Lys	Ser	Thr	Leu	Glu
	50					55					60				



His Ala Leu Lys Lys Leu Cys Lys Glu Gly Val Tyr Trp Gly Ala Ala  
65 70 75 80

Gly Gly Val Tyr Ile Gly Thr Glu Tyr Gly Ile Glu Arg Ile Arg Gly  
85 90 95

Ser Arg Asp Trp Lys Asn Ala Met Leu Ala Gly Ala Ala Thr Gly Ala  
100 105 110

Val Leu Ser Ala Val Gly Lys Lys Gly Lys Asp Thr Ile Val Ile Asp  
115 120 125

Ala Ile Leu Gly Gly Ala Leu Ala Thr Ala Ser Gln Phe Val Asn Asn  
130 135 140

His Tyr Phe Tyr  
145

<210> 2117

<211> 1314

<212> DNA

<213> Arabidopsis thaliana

<400> 2117

atggcggcgg cgtttgcctc tcttcccaca tttagtgtcg tcaattcctc cagatttccc	60
agaagaagaa tcggtttttc ttgctccaaa aagcccctcg aagttcgttg ttcttccggc	120
aatactcggtt acactaagca gagaggggca ttacatcac tgaaagaatg tgcgatttca	180
ttagctttat cggttggttt aatggtttca gtaccttca ttgctttgcc tcccaatgct	240
cacgcagtgg cgaatccagt gattccagat gtttcagtgt tgatctccgg tcctccgatt	300
aaagatccgg aagctttact aagatatgca ttgcctattg acaacaaagc catcagggaa	360
gtgcagaagc ctcttgagga tatcactgat agcctcaaga ttgctggcgt taaggctcta	420
gattctgttg aacggaatgt gaggcaggca agtagaacat tgcagcaagg gaaaagtata	480
attgtggcag gttttgctga atcgaagaag gatcatggta atgaaatgat tgaaaagttg	540
gaagctggga tgcaagatat gcttaagata gtggaagatc gaaaaagaga cgcagttgct	600
ccaaaacaga aagaaattct caaatatgtt ggcggaatag aagaggatat gggttgatggc	660
tttccatatg aagtgccgga agagtatcgg aacatgcctc tcctcaaggg aagagctagt	720
gtggacatga aggtcaagat caaggacaat cccaacatcg aggactgtgt gttccgcatt	780
gttcttgatg gttataacgc ccctgttacc gccggaaact ttgtggactt ggtagagagg	840

```

catttctacg atggcatgga gatccagaga tctgatggat ttgtggtaca aacgggagat   900
ccagaggggtc ctgcggaagg atttatcgat ccaagcacag agaaaacgag gacgggttcct   960
ctagagatta tgggtgactgg agagaaaacg ccttttttacg gctcaactct tgaagaactt  1020
ggctctttaca aggctcaggt tgtgattcct ttcaacgctt ttgggacaat ggcaatggca  1080
agagaagagt ttgagaatga ctcaggatca agccaagtgt tttggctgct aaaagagagt  1140
gagctgacac caagcaattc caacatcttg gatggtcggt acgctgtctt tggttacggt  1200
actgataacg aagatcttct agctgatctt aaagttggtg atgttatcga atccattcaa  1260
gttgtctccg gtttagagaa cctcgctaac ccgagttaca aaatcgccgg ttaa       1314

```

&lt;210&gt; 2118

&lt;211&gt; 437

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2118

```

Met Ala Ala Ala Phe Ala Ser Leu Pro Thr Phe Ser Val Val Asn Ser
1      5      10      15
Ser Arg Phe Pro Arg Arg Arg Ile Gly Phe Ser Cys Ser Lys Lys Pro
      20      25      30
Leu Glu Val Arg Cys Ser Ser Gly Asn Thr Arg Tyr Thr Lys Gln Arg
      35      40      45
Gly Ala Phe Thr Ser Leu Lys Glu Cys Ala Ile Ser Leu Ala Leu Ser
      50      55      60
Val Gly Leu Met Val Ser Val Pro Ser Ile Ala Leu Pro Pro Asn Ala
      65      70      75      80
His Ala Val Ala Asn Pro Val Ile Pro Asp Val Ser Val Leu Ile Ser
      85      90      95
Gly Pro Pro Ile Lys Asp Pro Glu Ala Leu Leu Arg Tyr Ala Leu Pro
      100      105      110
Ile Asp Asn Lys Ala Ile Arg Glu Val Gln Lys Pro Leu Glu Asp Ile
      115      120      125
Thr Asp Ser Leu Lys Ile Ala Gly Val Lys Ala Leu Asp Ser Val Glu
      130      135      140

```

047-E2F-PCT.ST25.txt

Arg Asn Val Arg Gln Ala Ser Arg Thr Leu Gln Gln Gly Lys Ser Ile  
 145 150 155 160  
 Ile Val Ala Gly Phe Ala Glu Ser Lys Lys Asp His Gly Asn Glu Met  
 165 170 175  
 Ile Glu Lys Leu Glu Ala Gly Met Gln Asp Met Leu Lys Ile Val Glu  
 180 185 190  
 Asp Arg Lys Arg Asp Ala Val Ala Pro Lys Gln Lys Glu Ile Leu Lys  
 195 200 205  
 Tyr Val Gly Gly Ile Glu Glu Asp Met Val Asp Gly Phe Pro Tyr Glu  
 210 215 220  
 Val Pro Glu Glu Tyr Arg Asn Met Pro Leu Leu Lys Gly Arg Ala Ser  
 225 230 235 240  
 Val Asp Met Lys Val Lys Ile Lys Asp Asn Pro Asn Ile Glu Asp Cys  
 245 250 255  
 Val Phe Arg Ile Val Leu Asp Gly Tyr Asn Ala Pro Val Thr Ala Gly  
 260 265 270  
 Asn Phe Val Asp Leu Val Glu Arg His Phe Tyr Asp Gly Met Glu Ile  
 275 280 285  
 Gln Arg Ser Asp Gly Phe Val Val Gln Thr Gly Asp Pro Glu Gly Pro  
 290 295 300  
 Ala Glu Gly Phe Ile Asp Pro Ser Thr Glu Lys Thr Arg Thr Val Pro  
 305 310 315 320  
 Leu Glu Ile Met Val Thr Gly Glu Lys Thr Pro Phe Tyr Gly Ser Thr  
 325 330 335  
 Leu Glu Glu Leu Gly Leu Tyr Lys Ala Gln Val Val Ile Pro Phe Asn  
 340 345 350  
 Ala Phe Gly Thr Met Ala Met Ala Arg Glu Glu Phe Glu Asn Asp Ser  
 355 360 365  
 Gly Ser Ser Gln Val Phe Trp Leu Leu Lys Glu Ser Glu Leu Thr Pro  
 370 375 380  
 Ser Asn Ser Asn Ile Leu Asp Gly Arg Tyr Ala Val Phe Gly Tyr Val  
 Page 3069

385

390

400

Thr Asp Asn Glu Asp Phe Leu Ala Asp Leu Lys Val Gly Asp Val Ile  
405 410 415

Glu Ser Ile Gln Val Val Ser Gly Leu Glu Asn Leu Ala Asn Pro Ser  
420 425 430

Tyr Lys Ile Ala Gly  
435

<210> 2119

<211> 1275

<212> DNA

<213> Arabidopsis thaliana

<400> 2119

```
atgcaagccg caacgtcgtg tgatctcaag ttccgatcaa cagatccgac gtctaggaac 60
aaatgtttct cccacgcgat tccaaagcgc gtggctgtta cgtgcggtta taggtcggag 120
tcgttttagct tccctaacgg tgtctccgtg agtcgatctg attggcaaag ctcattgtgcc 180
attttatcta gttaaagttgc ttctgttgaa aataccggtg gtttagcgga caaaatcgcc 240
gccgttaatg gtcacacgaa cggctctgtg aatcttggtc tcgtcgccgt tgagtcaact 300
aacggaaagt tagctcctgc tcagccggtg actattactg atctatctcc ggcaccggtg 360
catggttcta gtctacgtgt agcttaccaa ggcgttcccg gagcttactc ggaagcagct 420
gccggaagag cttatcccaa ttgcgacgcc attccttggtg accagtttga cgttgctttt 480
caggcgggtg agctttggat cgctgatcga gctgtgcttc cgggtggagaa ctcactcggg 540
ggttcgcgatc atcgaaacta tgatcttctt ctccgtcacc gtcttcacat cgttggagaa 600
gttcagattc cgggtccacca ttgcctcctc gcaactcccg gagtccgaac tgactgtggt 660
tcgcgggtga tctctcacc gcaagcccta gcgcagacgg aacactccct cgacgtcctt 720
acaccacatg cagcgcgtga ggctttccat gacacagcgg ctgctgcgga gtatatctca 780
gctaacgacc tacatgacac ggcggctgtg gcgagcgcac gcgccgctga gctttacaac 840
ctccagatat tagcggatgg gattcaagac gaccggggga acgtcactcg tttcctaattg 900
ttggcgcgtg agcctataat cccacgcacg gaccggccat tcaagactag catcgtcttt 960
gctgcccag agcacaaggg aactagcgtc ctctttaaag tcctctcggc tttcgctttc 1020
agagacatta gcctgaccaa gatcgagtcc cggcctcacc ataaccgccc gcttaggggtt 1080
gttggtgacg ggagctttgg gacgtcgaag aacttcgagt acatgtttta cgtggatttt 1140
```

047-E2F-PCT.ST25.txt

gagggcatcga tggctgagcc gcgtgcacag aacgcgcttg cggagggttca agagtacacg 1200  
 tcgttcctaa ggggtgctggg aagttacccc atggatatga caccatgggtc catgacatcc 1260  
 acagaagaag catga 1275

<210> 2120

<211> 424

<212> PRT

<213> Arabidopsis thaliana

<400> 2120

Met Gln Ala Ala Thr Ser Cys Asp Leu Lys Phe Arg Ser Thr Asp Pro  
 1 5 10 15

Thr Ser Arg Asn Lys Cys Phe Ser His Ala Ile Pro Lys Arg Val Ala  
 20 25 30

Val Thr Cys Gly Tyr Arg Ser Glu Ser Phe Ser Phe Pro Asn Gly Val  
 35 40 45

Ser Val Ser Arg Ser Asp Trp Gln Ser Ser Cys Ala Ile Leu Ser Ser  
 50 55 60

Lys Val Ala Ser Val Glu Asn Thr Gly Gly Leu Ala Asp Lys Ile Ala  
 65 70 75 80

Ala Val Asn Gly His Thr Asn Gly Ser Val Asn Leu Gly Leu Val Ala  
 85 90 95

Val Glu Ser Thr Asn Gly Lys Leu Ala Pro Ala Gln Pro Leu Thr Ile  
 100 105 110

Thr Asp Leu Ser Pro Ala Pro Leu His Gly Ser Ser Leu Arg Val Ala  
 115 120 125

Tyr Gln Gly Val Pro Gly Ala Tyr Ser Glu Ala Ala Ala Gly Lys Ala  
 130 135 140

Tyr Pro Asn Cys Asp Ala Ile Pro Cys Asp Gln Phe Asp Val Ala Phe  
 145 150 155 160

Gln Ala Val Glu Leu Trp Ile Ala Asp Arg Ala Val Leu Pro Val Glu  
 165 170 175

047-E2F-PCT.ST25.txt

Asn Ser Leu Gly Gly Ser Ile His Arg Asn Tyr Asp Leu Leu Leu Arg  
 180 185 190  
 His Arg Leu His Ile Val Gly Glu Val Gln Ile Pro Val His His Cys  
 195 200 205  
 Leu Leu Ala Leu Pro Gly Val Arg Thr Asp Cys Val Ser Arg Val Ile  
 210 215 220  
 Ser His Pro Gln Ala Leu Ala Gln Thr Glu His Ser Leu Asp Val Leu  
 225 230 235 240  
 Thr Pro His Ala Ala Arg Glu Ala Phe His Asp Thr Ala Ala Ala Ala  
 245 250 255  
 Glu Tyr Ile Ser Ala Asn Asp Leu His Asp Thr Ala Ala Val Ala Ser  
 260 265 270  
 Ala Arg Ala Ala Glu Leu Tyr Asn Leu Gln Ile Leu Ala Asp Gly Ile  
 275 280 285  
 Gln Asp Asp Pro Gly Asn Val Thr Arg Phe Leu Met Leu Ala Arg Glu  
 290 295 300  
 Pro Ile Ile Pro Arg Thr Asp Arg Pro Phe Lys Thr Ser Ile Val Phe  
 305 310 315 320  
 Ala Ala Gln Glu His Lys Gly Thr Ser Val Leu Phe Lys Val Leu Ser  
 325 330 335  
 Ala Phe Ala Phe Arg Asp Ile Ser Leu Thr Lys Ile Glu Ser Arg Pro  
 340 345 350  
 His His Asn Arg Pro Leu Arg Val Val Gly Asp Gly Ser Phe Gly Thr  
 355 360 365  
 Ser Lys Asn Phe Glu Tyr Met Phe Tyr Val Asp Phe Glu Ala Ser Met  
 370 375 380  
 Ala Glu Pro Arg Ala Gln Asn Ala Leu Ala Glu Val Gln Glu Tyr Thr  
 385 390 395 400  
 Ser Phe Leu Arg Val Leu Gly Ser Tyr Pro Met Asp Met Thr Pro Trp  
 405 410 415  
 Ser Met Thr Ser Thr Glu Glu Ala  
 420

&lt;210&gt; 2121

&lt;211&gt; 1422

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2121

```

atgcaagctc ttcaatcttc atctctccgt gcttctcctc caaaccact tcgcttacca      60
tcaaatcgtc aatcacatca gctaattacc aatgcgagac ctttgcaag acaacaacgt      120
tccttcatct ccgcatcagc atccactgtc tccgctccta aacgcgaaac agatccgaag      180
aaacgagttg tcattactgg tatgggtctc gtctctgtgt ttggtaacga tgttgatgct      240
tactacgaga aattgtttgtc tggtagagag ggaatcagtt tgattgatcg tttcgatgct      300
tccaagttcc ctactcgatt cggtaggtcag atccgtgggt ttagctctga aggttatatt      360
gatggcaaga atgagcgtag gcttgatgat tgtttgaaat attgcattgt tgctggtaaa      420
aaagctcttg aaagtgccaa tcttgggtgg gataagctta acacgattga taagaggaaa      480
gctggagtac tagttgggac tggaatggga ggtttaactg tgttttcaga aggtgttcag      540
aatttgattg agaaggggtca taggaggatt agtccatfff ttatacctta tgctataaca      600
aatatggggt ctgctttgtt ggcgattgat cttgggtctta tgggtcctaa ctattcgatt      660
tcaactgctt gtgctacttc gaattactgc ttttacgctg ctgcgaatca cattcgctcg      720
ggtgaagctg atatgatgat tgctgggtgg actgaggctg ctattattcc tattgggttg      780
ggagggtttt ttgctttagt ggcattgtcc cagagaaatg atgaccctca aactgcttcc      840
aggccgtggg ataaagcaag agatgggttt gttatgggtg aaggagctgg tgttctggtg      900
atggaaagct tggaacatgc aatgaaacgt ggtgctccaa ttgtagcaga atatcttgga      960
ggtgctgtta attgtgatgc tcaccatatg actgatccaa gagctgatgg tcttgggggt      1020
tcttcatgca ttgaaagatg cctggaagat gctgggtgat cacctgagga ggtaaattac      1080
atcaatgcac atgcaacttc cactcttgct ggtgatcttg ctgagattaa tgccattaaa      1140
aaggatttca agagcacttc agggatcaaa atcaacgcca ccaagtctat gatagggtcac      1200
tgccctcggt cagctggagg tctagaagcc atcgccaccg tgaaggctat caaactgga      1260
tggtctcatc cttccatcaa ccaatttaac ccagaacaag ctgtggactt tgacacggtc      1320
ccaaacgaga agaagcaaca cgaggttgat gttgccatat caaactcggt cgggttcggt      1380
ggacacaact cggtagtcgc cttctctgcc ttcaaaccct ga                        1422

```

&lt;210&gt; 2122

&lt;211&gt; 473

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2122

Met Gln Ala Leu Gln Ser Ser Ser Leu Arg Ala Ser Pro Pro Asn Pro  
 1 5 10 15

Leu Arg Leu Pro Ser Asn Arg Gln Ser His Gln Leu Ile Thr Asn Ala  
 20 25 30

Arg Pro Leu Arg Arg Gln Gln Arg Ser Phe Ile Ser Ala Ser Ala Ser  
 35 40 45

Thr Val Ser Ala Pro Lys Arg Glu Thr Asp Pro Lys Lys Arg Val Val  
 50 55 60

Ile Thr Gly Met Gly Leu Val Ser Val Phe Gly Asn Asp Val Asp Ala  
 65 70 75 80

Tyr Tyr Glu Lys Leu Leu Ser Gly Glu Ser Gly Ile Ser Leu Ile Asp  
 85 90 95

Arg Phe Asp Ala Ser Lys Phe Pro Thr Arg Phe Gly Gly Gln Ile Arg  
 100 105 110

Gly Phe Ser Ser Glu Gly Tyr Ile Asp Gly Lys Asn Glu Arg Arg Leu  
 115 120 125

Asp Asp Cys Leu Lys Tyr Cys Ile Val Ala Gly Lys Lys Ala Leu Glu  
 130 135 140

Ser Ala Asn Leu Gly Gly Asp Lys Leu Asn Thr Ile Asp Lys Arg Lys  
 145 150 155 160

Ala Gly Val Leu Val Gly Thr Gly Met Gly Gly Leu Thr Val Phe Ser  
 165 170 175

Glu Gly Val Gln Asn Leu Ile Glu Lys Gly His Arg Arg Ile Ser Pro  
 180 185 190

Phe Phe Ile Pro Tyr Ala Ile Thr Asn Met Gly Ser Ala Leu Leu Ala  
 195 200 205



Ile Asp Leu Gly Leu Met Gly Pro Asn Tyr Ser Ile Ser Thr Ala Cys  
 210 215 220  
 Ala Thr Ser Asn Tyr Cys Phe Tyr Ala Ala Ala Asn His Ile Arg Arg  
 225 230 235 240  
 Gly Glu Ala Asp Met Met Ile Ala Gly Gly Thr Glu Ala Ala Ile Ile  
 245 250 255  
 Pro Ile Gly Leu Gly Gly Phe Val Ala Cys Arg Ala Leu Ser Gln Arg  
 260 265 270  
 Asn Asp Asp Pro Gln Thr Ala Ser Arg Pro Trp Asp Lys Ala Arg Asp  
 275 280 285  
 Gly Phe Val Met Gly Glu Gly Ala Gly Val Leu Val Met Glu Ser Leu  
 290 295 300  
 Glu His Ala Met Lys Arg Gly Ala Pro Ile Val Ala Glu Tyr Leu Gly  
 305 310 315 320  
 Gly Ala Val Asn Cys Asp Ala His His Met Thr Asp Pro Arg Ala Asp  
 325 330 335  
 Gly Leu Gly Val Ser Ser Cys Ile Glu Arg Cys Leu Glu Asp Ala Gly  
 340 345 350  
 Val Ser Pro Glu Glu Val Asn Tyr Ile Asn Ala His Ala Thr Ser Thr  
 355 360 365  
 Leu Ala Gly Asp Leu Ala Glu Ile Asn Ala Ile Lys Lys Val Phe Lys  
 370 375 380  
 Ser Thr Ser Gly Ile Lys Ile Asn Ala Thr Lys Ser Met Ile Gly His  
 385 390 395 400  
 Cys Leu Gly Ala Ala Gly Gly Leu Glu Ala Ile Ala Thr Val Lys Ala  
 405 410 415  
 Ile Asn Thr Gly Trp Leu His Pro Ser Ile Asn Gln Phe Asn Pro Glu  
 420 425 430  
 Gln Ala Val Asp Phe Asp Thr Val Pro Asn Glu Lys Lys Gln His Glu  
 435 440 445  
 Val Asp Val Ala Ile Ser Asn Ser Phe Gly Phe Gly Gly His Asn Ser  
 450 455 460

Val Val Ala Phe Ser Ala Phe Lys Pro  
 465 470

<210> 2123

<211> 3114

<212> DNA

<213> *Arabidopsis thaliana*

<400> 2123

```

atggagcgcg caaggagact tgcttacaga ggaatcgtca aacgtctcgt taacgacaca    60
aaacgacacc gtaacgctga aacacctcac cttgttcctc acgctccggc gaggtatgtc    120
tcttcccttt cccctttcat ctccaccctt cgatctgtca accacacggc ggctttcggg    180
aggcaccagc agacgcgttc catctccgtc gatgctgtta aaccacgaga tactttccct    240
cgtcgtcaca actctgcaac accagacgaa caaaccaca tggctaaatt ctgtggcttt    300
gaccatatcg attcactcat cgatgctacg gtgcccaaatt cgattcgatt agattccatg    360
aagttctcca aattcgacgc tggtttaacc gagagccaaa tgattcaaca catgggtgat    420
ttagcttcca agaacaaggt tttcaaattc ttcacggtga tgggttacta caacactcat    480
gtccctactg tcatttctcg taacatcatg gagaatccag cttggtacac tcaatacact    540
ccttatcaag ctgagatctc tcaaggctgt ctcgaatcgc tcctcaattt ccagaccgtg    600
atcacagatc tcacgggtct tcctatgtcc aatgcgtcgc ttctggatga aggcactgct    660
gctgcggagg caatggccat gtgtaacaac attcttaagg gtaaaaagaa gacctttgtc    720
attgctagta actgtcacc ctagactatt gatgtttgta agactagagc tgatgggttt    780
gatttgaaag ttgtcacctc tgatcttaag gatatagatt acagctctgg tgatgtttgt    840
ggggttcttg ttcagtatcc tgggtactgaa ggtgaagtct tggattatgc tgagtttggt    900
aagaatgctc atgctaattg tggttaaggt gtgatggcta cggatttgct ggctttgact    960
gtgttgaaac ctcttgaga atttggggcg gatattgttg ttggctctgc tcaaagggtt   1020
gggtgtccga tgggttatgg tggtcctcat gctgcgttct tggctacttc acaagagtat   1080
aagagaatga tgcctgggag gattattggt attagtgttg attcttcagg aaagcaagct   1140
ctgcgtatgg ctatgcagac tagagaacag catattagga gggacaaagc cactagcaac   1200
atctgtactg ctcaagcggt gcttgccaac atggctgcca tgtatgctgt ttaccatgga   1260
cctgcagggtc taaaatctat tgcccagcgt gtccatgggt tcgctgggtat attttcctta   1320
gggttgaaca agcttggggg tgcagaagtt caagaacttc ctttctttga cactgttaaa   1380
attaagtgtt cggatgcaca tgcaattgct gatgcagctt ccaaaagtga aattaatctg   1440

```

## 047-E2F-PCT.ST25.txt

cgtgttgtgg actcaaccac tattactgct tcctttgacg aaacaaccac cttggatgat 1500  
 gtcgataaac ttttcaaagt ttttgcttct ggcaagcctg ttccatttac ggctgaatct 1560  
 ctagcacccg aggttcagaa ttccattcct tctagcctaa caagagagag tccttatctt 1620  
 acccacccaa tcttcaacat gtaccacaca gagcatgagt tgcttaggta catccacaag 1680  
 ttacagtcaa aggatctatc actgtgccac agcatgattc cgttgggatc ttgtacgatg 1740  
 aaactaaatg caacaactga aatgatgcc a gtcacatggc caagtttcac tgacattcac 1800  
 ccttttgctc ctgttgaaca agcacaaggt tatcaggaaa tgttcgaaaa tttgggtgac 1860  
 ctcttgtgta cgatcactgg gtttgactct ttctcgttgc aacctaatac tgggtgctgct 1920  
 ggtgagtatg ccgggcttat ggttatccgc gcatatcaca tgtcaagagg agatcatcac 1980  
 cgtaatgtgt gtatcatacc tgtctctgca cacgggtacaa accctgcaag tgctgctatg 2040  
 tgcggggatga aaattattac agttggaact gatgctaagg gaaacattaa cattgaggag 2100  
 gtgagaaaag ctgcagaagc caacaaagac aacttagctg ctcttatggt tacataccct 2160  
 tcaactcatg gagtctatga agagggcatc gacgagattt gcaacataat acacgaaaat 2220  
 ggagggtcaag tgtacatgga tggtgccaac atgaatgcac aggttggttt gacgagccct 2280  
 ggttttattg gagcggatgt gtgccatctc aatctccaca agaccttctg tattcctcat 2340  
 ggagggtggtg gtcctggtat ggggccatt ggtgtgaaga atcatttggc accatttctt 2400  
 ccttctcacc ccgtgatacc gactggtggt atccacaac ccgagaagac agcacctttg 2460  
 ggtgcaatat ccgctgcacc atggggatct gcgcttatct tgcctatatc ttatacttac 2520  
 attgccatga tgggatctgg tgggctcact gatgcctcta agattgcaat tttgaatgcc 2580  
 aattacatgg caaagcgcct agagaaacac taccagttc ttttccgtgg tgttaacgga 2640  
 acagtagcac acgaattcat catagacttg agaggcttca agaacactgc tggaatagaa 2700  
 ccagaggatg tggcgaaacg gctaattggac tatggattcc atggaccac aatgtcttgg 2760  
 cctgtccctg gaactcttat gattgagcca accgagagtg aaagcaaggc ggagctagac 2820  
 aggttctgctg atgctctcat ttcaatcagg gaagaaattg cacagattga aaaaggaaat 2880  
 gcagatgtcc agaacaacgt tctcaaggga gctccacatc ccccatcggt gctaattggca 2940  
 gacacatgga aaaagccgta ttctcgagag tatgtctgct tccctgcgcc ttggctccgc 3000  
 tcctccaagt tctggccac cacagggcgt gtggacaatg tatatggaga caggaaactg 3060  
 gtgtgcactc tcctcccaga ggaagaacaa gtcgcagctg cagtgtctgc ttga 3114

&lt;210&gt; 2124

&lt;211&gt; 1037

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2124

```

Met Glu Arg Ala Arg Arg Leu Ala Tyr Arg Gly Ile Val Lys Arg Leu
 1          5          10          15

Val Asn Asp Thr Lys Arg His Arg Asn Ala Glu Thr Pro His Leu Val
 20          25          30

Pro His Ala Pro Ala Arg Tyr Val Ser Ser Leu Ser Pro Phe Ile Ser
 35          40          45

Thr Pro Arg Ser Val Asn His Thr Ala Ala Phe Gly Arg His Gln Gln
 50          55          60

Thr Arg Ser Ile Ser Val Asp Ala Val Lys Pro Ser Asp Thr Phe Pro
 65          70          75          80

Arg Arg His Asn Ser Ala Thr Pro Asp Glu Gln Thr His Met Ala Lys
 85          90          95

Phe Cys Gly Phe Asp His Ile Asp Ser Leu Ile Asp Ala Thr Val Pro
100          105          110

Lys Ser Ile Arg Leu Asp Ser Met Lys Phe Ser Lys Phe Asp Ala Gly
115          120          125

Leu Thr Glu Ser Gln Met Ile Gln His Met Val Asp Leu Ala Ser Lys
130          135          140

Asn Lys Val Phe Lys Ser Phe Ile Gly Met Gly Tyr Tyr Asn Thr His
145          150          155          160

Val Pro Thr Val Ile Leu Arg Asn Ile Met Glu Asn Pro Ala Trp Tyr
165          170          175

Thr Gln Tyr Thr Pro Tyr Gln Ala Glu Ile Ser Gln Gly Arg Leu Glu
180          185          190

Ser Leu Leu Asn Phe Gln Thr Val Ile Thr Asp Leu Thr Gly Leu Pro
195          200          205

Met Ser Asn Ala Ser Leu Leu Asp Glu Gly Thr Ala Ala Ala Glu Ala
210          215          220

```

047-E2F-PCT.ST25.txt

Met Ala Met Cys Asn Asn Ile Leu Lys Gly Lys Lys Lys Thr Phe Val  
225 230 235 240

Ile Ala Ser Asn Cys His Pro Gln Thr Ile Asp Val Cys Lys Thr Arg  
245 250 255

Ala Asp Gly Phe Asp Leu Lys Val Val Thr Ser Asp Leu Lys Asp Ile  
260 265 270

Asp Tyr Ser Ser Gly Asp Val Cys Gly Val Leu Val Gln Tyr Pro Gly  
275 280 285

Thr Glu Gly Glu Val Leu Asp Tyr Ala Glu Phe Val Lys Asn Ala His  
290 295 300

Ala Asn Gly Val Lys Val Val Met Ala Thr Asp Leu Leu Ala Leu Thr  
305 310 315 320

Val Leu Lys Pro Pro Gly Glu Phe Gly Ala Asp Ile Val Val Gly Ser  
325 330 335

Ala Gln Arg Phe Gly Val Pro Met Gly Tyr Gly Gly Pro His Ala Ala  
340 345 350

Phe Leu Ala Thr Ser Gln Glu Tyr Lys Arg Met Met Pro Gly Arg Ile  
355 360 365

Ile Gly Ile Ser Val Asp Ser Ser Gly Lys Gln Ala Leu Arg Met Ala  
370 375 380

Met Gln Thr Arg Glu Gln His Ile Arg Arg Asp Lys Ala Thr Ser Asn  
385 390 395 400

Ile Cys Thr Ala Gln Ala Leu Leu Ala Asn Met Ala Ala Met Tyr Ala  
405 410 415

Val Tyr His Gly Pro Ala Gly Leu Lys Ser Ile Ala Gln Arg Val His  
420 425 430

Gly Leu Ala Gly Ile Phe Ser Leu Gly Leu Asn Lys Leu Gly Val Ala  
435 440 445

Glu Val Gln Glu Leu Pro Phe Phe Asp Thr Val Lys Ile Lys Cys Ser  
450 455 460

Asp Ala His Ala Ile Ala Asp Ala Ala Ser Lys Ser Glu Ile Asn Leu  
465 470 475 480

047-E2F-PCT.ST25.txt

Arg Val Val Asp Ser Thr Thr Ile Thr Ala Ser Phe Asp Glu Thr Thr  
485 490 495

Thr Leu Asp Asp Val Asp Lys Leu Phe Lys Val Phe Ala Ser Gly Lys  
500 505 510

Pro Val Pro Phe Thr Ala Glu Ser Leu Ala Pro Glu Val Gln Asn Ser  
515 520 525

Ile Pro Ser Ser Leu Thr Arg Glu Ser Pro Tyr Leu Thr His Pro Ile  
530 535 540

Phe Asn Met Tyr His Thr Glu His Glu Leu Leu Arg Tyr Ile His Lys  
545 550 555 560

Leu Gln Ser Lys Asp Leu Ser Leu Cys His Ser Met Ile Pro Leu Gly  
565 570 575

Ser Cys Thr Met Lys Leu Asn Ala Thr Thr Glu Met Met Pro Val Thr  
580 585 590

Trp Pro Ser Phe Thr Asp Ile His Pro Phe Ala Pro Val Glu Gln Ala  
595 600 605

Gln Gly Tyr Gln Glu Met Phe Glu Asn Leu Gly Asp Leu Leu Cys Thr  
610 615 620

Ile Thr Gly Phe Asp Ser Phe Ser Leu Gln Pro Asn Ala Gly Ala Ala  
625 630 635 640

Gly Glu Tyr Ala Gly Leu Met Val Ile Arg Ala Tyr His Met Ser Arg  
645 650 655

Gly Asp His His Arg Asn Val Cys Ile Ile Pro Val Ser Ala His Gly  
660 665 670

Thr Asn Pro Ala Ser Ala Ala Met Cys Gly Met Lys Ile Ile Thr Val  
675 680 685

Gly Thr Asp Ala Lys Gly Asn Ile Asn Ile Glu Glu Val Arg Lys Ala  
690 695 700

Ala Glu Ala Asn Lys Asp Asn Leu Ala Ala Leu Met Val Thr Tyr Pro  
705 710 715 720

Ser Thr His Gly Val Tyr Glu Glu Gly Ile Asp Glu Ile Cys Asn Ile  
725 730 735

047-E2F-PCT.ST25.txt

Ile His Glu Asn Gly Gly Gln Val Tyr Met Asp Gly Ala Asn Met Asn  
740 745 750

Ala Gln Val Gly Leu Thr Ser Pro Gly Phe Ile Gly Ala Asp Val Cys  
755 760 765

His Leu Asn Leu His Lys Thr Phe Cys Ile Pro His Gly Gly Gly Gly  
770 775 780

Pro Gly Met Gly Pro Ile Gly Val Lys Asn His Leu Ala Pro Phe Leu  
785 790 795 800

Pro Ser His Pro Val Ile Pro Thr Gly Gly Ile Pro Gln Pro Glu Lys  
805 810 815

Thr Ala Pro Leu Gly Ala Ile Ser Ala Ala Pro Trp Gly Ser Ala Leu  
820 825 830

Ile Leu Pro Ile Ser Tyr Thr Tyr Ile Ala Met Met Gly Ser Gly Gly  
835 840 845

Leu Thr Asp Ala Ser Lys Ile Ala Ile Leu Asn Ala Asn Tyr Met Ala  
850 855 860

Lys Arg Leu Glu Lys His Tyr Pro Val Leu Phe Arg Gly Val Asn Gly  
865 870 875 880

Thr Val Ala His Glu Phe Ile Ile Asp Leu Arg Gly Phe Lys Asn Thr  
885 890 895

Ala Gly Ile Glu Pro Glu Asp Val Ala Lys Arg Leu Met Asp Tyr Gly  
900 905 910

Phe His Gly Pro Thr Met Ser Trp Pro Val Pro Gly Thr Leu Met Ile  
915 920 925

Glu Pro Thr Glu Ser Glu Ser Lys Ala Glu Leu Asp Arg Phe Cys Asp  
930 935 940

Ala Leu Ile Ser Ile Arg Glu Glu Ile Ala Gln Ile Glu Lys Gly Asn  
945 950 955 960

Ala Asp Val Gln Asn Asn Val Leu Lys Gly Ala Pro His Pro Pro Ser  
965 970 975

Leu Leu Met Ala Asp Thr Trp Lys Lys Pro Tyr Ser Arg Glu Tyr Ala

980

985

990

Ala Phe Pro Ala Pro Trp Leu Arg Ser Ser Lys Phe Trp Pro Thr Thr  
 995 1000 1005

Gly Arg Val Asp Asn Val Tyr Gly Asp Arg Lys Leu Val Cys Thr  
 1010 1015 1020

Leu Leu Pro Glu Glu Glu Gln Val Ala Ala Ala Val Ser Ala  
 1025 1030 1035

&lt;210&gt; 2125

&lt;211&gt; 1617

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2125

atgttggatt ctctagtgtc gaaactgcct tcgttatcga catctgatca cgcttctgtg 60  
 gttgcgttga atctctttgt tgcacttctt tgtgcttgta ttgttcttgg tcatcttttg 120  
 gaagagaata gatggatgaa cgaatccatc accgccttgt tgattgggct aggcactggt 180  
 gttaccattht tgttgattag taaaggaaaa agctcgcac tctcgtctt tagtgaagat 240  
 cttttcttca tatatctttt gccacccatt atattcaatg cagggtttca agtaaaaaag 300  
 aagcagtttt tccgcaattht cgtgactatt atgctttttg gtgctggttg gactattatt 360  
 tcttgcaaaa tcatatctct aggtgtaaca cagttcttta agaagttgga cattggaacc 420  
 tttgacttgg gtgattatct tgctattggg gccatatttg ctgcaacaga ttcagtatgt 480  
 aactgcagg ttctgaatca agacgagaca cttttgcttt acagtcttgt attcggagag 540  
 ggtgttgtga atgatgcaac gtcagttgtg gtcttcaacg cgattcagag ctttgatctc 600  
 actcacctaa accacgaagc tgcttttcat cttcttggaa acttcttgta tttgtttctc 660  
 ctaagtacct tgcttgggtg tgcaaccggt ctgataagtg cgtatgttat caagaagcta 720  
 tactttggaa ggcactcaac tgaccgagag gttgccctta tgatgcttat ggcgtatctt 780  
 tcttatatgc ttgctgagct tttcgacttg agcggatatcc tcaactgtgtt tttctgtggt 840  
 attgtgatgt cccattacac atggcacaat gtaacggaga gctcaagaat aacaacaaag 900  
 catacctttg caactttgtc atttcttgcg gagacattta ttttcttgta tgttggaatg 960  
 gatgccttgg acattgacaa gtggagatcc gtgagtgaac caccgggaac atcgatcgca 1020  
 gtgagctcaa tcctaattggg tctggtcatg gttggaagag cagcgttcgt ctttccgtta 1080  
 tcgtttctat ctaacttagc caagaagaat caaagcgaga aaatcaactt taacatgcag 1140



047-E2F-PCT.ST25.txt

gttgtgattt ggtggtctgg tctcatgaga ggtgctgtat ctatggctct tgcatacaac 1200  
aagtttaciaa gggccgggca cacagatgta cgcgggaatg caatcatgat cagagtagc 1260  
ataactgtct gtcttttttag cacagtgggtg tttggtagtc tgaccaaacc actcataagc 1320  
tacctattac cgcaccagaa cgccaccacg agcatgttat ctgatgacaa caccacaaaa 1380  
tccatacata tccctttgtt ggaccaagac tcgttcattg agccttcagg gaaccacaat 1440  
gtgcctcggc ctgacagtat acgtggcttc ttgacacggc ccactcgaac cgtgcattac 1500  
tactggagac aatttgatga ctccttcattg cgaccctgtc ttggagggtcg tggctttgta 1560  
ccctttgttc caggttctcc aactgagaga aaccctctg atcttagtaa ggcttga 1617

<210> 2126

<211> 538

<212> PRT

<213> Arabidopsis thaliana

<400> 2126

Met Leu Asp Ser Leu Val Ser Lys Leu Pro Ser Leu Ser Thr Ser Asp  
1 5 10 15

His Ala Ser Val Val Ala Leu Asn Leu Phe Val Ala Leu Leu Cys Ala  
20 25 30

Cys Ile Val Leu Gly His Leu Leu Glu Glu Asn Arg Trp Met Asn Glu  
35 40 45

Ser Ile Thr Ala Leu Leu Ile Gly Leu Gly Thr Gly Val Thr Ile Leu  
50 55 60

Leu Ile Ser Lys Gly Lys Ser Ser His Leu Leu Val Phe Ser Glu Asp  
65 70 75 80

Leu Phe Phe Ile Tyr Leu Leu Pro Pro Ile Ile Phe Asn Ala Gly Phe  
85 90 95

Gln Val Lys Lys Lys Gln Phe Phe Arg Asn Phe Val Thr Ile Met Leu  
100 105 110

Phe Gly Ala Val Gly Thr Ile Ile Ser Cys Thr Ile Ile Ser Leu Gly  
115 120 125

Val Thr Gln Phe Phe Lys Lys Leu Asp Ile Gly Thr Phe Asp Leu Gly  
Page 3083

130

135

Asp Tyr Leu Ala Ile Gly Ala Ile Phe Ala Ala Thr Asp Ser Val Cys  
145 150 155 160

Thr Leu Gln Val Leu Asn Gln Asp Glu Thr Pro Leu Leu Tyr Ser Leu  
165 170 175

Val Phe Gly Glu Gly Val Val Asn Asp Ala Thr Ser Val Val Val Phe  
180 185 190

Asn Ala Ile Gln Ser Phe Asp Leu Thr His Leu Asn His Glu Ala Ala  
195 200 205

Phe His Leu Leu Gly Asn Phe Leu Tyr Leu Phe Leu Leu Ser Thr Leu  
210 215 220

Leu Gly Ala Ala Thr Gly Leu Ile Ser Ala Tyr Val Ile Lys Lys Leu  
225 230 235 240

Tyr Phe Gly Arg His Ser Thr Asp Arg Glu Val Ala Leu Met Met Leu  
245 250 255

Met Ala Tyr Leu Ser Tyr Met Leu Ala Glu Leu Phe Asp Leu Ser Gly  
260 265 270

Ile Leu Thr Val Phe Phe Cys Gly Ile Val Met Ser His Tyr Thr Trp  
275 280 285

His Asn Val Thr Glu Ser Ser Arg Ile Thr Thr Lys His Thr Phe Ala  
290 295 300

Thr Leu Ser Phe Leu Ala Glu Thr Phe Ile Phe Leu Tyr Val Gly Met  
305 310 315 320

Asp Ala Leu Asp Ile Asp Lys Trp Arg Ser Val Ser Asp Thr Pro Gly  
325 330 335

Thr Ser Ile Ala Val Ser Ser Ile Leu Met Gly Leu Val Met Val Gly  
340 345 350

Arg Ala Ala Phe Val Phe Pro Leu Ser Phe Leu Ser Asn Leu Ala Lys  
355 360 365

Lys Asn Gln Ser Glu Lys Ile Asn Phe Asn Met Gln Val Val Ile Trp  
370 375 380

Trp Ser Gly Leu Met Arg Gly Ala Val Ser Met Ala Leu Ala Tyr Asn  
385 390 395 400

Lys Phe Thr Arg Ala Gly His Thr Asp Val Arg Gly Asn Ala Ile Met  
405 410 415

Ile Thr Ser Thr Ile Thr Val Cys Leu Phe Ser Thr Val Val Phe Gly  
420 425 430

Met Leu Thr Lys Pro Leu Ile Ser Tyr Leu Leu Pro His Gln Asn Ala  
435 440 445

Thr Thr Ser Met Leu Ser Asp Asp Asn Thr Pro Lys Ser Ile His Ile  
450 455 460

Pro Leu Leu Asp Gln Asp Ser Phe Ile Glu Pro Ser Gly Asn His Asn  
465 470 475 480

Val Pro Arg Pro Asp Ser Ile Arg Gly Phe Leu Thr Arg Pro Thr Arg  
485 490 495

Thr Val His Tyr Tyr Trp Arg Gln Phe Asp Asp Ser Phe Met Arg Pro  
500 505 510

Val Phe Gly Gly Arg Gly Phe Val Pro Phe Val Pro Gly Ser Pro Thr  
515 520 525

Glu Arg Asn Pro Pro Asp Leu Ser Lys Ala  
530 535

<210> 2127

<211> 3036

<212> DNA

<213> Arabidopsis thaliana

<400> 2127

atgaaactat ttcttttact ttcttttcagt gtcattttgt tactgggagc agatgggttt	60
accgatgaaa ctgataggca agcattgttg gagttcaagt ctcaagtttc tgaaggcaaa	120
agagatgtct tatcctcatg gaataactca ttccctctat gcaactggaa gtgggttaca	180
tgtggtcgt aacacaagag agttactcat ttgaacctcg ggggattaca gttgggcggg	240
atagtatcac catctatcgg taatgtatcg tttctcatat cacttgatct gtctgataac	300
gcttttgggg gtatcatccc tcgagaggtg ggaaacttgt ttagacttga acacttgat	360

atggccttca atttctctaga gggaggggatt ccagccactc tatctaactg ctctagattg	420
ttgaaccttg atttatatattc aaatcctctt agacaagggtg ttccttctga actaggggtca	480
ttgacgaaac tcggtattttt agatcttgggt cgaaacaacc tgaaaggcaa gctccctaga	540
tctctaggaa acttgacctc tttaaaatcg cttggcttca cagataacaa tatagaagga	600
gaagttccag atgaattagc tagactgagt caaatgggtg gtcttgggtt atcaatgaac	660
aaattctttg gcgtttttcc tcccgccatc tacaatttgt ccgcacttga ggacttattc	720
ctcttttggtg gtggcttctc gggtagccta aagcctgatt ttggtaatct gctaccaaac	780
attcgtgagt taaatctggg agaaaatgat ctagtgggag ccattccaac aacactttcc	840
aatatttcaa ctctacaaaa gtttggaatc aacaaaaaca tgatgacagg aggtatatat	900
ccgaactttg gaaaagtacc gagtttgcaa tacctagatc ttagtgagaa tcctctagga	960
agttacactt ttggagatct tgaatttatt gattctttga ctaattgcac ccatttgcaa	1020
ctcttaagtg ttggttacac taggcttggg ggtgccttgc ctacatccat tgccaatatg	1080
tccacagaac tcatcagttt aaaccttata ggaaaccact tttttggaag cattcctcaa	1140
gatattggga atctcatagg cctacaaaga cttcagttgg gaaaaaatat gttgaccgga	1200
ccactcccaa cttcttttggg aaagcttcta agattgggggt tattaagtct atattcaa	1260
aggatgtcag gagagattcc atcttttata ggcaacctaa ctcaattaga aatactatat	1320
ttgtccaaca atagttttga gggaattggt cctccgagtc tcgggaagtg tagtcacatg	1380
cttgattttac gcattgggta taacaagttg aatgggacta taccgaagga aattatgcaa	1440
atcccaaccc ttgttaacct aagcatggaa ggtaactctt tgagcggctc tctaccaa	1500
gatattggaa gtctacaaaa tcttgtaaaa ctatcacttg agaacaataa gttttcagga	1560
catctccac aaaccttggg aaattgtctc gcgatggaa aactttttct acaaggaa	1620
tcttttgatg gagcaattcc aaatataaga gggttgatgg gtgtaagaag agttgattt	1680
tcaaacaatg atctatcggg aagtatacct gaatattttg caaacttctc caagttggaa	1740
tatctcaatc tatctattaa caattttacg ggaaagggtgc cttccaaagg aaattttcag	1800
aaactctaaa tagtttttgt atttggaaac aaaaacctat gtggaggcat caaggatctg	1860
aaactaaagc catgcctcgc ccaagaacca ccagtggaga caaagcattc ctctcattta	1920
aagaaagtgt caattttagt aagcataggc atagctttgc tattgctgtt ggtcatagct	1980
tcgatggttc tgtgttggtt cagaaaaaga aggaagaacc agcagacaaa taacctgggt	2040
ccttctaagt tggagatttt ccatgagaag ataagctatg gagatctacg aaatgcgaca	2100
aatggcttct cttcaagcaa tatggttggg tcaggtagtt ttggtactgt gttcaaggca	2160
ttgctcccga cggagagcaa gattgttgca gtgaaagttc taaacatgca gagacgtgga	2220
gctatgaaga gctttatggc agaatgtgaa tccttgaaag acacaaggca tcgtaatctt	2280

047-E2F-PCT.ST25.txt

gtgaaattac tgacagcttg cgctagtact gattttccaag gaaacgaatt cagagcgctt 2340  
atctatgagt acttgccgaa tggaagcgtg gatatgtggc tgcaccaga ggaagtcgaa 2400  
gagatacgta ggccccacg aaccttgaca cttcttgaaa ggcttaatat tgtcatagac 2460  
gtggcttctg ttttggacta tcttcatggt cactgtcatg agcctatagc tcattgcatg 2520  
ctcaagccaa gcaacgtcct tctagaagat gatttgaccg cccatgttag tgattttggt 2580  
ctggctcggc ttctactcaa attcgacaag gagtcattcc ttaaccaact aagctcagcc 2640  
ggagtttagag gaaccatcgg ctatgccgca ccagaatatg gaatgggagg acaaccatca 2700  
atacatggtg atgtgtatag ctttgggggt ctccttttag aaatgttcac cgggaaacga 2760  
ccaactgatg agttatttgg gggaaattta aactacata gctacaccaa gttagcgttg 2820  
ccagaaaaag tattcgaaat tgcagacaaa gcgattcttc acattggtct tagagttggt 2880  
ttccgtactg ctgagtgtt gacactgggt ttggaggtgg gacttaggtg ctgtgaagaa 2940  
tattctacga accggttggc aacgagttaa gtcgcaaaag agttgatctc aatcagagaa 3000  
aggttcttta aaaccagaag aacacctaga cgttga 3036

<210> 2128

<211> 1011

<212> PRT

<213> Arabidopsis thaliana

<400> 2128

Met Lys Leu Phe Leu Leu Leu Ser Phe Ser Ala His Leu Leu Leu Gly  
1 5 10 15

Ala Asp Gly Phe Thr Asp Glu Thr Asp Arg Gln Ala Leu Leu Glu Phe  
20 25 30

Lys Ser Gln Val Ser Glu Gly Lys Arg Asp Val Leu Ser Ser Trp Asn  
35 40 45

Asn Ser Phe Pro Leu Cys Asn Trp Lys Trp Val Thr Cys Gly Arg Lys  
50 55 60

His Lys Arg Val Thr His Leu Asn Leu Gly Gly Leu Gln Leu Gly Gly  
65 70 75 80

Ile Val Ser Pro Ser Ile Gly Asn Val Ser Phe Leu Ile Ser Leu Asp  
85 90 95

047-E2F-PCT.ST25.txt

Leu Ser Asp Asn Ala Phe Gly Gly Ile Ile Pro Arg Glu Val Gly Asn  
 100 105 110  
 Leu Phe Arg Leu Glu His Leu Tyr Met Ala Phe Asn Ser Leu Glu Gly  
 115 120 125  
 Gly Ile Pro Ala Thr Leu Ser Asn Cys Ser Arg Leu Leu Asn Leu Asp  
 130 135 140  
 Leu Tyr Ser Asn Pro Leu Arg Gln Gly Val Pro Ser Glu Leu Gly Ser  
 145 150 155 160  
 Leu Thr Lys Leu Val Ile Leu Asp Leu Gly Arg Asn Asn Leu Lys Gly  
 165 170 175  
 Lys Leu Pro Arg Ser Leu Gly Asn Leu Thr Ser Leu Lys Ser Leu Gly  
 180 185 190  
 Phe Thr Asp Asn Asn Ile Glu Gly Glu Val Pro Asp Glu Leu Ala Arg  
 195 200 205  
 Leu Ser Gln Met Val Gly Leu Gly Leu Ser Met Asn Lys Phe Phe Gly  
 210 215 220  
 Val Phe Pro Pro Ala Ile Tyr Asn Leu Ser Ala Leu Glu Asp Leu Phe  
 225 230 235 240  
 Leu Phe Gly Ser Gly Phe Ser Gly Ser Leu Lys Pro Asp Phe Gly Asn  
 245 250 255  
 Leu Leu Pro Asn Ile Arg Glu Leu Asn Leu Gly Glu Asn Asp Leu Val  
 260 265 270  
 Gly Ala Ile Pro Thr Thr Leu Ser Asn Ile Ser Thr Leu Gln Lys Phe  
 275 280 285  
 Gly Ile Asn Lys Asn Met Met Thr Gly Gly Ile Tyr Pro Asn Phe Gly  
 290 295 300  
 Lys Val Pro Ser Leu Gln Tyr Leu Asp Leu Ser Glu Asn Pro Leu Gly  
 305 310 315 320  
 Ser Tyr Thr Phe Gly Asp Leu Glu Phe Ile Asp Ser Leu Thr Asn Cys  
 325 330 335  
 Thr His Leu Gln Leu Leu Ser Val Gly Tyr Thr Arg Leu Gly Gly Ala  
 340 345 350

047-E2F-PCT.ST25.txt

Leu Pro Thr Ser Ile Ala Asn Met Ser Thr Glu Leu Ile Ser Leu Asn  
 355 360 365  
 Leu Ile Gly Asn His Phe Phe Gly Ser Ile Pro Gln Asp Ile Gly Asn  
 370 375 380  
 Leu Ile Gly Leu Gln Arg Leu Gln Leu Gly Lys Asn Met Leu Thr Gly  
 385 390 395 400  
 Pro Leu Pro Thr Ser Leu Gly Lys Leu Leu Arg Leu Gly Leu Leu Ser  
 405 410 415  
 Leu Tyr Ser Asn Arg Met Ser Gly Glu Ile Pro Ser Phe Ile Gly Asn  
 420 425 430  
 Leu Thr Gln Leu Glu Ile Leu Tyr Leu Ser Asn Asn Ser Phe Glu Gly  
 435 440 445  
 Ile Val Pro Pro Ser Leu Gly Lys Cys Ser His Met Leu Asp Leu Arg  
 450 455 460  
 Ile Gly Tyr Asn Lys Leu Asn Gly Thr Ile Pro Lys Glu Ile Met Gln  
 465 470 475 480  
 Ile Pro Thr Leu Val Asn Leu Ser Met Glu Gly Asn Ser Leu Ser Gly  
 485 490 495  
 Ser Leu Pro Asn Asp Ile Gly Ser Leu Gln Asn Leu Val Lys Leu Ser  
 500 505 510  
 Leu Glu Asn Asn Lys Phe Ser Gly His Leu Pro Gln Thr Leu Gly Asn  
 515 520 525  
 Cys Leu Ala Met Glu Gln Leu Phe Leu Gln Gly Asn Ser Phe Asp Gly  
 530 535 540  
 Ala Ile Pro Asn Ile Arg Gly Leu Met Gly Val Arg Arg Val Asp Leu  
 545 550 555 560  
 Ser Asn Asn Asp Leu Ser Gly Ser Ile Pro Glu Tyr Phe Ala Asn Phe  
 565 570 575  
 Ser Lys Leu Glu Tyr Leu Asn Leu Ser Ile Asn Asn Phe Thr Gly Lys  
 580 585 590  
 Val Pro Ser Lys Gly Asn Phe Gln Asn Ser Thr Ile Val Phe Val Phe

595

600

605

Gly Asn Lys Asn Leu Cys Gly Gly Ile Lys Asp Leu Lys Leu Lys Pro  
 610 615 620  
 Cys Leu Ala Gln Glu Pro Pro Val Glu Thr Lys His Ser Ser His Leu  
 625 630 635 640  
 Lys Lys Val Ala Ile Leu Val Ser Ile Gly Ile Ala Leu Leu Leu Leu  
 645 650 655  
 Leu Val Ile Ala Ser Met Val Leu Cys Trp Phe Arg Lys Arg Arg Lys  
 660 665 670  
 Asn Gln Gln Thr Asn Asn Leu Val Pro Ser Lys Leu Glu Ile Phe His  
 675 680 685  
 Glu Lys Ile Ser Tyr Gly Asp Leu Arg Asn Ala Thr Asn Gly Phe Ser  
 690 695 700  
 Ser Ser Asn Met Val Gly Ser Gly Ser Phe Gly Thr Val Phe Lys Ala  
 705 710 715 720  
 Leu Leu Pro Thr Glu Ser Lys Ile Val Ala Val Lys Val Leu Asn Met  
 725 730 735  
 Gln Arg Arg Gly Ala Met Lys Ser Phe Met Ala Glu Cys Glu Ser Leu  
 740 745 750  
 Lys Asp Thr Arg His Arg Asn Leu Val Lys Leu Leu Thr Ala Cys Ala  
 755 760 765  
 Ser Thr Asp Phe Gln Gly Asn Glu Phe Arg Ala Leu Ile Tyr Glu Tyr  
 770 775 780  
 Leu Pro Asn Gly Ser Val Asp Met Trp Leu His Pro Glu Glu Val Glu  
 785 790 795 800  
 Glu Ile Arg Arg Pro Pro Arg Thr Leu Thr Leu Leu Glu Arg Leu Asn  
 805 810 815  
 Ile Val Ile Asp Val Ala Ser Val Leu Asp Tyr Leu His Val His Cys  
 820 825 830  
 His Glu Pro Ile Ala His Cys Asp Leu Lys Pro Ser Asn Val Leu Leu  
 835 840 845



Glu Asp Asp Leu Thr Ala His Val Ser Asp Phe Gly Leu Ala Arg Leu  
 850 855 860

Leu Leu Lys Phe Asp Lys Glu Ser Phe Leu Asn Gln Leu Ser Ser Ala  
 865 870 875 880

Gly Val Arg Gly Thr Ile Gly Tyr Ala Ala Pro Glu Tyr Gly Met Gly  
 885 890 895

Gly Gln Pro Ser Ile His Gly Asp Val Tyr Ser Phe Gly Val Leu Leu  
 900 905 910

Leu Glu Met Phe Thr Gly Lys Arg Pro Thr Asp Glu Leu Phe Gly Gly  
 915 920 925

Asn Leu Thr Leu His Ser Tyr Thr Lys Leu Ala Leu Pro Glu Lys Val  
 930 935 940

Phe Glu Ile Ala Asp Lys Ala Ile Leu His Ile Gly Leu Arg Val Gly  
 945 950 955 960

Phe Arg Thr Ala Glu Cys Leu Thr Leu Val Leu Glu Val Gly Leu Arg  
 965 970 975

Cys Cys Glu Glu Tyr Pro Thr Asn Arg Leu Ala Thr Ser Glu Val Ala  
 980 985 990

Lys Glu Leu Ile Ser Ile Arg Glu Arg Phe Phe Lys Thr Arg Arg Thr  
 995 1000 1005

Pro Arg Arg  
 1010

<210> 2129

<211> 2352

<212> DNA

<213> Arabidopsis thaliana

<400> 2129

atggcttcgc cgtgtttgac caagtccgat tccggtatca atggcggtga ctttaccgaa	60
aaattccggt tagaagattc cactctctta gccaatgggtc aagtcgtctt aaccgatggt	120
ccggttaacg ttactctcac ctcttcacct tacttagtcg acaaagacgg tgtaccactc	180
gacgtctctg ccggttcatt catcggtttt aacctcgacg gagagcccaa aagccaccac	240

gtggcatcca	tcggaaaact	caagaacatt	cgtttcatga	gcatattccg	tttcaagggtt	300
tggtggacta	ctcattgggt	cggatcaaac	ggacgtgaca	tcgagaacga	gactcaaadc	360
atcattcttg	atcaatccgg	gtcggattct	ggacccggat	ccgggtcggg	tcgtccttat	420
gttctcttgc	tacctcttct	tgaaggctcc	ttccgttcat	cattccaatc	cggagaagac	480
gatgacgtgg	cggctctgtgt	cgaatccggg	tcgaccgaag	taaccgggtc	ggagtttcgt	540
cagatttgtgt	atgtccatgc	cggggatgac	ccgttcaagc	tcgtgaaaga	cgccatgaaa	600
gtgattaggg	ttcatatgaa	tacgttcaag	cttcttgaag	agaaatcgcc	gccgggaatt	660
gtcgataaat	tcgggtggtg	cacttgggat	gctttttact	tgacgggtgaa	tcctgacgga	720
gttcataaag	gtgttaagtg	tctcgtcgac	ggtggttgtc	ctccgggatt	ggttctttatc	780
gacgacgggt	ggcaatcgat	tggaatgat	tccgatggta	ttgatgtcga	agggatgaat	840
attaccgtcg	ccggtgaaca	aatgccttgc	aggcttctga	agtttgaaga	gaaccacaaa	900
ttcaaagact	acgtttctcc	aaaagatcaa	aacgacgtcg	gaatgaaagc	tttcgtcaga	960
gatctgaaag	atgaattctc	caccgttgat	tacatctacg	tttggcacgc	actttgcgggt	1020
tactggggag	gtctccgtcc	tgaagctccg	gctctgccgc	cgtcgaccat	tatccggccc	1080
gagctctctc	caggacttaa	actaacaatg	gaagatctcg	ccgtcgataa	gatcatagag	1140
accggaatcg	gatttgcctc	gccggacttg	gcgaaagagt	tctacgaagg	tcttctactct	1200
catcttcaaa	acgccggtat	tgacggcggt	aaagttgatg	tcattccacat	attggagatg	1260
ttatgccaga	aatatggcgg	gagagttgac	ttggccaaag	cttacttcaa	ggcgtaaacg	1320
tcgtcagtga	ataagcattt	taacggtaac	ggcgttatcg	ccagcatgga	gcattgcaat	1380
gactttatgt	tccttggaac	tgaagccatc	tctcttggtc	gtgtcgggtga	tgacttttgg	1440
tgcacggatc	catcaggcga	tccaaacggg	acgttttggtc	tacaaggatg	tcacatgggtc	1500
cactgtgcat	acaacagtct	ctggatggga	aatttcattc	agcctgattg	ggacatgttt	1560
cagtccacac	atccttgtgc	tgagttccat	gctgcttctc	gggccatttc	cgggtgggccg	1620
atttacatca	gtgatttgtgt	gggcaagcat	gattttgatc	tcttgaagcg	tcttgttttg	1680
cccaacgggt	cgattttgag	gtgtgagtac	tatgctctcc	caactcgtga	ccgtctcttt	1740
gaggatcctc	ttcatgatgg	caaaaccatg	ctcaagattt	ggaacttgaa	caagtacact	1800
ggagttattg	gagcattcaa	ctgtcaagga	ggaggatggt	gcagagaaac	cagacgtaac	1860
caatgtttct	ctgaatgcgt	caacacgtta	accgccacca	caagccctaa	agacgttgaa	1920
tggaacagtg	gaagcagccc	aatctccatt	gcaaacgttg	aagagtttgc	tttgttcttg	1980
tctcaatcca	agaagctttt	gttgtctgga	ctaaacgatg	atcttgagct	gactttggag	2040
cctttcaagt	ttgagctgat	cactgtctct	cctgttgtga	ccattgaggg	taattcagtc	2100
cggtttgctc	cgattggact	ggttaacatg	ctaaacacaa	gcgggtgcgat	ccgggtctttg	2160

047-E2F-PCT.ST25.txt

gtgtataatg atgaatctgt tgaggtcgga gtttttggtg ccggagagtt tagggtttat 2220  
gcatcgaaaa aacctgtgag ctgcttaatt gatggtgaag ttgttgagtt tggttatgaa 2280  
gactcaatgg tgatggtgca agtcccttgg tctggtccag atggtttgtc ttctattcag 2340  
tatttgtttt ag 2352

<210> 2130

<211> 783

<212> PRT

<213> Arabidopsis thaliana

<400> 2130

Met Ala Ser Pro Cys Leu Thr Lys Ser Asp Ser Gly Ile Asn Gly Val  
1 5 10 15

Asp Phe Thr Glu Lys Phe Arg Leu Glu Asp Ser Thr Leu Leu Ala Asn  
20 25 30

Gly Gln Val Val Leu Thr Asp Val Pro Val Asn Val Thr Leu Thr Ser  
35 40 45

Ser Pro Tyr Leu Val Asp Lys Asp Gly Val Pro Leu Asp Val Ser Ala  
50 55 60

Gly Ser Phe Ile Gly Phe Asn Leu Asp Gly Glu Pro Lys Ser His His  
65 70 75 80

Val Ala Ser Ile Gly Lys Leu Lys Asn Ile Arg Phe Met Ser Ile Phe  
85 90 95

Arg Phe Lys Val Trp Trp Thr Thr His Trp Val Gly Ser Asn Gly Arg  
100 105 110

Asp Ile Glu Asn Glu Thr Gln Ile Ile Ile Leu Asp Gln Ser Gly Ser  
115 120 125

Asp Ser Gly Pro Gly Ser Gly Ser Gly Arg Pro Tyr Val Leu Leu Leu  
130 135 140

Pro Leu Leu Glu Gly Ser Phe Arg Ser Ser Phe Gln Ser Gly Glu Asp  
145 150 155 160

Asp Asp Val Ala Val Cys Val Glu Ser Gly Ser Thr Glu Val Thr Gly

Ser Glu Phe Arg Gln Ile Val Tyr Val His Ala Gly Asp Asp Pro Phe  
180 185 190

Lys Leu Val Lys Asp Ala Met Lys Val Ile Arg Val His Met Asn Thr  
195 200 205

Phe Lys Leu Leu Glu Glu Lys Ser Pro Pro Gly Ile Val Asp Lys Phe  
210 215 220

Gly Trp Cys Thr Trp Asp Ala Phe Tyr Leu Thr Val Asn Pro Asp Gly  
225 230 235 240

Val His Lys Gly Val Lys Cys Leu Val Asp Gly Gly Cys Pro Pro Gly  
245 250 255

Leu Val Leu Ile Asp Asp Gly Trp Gln Ser Ile Gly His Asp Ser Asp  
260 265 270

Gly Ile Asp Val Glu Gly Met Asn Ile Thr Val Ala Gly Glu Gln Met  
275 280 285

Pro Cys Arg Leu Leu Lys Phe Glu Glu Asn His Lys Phe Lys Asp Tyr  
290 295 300

Val Ser Pro Lys Asp Gln Asn Asp Val Gly Met Lys Ala Phe Val Arg  
305 310 315 320

Asp Leu Lys Asp Glu Phe Ser Thr Val Asp Tyr Ile Tyr Val Trp His  
325 330 335

Ala Leu Cys Gly Tyr Trp Gly Gly Leu Arg Pro Glu Ala Pro Ala Leu  
340 345 350

Pro Pro Ser Thr Ile Ile Arg Pro Glu Leu Ser Pro Gly Leu Lys Leu  
355 360 365

Thr Met Glu Asp Leu Ala Val Asp Lys Ile Ile Glu Thr Gly Ile Gly  
370 375 380

Phe Ala Ser Pro Asp Leu Ala Lys Glu Phe Tyr Glu Gly Leu His Ser  
385 390 395 400

His Leu Gln Asn Ala Gly Ile Asp Gly Val Lys Val Asp Val Ile His  
405 410 415

Ile Leu Glu Met Leu Cys Gln Lys Tyr Gly Gly Arg Val Asp Leu Ala  
 420 425 430  
 Lys Ala Tyr Phe Lys Ala Leu Thr Ser Ser Val Asn Lys His Phe Asn  
 435 440 445  
 Gly Asn Gly Val Ile Ala Ser Met Glu His Cys Asn Asp Phe Met Phe  
 450 455 460  
 Leu Gly Thr Glu Ala Ile Ser Leu Gly Arg Val Gly Asp Asp Phe Trp  
 465 470 475 480  
 Cys Thr Asp Pro Ser Gly Asp Pro Asn Gly Thr Phe Trp Leu Gln Gly  
 485 490 495  
 Cys His Met Val His Cys Ala Tyr Asn Ser Leu Trp Met Gly Asn Phe  
 500 505 510  
 Ile Gln Pro Asp Trp Asp Met Phe Gln Ser Thr His Pro Cys Ala Glu  
 515 520 525  
 Phe His Ala Ala Ser Arg Ala Ile Ser Gly Gly Pro Ile Tyr Ile Ser  
 530 535 540  
 Asp Cys Val Gly Lys His Asp Phe Asp Leu Leu Lys Arg Leu Val Leu  
 545 550 555 560  
 Pro Asn Gly Ser Ile Leu Arg Cys Glu Tyr Tyr Ala Leu Pro Thr Arg  
 565 570 575  
 Asp Arg Leu Phe Glu Asp Pro Leu His Asp Gly Lys Thr Met Leu Lys  
 580 585 590  
 Ile Trp Asn Leu Asn Lys Tyr Thr Gly Val Ile Gly Ala Phe Asn Cys  
 595 600 605  
 Gln Gly Gly Gly Trp Cys Arg Glu Thr Arg Arg Asn Gln Cys Phe Ser  
 610 615 620  
 Glu Cys Val Asn Thr Leu Thr Ala Thr Thr Ser Pro Lys Asp Val Glu  
 625 630 635 640  
 Trp Asn Ser Gly Ser Ser Pro Ile Ser Ile Ala Asn Val Glu Glu Phe  
 645 650 655  
 Ala Leu Phe Leu Ser Gln Ser Lys Lys Leu Leu Leu Ser Gly Leu Asn  
 660 665 670

047-E2F-PCT.ST25.txt

Asp Asp Leu Glu Leu Thr Leu Glu Pro Phe Lys Phe Glu Leu Ile Thr  
675 680 685

Val Ser Pro Val Val Thr Ile Glu Gly Asn Ser Val Arg Phe Ala Pro  
690 695 700

Ile Gly Leu Val Asn Met Leu Asn Thr Ser Gly Ala Ile Arg Ser Leu  
705 710 715 720

Val Tyr Asn Asp Glu Ser Val Glu Val Gly Val Phe Gly Ala Gly Glu  
725 730 735

Phe Arg Val Tyr Ala Ser Lys Lys Pro Val Ser Cys Leu Ile Asp Gly  
740 745 750

Glu Val Val Glu Phe Gly Tyr Glu Asp Ser Met Val Met Val Gln Val  
755 760 765

Pro Trp Ser Gly Pro Asp Gly Leu Ser Ser Ile Gln Tyr Leu Phe  
770 775 780

<210> 2131

<211> 858

<212> DNA

<213> Arabidopsis thaliana

<400> 2131  
atggagaccc ttctctcccc tcgtgcgctc tctcctcctc tcaatcccaa acctttgtcc 60  
cttcaccaga ccaaaccac ttacattca ttgtctctct caaaaccac caccttctcc 120  
ggtcctaaac acctctccac ccggttact aaaccggaat caagaaactg gttaatagat 180  
gcaaagcaag gactagctgc tttagcttta tctctaactc tcactttctc acctgttggc 240  
actgctttag cctctgagtt caatatcctc aacgatggtc cacctaaaga aacttacgta 300  
gtcgaatgac ctggtgttct tagtcgagtg acgaagtcag atcttaagaa gcttttgtct 360  
gatcttgaat acagaaagaa actgagactc aatttcacat ctgtccgaaa gctcaccagt 420  
aaagcagatg cgtttgagta tgcagaccag gttttggaaa aatggatatcc ttctattgaa 480  
gaaggtaaca ataagggtat tgttgttttg ataacaagtc agaaggaagg agctattact 540  
ggtggctctg cttttattga agctgttggg gaaaacattc ttgatgctac cgtctccgaa 600  
aatcttcccg tactagcaac ggacgaaaaa tacaacgagg cggatatatag cagtgcgaaa 660  
aggttggttg cagctataga cgggtcaacca gatcccgggg gtccaaccgt aaaggatagc 720

047-E2F-PCT.ST25.txt

aagagagaat caaatttcaa gacgaaagaa gaaaccgatg agaagcgagg acagtttcagt 780  
 cttgtcgttg gaggattact tgtaattgcc tttgtagttc ccatggcaca atactttgct 840  
 tatgtctcca ggaagtaa 858

<210> 2132

<211> 285

<212> PRT

<213> Arabidopsis thaliana

<400> 2132

Met Glu Thr Leu Leu Ser Pro Arg Ala Leu Ser Pro Pro Leu Asn Pro  
 1 5 10 15

Lys Pro Leu Ser Leu His Gln Thr Lys Pro Thr Ser His Ser Leu Ser  
 20 25 30

Leu Ser Lys Pro Thr Thr Phe Ser Gly Pro Lys His Leu Ser Thr Arg  
 35 40 45

Phe Thr Lys Pro Glu Ser Arg Asn Trp Leu Ile Asp Ala Lys Gln Gly  
 50 55 60

Leu Ala Ala Leu Ala Leu Ser Leu Thr Leu Thr Phe Ser Pro Val Gly  
 65 70 75 80

Thr Ala Leu Ala Ser Glu Phe Asn Ile Leu Asn Asp Gly Pro Pro Lys  
 85 90 95

Glu Thr Tyr Val Val Asp Asp Ala Gly Val Leu Ser Arg Val Thr Lys  
 100 105 110

Ser Asp Leu Lys Lys Leu Leu Ser Asp Leu Glu Tyr Arg Lys Lys Leu  
 115 120 125

Arg Leu Asn Phe Ile Thr Val Arg Lys Leu Thr Ser Lys Ala Asp Ala  
 130 135 140

Phe Glu Tyr Ala Asp Gln Val Leu Glu Lys Trp Tyr Pro Ser Ile Glu  
 145 150 155 160

Glu Gly Asn Asn Lys Gly Ile Val Val Leu Ile Thr Ser Gln Lys Glu  
 165 170 175

047-E2F-PCT.ST25.txt

Gly Ala Ile Thr Gly Gly Pro Ala Phe Ile Glu Ala Val Gly Glu Asn  
180 185 190

Ile Leu Asp Ala Thr Val Ser Glu Asn Leu Pro Val Leu Ala Thr Asp  
195 200 205

Glu Lys Tyr Asn Glu Ala Val Tyr Ser Ser Ala Lys Arg Leu Val Ala  
210 215 220

Ala Ile Asp Gly Gln Pro Asp Pro Gly Gly Pro Thr Val Lys Asp Ser  
225 230 235 240

Lys Arg Glu Ser Asn Phe Lys Thr Lys Glu Glu Thr Asp Glu Lys Arg  
245 250 255

Gly Gln Phe Ser Leu Val Val Gly Gly Leu Leu Val Ile Ala Phe Val  
260 265 270

Val Pro Met Ala Gln Tyr Phe Ala Tyr Val Ser Arg Lys  
275 280 285

<210> 2133

<211> 768

<212> DNA

<213> Arabidopsis thaliana

<400> 2133  
atggcggaag aaattgaaaa atctgtgccg acagaggaat ctctgatgga gaagatctcc 60  
gagaagattc accatcacga ttcgtcgtca tcgtctgaat ccgagtacga gaaacctgat 120  
tctccttcgg ctgtgaaggc gaagatctat cgtatgtttg gcagagagaa gcctgttcac 180  
aaggttctcg gtggtggaag gcctgctgat gtgttcttgt ggagggataa aaaactatca 240  
ggtgctgttc ttggtgtcgc gactgctatt tgggttctgt tcgagctggg tgagtatcat 300  
ttgttgagtc ttttgtgtca catttcgata ctcgctcttg gaggcctctt tttgtggtcc 360  
aatgctcaca cacttatcaa caagacttca ccacaaattc cagaaatcca tgttcccgag 420  
gaggctttcc ttgtggttgc ttcttctctg agaaacgaac taaaccaagc ttttgttatc 480  
ctacgaagca ttgctttagg aaggaccta aaaaaattcc tgatggttgt tgtcggctca 540  
tggatcatct cggtggtggg caattggttc aatttcctga ctttggtgta catttgcttc 600  
gtgatattgc acacagtccc aatgttgtat gagaaacacg aggacaagggt tgatccattg 660  
gcagagaaag caatgaagga gttgcagaaa cagtatgtgg ttttcgatga aaaggttctc 720



tctaagattc ccattgcttc tctcaaggca aaggcaaaat tgggttaa

768

&lt;210&gt; 2134

&lt;211&gt; 255

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2134

Met Ala Glu Glu Ile Glu Lys Ser Val Pro Thr Glu Glu Ser Leu Met  
1 5 10 15

Glu Lys Ile Ser Glu Lys Ile His His His Asp Ser Ser Ser Ser Ser  
20 25 30

Glu Ser Glu Tyr Glu Lys Pro Asp Ser Pro Ser Ala Val Lys Ala Lys  
35 40 45

Ile Tyr Arg Met Phe Gly Arg Glu Lys Pro Val His Lys Val Leu Gly  
50 55 60

Gly Gly Lys Pro Ala Asp Val Phe Leu Trp Arg Asp Lys Lys Leu Ser  
65 70 75 80

Gly Ala Val Leu Gly Val Ala Thr Ala Ile Trp Val Leu Phe Glu Leu  
85 90 95

Val Glu Tyr His Leu Leu Ser Leu Leu Cys His Ile Ser Ile Leu Ala  
100 105 110

Leu Gly Gly Leu Phe Leu Trp Ser Asn Ala His Thr Leu Ile Asn Lys  
115 120 125

Thr Ser Pro Gln Ile Pro Glu Ile His Val Pro Glu Glu Ala Phe Leu  
130 135 140

Val Val Ala Ser Ser Leu Arg Asn Glu Leu Asn Gln Ala Phe Val Ile  
145 150 155 160

Leu Arg Ser Ile Ala Leu Gly Arg Asp Leu Lys Lys Phe Leu Met Val  
165 170 175

Val Val Gly Leu Trp Ile Ile Ser Val Val Gly Asn Trp Phe Asn Phe  
180 185 190

047-E2F-PCT.ST25.txt

Leu Thr Leu Val Tyr Ile Cys Phe Val Ile Leu His Thr Val Pro Met  
195 200 205

Leu Tyr Glu Lys His Glu Asp Lys Val Asp Pro Leu Ala Glu Lys Ala  
210 215 220

Met Lys Glu Leu Gln Lys Gln Tyr Val Val Phe Asp Glu Lys Val Leu  
225 230 235 240

Ser Lys Ile Pro Ile Ala Ser Leu Lys Ala Lys Ala Lys Leu Gly  
245 250 255

<210> 2135

<211> 1611

<212> DNA

<213> Arabidopsis thaliana

<400> 2135

atgaagcctc cacgaagcag tgaaacgaaa ggattattac aatttagccg ctctgtcgaa	60
gatgactctg atgaagaatg gaaaatagat ggaagtggat ccataagaga aatgacacag	120
agaattcagc ttcacgaagg aaacatttac agcttctctg cttgggtgaa gttgagagaa	180
ggaaacaata agaaagtagg agttgtgttt aggacagaaa atggaagatt tgttcatgga	240
ggtgaagtta gggcaaagaa aagatgtttg actttgctta aagggtggcat tgtgccagat	300
gtttcaggct ctgtagatat tttcttcgag gtacaacaac tagctatata tagtgatgac	360
aaagaagcaa agatttctgc aagcgatgtg tccctgaaac agttcagtaa acaagaatgg	420
aaactgaaac aagaccaact aattgaaaag ataaggaaga gcaagggtgag atttgaagta	480
acttatcaga acaaaactgc ggtaaaaggc gcagtgatat ctatagaaca aaccaaacca	540
tctttcctat taggctgcgc aatgaatttc cggatcctac aaagcgaagg gtacagaaat	600
tggtttgcgt cgcggtttta aatcacatcc ttcaccaatg aaatgaaatg gtatacaacg	660
gagaaagaac gtggtcacga gaactacacg gcagctgatt caatgttaaa atttgcggaa	720
gagaatggaa tatttggttag aggtcatact gtgttggtgg atgacccttt aatgcagcca	780
acttggtgac caaaaataga agatccaaac gatttgatga atgtgacatt gaaccggata	840
aactcggtta tgacgagata caaagggaag ttaaccgggt gggacgtggt taatgagaac	900
gtgcattggg attactttga gaaaatgctt ggtgccaacg cttcgtcaag tttctacaat	960
ttggctttta agcttgatcc tgatgtgaca atgttcgtta acgagtacaa cacgatagag	1020
aaccgtgtag aggttaccgc gacgccggtt aagggtgaagg agaagatgga ggagattctt	1080

047-E2F-PCT.ST25.txt

gcttaccag gtaacatgaa cattaagga gctattggag ctcaaggtca ctttcgtcca 1140  
 actcagccta acttagctta catgagatct gcattggata ctttaggctc actaggtttg 1200  
 cctatctggc ttacagaggt tgatatgcct aagtgcccta atcaggaggt atacattgaa 1260  
 gaaattttga gggaagcgta ttcgcatcct gcggttaaag gcatcataat atttgctggg 1320  
 cctgaggtgt ctggtttcga caagctgaca cttgcggaca aatacttcaa caacactgca 1380  
 acaggagatg taattgacaa gttgctcaag gagtggcagc aatcttcaga gattcccaag 1440  
 attttcatga cggattccga gaatgatgaa gaagaggtct cattgttgca tggacattac 1500  
 aatgtgaatg taagtcatcc atggatgaag aacatgtcaa ccagtttcag cttggaggta 1560  
 actaaggaga tgggtcagcg tcaggtgggt agagttgtaa ttaatgcttg a 1611

<210> 2136

<211> 536

<212> PRT

<213> Arabidopsis thaliana

<400> 2136

Met Lys Pro Pro Arg Ser Ser Glu Thr Lys Gly Leu Leu Gln Phe Ser  
 1 5 10 15

Arg Ser Val Glu Asp Asp Ser Asp Glu Glu Trp Lys Ile Asp Gly Ser  
 20 25 30

Gly Ser Ile Arg Glu Met Thr Gln Arg Ile Gln Leu His Glu Gly Asn  
 35 40 45

Ile Tyr Ser Phe Ser Ala Trp Val Lys Leu Arg Glu Gly Asn Asn Lys  
 50 55 60

Lys Val Gly Val Val Phe Arg Thr Glu Asn Gly Arg Phe Val His Gly  
 65 70 75 80

Gly Glu Val Arg Ala Lys Lys Arg Cys Trp Thr Leu Leu Lys Gly Gly  
 85 90 95

Ile Val Pro Asp Val Ser Gly Ser Val Asp Ile Phe Phe Glu Val Gln  
 100 105 110

Gln Leu Ala Ile Tyr Ser Asp Asp Lys Glu Ala Lys Ile Ser Ala Ser  
 115 120 125

047-E2F-PCT.ST25.txt

Asp Val Ser Leu Lys Gln Phe Ser Lys Gln Glu Trp Lys Leu Lys Gln  
 130 135 140  
 Asp Gln Leu Ile Glu Lys Ile Arg Lys Ser Lys Val Arg Phe Glu Val  
 145 150 155 160  
 Thr Tyr Gln Asn Lys Thr Ala Val Lys Gly Ala Val Ile Ser Ile Glu  
 165 170 175  
 Gln Thr Lys Pro Ser Phe Leu Leu Gly Cys Ala Met Asn Phe Arg Ile  
 180 185 190  
 Leu Gln Ser Glu Gly Tyr Arg Asn Trp Phe Ala Ser Arg Phe Lys Ile  
 195 200 205  
 Thr Ser Phe Thr Asn Glu Met Lys Trp Tyr Thr Thr Glu Lys Glu Arg  
 210 215 220  
 Gly His Glu Asn Tyr Thr Ala Ala Asp Ser Met Leu Lys Phe Ala Glu  
 225 230 235 240  
 Glu Asn Gly Ile Leu Val Arg Gly His Thr Val Leu Trp Asp Asp Pro  
 245 250 255  
 Leu Met Gln Pro Thr Trp Val Pro Lys Ile Glu Asp Pro Asn Asp Leu  
 260 265 270  
 Met Asn Val Thr Leu Asn Arg Ile Asn Ser Val Met Thr Arg Tyr Lys  
 275 280 285  
 Gly Lys Leu Thr Gly Trp Asp Val Val Asn Glu Asn Val His Trp Asp  
 290 295 300  
 Tyr Phe Glu Lys Met Leu Gly Ala Asn Ala Ser Ser Ser Phe Tyr Asn  
 305 310 315 320  
 Leu Ala Phe Lys Leu Asp Pro Asp Val Thr Met Phe Val Asn Glu Tyr  
 325 330 335  
 Asn Thr Ile Glu Asn Arg Val Glu Val Thr Ala Thr Pro Val Lys Val  
 340 345 350  
 Lys Glu Lys Met Glu Glu Ile Leu Ala Tyr Pro Gly Asn Met Asn Ile  
 355 360 365  
 Lys Gly Ala Ile Gly Ala Gln Gly His Phe Arg Pro Thr Gln Pro Asn  
 370 375 380

047-E2F-PCT.ST25.txt

Leu Ala Tyr Met Arg Ser Ala Leu Asp Thr Leu Gly Ser Leu Gly Leu  
385 390 395 400

Pro Ile Trp Leu Thr Glu Val Asp Met Pro Lys Cys Pro Asn Gln Glu  
405 410 415

Val Tyr Ile Glu Glu Ile Leu Arg Glu Ala Tyr Ser His Pro Ala Val  
420 425 430

Lys Gly Ile Ile Ile Phe Ala Gly Pro Glu Val Ser Gly Phe Asp Lys  
435 440 445

Leu Thr Leu Ala Asp Lys Tyr Phe Asn Asn Thr Ala Thr Gly Asp Val  
450 455 460

Ile Asp Lys Leu Leu Lys Glu Trp Gln Gln Ser Ser Glu Ile Pro Lys  
465 470 475 480

Ile Phe Met Thr Asp Ser Glu Asn Asp Glu Glu Glu Val Ser Leu Leu  
485 490 495

His Gly His Tyr Asn Val Asn Val Ser His Pro Trp Met Lys Asn Met  
500 505 510

Ser Thr Ser Phe Ser Leu Glu Val Thr Lys Glu Met Gly Gln Arg Gln  
515 520 525

Val Val Arg Val Val Ile Asn Ala  
530 535

<210> 2137

<211> 1686

<212> DNA

<213> Arabidopsis thaliana

<400> 2137

atgtcaggaa gatctgcatt ttccagaacc ggaggtttcc gacctgagaa tctagggcaa	60
aacgcagtat ccttaatcgg aagcataggc ttctctgtac tcgtaatcgg agtcgtagtt	120
ttcaccatta tcgctgctac atatgaacca gaagatccac tatttcaccc atctgacaaa	180
atcacaactt tcctcacatc caattcaaac gctactctta aatccgacga cagtattgtc	240
aaaaccggtg aagatttcat ggcggcgaac caaacgcgt ttggcggatt catcaatata	300

gctgatgttg aaacatctga gaatgactct gatggtaatc aattggattg tgataccaat 360  
 atcccaattg attgcaaaga tcctgaagtt tttcacttga tgatgaaagc tactatggag 420  
 aagttttaaag acagtcactt ttataagttt ggtaaacctg tgattgtgga aggtagtagt 480  
 agttcttgtg atatggcttg gcgttataga cctaaggatg gtaaagcggc tgcgttttat 540  
 aaggattata ggaggtttgt gattgaaaag tctgggaatt gtagtgttag tgtgatgggg 600  
 attggtgagt atcattcggg tgtgaatgcg aggaagcggg agaggcccg gtttcgaaat 660  
 tcgagtgggtg gtaaggttga tgatttcgca ttgcctgtag ttggtgaagc agtgaatgat 720  
 tcacttcctg ttgttgagtc tgaaaatgtg tttaaagaag gtcattactt ggtttattct 780  
 ggtggaggag ataggtgtaa gagtatgaac ctttcttgtt ggagtttctt gtgtgcttta 840  
 ggggaagctc agtatttgaa tagaacatta gtgatggatt tgactctttg tttgtcttct 900  
 gtttatacat tgtctggtca aaacgaggaa ggaaggact ttaggtttta ctttgatttc 960  
 gagcatttga aagaggctgc ttctatgtta gaccagggtc agttttgggc tgattggggg 1020  
 aaatggtata agaagaatgg attaaagctt catcttgttg aagattttcg ggtcacaccg 1080  
 atgaagcttg ttgatgtgaa ggacacgttg ataatgagga agttcgggac agtagaacca 1140  
 gataactatt ggtatagagt atgcgaaggg gagacagaat ctgttggtgca aaggccttgg 1200  
 aatctattgt ggaaatctaa acgactgatg gagattgttt ctgcgattgc ttcgaggtta 1260  
 aactgggatt atgatgctat tcacattgag agaggagaca aggcgagaaa caaggaagtt 1320  
 tggcctaate ttgaaaagga tacttcacca agctccattt tatctaccct ccaggacaaa 1380  
 atcgaacaag gaaggaatct ttatatgca acaaataaac cagagttatc tttctttaac 1440  
 cccttgaaag acaagtacaa accccatttt ctggatgagt ttaaggatct ctgggacgag 1500  
 agcagcgaat ggtattcaga gacaacgaag cttaatggag gaaaccagc tgagtttgac 1560  
 ggttacatga gagcgtctgt tgatacagag gtgttcttga gagggaagaa gcagattgaa 1620  
 acattcaatg atcttaccaa tgactgtaga gatggaatcg gcacttgcaa cgtagcagca 1680  
 agctga 1686

<210> 2138

<211> 561

<212> PRT

<213> Arabidopsis thaliana

<400> 2138

Met Ser Gly Arg Ser Ala Phe Ser Arg Thr Gly Gly Phe Arg Pro Glu  
 1 5 10 15

047-E2F-PCT.ST25.txt

Asn Leu Gly Gln Asn Ala Val Ser Leu Ile Gly Ser Ile Gly Phe Ser  
 20 25 30  
 Val Leu Val Ile Gly Val Val Val Phe Thr Ile Ile Ala Ala Thr Tyr  
 35 40 45  
 Glu Pro Glu Asp Pro Leu Phe His Pro Ser Asp Lys Ile Thr Thr Phe  
 50 55 60  
 Leu Thr Ser Asn Ser Asn Ala Thr Leu Lys Ser Asp Asp Ser Ile Val  
 65 70 75 80  
 Lys Thr Gly Glu Asp Phe Met Ala Ala Asn Gln Thr Ala Phe Gly Gly  
 85 90 95  
 Phe Ile Asn Ile Ala Asp Val Glu Thr Ser Glu Asn Asp Ser Asp Gly  
 100 105 110  
 Asn Gln Leu Asp Cys Asp Thr Asn Ile Pro Ile Asp Cys Lys Asp Pro  
 115 120 125  
 Glu Val Phe His Leu Met Met Lys Ala Thr Met Glu Lys Phe Lys Asp  
 130 135 140  
 Ser His Phe Tyr Lys Phe Gly Lys Pro Val Ile Val Glu Gly Ser Ser  
 145 150 155 160  
 Ser Ser Cys Asp Met Ala Trp Arg Tyr Arg Pro Lys Asp Gly Lys Ala  
 165 170 175  
 Ala Ala Phe Tyr Lys Asp Tyr Arg Arg Phe Val Ile Glu Lys Ser Gly  
 180 185 190  
 Asn Cys Ser Val Ser Val Met Gly Ile Gly Glu Tyr His Ser Gly Val  
 195 200 205  
 Asn Ala Arg Lys Arg Lys Arg Pro Gly Phe Arg Asn Ser Ser Gly Gly  
 210 215 220  
 Lys Val Asp Asp Phe Ala Leu Pro Val Val Gly Glu Ala Val Asn Asp  
 225 230 235 240  
 Ser Leu Pro Val Val Glu Ser Glu Asn Val Phe Lys Glu Gly His Tyr  
 245 250 255  
 Leu Val Tyr Ser Gly Gly Gly Asp Arg Cys Lys Ser Met Asn His Phe  
 Page 3105

260

265

270

Leu Trp Ser Phe Leu Cys Ala Leu Gly Glu Ala Gln Tyr Leu Asn Arg  
 275 280 285  
 Thr Leu Val Met Asp Leu Thr Leu Cys Leu Ser Ser Val Tyr Thr Leu  
 290 295 300  
 Ser Gly Gln Asn Glu Glu Gly Lys Asp Phe Arg Phe Tyr Phe Asp Phe  
 305 310 315 320  
 Glu His Leu Lys Glu Ala Ala Ser Met Leu Asp Gln Val Gln Phe Trp  
 325 330 335  
 Ala Asp Trp Gly Lys Trp Tyr Lys Lys Asn Gly Leu Lys Leu His Leu  
 340 345 350  
 Val Glu Asp Phe Arg Val Thr Pro Met Lys Leu Val Asp Val Lys Asp  
 355 360 365  
 Thr Leu Ile Met Arg Lys Phe Gly Thr Val Glu Pro Asp Asn Tyr Trp  
 370 375 380  
 Tyr Arg Val Cys Glu Gly Glu Thr Glu Ser Val Val Gln Arg Pro Trp  
 385 390 395 400  
 Asn Leu Leu Trp Lys Ser Lys Arg Leu Met Glu Ile Val Ser Ala Ile  
 405 410 415  
 Ala Ser Arg Leu Asn Trp Asp Tyr Asp Ala Ile His Ile Glu Arg Gly  
 420 425 430  
 Asp Lys Ala Arg Asn Lys Glu Val Trp Pro Asn Leu Glu Lys Asp Thr  
 435 440 445  
 Ser Pro Ser Ser Ile Leu Ser Thr Leu Gln Asp Lys Ile Glu Gln Gly  
 450 455 460  
 Arg Asn Leu Tyr Ile Ala Thr Asn Glu Pro Glu Leu Ser Phe Phe Asn  
 465 470 475 480  
 Pro Leu Lys Asp Lys Tyr Lys Pro His Phe Leu Asp Glu Phe Lys Asp  
 485 490 495  
 Leu Trp Asp Glu Ser Ser Glu Trp Tyr Ser Glu Thr Thr Lys Leu Asn  
 500 505 510



Gly Gly Asn Pro Val Glu Phe Asp Gly Tyr Met Arg Ala Ser Val Asp  
 515 520 525

Thr Glu Val Phe Leu Arg Gly Lys Lys Gln Ile Glu Thr Phe Asn Asp  
 530 535 540

Leu Thr Asn Asp Cys Arg Asp Gly Ile Gly Thr Cys Asn Val Ala Ala  
 545 550 555 560

Ser

<210> 2139

<211> 831

<212> DNA

<213> Arabidopsis thaliana

<400> 2139

atggcttcct tctccttcgt ttcctcttct caccttacgc tacgcactcc ttctattgcc	60
ctacgcagca ctggctcttc tcctcgaacc tccgtttcat tctccgtcaa ggctcaatcc	120
gtcgcgcttt cacaggacga tttgaagaag ctcgcggcgg agaaagctgt ggaggcaatt	180
aaacctggga tggttctagg gctcgggaacc ggatccaccg cagctttcgc tgttgatcag	240
atcgggaaac tactctcttc cgggtgaactc tacgatattg tcggtatccc aacgtcgaaa	300
cgaacggagg aacaagcacg gtcgttaggg attcctcttg ttgggttaga tacacatccg	360
agaatcgatc tcgctattga cggagcagac gaggtagatc cgaatcttga tttagtcaaa	420
ggtcgtggag gtgctcttct ccgtgagaaa atggtggaag ctgtggctga caagtttatt	480
gttggtggctg atgataccaa actcgttaca ggactcggtg gaagtggatt agctatgccg	540
gtggaagttg ttcaattctg ctggaacttt aatttgatta gattgcaaga cctcttcaag	600
gaatttggat gtgaatcaaa gcttagagtt gatggtgatg gcaagcctta tgtgactgat	660
aacagtaatt acattattga tttgtatttt aagactcctt tgaaggatgg attcgctgcg	720
gctaaagaga ttgggaagtt tcaaggagtg gtggagcatg gtctgtttct cggaatggct	780
acttctgtca ttatcgctgg aaagaatggc gttgaagtta tgaccaagtg a	831

<210> 2140

<211> 276

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 2140

```

Met Ala Ser Leu Ser Phe Val Ser Ser Ser His Leu Thr Leu Arg Thr
1      5      10      15

Pro Ser Ile Ala Leu Arg Ser Thr Gly Ser Ser Pro Arg Thr Ser Val
      20      25      30

Ser Phe Ser Val Lys Ala Gln Ser Val Ala Leu Ser Gln Asp Asp Leu
      35      40      45

Lys Lys Leu Ala Ala Glu Lys Ala Val Glu Ala Ile Lys Pro Gly Met
      50      55      60

Val Leu Gly Leu Gly Thr Gly Ser Thr Ala Ala Phe Ala Val Asp Gln
65      70      75      80

Ile Gly Lys Leu Leu Ser Ser Gly Glu Leu Tyr Asp Ile Val Gly Ile
      85      90      95

Pro Thr Ser Lys Arg Thr Glu Glu Gln Ala Arg Ser Leu Gly Ile Pro
      100      105      110

Leu Val Gly Leu Asp Thr His Pro Arg Ile Asp Leu Ala Ile Asp Gly
      115      120      125

Ala Asp Glu Val Asp Pro Asn Leu Asp Leu Val Lys Gly Arg Gly Gly
      130      135      140

Ala Leu Leu Arg Glu Lys Met Val Glu Ala Val Ala Asp Lys Phe Ile
145      150      155      160

Val Val Ala Asp Asp Thr Lys Leu Val Thr Gly Leu Gly Gly Ser Gly
      165      170      175

Leu Ala Met Pro Val Glu Val Val Gln Phe Cys Trp Asn Phe Asn Leu
      180      185      190

Ile Arg Leu Gln Asp Leu Phe Lys Glu Phe Gly Cys Glu Ser Lys Leu
      195      200      205

Arg Val Asp Gly Asp Gly Lys Pro Tyr Val Thr Asp Asn Ser Asn Tyr
      210      215      220

Ile Ile Asp Leu Tyr Phe Lys Thr Pro Leu Lys Asp Gly Phe Ala Ala
225      230      235      240

```

Ala Lys Glu Ile Gly Lys Phe Gln Gly Val Val Glu His Gly Leu Phe  
 245 250 255

Leu Gly Met Ala Thr Ser Val Ile Ile Ala Gly Lys Asn Gly Val Glu  
 260 270

Val Met Thr Lys  
 275

<210> 2141

<211> 852

<212> DNA

<213> Arabidopsis thaliana

<400> 2141

atgacgggct gtgtgaattc tatttctccg ccgccggtga ctttataccg gcatcgtgcc	60
tctccgtcac ggtcgtcctt ctcattatcc ggcgatgcct tacactctct ttaccggcac	120
cgacgtgtat caagatctcc gtcgattatc gctcccaaatt ttcagattgt ggcggctgaa	180
aaatcggagc ctctgaaaat tatgatatac ggagctcctg cttctggtaa aggtacacaa	240
tgcgagctga ttactcacia atatggtttg gtgcataatc ctgctggaga tttgctgagg	300
gctgaaatcg cttctggaag tgaaaatgga agacgtgcta aagaacatat ggagaaagga	360
caattggtcc ctgatgaaat agttgtaatg atggtaaaag atcgtttatc acagacagat	420
tcagagcaaa aaggatggct tttggatgga tatccaagga gtgcatcaca ggcaacagct	480
ctcaagggat ttggattcca gcctgatcta ttcattgtcc tcgaagttcc tgaagaaatt	540
ctaattgaaa gagttgttgg gcgtcgattg gatcctgtca caggaaagat ctaccacttg	600
aagtattcgc ctccagagac agaagagatt gctgttagac tcaccaacg ttttgatgat	660
accgaagaga aggcaaaact gcggctgaag actcataacc aaaatgtgag tgatgtgctt	720
tctatgtacg acgatataac aattaagatc gagggaaacc gctcaaaaga ggaagtgttt	780
gccagatcg attcttctct gtccgaattg cttcaagaga ggaacactgc tccaagttca	840
cttttaagtt ga	852

<210> 2142

<211> 283

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 2142

Met Thr Gly Cys Val Asn Ser Ile Ser Pro Pro Pro Val Thr Leu Tyr  
 1 5 10 15  
 Arg His Arg Ala Ser Pro Ser Arg Ser Ser Phe Ser Leu Ser Gly Asp  
 20 25 30  
 Ala Leu His Ser Leu Tyr Arg His Arg Arg Val Ser Arg Ser Pro Ser  
 35 40 45  
 Ile Ile Ala Pro Lys Phe Gln Ile Val Ala Ala Glu Lys Ser Glu Pro  
 50 55 60  
 Leu Lys Ile Met Ile Ser Gly Ala Pro Ala Ser Gly Lys Gly Thr Gln  
 65 70 75 80  
 Cys Glu Leu Ile Thr His Lys Tyr Gly Leu Val His Ile Ser Ala Gly  
 85 90 95  
 Asp Leu Leu Arg Ala Glu Ile Ala Ser Gly Ser Glu Asn Gly Arg Arg  
 100 105 110  
 Ala Lys Glu His Met Glu Lys Gly Gln Leu Val Pro Asp Glu Ile Val  
 115 120 125  
 Val Met Met Val Lys Asp Arg Leu Ser Gln Thr Asp Ser Glu Gln Lys  
 130 135 140  
 Gly Trp Leu Leu Asp Gly Tyr Pro Arg Ser Ala Ser Gln Ala Thr Ala  
 145 150 155 160  
 Leu Lys Gly Phe Gly Phe Gln Pro Asp Leu Phe Ile Val Leu Glu Val  
 165 170 175  
 Pro Glu Glu Ile Leu Ile Glu Arg Val Val Gly Arg Arg Leu Asp Pro  
 180 185 190  
 Val Thr Gly Lys Ile Tyr His Leu Lys Tyr Ser Pro Pro Glu Thr Glu  
 195 200 205  
 Glu Ile Ala Val Arg Leu Thr Gln Arg Phe Asp Asp Thr Glu Glu Lys  
 210 215 220  
 Ala Lys Leu Arg Leu Lys Thr His Asn Gln Asn Val Ser Asp Val Leu  
 225 230 235 240

047-E2F-PCT.ST25.txt

Ser Met Tyr Asp Asp Ile Thr Ile Lys Ile Glu Gly Asn Arg Ser Lys  
245 250 255

Glu Glu Val Phe Ala Gln Ile Asp Ser Ser Leu Ser Glu Leu Leu Gln  
260 265 270

Glu Arg Asn Thr Ala Pro Ser Ser Leu Leu Ser  
275 280

<210> 2143

<211> 1137

<212> DNA

<213> Arabidopsis thaliana

<400> 2143

atggcgaaga tgaatgatgtt gcaacagcat cagccttctt tctctctctt tacttcttct	60
ctgtctgact tcaatggcgc taagctccat ttacaagtcc agtacaagag gaaggttcat	120
cagccaaaag gagcactcta tgtttcagcg tcgagcgaaa agaagattct gataatgggt	180
ggtactcgat tcattggtct gttcttgtcc aggatccttg tcaaagaggg acatcaggtt	240
acattgttca caaggggtaa atctcctatt gccaaacaat tgcccgggtga atctgaccaa	300
gactttgctg atttctcttc taagattctt cacttgaaag gagacagaaa ggactatgac	360
tttgtgaagt caagtcttcc agcagaaggc ttcgatgttg tttatgatat caacgggagg	420
gaggccgaag aagttgagcc catactagaa gcactacca aactagagca gtacatctac	480
tgttcttcag ctggtgttta tctgaaatct gatatcttgc cacattgtga ggaggatgca	540
gttgatccga agagcaggca caaggggaag ctggagactg agagcttact gcaatcaaaa	600
ggtgtaaaact ggacttctat acgtcctgtc tacatctacg gtccattgaa ttacaacccc	660
gtcgaagaat ggtttttcca ccgtctaaag gcaggctgcc caatcccgggt tccaaactct	720
gggatacaga tctcacaact cggtcacgtt aaggacttgg caacagcctt tctcaacgtg	780
cttggtaacg agaaagccag cagagagata ttcaacatct cgggggagaa atatgttacc	840
tttgatgggt tagcaaaagc ttgcgcaaag gccggtgggt ttccggagcc agagattggt	900
cattacaacc cgaaagagtt cgactttggg aagaagaagg cattcccttt ccgtgatcag	960
catttctttg catcgggtgga gaaagcaaag catgtcctcg gatggaaacc ggagttcgac	1020
ttagtgaggg gtctcactga ctcatacaac cttgatttcg gtcgcggaac attccgga	1080
gaagcggatt tcaccactga cgacatgatt ctgagcaaga aacttggtct tcaataa	1137

&lt;210&gt; 2144

&lt;211&gt; 378

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2144

Met Ala Lys Met Met Met Leu Gln Gln His Gln Pro Ser Phe Ser Leu  
 1 5 10 15

Leu Thr Ser Ser Leu Ser Asp Phe Asn Gly Ala Lys Leu His Leu Gln  
 20 25 30

Val Gln Tyr Lys Arg Lys Val His Gln Pro Lys Gly Ala Leu Tyr Val  
 35 40 45

Ser Ala Ser Ser Glu Lys Lys Ile Leu Ile Met Gly Gly Thr Arg Phe  
 50 55 60

Ile Gly Leu Phe Leu Ser Arg Ile Leu Val Lys Glu Gly His Gln Val  
 65 70 75 80

Thr Leu Phe Thr Arg Gly Lys Ser Pro Ile Ala Lys Gln Leu Pro Gly  
 85 90 95

Glu Ser Asp Gln Asp Phe Ala Asp Phe Ser Ser Lys Ile Leu His Leu  
 100 105 110

Lys Gly Asp Arg Lys Asp Tyr Asp Phe Val Lys Ser Ser Leu Ser Ala  
 115 120 125

Glu Gly Phe Asp Val Val Tyr Asp Ile Asn Gly Arg Glu Ala Glu Glu  
 130 135 140

Val Glu Pro Ile Leu Glu Ala Leu Pro Lys Leu Glu Gln Tyr Ile Tyr  
 145 150 155 160

Cys Ser Ser Ala Gly Val Tyr Leu Lys Ser Asp Ile Leu Pro His Cys  
 165 170 175

Glu Glu Asp Ala Val Asp Pro Lys Ser Arg His Lys Gly Lys Leu Glu  
 180 185 190

Thr Glu Ser Leu Leu Gln Ser Lys Gly Val Asn Trp Thr Ser Ile Arg  
 195 200 205

047-E2F-PCT.ST25.txt

Pro Val Tyr Ile Tyr Gly Pro Leu Asn Tyr Asn Pro Val Glu Glu Trp  
 210 215 220

Phe Phe His Arg Leu Lys Ala Gly Arg Pro Ile Pro Val Pro Asn Ser  
 225 230 235 240

Gly Ile Gln Ile Ser Gln Leu Gly His Val Lys Asp Leu Ala Thr Ala  
 245 250 255

Phe Leu Asn Val Leu Gly Asn Glu Lys Ala Ser Arg Glu Ile Phe Asn  
 260 265 270

Ile Ser Gly Glu Lys Tyr Val Thr Phe Asp Gly Leu Ala Lys Ala Cys  
 275 280 285

Ala Lys Ala Gly Gly Phe Pro Glu Pro Glu Ile Val His Tyr Asn Pro  
 290 295 300

Lys Glu Phe Asp Phe Gly Lys Lys Lys Ala Phe Pro Phe Arg Asp Gln  
 305 310 315 320

His Phe Phe Ala Ser Val Glu Lys Ala Lys His Val Leu Gly Trp Lys  
 325 330 335

Pro Glu Phe Asp Leu Val Glu Gly Leu Thr Asp Ser Tyr Asn Leu Asp  
 340 345 350

Phe Gly Arg Gly Thr Phe Arg Lys Glu Ala Asp Phe Thr Thr Asp Asp  
 355 360 365

Met Ile Leu Ser Lys Lys Leu Val Leu Gln  
 370 375

<210> 2145

<211> 552

<212> DNA

<213> Arabidopsis thaliana

<400> 2145

atgtcgggaa acaaagaaga agaggatcct cgtatccatg gaatcaaaac taagatccgt	60
gtcgtttccag attttcccaa gaaaggaata atgtttcaag acataacaac agtgttgttg	120
gatccgaaag ccttcaaaga cacaattgat ctgtttgtgg agaggtacag agacaagaac	180

atctcagtgg ttgcaggaat agaggctcgt ggtttcctat tcggtccacc gatcgcgcta 240  
gccattggag caaaatttgt tcctctgcgc aaacccaaga aactacctgg tgaacaata 300  
tttgaggaat acgagttgga atatggaaat gaccgcctag agatgcacat aggagccgtc 360  
gaggctggcg atcgagcttt ggtcgttgat gatcttatcg cgactggtgg tactctctgc 420  
gctgccatta acttgctcga gagggttgga gcagaagttg tggaatgtgc atgtgtgatc 480  
gagttaccgc aattaaaggg aaggcagaga ctttaagggga agccactatg tatgcttgtg 540  
gagtaccgat ga 552

<210> 2146

<211> 183

<212> PRT

<213> Arabidopsis thaliana

<400> 2146

Met Ser Gly Asn Lys Glu Glu Glu Asp Pro Arg Ile His Gly Ile Lys  
1 5 10 15

Thr Lys Ile Arg Val Val Pro Asp Phe Pro Lys Lys Gly Ile Met Phe  
20 25 30

Gln Asp Ile Thr Thr Val Leu Leu Asp Pro Lys Ala Phe Lys Asp Thr  
35 40 45

Ile Asp Leu Phe Val Glu Arg Tyr Arg Asp Lys Asn Ile Ser Val Val  
50 55 60

Ala Gly Ile Glu Ala Arg Gly Phe Leu Phe Gly Pro Pro Ile Ala Leu  
65 70 75 80

Ala Ile Gly Ala Lys Phe Val Pro Leu Arg Lys Pro Lys Lys Leu Pro  
85 90 95

Gly Glu Thr Ile Phe Glu Glu Tyr Glu Leu Glu Tyr Gly Asn Asp Arg  
100 105 110

Leu Glu Met His Ile Gly Ala Val Glu Ala Gly Asp Arg Ala Leu Val  
115 120 125

Val Asp Asp Leu Ile Ala Thr Gly Gly Thr Leu Cys Ala Ala Ile Asn  
130 135 140



Leu Leu Glu Arg Val Gly Ala Glu Val Val Glu Cys Ala Cys Val Ile  
 145 150 155 160

Glu Leu Pro Glu Leu Lys Gly Arg Gln Arg Leu Lys Gly Lys Pro Leu  
 165 170 175

Cys Met Leu Val Glu Tyr Arg  
 180

<210> 2147

<211> 2319

<212> DNA

<213> Arabidopsis thaliana

<400> 2147

atgggaacaa agtttttagc tctgggtttg tctctgtgtc ttgttctctc aagcttctat	60
caagtttctt gccaggatga aggaactgga agtttgagta ctttagatct aattgagcat	120
gaatatcaaa ctagtgtcaa ttctctccaa ggcaatgaag cagtagatca aactgagacc	180
agtggtcaga aaaacagtac agtgtctgat aacaacacta tttctttgtc tctatctgaa	240
gaacctgcat tggaaactct taaagaatct gttgatacat cagctgagtt aggagctggt	300
actgatgaag tcgataaacc ttcaagtatg ttggaccata ttgaacttga gttcgaagca	360
catatcaatg aacttaaaga agctggatct gatggtatca acaaagttga ggaatctaaa	420
gatgatgaag aagctgcaag gagacataaa atgttggaag ccattgaacg tgaatttgaa	480
gctgctcatg ctggatttga acaactaaag actgatgatt ccgccaagg attagatgat	540
gaacaatctg caaagagaca aagcatgttg gacgagattg aacgtgattt tgaagctgct	600
acaaaaggtc ttgagcaact aaaggctgat gatttaactg gaatcaacga tgaagaacac	660
gctgcaaaga gacaaaagat gcttgaagag atcgaaagag agtttgaaga agctacaaaa	720
ggctcttgaag aactaaggca ttctacctca agcacagatg atgaagcaca atctgcaaag	780
agacagaata tgctagatga gatcgaacgg gagtttgaag ctgctacaag tggctcttaa	840
gagctaaaga ttaatgctca cactgtcaaa gatgatgttg atgataaaga acaagatgcc	900
aaaagacaaa gtatgctaga tgcaattgaa cgtgagtttg aagccgttac cgagagtttt	960
aaacaacttg aagatatcgc cgataacaaa gctgaaggag acgacgaatc tgcaaagagg	1020
caaagtatgt tggatgagat tgaacgtgaa tttgaagctg ctacaaatag tcttaagcaa	1080
ctaaaccttg acgatttcag tgaaggagat gacagtgcag aatctgcaag gagaaatagt	1140
atgcttgaag ctatcgaacg cgagtttgaa gctgctacaa aagggtcttga agagctaaag	1200

gctaattgatt caaccggcga caaggatgat gatgaacacg ttgcaaggag aaaaattatg 1260  
 cttgaagcta ttgaacgcga gtttgaagcc gcgacaaaag gccttgaaga gttaaagaat 1320  
 gaatcagaac aagctgaaaa caagagaaac agtatgttgg aagcattcga acgcgaattt 1380  
 gaagctgcta caaatgcaaa ggctaattgga gaaaactctg caaagaatcc atcaaccata 1440  
 agtactacag tgcagaaatc ttctggcgga tacaatgctg gtttagaagg tcttctaaag 1500  
 cctgcagatg gtgtatgtgg ttgtttcaac aaggataaag atgggtcttca ggcagacact 1560  
 gattcttcga ttaacatagc ggagatactc gcagaagaat ccaaattaca gggctcaggg 1620  
 acctctcggc tcaccacatc attgaacaat cttgttgata ctcatagaaa agaaacgtcc 1680  
 tcaaaggtag gctcagtcct tggctcatct tcatcagtta cttctaccac aagcgaatca 1740  
 gcggctacat cagagagcat agagagctta aagcaaacac taaggaagct acgcggtcta 1800  
 agcgcacgtg atctcgtaaa ccacccgaat ttcgatgcga ttatagcagc cggtacacgt 1860  
 tacgaggtac tcagctcagc ttctattggg tacatctctt tgctagccaa atacaaaacc 1920  
 gtcattaaag aaggactcga ggcttctcag agagtccaga ttgctcaaac ccgagccaaa 1980  
 ctgctaaaag aaaccgcaat ggagaagcag agaaccgtag actcggtttt cgcagcagca 2040  
 aagaccactg ctcaaagagg agacgcgttg cacatcagaa tcgtagcgat caagaaactg 2100  
 ttggcaaagc tagaagcaga gaaagtggac gttgattcaa agttcacctc tttaacgacg 2160  
 agtctgtcag agcttctcaa ggaggcgtca caggcttacg aagagtatca cgaggcggtg 2220  
 cataaggcaa aggacgagca agcggctgag gaatttgcgg tggagacgac aaagagagca 2280  
 gaacatatatt gggttgagtt tcttagttca cttaattga 2319

<210> 2148

<211> 772

<212> PRT

<213> *Arabidopsis thaliana*

<400> 2148

Met Gly Thr Lys Phe Leu Ala Leu Gly Leu Ser Leu Cys Leu Val Leu  
1 5 10 15

Ser Ser Phe Tyr Gln Val Ser Cys Gln Asp Glu Gly Thr Gly Ser Leu  
20 25 30

Ser Thr Leu Asp Leu Ile Glu His Glu Tyr Gln Thr Ser Val Asn Ser  
35 40 45

Leu Gln Gly Asn Glu Ala Val Asp Gln Thr Glu Thr Ser Gly Gln Lys  
 50 55 60  
 Asn Ser Thr Val Ser Asp Asn Asn Thr Ile Ser Leu Ser Leu Ser Glu  
 65 70 75 80  
 Glu Pro Ala Leu Glu Thr Leu Lys Glu Ser Val Asp Thr Ser Ala Glu  
 85 90 95  
 Leu Gly Ala Val Thr Asp Glu Val Asp Lys Pro Ser Ser Met Leu Asp  
 100 105 110  
 His Ile Glu Leu Glu Phe Glu Ala His Ile Asn Glu Leu Lys Glu Ala  
 115 120 125  
 Gly Ser Asp Gly Ile Asn Lys Val Glu Glu Ser Lys Asp Asp Glu Glu  
 130 135 140  
 Ala Ala Arg Arg His Lys Met Leu Glu Ala Ile Glu Arg Glu Phe Glu  
 145 150 155 160  
 Ala Ala His Ala Gly Phe Glu Gln Leu Lys Thr Asp Asp Ser Ala Gln  
 165 170 175  
 Gly Leu Asp Asp Glu Gln Ser Ala Lys Arg Gln Ser Met Leu Asp Glu  
 180 185 190  
 Ile Glu Arg Asp Phe Glu Ala Ala Thr Lys Gly Leu Glu Gln Leu Lys  
 195 200 205  
 Ala Asp Asp Leu Thr Gly Ile Asn Asp Glu Glu His Ala Ala Lys Arg  
 210 215 220  
 Gln Lys Met Leu Glu Glu Ile Glu Arg Glu Phe Glu Glu Ala Thr Lys  
 225 230 235 240  
 Gly Leu Glu Glu Leu Arg His Ser Thr Ser Ser Thr Asp Asp Glu Ala  
 245 250 255  
 Gln Ser Ala Lys Arg Gln Asn Met Leu Asp Glu Ile Glu Arg Glu Phe  
 260 265 270  
 Glu Ala Ala Thr Ser Gly Leu Lys Glu Leu Lys Ile Asn Ala His Thr  
 275 280 285  
 Val Lys Asp Asp Val Asp Asp Lys Glu Gln Asp Ala Lys Arg Gln Ser  
 290 295 300

047-E2F-PCT.ST25.txt

Met Leu Asp Ala Ile Glu Arg Glu Phe Glu Ala Val Thr Glu Ser Phe  
305 310 315 320

Lys Gln Leu Glu Asp Ile Ala Asp Asn Lys Ala Glu Gly Asp Asp Glu  
325 330 335

Ser Ala Lys Arg Gln Ser Met Leu Asp Glu Ile Glu Arg Glu Phe Glu  
340 345 350

Ala Ala Thr Asn Ser Leu Lys Gln Leu Asn Leu Asp Asp Phe Ser Glu  
355 360 365

Gly Asp Asp Ser Ala Glu Ser Ala Arg Arg Asn Ser Met Leu Glu Ala  
370 375 380

Ile Glu Arg Glu Phe Glu Ala Ala Thr Lys Gly Leu Glu Glu Leu Lys  
385 390 395 400

Ala Asn Asp Ser Thr Gly Asp Lys Asp Asp Asp Glu His Val Ala Arg  
405 410 415

Arg Lys Ile Met Leu Glu Ala Ile Glu Arg Glu Phe Glu Ala Ala Thr  
420 425 430

Lys Gly Leu Glu Glu Leu Lys Asn Glu Ser Glu Gln Ala Glu Asn Lys  
435 440 445

Arg Asn Ser Met Leu Glu Ala Phe Glu Arg Glu Phe Glu Ala Ala Thr  
450 455 460

Asn Ala Lys Ala Asn Gly Glu Asn Ser Ala Lys Asn Pro Ser Thr Ile  
465 470 475 480

Ser Thr Thr Val Gln Lys Ser Ser Gly Gly Tyr Asn Ala Gly Leu Glu  
485 490 495

Gly Leu Leu Lys Pro Ala Asp Gly Val Cys Gly Cys Phe Asn Lys Asp  
500 505 510

Lys Asp Gly Leu Gln Ala Asp Thr Asp Ser Ser Ile Asn Ile Ala Glu  
515 520 525

Ile Leu Ala Glu Glu Ser Lys Leu Gln Gly Ser Gly Thr Ser Arg Leu  
530 535 540

Thr Thr Ser Leu Asn Asn Leu Val Asp Thr His Arg Lys Glu Thr Ser  
545 550 555 560

047-E2F-PCT.ST25.txt

Ser Lys Val Gly Ser Val Leu Gly Ser Ser Ser Ser Val Thr Ser Thr  
565 570 575

Thr Ser Glu Ser Ala Ala Thr Ser Glu Ser Ile Glu Ser Leu Lys Gln  
580 585 590

Thr Leu Arg Lys Leu Arg Gly Leu Ser Ala Arg Asp Leu Val Asn His  
595 600 605

Pro Asn Phe Asp Ala Ile Ile Ala Ala Gly Thr Arg Tyr Glu Val Leu  
610 615 620

Ser Ser Ala Ser Ile Gly Tyr Ile Ser Leu Leu Ala Lys Tyr Lys Thr  
625 630 635 640

Val Ile Lys Glu Gly Leu Glu Ala Ser Gln Arg Val Gln Ile Ala Gln  
645 650 655

Thr Arg Ala Lys Leu Leu Lys Glu Thr Ala Met Glu Lys Gln Arg Thr  
660 665 670

Val Asp Ser Val Phe Ala Ala Ala Lys Thr Thr Ala Gln Arg Gly Asp  
675 680 685

Ala Leu His Ile Arg Ile Val Ala Ile Lys Lys Leu Leu Ala Lys Leu  
690 695 700

Glu Ala Glu Lys Val Asp Val Asp Ser Lys Phe Thr Ser Leu Thr Thr  
705 710 715 720

Ser Leu Ser Glu Leu Leu Lys Glu Ala Ser Gln Ala Tyr Glu Glu Tyr  
725 730 735

His Glu Ala Val His Lys Ala Lys Asp Glu Gln Ala Ala Glu Glu Phe  
740 745 750

Ala Val Glu Thr Thr Lys Arg Ala Glu His Ile Trp Val Glu Phe Leu  
755 760 765

Ser Ser Leu Asn  
770

<210> 2149

<211> 711

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2149

```

atggtttcca tgactacttc atcttcttcg tacggaacat tctctacagt cgtcaacagt      60
tctagaccta attcctcagc aacctttctc gtcccttcct tgaaattctc caccggaata    120
tcgaatttcg cgaatctgag taatgggttt tctctaaaat ctccaattaa tcctgggttt    180
ctcttcaagt ctcgtccttt cactgtccaa gctagagctg ctgcagaaaa aaccgttcac    240
gatttcaccg ttaaggacat tgatgggaag gatgttgctt tgaacaaatt caaggggaaa    300
gttatgttga ttgtcaatgt tgcttcaaga tgtgggttga catcatcaaa ttactcagag    360
ctttcacatc tgtacgagaa atacaaaact caaggatttg agattctagc ttttccctgc    420
aatcagtttg gtttccaaga gcccggtca aactccgaga tcaaacaatt cgcttgacc     480
cggtttaaag cagagttccc tatatttgat aagggtgacg tgaatggacc aagcacagcg    540
ccgatctacg agttcttgaa atcaaacgca ggaggattct tgggtggtct cattaaatgg    600
aactttgaga agttcttgat tgataaaaag ggaaaggctg ttgagaggta ccctcccacc    660
acatcccctt tccaaatcga gaaagacatc cagaagttgc ttgccgtta a              711

```

&lt;210&gt; 2150

&lt;211&gt; 236

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2150

```

Met Val Ser Met Thr Thr Ser Ser Ser Ser Tyr Gly Thr Phe Ser Thr
1          5          10          15

Val Val Asn Ser Ser Arg Pro Asn Ser Ser Ala Thr Phe Leu Val Pro
          20          25          30

Ser Leu Lys Phe Ser Thr Gly Ile Ser Asn Phe Ala Asn Leu Ser Asn
          35          40          45

Gly Phe Ser Leu Lys Ser Pro Ile Asn Pro Gly Phe Leu Phe Lys Ser
          50          55          60

Arg Pro Phe Thr Val Gln Ala Arg Ala Ala Ala Glu Lys Thr Val His
65          70          75          80

```

Asp Phe Thr Val Lys Asp Ile Asp Gly Lys Asp Val Ala Leu Asn Lys  
85 90 95

Phe Lys Gly Lys Val Met Leu Ile Val Asn Val Ala Ser Arg Cys Gly  
100 105 110

Leu Thr Ser Ser Asn Tyr Ser Glu Leu Ser His Leu Tyr Glu Lys Tyr  
115 120 125

Lys Thr Gln Gly Phe Glu Ile Leu Ala Phe Pro Cys Asn Gln Phe Gly  
130 135 140

Phe Gln Glu Pro Gly Ser Asn Ser Glu Ile Lys Gln Phe Ala Cys Thr  
145 150 155 160

Arg Phe Lys Ala Glu Phe Pro Ile Phe Asp Lys Val Asp Val Asn Gly  
165 170 175

Pro Ser Thr Ala Pro Ile Tyr Glu Phe Leu Lys Ser Asn Ala Gly Gly  
180 185 190

Phe Leu Gly Gly Leu Ile Lys Trp Asn Phe Glu Lys Phe Leu Ile Asp  
195 200 205

Lys Lys Gly Lys Val Val Glu Arg Tyr Pro Pro Thr Thr Ser Pro Phe  
210 215 220

Gln Ile Glu Lys Asp Ile Gln Lys Leu Leu Ala Ala  
225 230 235

<210> 2151

<211> 1164

<212> DNA

<213> Arabidopsis thaliana

<400> 2151  
atggctatgg cggaaatggc aacgaagtct tcactatctg caaaactcac tcttccttct 60  
tcttctacta agaagacact gagtctgaga caagtctctg tttcacttcc aacatcaact 120  
tcaatctctc tgttatctct ctttgcattc cctcctcatg aagctaaagc tgctgtttcc 180  
attcccaagg accaaatcgt ctctctctc actgaagtgg agaaaacaat caaccaagtt 240  
caagaaactg gttctagtgt atttgatgca acgcagcgtg tgttccaagt agtaggagat 300  
gctcttaaac cagcttttga cactgcttta ccattgcaa agcaagctgg tgaagaagct 360

```

atgaagcttg cttctcctgc tttctctgaa gcttcaaaga aagctcaaga agcaatgcag 420
agctctgggtt ttgattctga gcctgtcttt aatgctgcaa agacagtaac agatgtagca 480
caacagacgt caaaagcgat agaagatgct aaaccgattg cttcatcgac catggatacg 540
atttcttcag ctgaccctag tgtcattggt gttgctgctg gtgctgcgtt tcttgcttac 600
cttcttctcc ctctgttttt ctctgccatc tcttttaact tccgtgggta caaaggatgat 660
cttacgccgg ctcaaacgct tgaccttctt tgcaccaaga actacttgat ggtggatata 720
agatcagaga aagacaagga gaaagccggg attccacggc tcccttcgaa tgctaagaac 780
cgcgatgatct ccattccatt agaagaacta ccaaacaag taaaaggaat cgtgaggaac 840
tctaaacgag ttgaagcaga gatagcagca ttaaagattt cttacctcaa gaaaatcaac 900
aaaggctcca atatcatcat cttggactcg tacacggatt cggctaagat agtggcgaaa 960
acgttaaagg ttctcgggta caagaattgc tatattgtga cagatggatt ctctggtggc 1020
agaggatggt tgcagagccg tttaggcact gattcttaca acttctcgtt tgcacaagtc 1080
ttgtctccat cgcggattat cccggcagct tcgagaagct ttggcactag gtccggaacc 1140
aagttccttc ctagctccga ctga 1164

```

&lt;210&gt; 2152

&lt;211&gt; 387

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2152

```

Met Ala Met Ala Glu Met Ala Thr Lys Ser Ser Leu Ser Ala Lys Leu
1      5      10     15
Thr Leu Pro Ser Ser Ser Thr Lys Lys Thr Leu Ser Leu Arg Gln Val
20     25     30
Ser Val Ser Leu Pro Thr Ser Thr Ser Ile Ser Leu Leu Ser Leu Phe
35     40     45
Ala Ser Pro Pro His Glu Ala Lys Ala Ala Val Ser Ile Pro Lys Asp
50     55     60
Gln Ile Val Ser Ser Leu Thr Glu Val Glu Lys Thr Ile Asn Gln Val
65     70     75     80
Gln Glu Thr Gly Ser Ser Val Phe Asp Ala Thr Gln Arg Val Phe Gln
85     90     95

```



047-E2F-PCT.ST25.txt

Val Val Gly Asp Ala Leu Lys Pro Ala Leu Asp Thr Ala Leu Pro Ile  
100 105 110

Ala Lys Gln Ala Gly Glu Glu Ala Met Lys Leu Ala Ser Pro Ala Phe  
115 120 125

Ser Glu Ala Ser Lys Lys Ala Gln Glu Ala Met Gln Ser Ser Gly Phe  
130 135 140

Asp Ser Glu Pro Val Phe Asn Ala Ala Lys Thr Val Thr Asp Val Ala  
145 150 155 160

Gln Gln Thr Ser Lys Ala Ile Glu Asp Ala Lys Pro Ile Ala Ser Ser  
165 170 175

Thr Met Asp Thr Ile Ser Ser Ala Asp Pro Ser Val Ile Val Val Ala  
180 185 190

Ala Gly Ala Ala Phe Leu Ala Tyr Leu Leu Leu Pro Pro Val Phe Ser  
195 200 205

Ala Ile Ser Phe Asn Phe Arg Gly Tyr Lys Gly Asp Leu Thr Pro Ala  
210 215 220

Gln Thr Leu Asp Leu Leu Cys Thr Lys Asn Tyr Leu Met Val Asp Ile  
225 230 235 240

Arg Ser Glu Lys Asp Lys Glu Lys Ala Gly Ile Pro Arg Leu Pro Ser  
245 250 255

Asn Ala Lys Asn Arg Val Ile Ser Ile Pro Leu Glu Glu Leu Pro Asn  
260 265 270

Lys Val Lys Gly Ile Val Arg Asn Ser Lys Arg Val Glu Ala Glu Ile  
275 280 285

Ala Ala Leu Lys Ile Ser Tyr Leu Lys Lys Ile Asn Lys Gly Ser Asn  
290 295 300

Ile Ile Ile Leu Asp Ser Tyr Thr Asp Ser Ala Lys Ile Val Ala Lys  
305 310 315 320

Thr Leu Lys Val Leu Gly Tyr Lys Asn Cys Tyr Ile Val Thr Asp Gly  
325 330 335

Phe Ser Gly Gly Arg Gly Trp Leu Gln Ser Arg Leu Gly Thr Asp Ser  
Page 3123

340

047-E2F-PCT.ST25.txt

345

350

Tyr Asn Phe Ser Phe Ala Gln Val Leu Ser Pro Ser Arg Ile Ile Pro  
 355 360 365

Ala Ala Ser Arg Ser Phe Gly Thr Arg Ser Gly Thr Lys Phe Leu Pro  
 370 375 380

Ser Ser Asp  
 385

&lt;210&gt; 2153

&lt;211&gt; 1227

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2153

```

atgagaatga cacttggtca cttgtctctc tccctcttct catgtctcct ccttgctcctt    60
tctccgacct tcattgcctc cactcccgtc tccgaacccg aactcgtagt tcaagaagtt    120
aacgaaaaga ttaatgcgtc taggaggaat ctaggcgtgc tctcatgtgg gaccggaaat    180
ccaattgacg actgttggag atgcgacccg aaatgggaga aaaaccgaca acggttagcc    240
gattgcgcga tcgggttttg caaacacgca atcgggtggtc gtgacggtaa aatctacgtg    300
gtgactgact cgagtgacaa agacgtgggtt aaccctaaac ccggaaccct tagacacgcg    360
gtgatccaag acgagccact atggatcatc ttcgcgcgtg acatgggtcat aaaactaaaa    420
gaagagctga ttatgaactc tttcaagact atagacggcc gtggagcgag cgtccacatt    480
gctggtggcg cgtgtatcac cgtccagtac gtgaccaaca tcatcatcca cgggtgttaac    540
atccatgact gtaaaagaaa ggggaatgct tacgttagag actctccgtc gcattatggg    600
tgaggagacag cgtctgacgg tgacgccgtc tcgatttttg gtggctccca cgtgtgggta    660
gaccattgct cgttgtccaa ctgcgctgac ggtctgatag acgccattca tggatcaacg    720
gccattacta tctctaataa ctatttgagt caccacaata aagtcatgct tttgggacac    780
agtgattcgt acacgagaga caagaacatg caagtcacca ttgcctttta tcactttgga    840
gaaggtcttg ttcagagaat gccaaagatgt agacatggat attttcatgt ggtgaataat    900
gattatacac attggcaaatt gtatgcaatt ggtggaagtg cagctccaac gattaacagt    960
caaggcaata ggtttcttgc tccaaacgac catgtcttta aagagggtgac taaatacgaa   1020
gatgcaccac gaagcaaatt gaagaaatgg aattggagat cggaagggtga tttgttccta   1080
aacggtgcgt tttttacgcc ttcgggtgga ggagcctctt caagctatgc taaggcttcg   1140

```

047-E2F-PCT.ST25.txt

agtttgtcgg ctagaccgtc ctcattggtg gcttcagtca cgtccaatgc tgggtgcactc 1200  
 tttttagaaa aaggatcacg atgttaa 1227

<210> 2154

<211> 408

<212> PRT

<213> Arabidopsis thaliana

<400> 2154

Met Arg Met Thr Leu Val His Leu Ser Leu Ser Leu Phe Ser Cys Leu  
 1 5 10 15

Leu Leu Val Leu Ser Pro Thr Phe Ile Ala Ser Thr Pro Val Ser Glu  
 20 25 30

Pro Glu Leu Val Val Gln Glu Val Asn Glu Lys Ile Asn Ala Ser Arg  
 35 40 45

Arg Asn Leu Gly Val Leu Ser Cys Gly Thr Gly Asn Pro Ile Asp Asp  
 50 55 60

Cys Trp Arg Cys Asp Pro Lys Trp Glu Lys Asn Arg Gln Arg Leu Ala  
 65 70 75 80

Asp Cys Ala Ile Gly Phe Gly Lys His Ala Ile Gly Gly Arg Asp Gly  
 85 90 95

Lys Ile Tyr Val Val Thr Asp Ser Ser Asp Lys Asp Val Val Asn Pro  
 100 105 110

Lys Pro Gly Thr Leu Arg His Ala Val Ile Gln Asp Glu Pro Leu Trp  
 115 120 125

Ile Ile Phe Ala Arg Asp Met Val Ile Lys Leu Lys Glu Glu Leu Ile  
 130 135 140

Met Asn Ser Phe Lys Thr Ile Asp Gly Arg Gly Ala Ser Val His Ile  
 145 150 155 160

Ala Gly Gly Ala Cys Ile Thr Val Gln Tyr Val Thr Asn Ile Ile Ile  
 165 170 175

His Gly Val Asn Ile His Asp Cys Lys Arg Lys Gly Asn Ala Tyr Val  
 Page 3125

180

185

190

Arg Asp Ser Pro Ser His Tyr Gly Trp Arg Thr Ala Ser Asp Gly Asp  
 195 200 205  
 Ala Val Ser Ile Phe Gly Gly Ser His Val Trp Val Asp His Cys Ser  
 210 215 220  
 Leu Ser Asn Cys Ala Asp Gly Leu Ile Asp Ala Ile His Gly Ser Thr  
 225 230 235 240  
 Ala Ile Thr Ile Ser Asn Asn Tyr Leu Ser His His Asn Lys Val Met  
 245 250 255  
 Leu Leu Gly His Ser Asp Ser Tyr Thr Arg Asp Lys Asn Met Gln Val  
 260 265 270  
 Thr Ile Ala Phe Asn His Phe Gly Glu Gly Leu Val Gln Arg Met Pro  
 275 280 285  
 Arg Cys Arg His Gly Tyr Phe His Val Val Asn Asn Asp Tyr Thr His  
 290 295 300  
 Trp Gln Met Tyr Ala Ile Gly Gly Ser Ala Ala Pro Thr Ile Asn Ser  
 305 310 315 320  
 Gln Gly Asn Arg Phe Leu Ala Pro Asn Asp His Val Phe Lys Glu Val  
 325 330 335  
 Thr Lys Tyr Glu Asp Ala Pro Arg Ser Lys Trp Lys Lys Trp Asn Trp  
 340 345 350  
 Arg Ser Glu Gly Asp Leu Phe Leu Asn Gly Ala Phe Phe Thr Pro Ser  
 355 360 365  
 Gly Gly Gly Ala Ser Ser Ser Tyr Ala Lys Ala Ser Ser Leu Ser Ala  
 370 375 380  
 Arg Pro Ser Ser Leu Val Ala Ser Val Thr Ser Asn Ala Gly Ala Leu  
 385 390 395 400  
 Phe Cys Arg Lys Gly Ser Arg Cys  
 405

&lt;210&gt; 2155

&lt;211&gt; 948

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2155

```

atggcagcta cctctctcac tgccccctct tctttctccg gtctccgccg catttctccc      60
aagctcgacg ctgccgccgt ctctcccccac caatccttct tccaccgcgt caattcctct      120
accgcgtctcg tttcttctctc ttcttcttct catcgctccc ccagaggtgt tgttgccatg      180
gctggatccg gaaagttttt cgttggagga aactggaagt gtaacgggac taaggactcc      240
atcgccaagc ttatctccga tctcaacagt gcaaccttgg aagcagatgt agatgttggt      300
gtgtcacctc catttgtcta catcgaccag gtcaaatact cgttgacaga ccgtattgac      360
atatcagggtc agaactcttg ggttgggaaa ggtggagcct tctactggtga aatcagcgtg      420
gaacagctca aagaccttgg ctgcaagtgg gtcattcttg ggcattccga acggagacat      480
gtcatcggag aaaaagatga gtttatcggg aagaaagctg catatgcatt gagtgagggt      540
cttggagtga tagcttgat tggggaaaag ctagaagaga ggaagcagg caagacgttt      600
gatgtttgct tcgcgcaact gaaggcgttt gctgatgctg tgcctagctg ggacaatata      660
gttgttgcat acgagcctgt atgggcaatt ggaactggta aagttgcatc tcctcagcaa      720
gcacaagaag tccatgtagc tgtccgcggt tggctaaaga agaatgtctc tgaggaagtt      780
gcttccaaaa cgagaatcat atatggaggt tctgtcaatg gaggcaacag tgcagagctt      840
gccaaagaag aagacattga tggatttctt gttggtggtg cctccttgaa gggtcctgag      900
tttgcaacca ttgtgaactc agtcacgtcg aagaaagttg ctgcttga      948

```

&lt;210&gt; 2156

&lt;211&gt; 315

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2156

```

Met Ala Ala Thr Ser Leu Thr Ala Pro Pro Ser Phe Ser Gly Leu Arg
1           5           10           15

Arg Ile Ser Pro Lys Leu Asp Ala Ala Ala Val Ser Ser His Gln Ser
          20          25          30

Phe Phe His Arg Val Asn Ser Ser Thr Arg Leu Val Ser Ser Ser Ser
          35          40          45

```

047-E2F-PCT.ST25.txt

Ser Ser His Arg Ser Pro Arg Gly Val Val Ala Met Ala Gly Ser Gly  
50 55 60

Lys Phe Phe Val Gly Gly Asn Trp Lys Cys Asn Gly Thr Lys Asp Ser  
65 70 75 80

Ile Ala Lys Leu Ile Ser Asp Leu Asn Ser Ala Thr Leu Glu Ala Asp  
85 90 95

Val Asp Val Val Val Ser Pro Pro Phe Val Tyr Ile Asp Gln Val Lys  
100 105 110

Ser Ser Leu Thr Asp Arg Ile Asp Ile Ser Gly Gln Asn Ser Trp Val  
115 120 125

Gly Lys Gly Gly Ala Phe Thr Gly Glu Ile Ser Val Glu Gln Leu Lys  
130 135 140

Asp Leu Gly Cys Lys Trp Val Ile Leu Gly His Ser Glu Arg Arg His  
145 150 155 160

Val Ile Gly Glu Lys Asp Glu Phe Ile Gly Lys Lys Ala Ala Tyr Ala  
165 170 175

Leu Ser Glu Gly Leu Gly Val Ile Ala Cys Ile Gly Glu Lys Leu Glu  
180 185 190

Glu Arg Glu Ala Gly Lys Thr Phe Asp Val Cys Phe Ala Gln Leu Lys  
195 200 205

Ala Phe Ala Asp Ala Val Pro Ser Trp Asp Asn Ile Val Val Ala Tyr  
210 215 220

Glu Pro Val Trp Ala Ile Gly Thr Gly Lys Val Ala Ser Pro Gln Gln  
225 230 235 240

Ala Gln Glu Val His Val Ala Val Arg Gly Trp Leu Lys Lys Asn Val  
245 250 255

Ser Glu Glu Val Ala Ser Lys Thr Arg Ile Ile Tyr Gly Gly Ser Val  
260 265 270

Asn Gly Gly Asn Ser Ala Glu Leu Ala Lys Glu Glu Asp Ile Asp Gly  
275 280 285

Phe Leu Val Gly Gly Ala Ser Leu Lys Gly Pro Glu Phe Ala Thr Ile  
290 295 300

Val Asn Ser Val Thr Ser Lys Lys Val Ala Ala  
 305 310 315

<210> 2157

<211> 906

<212> DNA

<213> Arabidopsis thaliana

<400> 2157

```

atggcagcca ctccacaca cttctctgtc tcccatgatc ctttttcttc cacgtctctc   60
cttaatctcc aaactcaagc gatctttggt cccaatcaca gtttaaagac aaccagttg   120
agaattccag cttctttcag aagaaaagct acaaacttgc aagtgatggc ttcaggaaag   180
acacctggac tgactcagga agctaattggg gttgcaattg atagacaaaa caacactgat   240
gtatttgacg acatgaaaca gcggttcctg gccttcaaga agcttaagta catggatgac   300
tttgaacact acaaaaatct ggcagatgct caagctccaa agtttctggt gattgcttgt   360
gcgactcta gagtttgtcc ttctgctgtc ctgggattcc aaccgggtga cgcattcact   420
gttcgtaaca ttgcaaattt agtacctcca tatgagtctg gacctactga aaccaaagct   480
gctctagagt tctctgtgaa tactcttaat gtggaaaaca tcttagtcat tggtcatagc   540
cgggtgtggag gaattcaagc tttaatgaaa atggaagacg aaggagattc cagaagtttc   600
atacacaact gggtagttgt gggaaagaag gcaaaggaaa gcacaaaagc tgttgcttca   660
aacctccatt ttgatcatca gtgccaacat tgtgaaaagg catcgataaa tcattcatta   720
gaaaggctgc ttgggtaccc gtggatagaa gagaaagtgc ggcaaggttc actgtctctc   780
catggtggat actataattt tgttgattgt acgttcgaga aatggacagt ggattatgca   840
gcaagcagag gtaagaagaa ggaaggcagt ggaatcgctg ttaaagaccg gtcagtttgg   900
tcttga                                           906

```

<210> 2158

<211> 301

<212> PRT

<213> Arabidopsis thaliana

<400> 2158

Met Ala Ala Thr Pro Thr His Phe Ser Val Ser His Asp Pro Phe Ser  
 Page 3129

1 5 15  
Ser Thr Ser Leu Leu Asn Leu Gln Thr Gln Ala Ile Phe Gly Pro Asn  
20 25 30  
His Ser Leu Lys Thr Thr Gln Leu Arg Ile Pro Ala Ser Phe Arg Arg  
35 40 45  
Lys Ala Thr Asn Leu Gln Val Met Ala Ser Gly Lys Thr Pro Gly Leu  
50 55 60  
Thr Gln Glu Ala Asn Gly Val Ala Ile Asp Arg Gln Asn Asn Thr Asp  
65 70 75 80  
Val Phe Asp Asp Met Lys Gln Arg Phe Leu Ala Phe Lys Lys Leu Lys  
85 90 95  
Tyr Met Asp Asp Phe Glu His Tyr Lys Asn Leu Ala Asp Ala Gln Ala  
100 105 110  
Pro Lys Phe Leu Val Ile Ala Cys Ala Asp Ser Arg Val Cys Pro Ser  
115 120 125  
Ala Val Leu Gly Phe Gln Pro Gly Asp Ala Phe Thr Val Arg Asn Ile  
130 135 140  
Ala Asn Leu Val Pro Pro Tyr Glu Ser Gly Pro Thr Glu Thr Lys Ala  
145 150 155 160  
Ala Leu Glu Phe Ser Val Asn Thr Leu Asn Val Glu Asn Ile Leu Val  
165 170 175  
Ile Gly His Ser Arg Cys Gly Gly Ile Gln Ala Leu Met Lys Met Glu  
180 185 190  
Asp Glu Gly Asp Ser Arg Ser Phe Ile His Asn Trp Val Val Val Gly  
195 200 205  
Lys Lys Ala Lys Glu Ser Thr Lys Ala Val Ala Ser Asn Leu His Phe  
210 215 220  
Asp His Gln Cys Gln His Cys Glu Lys Ala Ser Ile Asn His Ser Leu  
225 230 235 240  
Glu Arg Leu Leu Gly Tyr Pro Trp Ile Glu Glu Lys Val Arg Gln Gly  
245 250 255



Ser Leu Ser Leu His Gly Gly Tyr Tyr Asn Phe Val Asp Cys Thr Phe  
 260 265 270

Glu Lys Trp Thr Val Asp Tyr Ala Ala Ser Arg Gly Lys Lys Lys Glu  
 275 280 285

Gly Ser Gly Ile Ala Val Lys Asp Arg Ser Val Trp Ser  
 290 295 300

<210> 2159

<211> 1446

<212> DNA

<213> Arabidopsis thaliana

<400> 2159

```

atgaaagcgg aaaaagtatt ggagagagag atcgagacaa cgccaataga gcctcttagc      60
ccaatgtcac atatgctaag ttcgccaaat ttcttcattg tcataacttt tgggtttaaa      120
actcgatgca accgatcggc ctttgttgat ggcatacaaca acacattgat caatgctccc      180
agattctcca gtaaaatgga gataaattat aagaaaaaag gagaaccggt ctggattcct      240
gttaaacttc gagtagatga tcatattatt gtgccggatc ttgaatattc caacattcaa      300
aatcctgatc agttcgtaga agactatact tcaaacatag ctaatattcc aatggacatg      360
tccaaacctc tttgggaatt tcatctactc aacatgaaga catcaaaagc agaatctttg      420
gctatagtaa aaatacatca ctccattggg gatgggatgt ctcttatgtc cctactactt      480
gcttgttcac gaaaaatatc agaccctgac gcgctagttt ctaataccac ggctacaaaa      540
aagccagctg attccatggc ttggtgggtt tttggtgggt tttggtttat gataagagtc      600
accttcacca ctattgttga gttttccaag ttaatgctta cagtatgctt tttggaagat      660
accaaaaacc ctcttatggg taacccgagt gatggatttc aatcttggaa ggttgtccat      720
cggataataa gttttgagga tgtcaagtta ataaaggaca caatgaacat gaagggtgaat      780
gatgttcttc ttggaatgac acaagcaggt ctttcaagat atttgagtag caaatatgat      840
ggatcaacgg ctgagaagaa aaagatctta gaaaaactcc gtgttcgtgg tgccgtagct      900
ataaacttaa gaccagcaac aaagatagag gatttggtcg atatgatggc gaagggttca      960
aagtgtagat ggggaaactt cataggaacg gttatatttc cgttgtgggt gaaatcagag     1020
aaagatccgt tggagtacat tcgacgagcc aaagctacga tggataggaa aaaaatatct     1080
ctggaagctt tttttttcta tggaattatt aaattcacct tgaaatTTTT tggaggaaaag     1140
gcagtagaag ctttttgaaa gaggatattt ggtcacacat cattggcatt ttcaaatgtg     1200

```

047-E2F-PCT.ST25.txt

aaaggtcccg atgaagaaat aagttttttt caccatccga tttcatatat cgcaggaagt 1260  
gcattagttg gagcacaagc tctcaatatc cattttataa gctacgtaga caagattgtc 1320  
atcaatctag ctggtgacac aacaacgatt caagatccta atcgactatg tgatgatatg 1380  
gtggaagcac ttgagatcat caaatctgcc acacaagggg aaatatttca caaaacggaa 1440  
gtttga 1446

<210> 2160

<211> 481

<212> PRT

<213> Arabidopsis thaliana

<400> 2160

Met Lys Ala Glu Lys Val Met Glu Arg Glu Ile Glu Thr Thr Pro Ile  
1 5 10 15

Glu Pro Leu Ser Pro Met Ser His Met Leu Ser Ser Pro Asn Phe Phe  
20 25 30

Ile Val Ile Thr Phe Gly Phe Lys Thr Arg Cys Asn Arg Ser Ala Phe  
35 40 45

Val Asp Gly Ile Asn Asn Thr Leu Ile Asn Ala Pro Arg Phe Ser Ser  
50 55 60

Lys Met Glu Ile Asn Tyr Lys Lys Lys Gly Glu Pro Val Trp Ile Pro  
65 70 75 80

Val Lys Leu Arg Val Asp Asp His Ile Ile Val Pro Asp Leu Glu Tyr  
85 90 95

Ser Asn Ile Gln Asn Pro Asp Gln Phe Val Glu Asp Tyr Thr Ser Asn  
100 105 110

Ile Ala Asn Ile Pro Met Asp Met Ser Lys Pro Leu Trp Glu Phe His  
115 120 125

Leu Leu Asn Met Lys Thr Ser Lys Ala Glu Ser Leu Ala Ile Val Lys  
130 135 140

Ile His His Ser Ile Gly Asp Gly Met Ser Leu Met Ser Leu Leu Leu  
145 150 155 160

Ala Cys Ser Arg Lys Ile Ser Asp Pro Asp Ala Leu Val Ser Asn Thr  
 165 170 175  
 Thr Ala Thr Lys Lys Pro Ala Asp Ser Met Ala Trp Trp Leu Phe Val  
 180 185 190  
 Gly Phe Trp Phe Met Ile Arg Val Thr Phe Thr Thr Ile Val Glu Phe  
 195 200 205  
 Ser Lys Leu Met Leu Thr Val Cys Phe Leu Glu Asp Thr Lys Asn Pro  
 210 215 220  
 Leu Met Gly Asn Pro Ser Asp Gly Phe Gln Ser Trp Lys Val Val His  
 225 230 235 240  
 Arg Ile Ile Ser Phe Glu Asp Val Lys Leu Ile Lys Asp Thr Met Asn  
 245 250 255  
 Met Lys Val Asn Asp Val Leu Leu Gly Met Thr Gln Ala Gly Leu Ser  
 260 265 270  
 Arg Tyr Leu Ser Ser Lys Tyr Asp Gly Ser Thr Ala Glu Lys Lys Lys  
 275 280 285  
 Ile Leu Glu Lys Leu Arg Val Arg Gly Ala Val Ala Ile Asn Leu Arg  
 290 295 300  
 Pro Ala Thr Lys Ile Glu Asp Leu Ala Asp Met Met Ala Lys Gly Ser  
 305 310 315 320  
 Lys Cys Arg Trp Gly Asn Phe Ile Gly Thr Val Ile Phe Pro Leu Trp  
 325 330 335  
 Val Lys Ser Glu Lys Asp Pro Leu Glu Tyr Ile Arg Arg Ala Lys Ala  
 340 345 350  
 Thr Met Asp Arg Lys Lys Ile Ser Leu Glu Ala Phe Phe Phe Tyr Gly  
 355 360 365  
 Ile Ile Lys Phe Thr Leu Lys Phe Phe Gly Gly Lys Ala Val Glu Ala  
 370 375 380  
 Phe Gly Lys Arg Ile Phe Gly His Thr Ser Leu Ala Phe Ser Asn Val  
 385 390 395 400  
 Lys Gly Pro Asp Glu Glu Ile Ser Phe Phe His His Pro Ile Ser Tyr  
 405 410 415

047-E2F-PCT.ST25.txt

Ile Ala Gly Ser Ala Leu Val Gly Ala Gln Ala Leu Asn Ile His Phe  
420 425 430

Ile Ser Tyr Val Asp Lys Ile Val Ile Asn Leu Ala Val Asp Thr Thr  
435 440 445

Thr Ile Gln Asp Pro Asn Arg Leu Cys Asp Asp Met Val Glu Ala Leu  
450 455 460

Glu Ile Ile Lys Ser Ala Thr Gln Gly Glu Ile Phe His Lys Thr Glu  
465 470 475 480

Val

<210> 2161

<211> 921

<212> DNA

<213> Arabidopsis thaliana

<400> 2161

atgtcgtctt ccaccaccac aacaaccacc gtccacggcg agcctgaacg acgaacttac	60
tggtgtcatg aatgcgatat gagtttatcc ctctctctct cctccgattc cgattccgat	120
tcctctctctc tgttatgtcc ccaatgccgt gtcgatttcc tcgaacgtat ggatcacgat	180
tcttcttctt ctaatctctt tgacgttacc atcgggtgatt ttgaagaaca agacggagaa	240
aacgatgatg aagacgacga agaagattgg tgtttcgttg atccagctgt taattccgat	300
gataatttcc tcctcgatag tccttacctt caccgtcttc ttcgtcatct cgcttccgat	360
aattcaggat cgtcttcttc ttcctcgtct tcattcttct cttcgttatt gaaatcttca	420
gatatcgatt cgatccccac gattcagatc tcgtcttctt tgctctgttc caccgatgat	480
tcagatccag attccgtttt actctgcgcc gtttgcaaag aggatttcat catcggagaa	540
tctgctcgga gattaccgtg tagtcatata taccactccg attgcatcgt cccttggtc	600
tcggatcata actcgtgtcc gctttgtaga tttgagctcc ctacgacggc gaagggtggga	660
atcggtggtc cagaggctga gatgagaatc agattatcgg atctggctac gattgctgca	720
gatggtgatg atgtggaaga tgattggctt ggaatcagaa acgcgttgag aagactggct	780
cgctcgtcatg agcagatgag attgggagtg ggagagatgg agaggaattt ggctaggact	840
gtttcaggtc ttggaattgg tatgagaaga agagaagaga ttgaagcaga cagaagcaac	900
gtcacaacga cgcctttgta a	921

&lt;210&gt; 2162

&lt;211&gt; 306

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2162

Met Ser Ser Ser Thr Thr Thr Thr Thr Thr Val His Gly Glu Pro Glu  
1 5 10 15

Arg Arg Thr Tyr Trp Cys His Glu Cys Asp Met Ser Leu Ser Leu Leu  
20 25 30

Ser Ser Ser Asp Ser Asp Ser Asp Ser Ser Pro Leu Leu Cys Pro Gln  
35 40 45

Cys Arg Val Asp Phe Leu Glu Arg Met Asp His Asp Ser Ser Ser Ser  
50 55 60

Asn Leu Phe Asp Val Thr Ile Gly Asp Phe Glu Glu Gln Asp Gly Glu  
65 70 75 80

Asn Asp Asp Glu Asp Asp Glu Glu Asp Trp Cys Phe Val Asp Pro Ala  
85 90 95

Val Asn Ser Asp Asp Asn Phe Leu Leu Asp Ser Pro Tyr Leu His Arg  
100 105 110

Leu Leu Arg His Leu Ala Ser Asp Asn Ser Gly Ser Ser Ser Ser  
115 120 125

Ser Ser Ser Ser Ser Ser Ser Leu Leu Lys Ser Ser Asp Ile Asp Ser  
130 135 140

Ile Pro Thr Ile Gln Ile Ser Ser Ser Leu Leu Cys Ser Thr Asp Asp  
145 150 155 160

Ser Asp Pro Asp Ser Val Leu Leu Cys Ala Val Cys Lys Glu Asp Phe  
165 170 175

Ile Ile Gly Glu Ser Ala Arg Arg Leu Pro Cys Ser His Ile Tyr His  
180 185 190

Ser Asp Cys Ile Val Pro Trp Leu Ser Asp His Asn Ser Cys Pro Leu  
Page 3135

195

200

205

Cys Arg Phe Glu Leu Pro Thr Thr Ala Lys Val Gly Ile Gly Gly Ser  
 210 215 220  
 Glu Ala Glu Met Arg Ile Arg Leu Ser Asp Leu Ala Thr Ile Ala Ala  
 225 230 235 240  
 Asp Gly Asp Asp Val Glu Asp Asp Trp Leu Gly Ile Arg Asn Ala Leu  
 245 250 255  
 Arg Arg Leu Ala Arg Arg His Glu Gln Met Arg Leu Gly Val Gly Glu  
 260 265 270  
 Met Glu Arg Asn Leu Ala Arg Thr Val Ser Gly Leu Gly Ile Gly Met  
 275 280 285  
 Arg Arg Arg Glu Glu Ile Glu Ala Asp Arg Ser Asn Val Thr Thr Thr  
 290 295 300  
 Pro Leu  
 305

&lt;210&gt; 2163

&lt;211&gt; 306

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2163

atggcggatc aacaagcagg aacaatcgtc ggaggagttc gcgatattga tgcaaattgct 60  
 aatgatcttc aagtcgagag tctcgctcgt ttcgctgtcg atgagcataa caagaacgag 120  
 aacttgactc tggagtacaa gaggctcctt ggtgcgaaaa cacaggttgt ggcaggaaca 180  
 atgcaccatc taactgtgga ggtggctgat ggtgagacca ataaggtcta tgaggccaag 240  
 gttttggaga aagcttgga gaatctcaag cagttggaga gtttcaacca ctttcacgat 300  
 gtttaa 306

&lt;210&gt; 2164

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2164

Met Ala Asp Gln Gln Ala Gly Thr Ile Val Gly Gly Val Arg Asp Ile  
 1 5 10 15

Asp Ala Asn Ala Asn Asp Leu Gln Val Glu Ser Leu Ala Arg Phe Ala  
 20 25 30

Val Asp Glu His Asn Lys Asn Glu Asn Leu Thr Leu Glu Tyr Lys Arg  
 35 40 45

Leu Leu Gly Ala Lys Thr Gln Val Val Ala Gly Thr Met His His Leu  
 50 55 60

Thr Val Glu Val Ala Asp Gly Glu Thr Asn Lys Val Tyr Glu Ala Lys  
 65 70 75 80

Val Leu Glu Lys Ala Trp Glu Asn Leu Lys Gln Leu Glu Ser Phe Asn  
 85 90 95

His Leu His Asp Val  
 100

&lt;210&gt; 2165

&lt;211&gt; 399

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2165

atggcgaatc taatttcggt tcacgatgtg gctaaacata agtgcaagaa cgattgttgg 60  
 attctcatcc atggaaaggt ctatgacatc agcactttca tggacgaaca tcccggaggt 120  
 gacaatgttc tcctcgccgt caccgggaaa gacgcgtcga tcgatttcga agatgtgaac 180  
 catagcaaag atgccaagga gctaatagaag aaatactgta tcggtgacgt tgaccagtca 240  
 acggttccgg tgacgcaaca gtatattccg ccgtgggaga aggaatctac ggcggcggaa 300  
 acaactaaag aagaatctgg aaagaagctg cttatctact taattcctct cttgatactc 360  
 ggcgttgctt tcgctctcag attctacaac aacaagtag 399

&lt;210&gt; 2166

&lt;211&gt; 132

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2166

Met Ala Asn Leu Ile Ser Phe His Asp Val Ala Lys His Lys Cys Lys  
 1 5 10 15

Asn Asp Cys Trp Ile Leu Ile His Gly Lys Val Tyr Asp Ile Ser Thr  
 20 25 30

Phe Met Asp Glu His Pro Gly Gly Asp Asn Val Leu Leu Ala Val Thr  
 35 40 45

Gly Lys Asp Ala Ser Ile Asp Phe Glu Asp Val Asn His Ser Lys Asp  
 50 55 60

Ala Lys Glu Leu Met Lys Lys Tyr Cys Ile Gly Asp Val Asp Gln Ser  
 65 70 75 80

Thr Val Pro Val Thr Gln Gln Tyr Ile Pro Pro Trp Glu Lys Glu Ser  
 85 90 95

Thr Ala Ala Glu Thr Thr Lys Glu Glu Ser Gly Lys Lys Leu Leu Ile  
 100 105 110

Tyr Leu Ile Pro Leu Leu Ile Leu Gly Val Ala Phe Ala Leu Arg Phe  
 115 120 125

Tyr Asn Asn Lys  
 130

&lt;210&gt; 2167

&lt;211&gt; 978

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2167

atggccgctcg atctaattgcg tttccctaag atagatgatc aaacggctat tcaggaagct	60
gcatcgcaag gtttaciaaag tatggaacat ctgatccgtg tcctctctaa ccgtcccgaa	120
caacaacaca acgttgactg ctccgagatc actgacttca ccgtttctaa attcaaaacc	180
gtcattttctc tccttaaccg tactgggtcac gctcgggttca gacgcggacc ggttcactcc	240
acttcctctg ccgcatctca gaaactacag agtcagatcg ttaaaaatac tcaacctgag	300



047-E2F-PCT.ST25.txt

```

gctccgatag tgagaacaac tacgaatcac cctcaaatcg ttcctccacc gtctagtgtgta 360
acactcgatt tctctaaacc aagcatcttc ggcaccaaag ctaagagcgc cgagctggaa 420
ttctccaaag aaaacttcag tgtttcttta aactcctcat tcatgtcgtc ggcgataacc 480
ggagacggca gcgtctccaa tggaaaaatc ttccttgctt ctgctccggt gcagcctggt 540
aactcttccg gaaaaccacc gttggctggt catccttaca gaaagagatg tctcgagcat 600
gagcactcag agagtttctc cggaagagtc tccggctccg cctacggaaa gtgccattgc 660
aagaaaagca ggaaaaatcg gatgaagaga accgtgagag taccggcgat aagtgcaaag 720
atcgccgata ttccaccgga cgaatattcg tggaggaagt acggacaaaa accgatcaag 780
ggctcaccac acccacgtgg ttactacaag tgcagtacat tcagaggatg tccagcgagg 840
aaacacgtgg aacgagcatt agatgatcca gcgatgctta ttgtgacata cgaaggagag 900
caccgtcata accaatccgc gatgcaggag aatatttctt cttcaggcat taatgattta 960
gtgtttgcct cggttga 978

```

<210> 2168

<211> 325

<212> PRT

<213> Arabidopsis thaliana

<400> 2168

Met Ala Val Asp Leu Met Arg Phe Pro Lys Ile Asp Asp Gln Thr Ala  
1 5 10 15

Ile Gln Glu Ala Ala Ser Gln Gly Leu Gln Ser Met Glu His Leu Ile  
20 25 30

Arg Val Leu Ser Asn Arg Pro Glu Gln Gln His Asn Val Asp Cys Ser  
35 40 45

Glu Ile Thr Asp Phe Thr Val Ser Lys Phe Lys Thr Val Ile Ser Leu  
50 55 60

Leu Asn Arg Thr Gly His Ala Arg Phe Arg Arg Gly Pro Val His Ser  
65 70 75 80

Thr Ser Ser Ala Ala Ser Gln Lys Leu Gln Ser Gln Ile Val Lys Asn  
85 90 95

Thr Gln Pro Glu Ala Pro Ile Val Arg Thr Thr Thr Asn His Pro Gln  
Page 3139

100

105

110

Ile Val Pro Pro Pro Ser Ser Val Thr Leu Asp Phe Ser Lys Pro Ser  
 115 120 125

Ile Phe Gly Thr Lys Ala Lys Ser Ala Glu Leu Glu Phe Ser Lys Glu  
 130 135 140

Asn Phe Ser Val Ser Leu Asn Ser Ser Phe Met Ser Ser Ala Ile Thr  
 145 150 155 160

Gly Asp Gly Ser Val Ser Asn Gly Lys Ile Phe Leu Ala Ser Ala Pro  
 165 170 175

Leu Gln Pro Val Asn Ser Ser Gly Lys Pro Pro Leu Ala Gly His Pro  
 180 185 190

Tyr Arg Lys Arg Cys Leu Glu His Glu His Ser Glu Ser Phe Ser Gly  
 195 200 205

Lys Val Ser Gly Ser Ala Tyr Gly Lys Cys His Cys Lys Lys Ser Arg  
 210 215 220

Lys Asn Arg Met Lys Arg Thr Val Arg Val Pro Ala Ile Ser Ala Lys  
 225 230 235 240

Ile Ala Asp Ile Pro Pro Asp Glu Tyr Ser Trp Arg Lys Tyr Gly Gln  
 245 250 255

Lys Pro Ile Lys Gly Ser Pro His Pro Arg Gly Tyr Tyr Lys Cys Ser  
 260 265 270

Thr Phe Arg Gly Cys Pro Ala Arg Lys His Val Glu Arg Ala Leu Asp  
 275 280 285

Asp Pro Ala Met Leu Ile Val Thr Tyr Glu Gly Glu His Arg His Asn  
 290 295 300

Gln Ser Ala Met Gln Glu Asn Ile Ser Ser Ser Gly Ile Asn Asp Leu  
 305 310 315 320

Val Phe Ala Ser Ala  
 325

<210> 2169

<211> 1263

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2169

```

atggcggcga atctccaaga cggtgtttct gatgactttg actacgagca ttggtctcca      60
atcgcgaaaa agagactcgt ggaaaatgga gtttgggatg ttgttcaaaa tggagtctcg    120
ccaaatccaa cgaagattcc acagtttagcg gcgactatcc aagccgtaga tctagcacia    180
tggagaaatc gtgtgattaa agacaacaaa gcgcttaaga taatgcaatc ttctctccca    240
gattcggttt tcaggaagac tatctcgatt gcttcagcca aggaactttg ggatttgctc    300
aaaaaaggta acgataccaa agaagctaag ctacgtagat tagagaaaca atttgagaag    360
cttatgatgt acgaaggaga accaatggat ttgtacttga agagagttga ggaaatcact    420
gaacggttcg aagttttggg aaatccgata tcggatgata aggttatcac caagctgtta    480
acttcgttgt catggccata tgatgattct attcctgtgt tgaaggaatt catgactttg    540
cctgatctga ctcttcgcga tcttcttaag gcttttgaat tgtttgatc acatcctgaa    600
actatgcctc aggagttgat gaagttcatt aacattctta gaaaagctca ctctgagcgg    660
atgccgtgtg gtatctgcgt gaagaacaat cacaaccaag aagaagactt gtattacaac    720
cataggccta gggtagtgaa ttttaagtga gccaatcaat ttagaggaca agggcattat    780
gcaagagatt gcagcaacac tagaaatctg caacaagctg agaagaggat ccaaaaacct    840
gagcatctga tgttaggggt aactgttggt ggtatcacat ttgatgaggg catgtggatg    900
gtacacacca ctacaacgga tcacatgact ccatatgaga agtttttcac gacttttagac    960
cgatcataca gagctagggt tggactggcg gacgggaaag ttgtcatggc agaagggaaa   1020
ggagatgtca tgattatgac gagggaaggg aagaagagga tcaagaatgt gctttttggt   1080
cccgggatca acaaaaacgc tttgagtgtt gctcagatga cagaccaagg ctgttcagta   1140
acatttgag gaggcaaatg cattatgaag aatcacactg ggaaagtatt tggagaagcc   1200
atgttggaag agacaggtta tgttattcgt ttgcagggtga ttaaagaagt tatctggcac   1260
tag                                                                    1263

```

&lt;210&gt; 2170

&lt;211&gt; 420

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2170

047-E2F-PCT.ST25.txt

Met Ala Ala Asn Leu Gln Asp Gly Val Ser Asp Asp Phe Asp Tyr Glu  
1 5 10 15  
His Trp Ser Pro Ile Ala Lys Lys Arg Leu Val Glu Asn Gly Val Trp  
20 25 30  
Asp Val Val Gln Asn Gly Val Ser Pro Asn Pro Thr Lys Ile Pro Gln  
35 40 45  
Leu Ala Ala Thr Ile Gln Ala Val Asp Leu Ala Gln Trp Arg Asn Arg  
50 55 60  
Val Ile Lys Asp Asn Lys Ala Leu Lys Ile Met Gln Ser Ser Leu Pro  
65 70 75 80  
Asp Ser Val Phe Arg Lys Thr Ile Ser Ile Ala Ser Ala Lys Glu Leu  
85 90 95  
Trp Asp Leu Leu Lys Lys Gly Asn Asp Thr Lys Glu Ala Lys Leu Arg  
100 105 110  
Arg Leu Glu Lys Gln Phe Glu Lys Leu Met Met Tyr Glu Gly Glu Pro  
115 120 125  
Met Asp Leu Tyr Leu Lys Arg Val Glu Glu Ile Thr Glu Arg Phe Glu  
130 135 140  
Val Leu Gly Asn Pro Ile Ser Asp Asp Lys Val Ile Thr Lys Leu Leu  
145 150 155 160  
Thr Ser Leu Ser Trp Pro Tyr Asp Asp Ser Ile Pro Val Leu Lys Glu  
165 170 175  
Phe Met Thr Leu Pro Asp Leu Thr Leu Arg Asp Leu Leu Lys Ala Phe  
180 185 190  
Glu Leu Phe Gly Ser His Pro Glu Thr Met Pro Gln Glu Leu Met Lys  
195 200 205  
Phe Ile Asn Ile Leu Arg Lys Ala His Ser Glu Arg Met Pro Cys Gly  
210 215 220  
Ile Cys Val Lys Asn Asn His Asn Gln Glu Glu Asp Leu Tyr Tyr Asn  
225 230 235 240  
His Arg Pro Arg Val Val Asn Leu Ser Gly Ala Asn Gln Phe Arg Gly  
245 250 255

047-E2F-PCT.ST25.txt

Gln Gly His Tyr Ala Arg Asp Cys Ser Asn Thr Arg Asn Leu Gln Gln  
260 265 270

Ala Glu Lys Arg Ile Gln Lys Pro Glu His Leu Met Leu Gly Val Thr  
275 280 285

Val Gly Gly Ile Thr Phe Asp Glu Gly Met Trp Met Val His Thr Thr  
290 295 300

Thr Thr Asp His Met Thr Pro Tyr Glu Lys Phe Phe Thr Thr Leu Asp  
305 310 315 320

Arg Ser Tyr Arg Ala Arg Val Gly Leu Ala Asp Gly Lys Val Val Met  
325 330 335

Ala Glu Gly Lys Gly Asp Val Met Ile Met Thr Arg Glu Gly Lys Lys  
340 345 350

Arg Ile Lys Asn Val Leu Phe Val Pro Gly Ile Asn Lys Asn Ala Leu  
355 360 365

Ser Val Ala Gln Met Thr Asp Gln Gly Cys Ser Val Thr Phe Gly Gly  
370 375 380

Gly Lys Cys Ile Met Lys Asn His Thr Gly Lys Val Phe Gly Glu Ala  
385 390 395 400

Met Leu Glu Glu Thr Gly Tyr Val Ile Arg Leu Gln Val Ile Lys Glu  
405 410 415

Val Ile Trp His  
420

<210> 2171

<211> 663

<212> DNA

<213> Arabidopsis thaliana

<400> 2171

atggctacta cttctaactc ggtacttttc ctaagttctg actcactgat tcatcatcat	60
catcatcaac ctctccatct atcttcctcc agatctcact ctgtttctct cccaccaaac	120
aagcgatcca attctctcac gcttcgttgt tcaacaaatg gcgatagcac ctcaaccgaa	180

```

aaggaaacac caatcgaact caaattccca gcatttccaa cggtaatgga cattaaccaa 240
atcagagaga tattgcctca caggtttccg tttctgctgg tagatagagt gatagagtat 300
acgcctggtg tttcagctgt agctattaag aatgtcacca tcaatgacaa tttcttccct 360
ggccatttcc ctgaacgacc aatcatgcct ggtgttctca tgattgaggc aatggcgcaa 420
gtcggaggta tagtaatgct gcagccggaa gtaggaggct ctcaagataa cttcttcttt 480
gctggtattg ataaagtgag atttcgcaaa ccagtgattg caggagacac gctagtcatg 540
aggatgactc ttctcaagtt ccagaagcgg ttcgggctcg ctaaaatgga aggtaaagct 600
tatgtgggtg gtgctctggt gtgtgaaggc gagttcatga tggtttctgc tggtagttct 660
tga 663

```

&lt;210&gt; 2172

&lt;211&gt; 220

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2172

```

Met Ala Thr Thr Ser Asn Ser Val Leu Phe Leu Ser Ser Asp Ser Leu
1          5          10          15

```

```

Ile His His His His His Gln Pro Leu His Leu Ser Ser Ser Arg Ser
20          25          30

```

```

His Ser Val Ser Leu Pro Pro Asn Lys Arg Ser Asn Ser Leu Thr Leu
35          40          45

```

```

Arg Cys Ser Thr Asn Gly Asp Ser Thr Ser Thr Glu Lys Glu Thr Pro
50          55          60

```

```

Ile Glu Leu Lys Phe Pro Ala Phe Pro Thr Val Met Asp Ile Asn Gln
65          70          75          80

```

```

Ile Arg Glu Ile Leu Pro His Arg Phe Pro Phe Leu Leu Val Asp Arg
85          90          95

```

```

Val Ile Glu Tyr Thr Pro Gly Val Ser Ala Val Ala Ile Lys Asn Val
100         105         110

```

```

Thr Ile Asn Asp Asn Phe Phe Pro Gly His Phe Pro Glu Arg Pro Ile
115         120         125

```

Met Pro Gly Val Leu Met Ile Glu Ala Met Ala Gln Val Gly Gly Ile  
 130 135 140

Val Met Leu Gln Pro Glu Val Gly Gly Ser Gln Asp Asn Phe Phe Phe  
 145 150 155 160

Ala Gly Ile Asp Lys Val Arg Phe Arg Lys Pro Val Ile Ala Gly Asp  
 165 170 175

Thr Leu Val Met Arg Met Thr Leu Leu Lys Phe Gln Lys Arg Phe Gly  
 180 185 190

Leu Ala Lys Met Glu Gly Lys Ala Tyr Val Gly Gly Ala Leu Val Cys  
 195 200 205

Glu Gly Glu Phe Met Met Val Ser Ala Gly Ser Ser  
 210 215 220

<210> 2173

<211> 1692

<212> DNA

<213> Arabidopsis thaliana

<400> 2173

atggagagtt tcgctcttca ctctctctcc accaccgcca cttccacctt actctcccat	60
catcatcatc accatccctc acgtctctct cttctccgtc gtacctcttc gagatctccg	120
ccttcaacaa tctccctccg atctctctcc gttcaacctc tctccttccc tcttctcaaa	180
ccaattcctc gattctccac acgaatcgcc gccgcaccgc aagacaacgc tcctcctcct	240
cctcccccat ctccgtctcc gtctccgtct cctcaaggag cgaaactcat cctctgatt	300
ctctcaatct ccgtcggcct aatcctccga ttctgtgttc ctgtaccaga aggagtcaca	360
ccacaaggct ggcaattact ctcaatcttc ctctcaacaa tcgctgggtct cgtccttagt	420
cctctcccag tcggagcttg ggctttcatt ggtctcaccg cttcaatcgt caccaaaacg	480
ctttctttct ccgccgcttt ctacgctttc acaagcgagg ttatctgggt gatcgttatc	540
tctttcttct tcgctcgtgg attcgtcaaa acaggtcttg gtgatagaat cgctacttac	600
tttgtcaaat ggcttgggaa gactacttta ggtctatctt atgggtctcac gcttagtgag	660
gctttaattg ctctgcat gcctagtact actgctagag ctggtggcat tttcttggcc	720
atcatcaagt ctctatcgct ctcggtgga agtaaaccga atgattcttc ttcgaggaaa	780
ctaggctctt acttgattca atctcaattc cagtgcgccg gaaactctag tgcgcttttc	840

047-E2F-PCT.ST25.txt

```

ttgactgctg cagctcaaaa tttgctgtgt ctcaagttag cagaggagct tggagtagtg 900
atctcaaacc cgtggggtttc ttggtttaag gctgctagtc tacctgcaat catatcactt 960
ctttgtactc cacttatcct ctataagctt tctcctccag aaacaaagga cacacctgag 1020
gctccaggta ttgctgcaac gaaactcaag caaatgggcc ctgtcactaa aaacgaatgg 1080
atcatggtcg gtacaatgct tcttgctgtc actctttgga tctgcgagga gactctggga 1140
ataccaagtg ttgtagctgc catgatcggt ctctccatac ttcttgtgct aggtgtcctt 1200
aattgggacg attgcctaag cgaaaaatcg gcatgggaca cattagcttg gtttgctgtc 1260
ttggtgggaa tggcaggaca gcttacaac ctcggtgttg taacgtggat gtctgattgt 1320
gtagctaaag ttctacaatc tctctccttg agttggcctg ctgcgtttgg acttcttcaa 1380
gcagcctact tcttcattca ctaccttttc gcaagccaaa ccgggtcatgt tggagctctc 1440
ttctcagctt tccttgctat gcatatagca gcagggtgtc caggaattct agctgcactt 1500
gcttttagcat acaacaccaa tctttttggt gctttgactc attacagtag cggtaagcc 1560
gctgtctact atggagcggg ttatgttgat ctgcctgatg tattcaagat tggattcgtg 1620
atggcgacga ttaatgcgat aatctgggga gtagttggga ctttctggtg gaaatttttg 1680
ggtctctact aa 1692

```

<210> 2174

<211> 563

<212> PRT

<213> Arabidopsis thaliana

<400> 2174

Met Glu Ser Phe Ala Leu His Ser Leu Ser Thr Thr Ala Thr Ser Thr  
1 5 10 15

Leu Leu Ser His His His His His Pro Ser Arg Leu Ser Leu Leu  
20 25 30

Arg Arg Thr Ser Ser Arg Ser Pro Pro Ser Thr Ile Ser Leu Arg Ser  
35 40 45

Leu Ser Val Gln Pro Leu Ser Phe Pro Leu Leu Lys Pro Ile Pro Arg  
50 55 60

Phe Ser Thr Arg Ile Ala Ala Ala Pro Gln Asp Asn Ala Pro Pro Pro  
65 70 75 80



Pro Pro Pro Ser Pro Ser Pro Ser Pro Ser Pro Gln Gly Ala Lys Leu  
 85 90 95  
 Ile Pro Leu Ile Leu Ser Ile Ser Val Gly Leu Ile Leu Arg Phe Ala  
 100 105 110  
 Val Pro Val Pro Glu Gly Val Thr Pro Gln Gly Trp Gln Leu Leu Ser  
 115 120 125  
 Ile Phe Leu Ser Thr Ile Ala Gly Leu Val Leu Ser Pro Leu Pro Val  
 130 135 140  
 Gly Ala Trp Ala Phe Ile Gly Leu Thr Ala Ser Ile Val Thr Lys Thr  
 145 150 155 160  
 Leu Ser Phe Ser Ala Ala Phe Ser Ala Phe Thr Ser Glu Val Ile Trp  
 165 170 175  
 Leu Ile Val Ile Ser Phe Phe Phe Ala Arg Gly Phe Val Lys Thr Gly  
 180 185 190  
 Leu Gly Asp Arg Ile Ala Thr Tyr Phe Val Lys Trp Leu Gly Lys Ser  
 195 200 205  
 Thr Leu Gly Leu Ser Tyr Gly Leu Thr Leu Ser Glu Ala Leu Ile Ala  
 210 215 220  
 Pro Ala Met Pro Ser Thr Thr Ala Arg Ala Gly Gly Ile Phe Leu Pro  
 225 230 235 240  
 Ile Ile Lys Ser Leu Ser Leu Ser Ala Gly Ser Lys Pro Asn Asp Ser  
 245 250 255  
 Ser Ser Arg Lys Leu Gly Ser Tyr Leu Ile Gln Ser Gln Phe Gln Cys  
 260 265 270  
 Ala Gly Asn Ser Ser Ala Leu Phe Leu Thr Ala Ala Ala Gln Asn Leu  
 275 280 285  
 Leu Cys Leu Lys Leu Ala Glu Glu Leu Gly Val Val Ile Ser Asn Pro  
 290 295 300  
 Trp Val Ser Trp Phe Lys Ala Ala Ser Leu Pro Ala Ile Ile Ser Leu  
 305 310 315 320  
 Leu Cys Thr Pro Leu Ile Leu Tyr Lys Leu Tyr Pro Pro Glu Thr Lys  
 325 330 335

047-E2F-PCT.ST25.txt

Asp Thr Pro Glu Ala Pro Gly Ile Ala Ala Thr Lys Leu Lys Gln Met  
340 345 350

Gly Pro Val Thr Lys Asn Glu Trp Ile Met Val Gly Thr Met Leu Leu  
355 360 365

Ala Val Thr Leu Trp Ile Cys Gly Glu Thr Leu Gly Ile Pro Ser Val  
370 375 380

Val Ala Ala Met Ile Gly Leu Ser Ile Leu Leu Val Leu Gly Val Leu  
385 390 395 400

Asn Trp Asp Asp Cys Leu Ser Glu Lys Ser Ala Trp Asp Thr Leu Ala  
405 410 415

Trp Phe Ala Val Leu Val Gly Met Ala Gly Gln Leu Thr Asn Leu Gly  
420 425 430

Val Val Thr Trp Met Ser Asp Cys Val Ala Lys Val Leu Gln Ser Leu  
435 440 445

Ser Leu Ser Trp Pro Ala Ala Phe Gly Leu Leu Gln Ala Ala Tyr Phe  
450 455 460

Phe Ile His Tyr Leu Phe Ala Ser Gln Thr Gly His Val Gly Ala Leu  
465 470 475 480

Phe Ser Ala Phe Leu Ala Met His Ile Ala Ala Gly Val Pro Gly Ile  
485 490 495

Leu Ala Ala Leu Ala Leu Ala Tyr Asn Thr Asn Leu Phe Gly Ala Leu  
500 505 510

Thr His Tyr Ser Ser Gly Gln Ala Ala Val Tyr Tyr Gly Ala Gly Tyr  
515 520 525

Val Asp Leu Pro Asp Val Phe Lys Ile Gly Phe Val Met Ala Thr Ile  
530 535 540

Asn Ala Ile Ile Trp Gly Val Val Gly Thr Phe Trp Trp Lys Phe Leu  
545 550 555 560

Gly Leu Tyr

<210> 2175

&lt;211&gt; 549

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2175

```

atggcgctcgt cgctgcaaag ctcgggggatg ttgacgaaag agcaaatggg ttatctcttt      60
gatcgattcg attacttgac ttcacaatct gatgtgaaga aacgaatctc cgacgctgtg      120
gatgacaaac aggaagctgt agcggtaaca actgctattc aagaggagat attcttgagg      180
atgggggattg acccgggatt tgggtattggc tgcttgggaa agctgaactc tgcatacgaa      240
aacgataaag agttgatgat tggtttctac aagtttctcg caaaggagga gatggcatgt      300
gaagaagctg agcttggaca agatggattt gaacagaaaa tgaaagcact acaacaatta      360
caagaacagc aactagagat gcttaagtat atgcgtaaat tctctctgga tgatcaatct      420
gctatccttc aaaagcttca gaagcaatta gaaaatgctg gttttgagcc ggaggcgtct      480
cttttgtcag gagaggaaat ggaggaagct ggaagaagaa gagtttcacc tgtttttgga      540
agcagatag                                     549

```

&lt;210&gt; 2176

&lt;211&gt; 182

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2176

```

Met Ala Ser Ser Leu Gln Ser Ser Gly Met Leu Thr Lys Glu Gln Met
1          5          10          15
Val Tyr Leu Phe Asp Arg Phe Asp Tyr Leu Thr Ser Gln Ser Asp Val
20        25        30
Lys Lys Arg Ile Ser Asp Ala Val Asp Asp Lys Gln Glu Ala Val Ala
35        40        45
Val Thr Thr Ala Ile Gln Glu Glu Ile Phe Leu Glu Met Gly Ile Asp
50        55        60
Pro Gly Phe Gly Ile Gly Cys Leu Gly Lys Leu Asn Ser Ala Tyr Glu
65        70        75        80
Asn Asp Lys Glu Leu Met Ile Gly Phe Tyr Lys Phe Leu Ala Lys Glu

```

Glu Met Ala Cys Glu Glu Ala Glu Leu Gly Gln Asp Gly Phe Glu Gln  
 100 105 110

Lys Met Lys Ala Leu Gln Gln Leu Gln Glu Gln Gln Leu Glu Met Leu  
 115 120 125

Lys Tyr Met Arg Lys Phe Ser Leu Asp Asp Gln Ser Ala Ile Leu Gln  
 130 135 140

Lys Leu Gln Lys Gln Leu Glu Asn Ala Gly Phe Glu Pro Glu Ala Ser  
 145 150 155 160

Leu Leu Ser Gly Glu Glu Met Glu Glu Ala Gly Arg Arg Arg Val Ser  
 165 170 175

Pro Val Phe Gly Ser Arg  
 180

<210> 2177

<211> 948

<212> DNA

<213> Arabidopsis thaliana

<400> 2177

atggcaaatg cgatcacatt tttcaagctc aacaccggcg ctaagttccc ttcggtgggt 60  
 cttggaacat ggcaagcttc tcctggcctc gtcggtgatg cagtcgccgc ggctgttaag 120  
 attggctatc gtcacattga ttgtgctcag atctatggca acgaaaaaga gattggggca 180  
 gttctgaaaa aattgtttga agacagagta gtgaaacgcg aggatttggt catcacctcc 240  
 aaactctggg gtactgatca tgaccctcaa gatgtcccgg aggcattgaa cagaactctc 300  
 aaggatctgc agcttgaata cgtcgatctt tatctgatac actggcctgc acggataaag 360  
 aaaggttctg ttggaataaa gccagagaac cttttgcctg tagatattcc tagtacatgg 420  
 aaagcgatgg aagcactata cgattcgggc aaggcacgag ccataggtgt aagcaatttc 480  
 tctaccaaga aactagctga tctcttggag ttagctcgtg ttcctcctgc tgtaatacag 540  
 gtcgaatgtc atccttcttg gcgacaaact aagctacaag aattctgcaa atccaaaggg 600  
 gttcacctaa gtgcatactc gccattaggt tctccaggga caacatggct gaagagcgat 660  
 gttttgaaga acccgatact gaatatgggt gcggaaaaac tcggaaagag tcctgcgcaa 720  
 gtcgcccttc gttggggact ccaaattgggt cacagtgtgc ttcccaagag tacaatgaa 780

047-E2F-PCT.ST25.txt

ggaaggatca aagagaactt taatgttttc gactggtcaa tacccgatta catgttcgct 840  
aagtttgctg agattgaaca ggctaggtta gtcactgggt ccttccttgt tcatgagaca 900  
ctaagccctt acaagtctat tgaagaatta tgggatggcg agatatga 948

<210> 2178

<211> 315

<212> PRT

<213> Arabidopsis thaliana

<400> 2178

Met Ala Asn Ala Ile Thr Phe Phe Lys Leu Asn Thr Gly Ala Lys Phe  
1 5 10 15

Pro Ser Val Gly Leu Gly Thr Trp Gln Ala Ser Pro Gly Leu Val Gly  
20 25 30

Asp Ala Val Ala Ala Ala Val Lys Ile Gly Tyr Arg His Ile Asp Cys  
35 40 45

Ala Gln Ile Tyr Gly Asn Glu Lys Glu Ile Gly Ala Val Leu Lys Lys  
50 55 60

Leu Phe Glu Asp Arg Val Val Lys Arg Glu Asp Leu Phe Ile Thr Ser  
65 70 75 80

Lys Leu Trp Cys Thr Asp His Asp Pro Gln Asp Val Pro Glu Ala Leu  
85 90 95

Asn Arg Thr Leu Lys Asp Leu Gln Leu Glu Tyr Val Asp Leu Tyr Leu  
100 105 110

Ile His Trp Pro Ala Arg Ile Lys Lys Gly Ser Val Gly Ile Lys Pro  
115 120 125

Glu Asn Leu Leu Pro Val Asp Ile Pro Ser Thr Trp Lys Ala Met Glu  
130 135 140

Ala Leu Tyr Asp Ser Gly Lys Ala Arg Ala Ile Gly Val Ser Asn Phe  
145 150 155 160

Ser Thr Lys Lys Leu Ala Asp Leu Leu Glu Leu Ala Arg Val Pro Pro  
165 170 175

047-E2F-PCT.ST25.txt

Ala Val Asn Gln Val Glu Cys His Pro Ser Trp Arg Gln Thr Lys Leu  
180 185 190

Gln Glu Phe Cys Lys Ser Lys Gly Val His Leu Ser Ala Tyr Ser Pro  
195 200 205

Leu Gly Ser Pro Gly Thr Thr Trp Leu Lys Ser Asp Val Leu Lys Asn  
210 215 220

Pro Ile Leu Asn Met Val Ala Glu Lys Leu Gly Lys Ser Pro Ala Gln  
225 230 235 240

Val Ala Leu Arg Trp Gly Leu Gln Met Gly His Ser Val Leu Pro Lys  
245 250 255

Ser Thr Asn Glu Gly Arg Ile Lys Glu Asn Phe Asn Val Phe Asp Trp  
260 265 270

Ser Ile Pro Asp Tyr Met Phe Ala Lys Phe Ala Glu Ile Glu Gln Ala  
275 280 285

Arg Leu Val Thr Gly Ser Phe Leu Val His Glu Thr Leu Ser Pro Tyr  
290 295 300

Lys Ser Ile Glu Glu Leu Trp Asp Gly Glu Ile  
305 310 315

<210> 2179

<211> 528

<212> DNA

<213> Arabidopsis thaliana

<400> 2179  
atggctgaag ctttcacaag tttcaccttc acaaatcttc atattccttc ttcctacaat 60  
cactcgccga agcagaattc aggaccgaat catggatatt ggctatctaa gaatgttaat 120  
gagaagaggg aaaggaattt gatgagagga agcttatgtg taagaaaggc attgccacat 180  
gatttgccat taatggctgt gatggttcaa caaatagaag gaatgcgtga tatkattaca 240  
gagaaacacg tgtggcatct aagtgataaa gctatcaaga atgtttatat gttctacatc 300  
atgttcactt gttggggatg tttgtacttc ggttcagcaa aagatccatt ctacgactca 360  
gaggagtacc gtggagatgg aggggatgga actggatatt gggcttatga aactcaagaa 420  
gacatagaag agaaagcaag agcggagcta tggcgtgaag aacttatcga agaaattgaa 480

cagaaggttg gtggcttaag agagcttgaa gaagctgtta ctaagtag

528

&lt;210&gt; 2180

&lt;211&gt; 175

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2180

Met Ala Glu Ala Phe Thr Ser Phe Thr Phe Thr Asn Leu His Ile Pro  
 1 5 10 15

Ser Ser Tyr Asn His Ser Pro Lys Gln Asn Ser Gly Pro Asn His Gly  
 20 25 30

Tyr Trp Leu Ser Lys Asn Val Asn Glu Lys Arg Glu Arg Asn Leu Met  
 35 40 45

Arg Gly Ser Leu Cys Val Arg Lys Ala Leu Pro His Asp Leu Pro Leu  
 50 55 60

Met Ala Val Met Val Gln Gln Ile Glu Gly Met Arg Asp Ile Ile Thr  
 65 70 75 80

Glu Lys His Val Trp His Leu Ser Asp Lys Ala Ile Lys Asn Val Tyr  
 85 90 95

Met Phe Tyr Ile Met Phe Thr Cys Trp Gly Cys Leu Tyr Phe Gly Ser  
 100 105 110

Ala Lys Asp Pro Phe Tyr Asp Ser Glu Glu Tyr Arg Gly Asp Gly Gly  
 115 120 125

Asp Gly Thr Gly Tyr Trp Val Tyr Glu Thr Gln Glu Asp Ile Glu Glu  
 130 135 140

Lys Ala Arg Ala Glu Leu Trp Arg Glu Glu Leu Ile Glu Glu Ile Glu  
 145 150 155 160

Gln Lys Val Gly Gly Leu Arg Glu Leu Glu Glu Ala Val Thr Lys  
 165 170 175

&lt;210&gt; 2181

&lt;211&gt; 1194

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2181

```

atgttcaagt tgaagcaatg gttgatttat ttggtgtggt cgttagtaat aatgaacaca    60
gaaggactgt ttgtcaatat tacatttggt cgaaacgcag tcgctaaagg ggccgtttgt    120
ttagatggaa gtccaccagc ttatcatttg gatagagggt ctggaactgg aatcaatagt    180
tggttgatac agcttgaggg aggaggatgg tgcaataatg taacaaattg cgttagtcgg    240
atgcatactc gattaggttc atcgaagaaa atggtggaga accttgcttt ctcagctatt    300
cttagcaata agaaacaata taatcctgat ttttacaatt ggaatagagt gaaagttaga    360
tactgtgacg gggcatcatt cacaggagat gtagaagcag tgaaccctgc tactaatctt    420
cacttcagag gtgctcgagt ttggttagcc gttatgcaag agctgctagc taaaggcatg    480
ataaacgccg agaatgctgt tttgtctggc tgttctgctg gcgggttagc ttcgctgatg    540
cattgtgata gtttccgtgc tctattaccg atgggaacca aagtaaaatg tctttcagat    600
gctgggtttt ttctcaacac aagagacgtc tcaggagttc aatacattaa aacatacttc    660
gaagatgttg ttactcttca tggatcagca aagaacttgc cgaggtcatg cacatcaaga    720
ttaactcctg caatgtgttt ctttccgcaa tatgtggctc gccagattag aactcctctg    780
ttcattctta atgccgtta tgactcttgg cagataaaga acattttggc tccgcgagca    840
gctgatcctt acggaaaatg gcaaagttgt caactagaca tcaagaattg ccatccaagt    900
cagatcaaag ttatgcaaga tttcaggtta gagttcttga gtgcagtgat aggttttaggg    960
agatcttcat caagagggat gttcatagat tcttgctaca ctactgcca aaccgagaca   1020
caaacttcat ggttctggca agattctcca attctaaacc gaacgacaat agcaaaagct   1080
gttgagattt gggtttatga cagaacattg tttcagaaga tagattgtcc ttacccttgt   1140
aaccctactt gccaccacag ggttttcact cctctagatg ctctccaat ttaa          1194

```

&lt;210&gt; 2182

&lt;211&gt; 397

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2182

```

Met Phe Lys Leu Lys Gln Trp Leu Ile Tyr Leu Val Cys Ser Leu Val
1           5           10           15

```



047-E2F-PCT.ST25.txt

Ile Met Asn Thr Glu Gly Leu Phe Val Asn Ile Thr Phe Val Arg Asn  
20 25 30

Ala Val Ala Lys Gly Ala Val Cys Leu Asp Gly Ser Pro Pro Ala Tyr  
35 40 45

His Leu Asp Arg Gly Ser Gly Thr Gly Ile Asn Ser Trp Leu Ile Gln  
50 55 60

Leu Glu Gly Gly Gly Trp Cys Asn Asn Val Thr Asn Cys Val Ser Arg  
65 70 75 80

Met His Thr Arg Leu Gly Ser Ser Lys Lys Met Val Glu Asn Leu Ala  
85 90 95

Phe Ser Ala Ile Leu Ser Asn Lys Lys Gln Tyr Asn Pro Asp Phe Tyr  
100 105 110

Asn Trp Asn Arg Val Lys Val Arg Tyr Cys Asp Gly Ala Ser Phe Thr  
115 120 125

Gly Asp Val Glu Ala Val Asn Pro Ala Thr Asn Leu His Phe Arg Gly  
130 135 140

Ala Arg Val Trp Leu Ala Val Met Gln Glu Leu Leu Ala Lys Gly Met  
145 150 155 160

Ile Asn Ala Glu Asn Ala Val Leu Ser Gly Cys Ser Ala Gly Gly Leu  
165 170 175

Ala Ser Leu Met His Cys Asp Ser Phe Arg Ala Leu Leu Pro Met Gly  
180 185 190

Thr Lys Val Lys Cys Leu Ser Asp Ala Gly Phe Phe Leu Asn Thr Arg  
195 200 205

Asp Val Ser Gly Val Gln Tyr Ile Lys Thr Tyr Phe Glu Asp Val Val  
210 215 220

Thr Leu His Gly Ser Ala Lys Asn Leu Pro Arg Ser Cys Thr Ser Arg  
225 230 235 240

Leu Thr Pro Ala Met Cys Phe Phe Pro Gln Tyr Val Ala Arg Gln Ile  
245 250 255

Arg Thr Pro Leu Phe Ile Leu Asn Ala Ala Tyr Asp Ser Trp Gln Ile  
Page 3155

260

265

270

Lys Asn Ile Leu Ala Pro Arg Ala Ala Asp Pro Tyr Gly Lys Trp Gln  
 275 280 285

Ser Cys Gln Leu Asp Ile Lys Asn Cys His Pro Ser Gln Ile Lys Val  
 290 295 300

Met Gln Asp Phe Arg Leu Glu Phe Leu Ser Ala Val Ile Gly Leu Gly  
 305 310 315 320

Arg Ser Ser Ser Arg Gly Met Phe Ile Asp Ser Cys Tyr Thr His Cys  
 325 330 335

Gln Thr Glu Thr Gln Thr Ser Trp Phe Trp Gln Asp Ser Pro Ile Leu  
 340 345 350

Asn Arg Thr Thr Ile Ala Lys Ala Val Gly Asp Trp Val Tyr Asp Arg  
 355 360 365

Thr Leu Phe Gln Lys Ile Asp Cys Pro Tyr Pro Cys Asn Pro Thr Cys  
 370 375 380

His His Arg Val Phe Thr Pro Leu Asp Ala Pro Pro Ile  
 385 390 395

&lt;210&gt; 2183

&lt;211&gt; 546

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2183

```

atggggcctt catttgcaaa gcttttttagc cggctttttg ccaagaagga gatgcgaatc   60
cttatgggtt gtcttgatgc tgctggtaag accaccattt tgtacaagct caagcttggt   120
gagattgtca ccaccattcc caccatcggg tttaatgtgg agacggttga gtacaagaac   180
atcagcttca cggtttggga tgctgggggt caggacaaga tccgtccctt gtggagacac   240
tacttccaaa acactcaagg tctgatattt gttgttgata gcaatgacag agaccgtggt   300
gttgaagcca gagatgaact tcacaggatg ttgaatgaag atgagcttcg ggatgcagta   360
ttgcttggtt ttgccaacaa gcaggatcct ccaaacgcta tgaatgctgc tgagattact   420
gataagcttg gccttcactc actccggcaa cgccactggt acatccaaag cacatgcgca   480
actagcgggt aagggctcta tgaaggctct gattggcttt ccaacaacat tgctagcaaa   540

```

gcttga

546

&lt;210&gt; 2184

&lt;211&gt; 181

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2184

Met Gly Leu Ser Phe Ala Lys Leu Phe Ser Arg Leu Phe Ala Lys Lys  
 1 5 10 15

Glu Met Arg Ile Leu Met Val Gly Leu Asp Ala Ala Gly Lys Thr Thr  
 20 25 30

Ile Leu Tyr Lys Leu Lys Leu Gly Glu Ile Val Thr Thr Ile Pro Thr  
 35 40 45

Ile Gly Phe Asn Val Glu Thr Val Glu Tyr Lys Asn Ile Ser Phe Thr  
 50 55 60

Val Trp Asp Val Gly Gly Gln Asp Lys Ile Arg Pro Leu Trp Arg His  
 65 70 75 80

Tyr Phe Gln Asn Thr Gln Gly Leu Ile Phe Val Val Asp Ser Asn Asp  
 85 90 95

Arg Asp Arg Val Val Glu Ala Arg Asp Glu Leu His Arg Met Leu Asn  
 100 105 110

Glu Asp Glu Leu Arg Asp Ala Val Leu Leu Val Phe Ala Asn Lys Gln  
 115 120 125

Asp Leu Pro Asn Ala Met Asn Ala Ala Glu Ile Thr Asp Lys Leu Gly  
 130 135 140

Leu His Ser Leu Arg Gln Arg His Trp Tyr Ile Gln Ser Thr Cys Ala  
 145 150 155 160

Thr Ser Gly Glu Gly Leu Tyr Glu Gly Leu Asp Trp Leu Ser Asn Asn  
 165 170 175

Ile Ala Ser Lys Ala  
 180

&lt;210&gt; 2185

&lt;211&gt; 1239

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2185

```

atggcgatcat cttacgtcac ctactcaacg gtcactccgg tggtcagcag cagtaacatt    60
cgaggagtctt ttcgtttggc attcacgcgc cgccgtgtta ctctatcgcc gaatgctcgg    120
aggagaatat tgagagtttc ggcgaaagcg tcgacgaaga atgctatgga gtataggaaa    180
ttaggagatt ccgatctcaa catcagcgaa gttactatgg gcactatgac atttggggag    240
caaaatactg agaaagaatc tcatgagatg ctgagttatg caattgaaga gggcatcaat    300
tgcattgaca ctgctgaagc ttatcccata cggatgaaga aggagacgca aggtaaaacg    360
gatctttata tcagtagctg gttgaagtct cagcaacgtg acaagatagt tttggcaact    420
aaagtatgtg ggtactcaga aaggtcagct tacataaggg acagtgggtga gattctgcgt    480
gtagatgctg ctaatatcaa agaaagtgtt gagaaaagtc ttaagcgcct tggaactgat    540
tacattgact tgcttcaa atactggcca gatcgatacg taccactctt cggtgatttt    600
tactatgaaa cgtcgaaatg gagacctagt gtgccattcg ctgagcaact aagagccttt    660
caggatctca tagttgaagg aaagggttcgc tatatcggtg tctcgaatga aacttcatac    720
ggagtgcagg agtttggtta cacagcaaaa ctcgaaggac taccaaagat tgtgagcatc    780
cagaatgggtt acagcttgct agttagatgt cggatgaag ttgatctggt agaagtatgc    840
caccacaaaa attgcaatgt tggcttgctt gcttattccc ctcttgaggg cggctcgttg    900
tctgggaaat acttggttac agaccaagaa gctacaaaaa atgcaaggct gaatcttttc    960
ccaggatata tggaacgtta caagggatca ctagccaagg aagcaaccat acaatacgtt   1020
gaggtggcga agaagtacgg ttttaactccg gttgagttag cactcgggtt tgtacgtgac   1080
aggccctttg tgacgagcac gatcatcggg gccacatcgg taaaacaact taaagaagac   1140
attgatgctt ttctgatgac ggagcggccg ttttcgcagg aagttatggc agacattgac   1200
gccgttttca agaggttcaa agacccttct ttcgtttga                               1239

```

&lt;210&gt; 2186

&lt;211&gt; 412

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2186

```

Met Ala Ser Ser Tyr Val Thr Tyr Ser Thr Val Thr Pro Val Val Ser
1      5      10     15

Ser Ser Asn Ile Arg Gly Val Phe Arg Leu Ala Phe Thr Arg Arg Arg
20     25     30

Val Thr Leu Ser Pro Asn Ala Arg Arg Arg Ile Leu Arg Val Ser Ala
35     40     45

Lys Ala Ser Thr Lys Asn Ala Met Glu Tyr Arg Lys Leu Gly Asp Ser
50     55     60

Asp Leu Asn Ile Ser Glu Val Thr Met Gly Thr Met Thr Phe Gly Glu
65     70     75     80

Gln Asn Thr Glu Lys Glu Ser His Glu Met Leu Ser Tyr Ala Ile Glu
85     90     95

Glu Gly Ile Asn Cys Ile Asp Thr Ala Glu Ala Tyr Pro Ile Pro Met
100    105    110

Lys Lys Glu Thr Gln Gly Lys Thr Asp Leu Tyr Ile Ser Ser Trp Leu
115    120    125

Lys Ser Gln Gln Arg Asp Lys Ile Val Leu Ala Thr Lys Val Cys Gly
130    135    140

Tyr Ser Glu Arg Ser Ala Tyr Ile Arg Asp Ser Gly Glu Ile Leu Arg
145    150    155    160

Val Asp Ala Ala Asn Ile Lys Glu Ser Val Glu Lys Ser Leu Lys Arg
165    170    175

Leu Gly Thr Asp Tyr Ile Asp Leu Leu Gln Ile His Trp Pro Asp Arg
180    185    190

Tyr Val Pro Leu Phe Gly Asp Phe Tyr Tyr Glu Thr Ser Lys Trp Arg
195    200    205

Pro Ser Val Pro Phe Ala Glu Gln Leu Arg Ala Phe Gln Asp Leu Ile
210    215    220

Val Glu Gly Lys Val Arg Tyr Ile Gly Val Ser Asn Glu Thr Ser Tyr
225    230    235    240

```

047-E2F-PCT.ST25.txt

Gly Val Thr Glu Phe Val Asn Thr Ala Lys Leu Glu Gly Leu Pro Lys  
245 250 255

Ile Val Ser Ile Gln Asn Gly Tyr Ser Leu Leu Val Arg Cys Arg Tyr  
260 265 270

Glu Val Asp Leu Val Glu Val Cys His Pro Lys Asn Cys Asn Val Gly  
275 280 285

Leu Leu Ala Tyr Ser Pro Leu Gly Gly Gly Ser Leu Ser Gly Lys Tyr  
290 295 300

Leu Ala Thr Asp Gln Glu Ala Thr Lys Asn Ala Arg Leu Asn Leu Phe  
305 310 315 320

Pro Gly Tyr Met Glu Arg Tyr Lys Gly Ser Leu Ala Lys Glu Ala Thr  
325 330 335

Ile Gln Tyr Val Glu Val Ala Lys Lys Tyr Gly Leu Thr Pro Val Glu  
340 345 350

Leu Ala Leu Gly Phe Val Arg Asp Arg Pro Phe Val Thr Ser Thr Ile  
355 360 365

Ile Gly Ala Thr Ser Val Lys Gln Leu Lys Glu Asp Ile Asp Ala Phe  
370 375 380

Leu Met Thr Glu Arg Pro Phe Ser Gln Glu Val Met Ala Asp Ile Asp  
385 390 395 400

Ala Val Phe Lys Arg Phe Lys Asp Pro Ser Phe Val  
405 410

<210> 2187

<211> 213

<212> DNA

<213> Arabidopsis thaliana

<400> 2187

atggcttttg ttgtaacatc cctgatattc gctgtcgtag gcatcattgc ttcgatatgc	60
actagaatct gcttcaacaa aggccctcc accaatctgt tacatcttac attggatcatc	120
accgcaactg tctgctgttg gatgatgtgg gcaattgtat acattgcgca gatgaaccct	180
ctcattgtcc ctatcttaag cgaggtggag tag	213

&lt;210&gt; 2188

&lt;211&gt; 70

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2188

Met Ala Phe Val Val Thr Ser Leu Ile Phe Ala Val Val Gly Ile Ile  
 1 5 10 15

Ala Ser Ile Cys Thr Arg Ile Cys Phe Asn Lys Gly Pro Ser Thr Asn  
 20 25 30

Leu Leu His Leu Thr Leu Val Ile Thr Ala Thr Val Cys Cys Trp Met  
 35 40 45

Met Trp Ala Ile Val Tyr Ile Ala Gln Met Asn Pro Leu Ile Val Pro  
 50 55 60

Ile Leu Ser Glu Val Glu  
 65 70

&lt;210&gt; 2189

&lt;211&gt; 600

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2189

atggcgcagc gatctagggt tatcaccatg tctcctctca ttctcgatca agaagttgat 60  
 ctcgatctct gggaagttgt taatccttct gatggcgagt tctccgacga ttctttctcc 120  
 gtcgatagtc tttccgacga tgacgtcata tctcttgacg acgcttcctt tgtcgcaccc 180  
 tctgtcattt ctccgccgca tgagataatt cctattgctg acggtggtga tctcgccgtg 240  
 gatctggatg gtgatgatga tgttggcgat gatgtcgttc gcgatgaagt tgatgagaat 300  
 gatcttggat ggtctcagca gcggatgatg tttctcggtg gaggttctgg ttattctggt 360  
 ggaattacgt acggagatag tgtaaatgac gacggcgaag aagatcgca gtacgacgat 420  
 tcgtatgata ttgacgaaga gttggttccg cgtagcgtga gtaagaaggt ggggagacaa 480  
 aggatgagga aactggggaa aagagcaatc gccaaaggtct atgcctcgaa gatattctccg 540

tttttgaagc ctggtatcgt tcgtggtaag catggtctcg gcatgaaatt caagtgtctga 600

<210> 2190

<211> 199

<212> PRT

<213> Arabidopsis thaliana

<400> 2190

Met Ala Gln Arg Ser Arg Val Ile Thr Met Ser Pro Leu Ile Leu Asp  
1 5 10 15

Gln Glu Val Asp Leu Asp Leu Trp Glu Val Val Asn Pro Ser Asp Gly  
20 25 30

Glu Phe Ser Asp Asp Ser Phe Ser Val Asp Ser Leu Ser Asp Asp Asp  
35 40 45

Val Ile Ser Leu Asp Asp Ala Ser Phe Val Ala Pro Ser Val Ile Ser  
50 55 60

Pro Pro His Glu Ile Ile Pro Ile Ala Asp Gly Gly Asp Leu Ala Val  
65 70 75 80

Asp Leu Asp Gly Asp Asp Asp Val Gly Asp Asp Val Val Arg Asp Glu  
85 90 95

Val Asp Glu Asn Asp Leu Gly Trp Ser Gln Gln Arg Met Met Phe Leu  
100 105 110

Gly Gly Gly Ser Gly Tyr Ser Val Gly Ile Thr Tyr Gly Asp Ser Val  
115 120 125

Asn Asp Asp Gly Glu Glu Asp Arg Glu Tyr Asp Asp Ser Tyr Asp Leu  
130 135 140

Asp Glu Glu Leu Val Pro Arg Ser Val Ser Lys Lys Val Gly Arg Gln  
145 150 155 160

Arg Met Arg Lys Leu Gly Lys Arg Ala Ile Ala Lys Val Tyr Ala Ser  
165 170 175

Lys Ile Ser Pro Phe Leu Lys Pro Gly Ile Val Arg Gly Lys His Gly  
180 185 190



Leu Gly Met Lys Phe Lys Cys  
195

<210> 2191

<211> 477

<212> DNA

<213> Arabidopsis thaliana

<400> 2191

atggcagaag cgtctagttt ggtggggaaa cttgagacag aagtggagat caaagcttcg	60
gccaaaaagt tccatcacat gtttaccgag agaccacacc atgtctccaa agcaactcca	120
gataaaattc atggatgtga gctgcacgaa ggcgactggg gcaaagtcgg ctctatcgtc	180
atctggaaat acgttcatga tggaaagtta acagtgggga agaataagat cgaggcggtg	240
gatccggaga agaacctgat cacgttcaag gttttagaag gtgatctgat gaatgagtac	300
aagagcttcg catttacact ccaagtgacc cctaagcaag gggagtcagg gagtattgcg	360
cactggcacc tggagtatga gaaaattagc gaggaggtag ctcatcccga aacccttctc	420
caattctgtg tcgagatctc caaagagatc gacgaacatc tcttggccga ggaatag	477

<210> 2192

<211> 158

<212> PRT

<213> Arabidopsis thaliana

<400> 2192

Met Ala Glu Ala Ser Ser Leu Val Gly Lys Leu Glu Thr Glu Val Glu	1 5 10 15
Ile Lys Ala Ser Ala Lys Lys Phe His His Met Phe Thr Glu Arg Pro	20 25 30
His His Val Ser Lys Ala Thr Pro Asp Lys Ile His Gly Cys Glu Leu	35 40 45
His Glu Gly Asp Trp Gly Lys Val Gly Ser Ile Val Ile Trp Lys Tyr	50 55 60
Val His Asp Gly Lys Leu Thr Val Gly Lys Asn Lys Ile Glu Ala Val	65 70 75 80

047-E2F-PCT.ST25.txt

Asp Pro Glu Lys Asn Leu Ile Thr Phe Lys Val Leu Glu Gly Asp Leu  
85 90 95

Met Asn Glu Tyr Lys Ser Phe Ala Phe Thr Leu Gln Val Thr Pro Lys  
100 105 110

Gln Gly Glu Ser Gly Ser Ile Ala His Trp His Leu Glu Tyr Glu Lys  
115 120 125

Ile Ser Glu Glu Val Ala His Pro Glu Thr Leu Leu Gln Phe Cys Val  
130 135 140

Glu Ile Ser Lys Glu Ile Asp Glu His Leu Leu Ala Glu Glu  
145 150 155

<210> 2193

<211> 363

<212> DNA

<213> Arabidopsis thaliana

<400> 2193

atggcctcaa agagctcaac caccatttcc ctcatcatca tcctcctcat cagcctcgca	60
gaagcaaacc tcttaagctc gcctacaccg accaacaact ttggctcatg tcccagaaac	120
ccattgcaac taggcgtatg tgccaacgctc cttggcctag ccaatgttac agctggcgac	180
cccagagcac gacagtgttg cactgccctc aatggcctca ctaatgttca agtaaccgat	240
tgtctctgct ttatcttcag gccgattccg ttgggttttcg gtattgatgt ggccgttaga	300
gaaatctttt ttgcttgcaa taggggttttt cctatcggtt tccagtgtcc accaccacag	360
taa	363

<210> 2194

<211> 120

<212> PRT

<213> Arabidopsis thaliana

<400> 2194

Met Ala Ser Lys Ser Ser Thr Thr Ile Ser Leu Ile Ile Ile Leu Leu  
1 5 10 15

Ile Ser Leu Ala Glu Ala Asn Leu Leu Ser Ser Pro Thr Pro Thr Asn  
20 25 30

Asn Phe Gly Ser Cys Pro Arg Asn Pro Leu Gln Leu Gly Val Cys Ala  
35 40 45

Asn Val Leu Gly Leu Ala Asn Val Thr Ala Gly Asp Pro Arg Ala Arg  
50 55 60

Gln Cys Cys Thr Ala Leu Asn Gly Leu Thr Asn Val Gln Val Thr Asp  
65 70 75 80

Cys Leu Cys Phe Ile Phe Arg Pro Ile Pro Leu Val Phe Gly Ile Asp  
85 90 95

Val Ala Val Arg Glu Ile Phe Phe Ala Cys Asn Arg Val Phe Pro Ile  
100 105 110

Gly Phe Gln Cys Pro Pro Pro Gln  
115 120

<210> 2195

<211> 783

<212> DNA

<213> Arabidopsis thaliana

<400> 2195

atggcagaag agtacaagaa caccgttcca gagcaggaga cccctaagggt tgcaacagag	60
gaatcatcgg cgccagagat taaggagcgg ggaatgttcg atttcttgaa gaaaaaggag	120
gaagttaaac ctcaagaaac gacgactctc gcgtctgagt ttgagcacia gactcagatc	180
tctgaaccag agtcgtttgt ggccaagcac gaagaagagg aacataagcc tactcttctc	240
gagcagcttc accagaagca cgaggaggaa gaagaaaaca agccaagtct cctcgacaaa	300
ctccaccgat ccaacagctc ttcttcctct tcgagtgatg aagaaggatga agacggtgag	360
aagaagaaga aggagaaaaa gaagaagatt gttgaaggag atcatgtgaa aacagtggaa	420
gaagagaatc aaggagtaat ggacaggatt aaggagaagt ttccactcgg agagaaacca	480
gggggtgatg atgtaccagt cgtcaccacc atgccagcac cacattcgggt agaggatcac	540
aaaccagagg aagaagagaa gaaaggggtt atggataaga tcaaggagaa gcttccaggc	600
cacagcaaga aaccagagga ttcacaagtc gtcaacacca caccgctgggt tgaaacagca	660
acaccgattg ctgacatccc ggaggagaag aagggattta tggacaagat caaagagaag	720

cttccagggtt atcacgccaa gaccactgga gaggaagaga agaaagaaaa agtgtctgat 780  
 taa 783

<210> 2196

<211> 260

<212> PRT

<213> Arabidopsis thaliana

<400> 2196

Met Ala Glu Glu Tyr Lys Asn Thr Val Pro Glu Gln Glu Thr Pro Lys  
 1 5 10 15

Val Ala Thr Glu Glu Ser Ser Ala Pro Glu Ile Lys Glu Arg Gly Met  
 20 25 30

Phe Asp Phe Leu Lys Lys Lys Glu Glu Val Lys Pro Gln Glu Thr Thr  
 35 40 45

Thr Leu Ala Ser Glu Phe Glu His Lys Thr Gln Ile Ser Glu Pro Glu  
 50 55 60

Ser Phe Val Ala Lys His Glu Glu Glu Glu His Lys Pro Thr Leu Leu  
 65 70 75 80

Glu Gln Leu His Gln Lys His Glu Glu Glu Glu Glu Asn Lys Pro Ser  
 85 90 95

Leu Leu Asp Lys Leu His Arg Ser Asn Ser Ser Ser Ser Ser Ser Ser  
 100 105 110

Asp Glu Glu Gly Glu Asp Gly Glu Lys Lys Lys Lys Glu Lys Lys Lys  
 115 120 125

Lys Ile Val Glu Gly Asp His Val Lys Thr Val Glu Glu Glu Asn Gln  
 130 135 140

Gly Val Met Asp Arg Ile Lys Glu Lys Phe Pro Leu Gly Glu Lys Pro  
 145 150 155 160

Gly Gly Asp Asp Val Pro Val Val Thr Thr Met Pro Ala Pro His Ser  
 165 170 175

Val Glu Asp His Lys Pro Glu Glu Glu Glu Lys Lys Gly Phe Met Asp  
 180 185 190

Lys Ile Lys Glu Lys Leu Pro Gly His Ser Lys Lys Pro Glu Asp Ser  
 195 200 205

Gln Val Val Asn Thr Thr Pro Leu Val Glu Thr Ala Thr Pro Ile Ala  
 210 215 220

Asp Ile Pro Glu Glu Lys Lys Gly Phe Met Asp Lys Ile Lys Glu Lys  
 225 230 235 240

Leu Pro Gly Tyr His Ala Lys Thr Thr Gly Glu Glu Glu Lys Lys Glu  
 245 250 255

Lys Val Ser Asp  
 260

<210> 2197

<211> 1605

<212> DNA

<213> Arabidopsis thaliana

<400> 2197

atggacggtg taccacaaa gtttgtgttg cgggagacat tcgacggcgt gaggatggag	60
atcacaggcc aactaggcat gatctgggag cttgtaaaag caccagtgat tgtccctctt	120
cttcaattag ctgtttacat ctgtttgctt atgtctgtca tgcttttatg tgagagggtt	180
tacatgggaa tcgtcatcgt cctcgtcaaa ctcttctgga aaaaaccaga caaacgttac	240
aagttcgagc ccattcacga tgatgaagag cttggtagct ccaatttccc cgtcgtcctc	300
gtacaaatcc catgtttcaa cgaacgagag gtttataagc tatcaatagg agcggcgtgt	360
ggactttcct ggccgtccga tcgtctcgtg attcaagtgt tagatgactc tacagatcct	420
actgttaagc aaatggtgga agtggagtgt caaagatggg caagtaaagg aatcaatatt	480
aggtatcaaa taagagagaa tagagtgggt tacaagccg gtgctttaaa ggaaggactc	540
aaacgtagtt atgtcaagca ttgagagtat gttgtcatct tcgacgccga ttttcagccc	600
gaacctgatt ttcttcgccg tagcattcct ttcctcatgc acaatcccaa cattgccttg	660
gttcaggctc gatggcgggt cgtaaattct gatgagtgtc tattgacgag aatgcaagaa	720
atgtcattgg attaccatct cactgttgag caagaagtgg gttcatcaac acatgctttt	780
ttcggcttca acggaaccgc cggaatatgg agaatagcgg cgataaatga agctggtggg	840
tggaaagatc ggaccaccgt ggaagatatg gatctcgccg tccgagcaag tcttcgcggc	900

047-E2F-PCT.ST25.txt

tggaaatttc tctacctcgg tgaccttcag gtgaaaagtg agctttccaag tactttttaga 960  
 gccttccggtt ttcagcaaca tagatgggtct tgtggacctg caaatctctt taggaaaatg 1020  
 gttatggaga tcgtaagaaa caagaaagtg agattctgga agaaagtgtg cgtgatatac 1080  
 agctttcttct ttgtgaggaa aatcattgca cattgggtca ctttttgttt ctactgcggt 1140  
 gttcttcctc tcacaattct cgtcccggag gttaaagttc cgatttgggg ttcgggtttat 1200  
 atcccatcca tcatcactat cctcaattcc gtcggtactc caaggtcaat tcatctgctg 1260  
 ttctattgga ttctattcga gaatgtgatg tcgctgcacc ggacaaaggc cactctcatt 1320  
 ggtctgtttg aggcaggaag ggctaacgag tgggtagtga ctgctaagct tggaagcggg 1380  
 cagagcgcta aaggaaacac taaagggatc aaaaggttcc caagaatctt caaattgcct 1440  
 gatcgattga atacattgga gcttggattt gcggtcttct tgttcgtgtg cggatgctat 1500  
 gactttgtgc acgggaagaa caattacttc atctacctgt ttcttcagac aatgtctttc 1560  
 ttcatcagtg ggctgggctg gatcgggact tatgtcccga gttag 1605

<210> 2198

<211> 534

<212> PRT

<213> Arabidopsis thaliana

<400> 2198

Met Asp Gly Val Ser Pro Lys Phe Val Leu Pro Glu Thr Phe Asp Gly  
1 5 10 15

Val Arg Met Glu Ile Thr Gly Gln Leu Gly Met Ile Trp Glu Leu Val  
20 25 30

Lys Ala Pro Val Ile Val Pro Leu Leu Gln Leu Ala Val Tyr Ile Cys  
35 40 45

Leu Leu Met Ser Val Met Leu Leu Cys Glu Arg Val Tyr Met Gly Ile  
50 55 60

Val Ile Val Leu Val Lys Leu Phe Trp Lys Lys Pro Asp Lys Arg Tyr  
65 70 75 80

Lys Phe Glu Pro Ile His Asp Asp Glu Glu Leu Gly Ser Ser Asn Phe  
85 90 95

Pro Val Val Leu Val Gln Ile Pro Met Phe Asn Glu Arg Glu Val Tyr  
100 105 110

047-E2F-PCT.ST25.txt

Lys Leu Ser Ile Gly Ala Ala Cys Gly Leu Ser Trp Pro Ser Asp Arg  
 115 120 125  
 Leu Val Ile Gln Val Leu Asp Asp Ser Thr Asp Pro Thr Val Lys Gln  
 130 135 140  
 Met Val Glu Val Glu Cys Gln Arg Trp Ala Ser Lys Gly Ile Asn Ile  
 145 150 155 160  
 Arg Tyr Gln Ile Arg Glu Asn Arg Val Gly Tyr Lys Ala Gly Ala Leu  
 165 170 175  
 Lys Glu Gly Leu Lys Arg Ser Tyr Val Lys His Cys Glu Tyr Val Val  
 180 185 190  
 Ile Phe Asp Ala Asp Phe Gln Pro Glu Pro Asp Phe Leu Arg Arg Ser  
 195 200 205  
 Ile Pro Phe Leu Met His Asn Pro Asn Ile Ala Leu Val Gln Ala Arg  
 210 215 220  
 Trp Arg Phe Val Asn Ser Asp Glu Cys Leu Leu Thr Arg Met Gln Glu  
 225 230 235 240  
 Met Ser Leu Asp Tyr His Phe Thr Val Glu Gln Glu Val Gly Ser Ser  
 245 250 255  
 Thr His Ala Phe Phe Gly Phe Asn Gly Thr Ala Gly Ile Trp Arg Ile  
 260 265 270  
 Ala Ala Ile Asn Glu Ala Gly Gly Trp Lys Asp Arg Thr Thr Val Glu  
 275 280 285  
 Asp Met Asp Leu Ala Val Arg Ala Ser Leu Arg Gly Trp Lys Phe Leu  
 290 295 300  
 Tyr Leu Gly Asp Leu Gln Val Lys Ser Glu Leu Pro Ser Thr Phe Arg  
 305 310 315 320  
 Ala Phe Arg Phe Gln Gln His Arg Trp Ser Cys Gly Pro Ala Asn Leu  
 325 330 335  
 Phe Arg Lys Met Val Met Glu Ile Val Arg Asn Lys Lys Val Arg Phe  
 340 345 350

355

360

365

Ile Ala His Trp Val Thr Phe Cys Phe Tyr Cys Val Val Leu Pro Leu  
 370 375 380

Thr Ile Leu Val Pro Glu Val Lys Val Pro Ile Trp Gly Ser Val Tyr  
 385 390 395 400

Ile Pro Ser Ile Ile Thr Ile Leu Asn Ser Val Gly Thr Pro Arg Ser  
 405 410 415

Ile His Leu Leu Phe Tyr Trp Ile Leu Phe Glu Asn Val Met Ser Leu  
 420 425 430

His Arg Thr Lys Ala Thr Leu Ile Gly Leu Phe Glu Ala Gly Arg Ala  
 435 440 445

Asn Glu Trp Val Val Thr Ala Lys Leu Gly Ser Gly Gln Ser Ala Lys  
 450 455 460

Gly Asn Thr Lys Gly Ile Lys Arg Phe Pro Arg Ile Phe Lys Leu Pro  
 465 470 475 480

Asp Arg Leu Asn Thr Leu Glu Leu Gly Phe Ala Ala Phe Leu Phe Val  
 485 490 495

Cys Gly Cys Tyr Asp Phe Val His Gly Lys Asn Asn Tyr Phe Ile Tyr  
 500 505 510

Leu Phe Leu Gln Thr Met Ser Phe Phe Ile Ser Gly Leu Gly Trp Ile  
 515 520 525

Gly Thr Tyr Val Pro Ser  
 530

&lt;210&gt; 2199

&lt;211&gt; 675

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2199

atggctgaga aagaagaagt gaagcttttg gggatatggg cgagcccttt tagccgtcgg 60

gtcgagatgg ctctcaaact caaaggcata ccgtacgagt acgtggaaga gatactggag 120

aacaaaagcc ctttgcttct tgctcttaac cctattcaca agaaagtccc tgttcttgtc 180



047-E2F-PCT.ST25.txt

cacaatggta aaaccattct cgagtctcat gtgattcttg aatacatcga tgagacttgg 240  
ccacaaaatc caattctccc tcaagatcct tatgaaagat ccaaagctcg tttctttgct 300  
aaactcgtcg atgaacagat tatgaacgtg gggtttatat caatggcaag agcagacgag 360  
aaaggaagag aagtttttagc cgagcaggta agagaactga ttatgtatct cgagaaagaa 420  
cttgtcggaa aagattactt cggaggcaag actgtcggat tcttggactt tgtcgccgga 480  
agtttaattc cgttttgttt ggagagaggt tgggaaggaa taggattgga agtgattaca 540  
gaggagaagt ttccagagtt caagagatgg gtttaggaatt tggagaaggt tgagattggt 600  
aaagattgtg ttccaccaag agaggaacat gtagaacaca tgaactatat ggcagagaga 660  
gtgagatctt cttaa 675

<210> 2200

<211> 224

<212> PRT

<213> Arabidopsis thaliana

<400> 2200

Met Ala Glu Lys Glu Glu Val Lys Leu Leu Gly Ile Trp Ala Ser Pro  
1 5 10 15

Phe Ser Arg Arg Val Glu Met Ala Leu Lys Leu Lys Gly Ile Pro Tyr  
20 25 30

Glu Tyr Val Glu Glu Ile Leu Glu Asn Lys Ser Pro Leu Leu Leu Ala  
35 40 45

Leu Asn Pro Ile His Lys Lys Val Pro Val Leu Val His Asn Gly Lys  
50 55 60

Thr Ile Leu Glu Ser His Val Ile Leu Glu Tyr Ile Asp Glu Thr Trp  
65 70 75 80

Pro Gln Asn Pro Ile Leu Pro Gln Asp Pro Tyr Glu Arg Ser Lys Ala  
85 90 95

Arg Phe Phe Ala Lys Leu Val Asp Glu Gln Ile Met Asn Val Gly Phe  
100 105 110

Ile Ser Met Ala Arg Ala Asp Glu Lys Gly Arg Glu Val Leu Ala Glu  
115 120 125

047-E2F-PCT.ST25.txt

Gln Val Arg Glu Leu Ile Met Tyr Leu Glu Lys Glu Leu Val Gly Lys  
130 135 140

Asp Tyr Phe Gly Gly Lys Thr Val Gly Phe Leu Asp Phe Val Ala Gly  
145 150 155 160

Ser Leu Ile Pro Phe Cys Leu Glu Arg Gly Trp Glu Gly Ile Gly Leu  
165 170 175

Glu Val Ile Thr Glu Glu Lys Phe Pro Glu Phe Lys Arg Trp Val Arg  
180 185 190

Asn Leu Glu Lys Val Glu Ile Val Lys Asp Cys Val Pro Pro Arg Glu  
195 200 205

Glu His Val Glu His Met Asn Tyr Met Ala Glu Arg Val Arg Ser Ser  
210 215 220

<210> 2201

<211> 351

<212> DNA

<213> Arabidopsis thaliana

<400> 2201

atgaagaaca ccaatttgcc tgaagaaacc aaggaaccaa tctctccagg atcttctcac	60
cggaacaaca acaagacagg tacaagaca tgtttcccgg aaacaacggt gttgtcagga	120
cgtgataggc taaagagaca tagagaagag gttgccggaa aagttcctat accggatagt	180
tggggaaaag aaggattgct tatgggatgg atggattttt cgaccttcga cgctgctttt	240
acgtctagcc agattgtctc tgctcgagct gcgttaatgg ctgactcagg agacgatgcc	300
ggagctagag gaagtaggcc tcaacgcctt cgagttgaga gttcttgttg a	351

<210> 2202

<211> 116

<212> PRT

<213> Arabidopsis thaliana

<400> 2202

Met Lys Asn Thr Asn Leu Pro Glu Glu Thr Lys Glu Pro Ile Ser Pro  
1 5 10 15

047-E2F-PCT.ST25.txt

Gly Ser Ser His Arg Lys Gln Asn Lys Thr Gly Thr Lys Thr Cys Phe  
20 25 30

Pro Glu Thr Thr Val Leu Ser Gly Arg Asp Arg Leu Lys Arg His Arg  
35 40 45

Glu Glu Val Ala Gly Lys Val Pro Ile Pro Asp Ser Trp Gly Lys Glu  
50 55 60

Gly Leu Leu Met Gly Trp Met Asp Phe Ser Thr Phe Asp Ala Ala Phe  
65 70 75 80

Thr Ser Ser Gln Ile Val Ser Ala Arg Ala Ala Leu Met Ala Asp Ser  
85 90 95

Gly Asp Asp Ala Gly Ala Arg Gly Ser Arg Pro Gln Arg Leu Arg Val  
100 105 110

Glu Ser Ser Cys  
115

<210> 2203

<211> 972

<212> DNA

<213> Arabidopsis thaliana

<400> 2203  
atggaagatc ggtgcttgat caagaacgat atcactgaat tgattggtaa cacaccaatg 60  
gtgtatctga acaatgttgt tgatggttgc gtggctcgta tcgctgcgaa gcttgagatg 120  
atggagcctt gttctagcgt caaagacaga atcgcgtata gtatgatcaa agatgcagaa 180  
gacaaaggat tgattactcc cggaagagat acattgatag agccaactgc tggtaacacc 240  
gggattggtt tagcttgcac gggagctgca agaggctata aagtgatcct tgtgatgcct 300  
tcaactatga gcttagagag aagaatcatt ctgagggcac taggtgcaga gcttcatctc 360  
tcggaccagc gcataggcct taaaggaatg ttggagaaaa ctgaagcgat ttttaagcaaa 420  
actcctggtg gttacattcc acaacaattt gaaaatcctg caaaccgccga gattcattac 480  
cgaaccacgg gaccggaaat atggagagat tcagccggga aagtagatat attggtcgct 540  
ggcgtaggga ctggtggaac tgctactgga gtagggaagt tcctcaagga gcagaacaaa 600  
gacatcaagg tttgtgtggt ggaaccagta gaaagtccgg tacttagcgg aggtcaacca 660

ggtccacatt tgattcaggg aattggctct ggtatcgtcc cattcaattt ggacttaacc 720  
 attgttgatg aaattattca agtggcaggt gaagaggcta ttgaaacagc caagcttctt 780  
 gccctcaaag aaggattact ggtgggaata tcctctggag ccgcagcagc ggctgcgta 840  
 aaggttgcaa agcggccaga aaacgcgggg aaactcattg tgggtggtttt tcctagtgga 900  
 ggagaacgtt atttatcgac taaactgttc gattcgatta gatatgaagc agagaatttg 960  
 cctattgaat ga 972

<210> 2204

<211> 323

<212> PRT

<213> Arabidopsis thaliana

<400> 2204

Met Glu Asp Arg Cys Leu Ile Lys Asn Asp Ile Thr Glu Leu Ile Gly  
1 5 10 15

Asn Thr Pro Met Val Tyr Leu Asn Asn Val Val Asp Gly Cys Val Ala  
20 25 30

Arg Ile Ala Ala Lys Leu Glu Met Met Glu Pro Cys Ser Ser Val Lys  
35 40 45

Asp Arg Ile Ala Tyr Ser Met Ile Lys Asp Ala Glu Asp Lys Gly Leu  
50 55 60

Ile Thr Pro Gly Lys Ser Thr Leu Ile Glu Pro Thr Ala Gly Asn Thr  
65 70 75 80

Gly Ile Gly Leu Ala Cys Met Gly Ala Ala Arg Gly Tyr Lys Val Ile  
85 90 95

Leu Val Met Pro Ser Thr Met Ser Leu Glu Arg Arg Ile Ile Leu Arg  
100 105 110

Ala Leu Gly Ala Glu Leu His Leu Ser Asp Gln Arg Ile Gly Leu Lys  
115 120 125

Gly Met Leu Glu Lys Thr Glu Ala Ile Leu Ser Lys Thr Pro Gly Gly  
130 135 140

Tyr Ile Pro Gln Gln Phe Glu Asn Pro Ala Asn Pro Glu Ile His Tyr  
145 150 155 160

047-E2F-PCT.ST25.txt

Arg Thr Thr Gly Pro Glu Ile Trp Arg Asp Ser Ala Gly Lys Val Asp  
165 170 175

Ile Leu Val Ala Gly Val Gly Thr Gly Gly Thr Ala Thr Gly Val Gly  
180 185 190

Lys Phe Leu Lys Glu Gln Asn Lys Asp Ile Lys Val Cys Val Val Glu  
195 200 205

Pro Val Glu Ser Pro Val Leu Ser Gly Gly Gln Pro Gly Pro His Leu  
210 215 220

Ile Gln Gly Ile Gly Ser Gly Ile Val Pro Phe Asn Leu Asp Leu Thr  
225 230 235 240

Ile Val Asp Glu Ile Ile Gln Val Ala Gly Glu Glu Ala Ile Glu Thr  
245 250 255

Ala Lys Leu Leu Ala Leu Lys Glu Gly Leu Leu Val Gly Ile Ser Ser  
260 265 270

Gly Ala Ala Ala Ala Ala Leu Lys Val Ala Lys Arg Pro Glu Asn  
275 280 285

Ala Gly Lys Leu Ile Val Val Val Phe Pro Ser Gly Gly Glu Arg Tyr  
290 295 300

Leu Ser Thr Lys Leu Phe Asp Ser Ile Arg Tyr Glu Ala Glu Asn Leu  
305 310 315 320

Pro Ile Glu

<210> 2205

<211> 1122

<212> DNA

<213> Arabidopsis thaliana

<400> 2205

atggcttgct ctaatctaac aacaatgtgg gtttcatcaa aaccatctct ttctgctgat	60
tcattcttct tatcattccg atctgttctc aagtgcccaa ctaacacttc ctcacctcct	120
tcacgagctt cctctgtttc accactccaa gcgtctcttc gtagagctcag agaccgtatc	180

047-E2F-PCT.ST25.txt

gattcagtca aaaacactca aaagatcacc gaagctatga agcttgctgc tgcagctaaa 240  
 gtcaggagag ctcaagaagc tggtgtcaat ggacgaccat tctcagaaac cctagttgaa 300  
 gttcttttaca acatcaacga acagcttcaa accgatgatg tcgatgttcc cttaaccaaa 360  
 gtcagaccgg ttaagaaagt agctctcggt gtcgtcaccg gtgatcgtgg attatgtggt 420  
 ggattcaaca atttcatcat taagaaagca gaggcaagaa tcaaagagct taaaggtcta 480  
 ggtcttgaat acacagtcac tagcgtgggc aagaagggaa attcttattt cctccgtcgc 540  
 ccgtacatcc ccgtcgacaa atacctagaa gccggaactt tacctacggc taaagaagct 600  
 caagctgtgg ctgatgatgt cttctctctg ttataagtg aagaagtcga caaagtcgag 660  
 ctcttgtaca caaagtttgt ctctttgggc aaatcagaac ccgtgatcca cacgctactg 720  
 cctttatcac ctaaaggaga gatctgtgac attaattgaa cctgtgtgga tgctgcgga 780  
 gatgagtttt tcaggttaac gacaaaagaa gggaaattga cagttgaaag agagactttt 840  
 aggacaccaa cagctgattt ctgccgatc ttgcaattcg agcaagaccc tgttcagatt 900  
 cttgatgctt tgttgcctct gtatcttaac agtcagattc ttagggcatt acaggagtca 960  
 ttggctagtg agcttgcagc tagaatgagt gcaatgagta gtgcttcgga taatgcatcg 1020  
 gatctcaaga aatcgctttc gatggtgtat aatagaaagc gtcaagctaa gattactgga 1080  
 gagattcttg agattgttgc tggagctaata gcacagggtt ga 1122

<210> 2206

<211> 373

<212> PRT

<213> Arabidopsis thaliana

<400> 2206

Met Ala Cys Ser Asn Leu Thr Thr Met Trp Val Ser Ser Lys Pro Ser  
 1 5 10 15

Leu Ser Ala Asp Ser Ser Ser Leu Ser Phe Arg Ser Val Leu Lys Cys  
 20 25 30

Pro Thr Asn Thr Ser Ser Pro Pro Ser Arg Ala Ser Ser Val Ser Pro  
 35 40 45

Leu Gln Ala Ser Leu Arg Glu Leu Arg Asp Arg Ile Asp Ser Val Lys  
 50 55 60

Asn Thr Gln Lys Ile Thr Glu Ala Met Lys Leu Val Ala Ala Ala Lys  
 65 70 75 80

047-E2F-PCT.ST25.txt

Val Arg Arg Ala Gln Glu Ala Val Val Asn Gly Arg Pro Phe Ser Glu  
 85 90 95  
 Thr Leu Val Glu Val Leu Tyr Asn Ile Asn Glu Gln Leu Gln Thr Asp  
 100 105 110  
 Asp Val Asp Val Pro Leu Thr Lys Val Arg Pro Val Lys Lys Val Ala  
 115 120 125  
 Leu Val Val Val Thr Gly Asp Arg Gly Leu Cys Gly Gly Phe Asn Asn  
 130 135 140  
 Phe Ile Ile Lys Lys Ala Glu Ala Arg Ile Lys Glu Leu Lys Gly Leu  
 145 150 155 160  
 Gly Leu Glu Tyr Thr Val Ile Ser Val Gly Lys Lys Gly Asn Ser Tyr  
 165 170 175  
 Phe Leu Arg Arg Pro Tyr Ile Pro Val Asp Lys Tyr Leu Glu Ala Gly  
 180 185 190  
 Thr Leu Pro Thr Ala Lys Glu Ala Gln Ala Val Ala Asp Asp Val Phe  
 195 200 205  
 Ser Leu Phe Ile Ser Glu Glu Val Asp Lys Val Glu Leu Leu Tyr Thr  
 210 215 220  
 Lys Phe Val Ser Leu Val Lys Ser Glu Pro Val Ile His Thr Leu Leu  
 225 230 235 240  
 Pro Leu Ser Pro Lys Gly Glu Ile Cys Asp Ile Asn Gly Thr Cys Val  
 245 250 255  
 Asp Ala Ala Glu Asp Glu Phe Phe Arg Leu Thr Thr Lys Glu Gly Lys  
 260 265 270  
 Leu Thr Val Glu Arg Glu Thr Phe Arg Thr Pro Thr Ala Asp Phe Ser  
 275 280 285  
 Pro Ile Leu Gln Phe Glu Gln Asp Pro Val Gln Ile Leu Asp Ala Leu  
 290 295 300  
 Leu Pro Leu Tyr Leu Asn Ser Gln Ile Leu Arg Ala Leu Gln Glu Ser  
 305 310 315 320  
 Leu Ala Ser Glu Leu Ala Ala Arg Met Ser Ala Met Ser Ser Ala Ser  
 Page 3177

325

335

Asp Asn Ala Ser Asp Leu Lys Lys Ser Leu Ser Met Val Tyr Asn Arg  
340 345 350

Lys Arg Gln Ala Lys Ile Thr Gly Glu Ile Leu Glu Ile Val Ala Gly  
355 360 365

Ala Asn Ala Gln Val  
370

<210> 2207

<211> 453

<212> DNA

<213> Arabidopsis thaliana

<400> 2207

atgtcaaaga gaaagactaa agagccaaag gtcgatgttg tgactcttgg accatctggt	60
cgtgagggag agcaagtttt cgggtgttgtc cacatctttg cttcattcaa cgacactttc	120
attcatgtta ctgatttgtc tggtcgtgaa actcttgtcc gtatcaccgg tggaatgaag	180
gtgaaagctg atagagatga gtcctcacct tacgcagcta tgcttgcagc acaggatggt	240
gctcagcgat gcaaggaact tggatcact gccatgcatg tgaagctccg tgccacaggt	300
ggaaacaaga ccaagacacc tggtcctgga gcacagtctg cccttagagc ccttgctcgt	360
tccggcatga aaataggccg tattgaggat gttactcca tcccaacaga cagtaccgcg	420
agaaagggtg gtagaagagg aagaaggctc tga	453

<210> 2208

<211> 150

<212> PRT

<213> Arabidopsis thaliana

<400> 2208

Met Ser Lys Arg Lys Thr Lys Glu Pro Lys Val Asp Val Val Thr Leu  
1 5 10 15

Gly Pro Ser Val Arg Glu Gly Glu Gln Val Phe Gly Val Val His Ile  
20 25 30



Phe Ala Ser Phe Asn Asp Thr Phe Ile His Val Thr Asp Leu Ser Gly  
 35 40 45

Arg Glu Thr Leu Val Arg Ile Thr Gly Gly Met Lys Val Lys Ala Asp  
 50 55 60

Arg Asp Glu Ser Ser Pro Tyr Ala Ala Met Leu Ala Ala Gln Asp Val  
 65 70 75 80

Ala Gln Arg Cys Lys Glu Leu Gly Ile Thr Ala Met His Val Lys Leu  
 85 90 95

Arg Ala Thr Gly Gly Asn Lys Thr Lys Thr Pro Gly Pro Gly Ala Gln  
 100 105 110

Ser Ala Leu Arg Ala Leu Ala Arg Ser Gly Met Lys Ile Gly Arg Ile  
 115 120 125

Glu Asp Val Thr Pro Ile Pro Thr Asp Ser Thr Arg Arg Lys Gly Gly  
 130 135 140

Arg Arg Gly Arg Arg Leu  
 145 150

<210> 2209

<211> 645

<212> DNA

<213> Arabidopsis thaliana

<400> 2209

atggcttctg taccatgttc cttcaagctc tctgctcatc gtagatcttc ttccaagctt	60
gatggaaaca acaaacagtg tagtagttta gtagaaagac tgagagataa aacgaagagt	120
caagttccta agtccattac ttgcattaac cgcttagaga tatcgcgat agcaccatta	180
cacgcaacga tgaatagccc gaaaggattt ggacctctc ctaagaaaac caagaagtcg	240
aaaaagccaa aacccgaaa ccaaagtgat gaagacgacg acgatgaaga cgaagatgat	300
gatgatgaag aagatgaacg tgagagaggt gtaattccag agatagtgac caacagaatg	360
ataagcagaa tgggatttac agtggggtta ccactcttca ttgggtcttt gttcttccca	420
ttcttttact atctcaaagt gggattgaaa gttgatgtgc ctacatgggt tccgtttatt	480
gtttcgttcg tcttctttgg tacggcttta gctggtgtga gctatgggat cgtgtcttcg	540
agctgggatc cgttgagaga aggttccttg ttaggctgga acgaagctaa gaagaactgg	600

cctgtctttt ggcagtcctt ttggaattcc tcagacaaga gatag

645

&lt;210&gt; 2210

&lt;211&gt; 214

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2210

Met Ala Ser Val Pro Cys Ser Phe Lys Leu Ser Ala His Arg Arg Ser  
1 5 10 15Ser Ser Lys Leu Asp Gly Asn Asn Lys Gln Cys Ser Ser Leu Val Glu  
20 25 30Arg Leu Arg Asp Lys Thr Lys Ser Gln Val Pro Lys Ser Ile Thr Cys  
35 40 45Ile Asn Arg Leu Glu Ile Ser Arg Ile Ala Pro Leu His Ala Thr Met  
50 55 60Asn Ser Pro Lys Gly Phe Gly Pro Pro Pro Lys Lys Thr Lys Lys Ser  
65 70 75 80Lys Lys Pro Lys Pro Gly Asn Gln Ser Asp Glu Asp Asp Asp Asp Glu  
85 90 95Asp Glu Asp Asp Asp Asp Glu Glu Asp Glu Arg Glu Arg Gly Val Ile  
100 105 110Pro Glu Ile Val Thr Asn Arg Met Ile Ser Arg Met Gly Phe Thr Val  
115 120 125Gly Leu Pro Leu Phe Ile Gly Leu Leu Phe Phe Pro Phe Phe Tyr Tyr  
130 135 140Leu Lys Val Gly Leu Lys Val Asp Val Pro Thr Trp Val Pro Phe Ile  
145 150 155 160Val Ser Phe Val Phe Phe Gly Thr Ala Leu Ala Gly Val Ser Tyr Gly  
165 170 175Ile Val Ser Ser Ser Trp Asp Pro Leu Arg Glu Gly Ser Leu Leu Gly  
180 185 190

Trp Asn Glu Ala Lys Lys Asn Trp Pro Val Phe Trp Gln Ser Phe Trp  
 195 200 205

Asn Ser Ser Asp Lys Arg  
 210

<210> 2211

<211> 1857

<212> DNA

<213> Arabidopsis thaliana

<400> 2211

atgatccctc accaggaggt caatgaggaa gaagcttccc tctttgactt tttgtggtta	60
ctgctagcaa gcgatcatatt tgtgcctcta tttcagaaaa ttcctggagg cagccctggt	120
cttggttatt tggcagctgg aattctgatt ggtccgtatg gtctttcgat aatccgtaat	180
gtgcacggaa ccagggccat cgcagaattt ggagtagttt tcttgctttt caacatcggc	240
cttgagctat ctggtgaaag actgagttcc atgaagaaat atgttttttg attaggctca	300
gctcaggttc tgggtgacggc agcagtagtt ggattgcttg cccattatgt tgctggtcag	360
gctggtccag cagcaatagt gattggaaat ggcctggctc tgcgtccac tgctgtgtgc	420
cttcaggttc tacaagaacg aggcgagagt acatctagac atggaagggc ttcattttcc	480
gtcttgcttt tccaggatct agctgtagtt gttttactga ttctcatccc acttatttca	540
cctaattcat cgaaaggagg gattggattt caagccattg ctgaagctct tgggcttgct	600
gcagtcaaag cagcagtggc tattactgca ataattgctg gtggccgtct acttcttcga	660
ccaatctaca agcaaattgc agaaaatcga aacgccgaga tattctctgc caacacgctt	720
ctcgttattc ttgggactag tttactgaca gctagggctg gactttccat ggcattagga	780
gcgttttttg ctggtctact ccttgagag acagaatttt cgttgcaagt agaatcagat	840
attgctccat atcgtggtct tctgttggga ctcttcttca tgacggtttg aatgtcaatt	900
gatccgaaat tacttctctc caacttccct gtcatagtgg gaactttggg actcttgata	960
gtgggcaaaa ctatgttagt cgtgattatg ggaaaattgt tcggcatatc aataatatct	1020
gcaattcggg tcggtctact attggcccca ggcggagagt ttgcatttgt tgctttcgga	1080
gaagctgtta atcaggggat aatgtctcct cagttatctt cgttgctatt ccttgctcgtg	1140
ggaatctcaa tggctatcac accctgggta gctgctggtg gccagttaat tgcattctcg	1200
tttgagttgc atgatgttcg aagtttattg cccgtcgaga gtgagacaga tgatttgcag	1260
ggtcacataa ttatttgttg atttggtcga gttggtcaga taattgctca acttctctcg	1320

047-E2F-PCT.ST25.txt

gaaagactta tcccatttgt tgcccttgat gtcagcagtg atagagtgac tatcgggcgt 1380  
 tccttgatc ttcctgttta tttcggagac gctggtagta aagaggttct ccacaaaatt 1440  
 ggagctggga gagcatgtgc tgctgtggtt gccttagacg caccaggagc aaactacaga 1500  
 tgtgtttggg ctttgagcaa gttttacccc aatgtcaaaa cttttgtccg tgctcacgat 1560  
 gttgttcatg gtcttaatct agaaaaagcc ggtgctactg cagttgtccc ggagactctg 1620  
 gaggctagtc tacagttggc agctgctggt cttgctcagg caaaattacc gacatcggaa 1680  
 attgcaaaca cgattaacga gttcagaacc cgtcacttgt ctgaactgac cgagctatgt 1740  
 gaagcaagcg gaagctctct aggctatggg tactctagga cgagtaagcc taaacctcaa 1800  
 ccatcggatg catctggcga taaccagata atcgaaggag gcacagtcgt aatctga 1857

<210> 2212

<211> 618

<212> PRT

<213> Arabidopsis thaliana

<400> 2212

Met Ile Pro His Gln Glu Val Asn Glu Glu Glu Ala Ser Leu Phe Asp  
 1 5 10 15

Phe Leu Trp Leu Leu Leu Ala Ser Val Ile Phe Val Pro Leu Phe Gln  
 20 25 30

Lys Ile Pro Gly Gly Ser Pro Val Leu Gly Tyr Leu Ala Ala Gly Ile  
 35 40 45

Leu Ile Gly Pro Tyr Gly Leu Ser Ile Ile Arg Asn Val His Gly Thr  
 50 55 60

Arg Ala Ile Ala Glu Phe Gly Val Val Phe Leu Leu Phe Asn Ile Gly  
 65 70 75 80

Leu Glu Leu Ser Val Glu Arg Leu Ser Ser Met Lys Lys Tyr Val Phe  
 85 90 95

Gly Leu Gly Ser Ala Gln Val Leu Val Thr Ala Ala Val Val Gly Leu  
 100 105 110

Leu Ala His Tyr Val Ala Gly Gln Ala Gly Pro Ala Ala Ile Val Ile  
 115 120 125

Gly Asn Gly Leu Ala Leu Ser Ser Thr Ala Val Val Leu Gln Val Leu  
 130 135 140  
 Gln Glu Arg Gly Glu Ser Thr Ser Arg His Gly Arg Ala Ser Phe Ser  
 145 150 155 160  
 Val Leu Leu Phe Gln Asp Leu Ala Val Val Val Leu Leu Ile Leu Ile  
 165 170 175  
 Pro Leu Ile Ser Pro Asn Ser Ser Lys Gly Gly Ile Gly Phe Gln Ala  
 180 185 190  
 Ile Ala Glu Ala Leu Gly Leu Ala Ala Val Lys Ala Ala Val Ala Ile  
 195 200 205  
 Thr Ala Ile Ile Ala Gly Gly Arg Leu Leu Leu Arg Pro Ile Tyr Lys  
 210 215 220  
 Gln Ile Ala Glu Asn Arg Asn Ala Glu Ile Phe Ser Ala Asn Thr Leu  
 225 230 235 240  
 Leu Val Ile Leu Gly Thr Ser Leu Leu Thr Ala Arg Ala Gly Leu Ser  
 245 250 255  
 Met Ala Leu Gly Ala Phe Leu Ala Gly Leu Leu Leu Ala Glu Thr Glu  
 260 265 270  
 Phe Ser Leu Gln Val Glu Ser Asp Ile Ala Pro Tyr Arg Gly Leu Leu  
 275 280 285  
 Leu Gly Leu Phe Phe Met Thr Val Gly Met Ser Ile Asp Pro Lys Leu  
 290 295 300  
 Leu Leu Ser Asn Phe Pro Val Ile Val Gly Thr Leu Gly Leu Leu Ile  
 305 310 315 320  
 Val Gly Lys Thr Met Leu Val Val Ile Met Gly Lys Leu Phe Gly Ile  
 325 330 335  
 Ser Ile Ile Ser Ala Ile Arg Val Gly Leu Leu Leu Ala Pro Gly Gly  
 340 345 350  
 Glu Phe Ala Phe Val Ala Phe Gly Glu Ala Val Asn Gln Gly Ile Met  
 355 360 365  
 Ser Pro Gln Leu Ser Ser Leu Leu Phe Leu Val Val Gly Ile Ser Met  
 370 375 380

047-E2F-PCT.ST25.txt

Ala Ile Thr Pro Trp Leu Ala Ala Gly Gly Gln Leu Ile Ala Ser Arg  
385 390 395 400

Phe Glu Leu His Asp Val Arg Ser Leu Leu Pro Val Glu Ser Glu Thr  
405 410 415

Asp Asp Leu Gln Gly His Ile Ile Ile Cys Gly Phe Gly Arg Val Gly  
420 425 430

Gln Ile Ile Ala Gln Leu Leu Ser Glu Arg Leu Ile Pro Phe Val Ala  
435 440 445

Leu Asp Val Ser Ser Asp Arg Val Thr Ile Gly Arg Ser Leu Asp Leu  
450 455 460

Pro Val Tyr Phe Gly Asp Ala Gly Ser Lys Glu Val Leu His Lys Ile  
465 470 475 480

Gly Ala Gly Arg Ala Cys Ala Ala Val Val Ala Leu Asp Ala Pro Gly  
485 490 495

Ala Asn Tyr Arg Cys Val Trp Ala Leu Ser Lys Phe Tyr Pro Asn Val  
500 505 510

Lys Thr Phe Val Arg Ala His Asp Val Val His Gly Leu Asn Leu Glu  
515 520 525

Lys Ala Gly Ala Thr Ala Val Val Pro Glu Thr Leu Glu Pro Ser Leu  
530 535 540

Gln Leu Ala Ala Ala Val Leu Ala Gln Ala Lys Leu Pro Thr Ser Glu  
545 550 555 560

Ile Ala Asn Thr Ile Asn Glu Phe Arg Thr Arg His Leu Ser Glu Leu  
565 570 575

Thr Glu Leu Cys Glu Ala Ser Gly Ser Ser Leu Gly Tyr Gly Tyr Ser  
580 585 590

Arg Thr Ser Lys Pro Lys Pro Gln Pro Ser Asp Ala Ser Gly Asp Asn  
595 600 605

Gln Ile Ile Glu Gly Gly Thr Val Val Ile  
610 615

<210> 2213

&lt;211&gt; 1584

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2213

```

atgtcgacca aactcagtat atttcttctt ggcctgattt tgttctctgt ctcaccattt    60
tccggagact gtagaactct ttcagggaaa catgagcatt actcttcatc ccttaacatg    120
tttaattccc aagatacgat gcgtttcagt tctgcttctt cttcaacaag caacgattgc    180
ggtttctcct ccaaggaaca tgatccttcc aaggaacata ccagagaatc ggtgaagcct    240
caatcaagga ttaaacaaga aacaaagaga acaacacatt cagttggtga tcttcaaadc    300
caagacctca caagaattaa gacgcttcat gctcggttca acaaatcgaa gaaacagaaa    360
aacgagaagg ttaggaagaa gattacctca gatatttctt tgggtgggagc tccagagggt    420
tcaccgggga agctgatagc aacacttgag tctggtatga cgctcggttc tgggtgaatac    480
ttcatggacg tgcttgtggg cacaccacca aaacacttct cattgattct tgacacaggg    540
agtgaactaa actggctcca atgccttctt tgctacgact gtttccatca aaacgggatg    600
ttttatgata caaaaacgac cgcttcattc aagaacataa catgcaatga ccctagatgc    660
agccttatct catcacccga tcctccagta cagtgcgaat cagataacca atcgtgccct    720
tatttctact ggtatggaga cagggtcgaac acaactggag atttcgcggt tgagactttc    780
accgttaatc tcacgaccac tgagggagga agctcagagt acaagggtggg aaatatgatg    840
tttggggtgtg gccattggaa ccgaggtctc ttcagtggtg cttcagggtc gcttgggtta    900
ggaagaggac ctctttcggt ttcttctcag cttcagttct tctatggcca ttccttttcc    960
tactgtcttg tcgatagaaa cagcaacacc aatgtaagca gcaagttgat atttggagaa   1020
gacaaagatt tgctgaacca cacaaatctg aacttcactt cttttgtgaa cgggaaggag   1080
aattcagtgag agacatttta ctatatacag atcaaatcca ttctagtcgg cggcaaagct   1140
ctagacatac ctgaagaaac atggaatatc tcatcagatg gtgatggtgg aaccatcatt   1200
gattctggta caaccttaag ctatttcgca gaacctgcat atgagatcat caaaaacaag   1260
tttgacagaga aaatgaaaga aaactaccca atatttagag atttcccggg ccttgatcct   1320
tgcttcaatg tatctggcat agaggagaac aacatccacc tacctgagct cgggattgca   1380
tttgtagacg gcacagtttg gaatttcctt gctgagaact ccttcatttg gttgagcgag   1440
gatttggttt gcttggcaat tctaggaact ccaaaatcta ctttctcgat catcggaaac   1500
taccagcaac agaatttcca tatactctat gatacaaaga ggtctaggct agggttcaca   1560
cccacaaagt gtgcggacat ataa                                           1584

```

&lt;210&gt; 2214

&lt;211&gt; 527

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2214

Met Ser Thr Lys Leu Ser Ile Phe Leu Leu Gly Leu Ile Leu Phe Ser  
 1 5 10 15

Val Ser Pro Phe Ser Gly Asp Cys Arg Thr Leu Ser Gly Lys His Glu  
 20 25 30

His Tyr Ser Ser Ser Leu Asn Met Phe Asn Ser Gln Asp Thr Met Arg  
 35 40 45

Phe Ser Ser Ala Ser Ser Ser Thr Ser Asn Asp Cys Gly Phe Ser Ser  
 50 55 60

Lys Glu His Asp Pro Ser Lys Glu His Thr Arg Glu Ser Val Lys Pro  
 65 70 75 80

Gln Ser Arg Ile Lys Gln Glu Thr Lys Arg Thr Thr His Ser Val Val  
 85 90 95

Asp Leu Gln Ile Gln Asp Leu Thr Arg Ile Lys Thr Leu His Ala Arg  
 100 105 110

Phe Asn Lys Ser Lys Lys Gln Lys Asn Glu Lys Val Arg Lys Lys Ile  
 115 120 125

Thr Ser Asp Ile Ser Leu Val Gly Ala Pro Glu Val Ser Pro Gly Lys  
 130 135 140

Leu Ile Ala Thr Leu Glu Ser Gly Met Thr Leu Gly Ser Gly Glu Tyr  
 145 150 155 160

Phe Met Asp Val Leu Val Gly Thr Pro Pro Lys His Phe Ser Leu Ile  
 165 170 175

Leu Asp Thr Gly Ser Asp Leu Asn Trp Leu Gln Cys Leu Pro Cys Tyr  
 180 185 190

Asp Cys Phe His Gln Asn Gly Met Phe Tyr Asp Pro Lys Thr Ser Ala  
 195 200 205



047-E2F-PCT.ST25.txt

Ser Phe Lys Asn Ile Thr Cys Asn Asp Pro Arg Cys Ser Leu Ile Ser  
210 215 220

Ser Pro Asp Pro Pro Val Gln Cys Glu Ser Asp Asn Gln Ser Cys Pro  
225 230 235 240

Tyr Phe Tyr Trp Tyr Gly Asp Arg Ser Asn Thr Thr Gly Asp Phe Ala  
245 250 255

Val Glu Thr Phe Thr Val Asn Leu Thr Thr Thr Glu Gly Gly Ser Ser  
260 265 270

Glu Tyr Lys Val Gly Asn Met Met Phe Gly Cys Gly His Trp Asn Arg  
275 280 285

Gly Leu Phe Ser Gly Ala Ser Gly Leu Leu Gly Leu Gly Arg Gly Pro  
290 295 300

Leu Ser Phe Ser Ser Gln Leu Gln Ser Leu Tyr Gly His Ser Phe Ser  
305 310 315 320

Tyr Cys Leu Val Asp Arg Asn Ser Asn Thr Asn Val Ser Ser Lys Leu  
325 330 335

Ile Phe Gly Glu Asp Lys Asp Leu Leu Asn His Thr Asn Leu Asn Phe  
340 345 350

Thr Ser Phe Val Asn Gly Lys Glu Asn Ser Val Glu Thr Phe Tyr Tyr  
355 360 365

Ile Gln Ile Lys Ser Ile Leu Val Gly Gly Lys Ala Leu Asp Ile Pro  
370 375 380

Glu Glu Thr Trp Asn Ile Ser Ser Asp Gly Asp Gly Gly Thr Ile Ile  
385 390 395 400

Asp Ser Gly Thr Thr Leu Ser Tyr Phe Ala Glu Pro Ala Tyr Glu Ile  
405 410 415

Ile Lys Asn Lys Phe Ala Glu Lys Met Lys Glu Asn Tyr Pro Ile Phe  
420 425 430

Arg Asp Phe Pro Val Leu Asp Pro Cys Phe Asn Val Ser Gly Ile Glu  
435 440 445

Glu Asn Asn Ile His Leu Pro Glu Leu Gly Ile Ala Phe Val Asp Gly  
Page 3187

450

455

Thr Val Trp Asn Phe Pro Ala Glu Asn Ser Phe Ile Trp Leu Ser Glu  
465 470 475 480

Asp Leu Val Cys Leu Ala Ile Leu Gly Thr Pro Lys Ser Thr Phe Ser  
485 490 495

Ile Ile Gly Asn Tyr Gln Gln Gln Asn Phe His Ile Leu Tyr Asp Thr  
500 505 510

Lys Arg Ser Arg Leu Gly Phe Thr Pro Thr Lys Cys Ala Asp Ile  
515 520 525

<210> 2215

<211> 1575

<212> DNA

<213> Arabidopsis thaliana

<400> 2215

atgcaacctc	cggcaagcgc	aggacttttc	cggctcgccgg	aaaatctccc	ttggccttat	60
aattacatgg	attatttggg	cgctggtttc	ttggttttga	cggccggaat	acttctccgt	120
ccatggctct	ggttacgtct	acgaaactcg	aaaacgaaag	atggagatga	agaagaagat	180
aatgaggaga	agaagaaggg	aatgattcca	aacggaagct	taggctggcc	ggtgatcgga	240
gaaaccctaa	acttcatcgc	ttgtggttat	tcttctcggc	ctgttacctt	catggacaaa	300
cgaagtctt	tatacgggaa	agtgttcaaa	acgaacataa	tagggacacc	aatcataata	360
tcaaccgatg	cagaggtgaa	taaagtgggtg	ctccaaaacc	atgggaacac	atttgtccct	420
gcatacccta	aatcaattac	ggaactactt	ggagaaaact	ctattctcag	catcaatgga	480
cctcatcaaa	aaaggcttca	cacgctcatt	ggcgcgttcc	tcagatctcc	tcacctcaaa	540
gaccggatca	ctcgagacat	tgaggcctcg	gttgttctca	ctttggcgtc	ttgggctcaa	600
cttccattgg	ttcatgttca	ggatgagatc	aaaaagatga	cgtttgagat	attagtaaaa	660
gtgttgatga	gcacatctcc	tggtgaagat	atgaacattc	tcaaacttga	gttcgaagaa	720
ttcatcaaag	gtttgatttg	tatcccaatc	aaattccctg	gcactagact	ctacaaatcc	780
ttaaaggcga	aagagaggtt	aataaagatg	gtaaaaaagg	ttgtggagga	gagacaagtg	840
gcgatgacaa	cgacgtctcc	ggcaaatgac	gtggtggacg	tacttctaag	agacggtggt	900
gattcagaga	agcaatctca	accgtcagat	ttcgtcagcg	gaaagatcgt	agagatgatg	960
ataccgggag	aggaaacaat	gccaacggcg	atgaccttgg	ctgtcaaatt	cttaagtgac	1020

047-E2F-PCT.ST25.txt

aaccccgctcg ctctagccaa actcgtggag gagaatatgg agatgaagag gcgtaaattg 1080  
gaattgggag aagaatacaa gtggaccgat tatatgtctc tctcttttac tcaaaatgtg 1140  
ataaacgaaa cgcttagaat ggctaacatt attaacgggg tgtggaggaa agctctcaag 1200  
gatgtagaaa tttaaaggta ctttaataccg aaaggatggg gtgtattggc atcattcata 1260  
tcggttcaca tggatgaaga cttttatgat aatccctatc aattcgatcc gtggagatgg 1320  
gacagaatta atggatcggc aaacagcagt atttgcttca caccctttgg tgggtgggcaa 1380  
aggctatgtc ctggtttaga gctgtcgaag ctcgaaatat ccatctttct tcaccacctt 1440  
gtaacccggg acagttggac ggctgaggaa gacgagatag tgtcatttcc gactgtgaag 1500  
atgaagcgga ggctcccgat ccgagtggct actgtagatg atagtgttcc tccgatctca 1560  
cttgaagatc attaa 1575

<210> 2216

<211> 524

<212> PRT

<213> Arabidopsis thaliana

<400> 2216

Met Gln Pro Pro Ala Ser Ala Gly Leu Phe Arg Ser Pro Glu Asn Leu  
1 5 10 15

Pro Trp Pro Tyr Asn Tyr Met Asp Tyr Leu Val Ala Gly Phe Leu Val  
20 25 30

Leu Thr Ala Gly Ile Leu Leu Arg Pro Trp Leu Trp Leu Arg Leu Arg  
35 40 45

Asn Ser Lys Thr Lys Asp Gly Asp Glu Glu Glu Asp Asn Glu Glu Lys  
50 55 60

Lys Lys Gly Met Ile Pro Asn Gly Ser Leu Gly Trp Pro Val Ile Gly  
65 70 75 80

Glu Thr Leu Asn Phe Ile Ala Cys Gly Tyr Ser Ser Arg Pro Val Thr  
85 90 95

Phe Met Asp Lys Arg Lys Ser Leu Tyr Gly Lys Val Phe Lys Thr Asn  
100 105 110

Ile Ile Gly Thr Pro Ile Ile Ile Ser Thr Asp Ala Glu Val Asn Lys

115

120

125

Val Val Leu Gln Asn His Gly Asn Thr Phe Val Pro Ala Tyr Pro Lys  
 130 135 140  
 Ser Ile Thr Glu Leu Leu Gly Glu Asn Ser Ile Leu Ser Ile Asn Gly  
 145 150 155 160  
 Pro His Gln Lys Arg Leu His Thr Leu Ile Gly Ala Phe Leu Arg Ser  
 165 170 175  
 Pro His Leu Lys Asp Arg Ile Thr Arg Asp Ile Glu Ala Ser Val Val  
 180 185 190  
 Leu Thr Leu Ala Ser Trp Ala Gln Leu Pro Leu Val His Val Gln Asp  
 195 200 205  
 Glu Ile Lys Lys Met Thr Phe Glu Ile Leu Val Lys Val Leu Met Ser  
 210 215 220  
 Thr Ser Pro Gly Glu Asp Met Asn Ile Leu Lys Leu Glu Phe Glu Glu  
 225 230 235 240  
 Phe Ile Lys Gly Leu Ile Cys Ile Pro Ile Lys Phe Pro Gly Thr Arg  
 245 250 255  
 Leu Tyr Lys Ser Leu Lys Ala Lys Glu Arg Leu Ile Lys Met Val Lys  
 260 265 270  
 Lys Val Val Glu Glu Arg Gln Val Ala Met Thr Thr Thr Ser Pro Ala  
 275 280 285  
 Asn Asp Val Val Asp Val Leu Leu Arg Asp Gly Gly Asp Ser Glu Lys  
 290 295 300  
 Gln Ser Gln Pro Ser Asp Phe Val Ser Gly Lys Ile Val Glu Met Met  
 305 310 315 320  
 Ile Pro Gly Glu Glu Thr Met Pro Thr Ala Met Thr Leu Ala Val Lys  
 325 330 335  
 Phe Leu Ser Asp Asn Pro Val Ala Leu Ala Lys Leu Val Glu Glu Asn  
 340 345 350  
 Met Glu Met Lys Arg Arg Lys Leu Glu Leu Gly Glu Glu Tyr Lys Trp  
 355 360 365

Thr Asp Tyr Met Ser Leu Ser Phe Thr Gln Asn Val Ile Asn Glu Thr  
 370 375 380

Leu Arg Met Ala Asn Ile Ile Asn Gly Val Trp Arg Lys Ala Leu Lys  
 385 390 395 400

Asp Val Glu Ile Lys Gly Tyr Leu Ile Pro Lys Gly Trp Cys Val Leu  
 405 410 415

Ala Ser Phe Ile Ser Val His Met Asp Glu Asp Ile Tyr Asp Asn Pro  
 420 425 430

Tyr Gln Phe Asp Pro Trp Arg Trp Asp Arg Ile Asn Gly Ser Ala Asn  
 435 440 445

Ser Ser Ile Cys Phe Thr Pro Phe Gly Gly Gly Gln Arg Leu Cys Pro  
 450 455 460

Gly Leu Glu Leu Ser Lys Leu Glu Ile Ser Ile Phe Leu His His Leu  
 465 470 475 480

Val Thr Arg Tyr Ser Trp Thr Ala Glu Glu Asp Glu Ile Val Ser Phe  
 485 490 495

Pro Thr Val Lys Met Lys Arg Arg Leu Pro Ile Arg Val Ala Thr Val  
 500 505 510

Asp Asp Ser Ala Ser Pro Ile Ser Leu Glu Asp His  
 515 520

<210> 2217

<211> 456

<212> DNA

<213> Arabidopsis thaliana

<400> 2217  
 atggcgacgt caggaacata tgtgacggag gttccattga aaggatcggc tgagaaacac 60  
 tacaagcggg ggaggagtga gaaccacctc ttccccgacg ccatcggcca ccacatccaa 120  
 ggtgtcacca tccacgacgg tgaatgggac tcccatggag ccatcaagat ttggaactac 180  
 acatgcgatg ggaaaccgga ggtgttcaag gagaggagag agatagacga tgagaatatg 240  
 gcggtaacgt tcagaggact cgaaggtcac gtgatggagc agcttaaagt gtatgacgtc 300  
 atctttcagt tcattcaaaa gtcacctgat gatatcatct gtaagatcac tatgatctgg 360

gagaagcaaa acgatgacat gcctgagccc agcaactaca tgaagttcgt caagagcctc 420  
gctgctgaca tggatgatca cgttctcaaa gcctaa 456

<210> 2218

<211> 151

<212> PRT

<213> Arabidopsis thaliana

<400> 2218

Met Ala Thr Ser Gly Thr Tyr Val Thr Glu Val Pro Leu Lys Gly Ser  
1 5 10 15

Ala Glu Lys His Tyr Lys Arg Trp Arg Ser Glu Asn His Leu Phe Pro  
20 25 30

Asp Ala Ile Gly His His Ile Gln Gly Val Thr Ile His Asp Gly Glu  
35 40 45

Trp Asp Ser His Gly Ala Ile Lys Ile Trp Asn Tyr Thr Cys Asp Gly  
50 55 60

Lys Pro Glu Val Phe Lys Glu Arg Arg Glu Ile Asp Asp Glu Asn Met  
65 70 75 80

Ala Val Thr Phe Arg Gly Leu Glu Gly His Val Met Glu Gln Leu Lys  
85 90 95

Val Tyr Asp Val Ile Phe Gln Phe Ile Gln Lys Ser Pro Asp Asp Ile  
100 105 110

Ile Cys Lys Ile Thr Met Ile Trp Glu Lys Gln Asn Asp Asp Met Pro  
115 120 125

Glu Pro Ser Asn Tyr Met Lys Phe Val Lys Ser Leu Ala Ala Asp Met  
130 135 140

Asp Asp His Val Leu Lys Ala  
145 150

<210> 2219

<211> 483

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2219

```

atggatcgat ccctccaaag cacacacgca aaactcgtgg cgcgtgacat ccaacgcctg      60
acacagtcac ctacagaatc caactctttc tctctgcttg gcggagcgtg cgtttcacgc      120
gtagagatag taggcacaat cgtctctcgt gatctgaccc caaagtttct caagttcggc      180
gtcgacgatg gcaccggctg cgtcacgtgc gtcattgtggc tcaaccaact cacgtcttct      240
tactttctccc ggtgggatcc agccacgatt ctgctgctcg caagtgccgc gcggaaacaa      300
gccgcacaaa tcagaatcgg agccgtgggt cgcgttcgcg gccgcgtcgg ctcgtacaga      360
ggagtgatgc agatcacggc taatgtggcg gtggccgaga gagacccgaa cgcgagatc      420
ttgcactggt tggagtgttt aaagcttggt caaagttggt atcgtgttcg tattcaaagt      480
taa                                                                    483

```

&lt;210&gt; 2220

&lt;211&gt; 160

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2220

```

Met Asp Arg Ser Leu Gln Ser Thr His Ala Lys Leu Val Ala Arg Asp
1          5          10          15

Ile Gln Arg Leu Thr Gln Ser Pro Thr Glu Ser Asn Ser Phe Ser Leu
20          25          30

Leu Gly Gly Ala Cys Val Ser Arg Val Glu Ile Val Gly Thr Ile Val
35          40          45

Ser Arg Asp Leu Thr Pro Lys Phe Leu Lys Phe Gly Val Asp Asp Gly
50          55          60

Thr Gly Cys Val Thr Cys Val Met Trp Leu Asn Gln Leu Thr Ser Ser
65          70          75          80

Tyr Phe Ser Arg Trp Asp Pro Ala Thr Ile Leu Leu Leu Ala Ser Ala
85          90          95

Ala Arg Lys Gln Ala Ala Gln Ile Arg Ile Gly Ala Val Ala Arg Val
100         105         110

```

047-E2F-PCT.ST25.txt

Arg Gly Arg Val Gly Ser Tyr Arg Gly Val Met Gln Ile Thr Ala Asn  
 115 120 125  
 Val Ala Val Ala Glu Arg Asp Pro Asn Ala Glu Ile Leu His Trp Leu  
 130 135 140  
 Glu Cys Leu Lys Leu Gly Gln Ser Cys Tyr Arg Val Arg Ile Gln Ser  
 145 150 155 160

<210> 2221

<211> 1596

<212> DNA

<213> Arabidopsis thaliana

<400> 2221

atggacaagt tctcgtacaa ttcgtatcca gattcagctg aatcgtcgcc aagatctcgc	60
gatgtcgaat ttgaaaatcc gtcgccatgg gaggaccagc agcagcagaa ctacaagggtg	120
aagctcatgt gcagctatgg cggcaagatc cagcctcgtc cacacgataa ccagcttact	180
tatgtaaacg gcgataccaa aatcatgtcg gtcgatcgtg gtatcagatt tccggcttta	240
gtatcgaagc tctccgccgt ctgcagcggg ggtggtgatg gaggagaaat ctcgttcaag	300
tatcagcttc cagggtgaaga tctagatgcg ttgatttcgg tgactaatga tgaggatctg	360
gagcacatga tgcattgagta cgatcgggtt cttcgtttgt ctactaaacc agctaggatg	420
cgtttgtttc tcttcccgtc ttctcccatt tccggcggat ttgggtccga aggttcgact	480
aaatcggatc gggatacgtt taatccaatc cctagccgac ctgaatcggg gaaatctgta	540
accgctcctc cgaataatgc tgattttctg tttggatcgg agaaagtagc tccaattccg	600
ccgtcgccag tgaaggttcc tcaaccggta ccggaaccag tgggtgcttga accgccgcag	660
atgttcgtag atcaacggat gttacaaccg gaacacggcg taaatccggc ggagattcaa	720
agacaaatcc aggaatttca gatgattcaa atcagagacc aagagcaaca aatgcttcat	780
cagaatcagc tacatcaaca acaacaaca caagaggcta tacatcaaaa tcagcttcat	840
caccaacaag aggttatata tcagaatcag ctgcttcaac aagaggctat acatcagaat	900
cagatgcttc aacaacaaca acaacaagag gctatgtaca gaagaaaaac cgaagacgaa	960
gccggaagat acttccctcc cacatacact caaaatccgg cgccggtgac gaatcaacaa	1020
cctccggttg gctactggca aggaaacacc aacaacagta atattcaggg gaatatctac	1080
acaacaacgt cacagaatct accggagcaa caacaacaac aacaacaagt atacatgatt	1140
ccagctcaat ctcaagctcc aggacatta taccaaagcg tcatgagacc aacggtacaa	1200



047-E2F-PCT.ST25.txt

ggaaaccaag gttattaccc atcacctggt cagcgacttc atcatcctga tgcatacatg 1260  
 gaacagcaga accagccagg ttacaacgtg gttcaaccac agccaacggt ttcaggtggt 1320  
 ccacaagtta tgactagtgt tgggtccgcaa gttatgacta gtgtcgggtcc tccaatgggg 1380  
 ttacaggaac cttattcaca gatgggggaag cctgtgtact atacggtggc tggagaaggc 1440  
 atgatggttc aaccgccacc agcccagcct cagcagcagc agcagcagta ccagggaatg 1500  
 ggtcaaccgg ttagtggtcat gaccgatctc agaaccggac cggatgggaa agtggcggtt 1560  
 aacatggctg caccacaagt ttcagattcg gtgtga 1596

<210> 2222

<211> 531

<212> PRT

<213> Arabidopsis thaliana

<400> 2222

Met Asp Lys Phe Ser Tyr Asn Ser Tyr Pro Asp Ser Ala Glu Ser Ser  
 1 5 10 15

Pro Arg Ser Arg Asp Val Glu Phe Glu Asn Pro Ser Pro Trp Glu Asp  
 20 25 30

Gln Gln Gln Gln Asn Tyr Lys Val Lys Leu Met Cys Ser Tyr Gly Gly  
 35 40 45

Lys Ile Gln Pro Arg Pro His Asp Asn Gln Leu Thr Tyr Val Asn Gly  
 50 55 60

Asp Thr Lys Ile Met Ser Val Asp Arg Gly Ile Arg Phe Pro Ala Leu  
 65 70 75 80

Val Ser Lys Leu Ser Ala Val Cys Ser Gly Gly Gly Asp Gly Gly Glu  
 85 90 95

Ile Ser Phe Lys Tyr Gln Leu Pro Gly Glu Asp Leu Asp Ala Leu Ile  
 100 105 110

Ser Val Thr Asn Asp Glu Asp Leu Glu His Met Met His Glu Tyr Asp  
 115 120 125

Arg Leu Leu Arg Leu Ser Thr Lys Pro Ala Arg Met Arg Leu Phe Leu  
 130 135 140

047-E2F-PCT.ST25.txt

Phe Pro Ser Ser Pro Ile Ser Gly Gly Phe Gly Ser Glu Gly Ser Thr  
 145 150 155 160  
 Lys Ser Asp Arg Asp Thr Leu Asn Pro Ile Pro Ser Arg Pro Glu Ser  
 165 170 175  
 Glu Lys Ser Val Thr Ala Pro Pro Asn Asn Ala Asp Phe Leu Phe Gly  
 180 185 190  
 Ser Glu Lys Val Ala Pro Ile Pro Pro Ser Pro Val Lys Val Pro Gln  
 195 200 205  
 Pro Val Pro Glu Pro Val Val Leu Glu Pro Pro Gln Met Phe Val Asp  
 210 215 220  
 Gln Arg Met Leu Gln Pro Glu His Gly Val Asn Pro Ala Glu Ile Gln  
 225 230 235 240  
 Arg Gln Ile Gln Glu Phe Gln Met Ile Gln Ile Arg Asp Gln Glu Gln  
 245 250 255  
 Gln Met Leu His Gln Asn Gln Leu His Gln Gln Gln Gln Gln Gln Glu  
 260 265 270  
 Ala Ile His Gln Asn Gln Leu His His Gln Gln Glu Val Ile His Gln  
 275 280 285  
 Asn Gln Leu Leu Gln Gln Glu Ala Ile His Gln Asn Gln Met Leu Gln  
 290 295 300  
 Gln Gln Gln Gln Gln Glu Ala Met Tyr Arg Arg Lys Thr Glu Asp Glu  
 305 310 315 320  
 Ala Gly Arg Tyr Phe Pro Pro Thr Tyr Thr Gln Asn Pro Ala Pro Val  
 325 330 335  
 Thr Asn Gln Gln Pro Pro Val Gly Tyr Trp Gln Gly Asn Thr Asn Asn  
 340 345 350  
 Ser Asn Ile Gln Gly Asn Ile Tyr Thr Thr Thr Ser Gln Asn Leu Pro  
 355 360 365  
 Glu Gln Gln Gln Gln Gln Gln Gln Val Tyr Met Ile Pro Ala Gln Ser  
 370 375 380  
 Gln Ala Pro Gly Thr Leu Tyr Gln Ser Val Met Arg Pro Thr Val Gln  
 385 390 395 400

047-E2F-PCT.ST25.txt

Gly Asn Gln Gly Tyr Tyr Pro Ser Pro Val Gln Arg Leu His His Pro  
405 410 415

Asp Ala Tyr Met Glu Gln Gln Asn Gln Pro Gly Tyr Asn Val Val Gln  
420 425 430

Pro Gln Pro Thr Phe Ser Gly Gly Pro Gln Val Met Thr Ser Val Gly  
435 440 445

Pro Gln Val Met Thr Ser Val Gly Pro Pro Met Gly Leu Gln Glu Pro  
450 455 460

Tyr Ser Gln Met Gly Lys Pro Val Tyr Tyr Thr Val Ala Gly Glu Gly  
465 470 475 480

Met Met Val Gln Pro Pro Pro Ala Gln Pro Gln Gln Gln Gln Gln Gln  
485 490 495

Tyr Gln Gly Met Gly Gln Pro Val Ser Gly Met Thr Asp Leu Arg Thr  
500 505 510

Gly Pro Asp Gly Lys Val Ala Val Asn Met Ala Ala Pro Gln Val Ser  
515 520 525

Asp Ser Val  
530

<210> 2223

<211> 1173

<212> DNA

<213> Arabidopsis thaliana

<400> 2223

atggccatga gcatactcgc gaagatcttt ctcgtctttg ccatctattg cgctatcgat	60
cccttcagtc acagctccat ttccaagttc cgggatttca aaacttacia gattgacatg	120
cctccgttat cgtcacttcc aaaggagaga gaccgccaga atctgttgca gaattcagag	180
atcaggtttc ttaacgaggt tcaagggtccc gagagcattg ctttcgatcc gcaagggtcgt	240
ggctccttata cgggagtcgc cgacgggtcga attctctttt ggaatggcac tcgttggaca	300
gatttcgcat atacttcgaa caatcgggtca gagctatgtg atcctaagcc atcgcttttg	360
gattacttaa aggatgaaga tatctgtggt cggccttttag gtcttcgatt cgacaagaaa	420

047-E2F-PCT.ST25.txt

aatggggatt tgtacattgc agatgcgtat ttggggataa tgaaagttgg tccggaagga 480  
 ggtttagcaa cttctgttac aaacgaggct gatggtgtgc ctttgagatt taccaatgat 540  
 cttgacattg atgatgaagg caatgtttac ttctactgata gcagctcttt cttccaacga 600  
 aggaaattta tgcttttgat tgtctcgggg gaagacagtg ggagggtggt gaaatacaat 660  
 ccaaaaacaa aggagactac cactctcgtg agaaatctcc agtttcctaa cggattatcc 720  
 ctcggcaaag acggctcctt tttcatcttt tgtgaaggat ctattggaag attacggaaa 780  
 tactggttga aaggggagaa agctggaacg tcagaagtgg tagctctatt acatgggttc 840  
 ccagacaaca tccgcacaaa caaagatgga gatttctggg tggcgggtgca ctgccacaga 900  
 aacatattca cacacttgat ggcgcattac ccgagggtga ggaagttctt tctgaagctg 960  
 ccgatatcag tgaagtttca gtacttgctg caggtaggtg gttggcctca tgctgtagct 1020  
 gtgaagtaca gtgaagaagg gaaagtgcta aaggtgttgg aagatagtaa agggaaagtg 1080  
 gtgaaggcag tgagtgaagt ggaggagaaa gatgggaagc tttggatggg aagtgtattg 1140  
 atgtccttca ttgccgtata tgacttgctt tag 1173

<210> 2224

<211> 390

<212> PRT

<213> Arabidopsis thaliana

<400> 2224

Met Ala Met Ser Ile Leu Ala Lys Ile Phe Leu Val Phe Ala Ile Tyr  
 1 5 10 15

Cys Ala Ile Asp Pro Phe Ser His Ser Ser Ile Ser Lys Phe Pro Asp  
 20 25 30

Phe Lys Thr Tyr Lys Ile Asp Met Pro Pro Leu Ser Ser Leu Pro Lys  
 35 40 45

Glu Arg Asp Arg Gln Asn Leu Leu Gln Asn Ser Glu Ile Arg Phe Leu  
 50 55 60

Asn Glu Val Gln Gly Pro Glu Ser Ile Ala Phe Asp Pro Gln Gly Arg  
 65 70 75 80

Gly Pro Tyr Thr Gly Val Ala Asp Gly Arg Ile Leu Phe Trp Asn Gly  
 85 90 95

Thr Arg Trp Thr Asp Phe Ala Tyr Thr Ser Asn Asn Arg Ser Glu Leu  
 100 105 110  
 Cys Asp Pro Lys Pro Ser Leu Leu Asp Tyr Leu Lys Asp Glu Asp Ile  
 115 120 125  
 Cys Gly Arg Pro Leu Gly Leu Arg Phe Asp Lys Lys Asn Gly Asp Leu  
 130 135 140  
 Tyr Ile Ala Asp Ala Tyr Leu Gly Ile Met Lys Val Gly Pro Glu Gly  
 145 150 155 160  
 Gly Leu Ala Thr Ser Val Thr Asn Glu Ala Asp Gly Val Pro Leu Arg  
 165 170 175  
 Phe Thr Asn Asp Leu Asp Ile Asp Asp Glu Gly Asn Val Tyr Phe Thr  
 180 185 190  
 Asp Ser Ser Ser Phe Phe Gln Arg Arg Lys Phe Met Leu Leu Ile Val  
 195 200 205  
 Ser Gly Glu Asp Ser Gly Arg Val Leu Lys Tyr Asn Pro Lys Thr Lys  
 210 215 220  
 Glu Thr Thr Thr Leu Val Arg Asn Leu Gln Phe Pro Asn Gly Leu Ser  
 225 230 235 240  
 Leu Gly Lys Asp Gly Ser Phe Phe Ile Phe Cys Glu Gly Ser Ile Gly  
 245 250 255  
 Arg Leu Arg Lys Tyr Trp Leu Lys Gly Glu Lys Ala Gly Thr Ser Glu  
 260 265 270  
 Val Val Ala Leu Leu His Gly Phe Pro Asp Asn Ile Arg Thr Asn Lys  
 275 280 285  
 Asp Gly Asp Phe Trp Val Ala Val His Cys His Arg Asn Ile Phe Thr  
 290 295 300  
 His Leu Met Ala His Tyr Pro Arg Val Arg Lys Phe Phe Leu Lys Leu  
 305 310 315 320  
 Pro Ile Ser Val Lys Phe Gln Tyr Leu Leu Gln Val Gly Gly Trp Pro  
 325 330 335  
 His Ala Val Ala Val Lys Tyr Ser Glu Glu Gly Lys Val Leu Lys Val  
 340 345 350

047-E2F-PCT.ST25.txt

Leu Glu Asp Ser Lys Gly Lys Val Val Lys Ala Val Ser Glu Val Glu  
 355 360 365

Glu Lys Asp Gly Lys Leu Trp Met Gly Ser Val Leu Met Ser Phe Ile  
 370 375 380

Ala Val Tyr Asp Leu Pro  
 385 390

<210> 2225

<211> 1200

<212> DNA

<213> Arabidopsis thaliana

<400> 2225  
 atgggatcaa tggctcagaa atcggttttg atgttatgcg gagagtcat ggaagcctac 60  
 gagactatag tacctctcta cgtcctccaa gcgtttggtg ttagcgtcca ctgcgtttct 120  
 cctggtcgca aaactggcga caagtgcgtc atggccgctc acgatctcct tggcctcgag 180  
 atatacaccg aactggtggt tgaccatcta acactaaacg ctaacttcga tggcgtcatc 240  
 cccgaccaat acgacgccat catcattccc ggtggacggt tcacggaact tttgagcgcc 300  
 gacgagaaat gcgtgagtc tgttgctaga ttcgccgaac tcaagaagct catcttcacg 360  
 agctgccaca gccagctggt tcttgcggtg gcaggtctgc tcaccggtgg aatgaagtgc 420  
 acggcggttcg aaagcatgaa accgtttatc gagctctccg gcggcgcatg gtggcaacag 480  
 cctggagtcc agaccctttt cgaaatcact gattgtgtca aggacggcag tttcatgtcc 540  
 actatgggggt ggccaacgct tggccatagt ctcaaagttt tgttagaatc acttggctcc 600  
 aagatttcta gctctaaaga gaatcatcag acttctttgc ttttcttgat tggggattgt 660  
 gttgaagatt atagtatcaa cgtaccatct aaagcgtttc aagctttggg atgtaaagtg 720  
 gatgcagtga cgccaaccaa gaagagaggt gagaaatgcg ctacaatcgt acacgacctt 780  
 gaagacggac ggcaacttcc tactgagaag tttggtcaca acttctatgt gaccgttgcg 840  
 tgggatgatg tctctgtgga tgattacgac tgcattgtgg ttcccggagg aagatctccg 900  
 gagctcttgg tgatgaaccc caaggccgtc gaattggtca gaaagtttgt tgagaaaggc 960  
 aagtttggtg ctgccattgg aatgggaaat tggctacttg ccgccacagg cgcccttaag 1020  
 aagaagagat gtgcaagtag ttatgggaca aaggtggctg tgaaggttgc tgggtggtgag 1080  
 atcgtggaat ctgaacggtg cgtgaccgac gacaagctgg tcacagccgc atcaacttcc 1140  
 gatcttcctg cctttttgta tgcattgtcg actgcacttg gtctctctgt tgtattctaa 1200

&lt;210&gt; 2226

&lt;211&gt; 399

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2226

Met Gly Ser Met Ala Gln Lys Ser Val Leu Met Leu Cys Gly Glu Phe  
 1 5 10 15

Met Glu Ala Tyr Glu Thr Ile Val Pro Leu Tyr Val Leu Gln Ala Phe  
 20 25 30

Gly Val Ser Val His Cys Val Ser Pro Gly Arg Lys Thr Gly Asp Lys  
 35 40 45

Cys Val Met Ala Ala His Asp Leu Leu Gly Leu Glu Ile Tyr Thr Glu  
 50 55 60

Leu Val Val Asp His Leu Thr Leu Asn Ala Asn Phe Asp Gly Val Ile  
 65 70 75 80

Pro Asp Gln Tyr Asp Ala Ile Ile Ile Pro Gly Gly Arg Phe Thr Glu  
 85 90 95

Leu Leu Ser Ala Asp Glu Lys Cys Val Ser Leu Val Ala Arg Phe Ala  
 100 105 110

Glu Leu Lys Lys Leu Ile Phe Thr Ser Cys His Ser Gln Leu Phe Leu  
 115 120 125

Ala Ala Ala Gly Leu Leu Thr Gly Gly Met Lys Cys Thr Ala Phe Glu  
 130 135 140

Ser Met Lys Pro Phe Ile Glu Leu Ser Gly Gly Ala Trp Trp Gln Gln  
 145 150 155 160

Pro Gly Val Gln Thr Leu Phe Glu Ile Thr Asp Cys Val Lys Asp Gly  
 165 170 175

Ser Phe Met Ser Thr Met Gly Trp Pro Thr Leu Gly His Ser Leu Lys  
 180 185 190

Val Leu Leu Glu Ser Leu Gly Ser Lys Ile Ser Ser Ser Lys Glu Asn  
 Page 3201

195

200

205

His Gln Thr Ser Leu Leu Phe Leu Ile Gly Asp Cys Val Glu Asp Tyr  
 210 215 220

Ser Ile Asn Val Pro Phe Lys Ala Phe Gln Ala Leu Gly Cys Lys Val  
 225 230 235 240

Asp Ala Val Thr Pro Thr Lys Lys Arg Gly Glu Lys Cys Ala Thr Ile  
 245 250 255

Val His Asp Leu Glu Asp Gly Arg Gln Leu Pro Thr Glu Lys Phe Gly  
 260 265 270

His Asn Phe Tyr Val Thr Val Ala Trp Asp Asp Val Ser Val Asp Asp  
 275 280 285

Tyr Asp Cys Ile Val Val Pro Gly Gly Arg Ser Pro Glu Leu Leu Val  
 290 295 300

Met Asn Pro Lys Ala Val Glu Leu Val Arg Lys Phe Val Glu Lys Gly  
 305 310 315 320

Lys Phe Val Ala Ala Ile Gly Met Gly Asn Trp Leu Leu Ala Ala Thr  
 325 330 335

Gly Ala Leu Lys Lys Lys Arg Cys Ala Ser Ser Tyr Gly Thr Lys Val  
 340 345 350

Ala Val Lys Val Ala Gly Gly Glu Ile Val Glu Ser Glu Arg Cys Val  
 355 360 365

Thr Asp Asp Lys Leu Val Thr Ala Ala Ser Thr Ser Asp Leu Pro Ala  
 370 375 380

Phe Leu Tyr Ala Leu Ser Thr Ala Leu Gly Leu Ser Val Val Phe  
 385 390 395

<210> 2227

<211> 1344

<212> DNA

<213> Arabidopsis thaliana

<400> 2227

atggctctta tacaatttgg aagttcatgt gttgctcaat gggggattct tcgtcctcgg

60



047-E2F-PCT.ST25.txt

```

tttgctgtta aagcttttta tccaagcaga ttggagtctc accaagacaa ttgcatcagc 120
caaataaatt gtctgggagc ttcaaggctg agtatgtttg cacagggtctc tttacccttc 180
ttgtcattga cgggagtatc tcctaataca cattctcgtg gaggagctcg cttcactgtt 240
agagctgata ctgatttcta ttctgtcctt ggagtctcga aaaatgcaac caaagctgag 300
attaaaagcg cttatcggaa gctcgctagg agttatcatc cagatgtgaa caaggatgct 360
ggggcagaag ataaatttaa agaaataagt aatgcatatg agatcttatc agatgatgag 420
aaaagatctc tatacgacag atatggcgag gcaggagtta aaggcgctgg aatgggagggc 480
atgggggatt atagtaatcc gtttgatcta tttgagtcac tattcgaagg aatgggtggg 540
atgggaggaa tgggcggttg aatgggtagt agaggttcaa ggagcagagc tatcgatggt 600
gaagatgagt attactcact aatcttgaat ttcaaagaag cggttttcgg tattgagaaa 660
gaaattgaga tatctcgggt agagagctgt gggacttgca atggttcttg agctaaagcg 720
ggaaccaaac caaccaaag caaaacatgt ggcgggcaag gacagggtgt agcatcaacg 780
aggacaccac tcggtgtatt ccaacaagt atgacttgct ctccgtgtaa cggaactggg 840
gagatatcaa aaccgtgttg tgcattgctc ggagatggac gtgtgagaag gacaaagcgg 900
attagtctta aagttcctgc ggggtgtgat tctggaagta ggttaagagt gaggggagaa 960
gggaatgcag gaaagagagg tggatcaccg ggagatctct ttgcggttat tgaggttatt 1020
ccagatccgg ttttgaagcg tgatgataca aatatacttt atacgtgtaa gatatcgat 1080
gtagatgcca tattggggac gactttgaag gtaccaacag tggatggaga ggtggatttg 1140
aaagtaccgg cagggacaca accaagcacg acattggtga tggctaaaaa aggagttccg 1200
gttttgaata agagcaagat gagaggtgat cagttagtga gagtgcgaagt tgagattcct 1260
aagagattga gtaaagaaga gaagatgctt gttgaggagc tggctgatat gagcaagaac 1320
aaggtagcta atagcaggag ataa 1344

```

<210> 2228

<211> 447

<212> PRT

<213> Arabidopsis thaliana

<400> 2228

Met Ala Leu Ile Gln Phe Gly Ser Ser Cys Val Ala Gln Trp Gly Ile  
1 5 10 15

Leu Arg Pro Arg Phe Ala Val Lys Ala Phe Tyr Pro Ser Arg Leu Glu  
Page 3203

Ser His Gln Asp Asn Cys Ile Ser Gln Ile Asn Cys Leu Gly Ala Ser  
 35 40 45  
 Arg Ser Ser Met Phe Ala Gln Gly Ser Leu Pro Phe Leu Ser Leu Thr  
 50 55 60  
 Gly Val Ser Pro Asn Thr His Ser Arg Arg Gly Ala Arg Phe Thr Val  
 65 70 75 80  
 Arg Ala Asp Thr Asp Phe Tyr Ser Val Leu Gly Val Ser Lys Asn Ala  
 85 90 95  
 Thr Lys Ala Glu Ile Lys Ser Ala Tyr Arg Lys Leu Ala Arg Ser Tyr  
 100 105 110  
 His Pro Asp Val Asn Lys Asp Ala Gly Ala Glu Asp Lys Phe Lys Glu  
 115 120 125  
 Ile Ser Asn Ala Tyr Glu Ile Leu Ser Asp Asp Glu Lys Arg Ser Leu  
 130 135 140  
 Tyr Asp Arg Tyr Gly Glu Ala Gly Val Lys Gly Ala Gly Met Gly Gly  
 145 150 155 160  
 Met Gly Asp Tyr Ser Asn Pro Phe Asp Leu Phe Glu Ser Leu Phe Glu  
 165 170 175  
 Gly Met Gly Gly Met Gly Gly Met Gly Gly Gly Met Gly Ser Arg Gly  
 180 185 190  
 Ser Arg Ser Arg Ala Ile Asp Gly Glu Asp Glu Tyr Tyr Ser Leu Ile  
 195 200 205  
 Leu Asn Phe Lys Glu Ala Val Phe Gly Ile Glu Lys Glu Ile Glu Ile  
 210 215 220  
 Ser Arg Leu Glu Ser Cys Gly Thr Cys Asn Gly Ser Gly Ala Lys Ala  
 225 230 235 240  
 Gly Thr Lys Pro Thr Lys Cys Lys Thr Cys Gly Gly Gln Gly Gln Val  
 245 250 255  
 Val Ala Ser Thr Arg Thr Pro Leu Gly Val Phe Gln Gln Val Met Thr  
 260 265 270

Cys Ser Pro Cys Asn Gly Thr Gly Glu Ile Ser Lys Pro Cys Gly Ala  
 275 280 285

Cys Ser Gly Asp Gly Arg Val Arg Arg Thr Lys Arg Ile Ser Leu Lys  
 290 295 300

Val Pro Ala Gly Val Asp Ser Gly Ser Arg Leu Arg Val Arg Gly Glu  
 305 310 315 320

Gly Asn Ala Gly Lys Arg Gly Gly Ser Pro Gly Asp Leu Phe Ala Val  
 325 330 335

Ile Glu Val Ile Pro Asp Pro Val Leu Lys Arg Asp Asp Thr Asn Ile  
 340 345 350

Leu Tyr Thr Cys Lys Ile Ser Tyr Val Asp Ala Ile Leu Gly Thr Thr  
 355 360 365

Leu Lys Val Pro Thr Val Asp Gly Glu Val Asp Leu Lys Val Pro Ala  
 370 375 380

Gly Thr Gln Pro Ser Thr Thr Leu Val Met Ala Lys Lys Gly Val Pro  
 385 390 395 400

Val Leu Asn Lys Ser Lys Met Arg Gly Asp Gln Leu Val Arg Val Gln  
 405 410 415

Val Glu Ile Pro Lys Arg Leu Ser Lys Glu Glu Lys Met Leu Val Glu  
 420 425 430

Glu Leu Ala Asp Met Ser Lys Asn Lys Val Ala Asn Ser Arg Arg  
 435 440 445

<210> 2229

<211> 852

<212> DNA

<213> Arabidopsis thaliana

<400> 2229

atgcccaaga tctgctgctc tcgttccgct acacaagttg tggtagcaca aaaatcaaac	60
tcgggtaaag gaagaaacgg tgaaggagga atcaagtatg gatttagttt gataaaaggg	120
aaatctaacc attcaatgga ggattatcat gttgctaagt ttaccaatth caatggcaat	180
gaattggggc tttttgcaat ctttgatggt cataaaggtg atcatgttgc tgcttatctg	240

047-E2F-PCT.ST25.txt

cagaaacatc tcttctctaa tctccttaaa gatggagagt tcttggttga tcctcgaaga 300  
gcaattgcga aagcttatga gaatacagat caaaagattt tagcagataa tagaacggat 360  
ttagagagtg gtggttcgac tgctgtgact gcgattttga tcaatgggaa agctttgttg 420  
atagctaattg ttggtgattc acgagctatt gtttctagtc gaggtaaagc aaaacagatg 480  
agtgttgatc atgatacctga tgatgatact gagaggagta tgattgagag taaaggtgga 540  
tttgtgacca acagaccagg tgatgttcct cgagtgaacg gtttgtttagc ggtctctcgt 600  
gtcttttgag ataaaaacct taaagcatat ttgaactcag agcctgagat taaggacgta 660  
accattgata gtcacacaga ttttcttatt ctggctagtg acggtatttc gaaggtgatg 720  
tcaaaccaag aagcagttga tgtagctaag aagttgaaag atccaaagga agcggcgagg 780  
caagtagttg ctgaagcatt gaaaagaaac agcaaggatg acatatcttg cattgtttgtc 840  
cggttttagat ga 852

<210> 2230

<211> 283

<212> PRT

<213> Arabidopsis thaliana

<400> 2230

Met Pro Lys Ile Cys Cys Ser Arg Ser Ala Thr Gln Val Val Val Ala  
1 5 10 15

Gln Lys Ser Asn Ser Gly Lys Gly Arg Asn Gly Glu Gly Gly Ile Lys  
20 25 30

Tyr Gly Phe Ser Leu Ile Lys Gly Lys Ser Asn His Ser Met Glu Asp  
35 40 45

Tyr His Val Ala Lys Phe Thr Asn Phe Asn Gly Asn Glu Leu Gly Leu  
50 55 60

Phe Ala Ile Phe Asp Gly His Lys Gly Asp His Val Ala Ala Tyr Leu  
65 70 75 80

Gln Lys His Leu Phe Ser Asn Ile Leu Lys Asp Gly Glu Phe Leu Val  
85 90 95

Asp Pro Arg Arg Ala Ile Ala Lys Ala Tyr Glu Asn Thr Asp Gln Lys  
100 105 110

Ile Leu Ala Asp Asn Arg Thr Asp Leu Glu Ser Gly Gly Ser Thr Ala  
 115 120 125  
 Val Thr Ala Ile Leu Ile Asn Gly Lys Ala Leu Trp Ile Ala Asn Val  
 130 135 140  
 Gly Asp Ser Arg Ala Ile Val Ser Ser Arg Gly Lys Ala Lys Gln Met  
 145 150 155 160  
 Ser Val Asp His Asp Pro Asp Asp Asp Thr Glu Arg Ser Met Ile Glu  
 165 170 175  
 Ser Lys Gly Gly Phe Val Thr Asn Arg Pro Gly Asp Val Pro Arg Val  
 180 185 190  
 Asn Gly Leu Leu Ala Val Ser Arg Val Phe Gly Asp Lys Asn Leu Lys  
 195 200 205  
 Ala Tyr Leu Asn Ser Glu Pro Glu Ile Lys Asp Val Thr Ile Asp Ser  
 210 215 220  
 His Thr Asp Phe Leu Ile Leu Ala Ser Asp Gly Ile Ser Lys Val Met  
 225 230 235 240  
 Ser Asn Gln Glu Ala Val Asp Val Ala Lys Lys Leu Lys Asp Pro Lys  
 245 250 255  
 Glu Ala Ala Arg Gln Val Val Ala Glu Ala Leu Lys Arg Asn Ser Lys  
 260 265 270  
 Asp Asp Ile Ser Cys Ile Val Val Arg Phe Arg  
 275 280

<210> 2231

<211> 1137

<212> DNA

<213> Arabidopsis thaliana

<400> 2231

atgatgcttg ttcgatctgt atttcgatct cagttgcgac cctctgtctc gggtggtctg	60
caatctgctt cttgctattc ttcattatct gctgcttcag ctgaagctga gaggactatc	120
agagaagggtc ccagaaacga ttggagtaga gatgaaatca agtctgttta tgattctcct	180
cttcttgacc tcctcttcca tggagctcag gttcatagac atgttcataa cttcagggag	240

047-E2F-PCT.ST25.txt

gtacaacaat gtaccctcct ctccataaag actggtggct gtagtgaaga ctgttcatat 300  
 tgtcctcagt cttcgagata tagcactgga gttaaggcac aaagactcat gtctaaggac 360  
 gctgtcattg atgctgctaa gaaggcaaaa gaagctggga gcacacgttt ttgcatgggt 420  
 gctgcttggc gagatacaat tggacggaaa accaacttca gccagattct tgaatacatc 480  
 aaagaaataa gaggcattgg gatggaagtt tgctgcacct taggcatgat tgagaaacaa 540  
 caagcactag agctaaagaa ggctggcctc actgcttata accacaatct tgataacttca 600  
 agagagtact acccaaacgt catcactact agaagttatg acgatcgcct tgaaactctt 660  
 agccatgttc gtgatgctgg aatcaacgtt tgttcaggag gaatcatagg gcttggtgag 720  
 gcagaggaag acagaatagg tttattacac acgctggcaa cacttccttc tcaccctgag 780  
 agtgttccca ttaatgctct acttgcagtg aaaggcactc ctcttgaaga ccagaagcca 840  
 gttgagatat gggagatgat caggatgatt ggaaccgcac gtattgtaat gccaaaagcg 900  
 atggtgagac tgtctgctgg tagagtccgg ttctcaatgt ccgaacaagc tctctgtttc 960  
 cttgctggtg caaactctat cttcaccgga gagaagcttt taaccacacc aaacaatgat 1020  
 tttgacgctg accagctcat gttcaagaca ttaggcctca ttcctaaacc gccaaagtttc 1080  
 tctgaagatg attctgaatc agaaaactgc gagaaagttg cttccgcttc tcactaa 1137

<210> 2232

<211> 378

<212> PRT

<213> Arabidopsis thaliana

<400> 2232

Met Met Leu Val Arg Ser Val Phe Arg Ser Gln Leu Arg Pro Ser Val  
 1 5 10 15

Ser Gly Gly Leu Gln Ser Ala Ser Cys Tyr Ser Ser Leu Ser Ala Ala  
 20 25 30

Ser Ala Glu Ala Glu Arg Thr Ile Arg Glu Gly Pro Arg Asn Asp Trp  
 35 40 45

Ser Arg Asp Glu Ile Lys Ser Val Tyr Asp Ser Pro Leu Leu Asp Leu  
 50 55 60

Leu Phe His Gly Ala Gln Val His Arg His Val His Asn Phe Arg Glu  
 65 70 75 80

Val Gln Gln Cys Thr Leu Leu Ser Ile Lys Thr Gly Gly Cys Ser Glu  
 85 90 95  
 Asp Cys Ser Tyr Cys Pro Gln Ser Ser Arg Tyr Ser Thr Gly Val Lys  
 100 105 110  
 Ala Gln Arg Leu Met Ser Lys Asp Ala Val Ile Asp Ala Ala Lys Lys  
 115 120 125  
 Ala Lys Glu Ala Gly Ser Thr Arg Phe Cys Met Gly Ala Ala Trp Arg  
 130 135 140  
 Asp Thr Ile Gly Arg Lys Thr Asn Phe Ser Gln Ile Leu Glu Tyr Ile  
 145 150 155 160  
 Lys Glu Ile Arg Gly Met Gly Met Glu Val Cys Cys Thr Leu Gly Met  
 165 170 175  
 Ile Glu Lys Gln Gln Ala Leu Glu Leu Lys Lys Ala Gly Leu Thr Ala  
 180 185 190  
 Tyr Asn His Asn Leu Asp Thr Ser Arg Glu Tyr Tyr Pro Asn Val Ile  
 195 200 205  
 Thr Thr Arg Ser Tyr Asp Asp Arg Leu Glu Thr Leu Ser His Val Arg  
 210 215 220  
 Asp Ala Gly Ile Asn Val Cys Ser Gly Gly Ile Ile Gly Leu Gly Glu  
 225 230 235 240  
 Ala Glu Glu Asp Arg Ile Gly Leu Leu His Thr Leu Ala Thr Leu Pro  
 245 250 255  
 Ser His Pro Glu Ser Val Pro Ile Asn Ala Leu Leu Ala Val Lys Gly  
 260 265 270  
 Thr Pro Leu Glu Asp Gln Lys Pro Val Glu Ile Trp Glu Met Ile Arg  
 275 280 285  
 Met Ile Gly Thr Ala Arg Ile Val Met Pro Lys Ala Met Val Arg Leu  
 290 295 300  
 Ser Ala Gly Arg Val Arg Phe Ser Met Ser Glu Gln Ala Leu Cys Phe  
 305 310 315 320  
 Leu Ala Gly Ala Asn Ser Ile Phe Thr Gly Glu Lys Leu Leu Thr Thr  
 325 330 335

047-E2F-PCT.ST25.txt

Pro Asn Asn Asp Phe Asp Ala Asp Gln Leu Met Phe Lys Thr Leu Gly  
340 345 350

Leu Ile Pro Lys Pro Pro Ser Phe Ser Glu Asp Asp Ser Glu Ser Glu  
355 360 365

Asn Cys Glu Lys Val Ala Ser Ala Ser His  
370 375

<210> 2233

<211> 1335

<212> DNA

<213> Arabidopsis thaliana

<400> 2233

atggtgagaa ggcaagagga ggagaagaag gcggagaagg gaatgcgtct ggggaaatac	60
gagctagggg ggacgctcgg cgagggtaat ttcggtaaag ttaaattcgc taaagatacc	120
gtctccgggtc attccttcgc cgttaaaatc atcgacaagt ctcgtatcgc cgatctcaac	180
ttctccttac agataaaaag agagatccgg actctgaaaa tgttgaaaca tccccacatt	240
gttagattac atgaggtctt ggctagcaaa acgaaaatta atatggtaat ggaacttggt	300
accggaggag aattgttcga cagaattggt tccaacggaa aattaacaga aactgatgga	360
agaaaaatgt ttcagcagct tatcgatgga atcagctact gtcatagcaa aggtgttttc	420
cacagggatc tcaagctaga gaatgttctt cttgatgcaa agggacatat aaagatcact	480
gattttggcc tcagtgtctt gcctcagcat tttagggatg acggattggt gcatacaacc	540
tgtggaagtc ctaattacgt tgcgcctgag gttttagcta acagaggcta cgatggtgca	600
gcatcagaca tatggctctg tgggtgtaatc ttgtatgtga ttctaaccgg atgtcttcct	660
ttcgacgaca gaaaccttgc agttctttac cagaagatat gtaaaggaga cccaccaata	720
ccaagatggt tatccccggg tgcaagaacc atgattaaga gaatgcttga tccaaatcca	780
gtcacgagga tcacagttgt gggattataa gccagcgagt ggttcaaact tgagtacatt	840
ccttcaattc ccgatgatga tgacgaagaa gaagttgaca cagacgatga tgctttctca	900
atccaagaac tcggatcaga agaaggggaag ggcagtgatt caccgaccat catcaatgcg	960
tttcagttaa tcggaatgtc ttcctttctt gacctgtccg gtttctttga acaagagaat	1020
gtatcagaga ggagaataag attcacttca aatagctcag caaaagattt actggagaaa	1080
atcgaaacag ccgttacaga aatgggattc agtgtacaaa agaaacatgc caagttaaga	1140
gtaaaacaag aagaaagaaa ccagaaagggt caagttgggt tatcagtaac agctgagggt	1200



047-E2F-PCT.ST25.txt

ttcgagataa agccgtcact gaacgtgggtt gagctaagaa aatcttatgg cgattcatgt 1260  
 ttatatagac agttgtacga gagactatta aaagacgtgg gcacatcctc gccggagcaa 1320  
 gagatagtaa cttag 1335

<210> 2234

<211> 444

<212> PRT

<213> Arabidopsis thaliana

<400> 2234

Met Val Arg Arg Gln Glu Glu Glu Lys Lys Ala Glu Lys Gly Met Arg  
 1 5 10 15

Leu Gly Lys Tyr Glu Leu Gly Arg Thr Leu Gly Glu Gly Asn Phe Gly  
 20 25 30

Lys Val Lys Phe Ala Lys Asp Thr Val Ser Gly His Ser Phe Ala Val  
 35 40 45

Lys Ile Ile Asp Lys Ser Arg Ile Ala Asp Leu Asn Phe Ser Leu Gln  
 50 55 60

Ile Lys Arg Glu Ile Arg Thr Leu Lys Met Leu Lys His Pro His Ile  
 65 70 75 80

Val Arg Leu His Glu Val Leu Ala Ser Lys Thr Lys Ile Asn Met Val  
 85 90 95

Met Glu Leu Val Thr Gly Gly Glu Leu Phe Asp Arg Ile Val Ser Asn  
 100 105 110

Gly Lys Leu Thr Glu Thr Asp Gly Arg Lys Met Phe Gln Gln Leu Ile  
 115 120 125

Asp Gly Ile Ser Tyr Cys His Ser Lys Gly Val Phe His Arg Asp Leu  
 130 135 140

Lys Leu Glu Asn Val Leu Leu Asp Ala Lys Gly His Ile Lys Ile Thr  
 145 150 155 160

Asp Phe Gly Leu Ser Ala Leu Pro Gln His Phe Arg Asp Asp Gly Leu  
 165 170 175

047-E2F-PCT.ST25.txt

Leu His Thr Thr Cys Gly Ser Pro Asn Tyr Val Ala Pro Glu Val Leu  
 180 185 190  
 Ala Asn Arg Gly Tyr Asp Gly Ala Ala Ser Asp Ile Trp Ser Cys Gly  
 195 200 205  
 Val Ile Leu Tyr Val Ile Leu Thr Gly Cys Leu Pro Phe Asp Asp Arg  
 210 215 220  
 Asn Leu Ala Val Leu Tyr Gln Lys Ile Cys Lys Gly Asp Pro Pro Ile  
 225 230 235 240  
 Pro Arg Trp Leu Ser Pro Gly Ala Arg Thr Met Ile Lys Arg Met Leu  
 245 250 255  
 Asp Pro Asn Pro Val Thr Arg Ile Thr Val Val Gly Ile Lys Ala Ser  
 260 265 270  
 Glu Trp Phe Lys Leu Glu Tyr Ile Pro Ser Ile Pro Asp Asp Asp Asp  
 275 280 285  
 Glu Glu Glu Val Asp Thr Asp Asp Asp Ala Phe Ser Ile Gln Glu Leu  
 290 295 300  
 Gly Ser Glu Glu Gly Lys Gly Ser Asp Ser Pro Thr Ile Ile Asn Ala  
 305 310 315 320  
 Phe Gln Leu Ile Gly Met Ser Ser Phe Leu Asp Leu Ser Gly Phe Phe  
 325 330 335  
 Glu Gln Glu Asn Val Ser Glu Arg Arg Ile Arg Phe Thr Ser Asn Ser  
 340 345 350  
 Ser Ala Lys Asp Leu Leu Glu Lys Ile Glu Thr Ala Val Thr Glu Met  
 355 360 365  
 Gly Phe Ser Val Gln Lys Lys His Ala Lys Leu Arg Val Lys Gln Glu  
 370 375 380  
 Glu Arg Asn Gln Lys Gly Gln Val Gly Leu Ser Val Thr Ala Glu Val  
 385 390 395 400  
 Phe Glu Ile Lys Pro Ser Leu Asn Val Val Glu Leu Arg Lys Ser Tyr  
 405 410 415  
 Gly Asp Ser Cys Leu Tyr Arg Gln Leu Tyr Glu Arg Leu Leu Lys Asp  
 420 425 430

Val Gly Thr Ser Ser Pro Glu Gln Glu Ile Val Thr  
 435 440

<210> 2235

<211> 537

<212> DNA

<213> Arabidopsis thaliana

<400> 2235

```
atgaaaacag caaaggggaa agataaagtt aagaccacaa aggaagcctt gaagccagtt      60
gatgacagaa aggtgggaaa gaggaaggca cgggctgaga agcctactaa acgagagact    120
cgtaaagaga agaaggctaa aaaggaccca aacaaaccaa aaagagctcc tagtgccttc    180
tttgtctttc tagaagattt tagggtcacg ttcaagaaag aaaatccaaa tgtgaaggcc    240
gtctctgctg ttgggaaagc tggagggcag aaatggaagt caatgtctca agctgaaaaa    300
gctccatatg aagagaaagc tgcaaaaagg aaagctgaat atgagaagca aatggatgca    360
tacaacaaaa acttgagga agggagtgat gaatctgaaa agtctagatc tgagataaat    420
gatgaagatg aagccagtgg ggaggaagaa ctattagaga aggaagcggc aggtgatgat    480
gaagaagaag aagaggaaga agatgacgat gatgatgacg acgaggaaga agactaa      537
```

<210> 2236

<211> 178

<212> PRT

<213> Arabidopsis thaliana

<400> 2236

```
Met Lys Thr Ala Lys Gly Lys Asp Lys Val Lys Thr Thr Lys Glu Ala
1      5      10      15
Leu Lys Pro Val Asp Asp Arg Lys Val Gly Lys Arg Lys Ala Pro Ala
20     25     30
Glu Lys Pro Thr Lys Arg Glu Thr Arg Lys Glu Lys Lys Ala Lys Lys
35     40     45
Asp Pro Asn Lys Pro Lys Arg Ala Pro Ser Ala Phe Phe Val Phe Leu
50     55     60
```

047-E2F-PCT.ST25.txt

Glu Asp Phe Arg Val Thr Phe Lys Lys Glu Asn Pro Asn Val Lys Ala  
65 70 75 80

Val Ser Ala Val Gly Lys Ala Gly Gly Gln Lys Trp Lys Ser Met Ser  
85 90 95

Gln Ala Glu Lys Ala Pro Tyr Glu Glu Lys Ala Ala Lys Arg Lys Ala  
100 105 110

Glu Tyr Glu Lys Gln Met Asp Ala Tyr Asn Lys Asn Leu Glu Glu Gly  
115 120 125

Ser Asp Glu Ser Glu Lys Ser Arg Ser Glu Ile Asn Asp Glu Asp Glu  
130 135 140

Ala Ser Gly Glu Glu Glu Leu Leu Glu Lys Glu Ala Ala Gly Asp Asp  
145 150 155 160

Glu Glu Glu Glu Glu Glu Glu Asp Asp Asp Asp Asp Asp Glu Glu  
165 170 175

Glu Asp

<210> 2237

<211> 966

<212> DNA

<213> Arabidopsis thaliana

<400> 2237

atgaggatat taccgaaaag cggaggaggt gctctttgcc tcctctttgt gtttgctctt 60

tggttcggtgg ctcatccct tagctgtgac gtcaagggtt ttggcgatgt cgaagtcatt 120

ggctactcag aaatcagcaa aatcaagatc cccaatgcat tctcaggact tcgagttacg 180

atagaatgca aggcggccga ttcaaaaggc ctttttgtaa cgaggggaag cggagaagtg 240

gacgaaacag gaaagtttca tcttaatat cctcatgaca ttgtcgggtga tgacggaact 300

ctaaaagaag cttgctatgc tcattctcaa agtgccttcg gcaacccttg tccggcccac 360

gatggccttg aggcctccaa gatcgtgttt ctatcgaaat ccggccaaaa ccacgttttg 420

ggtctcaaaa aaagtcttaa attctacca gaagtttgca tctcaaagtt cttttggcat 480

atgcctaagt tccctttacc tcctccgctt aatctccac cgttaacgtt tcctaagatc 540

aagaagcctt gtccccaat ttacaaacca ccggtggtga tccctaagaa gccgtgtcca 600

047-E2F-PCT.ST25.txt

ccaaagattg cacataaacc catctacaag cgcgcggttc ccatctacaa gcctccagtg 660  
cctatctaca agccaccagt ggttatcccc aagaaaccgt gtccacacaa gatacacaag 720  
cccatctaca agccaccagt gcctatctac aagcctccag tggatgatccc aaagaagaca 780  
tttcctccac ttcacaagcc gatctacaag caccgcggttc ctatctacaa accaatcttc 840  
aagccgccag tgggtggtgat tccaaagaaa ccatgtccac cacttcccaa gtttccacac 900  
ttcccaccta aatacattcc acaccctaag ttcggaaaat ggcctccttt cccttctcat 960  
ccttga 966

<210> 2238

<211> 321

<212> PRT

<213> Arabidopsis thaliana

<400> 2238

Met Arg Ile Leu Pro Lys Ser Gly Gly Gly Ala Leu Cys Leu Leu Phe  
1 5 10 15

Val Phe Ala Leu Cys Ser Val Ala His Ser Leu Ser Cys Asp Val Lys  
20 25 30

Val Val Gly Asp Val Glu Val Ile Gly Tyr Ser Glu Ile Ser Lys Ile  
35 40 45

Lys Ile Pro Asn Ala Phe Ser Gly Leu Arg Val Thr Ile Glu Cys Lys  
50 55 60

Ala Ala Asp Ser Lys Gly His Phe Val Thr Arg Gly Ser Gly Glu Val  
65 70 75 80

Asp Glu Thr Gly Lys Phe His Leu Asn Ile Pro His Asp Ile Val Gly  
85 90 95

Asp Asp Gly Thr Leu Lys Glu Ala Cys Tyr Ala His Leu Gln Ser Ala  
100 105 110

Phe Gly Asn Pro Cys Pro Ala His Asp Gly Leu Glu Ala Ser Lys Ile  
115 120 125

Val Phe Leu Ser Lys Ser Gly Gln Asn His Val Leu Gly Leu Lys Lys  
130 135 140

047-E2F-PCT.ST25.txt

Ser Leu Lys Phe Ser Pro Glu Val Cys Ile Ser Lys Phe Phe Trp His  
145 150 155 160

Met Pro Lys Phe Pro Leu Pro Pro Pro Leu Asn Leu Pro Pro Leu Thr  
165 170 175

Phe Pro Lys Ile Lys Lys Pro Cys Pro Pro Ile Tyr Lys Pro Pro Val  
180 185 190

Val Ile Pro Lys Lys Pro Cys Pro Pro Lys Ile Ala His Lys Pro Ile  
195 200 205

Tyr Lys Pro Pro Val Pro Ile Tyr Lys Pro Pro Val Pro Ile Tyr Lys  
210 215 220

Pro Pro Val Val Ile Pro Lys Lys Pro Cys Pro Pro Lys Ile His Lys  
225 230 235 240

Pro Ile Tyr Lys Pro Pro Val Pro Ile Tyr Lys Pro Pro Val Val Ile  
245 250 255

Pro Lys Lys Thr Phe Pro Pro Leu His Lys Pro Ile Tyr Lys His Pro  
260 265 270

Val Pro Ile Tyr Lys Pro Ile Phe Lys Pro Pro Val Val Val Ile Pro  
275 280 285

Lys Lys Pro Cys Pro Pro Leu Pro Lys Phe Pro His Phe Pro Pro Lys  
290 295 300

Tyr Ile Pro His Pro Lys Phe Gly Lys Trp Pro Pro Phe Pro Ser His  
305 310 315 320

Pro

<210> 2239

<211> 1131

<212> DNA

<213> Arabidopsis thaliana

<400> 2239

atggcgattc ggaaggagga agaaagtaga gaagaacaga gcaattcggt tcttcttgat 60

gctctctact gcgaagaaga gaaatgggac gatgaaggag aagaagttga agaaaactct 120

047-E2F-PCT.ST25.txt

```

tccttgtctt cttcttcttc tccattcggt gttttgcaac aagatttggt ctgggaagat 180
gaagatctgg ttacactctt ctccaaagaa gaagaacaag gactcagctg tctcgatgat 240
gtttatcttt ccacggatcg aaaagaagct gttggttgga ttctgagagt caacgctcat 300
tatggcttct ctacttttagc agctgtttta gccataactt atctcgataa gttcatctgt 360
agctacagct tacagagaga caaaccatgg atgcttcagc tcgtttctgt cgcgtgtctc 420
tcattagctg ctaaagtcga agaaacccaa gtccctcttc ttctagactt tcaagtggag 480
gagacaaagt atgtgtttga agcaaaaacc atacagagaa tggagctact gattctgtct 540
actctcgagt ggaagatgca tctcattact ccaatttcgt tcgtagacca cattatcagg 600
agattgggac ttaagaacaa tgctcactgg gatttcctca acaaagtcca ccgtctcctc 660
ctctctgtaa tctccgattc aagatttggt ggggtacctc catcagtagt tgccgcagct 720
accatgatgc gaattataga gcaagttgat ccctttgacc ctctttcata ccaaactaat 780
ctcctcggtg tccttaactt aaccaaggaa aagggtgaaaa cttgctacga tctaatactc 840
caactaccag tggaccgcat cggtttacag atccaaatcc aatcttccaa gaaacgcaag 900
agtcacgatt catcatcatc gttgaacagt ccaagctgctg tgattgatgc aaaccctttc 960
aatagcgacg aaagctcaaa cgattcgtgg tcagcgagtt cgtgcaaccc accaacgtcg 1020
tcgtcgtccc cgcagcaaca acctccattg aagaagatga gaggagctga agagaatgag 1080
aagaagaagc cgattttgca tctgccatgg gcaatcgtag ccactccata a 1131

```

<210> 2240

<211> 376

<212> PRT

<213> Arabidopsis thaliana

<400> 2240

```

Met Ala Ile Arg Lys Glu Glu Glu Ser Arg Glu Glu Gln Ser Asn Ser
1           5           10           15

```

```

Phe Leu Leu Asp Ala Leu Tyr Cys Glu Glu Glu Lys Trp Asp Asp Glu
                20           25           30

```

```

Gly Glu Glu Val Glu Glu Asn Ser Ser Leu Ser Ser Ser Ser Pro
        35           40           45

```

```

Phe Val Val Leu Gln Gln Asp Leu Phe Trp Glu Asp Glu Asp Leu Val
        50           55           60

```

047-E2F-PCT.ST25.txt

Thr Leu Phe Ser Lys Glu Glu Glu Gln Gly Leu Ser Cys Leu Asp Asp  
 65 70 75 80  
 Val Tyr Leu Ser Thr Asp Arg Lys Glu Ala Val Gly Trp Ile Leu Arg  
 85 90 95  
 Val Asn Ala His Tyr Gly Phe Ser Thr Leu Ala Ala Val Leu Ala Ile  
 100 105 110  
 Thr Tyr Leu Asp Lys Phe Ile Cys Ser Tyr Ser Leu Gln Arg Asp Lys  
 115 120 125  
 Pro Trp Met Leu Gln Leu Val Ser Val Ala Cys Leu Ser Leu Ala Ala  
 130 135 140  
 Lys Val Glu Glu Thr Gln Val Pro Leu Leu Leu Asp Phe Gln Val Glu  
 145 150 155 160  
 Glu Thr Lys Tyr Val Phe Glu Ala Lys Thr Ile Gln Arg Met Glu Leu  
 165 170 175  
 Leu Ile Leu Ser Thr Leu Glu Trp Lys Met His Leu Ile Thr Pro Ile  
 180 185 190  
 Ser Phe Val Asp His Ile Ile Arg Arg Leu Gly Leu Lys Asn Asn Ala  
 195 200 205  
 His Trp Asp Phe Leu Asn Lys Cys His Arg Leu Leu Leu Ser Val Ile  
 210 215 220  
 Ser Asp Ser Arg Phe Val Gly Tyr Leu Pro Ser Val Val Ala Ala Ala  
 225 230 235 240  
 Thr Met Met Arg Ile Ile Glu Gln Val Asp Pro Phe Asp Pro Leu Ser  
 245 250 255  
 Tyr Gln Thr Asn Leu Leu Gly Val Leu Asn Leu Thr Lys Glu Lys Val  
 260 265 270  
 Lys Thr Cys Tyr Asp Leu Ile Leu Gln Leu Pro Val Asp Arg Ile Gly  
 275 280 285  
 Leu Gln Ile Gln Ile Gln Ser Ser Lys Lys Arg Lys Ser His Asp Ser  
 290 295 300  
 Ser Ser Ser Leu Asn Ser Pro Ser Cys Val Ile Asp Ala Asn Pro Phe  
 305 310 315 320



047-E2F-PCT.ST25.txt

Asn Ser Asp Glu Ser Ser Asn Asp Ser Trp Ser Ala Ser Ser Cys Asn  
325 330 335

Pro Pro Thr Ser Ser Ser Ser Pro Gln Gln Gln Pro Pro Leu Lys Lys  
340 345 350

Met Arg Gly Ala Glu Glu Asn Glu Lys Lys Lys Pro Ile Leu His Leu  
355 360 365

Pro Trp Ala Ile Val Ala Thr Pro  
370 375

<210> 2241

<211> 1440

<212> DNA

<213> Arabidopsis thaliana

<400> 2241

atggccaaaa ccagagggtc ttgttgtctc gtcaacgctc taatcgctat agcttttttg	60
gcgacagccc atttgtgtga agctggcttg tctcagaaag aacaggacaa ggtctcgaaa	120
ttgcctgggtc agaattttta tgttagtttt gctcactact ctgggtttgt tgctactaat	180
gagcaattgg gaagagctct cttttactgg ttatttgaag ccgttgaaga tgctaagtct	240
aagcctcttg ttctctggct caatggagga ccaggatgtt catctgttgc atatggtgaa	300
gcagaagaga taggaccatt tcacattaag gcagatggga agactcttta ccttaatcaa	360
tattcttgga accaagctgc aaatatatttg ttccttgatg cacctgttgg agttggttat	420
tcatactcaa acacctcgtc tgatttgaag agcaatggtg ataaaagaac tgccgaagat	480
tcactgaaat ttctgctgaa atggggttgag cggtttccgg aatacaaagg aagggaacttt	540
tatatagtag gggagagcta tgcaggacat tacattcctc agctgagtga agccattgta	600
aaacataacc aaggttctga caaaaacagt ataaatctga agggttacat ggtaggaaat	660
gggctgatgg acgatttcca tgacaggctt ggtcttttcc aatatatttg gtcgttgggt	720
tttatatctg accaaacata cagcttactg caacttcaat gcggtttcga atcgtttatt	780
cactcctcca aacagtgtaa caagattctg gagatagcgg acaaagaaat aggtaacata	840
gaccaatata gtgtcttcac cccagcttgt gttgccaatg cttcccagtc aaatatgttg	900
ctaaagaaaa gacctatgac tagccgcgtg agcgaacagt atgatccttg tacggagaaa	960
cacactacag tttattttcaa tcttccagag gttcaaaaag ccctccatgt cccaccagga	1020

047-E2F-PCT.ST25.txt

cttgccacat caaaatggga tacttgcagt gatgtcgtga gtgaacactg gaatgactct 1080  
ccttcctcgg ttctaaacat ttaccacgag cttatagctg ctgggcttcg tatctggggtt 1140  
ttcagtgggg acgcagatgc cgttgtacca gtcacatcaa cccggtacag tatcgatgca 1200  
ctaaaccttc gtcctttgag tgcctatggt ccttgggtact tagatggaca ggtgggaggg 1260  
tggagtcagc agtatgctgg tctgaacttt gtgacagtga gaggtgcagg ccatgaagtt 1320  
cctttgcaca gaccgaagca agctcttgcg ctcttcaagg cttttatatc tggaactcca 1380  
ttgtccacac atgagaacag catcagccgc gacatgtctg aactcgttag tgactcataa 1440

<210> 2242

<211> 479

<212> PRT

<213> Arabidopsis thaliana

<400> 2242

Met Ala Lys Thr Arg Gly Ser Cys Cys Leu Val Asn Ala Leu Ile Ala  
1 5 10 15

Ile Ala Phe Leu Ala Thr Ala His Leu Cys Glu Ala Gly Leu Ser Gln  
20 25 30

Lys Glu Gln Asp Lys Val Ser Lys Leu Pro Gly Gln Asn Phe Asn Val  
35 40 45

Ser Phe Ala His Tyr Ser Gly Phe Val Ala Thr Asn Glu Gln Leu Gly  
50 55 60

Arg Ala Leu Phe Tyr Trp Leu Phe Glu Ala Val Glu Asp Ala Lys Ser  
65 70 75 80

Lys Pro Leu Val Leu Trp Leu Asn Gly Gly Pro Gly Cys Ser Ser Val  
85 90 95

Ala Tyr Gly Glu Ala Glu Glu Ile Gly Pro Phe His Ile Lys Ala Asp  
100 105 110

Gly Lys Thr Leu Tyr Leu Asn Gln Tyr Ser Trp Asn Gln Ala Ala Asn  
115 120 125

Ile Leu Phe Leu Asp Ala Pro Val Gly Val Gly Tyr Ser Tyr Ser Asn  
130 135 140

## 047-E2F-PCT.ST25.txt

Thr Ser Ser Asp Leu Lys Ser Asn Gly Asp Lys Arg Thr Ala Glu Asp  
 145 150 155 160  
 Ser Leu Lys Phe Leu Leu Lys Trp Val Glu Arg Phe Pro Glu Tyr Lys  
 165 170 175  
 Gly Arg Asp Phe Tyr Ile Val Gly Glu Ser Tyr Ala Gly His Tyr Ile  
 180 185 190  
 Pro Gln Leu Ser Glu Ala Ile Val Lys His Asn Gln Gly Ser Asp Lys  
 195 200 205  
 Asn Ser Ile Asn Leu Lys Gly Tyr Met Val Gly Asn Gly Leu Met Asp  
 210 215 220  
 Asp Phe His Asp Arg Leu Gly Leu Phe Gln Tyr Ile Trp Ser Leu Gly  
 225 230 235 240  
 Phe Ile Ser Asp Gln Thr Tyr Ser Leu Leu Gln Leu Gln Cys Gly Phe  
 245 250 255  
 Glu Ser Phe Ile His Ser Ser Lys Gln Cys Asn Lys Ile Leu Glu Ile  
 260 265 270  
 Ala Asp Lys Glu Ile Gly Asn Ile Asp Gln Tyr Ser Val Phe Thr Pro  
 275 280 285  
 Ala Cys Val Ala Asn Ala Ser Gln Ser Asn Met Leu Leu Lys Lys Arg  
 290 295 300  
 Pro Met Thr Ser Arg Val Ser Glu Gln Tyr Asp Pro Cys Thr Glu Lys  
 305 310 315 320  
 His Thr Thr Val Tyr Phe Asn Leu Pro Glu Val Gln Lys Ala Leu His  
 325 330 335  
 Val Pro Pro Gly Leu Ala Pro Ser Lys Trp Asp Thr Cys Ser Asp Val  
 340 345 350  
 Val Ser Glu His Trp Asn Asp Ser Pro Ser Ser Val Leu Asn Ile Tyr  
 355 360 365  
 His Glu Leu Ile Ala Ala Gly Leu Arg Ile Trp Val Phe Ser Gly Asp  
 370 375 380  
 Ala Asp Ala Val Val Pro Val Thr Ser Thr Arg Tyr Ser Ile Asp Ala  
 385 390 395 400

047-E2F-PCT.ST25.txt

Leu Asn Leu Arg Pro Leu Ser Ala Tyr Gly Pro Trp Tyr Leu Asp Gly  
405 410 415

Gln Val Gly Gly Trp Ser Gln Gln Tyr Ala Gly Leu Asn Phe Val Thr  
420 425 430

Val Arg Gly Ala Gly His Glu Val Pro Leu His Arg Pro Lys Gln Ala  
435 440 445

Leu Ala Leu Phe Lys Ala Phe Ile Ser Gly Thr Pro Leu Ser Thr His  
450 455 460

Glu Asn Ser Ile Ser Arg Asp Met Ser Glu Leu Val Ser Asp Ser  
465 470 475

<210> 2243

<211> 876

<212> DNA

<213> Arabidopsis thaliana

<400> 2243

atgattcaag acaagtctaa aggtgcaaag caaacgcttc tagagcggcc atggttcctc	60
gctgtggctc tagctgggtct tataggtggc gcaatgctca tcacaagctt catccgagct	120
acggacaaca ccttgtcact ctgctccacg gctaagaaca cagctgcgtc tatagccaaa	180
tacacagcca ccccaatcca actccaatcc atcgtccact acgccacttc acacaccgtc	240
cctcaacaat ctttcgagga gatctcgatc tctttaaacg tcctcaagga gcgtctccct	300
tgtaactttc tagtcttttg cctcggccgc gactccctca tgtgggcctc cctcaatcca	360
ggtggcacia ctgtgttctt ggaagaggat cctgagtgga tagaggccgt cctcaaggac	420
gccccatccc tcaggggcca ccatgttcag taccggaccc acctttctga ggccggccgc	480
cttctctcga cttacaagaa cgaacccatg tgtttaccag ctaaagcttt cccgatccgc	540
tacaacgaaa agtgtccctt ggcgttgact tctctccctg atgagttcta tgataccgag	600
tgggatctga tcatggtgga cgcacaaaaa ggggtacttcc cagaggcgcc aggaaggatg	660
gcggcgatat tttcctcggc catcatggca cgtaaccgga aaggtgatgg cacgactcac	720
gtcttccttc atgacgttaa ccgcaaagtg gagaacgctt ttgccaatga gttcctttgt	780
gagaagtata aggtcaactc cgtaggtagg ctctggcact tcgagatacc taacgccgct	840
aacatgaccg accagcctgg tgaccggttt tgctag	876

&lt;210&gt; 2244

&lt;211&gt; 291

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2244

Met Ile Gln Asp Lys Ser Lys Gly Ala Lys Gln Thr Leu Leu Glu Arg  
 1 5 10 15

Pro Trp Phe Leu Ala Val Ala Leu Ala Gly Leu Ile Gly Gly Ala Met  
 20 25 30

Leu Ile Thr Ser Phe Ile Arg Ala Thr Asp Asn Thr Leu Ser Leu Cys  
 35 40 45

Ser Thr Ala Lys Asn Thr Ala Ala Ser Ile Ala Lys Tyr Thr Ala Thr  
 50 55 60

Pro Ile Gln Leu Gln Ser Ile Val His Tyr Ala Thr Ser His Thr Val  
 65 70 75 80

Pro Gln Gln Ser Phe Glu Glu Ile Ser Ile Ser Leu Asn Val Leu Lys  
 85 90 95

Glu Arg Leu Pro Cys Asn Phe Leu Val Phe Gly Leu Gly Arg Asp Ser  
 100 105 110

Leu Met Trp Ala Ser Leu Asn Pro Gly Gly Thr Thr Val Phe Leu Glu  
 115 120 125

Glu Asp Pro Glu Trp Ile Glu Ala Val Leu Lys Asp Ala Pro Ser Leu  
 130 135 140

Arg Ala His His Val Gln Tyr Arg Thr His Leu Ser Glu Ala Gly Arg  
 145 150 155 160

Leu Leu Ser Thr Tyr Lys Asn Glu Pro Met Cys Leu Pro Ala Lys Ala  
 165 170 175

Phe Pro Ile Arg Tyr Asn Glu Lys Cys Pro Leu Ala Leu Thr Ser Leu  
 180 185 190

Pro Asp Glu Phe Tyr Asp Thr Glu Trp Asp Leu Ile Met Val Asp Ala  
 195 200 205

047-E2F-PCT.ST25.txt

Pro Lys Gly Tyr Phe Pro Glu Ala Pro Gly Arg Met Ala Ala Ile Phe  
210 215 220

Ser Ser Ala Ile Met Ala Arg Asn Arg Lys Gly Asp Gly Thr Thr His  
225 230 235 240

Val Phe Leu His Asp Val Asn Arg Lys Val Glu Asn Ala Phe Ala Asn  
245 250 255

Glu Phe Leu Cys Glu Lys Tyr Lys Val Asn Ser Val Gly Arg Leu Trp  
260 265 270

His Phe Glu Ile Pro Asn Ala Ala Asn Met Thr Asp Gln Pro Gly Asp  
275 280 285

Arg Phe Cys  
290

<210> 2245

<211> 606

<212> DNA

<213> Arabidopsis thaliana

<400> 2245  
atgtccgtcg ttctcaacgc cggcttcagt tctccgcttc aaaacagatc acatcatggt 60  
atacagttaa agccttcgcc ttttgcgtca tacatatctc taaacagttc aagaagggtca 120  
ctgttatgca aaagaagatt gggtgtatct tgtttggata caaatgacaa ttctgtcaca 180  
actacatccg tagattcttc ttcttcttca gattctaata aaccagtaag tgaatcagtt 240  
gaatcaagca atggcactgc caaaaaagca ccattgacag cacgagagag actaagagcg 300  
gctcgtgttc ttagccgata cactgaagca acaccgaaac cgtcaaaacc taaaatgggg 360  
agccaacttc ttgatgtgct caaggaaagt gataagaaat caaagaggaa accgggtcta 420  
cccgaagcac caactaacat gcttgatgat agcaggagag ggatgccaaa gagcgggtctt 480  
acgttttgatt taccgggagg ctcggatatt ctcattcattg ctttctcctt tgtgttcata 540  
agcacagtca tgtttgctac tacttttctt gtttggaac tcggtgcat acacttcaac 600  
gaatag 606

<210> 2246

<211> 201

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2246

```

Met Ser Val Val Leu Asn Ala Gly Phe Ser Ser Pro Leu Gln Asn Arg
1      5      10      15
Ser His His Val Ile Gln Leu Lys Pro Ser Pro Phe Ala Ser Tyr Ile
20      25      30
Ser Leu Asn Ser Ser Arg Arg Ser Leu Leu Cys Lys Arg Arg Leu Val
35      40      45
Val Ser Cys Leu Asp Thr Asn Asp Asn Ser Val Thr Thr Thr Ser Val
50      55      60
Asp Ser Ser Ser Ser Ser Asp Ser Asn Lys Pro Val Ser Glu Ser Val
65      70      75      80
Glu Ser Ser Asn Gly Thr Ala Lys Lys Ala Pro Leu Thr Ala Arg Glu
85      90      95
Arg Leu Arg Ala Ala Arg Val Leu Ser Arg Tyr Thr Glu Ala Thr Pro
100     105     110
Lys Pro Ser Lys Pro Lys Met Gly Ser Gln Leu Leu Asp Val Leu Lys
115     120     125
Glu Ser Asp Lys Lys Ser Lys Arg Lys Pro Gly Leu Pro Glu Ala Pro
130     135     140
Thr Asn Met Leu Asp Asp Ser Arg Arg Gly Met Pro Lys Ser Gly Leu
145     150     155     160
Thr Phe Asp Leu Pro Gly Gly Ser Asp Ile Leu Ile Ile Ala Phe Ser
165     170     175
Phe Val Phe Ile Ser Thr Val Met Phe Ala Thr Thr Phe Leu Val Trp
180     185     190
Lys Leu Gly Ala Ile His Phe Asn Glu
195     200

```

&lt;210&gt; 2247

&lt;211&gt; 2046

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2247

```

atggccatgg cttctgctat ggacttatct tctcctccaa cgtttttctt atccggaact    60
tctacatctt ccccatctct ccgtcgtctc tcctccatth ccgtctcttg attccgccgt    120
cactctaata ggaagttaca gatactttgc caagccacag ctggaactga gcctcagagc    180
ggctctctctg tctctggctc caaattagcc gcccgttctg gtcaagaccg tcttttgaag    240
gttccaatth cgaacatcag gaatthtagt attatagctc atattgatca tgggaaatct    300
acgttagcgg ataagttgct tcaggtgact ggtactgttc agaacagaga tatgaaggag    360
cagtttcttg ataacatgga cttagagaga gaacgaggca tcactatcaa gcttcaggca    420
gctcgaatgc gttatgttta tgaagataca ccgttttgcc tcaacttgat agatactcca    480
ggatcatgttg atttctctta cgaggthtcc cgatctcttg ctgcttgca ggggtgctctt    540
cttgttgttg atgcatccca ggggtgtgga gcacaaacat tggctaattg gtatttggcc    600
ttgaaaaaca acctcgaaat tathcccgtt ttaaataaga ttgaccttcc aggcgctgag    660
ccagagaaag ttctcaggga gattgaggag gttattgggt tagattgtag caaagcgata    720
ttctgttcgg caaaggaggg aattgggtatt accgagatth tggatgcaat tgttcaaagg    780
atacctgcac ctctcgatac tgcaggaaag cccttaagag cthtaathth tgacagttat    840
tatgatccat atcgtgggtg cattgtatac thtccagtta tcgatggga agtgaagaaa    900
ggcgacagaa ththththcat ggcaagcgga aaggattatt ttgcggatga agtcggagtt    960
ctatctccaa atcaaattca agtggatgaa ttatatgcgg gtgaggtagg atatatgctg   1020
gcttctgtaa gatctgttgc agatgccagg gtaggagata caataacaca ttatagcaga   1080
aaggcagaaa gctctthacc tggttacgag gaagctaccc ctatggtgtt ctgtggtctt   1140
thtccagttg acgctgacca gthtcccgat cthcgcgatg cattggaaaa actgcaactc   1200
aatgatgctg cattgaagtt tgagcctgaa acttcgagtg ccatgggatt tggctthaga   1260
tgcgggthth tgggtcttht ccacatggaa attgtgcagg aaaggctaga gagggagtac   1320
aactthaaatc thattaccac agctccaagt gthgtthata ggggtgaactc tgthaatggt   1380
gatactactt tgtgctcaaa tccatcacgc cthccagatc ctgggcaaag gaaatcggtc   1440
gaggagccat acgttaagat tgaactgctc acaccaaag actatatthg tgcgcttatg   1500
gagctcgctc aagagaggag aggggagthc aaagaaatga aatatatagc tgagaacaga   1560
gctthaatcc tctatgagtt acctcttgca gagatggtgg gtgaththct tgaccaattg   1620
aagtcgagaa ccaagggata tgctagcatg gaatactccg thattgggta cagggaagth   1680

```



047-E2F-PCT.ST25.txt

gatctgataa aactcgatat tctgattaat gctgaaatgg tggaaccttt gtcaaccatc 1740  
gtacacaggg ataaggcata ttccgttggg agagctttga ctcagaaact caaagagctt 1800  
attccacgac aaatgtttta agtgcccatc caggcttgta taggatccaa ggtgattgct 1860  
agtgaagcac tctcagcaat cagaaaagat gttttggcaa aatgttatgg tggagatatt 1920  
tctcggaaga agaagcttct taagaaacag gcggcaggta agaagagaat gaaagccata 1980  
ggtagagttg atgtccctca agaagctttc atggccgttc tcaaacttga acgagaagta 2040  
ttgtga 2046

<210> 2248

<211> 681

<212> PRT

<213> Arabidopsis thaliana

<400> 2248

Met Ala Met Ala Ser Ala Met Asp Leu Ser Ser Pro Pro Thr Phe Phe  
1 5 10 15

Leu Ser Gly Thr Ser Thr Ser Ser Pro Ser Leu Arg Arg Leu Ser Ser  
20 25 30

Ile Ser Val Ser Gly Phe Arg Arg His Ser Asn Arg Lys Leu Gln Ile  
35 40 45

Leu Cys Gln Ala Thr Ala Gly Thr Glu Pro Gln Ser Gly Leu Ser Val  
50 55 60

Ser Gly Ser Lys Leu Ala Ala Arg Ser Gly Gln Asp Arg Leu Leu Lys  
65 70 75 80

Val Pro Ile Ser Asn Ile Arg Asn Phe Ser Ile Ile Ala His Ile Asp  
85 90 95

His Gly Lys Ser Thr Leu Ala Asp Lys Leu Leu Gln Val Thr Gly Thr  
100 105 110

Val Gln Asn Arg Asp Met Lys Glu Gln Phe Leu Asp Asn Met Asp Leu  
115 120 125

Glu Arg Glu Arg Gly Ile Thr Ile Lys Leu Gln Ala Ala Arg Met Arg  
130 135 140

## 047-E2F-PCT.ST25.txt

Tyr Val Tyr Glu Asp Thr Pro Phe Cys Leu Asn Leu Ile Asp Thr Pro  
 145 150 155 160  
 Gly His Val Asp Phe Ser Tyr Glu Val Ser Arg Ser Leu Ala Ala Cys  
 165 170 175  
 Glu Gly Ala Leu Leu Val Val Asp Ala Ser Gln Gly Val Glu Ala Gln  
 180 185 190  
 Thr Leu Ala Asn Val Tyr Leu Ala Leu Glu Asn Asn Leu Glu Ile Ile  
 195 200 205  
 Pro Val Leu Asn Lys Ile Asp Leu Pro Gly Ala Glu Pro Glu Lys Val  
 210 215 220  
 Leu Arg Glu Ile Glu Glu Val Ile Gly Leu Asp Cys Ser Lys Ala Ile  
 225 230 235 240  
 Phe Cys Ser Ala Lys Glu Gly Ile Gly Ile Thr Glu Ile Leu Asp Ala  
 245 250 255  
 Ile Val Gln Arg Ile Pro Ala Pro Leu Asp Thr Ala Gly Lys Pro Leu  
 260 265 270  
 Arg Ala Leu Ile Phe Asp Ser Tyr Tyr Asp Pro Tyr Arg Gly Val Ile  
 275 280 285  
 Val Tyr Phe Arg Val Ile Asp Gly Lys Val Lys Lys Gly Asp Arg Ile  
 290 295 300  
 Phe Phe Met Ala Ser Gly Lys Asp Tyr Phe Ala Asp Glu Val Gly Val  
 305 310 315 320  
 Leu Ser Pro Asn Gln Ile Gln Val Asp Glu Leu Tyr Ala Gly Glu Val  
 325 330 335  
 Gly Tyr Ile Ala Ala Ser Val Arg Ser Val Ala Asp Ala Arg Val Gly  
 340 345 350  
 Asp Thr Ile Thr His Tyr Ser Arg Lys Ala Glu Ser Ser Leu Pro Gly  
 355 360 365  
 Tyr Glu Glu Ala Thr Pro Met Val Phe Cys Gly Leu Phe Pro Val Asp  
 370 375 380  
 Ala Asp Gln Phe Pro Asp Leu Arg Asp Ala Leu Glu Lys Leu Gln Leu  
 385 390 395 400

047-E2F-PCT.ST25.txt

Asn Asp Ala Ala Leu Lys Phe Glu Pro Glu Thr Ser Ser Ala Met Gly  
 405 410 415  
 Phe Gly Phe Arg Cys Gly Phe Leu Gly Leu Leu His Met Glu Ile Val  
 420 425 430  
 Gln Glu Arg Leu Glu Arg Glu Tyr Asn Leu Asn Leu Ile Thr Thr Ala  
 435 440 445  
 Pro Ser Val Val Tyr Arg Val Asn Ser Val Asn Gly Asp Thr Thr Leu  
 450 455 460  
 Cys Ser Asn Pro Ser Arg Leu Pro Asp Pro Gly Gln Arg Lys Ser Val  
 465 470 475 480  
 Glu Glu Pro Tyr Val Lys Ile Glu Leu Leu Thr Pro Lys Asp Tyr Ile  
 485 490 495  
 Gly Ala Leu Met Glu Leu Ala Gln Glu Arg Arg Gly Glu Phe Lys Glu  
 500 505 510  
 Met Lys Tyr Ile Ala Glu Asn Arg Ala Ser Ile Leu Tyr Glu Leu Pro  
 515 520 525  
 Leu Ala Glu Met Val Gly Asp Phe Phe Asp Gln Leu Lys Ser Arg Thr  
 530 535 540  
 Lys Gly Tyr Ala Ser Met Glu Tyr Ser Val Ile Gly Tyr Arg Glu Ser  
 545 550 555 560  
 Asp Leu Ile Lys Leu Asp Ile Leu Ile Asn Ala Glu Met Val Glu Pro  
 565 570 575  
 Leu Ser Thr Ile Val His Arg Asp Lys Ala Tyr Ser Val Gly Arg Ala  
 580 585 590  
 Leu Thr Gln Lys Leu Lys Glu Leu Ile Pro Arg Gln Met Phe Lys Val  
 595 600 605  
 Pro Ile Gln Ala Cys Ile Gly Ser Lys Val Ile Ala Ser Glu Ala Leu  
 610 615 620  
 Ser Ala Ile Arg Lys Asp Val Leu Ala Lys Cys Tyr Gly Gly Asp Ile  
 625 630 635 640  
 Ser Arg Lys Lys Lys Leu Leu Lys Lys Gln Ala Ala Gly Lys Lys Arg

645

650

655

Met Lys Ala Ile Gly Arg Val Asp Val Pro Gln Glu Ala Phe Met Ala  
 660 665 670

Val Leu Lys Leu Glu Arg Glu Val Leu  
 675 680

&lt;210&gt; 2249

&lt;211&gt; 1644

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2249

```

atgagggcgt tgaattcgcg gctagttctg atcgacatca acagctcctg gcaagcttcg      60
cgccgggttaa tctcagccac cgcaaccgct ttttcatctg attcctcttc ctcattccgt      120
cggacacgtg gtgcgcgtca gagaatcgct tcatcgaaat ccccggcgtc gtcaccgtct      180
cctgttcgga gaccatctga tggattcagt ttcgatgttc ggtcaccgtc atctgattca      240
tcgatctcat cacggaagtc accgacgacg gctccgccta cggaggagct cgacgctttc      300
ctagagattc ttcctccggc gacgaggaag gagcttggtta agcacgaggc gattgaggaa      360
ttgatcgaag tagtgatgga tttagggaga aagccacttg ctagattccc ttccggcgat      420
tggtgatctt cagagcagcc tgtgacacac caggatctgg agcttgcggt atcaaagggt      480
gggtgattttt cggatgataa ccgatccggg attgacagat ctttgcatcg tataagcgct      540
atacgtaatc gcaaactgca agtaattggt ctaacatgtc gagtgggtcg agtagtctct      600
ggaagtgcag aaattataag agacttgatt gaaggaggag gatccatctt ggtcattgga      660
tctcctggag ttggcaaaac aactttaatc agagaaattg cacggatggt agctgatgaa      720
cacaggaaac gtgtagtgat tgttgacacg tcaaatagaga ttggagggtga tggatgatgtt      780
cctcattctg gaattgggtc tgccaggcgg atgcaagttc caaatgtgaa ttacagcac      840
gatgttatga ttgaggcggg tgagaatcat atgcctgaga caatcatcat tgacgagata      900
ggaactgagc ttgaagcttt agctgctagc actattgctc aacgaggtgt tcagcttggt      960
gcaactgctc atgggatgac tatagacaac ataatacaaaa atccttcttt gcagattctt     1020
attggtggaa ttgagagtgt gactcttggt gatgaagaag caaggaaaag aaaagtgcag     1080
aagacaattc ttgaaagaaa aggacctccg acattcactt gtgctgtaga gatgatatcg     1140
agaactgagt gtcgtgttca tcaaagacta gatgttaccg ttgatgctat actagctggg     1200
aaatccgctc catttgagat ccgtcaaatt cgtggcgaag acgatgttcc tcataagtta     1260

```

047-E2F-PCT.ST25.txt

gtgactccca ttcctttgga gaaccttgaa gaggagcctg caccattgct caacagagat 1320  
 ttcgtaagtg aattgctgtc tgacgatgaa gatgaagatt ttctttctcat tcggtctaata 1380  
 aaggccagaa gtaacacata cagagagccca agaagctcac cggttcatgt gtatacttac 1440  
 aatgtccttg aagctgatct cctccaagta gctgaagtta tgggtctaga cgacgaaata 1500  
 gaagtgcag atgatgttgg agaagcagat gtcattctag cctcaagttc tgaattgaaa 1560  
 cagaattcat caatccgtcg tgttgccaaa ttacacaagc taccgatatt tgtcattaag 1620  
 gtatccttct ttttgcattg ctga 1644

<210> 2250

<211> 547

<212> PRT

<213> Arabidopsis thaliana

<400> 2250

Met Arg Ala Leu Asn Ser Arg Leu Val Leu Ile Asp Ile Asn Ser Ser  
 1 5 10 15

Trp Gln Ala Ser Arg Arg Leu Ile Ser Ala Thr Ala Thr Ala Phe Ser  
 20 25 30

Ser Asp Ser Ser Ser Ser Phe Arg Arg Thr Arg Gly Ala Arg Gln Arg  
 35 40 45

Ile Ala Ser Ser Lys Ser Pro Ala Ser Ser Pro Ser Pro Val Arg Arg  
 50 55 60

Pro Ser Asp Gly Phe Ser Phe Asp Val Arg Ser Pro Ser Ser Asp Ser  
 65 70 75 80

Ser Ile Ser Ser Arg Lys Ser Pro Thr Thr Ala Pro Pro Thr Val Glu  
 85 90 95

Leu Asp Ala Phe Leu Glu Ile Leu Pro Pro Ala Thr Arg Lys Glu Leu  
 100 105 110

Val Lys His Glu Ala Ile Glu Glu Leu Ile Glu Val Val Met Asp Leu  
 115 120 125

Gly Arg Lys Pro Leu Ala Arg Phe Pro Ser Gly Asp Trp Val Ile Ser  
 130 135 140

047-E2F-PCT.ST25.txt

Glu Gln Pro Val Thr His Gln Asp Leu Glu Leu Ala Val Ser Lys Val  
 145 150 155 160  
 Gly Asp Phe Ser Asp Asp Asn Arg Ser Gly Ile Asp Arg Ser Leu His  
 165 170 175  
 Arg Ile Ser Ala Ile Arg Asn Arg Lys Leu Gln Val Ile Gly Leu Thr  
 180 185 190  
 Cys Arg Val Gly Arg Val Val Ser Gly Ser Ala Glu Ile Ile Arg Asp  
 195 200 205  
 Leu Ile Glu Gly Gly Gly Ser Ile Leu Val Ile Gly Ser Pro Gly Val  
 210 215 220  
 Gly Lys Thr Thr Leu Ile Arg Glu Ile Ala Arg Met Leu Ala Asp Glu  
 225 230 235 240  
 His Arg Lys Arg Val Val Ile Val Asp Thr Ser Asn Glu Ile Gly Gly  
 245 250 255  
 Asp Gly Asp Val Pro His Ser Gly Ile Gly Arg Ala Arg Arg Met Gln  
 260 265 270  
 Val Pro Asn Val Asn Leu Gln His Asp Val Met Ile Glu Ala Val Glu  
 275 280 285  
 Asn His Met Pro Glu Thr Ile Ile Ile Asp Glu Ile Gly Thr Glu Leu  
 290 295 300  
 Glu Ala Leu Ala Ala Ser Thr Ile Ala Gln Arg Gly Val Gln Leu Val  
 305 310 315 320  
 Ala Thr Ala His Gly Met Thr Ile Asp Asn Ile Ile Lys Asn Pro Ser  
 325 330 335  
 Leu Gln Ile Leu Ile Gly Gly Ile Glu Ser Val Thr Leu Gly Asp Glu  
 340 345 350  
 Glu Ala Arg Lys Arg Lys Val Gln Lys Thr Ile Leu Glu Arg Lys Gly  
 355 360 365  
 Pro Pro Thr Phe Thr Cys Ala Val Glu Met Ile Ser Arg Thr Glu Cys  
 370 375 380  
 Arg Val His Gln Arg Leu Asp Val Thr Val Asp Ala Ile Leu Ala Gly  
 385 390 395 400

047-E2F-PCT.ST25.txt

Lys Ser Ala Pro Phe Glu Ile Arg Gln Ile Arg Gly Glu Asp Asp Val  
405 410 415

Pro His Lys Leu Val Thr Pro Ile Pro Leu Glu Asn Leu Glu Glu Glu  
420 425 430

Pro Ala Pro Leu Leu Asn Arg Asp Phe Val Ser Glu Leu Leu Ser Asp  
435 440 445

Asp Glu Asp Glu Asp Phe Leu Leu Ile Arg Ser Asn Lys Ala Arg Ser  
450 455 460

Asn Thr Tyr Thr Ser Pro Arg Ser Ser Pro Val His Val Tyr Thr Tyr  
465 470 475 480

Asn Val Leu Glu Ala Asp Leu Leu Gln Val Ala Glu Val Met Gly Leu  
485 490 495

Asp Asp Glu Ile Glu Val Thr Asp Asp Val Gly Glu Ala Asp Val Ile  
500 505 510

Leu Ala Ser Ser Ser Glu Leu Lys Gln Asn Ser Ser Ile Arg Arg Val  
515 520 525

Ala Lys Leu His Lys Leu Pro Ile Phe Val Ile Lys Val Ser Phe Phe  
530 535 540

Leu His Gly  
545

<210> 2251

<211> 546

<212> DNA

<213> Arabidopsis thaliana

<400> 2251  
atggccgcgt ctctaacatc tcttccgacc ggtttttgtc ttagccatgg tgatgaatgt 60  
tgcaaccggt cacctaccaa atcaccattt ccaggccatc atcctctggc tgggaggagg 120  
aagggtcact tgctccatta cgaacgtagt acagtgagga gattggttgt gacggcggcg 180  
acggagggat ctaaaaaatc taaagaaagt gaaccgtctt gggcgaatcc tgactcagat 240  
gagccacctc cttgggctag aaacgaaggt cgttcttcta cgtcccaaga gagctttgag 300

047-E2F-PCT.ST25.txt

gttcctttct ttgtttatct gctagcttcc gcgattactg ccattgctgc tattggttct 360  
 gttttcgagt acacaagcaa gaatccagtt ttcgggatct tggaatctga cagcatcttt 420  
 tataactcctg tgcttggatt ctttgctctt actggaatcc ccacttctgt gttcctatgg 480  
 ttcaaatccg ttgaagctgc taataaggaa gctcaagaac aagataaaag agatggcttt 540  
 ctttaa 546

<210> 2252

<211> 181

<212> PRT

<213> Arabidopsis thaliana

<400> 2252

Met Ala Ala Ser Leu Thr Ser Leu Pro Thr Gly Phe Cys Leu Ser His  
 1 5 10 15

Gly Asp Glu Cys Cys Asn Arg Ser Pro Thr Lys Ser Pro Phe Pro Gly  
 20 25 30

His His Pro Leu Ala Gly Arg Arg Lys Gly His Leu Leu His Tyr Glu  
 35 40 45

Arg Ser Thr Val Arg Arg Leu Val Val Thr Ala Ala Thr Glu Gly Ser  
 50 55 60

Lys Lys Ser Lys Glu Ser Glu Pro Ser Trp Ala Asn Pro Asp Ser Asp  
 65 70 75 80

Glu Pro Pro Pro Trp Ala Arg Asn Glu Gly Arg Ser Ser Thr Ser Gln  
 85 90 95

Glu Ser Phe Glu Val Pro Phe Phe Val Tyr Leu Leu Ala Ser Ala Ile  
 100 105 110

Thr Ala Ile Ala Ala Ile Gly Ser Val Phe Glu Tyr Thr Ser Lys Asn  
 115 120 125

Pro Val Phe Gly Ile Leu Glu Ser Asp Ser Ile Phe Tyr Thr Pro Val  
 130 135 140

Leu Gly Phe Phe Ala Leu Thr Gly Ile Pro Thr Ser Val Phe Leu Trp  
 145 150 155 160



Phe Lys Ser Val Glu Ala Ala Asn Lys Glu Ala Gln Glu Gln Asp Lys  
 165 170 175

Arg Asp Gly Phe Leu  
 180

<210> 2253

<211> 1068

<212> DNA

<213> Arabidopsis thaliana

<400> 2253

atggagagta cgggtgaaag agaggcgtgg aaagctcacg tggcgatgat cggtgtgcaa	60
ttgttcaacg gaggatatca tgtcattacc aaagtggctc tcaacgttgg tgtaaaccac	120
cttgtcttct gtgtctttcg tgatctcatt gctctctcca ttcttgctcc tcttgcttat	180
atccgtgata agagaacaag acctcctttg aatcgacagt ttctcttagc tttcttcttc	240
cttgggtttaa cagggatatt tggtaatcag cttttgttcc tcattgggtct gaattacacc	300
aatccaactt atgctgcagc cattcagccg tcgatcccgg tttttacttt catcttggct	360
ctcattatgg gaacagagag actgaattta ttcaagctag aaggtcaagc taaggtagga	420
ggcacactga tttgtgtcgc tggggcggtg ctgatggttt tgtttcgtgg actggctttg	480
tttggggaaa cagaggctga gtccttgggt catggtgaat caagacacac tgaaacatct	540
ggacacttca tgcattgtcc ggtcttaaaag aagtatccgg cgaatctttc agtcacagca	600
tactcgtatt tctttgggac catgtttatg gtgacatctg cttttttcat gactaatgag	660
tcgacgaact ggagtctcac aagatccgag ttctttgcag ttgtctacgc aggagtaatc	720
gcgtctgctc tcaactatgg tctcttgaca tgggtcaaata agatcttggg tccttccttg	780
gttgcctctt ataatcctt tcaaccgcga gcctcagctt tcttgtccag aatcttcctt	840
ggaagcccta tctacttggg gagcatttta ggcggatgtg caatcatagc aggtctttat	900
agtgtcacct gggcatctta caaagaaaag aaagcggcag cagcaatggc tgtgatcccg	960
atcacctcaa aggaagctga acccttgatc tacaaggacc ataaaaacaa accaatagga	1020
catctattca caaaatctcc catctcttca ccaaaatccg atgattga	1068

<210> 2254

<211> 355

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 2254

Met Glu Ser Thr Val Glu Arg Glu Ala Trp Lys Ala His Val Ala Met  
 1 5 10 15

Ile Gly Val Gln Leu Phe Asn Gly Gly Tyr His Val Ile Thr Lys Val  
 20 25 30

Ala Leu Asn Val Gly Val Asn Gln Leu Val Phe Cys Val Phe Arg Asp  
 35 40 45

Leu Ile Ala Leu Ser Ile Leu Ala Pro Leu Ala Tyr Ile Arg Asp Lys  
 50 55 60

Arg Thr Arg Pro Pro Leu Asn Arg Gln Phe Leu Leu Ala Phe Phe Phe  
 65 70 75 80

Leu Gly Leu Thr Gly Ile Phe Gly Asn Gln Leu Leu Phe Leu Ile Gly  
 85 90 95

Leu Asn Tyr Thr Asn Pro Thr Tyr Ala Ala Ala Ile Gln Pro Ser Ile  
 100 105 110

Pro Val Phe Thr Phe Ile Leu Ala Leu Ile Met Gly Thr Glu Arg Leu  
 115 120 125

Asn Leu Phe Lys Leu Glu Gly Gln Ala Lys Val Gly Gly Thr Leu Ile  
 130 135 140

Cys Val Ala Gly Ala Val Leu Met Val Leu Phe Arg Gly Leu Ala Leu  
 145 150 155 160

Phe Gly Glu Thr Glu Ala Glu Ser Leu Gly His Gly Glu Ser Arg His  
 165 170 175

Thr Glu Thr Ser Gly His Phe Met His Ala Pro Val Leu Lys Lys Tyr  
 180 185 190

Pro Ala Asn Leu Ser Val Thr Ala Tyr Ser Tyr Phe Phe Gly Thr Met  
 195 200 205

Phe Met Val Thr Ser Ala Phe Phe Met Thr Asn Glu Ser Thr Asn Trp  
 210 215 220

Ser Leu Thr Arg Ser Glu Phe Phe Ala Val Val Tyr Ala Gly Val Ile  
 225 230 235 240

047-E2F-PCT.ST25.txt

Ala Ser Ala Leu Asn Tyr Gly Leu Leu Thr Trp Ser Asn Lys Ile Leu  
245 250 255

Gly Pro Ser Leu Val Ala Leu Tyr Asn Pro Leu Gln Pro Ala Ala Ser  
260 265 270

Ala Phe Leu Ser Arg Ile Phe Leu Gly Ser Pro Ile Tyr Leu Gly Ser  
275 280 285

Ile Leu Gly Gly Cys Ala Ile Ile Ala Gly Leu Tyr Ser Val Thr Trp  
290 295 300

Ala Ser Tyr Lys Glu Lys Lys Ala Ala Ala Ala Met Ala Val Ile Pro  
305 310 315 320

Ile Thr Ser Lys Glu Ala Glu Pro Leu Ile Tyr Lys Asp His Lys Asn  
325 330 335

Lys Pro Ile Gly His Leu Phe Thr Lys Ser Pro Ile Ser Ser Pro Lys  
340 345 350

Ser Asp Asp  
355

<210> 2255

<211> 1434

<212> DNA

<213> Arabidopsis thaliana

<400> 2255

atggctttga ctacaaaacc tcaccatctt cagagatctt tcctctctcc gtcgctgttt	60
tccggcgaac gatatttgga atctgcgcca tcatgtctga gattccgtcg cagcgggtgtc	120
caatgctcgg tgggtggctaa ggagtgcaga gtgaaaggag tgaaagcgag acagattatt	180
gatagtagag ggaatccgac ggtggagggtt gatctgatta ccgatgatct gtatcgttcg	240
gctgttccaa gtggtgcatc taccgggatc tacgaagcgc ttgagcttag agatggagac	300
aagagcgtct atggtggtaa aggtgtatta caggctatta aaaacatcaa tgaacttgtg	360
gctccaaaac tcattggagt tgacgttagg aaccaagctg atgtcgatgc tcttatgctg	420
gaactggatg ggaccccaaa caagtcgaaa ctcggggcta atgcgatatt aggagtgtca	480
ttgagcgttt gcagggcagg tgctggagct aaaggagtgc ctttgtacaa acacatccag	540

gaaacatcag gaacaaagga gcttgtcatg ccagttcctg cattcaatgt gatcaatgga 600  
 ggcagtcattg ctgggaatag tttggctatg caagagttta tgatactacc ttaggagct 660  
 acctcattct cggaggcctt ccagatggga agtgaagttt atcatacatt gaaggggata 720  
 atcaaaacta agtatgggtca agatgcttgt aatgtcggag atgaaggagg gtttgcgccg 780  
 aatgttcaag ataacagaga gggactagtt ctgctcatag atgcaattga aaaggccggt 840  
 tacactggaa agatcaaaat aggaatggat gttgctgcat cagaattttt catgaaagat 900  
 ggtagatacg atttgaactt caagaaacag ccaaacgatg gagctcacgt actgtcagcc 960  
 gagagtcttg ctgacctcta cagagaattc atcaaggatt tccaatttgt ctctatcgaa 1020  
 gatccttttg accaggatga ttggagctca tgggcttcat tgcaatcctc tgtggatatc 1080  
 caactcgtgg gagatgactt gttagtcact aaccgaaga ggatagctga agctattaag 1140  
 aaacagtctt gcaatgctct actcttgaag gttaaccaga ttgggacagt cactgagtca 1200  
 attcaagcag cacttgactc aaaagctgca ggctggggtg tgatgggttag tcacaggagt 1260  
 ggcgagacag aggataactt catcgcagat ctctctgttg gtttagcaag cggacagatc 1320  
 aaaactggtg ctccatgccg aagtgaacga ttgtcaaat acaaccagct tctccgtatc 1380  
 gaagaggaac tcggcaatgt gcgctacgcc ggtgaagctt tccgatcacc atga 1434

<210> 2256

<211> 477

<212> PRT

<213> Arabidopsis thaliana

<400> 2256

Met Ala Leu Thr Thr Lys Pro His His Leu Gln Arg Ser Phe Leu Ser  
1 5 10 15

Pro Ser Arg Val Ser Gly Glu Arg Tyr Leu Glu Ser Ala Pro Ser Cys  
20 25 30

Leu Arg Phe Arg Arg Ser Gly Val Gln Cys Ser Val Val Ala Lys Glu  
35 40 45

Cys Arg Val Lys Gly Val Lys Ala Arg Gln Ile Ile Asp Ser Arg Gly  
50 55 60

Asn Pro Thr Val Glu Val Asp Leu Ile Thr Asp Asp Leu Tyr Arg Ser  
65 70 75 80

Ala Val Pro Ser Gly Ala Ser Thr Gly Ile Tyr Glu Ala Leu Glu Leu  
 85 90 95  
 Arg Asp Gly Asp Lys Ser Val Tyr Gly Gly Lys Gly Val Leu Gln Ala  
 100 105 110  
 Ile Lys Asn Ile Asn Glu Leu Val Ala Pro Lys Leu Ile Gly Val Asp  
 115 120 125  
 Val Arg Asn Gln Ala Asp Val Asp Ala Leu Met Leu Glu Leu Asp Gly  
 130 135 140  
 Thr Pro Asn Lys Ser Lys Leu Gly Ala Asn Ala Ile Leu Gly Val Ser  
 145 150 155 160  
 Leu Ser Val Cys Arg Ala Gly Ala Gly Ala Lys Gly Val Pro Leu Tyr  
 165 170 175  
 Lys His Ile Gln Glu Thr Ser Gly Thr Lys Glu Leu Val Met Pro Val  
 180 185 190  
 Pro Ala Phe Asn Val Ile Asn Gly Gly Ser His Ala Gly Asn Ser Leu  
 195 200 205  
 Ala Met Gln Glu Phe Met Ile Leu Pro Val Gly Ala Thr Ser Phe Ser  
 210 215 220  
 Glu Ala Phe Gln Met Gly Ser Glu Val Tyr His Thr Leu Lys Gly Ile  
 225 230 235 240  
 Ile Lys Thr Lys Tyr Gly Gln Asp Ala Cys Asn Val Gly Asp Glu Gly  
 245 250 255  
 Gly Phe Ala Pro Asn Val Gln Asp Asn Arg Glu Gly Leu Val Leu Leu  
 260 265 270  
 Ile Asp Ala Ile Glu Lys Ala Gly Tyr Thr Gly Lys Ile Lys Ile Gly  
 275 280 285  
 Met Asp Val Ala Ala Ser Glu Phe Phe Met Lys Asp Gly Arg Tyr Asp  
 290 295 300  
 Leu Asn Phe Lys Lys Gln Pro Asn Asp Gly Ala His Val Leu Ser Ala  
 305 310 315 320  
 Glu Ser Leu Ala Asp Leu Tyr Arg Glu Phe Ile Lys Asp Phe Pro Ile  
 325 330 335

047-E2F-PCT.ST25.txt

Val Ser Ile Glu Asp Pro Phe Asp Gln Asp Asp Trp Ser Ser Trp Ala  
340 345 350

Ser Leu Gln Ser Ser Val Asp Ile Gln Leu Val Gly Asp Asp Leu Leu  
355 360 365

Val Thr Asn Pro Lys Arg Ile Ala Glu Ala Ile Lys Lys Gln Ser Cys  
370 375 380

Asn Ala Leu Leu Leu Lys Val Asn Gln Ile Gly Thr Val Thr Glu Ser  
385 390 395 400

Ile Gln Ala Ala Leu Asp Ser Lys Ala Ala Gly Trp Gly Val Met Val  
405 410 415

Ser His Arg Ser Gly Glu Thr Glu Asp Asn Phe Ile Ala Asp Leu Ser  
420 425 430

Val Gly Leu Ala Ser Gly Gln Ile Lys Thr Gly Ala Pro Cys Arg Ser  
435 440 445

Glu Arg Leu Ser Lys Tyr Asn Gln Leu Leu Arg Ile Glu Glu Glu Leu  
450 455 460

Gly Asn Val Arg Tyr Ala Gly Glu Ala Phe Arg Ser Pro  
465 470 475

<210> 2257

<211> 624

<212> DNA

<213> Arabidopsis thaliana

<400> 2257

atggcgctaa accctcaatt actacccaat gggatgcctg ttccctttgt taatgaaatg	60
ttcgtcctag tccgagatgg tgttgagttt gaagtcgaca agatccctgg agggcatgga	120
ggtcatgtta aggccaaggg ggtgatttac ttgtctaata tacggatggt ctttgtttca	180
agcaagcctg ttgacaactt tgttgctttt gacatgcccc tgctttacat ccatgccgag	240
aaattttaatc agccaatatt tcaactgcaac aatattgctg gacaagtgga gcctgtggtg	300
ccagaaaatg agcatagagc tctatattca acacacagtt tcaagatcct atttaaggaa	360
ggtggttgtg ggacatttgt tcctctcttc ttgaatctca tatcatcagt gagacaatac	420
aacagacaaa tgcaacaagc agcagaagca gcagcggcag ctcctcatgt tgatcctctt	480

047-E2F-PCT.ST25.txt

caagccgctc agacacctgt ggacgaaatg atgagacatg cgtacgtgga ccctaatagat 540  
ccaacgagga tatatctgca acagccatca ggggaatctc agttgaggcg tagagcttac 600  
cattcgggtg cggcggaaca ttga 624

<210> 2258

<211> 207

<212> PRT

<213> Arabidopsis thaliana

<400> 2258

Met Ala Leu Asn Pro Gln Leu Leu Pro Asn Gly Met Pro Val Pro Phe  
1 5 10 15

Val Asn Glu Met Phe Val Leu Val Arg Asp Gly Val Glu Phe Glu Val  
20 25 30

Asp Lys Ile Pro Gly Gly His Gly Gly His Val Lys Ala Lys Gly Val  
35 40 45

Ile Tyr Leu Ser Asn Ile Arg Met Val Phe Val Ser Ser Lys Pro Val  
50 55 60

Asp Asn Phe Val Ala Phe Asp Met Pro Leu Leu Tyr Ile His Ala Glu  
65 70 75 80

Lys Phe Asn Gln Pro Ile Phe His Cys Asn Asn Ile Ala Gly Gln Val  
85 90 95

Glu Pro Val Val Pro Glu Asn Glu His Arg Ala Leu Tyr Ser Thr His  
100 105 110

Ser Phe Lys Ile Leu Phe Lys Glu Gly Gly Cys Gly Thr Phe Val Pro  
115 120 125

Leu Phe Leu Asn Leu Ile Ser Ser Val Arg Gln Tyr Asn Arg Gln Met  
130 135 140

Gln Gln Ala Ala Glu Ala Ala Ala Ala Ala Pro His Val Asp Pro Leu  
145 150 155 160

Gln Ala Ala Gln Thr Pro Val Asp Glu Met Met Arg His Ala Tyr Val  
165 170 175

047-E2F-PCT.ST25.txt

Asp Pro Asn Asp Pro Thr Arg Ile Tyr Leu Gln Gln Pro Ser Gly Glu  
180 185 190

Ser Gln Leu Arg Arg Arg Ala Tyr His Ser Gly Ala Ala Glu His  
195 200 205

<210> 2259

<211> 1053

<212> DNA

<213> Arabidopsis thaliana

<400> 2259

atgaataatc aaaaatggag tataggtttc atatctctcg cttttctctt catcacttcc	60
tcttcagctg agttcatcat tcaacaggtc acaaagggca gaggaataga gtacaacagt	120
tcttacagtc tcgaggagaa tcttggagtg acaagagagt tgagagaaga gcgaccatcg	180
agtaagatag tgacaataac aagcttctca gtgattaaag gcagaggaga accctatgaa	240
tcctctgttt ttgaggctgc tggttacaaa tggagattgg ttttgtacgt gaatggtaat	300
aaaaacgacg gtggaaatga tcatatttcc ctttacgcaa ggatcgaaga gacaaactct	360
cttccattag gttgggaagt gaatgttgat ctcaaactct ttgtccataa tgggaagcta	420
cacaaatatt tgactgttac agatggctta gtgaagcgat ataacaatgc gaaaaaagaa	480
tgggggtttcg gacaattgat tcctcgatca acattctaca acgcgaacga aggttacctt	540
gaccaggaca ctggttcttt tgggtgctgag atctttattg ttaaaccggc tcaacaacaa	600
gagaaagtta cattcatatc aaaccctcca aacaatgttt tcacttggaa gatacttcgt	660
ttctctacct tggaagataa attctattac tccgatgatt ttctcgttga agaccgatac	720
tggagactag gatttaaccc gaaaggggat ggaggaggaa gaccacatgc acttccaatc	780
ttcctatttg ctcaaggcca taaggcaaat gcagttgcta caaacacttg gggagcggtt	840
aatctgcggt taaagaatca acgaagtact aaccatagac aaatatattc tgcagcttgg	900
tacccgattg gaagcggtta tgggtgtggga gtgaacaata tcatactgtt agctgattta	960
aacgatgcat caaaaggata tttggtgaat gatgccatta tctttgaagc tgaaatggtt	1020
aaggtctcta taaccaacat cgtctccgct taa	1053

<210> 2260

<211> 350

<212> PRT



<213> *Arabidopsis thaliana*

&lt;400&gt; 2260

Met Asn Asn Gln Lys Trp Ser Ile Gly Phe Ile Ser Leu Ala Phe Leu  
 1 5 10 15  
 Phe Ile Thr Ser Ser Ser Ala Glu Phe Ile Ile Gln Gln Val Thr Lys  
 20 25 30  
 Gly Arg Gly Ile Glu Tyr Asn Ser Ser Tyr Ser Leu Glu Glu Asn Leu  
 35 40 45  
 Gly Val Thr Arg Glu Leu Arg Glu Glu Arg Pro Ser Ser Lys Ile Val  
 50 55 60  
 Thr Ile Thr Ser Phe Ser Val Ile Lys Gly Arg Gly Glu Pro Tyr Glu  
 65 70 75 80  
 Ser Ser Val Phe Glu Ala Ala Gly Tyr Lys Trp Arg Leu Val Leu Tyr  
 85 90 95  
 Val Asn Gly Asn Lys Asn Asp Gly Gly Asn Asp His Ile Ser Leu Tyr  
 100 105 110  
 Ala Arg Ile Glu Glu Thr Asn Ser Leu Pro Leu Gly Trp Glu Val Asn  
 115 120 125  
 Val Asp Leu Lys Leu Phe Val His Asn Gly Lys Leu His Lys Tyr Leu  
 130 135 140  
 Thr Val Thr Asp Gly Leu Val Lys Arg Tyr Asn Asn Ala Lys Lys Glu  
 145 150 155 160  
 Trp Gly Phe Gly Gln Leu Ile Pro Arg Ser Thr Phe Tyr Asn Ala Asn  
 165 170 175  
 Glu Gly Tyr Leu Asp Gln Asp Thr Gly Ser Phe Gly Ala Glu Ile Phe  
 180 185 190  
 Ile Val Lys Pro Ala Gln Gln Gln Glu Lys Val Thr Phe Ile Ser Asn  
 195 200 205  
 Pro Pro Asn Asn Val Phe Thr Trp Lys Ile Leu Arg Phe Ser Thr Leu  
 210 215 220  
 Glu Asp Lys Phe Tyr Tyr Ser Asp Asp Phe Leu Val Glu Asp Arg Tyr  
 Page 3243

225 230 235 240

Trp Arg Leu Gly Phe Asn Pro Lys Gly Asp Gly Gly Gly Arg Pro His  
245 250 255

Ala Leu Pro Ile Phe Leu Phe Ala Gln Gly His Lys Ala Asn Ala Val  
260 265 270

Ala Thr Asn Thr Trp Gly Ala Val Asn Leu Arg Leu Lys Asn Gln Arg  
275 280 285

Ser Thr Asn His Arg Gln Ile Tyr Ser Ala Ala Trp Tyr Pro Ile Gly  
290 295 300

Ser Gly Tyr Gly Val Gly Val Asn Asn Ile Ile Leu Leu Ala Asp Leu  
305 310 315 320

Asn Asp Ala Ser Lys Gly Tyr Leu Val Asn Asp Ala Ile Ile Phe Glu  
325 330 335

Ala Glu Met Val Lys Val Ser Ile Thr Asn Ile Val Ser Ala  
340 345 350

<210> 2261

<211> 1122

<212> DNA

<213> Arabidopsis thaliana

<400>	2261						
atgggataacc	tttttcaaga	aaccttaagc	tctaacccta	aaactccaat	tgttgttgat		60
gatgataacg	agttggggtt	gatggccgtg	agacttgcca	acgccgccgc	ctttcctatg		120
gttctcaaag	ccgccctcga	gcttggtgtc	tttgacactc	tctacgccgc	agcctctcgc		180
accgactcat	tctcttcacc	ctatgaaata	gcaagtaagc	taccaactac	acctcgtaac		240
cctgaagcgc	cggttttggt	ggaccgcatg	cttcgtctac	tcgctagcta	ctccatggtc		300
aagtgtggta	aggccttatc	cggaaagggc	gagaggggtc	acagagccga	gccgatttgc		360
aggttcttct	tgaaggataa	cattcaagat	attggatccc	ttgcttctca	agtcatcgtc		420
aatttcgaca	gcgtcttcct	taatacctgg	gcacagttga	aagatgtggg	gctagaagga		480
ggagatgcgt	ttggtcgcgc	acatggtggt	atgaaactct	ttgactatat	gggtacagat		540
gagagattca	gcaagctctt	taaccagacc	ggattcaca	tcgcggtcgt	taagaaggcc		600
cttgaagtct	atgaaggctt	caaagggtgtg	aaagtttttag	ttgatgttgg	aggaggagtt		660

047-E2F-PCT.ST25.txt

ggtaacactc ttggtgttgt tactttctaaa tatcccaata ttaaggggtat caactttgat 720  
ctaacctgtg ccttggcaca agcaccttct tatcccgggtg tggagcatgt tgccggagat 780  
atgtttgtgg atgtcccaac cggagatgcc atgatcttga aacgtatact tcatgattgg 840  
accgacgaag atttgtgtcaa gattcttaag aattgtttgga aatcactacc tgaaaacggt 900  
aaagtgggtt ttatagaatt agtcactcct gatgaggcag agaatggtga catcaatgcg 960  
aacattgcct ttgacatgga catgttaatg ttcaccaat gttctggtgg aaaagagcga 1020  
tcaagagctg agtttgaagc tttagctgca gcttctggct tcaccattg caagttcggt 1080  
tgccaagctt atcactgctg gattattgaa ttctgtaaat aa 1122

<210> 2262

<211> 373

<212> PRT

<213> Arabidopsis thaliana

<400> 2262

Met Gly Tyr Leu Phe Gln Glu Thr Leu Ser Ser Asn Pro Lys Thr Pro  
1 5 10 15

Ile Val Val Asp Asp Asp Asn Glu Leu Gly Leu Met Ala Val Arg Leu  
20 25 30

Ala Asn Ala Ala Ala Phe Pro Met Val Leu Lys Ala Ala Leu Glu Leu  
35 40 45

Gly Val Phe Asp Thr Leu Tyr Ala Ala Ala Ser Arg Thr Asp Ser Phe  
50 55 60

Leu Ser Pro Tyr Glu Ile Ala Ser Lys Leu Pro Thr Thr Pro Arg Asn  
65 70 75 80

Pro Glu Ala Pro Val Leu Leu Asp Arg Met Leu Arg Leu Leu Ala Ser  
85 90 95

Tyr Ser Met Val Lys Cys Gly Lys Ala Leu Ser Gly Lys Gly Glu Arg  
100 105 110

Val Tyr Arg Ala Glu Pro Ile Cys Arg Phe Phe Leu Lys Asp Asn Ile  
115 120 125

Gln Asp Ile Gly Ser Leu Ala Ser Gln Val Ile Val Asn Phe Asp Ser

130

135

Val 145	Phe	Leu	Asn	Thr	Trp 150	Ala	Gln	Leu	Lys	Asp 155	Val	Val	Leu	Glu	Gly 160
Gly	Asp	Ala	Phe	Gly 165	Arg	Ala	His	Gly	Gly 170	Met	Lys	Leu	Phe	Asp 175	Tyr
Met	Gly	Thr	Asp 180	Glu	Arg	Phe	Ser	Lys 185	Leu	Phe	Asn	Gln	Thr 190	Gly	Phe
Thr	Ile	Ala 195	Val	Val	Lys	Lys	Ala 200	Leu	Glu	Val	Tyr	Glu 205	Gly	Phe	Lys
Gly	Val 210	Lys	Val	Leu	Val	Asp 215	Val	Gly	Gly	Gly	Val 220	Gly	Asn	Thr	Leu
Gly 225	Val	Val	Thr	Ser	Lys 230	Tyr	Pro	Asn	Ile	Lys 235	Gly	Ile	Asn	Phe	Asp 240
Leu	Thr	Cys	Ala	Leu 245	Ala	Gln	Ala	Pro	Ser 250	Tyr	Pro	Gly	Val	Glu 255	His
Val	Ala	Gly	Asp 260	Met	Phe	Val	Asp	Val 265	Pro	Thr	Gly	Asp	Ala 270	Met	Ile
Leu	Lys	Arg 275	Ile	Leu	His	Asp	Trp 280	Thr	Asp	Glu	Asp	Cys 285	Val	Lys	Ile
Leu	Lys 290	Asn	Cys	Trp	Lys	Ser 295	Leu	Pro	Glu	Asn	Gly 300	Lys	Val	Val	Val
Ile 305	Glu	Leu	Val	Thr	Pro 310	Asp	Glu	Ala	Glu	Asn 315	Gly	Asp	Ile	Asn	Ala 320
Asn	Ile	Ala	Phe	Asp 325	Met	Asp	Met	Leu	Met 330	Phe	Thr	Gln	Cys	Ser 335	Gly
Gly	Lys	Glu	Arg 340	Ser	Arg	Ala	Glu	Phe	Glu	Ala	Leu	Ala	Ala	Ala	Ser
Gly	Phe	Thr 355	His	Cys	Lys	Phe	Val 360	Cys	Gln	Ala	Tyr	His 365	Cys	Trp	Ile
Ile 370	Glu	Phe	Cys	Lys											

&lt;210&gt; 2263

&lt;211&gt; 921

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2263

```

atgaccacgt tattcctcct tattgctcta ttcatacaca ccatcctcaa cccaacaagt    60
ggagaatcag taggtgtatg ctatggaatg atggggaaca accttccttc tcaatcagac    120
acaatcgctc tcttttagaca aaacaacatc cgacgtgtta gactctacga tccaaaccaa    180
gccgctttta acgctcttag aaacacgggt atcgaagtca tcatcggcgt tccaaacacc    240
gatcttcgtt cactcactaa cccttccttc gctagatcat ggctccaaaa caacgtcctc    300
aactattacc cgcgcgttag cttcaagtac atcgccgtag gtaacgaagt atctccgtcg    360
aacggcgggtg atgttgtgct ccctgccatg cgtaacgttt acgatgctct aagaggtgca    420
aatcttcaag atcgtattaa agtttctacc gccattgata tgactttgat tggaaactct    480
ttccctcctt cctccggaga gtttcgtggt gacgttagat ggtatatcga tcccgtcatc    540
gggtttctta cgagtacgaa ctacgcgtta ctagccaaca tctatcctta cttcagctac    600
gttgacaatc cacgtgacat atctctctct tacgctctct tcacttctcc ttccgtcgtc    660
gtatgggacg gctctcgtgg ctacaaaaac ctctttgacg ctttacttga cgttgtttac    720
tctgccgttg aacgctcagg cggtggatct ctcccagtggt ttgtttccga gagcggatgg    780
ccttctaacg gtggaacgc cgcgagtttc gataacgcgc gaagcttttt acacgaatct    840
tgcgtcgcgt gtgagagaga acagaggaac accgaagaga cctggaagag gagtggaaac    900
gtatttgttc gctatgtttg a                                         921

```

&lt;210&gt; 2264

&lt;211&gt; 306

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2264

```

Met Thr Thr Leu Phe Leu Leu Ile Ala Leu Phe Ile Thr Thr Ile Leu
1           5           10          15

```

```

Asn Pro Thr Ser Gly Glu Ser Val Gly Val Cys Tyr Gly Met Met Gly
          20          25          30

```

047-E2F-PCT.ST25.txt

Asn Asn Leu Pro Ser Gln Ser Asp Thr Ile Ala Leu Phe Arg Gln Asn  
 35 40 45  
 Asn Ile Arg Arg Val Arg Leu Tyr Asp Pro Asn Gln Ala Ala Leu Asn  
 50 55 60  
 Ala Leu Arg Asn Thr Gly Ile Glu Val Ile Ile Gly Val Pro Asn Thr  
 65 70 75 80  
 Asp Leu Arg Ser Leu Thr Asn Pro Ser Ser Ala Arg Ser Trp Leu Gln  
 85 90 95  
 Asn Asn Val Leu Asn Tyr Tyr Pro Ala Val Ser Phe Lys Tyr Ile Ala  
 100 105 110  
 Val Gly Asn Glu Val Ser Pro Ser Asn Gly Gly Asp Val Val Leu Pro  
 115 120 125  
 Ala Met Arg Asn Val Tyr Asp Ala Leu Arg Gly Ala Asn Leu Gln Asp  
 130 135 140  
 Arg Ile Lys Val Ser Thr Ala Ile Asp Met Thr Leu Ile Gly Asn Ser  
 145 150 155 160  
 Phe Pro Pro Ser Ser Gly Glu Phe Arg Gly Asp Val Arg Trp Tyr Ile  
 165 170 175  
 Asp Pro Val Ile Gly Phe Leu Thr Ser Thr Asn Ser Ala Leu Leu Ala  
 180 185 190  
 Asn Ile Tyr Pro Tyr Phe Ser Tyr Val Asp Asn Pro Arg Asp Ile Ser  
 195 200 205  
 Leu Ser Tyr Ala Leu Phe Thr Ser Pro Ser Val Val Val Trp Asp Gly  
 210 215 220  
 Ser Arg Gly Tyr Gln Asn Leu Phe Asp Ala Leu Leu Asp Val Val Tyr  
 225 230 235 240  
 Ser Ala Val Glu Arg Ser Gly Gly Gly Ser Leu Pro Val Val Val Ser  
 245 250 255  
 Glu Ser Gly Trp Pro Ser Asn Gly Gly Asn Ala Ala Ser Phe Asp Asn  
 260 265 270  
 Ala Arg Ser Phe Leu His Glu Ser Cys Val Ala Cys Glu Arg Glu Gln  
 275 280 285

Arg Asn Thr Glu Glu Thr Trp Lys Arg Ser Gly Asn Val Phe Val Arg  
 290 295 300

Tyr Val  
 305

<210> 2265

<211> 1200

<212> DNA

<213> *Arabidopsis thaliana*

<400> 2265

```

atggctggga tttgttgagg tggtgttgga gagactgaac cggcggcacc ggttgattca      60
acttctcgag cttctcttag acggagggtta gatctacttc cgtcgatcaa aattgttgct      120
gactccgccg ttgctcctcc gcttgaaaac tgccgtaaac ggcagaagcg tgagacagta      180
gtgctctcga cgttaccggg aaatctagat ctggattcga atgtgaggag tgagaataag      240
aaggctagat cagcgggttac gaattcaaat tctgttacgg aagcagagag tttcttttcc      300
gatgtacctt agatcgggtac gacgtcgggt tgtggttagaa gacgagacat ggaagacgct      360
gtctcgattc atccttcggt tcttcaacgg aactctgaga atcatcattt ctacggtgtc      420
tttgacggcc atggctgctc tcatgttgcg gagaagtgca gagaacgggt gcatgatata      480
gtgaagaagg aagttgaagt tatggcttcc gacgagtgga cagagacgat ggttaagagt      540
tttcaaaaaa tggataaaga agtttagcaa cgagagtgta acttagttgt taatggtgct      600
actcggagta tgaaaaattc ttgtagatgt gaattgcagt ctcttcagtg tgacgccgtc      660
ggatccaccg ctgttgtatc ggttgtcacg ccggagaaga tcattgtttc taattgcggt      720
gattcacggg ctgtgctttg tcgtaacggt gtagccattc ctctctccgt agatcacaag      780
ccggatcgac ccgatgaatt gattcggatc caacaagctg gtgggagagt tatatattgg      840
gatggagcta gggttcttgg agttcttgcc atgtctagag caattggtga taattacttg      900
aaaccgtatg tgattccgga tccggaggta acagtgcagg atcgaactga tgaggatgag      960
tgtttgatct tggcgagtga tggactatgg gatgtgttac caaacgagac ggcgtgtggc     1020
gtggctcgca tgtgccttcg aggtgctggt gcggggtgacg actcagatgc ggcgcacaat     1080
gcgtgctccg atcgggcggt gctcttaaca aagttggctc tagcaagaca gagctccgat     1140
aacgtgagcg tcgttgtggt tgacttgagg aagaggagga ataataagc gtcgtcttaa     1200

```

<210> 2266

&lt;211&gt; 399

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2266

Met Ala Gly Ile Cys Cys Gly Val Val Gly Glu Thr Glu Pro Ala Ala  
 1 5 10 15

Pro Val Asp Ser Thr Ser Arg Ala Ser Leu Arg Arg Arg Leu Asp Leu  
 20 25 30

Leu Pro Ser Ile Lys Ile Val Ala Asp Ser Ala Val Ala Pro Pro Leu  
 35 40 45

Glu Asn Cys Arg Lys Arg Gln Lys Arg Glu Thr Val Val Leu Ser Thr  
 50 55 60

Leu Pro Gly Asn Leu Asp Leu Asp Ser Asn Val Arg Ser Glu Asn Lys  
 65 70 75 80

Lys Ala Arg Ser Ala Val Thr Asn Ser Asn Ser Val Thr Glu Ala Glu  
 85 90 95

Ser Phe Phe Ser Asp Val Pro Lys Ile Gly Thr Thr Ser Val Cys Gly  
 100 105 110

Arg Arg Arg Asp Met Glu Asp Ala Val Ser Ile His Pro Ser Phe Leu  
 115 120 125

Gln Arg Asn Ser Glu Asn His His Phe Tyr Gly Val Phe Asp Gly His  
 130 135 140

Gly Cys Ser His Val Ala Glu Lys Cys Arg Glu Arg Leu His Asp Ile  
 145 150 155 160

Val Lys Lys Glu Val Glu Val Met Ala Ser Asp Glu Trp Thr Glu Thr  
 165 170 175

Met Val Lys Ser Phe Gln Lys Met Asp Lys Glu Val Ser Gln Arg Glu  
 180 185 190

Cys Asn Leu Val Val Asn Gly Ala Thr Arg Ser Met Lys Asn Ser Cys  
 195 200 205



047-E2F-PCT.ST25.txt

Arg Cys Glu Leu Gln Ser Pro Gln Cys Asp Ala Val Gly Ser Thr Ala  
210 215 220

Val Val Ser Val Val Thr Pro Glu Lys Ile Ile Val Ser Asn Cys Gly  
225 230 235 240

Asp Ser Arg Ala Val Leu Cys Arg Asn Gly Val Ala Ile Pro Leu Ser  
245 250 255

Val Asp His Lys Pro Asp Arg Pro Asp Glu Leu Ile Arg Ile Gln Gln  
260 265 270

Ala Gly Gly Arg Val Ile Tyr Trp Asp Gly Ala Arg Val Leu Gly Val  
275 280 285

Leu Ala Met Ser Arg Ala Ile Gly Asp Asn Tyr Leu Lys Pro Tyr Val  
290 295 300

Ile Pro Asp Pro Glu Val Thr Val Thr Asp Arg Thr Asp Glu Asp Glu  
305 310 315 320

Cys Leu Ile Leu Ala Ser Asp Gly Leu Trp Asp Val Val Pro Asn Glu  
325 330 335

Thr Ala Cys Gly Val Ala Arg Met Cys Leu Arg Gly Ala Gly Ala Gly  
340 345 350

Asp Asp Ser Asp Ala Ala His Asn Ala Cys Ser Asp Ala Ala Leu Leu  
355 360 365

Leu Thr Lys Leu Ala Leu Ala Arg Gln Ser Ser Asp Asn Val Ser Val  
370 375 380

Val Val Val Asp Leu Arg Lys Arg Arg Asn Asn Gln Ala Ser Ser  
385 390 395

<210> 2267

<211> 1014

<212> DNA

<213> Arabidopsis thaliana

<400> 2267

atggagatct caaaaaccct tttgctagtg atttctctgg tggctgcaac ttgtttcttg 60

caagccaagg cagctggagt ttattgtagt aacccttaca ctcgatgtta ccgcaagtac 120

047-E2F-PCT.ST25.txt

```

attaggtgtc cagaggaatg tccaagcaaa accgctatga actccaagaa caaagtgtgc 180
tacgccgatt gcgatagacc cacttgcaaa tcccaatgcc gcatgaggaa accaaactgc 240
aacagacctg gatcagcttg ttatgacccg aggttcattg gaggagacgg catttgtgttc 300
tacttccatg gaaagagcaa tgaagagttt agcctcgtct ctgactctga ctttcagatc 360
aatggtaggt tcattggtca cagacccgct ggtcgtgccg gagacttcac atggatccaa 420
gctctaggat tccttttcaa ctccaacaaa ttctccctcg aagccgcgaa aaccgcctca 480
tgggacaacg aaatcgacca tctcaaattc agttacgatg gccaaagattt atctgtttcca 540
gaagaaactc tctccacctg gtactcacca aacaaggaca tcaagatcga gagagtgagt 600
atgagaaaaca gcgatgatcg gacaatcaaa gacaaagccg agatcatgat caatgtgggtt 660
ccagtgacaa aagaagacga cagaatccat agctacaaag taccatcaga tgattgtttt 720
gcacatcttg aggttcaatt cagattcttt aacctttcac ctaaggttga tggaatcttg 780
ggacgaacct acaggcccga tttccaaaat ccggctaagc ctggagtcgc aatgccagtt 840
gttggtggtg aagacagctt caagacttct tctctactct ccaatgactg taaaacttgc 900
atcttctctg agtcacaagc agagattgat tctgttaagt cagagattga atatgcaact 960
ttggattgta cccgtggagc gtcttctggt tacggtatcg tgtgcaggaa gtaa 1014

```

<210> 2268

<211> 337

<212> PRT

<213> Arabidopsis thaliana

<400> 2268

Met Glu Ile Ser Lys Thr Leu Leu Leu Val Ile Ser Leu Val Ala Ala  
1 5 10 15

Thr Cys Phe Leu Gln Ala Lys Ala Ala Gly Val Tyr Cys Ser Asn Pro  
20 25 30

Tyr Thr Arg Cys Tyr Arg Lys Tyr Ile Arg Cys Pro Glu Glu Cys Pro  
35 40 45

Ser Lys Thr Ala Met Asn Ser Lys Asn Lys Val Cys Tyr Ala Asp Cys  
50 55 60

Asp Arg Pro Thr Cys Lys Ser Gln Cys Arg Met Arg Lys Pro Asn Cys  
65 70 75 80

Asn Arg Pro Gly Ser Ala Cys Tyr Asp Pro Arg Phe Ile Gly Gly Asp  
 85 90 95  
 Gly Ile Val Phe Tyr Phe His Gly Lys Ser Asn Glu Glu Phe Ser Leu  
 100 105 110  
 Val Ser Asp Ser Asp Leu Gln Ile Asn Gly Arg Phe Ile Gly His Arg  
 115 120 125  
 Pro Ala Gly Arg Ala Arg Asp Phe Thr Trp Ile Gln Ala Leu Gly Phe  
 130 135 140  
 Leu Phe Asn Ser Asn Lys Phe Ser Leu Glu Ala Ala Lys Thr Ala Ser  
 145 150 155 160  
 Trp Asp Asn Glu Ile Asp His Leu Lys Phe Ser Tyr Asp Gly Gln Asp  
 165 170 175  
 Leu Ser Val Pro Glu Glu Thr Leu Ser Thr Trp Tyr Ser Pro Asn Lys  
 180 185 190  
 Asp Ile Lys Ile Glu Arg Val Ser Met Arg Asn Ser Val Ile Val Thr  
 195 200 205  
 Ile Lys Asp Lys Ala Glu Ile Met Ile Asn Val Val Pro Val Thr Lys  
 210 215 220  
 Glu Asp Asp Arg Ile His Ser Tyr Lys Val Pro Ser Asp Asp Cys Phe  
 225 230 235 240  
 Ala His Leu Glu Val Gln Phe Arg Phe Phe Asn Leu Ser Pro Lys Val  
 245 250 255  
 Asp Gly Ile Leu Gly Arg Thr Tyr Arg Pro Asp Phe Gln Asn Pro Ala  
 260 265 270  
 Lys Pro Gly Val Ala Met Pro Val Val Gly Gly Glu Asp Ser Phe Lys  
 275 280 285  
 Thr Ser Ser Leu Leu Ser Asn Asp Cys Lys Thr Cys Ile Phe Ser Glu  
 290 295 300  
 Ser Gln Ala Glu Ile Asp Ser Val Lys Ser Glu Ile Glu Tyr Ala Thr  
 305 310 315 320  
 Leu Asp Cys Thr Arg Gly Ala Ser Ser Gly Tyr Gly Ile Val Cys Arg  
 325 330 335

Lys

&lt;210&gt; 2269

&lt;211&gt; 831

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2269

```

atgatcgccg cggagctaa atcgctatta gggctttcga tggcttctcc aaaagggatt    60
ttcgatagca attcaatgag taattcaaga tctgttggtt ttgttcgtgc ttgtgtttct    120
atggatggat ctcaactct gagtcataac aaaaatggat ctattcctga ggttaaattcc    180
attaacggtc acacgggaca aaagcaagga cctttgtcta cggtcggaaa ctcgacaaat    240
ataaagtggc atgaatgttc tgttgagaaa gttgatagac agagattgct tgatcagaaa    300
ggatgtgtga tttgggtcac cggcttagt ggttcaggga agagtacttt ggcttgtgct    360
ttgaatcaga tgttgatatca aaaggggaag ctttggtata ttcttgatgg tgataatgtt    420
aggcatggct taaaccgtga tcttagcttt aaagctgagg atcgtgcaga gaatattcgt    480
agagttggag aggttgctaa gctttttgcg gatgctggaa taatctgcat tgcgagtttg    540
atatctcctt atagaacaga tagggacgct tgtcgaagtt tgctccccga gggagatttt    600
gttgaggtgt tcatggatgt accgcttagt gtttgcgagg cgagggatcc aaagggcttt    660
tacaagcttg ctcgtgcagg aaagatcaaa ggttttaccg ggatcgatga cccttacgag    720
ccaccattga actgcgagat ttctctagga cgtgaaggag gaacttctcc tatcgaaatg    780
gcggaaaagg tcgtcggata cttagataac aagggttatc ttcaagcata a          831

```

&lt;210&gt; 2270

&lt;211&gt; 276

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2270

```

Met Ile Ala Ala Gly Ala Lys Ser Leu Leu Gly Leu Ser Met Ala Ser
1           5           10          15

```

```

Pro Lys Gly Ile Phe Asp Ser Asn Ser Met Ser Asn Ser Arg Ser Val
          20          25          30

```

047-E2F-PCT.ST25.txt

Val Val Val Arg Ala Cys Val Ser Met Asp Gly Ser Gln Thr Leu Ser  
 35 40 45  
 His Asn Lys Asn Gly Ser Ile Pro Glu Val Lys Ser Ile Asn Gly His  
 50 55 60  
 Thr Gly Gln Lys Gln Gly Pro Leu Ser Thr Val Gly Asn Ser Thr Asn  
 65 70 75 80  
 Ile Lys Trp His Glu Cys Ser Val Glu Lys Val Asp Arg Gln Arg Leu  
 85 90 95  
 Leu Asp Gln Lys Gly Cys Val Ile Trp Val Thr Gly Leu Ser Gly Ser  
 100 105 110  
 Gly Lys Ser Thr Leu Ala Cys Ala Leu Asn Gln Met Leu Tyr Gln Lys  
 115 120 125  
 Gly Lys Leu Cys Tyr Ile Leu Asp Gly Asp Asn Val Arg His Gly Leu  
 130 135 140  
 Asn Arg Asp Leu Ser Phe Lys Ala Glu Asp Arg Ala Glu Asn Ile Arg  
 145 150 155 160  
 Arg Val Gly Glu Val Ala Lys Leu Phe Ala Asp Ala Gly Ile Ile Cys  
 165 170 175  
 Ile Ala Ser Leu Ile Ser Pro Tyr Arg Thr Asp Arg Asp Ala Cys Arg  
 180 185 190  
 Ser Leu Leu Pro Glu Gly Asp Phe Val Glu Val Phe Met Asp Val Pro  
 195 200 205  
 Leu Ser Val Cys Glu Ala Arg Asp Pro Lys Gly Leu Tyr Lys Leu Ala  
 210 215 220  
 Arg Ala Gly Lys Ile Lys Gly Phe Thr Gly Ile Asp Asp Pro Tyr Glu  
 225 230 235 240  
 Pro Pro Leu Asn Cys Glu Ile Ser Leu Gly Arg Glu Gly Gly Thr Ser  
 245 250 255  
 Pro Ile Glu Met Ala Glu Lys Val Val Gly Tyr Leu Asp Asn Lys Gly  
 260 265 270  
 Tyr Leu Gln Ala

275

&lt;210&gt; 2271

&lt;211&gt; 273

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2271

```

atggcggttga gaagggttta cagtgaaatc agaggggaaga aggtgacgga gcttccaggc      60
tatatcaaat cgactttttc aatggagacc gtgaagacct ctgtgaagag aggactcgat      120
aactacaacg aaaaatacat tcagaccagc tccgttgatc ctatccttca tatctgcttc      180
tacggcatgg ctttctctta cttgtcgct ctccctaata agcgtcgcca tcttgagcat      240
cagcagcatg ctaaggagca cggtgggtcat tga                                     273

```

&lt;210&gt; 2272

&lt;211&gt; 90

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2272

```

Met Ala Leu Arg Arg Val Tyr Ser Glu Ile Arg Gly Lys Lys Val Thr
1          5          10          15

Glu Leu Pro Gly Tyr Ile Lys Ser Thr Phe Ser Met Glu Thr Val Lys
20          25          30

Thr Ser Val Lys Arg Gly Leu Asp Asn Tyr Asn Glu Lys Tyr Ile Gln
35          40          45

Thr Ser Ser Val Asp Pro Ile Leu His Ile Cys Phe Tyr Gly Met Ala
50          55          60

Phe Ser Tyr Leu Val Ala Leu Pro Asn Glu Arg Arg His Leu Glu His
65          70          75          80

Gln Gln His Ala Lys Glu His Gly Gly His
85          90

```

&lt;210&gt; 2273

&lt;211&gt; 1185

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2273

```

atgtcaatcc ttcaagtctc tacttcgtct ctttcttctt ctactcttct ctccatatct    60
cccagaaaat ctctctcatc taccaagtca tgccggatag ttcgatgttc cgtcgaggga    120
actactgtaa ccgagagaaa agtctcggca accagcgagc cacttcttct gagagctgtt    180
aaaggtgaag ttgttgatag acctccggtt tggcttatga ggcaagctgg gaggtacatg    240
aagagttatc aaactctctg tgagaagtat ccttctttca gagatagatc agagaatgca    300
gatcttgtgg tggaaatttc tttgcagcca tgggaaggtgt ttaagccaga tggggtgatt    360
ctgttctcag acattctcac tccattgtct ggaatgaaca tacctttcga cattgttaaa    420
ggaaaaggtc ctatcatctt taaccgcct caatcagctg ccgacgttgc tcaagttaga    480
gaattcgtac cagaggaatc tgttccttat gttggagaag cactcagaag attaagaaat    540
gaggtgaaca atgaagccgc tgttctggga tttgttgag ctccatttac actttcttcg    600
tatgtaatcg aaggtggctc atctaagaac ttcacacaga taaaagatt agctttttct    660
caaccaagg ttctacatgc cttactccag aagttcaca cctcgatgat aacgtacata    720
cgctatcaag cagatagcgg agctcaagct gtgcaaatat tcgactcttg ggcaaccgag    780
cttagcccg tggattttga ggagtttagc ttaccttatc tcaaacagat tgtggaagct    840
gtgaaacaaa ctcacccaaa cctacctctc atactttatg ctagtggatc aggaggtttg    900
ctagagagac tggctcggac cgggtgtggat gttgtgagct tggactggac tgtggacatg    960
gctgaaggaa gagaccggct aggaagagac atagcagttc aaggaaacgt tgatccggga   1020
gttctatttg gatcgaaaga atttatcaca agccggattc atgatactgt gaagaaagct   1080
gggagagata aacacattct caacttgggg catggtatta aagttggaac ccctgaagag   1140
aatgtagcac acttctttga ggttgctcaa gaaattagat attaa                      1185

```

&lt;210&gt; 2274

&lt;211&gt; 394

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2274

Met Ser Ile Leu Gln Val Ser Thr Ser Ser Leu Ser Ser Ser Thr Leu  
Page 3257

1		5												15	
Leu	Ser	Ile	Ser	Pro	Arg	Lys	Ser	Leu	Ser	Ser	Thr	Lys	Ser	Cys	Arg
			20					25					30		
Ile	Val	Arg	Cys	Ser	Val	Glu	Gly	Thr	Thr	Val	Thr	Glu	Arg	Lys	Val
		35					40					45			
Ser	Ala	Thr	Ser	Glu	Pro	Leu	Leu	Leu	Arg	Ala	Val	Lys	Gly	Glu	Val
	50					55					60				
Val	Asp	Arg	Pro	Pro	Val	Trp	Leu	Met	Arg	Gln	Ala	Gly	Arg	Tyr	Met
65					70					75					80
Lys	Ser	Tyr	Gln	Thr	Leu	Cys	Glu	Lys	Tyr	Pro	Ser	Phe	Arg	Asp	Arg
				85					90					95	
Ser	Glu	Asn	Ala	Asp	Leu	Val	Val	Glu	Ile	Ser	Leu	Gln	Pro	Trp	Lys
			100					105					110		
Val	Phe	Lys	Pro	Asp	Gly	Val	Ile	Leu	Phe	Ser	Asp	Ile	Leu	Thr	Pro
		115					120					125			
Leu	Ser	Gly	Met	Asn	Ile	Pro	Phe	Asp	Ile	Val	Lys	Gly	Lys	Gly	Pro
		130				135					140				
Ile	Ile	Phe	Asn	Pro	Pro	Gln	Ser	Ala	Ala	Asp	Val	Ala	Gln	Val	Arg
145					150					155					160
Glu	Phe	Val	Pro	Glu	Glu	Ser	Val	Pro	Tyr	Val	Gly	Glu	Ala	Leu	Arg
				165					170					175	
Arg	Leu	Arg	Asn	Glu	Val	Asn	Asn	Glu	Ala	Ala	Val	Leu	Gly	Phe	Val
			180					185					190		
Gly	Ala	Pro	Phe	Thr	Leu	Ser	Ser	Tyr	Val	Ile	Glu	Gly	Gly	Ser	Ser
		195					200					205			
Lys	Asn	Phe	Thr	Gln	Ile	Lys	Arg	Leu	Ala	Phe	Ser	Gln	Pro	Lys	Val
	210					215					220				
Leu	His	Ala	Leu	Leu	Gln	Lys	Phe	Thr	Thr	Ser	Met	Ile	Thr	Tyr	Ile
225					230					235					240
Arg	Tyr	Gln	Ala	Asp	Ser	Gly	Ala	Gln	Ala	Val	Gln	Ile	Phe	Asp	Ser
				245					250					255	



Trp Ala Thr Glu Leu Ser Pro Val Asp Phe Glu Glu Phe Ser Leu Pro  
 260 265 270

Tyr Leu Lys Gln Ile Val Glu Ala Val Lys Gln Thr His Pro Asn Leu  
 275 280 285

Pro Leu Ile Leu Tyr Ala Ser Gly Ser Gly Gly Leu Leu Glu Arg Leu  
 290 295 300

Ala Arg Thr Gly Val Asp Val Val Ser Leu Asp Trp Thr Val Asp Met  
 305 310 315 320

Ala Glu Gly Arg Asp Arg Leu Gly Arg Asp Ile Ala Val Gln Gly Asn  
 325 330 335

Val Asp Pro Gly Val Leu Phe Gly Ser Lys Glu Phe Ile Thr Ser Arg  
 340 345 350

Ile His Asp Thr Val Lys Lys Ala Gly Arg Asp Lys His Ile Leu Asn  
 355 360 365

Leu Gly His Gly Ile Lys Val Gly Thr Pro Glu Glu Asn Val Ala His  
 370 375 380

Phe Phe Glu Val Ala Gln Glu Ile Arg Tyr  
 385 390

<210> 2275

<211> 1425

<212> DNA

<213> Arabidopsis thaliana

<400> 2275  
 atggggtttga tatcagcgaa agagacgaag aacaacacta gaggaatggg tttgctctta 60  
 gtctttcttcc ccgaccacca caacaacaac gacgactctc cttcttcttc ttcttcttct 120  
 ccggcaacaa caactctctt ccgctccaga tcttctcgtc ttctctcttc caaagctcaa 180  
 tccacaatct caatctgcat cctcctcctc ttcctcactc tcttctcttt cactctctcc 240  
 accttcgaac cttcctctgg ctttcccgcc gtttcttctt ctcgtcctca ccgctcgattt 300  
 ctctctcaacc gcgacatctc cgcctcttct gaatctcgtc gtcgttataa ccgattcgct 360  
 ctccaaggta tgggtactct gtttctcaga ggaaccaaga gcatgcacga tttgattggt 420  
 gttcatatct cttccgatac tacggaagac gatctccgtc tcttcatgcg cttgatccac 480

047-E2F-PCT.ST25.txt

cgctccggtg tcacttccaa atccgacgtc gttttactct tcaattcggg tacgagattc 540  
 actgaaatga tcgaagaaga gaacgactcg ttcttaaaac tcgttgatgt tcatcggaat 600  
 tcgtcgaatc aaatcgactc cgtttgggga tttaatctca cgaaattcat gaagaagcaa 660  
 tcgaaatcat catcgtctga gccaatattg gggaagaaga cgcacgcagc taattacaac 720  
 gatacgtcgt cgttgaataa ctcgaccgag tcaaccgagt tggtgacaca tggctcagta 780  
 gtgggtttcg acgtgactga gttggatcct gaaaactcgc tatccgggtt tatggatcac 840  
 gttccgataa gtttgagaag atgggcgtgt tacccaatgc tgctagggtc agtaagacgc 900  
 aatttcaaac acgttatgct cgtggacgct aaaacctcct tgttcctcgg tgaccgcgta 960  
 acccggaattc gtaaccggag ctttgagtca gtcctcttct tctctaaaca cagtagtagt 1020  
 agcaagaaaa gtcctgaggt taatccggcg attctgatcg gtggagctaa aggaatcagg 1080  
 aggttatcga gctcgatgca cactgagatc gtgagagcga cgattcagca gcagcataag 1140  
 aagaagaact cggttacgga atcgggtggtg ttgagccaac tcgttgggaa tgttcacatg 1200  
 acgaagaatt ttgaagtggg tacgagtgag tcgggtggtac cggaagcgag ttcactggct 1260  
 gagttaagga cgagaaactc ggcggcttcg tcgataaaga atcatgatat aatacaaaga 1320  
 ggtggtggta atagtaatag taatcatatt attgatatta tggcgattat tatgaaacgt 1380  
 atttgttctt gtgaattaga ttcttctggt tataattact gtttag 1425

<210> 2276

<211> 474

<212> PRT

<213> Arabidopsis thaliana

<400> 2276

Met Gly Leu Ile Ser Ala Lys Glu Thr Lys Asn Asn Thr Arg Gly Met  
 1 5 10 15

Gly Leu Leu Leu Val Phe Phe Pro Asp His His Asn Asn Asn Asp Asp  
 20 25 30

Ser Pro Ser Ser Ser Ser Ser Pro Ala Thr Thr Thr Leu Phe Arg  
 35 40 45

Ser Arg Ser Ser Arg Leu Leu Leu Ser Lys Ala Gln Ser Thr Ile Ser  
 50 55 60

Ile Cys Ile Leu Leu Leu Phe Leu Thr Leu Phe Leu Phe Thr Leu Ser  
 65 70 75 80

047-E2F-PCT.ST25.txt

Thr Phe Glu Pro Ser Ser Gly Phe Pro Ala Val Ser Ser Ser Arg Pro  
 85 90 95  
 His Arg Arg Phe Leu Leu Asn Arg Asp Ile Ser Ala Ser Ser Glu Ser  
 100 105 110  
 Arg Arg Arg Tyr Asn Arg Phe Ala Leu Gln Gly Met Gly Thr Leu Phe  
 115 120 125  
 Leu Arg Gly Thr Lys Ser Met His Asp Leu Ile Val Val His Ile Ser  
 130 135 140  
 Ser Asp Thr Thr Glu Asp Asp Leu Arg Leu Phe Met Arg Leu Ile His  
 145 150 155 160  
 Arg Ser Gly Val Thr Ser Lys Ser Asp Val Val Leu Leu Phe Asn Ser  
 165 170 175  
 Gly Thr Arg Phe Thr Glu Met Ile Glu Glu Glu Asn Asp Ser Phe Leu  
 180 185 190  
 Lys Leu Val Asp Val His Arg Asn Ser Ser Asn Gln Ile Asp Ser Val  
 195 200 205  
 Trp Gly Phe Asn Leu Thr Lys Phe Met Lys Lys Gln Ser Lys Ser Ser  
 210 215 220  
 Ser Ser Glu Pro Ile Trp Gly Lys Lys Thr His Arg Ala Asn Tyr Asn  
 225 230 235 240  
 Asp Thr Ser Ser Leu Asn Asn Ser Thr Glu Ser Thr Glu Leu Leu Thr  
 245 250 255  
 His Gly Ser Val Val Gly Phe Asp Val Thr Glu Leu Asp Pro Glu Asn  
 260 265 270  
 Ser Leu Ser Gly Phe Met Asp His Val Pro Ile Ser Leu Arg Arg Trp  
 275 280 285  
 Ala Cys Tyr Pro Met Leu Leu Gly Arg Val Arg Arg Asn Phe Lys His  
 290 295 300  
 Val Met Leu Val Asp Ala Lys Thr Ser Leu Phe Leu Gly Asp Pro Leu  
 305 310 315 320  
 Thr Arg Ile Arg Asn Arg Ser Leu Glu Ser Val Leu Phe Phe Ser Lys

325

330

335

His Ser Ser Ser Ser Lys Lys Ser Ser Glu Val Asn Pro Ala Ile Leu  
 340 345 350

Ile Gly Gly Ala Lys Gly Ile Arg Arg Leu Ser Ser Ser Met His Thr  
 355 360 365

Glu Ile Val Arg Ala Thr Ile Gln Gln Gln His Lys Lys Lys Asn Ser  
 370 375 380

Val Thr Glu Ser Val Val Leu Ser Gln Leu Val Gly Asn Val His Met  
 385 390 395 400

Thr Lys Asn Phe Glu Val Val Thr Ser Glu Ser Val Val Pro Glu Ala  
 405 410 415

Ser Ser Leu Ala Glu Leu Arg Thr Arg Asn Ser Ala Ala Ser Ser Ile  
 420 425 430

Lys Asn His Asp Ile Ile Gln Arg Gly Gly Gly Asn Ser Asn Ser Asn  
 435 440 445

His Ile Ile Asp Ile Met Ala Ile Ile Met Lys Arg Ile Cys Ser Cys  
 450 455 460

Glu Leu Asp Ser Ser Val Tyr Asn Tyr Cys  
 465 470

&lt;210&gt; 2277

&lt;211&gt; 1065

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2277

atggctcctt ctgcgcaacc tcttcctgtg agtgtttcgg atgaaaaata tgcgaatgtc	60
aagtgggaag agttggcatt caagtttggt cgtacggatt atatgtatgt tgcgaagtgc	120
aatcatggag agagttttca agaggggaag attcttcctt ttgctgattt gcaacttaac	180
ccttgcgctg ctgttcttca gtatggccag ggtttatatg aaggactgaa agcttacagg	240
acagaagatg gtcggattct gctattccga ccagaccaa acggtctccg ccttcaagcc	300
ggagctgaca gactctatat gccttatact tcggtcgatc aattcgtctc cgccatcaaa	360
caagttgctc ttgccaacaa gaaatggatt cctcctccgg ggaaaggaac attgtatatt	420

047-E2F-PCT.ST25.txt

```

aggcctatct tgtttgggag tgggtccgatt cttgggttcat ttcccattcc tgagaccacc 480
ttcacagctt ttgcctgtcc tgttggacgt tatcataagg ataactctgg tttgaatctg 540
aaaatcgaag atcagtttctg tcgagctttt cctagtggaa ctggtggtgt gaagagcatc 600
acaaactatt gtcctgtttg gataccattg gcagaggcga aaaaacaagg tttctctgat 660
atthttgtttt tggatgctgc aactggcaaa aacattgaag aacttttctgc agctaattgtt 720
tttatgctca agggcaatgt tgtatcgaca ccaacaattg caggaactat tttgcccgga 780
gtcactcgaa actgcgtaat ggaattgtgt cgtgatttctg gctaccaggt cgaggaacgt 840
acgattcctc tagtggactt tctcgatgctg gacgaagctt tctgtactgg cactgcttcc 900
attgtgacta gtattgcatc cgtaaccttt aaagacaaaa agaccggatt caaaacaggg 960
gaagaaacat tggctgcgaa gctatacgag acgttaagtg atatccagac gggtcgggtc 1020
gaggatacca agggatggac ggtggagatt gaccgccagg gctga 1065

```

<210> 2278

<211> 354

<212> PRT

<213> Arabidopsis thaliana

<400> 2278

```

Met Ala Pro Ser Ala Gln Pro Leu Pro Val Ser Val Ser Asp Glu Lys
1          5          10          15

```

```

Tyr Ala Asn Val Lys Trp Glu Glu Leu Ala Phe Lys Phe Val Arg Thr
20          25          30

```

```

Asp Tyr Met Tyr Val Ala Lys Cys Asn His Gly Glu Ser Phe Gln Glu
35          40          45

```

```

Gly Lys Ile Leu Pro Phe Ala Asp Leu Gln Leu Asn Pro Cys Ala Ala
50          55          60

```

```

Val Leu Gln Tyr Gly Gln Gly Leu Tyr Glu Gly Leu Lys Ala Tyr Arg
65          70          75          80

```

```

Thr Glu Asp Gly Arg Ile Leu Leu Phe Arg Pro Asp Gln Asn Gly Leu
85          90          95

```

```

Arg Leu Gln Ala Gly Ala Asp Arg Leu Tyr Met Pro Tyr Pro Ser Val
100         105         110

```

047-E2F-PCT.ST25.txt

Asp Gln Phe Val Ser Ala Ile Lys Gln Val Ala Leu Ala Asn Lys Lys  
 115 120 125  
 Trp Ile Pro Pro Pro Gly Lys Gly Thr Leu Tyr Ile Arg Pro Ile Leu  
 130 135 140  
 Phe Gly Ser Gly Pro Ile Leu Gly Ser Phe Pro Ile Pro Glu Thr Thr  
 145 150 155 160  
 Phe Thr Ala Phe Ala Cys Pro Val Gly Arg Tyr His Lys Asp Asn Ser  
 165 170 175  
 Gly Leu Asn Leu Lys Ile Glu Asp Gln Phe Arg Arg Ala Phe Pro Ser  
 180 185 190  
 Gly Thr Gly Gly Val Lys Ser Ile Thr Asn Tyr Cys Pro Val Trp Ile  
 195 200 205  
 Pro Leu Ala Glu Ala Lys Lys Gln Gly Phe Ser Asp Ile Leu Phe Leu  
 210 215 220  
 Asp Ala Ala Thr Gly Lys Asn Ile Glu Glu Leu Phe Ala Ala Asn Val  
 225 230 235 240  
 Phe Met Leu Lys Gly Asn Val Val Ser Thr Pro Thr Ile Ala Gly Thr  
 245 250 255  
 Ile Leu Pro Gly Val Thr Arg Asn Cys Val Met Glu Leu Cys Arg Asp  
 260 265 270  
 Phe Gly Tyr Gln Val Glu Glu Arg Thr Ile Pro Leu Val Asp Phe Leu  
 275 280 285  
 Asp Ala Asp Glu Ala Phe Cys Thr Gly Thr Ala Ser Ile Val Thr Ser  
 290 295 300  
 Ile Ala Ser Val Thr Phe Lys Asp Lys Lys Thr Gly Phe Lys Thr Gly  
 305 310 315 320  
 Glu Glu Thr Leu Ala Ala Lys Leu Tyr Glu Thr Leu Ser Asp Ile Gln  
 325 330 335  
 Thr Gly Arg Val Glu Asp Thr Lys Gly Trp Thr Val Glu Ile Asp Arg  
 340 345 350  
 Gln Gly

&lt;210&gt; 2279

&lt;211&gt; 642

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2279

```

atgtttatga atcggtatt cgggaaaccc aaacaggaga ctagtactct ccaaacgtta      60
gacaagctca atgagactct tgagatgtta gagaagaagg agaatgttct tctcaagaaa    120
gctactggag aggttgagaa agctaaggaa ttctcccggg cgaagaacaa acgcgcggct    180
atacaatgtt tgaaaaggaa aaggttatat gagcaacaag ttgaacagct cgggaatttc    240
cagctccgta ttcattgatca aatgattatg ttagaagggtg ctaaagcaac aacagagact    300
gtagatgctt tgaggactgg agcttctgca atgaaagcta tgcagaaagc aacaacatt     360
gatgatgttg acaagacaat ggatgagatc aatgaacaaa ctgagaacat gaaacagatc    420
caagaagcat tgtcggctcc atttggggct aatgattttg atgaggatga attggaagca    480
gaacttgacg aactagaagg cgctgagcta gaagagcaac ttcttcagcc tgttccaatc    540
catgtgcctc aaggaaacaa gcctgctcgt gctccagctc agaagcaacc tactgctgag    600
gaagatgaac tcgctgcctt acaagctgag atggctctct aa                      642

```

&lt;210&gt; 2280

&lt;211&gt; 213

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2280

```

Met Phe Met Asn Arg Leu Phe Gly Lys Pro Lys Gln Glu Thr Ser Thr
1           5           10           15

Leu Gln Thr Leu Asp Lys Leu Asn Glu Thr Leu Glu Met Leu Glu Lys
20           25           30

Lys Glu Asn Val Leu Leu Lys Lys Ala Thr Gly Glu Val Glu Lys Ala
35           40           45

Lys Glu Phe Ser Arg Ala Lys Asn Lys Arg Ala Ala Ile Gln Cys Leu
50           55           60

```

047-E2F-PCT.ST25.txt

Lys Arg Lys Arg Leu Tyr Glu Gln Gln Val Glu Gln Leu Gly Asn Phe  
65 70 75 80

Gln Leu Arg Ile His Asp Gln Met Ile Met Leu Glu Gly Ala Lys Ala  
85 90 95

Thr Thr Glu Thr Val Asp Ala Leu Arg Thr Gly Ala Ser Ala Met Lys  
100 105 110

Ala Met Gln Lys Ala Thr Asn Ile Asp Asp Val Asp Lys Thr Met Asp  
115 120 125

Glu Ile Asn Glu Gln Thr Glu Asn Met Lys Gln Ile Gln Glu Ala Leu  
130 135 140

Ser Ala Pro Phe Gly Ala Asn Asp Phe Asp Glu Asp Glu Leu Glu Ala  
145 150 155 160

Glu Leu Asp Glu Leu Glu Gly Ala Glu Leu Glu Glu Gln Leu Leu Gln  
165 170 175

Pro Val Pro Ile His Val Pro Gln Gly Asn Lys Pro Ala Arg Ala Pro  
180 185 190

Ala Gln Lys Gln Pro Thr Ala Glu Glu Asp Glu Leu Ala Ala Leu Gln  
195 200 205

Ala Glu Met Ala Leu  
210

<210> 2281

<211> 1788

<212> DNA

<213> Arabidopsis thaliana

<400> 2281

atggactctg tttcttcttc ttctttcttc tctccacat tctctcttca tcactctctt	60
cttcgccgcc gatcttcttc tctactcttc ctccgtatca actccgccgt cgtcgaagaa	120
cgttctccaa tcacaaacct aagcgacaac aatgatcgtc gtaacaaacc caaaacactc	180
cacaaccgaa ccaatcacac cttagtctca tcaccaccga aactccgacc agaaatgact	240
ctcgcaacag ctctcttcac caccgtcgaa gatgtaatca acacgttcat cgatccacct	300
tcacgtcctt ccgttgatcc aaaacatgtc ctctctgata acttcgctcc tgtcctcgac	360



047-E2F-PCT.ST25.txt

gagcttcctc caacagactg tgaaatcatc cacggcactc ttccactgtc acttaacggc 420  
 gcttacatcc gtaacgggtcc aaatccacag tttctccctc gtggtcctta ccatctcttc 480  
 gacggcgacg gtatgcttca cgccataaaa atccacaacg gtaaagccac tctctgtagc 540  
 agatacgtca agacttataa atacaacgtc gagaaacaaa ccggagctcc ggttatgcct 600  
 aacgtgtttt ccggattcaa cgggtgtaacg gcgtcagtag ctcggtggagc tttaacggca 660  
 gctaggggtt taaccggaca gtataatccg gttaacggca ttggtttagc taatacaagt 720  
 ctagctttct tcagtaaccg tctctttgct ttaggtgaat ctgatttacc ctacgccgtc 780  
 cgattaaccg aatcaggaga tattgaaacg atcggacggg acgatttcga cgggaaatta 840  
 gcgatgagta tgacagctca tcctaaaacc gatccaataa ccggagaaac tttcgctttc 900  
 cggtagcgtc cggttccacc gtttttaaca tatttccggg ttgattccgc cgggaaaaaa 960  
 caaagagacg ttccgatatt ctcatgacg tctccgtcgt ttctccatga cttcgcgatc 1020  
 acgaaacgtc acgcgatttt cgcagagatt cagcttggca tgaggatgaa catgttggat 1080  
 ttggttctcg aaggtgggtc tccggttggg actgataacg gaaaaactcc aaggcttggg 1140  
 gtgattccta agtacgccgg agatgagtcg gagatgaaat ggttcgaagt tcctggattc 1200  
 aatatcattc acgctattaa tgcttgggat gaagatgatg gaaacagcgt cgttttgatt 1260  
 gcaccgaata ttatgtcgat tgaacatact ttagagagga tggatctggg tcatgctttg 1320  
 gtggagaagg tgaagatcga tctcgtcacc gggattgtga gacgtcatcc gatctcagcg 1380  
 aggaatctcg atttcgctgt gattaatccg gcgtttctcg ggagatgtag caggtagcgtt 1440  
 tacgcggcga ttggagatcc gatgccgaag atctccggtg tggatgaagc tgatgtgtct 1500  
 aaaggagatc gggatgattg tacggtggcc cgtagaatgt acggttcagg ttgttacggc 1560  
 ggagaaccgt ttttcgtagc tagggatcct ggtaatccgg aggcggagga ggatgatggt 1620  
 tatgtggtga cgtatgttca cgatgaagtg actggagaat cgaagtttct ggtgatggac 1680  
 gctaaatcgc cggagcttga aatcgtcgcc gccgtgaggt tgccgcgaag ggttccgtac 1740  
 ggattccatg ggttatttgt caaggaaagt gaccttaata agctttaa 1788

<210> 2282

<211> 595

<212> PRT

<213> Arabidopsis thaliana

<400> 2282

Met Asp Ser Val Ser Ser Ser Ser Phe Leu Ser Ser Thr Phe Ser Leu

1 5 15

His His Ser Leu Leu Arg Arg Arg Ser Ser Ser Pro Thr Leu Leu Arg  
20 25 30

Ile Asn Ser Ala Val Val Glu Glu Arg Ser Pro Ile Thr Asn Pro Ser  
35 40 45

Asp Asn Asn Asp Arg Arg Asn Lys Pro Lys Thr Leu His Asn Arg Thr  
50 55 60

Asn His Thr Leu Val Ser Ser Pro Pro Lys Leu Arg Pro Glu Met Thr  
65 70 75 80

Leu Ala Thr Ala Leu Phe Thr Thr Val Glu Asp Val Ile Asn Thr Phe  
85 90 95

Ile Asp Pro Pro Ser Arg Pro Ser Val Asp Pro Lys His Val Leu Ser  
100 105 110

Asp Asn Phe Ala Pro Val Leu Asp Glu Leu Pro Pro Thr Asp Cys Glu  
115 120 125

Ile Ile His Gly Thr Leu Pro Leu Ser Leu Asn Gly Ala Tyr Ile Arg  
130 135 140

Asn Gly Pro Asn Pro Gln Phe Leu Pro Arg Gly Pro Tyr His Leu Phe  
145 150 155 160

Asp Gly Asp Gly Met Leu His Ala Ile Lys Ile His Asn Gly Lys Ala  
165 170 175

Thr Leu Cys Ser Arg Tyr Val Lys Thr Tyr Lys Tyr Asn Val Glu Lys  
180 185 190

Gln Thr Gly Ala Pro Val Met Pro Asn Val Phe Ser Gly Phe Asn Gly  
195 200 205

Val Thr Ala Ser Val Ala Arg Gly Ala Leu Thr Ala Ala Arg Val Leu  
210 215 220

Thr Gly Gln Tyr Asn Pro Val Asn Gly Ile Gly Leu Ala Asn Thr Ser  
225 230 235 240

Leu Ala Phe Phe Ser Asn Arg Leu Phe Ala Leu Gly Glu Ser Asp Leu  
245 250 255

Pro Tyr Ala Val Arg Leu Thr Glu Ser Gly Asp Ile Glu Thr Ile Gly  
 260 265 270  
 Arg Tyr Asp Phe Asp Gly Lys Leu Ala Met Ser Met Thr Ala His Pro  
 275 280 285  
 Lys Thr Asp Pro Ile Thr Gly Glu Thr Phe Ala Phe Arg Tyr Gly Pro  
 290 295 300  
 Val Pro Pro Phe Leu Thr Tyr Phe Arg Phe Asp Ser Ala Gly Lys Lys  
 305 310 315 320  
 Gln Arg Asp Val Pro Ile Phe Ser Met Thr Ser Pro Ser Phe Leu His  
 325 330 335  
 Asp Phe Ala Ile Thr Lys Arg His Ala Ile Phe Ala Glu Ile Gln Leu  
 340 345 350  
 Gly Met Arg Met Asn Met Leu Asp Leu Val Leu Glu Gly Gly Ser Pro  
 355 360 365  
 Val Gly Thr Asp Asn Gly Lys Thr Pro Arg Leu Gly Val Ile Pro Lys  
 370 375 380  
 Tyr Ala Gly Asp Glu Ser Glu Met Lys Trp Phe Glu Val Pro Gly Phe  
 385 390 395 400  
 Asn Ile Ile His Ala Ile Asn Ala Trp Asp Glu Asp Asp Gly Asn Ser  
 405 410 415  
 Val Val Leu Ile Ala Pro Asn Ile Met Ser Ile Glu His Thr Leu Glu  
 420 425 430  
 Arg Met Asp Leu Val His Ala Leu Val Glu Lys Val Lys Ile Asp Leu  
 435 440 445  
 Val Thr Gly Ile Val Arg Arg His Pro Ile Ser Ala Arg Asn Leu Asp  
 450 455 460  
 Phe Ala Val Ile Asn Pro Ala Phe Leu Gly Arg Cys Ser Arg Tyr Val  
 465 470 475 480  
 Tyr Ala Ala Ile Gly Asp Pro Met Pro Lys Ile Ser Gly Val Val Lys  
 485 490 495  
 Leu Asp Val Ser Lys Gly Asp Arg Asp Asp Cys Thr Val Ala Arg Arg  
 500 505 510

Met Tyr Gly Ser Gly Cys Tyr Gly Gly Glu Pro Phe Phe Val Ala Arg  
 515 520 525

Asp Pro Gly Asn Pro Glu Ala Glu Glu Asp Asp Gly Tyr Val Val Thr  
 530 535 540

Tyr Val His Asp Glu Val Thr Gly Glu Ser Lys Phe Leu Val Met Asp  
 545 550 555 560

Ala Lys Ser Pro Glu Leu Glu Ile Val Ala Ala Val Arg Leu Pro Arg  
 565 570 575

Arg Val Pro Tyr Gly Phe His Gly Leu Phe Val Lys Glu Ser Asp Leu  
 580 585 590

Asn Lys Leu  
 595

<210> 2283

<211> 846

<212> DNA

<213> Arabidopsis thaliana

<400> 2283

atggcgggtat cgtacaatgc attagctcag tcttttagcga gaagtagctg cttcatcccc	60
aaaccttatt ccttttagaga tactaagctg agaagcagat ccaatgtcgt attcgcgtgc	120
aatgataata agaacattgc tcttcaagct aaggtagata acttggttga ccgcattaaa	180
tgggatgaca aaggattagc tgtggcaata gcacaaaacg ttgatacggg agcagtattg	240
atgcaaggct ttgttaatag ggaggccctc tccacaacca tcagttctcg gaaagctaca	300
ttcttttagtc gatcaagatc taccttatgg actaagggag agacatccaa taacttcatc	360
aatattcttg atgtgtatgt tgattgtgat cgtgattcga ttatttacct tggaacacct	420
gatggaccta cctgtcacac aggggaagag acttgttact acacatcggg ttttgatcaa	480
ttaaacaatg atgaggcttc aggaacaag ctagcattaa caacattgta ctcgctagaa	540
tcaatcattt ccaagcggaa agaagaatca acagttcctc aagaaggtaa accatcatgg	600
actcgacggg tgttgacgga tgacgctctg ctttgctcaa agatcaggga agaagctgac	660
gagttatgca gaacactgga ggataatgag gaagtttcaa gaacaccatc agagatggct	720
gatgttttat accacgcaat ggtgcttcta tctaaaaggg gtgtgaagat ggaagatggt	780
cttgaagttc ttaggaaacg cttctctcaa tctggaatcg aggagaagca aaaccgtaca	840

aagtaa

846

&lt;210&gt; 2284

&lt;211&gt; 281

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2284

Met Ala Val Ser Tyr Asn Ala Leu Ala Gln Ser Leu Ala Arg Ser Ser  
 1 5 10 15

Cys Phe Ile Pro Lys Pro Tyr Ser Phe Arg Asp Thr Lys Leu Arg Ser  
 20 25 30

Arg Ser Asn Val Val Phe Ala Cys Asn Asp Asn Lys Asn Ile Ala Leu  
 35 40 45

Gln Ala Lys Val Asp Asn Leu Leu Asp Arg Ile Lys Trp Asp Asp Lys  
 50 55 60

Gly Leu Ala Val Ala Ile Ala Gln Asn Val Asp Thr Gly Ala Val Leu  
 65 70 75 80

Met Gln Gly Phe Val Asn Arg Glu Ala Leu Ser Thr Thr Ile Ser Ser  
 85 90 95

Arg Lys Ala Thr Phe Phe Ser Arg Ser Arg Ser Thr Leu Trp Thr Lys  
 100 105 110

Gly Glu Thr Ser Asn Asn Phe Ile Asn Ile Leu Asp Val Tyr Val Asp  
 115 120 125

Cys Asp Arg Asp Ser Ile Ile Tyr Leu Gly Thr Pro Asp Gly Pro Thr  
 130 135 140

Cys His Thr Gly Glu Glu Thr Cys Tyr Tyr Thr Ser Val Phe Asp Gln  
 145 150 155 160

Leu Asn Asn Asp Glu Ala Ser Gly Asn Lys Leu Ala Leu Thr Thr Leu  
 165 170 175

Tyr Ser Leu Glu Ser Ile Ile Ser Lys Arg Lys Glu Glu Ser Thr Val  
 180 185 190

047-E2F-PCT.ST25.txt

Pro Gln Glu Gly Lys Pro Ser Trp Thr Arg Arg Leu Leu Thr Asp Asp  
195 200 205

Ala Leu Leu Cys Ser Lys Ile Arg Glu Glu Ala Asp Glu Leu Cys Arg  
210 215 220

Thr Leu Glu Asp Asn Glu Glu Val Ser Arg Thr Pro Ser Glu Met Ala  
225 230 235 240

Asp Val Leu Tyr His Ala Met Val Leu Leu Ser Lys Arg Gly Val Lys  
245 250 255

Met Glu Asp Val Leu Glu Val Leu Arg Lys Arg Phe Ser Gln Ser Gly  
260 265 270

Ile Glu Glu Lys Gln Asn Arg Thr Lys  
275 280

<210> 2285

<211> 2424

<212> DNA

<213> Arabidopsis thaliana

<400> 2285  
atggaggact taaaaactgt tgaagcatct gataatgttg ttagtgataa tgttgagaaa 60  
gtcaatcctg agttgattga ttccaccatt cgagaatcta acatacaatc tgcaacaaag 120  
gttgataata ttccacaatc tcaaactgac actgaagaga ctcaacaatc tcaaactgat 180  
actgaagaga ctcaacaatc tcaaactgat gacactaccg gcaatgcgaa gatttatgtc 240  
gatgacacgt tttcgccttc tgatgctgca accgctgcgg tgttaaccgg aaaagatagt 300  
acgagtacaa caattgtaga agaagtgatg gagccagatg agattggttt acctagtgtc 360  
aagattaccg aggctgacgac ggggtacagca agaaatggtg ggggggtcacc tagaactgta 420  
tcatctccta gattttcagg atcaccggtg agcactggaa caccgaaaaa tgtggactca 480  
catcgagggtt taatcgatac cgcagcgcca tttgaatctg ttaaagaagc tgtatcaaaa 540  
tttgaggaggaa ttactgactg gaagtctcac cgaatgcaag cggtagagag acgaaagctt 600  
attgaagaag agcttaaaaa gattcatgag gagattcctg agtacaaaac acattcagaa 660  
actgcagagg ctgcaaaact gcaagtgtt aaggagctgg aaagcacaaa gagacttata 720  
gaacagttga agcttaattt ggacaaggca caaacagaag aacaacaggc gaagcaagac 780  
tcggagcttg ctaagctgag gggtgaagag atggaacaag gaatagctga agatgtcagt 840

## 047-E2F-PCT.ST25.txt

gttgcagcta aagcgcaact tgaggtggct aaggcgaggc atacaacagc gattacagag 900  
 ttgtcttctg tcaaggagga actagaaact ctgcataagg aatatgatgc tctggtgcaa 960  
 gataaagatg tggctgtaaa gaaagtagaa gaagcaatgt tggcgtcaaa agaagttgag 1020  
 aagacagtgg aagaactcac catagagttg atagctacaa aggagtcatt ggaatcagca 1080  
 catgcttctc atttagaggc ggaagaacag aggattggag cagctatggc tagagaccag 1140  
 gatactcacc gttgggagaa ggaactgaag caagcggaag aggaactcca aagacttaac 1200  
 caacagatac attcttcgaa agatctaaaa tcgaagctcg aactgcctc agcgctgctt 1260  
 cttgatttga aggcggaatt ggtagcttat atggaatcca agctaaaaca agaagcgtgt 1320  
 gactcaacca caaacaccga tccttcgaca gaaaacatga gccatccaga ttacatgca 1380  
 gctgttgctt ctgcaaagaa ggaacttgaa gaggtcaatg tcaatattga gaaagcagct 1440  
 gctgaagtga gttgcttgaa attggcctcc tcttccttgc aactggaact cgagaaagaa 1500  
 aagtctactc ttgcctctat caaacagaga gaaggaatgg cctctatagc agtagcttct 1560  
 atagaggctg aaattgacag aacgaggtcg gaaatagctt cggttcagtc aaaggagaaa 1620  
 gacgcgagag agaaaatggg ggagctaccg aagcaacttc agcaagcagc agaagaggct 1680  
 gatgaagcaa agtcacttgc tgaagttgct cgcaagagc tacgaaaggc gaaagaagaa 1740  
 gcagagcaag caaaagctgg agcaagtaca atggagagca ggctatttgc tgcgcagaag 1800  
 gaaatcgaag cagctaaagc tttagagagg ctggccttag ctgccatcaa ggctttggag 1860  
 gagagtgaat caacattgaa agctaattgac accgattctc cacgaagcgt tacactttcg 1920  
 ctagaagagt actatgagct cagcaaactg gctcacgagg cagaagaact cgcaacgca 1980  
 agagtagcag cagcggtttc aagaatcgag gaagctaaag aaacagaaat gagaagcttg 2040  
 gagaagttgg aagaagtaaa cagagacatg gatgagagaa agaaggcatt aaaagaagca 2100  
 actgaaaagg ctgagaaggc caaagaaggg aagttggggg tggagcagga gctgaggaaa 2160  
 tggagggcag aacatgaaca aaagagaaag gctggtgatg gagtcaacac tgagaaaaac 2220  
 ctaaaagaaa gctttgaagg aggaaagatg gagcaatcac ctgaagctgt tgtttatgcc 2280  
 tccagcccaa gtgagtcata tggaacagaa gaaaactctg aaaccaatct atccccacag 2340  
 accaagtctc gaaagaaaaa gaagaagctt tctttcccc gggtttttat gttcttgtca 2400  
 aagaagaagt cacataataa ttga 2424

&lt;210&gt; 2286

&lt;211&gt; 807

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2286

Met Glu Asp Leu Lys Thr Val Glu Ala Ser Asp Asn Val Val Ser Asp  
 1 5 10 15  
 Asn Val Glu Lys Val Asn Pro Glu Leu Ile Asp Ser Thr Ile Arg Glu  
 20 25 30  
 Ser Asn Ile Gln Ser Ala Thr Lys Val Asp Asn Ile Pro Gln Ser Gln  
 35 40 45  
 Thr Asp Thr Glu Glu Thr Gln Gln Ser Gln Thr Asp Thr Glu Glu Thr  
 50 55 60  
 Gln Gln Ser Gln Thr Asp Asp Thr Thr Gly Asn Ala Lys Ile Tyr Val  
 65 70 75 80  
 Asp Asp Thr Phe Ser Pro Ser Asp Ala Ala Thr Ala Ala Val Leu Thr  
 85 90 95  
 Gly Lys Asp Ser Thr Ser Thr Thr Ile Val Glu Glu Val Met Glu Pro  
 100 105 110  
 Asp Glu Ile Gly Leu Pro Ser Val Lys Ile Thr Glu Ala Ala Thr Gly  
 115 120 125  
 Thr Ala Arg Asn Gly Gly Gly Ser Pro Arg Thr Val Ser Ser Pro Arg  
 130 135 140  
 Phe Ser Gly Ser Pro Val Ser Thr Gly Thr Pro Lys Asn Val Asp Ser  
 145 150 155 160  
 His Arg Gly Leu Ile Asp Thr Ala Ala Pro Phe Glu Ser Val Lys Glu  
 165 170 175  
 Ala Val Ser Lys Phe Gly Gly Ile Thr Asp Trp Lys Ser His Arg Met  
 180 185 190  
 Gln Ala Val Glu Arg Arg Lys Leu Ile Glu Glu Glu Leu Lys Lys Ile  
 195 200 205  
 His Glu Glu Ile Pro Glu Tyr Lys Thr His Ser Glu Thr Ala Glu Ala  
 210 215 220  
 Ala Lys Leu Gln Val Leu Lys Glu Leu Glu Ser Thr Lys Arg Leu Ile  
 225 230 235 240



047-E2F-PCT.ST25.txt

Glu Gln Leu Lys Leu Asn Leu Asp Lys Ala Gln Thr Glu Glu Gln Gln  
 245 250 255  
 Ala Lys Gln Asp Ser Glu Leu Ala Lys Leu Arg Val Glu Glu Met Glu  
 260 265 270  
 Gln Gly Ile Ala Glu Asp Val Ser Val Ala Ala Lys Ala Gln Leu Glu  
 275 280 285  
 Val Ala Lys Ala Arg His Thr Thr Ala Ile Thr Glu Leu Ser Ser Val  
 290 295 300  
 Lys Glu Glu Leu Glu Thr Leu His Lys Glu Tyr Asp Ala Leu Val Gln  
 305 310 315 320  
 Asp Lys Asp Val Ala Val Lys Lys Val Glu Glu Ala Met Leu Ala Ser  
 325 330 335  
 Lys Glu Val Glu Lys Thr Val Glu Glu Leu Thr Ile Glu Leu Ile Ala  
 340 345 350  
 Thr Lys Glu Ser Leu Glu Ser Ala His Ala Ser His Leu Glu Ala Glu  
 355 360 365  
 Glu Gln Arg Ile Gly Ala Ala Met Ala Arg Asp Gln Asp Thr His Arg  
 370 375 380  
 Trp Glu Lys Glu Leu Lys Gln Ala Glu Glu Glu Leu Gln Arg Leu Asn  
 385 390 395 400  
 Gln Gln Ile His Ser Ser Lys Asp Leu Lys Ser Lys Leu Asp Thr Ala  
 405 410 415  
 Ser Ala Leu Leu Leu Asp Leu Lys Ala Glu Leu Val Ala Tyr Met Glu  
 420 425 430  
 Ser Lys Leu Lys Gln Glu Ala Cys Asp Ser Thr Thr Asn Thr Asp Pro  
 435 440 445  
 Ser Thr Glu Asn Met Ser His Pro Asp Leu His Ala Ala Val Ala Ser  
 450 455 460  
 Ala Lys Lys Glu Leu Glu Glu Val Asn Val Asn Ile Glu Lys Ala Ala  
 465 470 475 480  
 Ala Glu Val Ser Cys Leu Lys Leu Ala Ser Ser Ser Leu Gln Leu Glu  
 Page 3275

Leu Glu Lys Glu Lys Ser Thr Leu Ala Ser Ile Lys Gln Arg Glu Gly  
500 505 510

Met Ala Ser Ile Ala Val Ala Ser Ile Glu Ala Glu Ile Asp Arg Thr  
515 520 525

Arg Ser Glu Ile Ala Ser Val Gln Ser Lys Glu Lys Asp Ala Arg Glu  
530 535 540

Lys Met Val Glu Leu Pro Lys Gln Leu Gln Gln Ala Ala Glu Glu Ala  
545 550 555 560

Asp Glu Ala Lys Ser Leu Ala Glu Val Ala Arg Glu Glu Leu Arg Lys  
565 570 575

Ala Lys Glu Glu Ala Glu Gln Ala Lys Ala Gly Ala Ser Thr Met Glu  
580 585 590

Ser Arg Leu Phe Ala Ala Gln Lys Glu Ile Glu Ala Ala Lys Ala Ser  
595 600 605

Glu Arg Leu Ala Leu Ala Ala Ile Lys Ala Leu Glu Glu Ser Glu Ser  
610 615 620

Thr Leu Lys Ala Asn Asp Thr Asp Ser Pro Arg Ser Val Thr Leu Ser  
625 630 635 640

Leu Glu Glu Tyr Tyr Glu Leu Ser Lys Arg Ala His Glu Ala Glu Glu  
645 650 655

Leu Ala Asn Ala Arg Val Ala Ala Ala Val Ser Arg Ile Glu Glu Ala  
660 665 670

Lys Glu Thr Glu Met Arg Ser Leu Glu Lys Leu Glu Glu Val Asn Arg  
675 680 685

Asp Met Asp Ala Arg Lys Lys Ala Leu Lys Glu Ala Thr Glu Lys Ala  
690 695 700

Glu Lys Ala Lys Glu Gly Lys Leu Gly Val Glu Gln Glu Leu Arg Lys  
705 710 715 720

Trp Arg Ala Glu His Glu Gln Lys Arg Lys Ala Gly Asp Gly Val Asn  
725 730 735

Thr Glu Lys Asn Leu Lys Glu Ser Phe Glu Gly Gly Lys Met Glu Gln  
740 745 750

Ser Pro Glu Ala Val Val Tyr Ala Ser Ser Pro Ser Glu Ser Tyr Gly  
755 760 765

Thr Glu Glu Asn Ser Glu Thr Asn Leu Ser Pro Gln Thr Lys Ser Arg  
770 775 780

Lys Lys Lys Lys Lys Leu Ser Phe Pro Arg Phe Phe Met Phe Leu Ser  
785 790 795 800

Lys Lys Lys Ser His Asn Asn  
805

<210> 2287

<211> 1737

<212> DNA

<213> Arabidopsis thaliana

<400> 2287

atgtgtggga ttctcgtctg gttaggctgc gtcgataact ctcaagctaa acgttcccgt	60
atcatcgaac tctctcgcag attgagggcat agaggctctg actggagtggt tctacattgt	120
tatgaggatt gttatattggc tcatgagcgt ttggctatcg ttgacccac ttctggagat	180
caaccactct ataacgaaga taagaccatt gctgtcacgg tcaatggaga gatttacaac	240
cacaaggctt tgcgtgaaaa tttgaagtct caccaattcc gtactgggag tgattgtgaa	300
gtgattgccc atctttacga agaacatgga gaggaatttg tcgacatggt ggatggcatg	360
tttgcatattg tgcttcttga tacccgagac aaaagcttta ttgctgcaag ggatgccatt	420
ggtatcactc cactctacat cgggtgggggt ctcgatgggt ctgtttgggt tgcttccgag	480
atgaaagcac ttagtgatga ttgtgagcag tttatgtgct tccccccagg ccacatctat	540
tcaagtaaac aagggtgggct taggaggtgg tacaaccccc cgtgggttctc tgaggttggt	600
ccttcaaccc catatgatcc cctagtgggt cgcaataact ttgagaaggc tgttataaaa	660
cgactaatga ctgatgtgcc ttttggtgtc ctctatctg gtggattaga ttcattccctt	720
gttgcttcag tagcattacg ccatctggaa aaatcagaag ctgcttgtca gtgggggttca	780
aagttgcaca ctttttgtat cggtttgaag ggatccccgg atcttaaagc tggcagagaa	840
gtcgtgact atttaggaac tcgccaccac gagttacact ttacagttca ggacggaata	900
gatgccatag aagaagtcac ctaccatggt gagacctatg atgtgactac tattagagcc	960

047-E2F-PCT.ST25.txt

agcactccaa tgtttcttat gtcgcgaaaa atcaaatacgc ttggtgtaaa gatggttctt 1020  
tctggggaag gctctgatga aatttttgga ggatatttgt acttccataa agctcccaac 1080  
aagaaggaat ttcattgagga aacatgtcga aagatcaaag ctcttcatca atatgactgc 1140  
ttgagggcta acaaatacaac ttctgcatgg ggtgttgagg ctcgtgtacc tttcctcgat 1200  
aaagaattta taaatgtcgc aatgagcatc gatccagagt ggaagatgat taggcctgat 1260  
ttgggaagga tcgagaaatg ggtgttacgc aatgcctttg atgatgagaa aaatccttac 1320  
ctaccaaagc acattctata taggcagaaa gaacagttca gtgatggagt tggatacagc 1380  
tggattgatg gtctaaaaga tcatgcaaac aaacatgtct ctgagacaat gctgatgaac 1440  
gcaagctttg tcttccctga taacacacct ttgacaaaag aagcttacta ctacagaacc 1500  
atctttgaaa agttcttccc taagagtgtc gctagagcaa ctgtaccagg aggtccaagt 1560  
gtggcatgta gcacagcaaa agctgtggaa tgggacgcag cttggtcaca gaatcttgac 1620  
ccatcaggtc gtgcggctct tggagttcat gtttcagctt atggggaaga taaaaccgaa 1680  
gattctcgtc ccgagaagct acagaaacta gcagagaaga ctccagccat tgtttga 1737

<210> 2288

<211> 578

<212> PRT

<213> Arabidopsis thaliana

<400> 2288

Met Cys Gly Ile Leu Ala Val Leu Gly Cys Val Asp Asn Ser Gln Ala  
1 5 10 15

Lys Arg Ser Arg Ile Ile Glu Leu Ser Arg Arg Leu Arg His Arg Gly  
20 25 30

Pro Asp Trp Ser Gly Leu His Cys Tyr Glu Asp Cys Tyr Leu Ala His  
35 40 45

Glu Arg Leu Ala Ile Val Asp Pro Thr Ser Gly Asp Gln Pro Leu Tyr  
50 55 60

Asn Glu Asp Lys Thr Ile Ala Val Thr Val Asn Gly Glu Ile Tyr Asn  
65 70 75 80

His Lys Ala Leu Arg Glu Asn Leu Lys Ser His Gln Phe Arg Thr Gly  
85 90 95

Ser Asp Cys Glu Val Ile Ala His Leu Tyr Glu Glu His Gly Glu Glu  
 100 105 110  
 Phe Val Asp Met Leu Asp Gly Met Phe Ala Phe Val Leu Leu Asp Thr  
 115 120 125  
 Arg Asp Lys Ser Phe Ile Ala Ala Arg Asp Ala Ile Gly Ile Thr Pro  
 130 135 140  
 Leu Tyr Ile Gly Trp Gly Leu Asp Gly Ser Val Trp Phe Ala Ser Glu  
 145 150 155 160  
 Met Lys Ala Leu Ser Asp Asp Cys Glu Gln Phe Met Cys Phe Pro Pro  
 165 170 175  
 Gly His Ile Tyr Ser Ser Lys Gln Gly Gly Leu Arg Arg Trp Tyr Asn  
 180 185 190  
 Pro Pro Trp Phe Ser Glu Val Val Pro Ser Thr Pro Tyr Asp Pro Leu  
 195 200 205  
 Val Val Arg Asn Thr Phe Glu Lys Ala Val Ile Lys Arg Leu Met Thr  
 210 215 220  
 Asp Val Pro Phe Gly Val Leu Leu Ser Gly Gly Leu Asp Ser Ser Leu  
 225 230 235 240  
 Val Ala Ser Val Ala Leu Arg His Leu Glu Lys Ser Glu Ala Ala Cys  
 245 250 255  
 Gln Trp Gly Ser Lys Leu His Thr Phe Cys Ile Gly Leu Lys Gly Ser  
 260 265 270  
 Pro Asp Leu Lys Ala Gly Arg Glu Val Ala Asp Tyr Leu Gly Thr Arg  
 275 280 285  
 His His Glu Leu His Phe Thr Val Gln Asp Gly Ile Asp Ala Ile Glu  
 290 295 300  
 Glu Val Ile Tyr His Val Glu Thr Tyr Asp Val Thr Thr Ile Arg Ala  
 305 310 315 320  
 Ser Thr Pro Met Phe Leu Met Ser Arg Lys Ile Lys Ser Leu Gly Val  
 325 330 335  
 Lys Met Val Leu Ser Gly Glu Gly Ser Asp Glu Ile Phe Gly Gly Tyr  
 340 345 350

047-E2F-PCT.ST25.txt

Leu Tyr Phe His Lys Ala Pro Asn Lys Lys Glu Phe His Glu Glu Thr  
 355 360 365  
 Cys Arg Lys Ile Lys Ala Leu His Gln Tyr Asp Cys Leu Arg Ala Asn  
 370 375 380  
 Lys Ser Thr Ser Ala Trp Gly Val Glu Ala Arg Val Pro Phe Leu Asp  
 385 390 395 400  
 Lys Glu Phe Ile Asn Val Ala Met Ser Ile Asp Pro Glu Trp Lys Met  
 405 410 415  
 Ile Arg Pro Asp Leu Gly Arg Ile Glu Lys Trp Val Leu Arg Asn Ala  
 420 425 430  
 Phe Asp Asp Glu Lys Asn Pro Tyr Leu Pro Lys His Ile Leu Tyr Arg  
 435 440 445  
 Gln Lys Glu Gln Phe Ser Asp Gly Val Gly Tyr Ser Trp Ile Asp Gly  
 450 455 460  
 Leu Lys Asp His Ala Asn Lys His Val Ser Glu Thr Met Leu Met Asn  
 465 470 475 480  
 Ala Ser Phe Val Phe Pro Asp Asn Thr Pro Leu Thr Lys Glu Ala Tyr  
 485 490 495  
 Tyr Tyr Arg Thr Ile Phe Glu Lys Phe Phe Pro Lys Ser Ala Ala Arg  
 500 505 510  
 Ala Thr Val Pro Gly Gly Pro Ser Val Ala Cys Ser Thr Ala Lys Ala  
 515 520 525  
 Val Glu Trp Asp Ala Ala Trp Ser Gln Asn Leu Asp Pro Ser Gly Arg  
 530 535 540  
 Ala Ala Leu Gly Val His Val Ser Ala Tyr Gly Glu Asp Lys Thr Glu  
 545 550 555 560  
 Asp Ser Arg Pro Glu Lys Leu Gln Lys Leu Ala Glu Lys Thr Pro Ala  
 565 570 575  
 Ile Val

<210> 2289

&lt;211&gt; 1047

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2289

```

atggcttctc ttatctcttt ttctttgctc ccaaaaccaa aagccgtaag aagttcaatt    60
tcagctcctc agacacagac aataaatact gaaaagcttg aagataaatt cggacgaaaa    120
ggcataaaat tctcggaatc aaacaacatt cctatggtag agcttaaggt cagaaatgga    180
agttcattaa aactgagtct atcagatgct catgtacttt catataagcc aaagggtatac    240
tggaagacg agggattcga ggaagtcctt tacacagttg atgggtgatga gagcagaggt    300
ggggttggtg ttgttatcgt aaacggggaa gaacctaaag gaggggtcttc agtaatctca    360
ggatgtgatt ggagtgtcaa ggatactgat tcagacgcca ttgatgctct tcagatcgaa    420
cttagctgta cggccggggg tctcgacata acgtatatcg tctctctcta cccagtaagc    480
atggctacag ctctggtggt gaagaacaat ggtcgcaaac cagttaccct taaaccgggg    540
attatgagtt acttgagggt caagaaacgg agtggggcag gaattcaagg actaaaggga    600
tgctcttatt gtcccaaccc gcctttgtca tcgccttttg agctcttgct tccttctgag    660
gcaatgaagg cggaatcttc ggggtggttc gggtcggaag aaggggaaaa gccggggatt    720
tgggcagtag aagattctgt tattacactt cttgagaaaa agatgagtag aatatatggt    780
gctcctccgg ctgagagatt aaaggcagtc tataacactc caccttccaa atttgaaact    840
atagatcagg ggagaggatt gtttttcagg atgataagga ttgggttcga agagatgtat    900
gtgggatccc caggatcgat gtgggacaag tatgggaagc aacattactt cgtgtgcaca    960
gggtccaacgt caatgctcgt tcctgtcgat gtagcctccg gagagacatg gagaggagca   1020
atggtaatcg agcatgataa tttgtaa                                     1047

```

&lt;210&gt; 2290

&lt;211&gt; 348

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2290

```

Met Ala Ser Leu Ile Ser Phe Ser Leu Leu Pro Lys Pro Lys Ala Val
1           5           10           15

```

```

Arg Ser Ser Ile Ser Ala Pro Gln Thr Gln Thr Ile Asn Thr Glu Lys
Page 3281

```

Leu Glu Asp Lys Phe Gly Arg Lys Gly Ile Lys Phe Ser Glu Ser Asn  
 35 40 45  
 Asn Ile Pro Met Val Glu Leu Lys Val Arg Asn Gly Ser Ser Leu Lys  
 50 55 60  
 Leu Ser Leu Ser Asp Ala His Val Leu Ser Tyr Lys Pro Lys Val Tyr  
 65 70 75 80  
 Trp Lys Asp Glu Gly Phe Glu Glu Val Leu Tyr Thr Val Asp Gly Asp  
 85 90 95  
 Glu Ser Arg Gly Gly Val Gly Val Val Ile Val Asn Gly Glu Glu Pro  
 100 105 110  
 Lys Gly Gly Ser Ser Val Ile Ser Gly Cys Asp Trp Ser Val Lys Asp  
 115 120 125  
 Thr Asp Ser Asp Ala Ile Asp Ala Leu Gln Ile Glu Leu Ser Cys Thr  
 130 135 140  
 Ala Gly Val Leu Asp Ile Thr Tyr Ile Val Ser Leu Tyr Pro Val Ser  
 145 150 155 160  
 Met Ala Thr Ala Leu Val Val Lys Asn Asn Gly Arg Lys Pro Val Thr  
 165 170 175  
 Leu Lys Pro Gly Ile Met Ser Tyr Leu Arg Phe Lys Lys Arg Ser Gly  
 180 185 190  
 Ala Gly Ile Gln Gly Leu Lys Gly Cys Ser Tyr Cys Pro Asn Pro Pro  
 195 200 205  
 Leu Ser Ser Pro Phe Glu Leu Leu Ser Pro Ser Glu Ala Met Lys Ala  
 210 215 220  
 Glu Ser Ser Gly Trp Phe Gly Ser Glu Glu Gly Glu Lys Pro Gly Ile  
 225 230 235 240  
 Trp Ala Val Glu Asp Ser Val Ile Thr Leu Leu Glu Lys Lys Met Ser  
 245 250 255  
 Arg Ile Tyr Gly Ala Pro Pro Ala Glu Arg Leu Lys Ala Val Tyr Asn  
 260 265 270



Thr Pro Pro Ser Lys Phe Glu Thr Ile Asp Gln Gly Arg Gly Leu Phe  
 275 280 285

Phe Arg Met Ile Arg Ile Gly Phe Glu Glu Met Tyr Val Gly Ser Pro  
 290 295 300

Gly Ser Met Trp Asp Lys Tyr Gly Lys Gln His Tyr Phe Val Cys Thr  
 305 310 315 320

Gly Pro Thr Ser Met Leu Val Pro Val Asp Val Ala Ser Gly Glu Thr  
 325 330 335

Trp Arg Gly Ala Met Val Ile Glu His Asp Asn Leu  
 340 345

<210> 2291

<211> 759

<212> DNA

<213> Arabidopsis thaliana

<400> 2291

atgtcaaagt ctctagctgg attggcgggtt ttggccgctc tttttattgc ggttgatgcg	60
tttaggcctt ctggtttaac taatgggtcac gctacattct atggaggaag tgacgcttct	120
ggaacaatgg gtggagcttg tggttacgga gatctttact cggcggggta cgggacaatg	180
acggcggcgt taagcacggc tctgttcaac gacggagctt cttgcggaga atgctatagg	240
ataacgtgtg atcacgcggc ggactcacgg tgggtgcttga aaggagcttc tgtggttatt	300
acagccacta acttttgccc accaaacttt gctttgccta acaacaacgg tggttggtgc	360
aatccgccgc ttaaactttt cgacatggca caaccgcgtt gggaaaagat cggaatttac	420
agaggaggaa tcgttcccgt cgttttccaa agagtaagct gttacaagaa aggaggagtt	480
agattcagaa taaacggaag agactacttc gagctagtga atattcaaaa tgtaggagga	540
gcaggttcta ttaaacttgt atccatcaaa ggatcaaaga ctggttggtt agccatgtct	600
cgtaactggg gagctaattg gcaatcgaat gcttatctag atggtcaagc tctctctttc	660
tccattacca ctactgatgg tgctactaga gtctttctca atgttggttcc ttcttcttgg	720
tcttttggac agatttattc ttccaacggt cagttttaa	759

<210> 2292

<211> 252

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2292

```

Met Ser Lys Ser Leu Ala Gly Leu Ala Val Leu Ala Ala Leu Phe Ile
 1      5      10      15

Ala Val Asp Ala Phe Arg Pro Ser Gly Leu Thr Asn Gly His Ala Thr
 20      25      30

Phe Tyr Gly Gly Ser Asp Ala Ser Gly Thr Met Gly Gly Ala Cys Gly
 35      40      45

Tyr Gly Asp Leu Tyr Ser Ala Gly Tyr Gly Thr Met Thr Ala Ala Leu
 50      55      60

Ser Thr Ala Leu Phe Asn Asp Gly Ala Ser Cys Gly Glu Cys Tyr Arg
 65      70      75      80

Ile Thr Cys Asp His Ala Ala Asp Ser Arg Trp Cys Leu Lys Gly Ala
 85      90      95

Ser Val Val Ile Thr Ala Thr Asn Phe Cys Pro Pro Asn Phe Ala Leu
100      105      110

Pro Asn Asn Asn Gly Gly Trp Cys Asn Pro Pro Leu Lys His Phe Asp
115      120      125

Met Ala Gln Pro Ala Trp Glu Lys Ile Gly Ile Tyr Arg Gly Gly Ile
130      135      140

Val Pro Val Val Phe Gln Arg Val Ser Cys Tyr Lys Lys Gly Gly Val
145      150      155      160

Arg Phe Arg Ile Asn Gly Arg Asp Tyr Phe Glu Leu Val Asn Ile Gln
165      170      175

Asn Val Gly Gly Ala Gly Ser Ile Lys Ser Val Ser Ile Lys Gly Ser
180      185      190

Lys Thr Gly Trp Leu Ala Met Ser Arg Asn Trp Gly Ala Asn Trp Gln
195      200      205

Ser Asn Ala Tyr Leu Asp Gly Gln Ala Leu Ser Phe Ser Ile Thr Thr
210      215      220

```

Thr Asp Gly Ala Thr Arg Val Phe Leu Asn Val Val Pro Ser Ser Trp  
 225 230 235 240

Ser Phe Gly Gln Ile Tyr Ser Ser Asn Val Gln Phe  
 245 250

<210> 2293

<211> 1398

<212> DNA

<213> Arabidopsis thaliana

<400> 2293

```

atggcaatgt ctgtaaattgt ttcttcttct tcgtcttctg ggatcataaa ctctcgtttc      60
gggtgtttcat tggagccaaa agtttcgcaa attggttcgt tgaggttatt ggatcgtggt      120
catgttgctc ctgtgtctct gaatctatct gggaagcgat catcatctgt taaaccttta      180
aacgctgaac caaagacaaa ggattcaatg attcctcttg cggcaacaat ggtagcagaa      240
attgcagagg aagttgaagt ggttgagatt gaggattttg aagagcttgc taagaagtta      300
gagaatgctt cacctcttga gattatggac aaagctcttg agaaatacgg gaacgatatc      360
gccattgcat ttagtggtgc agaagatggt gctcttattg agtacgctca ttgactggg      420
aggccattta gagtatttag tttggataca gggagggttg atcctgagac gtatcggttt      480
ttcgatgcgg tggagaagca ctatgggatt aggattgagt atatgtttcc tgattctggt      540
gaggttcaag gtttggttag gagcaaggga ttgttctctt tttatgagga tggatcatcag      600
gagtgttgcc gtgttcgaaa ggtgagacct ttgaggcggtg ctctcaaggg tttaaaggct      660
tggattactg gtcagaggaa agatcaatct ccggggacaa ggtctgagat tccggttggt      720
caggttgatc cgggtgttga aggtttggat ggtggagttg gtagtttggt gaagtggaat      780
ccggttgcca atgttgaagg gaatgatggt tggaaacttct tgaggactat ggatgttccg      840
gttaacacat tgcattcgcc agggatatata tcgattggat gtgagccttg cacgaaagcg      900
gttttaccgg gtcagcacga gagagaaggg agatggtggt gggaagatgc taaagccaag      960
gaatgtggac ttcacaaagg gaatgtcaaa gaaaactccg atgatgctaa agtgaacggg     1020
gaatcgaaat ccgctgttgc agatatcttt aagagtgaga atcttgtgac tttgagcagg     1080
caggggattg agaatttgat gaagttggag aaccgtaaag agccttggat cgtcgtgctt     1140
tatgtccgt ggtgccccct ttgtcaagcc atggaagcat cgtatgatga actggcggat     1200
aaattggctg gaagtgggat taaggttgcc aaattcagag cagatggtga ccagaaggag     1260
tttgctaagc aggaattgca gctcggtagc ttccctacca ttctgggttt ccctaagaac     1320

```

tcatcgagac cgatcaagta tccgtctgag aagagagatg ttgagtcctt gacttcgttc 1380  
 ttgaatcttg tccgataa 1398

<210> 2294

<211> 465

<212> PRT

<213> Arabidopsis thaliana

<400> 2294

Met Ala Met Ser Val Asn Val Ser Ser Ser Ser Ser Ser Gly Ile Ile  
 1 5 10 15

Asn Ser Arg Phe Gly Val Ser Leu Glu Pro Lys Val Ser Gln Ile Gly  
 20 25 30

Ser Leu Arg Leu Leu Asp Arg Val His Val Ala Pro Val Ser Leu Asn  
 35 40 45

Leu Ser Gly Lys Arg Ser Ser Ser Val Lys Pro Leu Asn Ala Glu Pro  
 50 55 60

Lys Thr Lys Asp Ser Met Ile Pro Leu Ala Ala Thr Met Val Ala Glu  
 65 70 75 80

Ile Ala Glu Glu Val Glu Val Val Glu Ile Glu Asp Phe Glu Glu Leu  
 85 90 95

Ala Lys Lys Leu Glu Asn Ala Ser Pro Leu Glu Ile Met Asp Lys Ala  
 100 105 110

Leu Glu Lys Tyr Gly Asn Asp Ile Ala Ile Ala Phe Ser Gly Ala Glu  
 115 120 125

Asp Val Ala Leu Ile Glu Tyr Ala His Leu Thr Gly Arg Pro Phe Arg  
 130 135 140

Val Phe Ser Leu Asp Thr Gly Arg Leu Asn Pro Glu Thr Tyr Arg Phe  
 145 150 155 160

Phe Asp Ala Val Glu Lys His Tyr Gly Ile Arg Ile Glu Tyr Met Phe  
 165 170 175

Pro Asp Ser Val Glu Val Gln Gly Leu Val Arg Ser Lys Gly Leu Phe  
 180 185 190

047-E2F-PCT.ST25.txt

Ser Phe Tyr Glu Asp Gly His Gln Glu Cys Cys Arg Val Arg Lys Val  
195 200 205

Arg Pro Leu Arg Arg Ala Leu Lys Gly Leu Lys Ala Trp Ile Thr Gly  
210 215 220

Gln Arg Lys Asp Gln Ser Pro Gly Thr Arg Ser Glu Ile Pro Val Val  
225 230 235 240

Gln Val Asp Pro Val Phe Glu Gly Leu Asp Gly Gly Val Gly Ser Leu  
245 250 255

Val Lys Trp Asn Pro Val Ala Asn Val Glu Gly Asn Asp Val Trp Asn  
260 265 270

Phe Leu Arg Thr Met Asp Val Pro Val Asn Thr Leu His Ala Ala Gly  
275 280 285

Tyr Ile Ser Ile Gly Cys Glu Pro Cys Thr Lys Ala Val Leu Pro Gly  
290 295 300

Gln His Glu Arg Glu Gly Arg Trp Trp Trp Glu Asp Ala Lys Ala Lys  
305 310 315 320

Glu Cys Gly Leu His Lys Gly Asn Val Lys Glu Asn Ser Asp Asp Ala  
325 330 335

Lys Val Asn Gly Glu Ser Lys Ser Ala Val Ala Asp Ile Phe Lys Ser  
340 345 350

Glu Asn Leu Val Thr Leu Ser Arg Gln Gly Ile Glu Asn Leu Met Lys  
355 360 365

Leu Glu Asn Arg Lys Glu Pro Trp Ile Val Val Leu Tyr Ala Pro Trp  
370 375 380

Cys Pro Phe Cys Gln Ala Met Glu Ala Ser Tyr Asp Glu Leu Ala Asp  
385 390 395 400

Lys Leu Ala Gly Ser Gly Ile Lys Val Ala Lys Phe Arg Ala Asp Gly  
405 410 415

Asp Gln Lys Glu Phe Ala Lys Gln Glu Leu Gln Leu Gly Ser Phe Pro  
420 425 430

Thr Ile Leu Val Phe Pro Lys Asn Ser Ser Arg Pro Ile Lys Tyr Pro  
Page 3287

435 047-E2F-PCT.ST25.txt 440 445

Ser Glu Lys Arg Asp Val Glu Ser Leu Thr Ser Phe Leu Asn Leu Val  
450 455 460

Arg  
465

<210> 2295

<211> 690

<212> DNA

<213> Arabidopsis thaliana

<400> 2295  
atgaaaagaa tctccatctt cttctctatc tcttggtat ctctctctct aaactattca 60  
ctcacacagt cattcttcgt cttcttctgt ttcattgcaag attcaaaggc ctcacctgca 120  
agaaaacctt ggtaccagag agctatggcg gttgccagat tcgcaacgaa ttggagaaca 180  
atccctaaat catcatcaca acaacaacca gagaattttc gtccgtctcg aaaccctagc 240  
gtcaacagca agtcatccaa tcataaccaa atttatcacc agctgagaaa atgctcgtct 300  
ctcaaggtag ctgcgaattc tttcactagg gtttgccctc gcgctccgat tgggtccatac 360  
gacgacgttt ttcggattca cgtcccgcgc agaagaagtt caagctatcc tccgtcgaag 420  
cctcttccta tggagacggc agtggcggtg gcgacggcga ggatgagtgt ggattcaggg 480  
aggaggatat ttagagggaa gtcgttgagg gaaaacgcgt tgatgaggag attcgtggtg 540  
gcggaagaag aagcgataat ggagaataga aagagagatc aaatggagat tgtgaggaag 600  
agaaatcaga tgaggaggaa gaagaagctt ggacctagtc ctcttagtcg tatggttatc 660  
gctgaagatc aagaagtttg tcttctttga 690

<210> 2296

<211> 229

<212> PRT

<213> Arabidopsis thaliana

<400> 2296

Met Lys Arg Ile Ser Ile Phe Phe Ser Ile Ser Trp Leu Ser Leu Ser  
1 5 10 15

Leu Asn Tyr Ser Leu Thr Gln Ser Phe Phe Val Phe Phe Cys Phe Met  
 20 25 30  
 Gln Asp Ser Lys Ala Ser Pro Ala Arg Lys Pro Trp Tyr Gln Arg Ala  
 35 40 45  
 Met Ala Val Ala Arg Phe Ala Thr Asn Trp Arg Thr Ile Pro Lys Ser  
 50 55 60  
 Ser Ser Gln Gln Gln Pro Glu Asn Phe Arg Pro Ser Arg Asn Pro Ser  
 65 70 75 80  
 Val Asn Ser Lys Ser Ser Asn His Asn Gln Ile Tyr His Gln Leu Arg  
 85 90 95  
 Lys Cys Ser Ser Leu Lys Val Ala Ala Asn Ser Phe Thr Arg Val Cys  
 100 105 110  
 Leu Cys Ala Pro Ile Gly Pro Tyr Asp Asp Val Phe Arg Ile His Val  
 115 120 125  
 Pro Pro Arg Arg Ser Ser Ser Tyr Pro Pro Ser Lys Pro Leu Pro Met  
 130 135 140  
 Glu Thr Ala Val Ala Val Ala Thr Ala Arg Met Ser Val Asp Ser Gly  
 145 150 155 160  
 Arg Arg Ile Phe Arg Gly Lys Ser Leu Arg Glu Asn Ala Leu Met Arg  
 165 170 175  
 Arg Phe Val Val Ala Glu Glu Glu Ala Ile Met Glu Asn Arg Lys Arg  
 180 185 190  
 Asp Gln Met Glu Ile Val Arg Lys Arg Asn Gln Met Arg Arg Lys Lys  
 195 200 205  
 Lys Leu Gly Pro Ser Pro Leu Ser Arg Met Val Ile Ala Glu Asp Gln  
 210 215 220  
 Glu Val Cys Leu Leu  
 225

&lt;210&gt; 2297

&lt;211&gt; 1104

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2297

```

atgaaagaga gacaacgttg gagtggtgaa gaagatgcat tgttacgtgc ttacgttaga      60
cagttcggtc cgagagaatg gcatcttgtg tctgagcgta tgaacaaacc tttgaaccgt    120
gacgccaagt cttgttttaga gagatggaag aattatctta agccagggat caagaaaggg    180
tctttgacag aggaagagca gaggcttgtg atccgtcttc aggagaaaca cggcaacaag    240
tggaagaaga ttgctgctga ggttcccggg aggacggcaa agcggttagg gaagtgggtgg    300
gaagtgttta aggagaagca acagagagaa gagaaagaga gtaacaagag agttgagcct    360
attgacgaga gtaagtacga tcggattctc gagagtttctg ctgagaagct tgtcaaagag    420
cggcttaacg ttgtccctgc tgctgccgct gctgcaacgg ttgtgatggc taattcgaat    480
ggagggtttt tacattctga acaacaagtt cagcctccta acccagtgat cccgccttgg    540
ttagctactt ctaacaatgg gaacaatggt gttgcaaggc ctccctcggg aactttgaca    600
ttatcgcctt ccacagtggc tgcagctgcg cctcaaccgc caatcccgtg gctgcagcag    660
caacagcctg agagagcaga gaacggtcca gggggacttg tgtagggag tatgatgccg    720
tcttgtagtg ggagtagcga gagtggttct ttgtcagagc ttgtggagtg ttgtagagag    780
ttggaggaag ggcaccgagc ttgggcagac cataagaaag aggctgcatg gaggctaaga    840
aggctggagc tgcagctaga gtcagagaag acgtgtagac aaaggagaga gatggaggag    900
attgaggcaa agatgaaagc tcttagggaa gagcagaaga acgcaatgga gaagatcgaa    960
ggagagtaca gagaacagct cgttggtttg aggcgagacg cagaggccaa agaccagaaa   1020
ctggctgata aatggacctc taggcatatc agactacca agtttcttga acaacaatg    1080
ggttgcatat tagaccgccc ctga                                           1104

```

&lt;210&gt; 2298

&lt;211&gt; 367

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2298

```

Met Lys Glu Arg Gln Arg Trp Ser Gly Glu Glu Asp Ala Leu Leu Arg
1          5          10          15

```

```

Ala Tyr Val Arg Gln Phe Gly Pro Arg Glu Trp His Leu Val Ser Glu
          20          25          30

```



047-E2F-PCT.ST25.txt

Arg Met Asn Lys Pro Leu Asn Arg Asp Ala Lys Ser Cys Leu Glu Arg  
35 40 45

Trp Lys Asn Tyr Leu Lys Pro Gly Ile Lys Lys Gly Ser Leu Thr Glu  
50 55 60

Glu Glu Gln Arg Leu Val Ile Arg Leu Gln Glu Lys His Gly Asn Lys  
65 70 75 80

Trp Lys Lys Ile Ala Ala Glu Val Pro Gly Arg Thr Ala Lys Arg Leu  
85 90 95

Gly Lys Trp Trp Glu Val Phe Lys Glu Lys Gln Gln Arg Glu Glu Lys  
100 105 110

Glu Ser Asn Lys Arg Val Glu Pro Ile Asp Glu Ser Lys Tyr Asp Arg  
115 120 125

Ile Leu Glu Ser Phe Ala Glu Lys Leu Val Lys Glu Arg Ser Asn Val  
130 135 140

Val Pro Ala Ala Ala Ala Ala Ala Thr Val Val Met Ala Asn Ser Asn  
145 150 155 160

Gly Gly Phe Leu His Ser Glu Gln Gln Val Gln Pro Pro Asn Pro Val  
165 170 175

Ile Pro Pro Trp Leu Ala Thr Ser Asn Asn Gly Asn Asn Val Val Ala  
180 185 190

Arg Pro Pro Ser Val Thr Leu Thr Leu Ser Pro Ser Thr Val Ala Ala  
195 200 205

Ala Ala Pro Gln Pro Pro Ile Pro Trp Leu Gln Gln Gln Gln Pro Glu  
210 215 220

Arg Ala Glu Asn Gly Pro Gly Gly Leu Val Leu Gly Ser Met Met Pro  
225 230 235 240

Ser Cys Ser Gly Ser Ser Glu Ser Val Phe Leu Ser Glu Leu Val Glu  
245 250 255

Cys Cys Arg Glu Leu Glu Glu Gly His Arg Ala Trp Ala Asp His Lys  
260 265 270

Lys Glu Ala Ala Trp Arg Leu Arg Arg Leu Glu Leu Gln Leu Glu Ser  
275 280 285

047-E2F-PCT.ST25.txt

Glu Lys Thr Cys Arg Gln Arg Glu Lys Met Glu Glu Ile Glu Ala Lys  
290 295 300

Met Lys Ala Leu Arg Glu Glu Gln Lys Asn Ala Met Glu Lys Ile Glu  
305 310 315 320

Gly Glu Tyr Arg Glu Gln Leu Val Gly Leu Arg Arg Asp Ala Glu Ala  
325 330 335

Lys Asp Gln Lys Leu Ala Asp Gln Trp Thr Ser Arg His Ile Arg Leu  
340 345 350

Thr Lys Phe Leu Glu Gln Gln Met Gly Cys Arg Leu Asp Arg Pro  
355 360 365

<210> 2299

<211> 2598

<212> DNA

<213> Arabidopsis thaliana

<400> 2299

```
atggagagac attgtgtgtt agttgccact tttttgctga tgcttcatat cgttcatgct    60
caggatcaaa ttggattcat tagtgtggat tgtgggttgg cacctcgtga gtctccttac    120
aatgaagcca aaactggttt aacatataca tcagatgacg gtctagtcaa cgttgggaaa    180
cccggtagaa tcgccaagga attcgaaccg ctcgccgata agccgacttt gacactgaga    240
tattttccag agggagtacg aaactgctac aatctaaatg tcaccagcga caccaactat    300
ctgatcaagg ccacattcgt atatggaaat tacgatggtc ttaatgttgg gccaaacttc    360
gacctttact tcggtccgaa tttgtggact acggtatgtc ttattaagac tggaataagt    420
atacctttta taaatgtttt ggagctacga ccgatgaaga aaaacatgta cgttactcaa    480
ggcgaatcac tgaattactt attcaggggtg tatattagca attcaagtac tcgtataagg    540
ttcccggatg atgtctatga tcgtaaatgg taccggtact tcgacaactc atggacacaa    600
gtaactacga ctctcgatgt aaacacaagt cttacttatg aactaccaca aagtgtaatg    660
gcaaaagccg caacgccaat taaggctaac gacaccttga acattacatg gacagtagag    720
cctcctacta caaagtttta ctctacatg cactttgcag agcttcagac ttttaagagcc    780
aacgatgcaa ggggaattcaa tgtgacgatg aatggaatat atacatatgg accttatagt    840
cctaaaccac taaaaaccga aaccatatac gacaaaatcc ctgagcaatg cgatggaggt    900
gcatgccttt tgcaggttgt gaagacactt aaatctaccc ttccaccttt acttaatgct    960
```

047-E2F-PCT.ST25.txt

atcgaggctt tcaccgtgat tgatttcccg cagatggaga ctaatggaga tgacgttgat 1020  
gcaatcaaga atgttcaaga tacgtatgga attagtagaa ttagttggca aggagatcca 1080  
tgtgtcccca aactgttttt gtgggatggt cttaaattgca acaactccga taattcgaca 1140  
tcaccaatca tcacttcctt agacttatct tcaagtggac taactgggag catcacccaa 1200  
gccattcaga atctaactaa cctgcaagaa ctggacttgt cagataacaa tttgactgga 1260  
gaaatacctg atttcttagg ggacattaaa tcactcttgg tcataaactt aagtggtaat 1320  
aatctaagtg gctcagttcc tccctcactt cttcagaaga aaggaatgaa gttaaattgtc 1380  
gaaggaaacc ctcactttct ttgcacagct gattcatgtg tgaaaaaagg agaggatgga 1440  
cacaagaaaa agagtgtcat agtgccagtt gttgcatcaa ttgcttcaat agctgttctt 1500  
ataggtgcat tggttctgtt tttcattctt agaaagaaaa agtcacccaa agttgaagga 1560  
ccaccaccat cttatatgca agcatcagat ggtagatcgc caagatcatc tgaaccggca 1620  
atagtgacaa agaatagaag gtttacttac tcacaagttg cgataatgac aaataacttc 1680  
caaagaatcc ttggaaaagg agggtttgga atggtttatac atggttttgt gaacggtaca 1740  
gaacaagtag ctgttaagat actctcccat tcacgtctc aaggatataa agaattttaa 1800  
gcggaggtag aacttcttct tagagttcat cacaagaact tggtcggtct tgttggttac 1860  
tgcgacgaag gagagaacat ggctcttatac tatgaataca tggccaatgg agatctaaaa 1920  
gaacatatgt caggaacacg taaccggttt actttgaatt ggggaactag actgaaaata 1980  
gtcgtcgagt ctgcacaagg acttgagtac ttgcataatg gatgcaaacc accaatgggt 2040  
catagagatg tcaaaaccac aaatatattg ctgaacgaac acttccaagc caaactagct 2100  
gattttgggc tttcaaggtc atttccaatt gaagggtgaaa ctcatgtgtc aacagttggt 2160  
gctggaacgc ctggatatct tgatcccgaa tactataaaa caaattgggt gacagaaaag 2220  
agtgatgttt atagttttgg gattgtattg ttggagctta tcacaaatcg acccgtgatc 2280  
gacaaaagcc gtgaaaagcc acatatagca gaatgggtag gagtaatgct tacaaaagga 2340  
gacatcaaca gtatcatgga tcctaattta aatgaagatt atgattctgg ttctgtttgg 2400  
aaagctgttg agctagccat gagttgtctc aatccttctt cagcaagaag accgaccatg 2460  
tccaagttg ttattgaact aaacgagtgt atagcatcag aaaattcaag gggaggagcg 2520  
agtcgggata tggactcgaa gagttccata gaagtgaagct tgacctttga taccgaactg 2580  
agcccaacgg ctcggtag 2598

<210> 2300

<211> 865

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2300

```

Met Glu Arg His Cys Val Leu Val Ala Thr Phe Leu Leu Met Leu His
 1          5          10          15

Ile Val His Ala Gln Asp Gln Ile Gly Phe Ile Ser Val Asp Cys Gly
 20          25          30

Leu Ala Pro Arg Glu Ser Pro Tyr Asn Glu Ala Lys Thr Gly Leu Thr
 35          40          45

Tyr Thr Ser Asp Asp Gly Leu Val Asn Val Gly Lys Pro Gly Arg Ile
 50          55          60

Ala Lys Glu Phe Glu Pro Leu Ala Asp Lys Pro Thr Leu Thr Leu Arg
 65          70          75          80

Tyr Phe Pro Glu Gly Val Arg Asn Cys Tyr Asn Leu Asn Val Thr Ser
 85          90          95

Asp Thr Asn Tyr Leu Ile Lys Ala Thr Phe Val Tyr Gly Asn Tyr Asp
100          105          110

Gly Leu Asn Val Gly Pro Asn Phe Asp Leu Tyr Phe Gly Pro Asn Leu
115          120          125

Trp Thr Thr Val Cys Leu Ile Lys Thr Gly Ile Ser Ile Pro Phe Ile
130          135          140

Asn Val Leu Glu Leu Arg Pro Met Lys Lys Asn Met Tyr Val Thr Gln
145          150          155          160

Gly Glu Ser Leu Asn Tyr Leu Phe Arg Val Tyr Ile Ser Asn Ser Ser
165          170          175

Thr Arg Ile Arg Phe Pro Asp Asp Val Tyr Asp Arg Lys Trp Tyr Pro
180          185          190

Tyr Phe Asp Asn Ser Trp Thr Gln Val Thr Thr Thr Leu Asp Val Asn
195          200          205

Thr Ser Leu Thr Tyr Glu Leu Pro Gln Ser Val Met Ala Lys Ala Ala
210          215          220

```

Thr Pro Ile Lys Ala Asn Asp Thr Leu Asn Ile Thr Trp Thr Val Glu  
 225 230 235 240  
 Pro Pro Thr Thr Lys Phe Tyr Ser Tyr Met His Phe Ala Glu Leu Gln  
 245 250 255  
 Thr Leu Arg Ala Asn Asp Ala Arg Glu Phe Asn Val Thr Met Asn Gly  
 260 265 270  
 Ile Tyr Thr Tyr Gly Pro Tyr Ser Pro Lys Pro Leu Lys Thr Glu Thr  
 275 280 285  
 Ile Tyr Asp Lys Ile Pro Glu Gln Cys Asp Gly Gly Ala Cys Leu Leu  
 290 295 300  
 Gln Val Val Lys Thr Leu Lys Ser Thr Leu Pro Pro Leu Leu Asn Ala  
 305 310 315 320  
 Ile Glu Ala Phe Thr Val Ile Asp Phe Pro Gln Met Glu Thr Asn Gly  
 325 330 335  
 Asp Asp Val Asp Ala Ile Lys Asn Val Gln Asp Thr Tyr Gly Ile Ser  
 340 345 350  
 Arg Ile Ser Trp Gln Gly Asp Pro Cys Val Pro Lys Leu Phe Leu Trp  
 355 360 365  
 Asp Gly Leu Asn Cys Asn Asn Ser Asp Asn Ser Thr Ser Pro Ile Ile  
 370 375 380  
 Thr Ser Leu Asp Leu Ser Ser Ser Gly Leu Thr Gly Ser Ile Thr Gln  
 385 390 395 400  
 Ala Ile Gln Asn Leu Thr Asn Leu Gln Glu Leu Asp Leu Ser Asp Asn  
 405 410 415  
 Asn Leu Thr Gly Glu Ile Pro Asp Phe Leu Gly Asp Ile Lys Ser Leu  
 420 425 430  
 Leu Val Ile Asn Leu Ser Gly Asn Asn Leu Ser Gly Ser Val Pro Pro  
 435 440 445  
 Ser Leu Leu Gln Lys Lys Gly Met Lys Leu Asn Val Glu Gly Asn Pro  
 450 455 460  
 His Leu Leu Cys Thr Ala Asp Ser Cys Val Lys Lys Gly Glu Asp Gly  
 465 470 475 480

## 047-E2F-PCT.ST25.txt

His Lys Lys Lys Ser Val Ile Val Pro Val Val Ala Ser Ile Ala Ser  
 485 490 495  
 Ile Ala Val Leu Ile Gly Ala Leu Val Leu Phe Phe Ile Leu Arg Lys  
 500 505 510  
 Lys Lys Ser Pro Lys Val Glu Gly Pro Pro Pro Ser Tyr Met Gln Ala  
 515 520 525  
 Ser Asp Gly Arg Ser Pro Arg Ser Ser Glu Pro Ala Ile Val Thr Lys  
 530 535 540  
 Asn Arg Arg Phe Thr Tyr Ser Gln Val Ala Ile Met Thr Asn Asn Phe  
 545 550 555 560  
 Gln Arg Ile Leu Gly Lys Gly Gly Phe Gly Met Val Tyr His Gly Phe  
 565 570 575  
 Val Asn Gly Thr Glu Gln Val Ala Val Lys Ile Leu Ser His Ser Ser  
 580 585 590  
 Ser Gln Gly Tyr Lys Glu Phe Lys Ala Glu Val Glu Leu Leu Leu Arg  
 595 600 605  
 Val His His Lys Asn Leu Val Gly Leu Val Gly Tyr Cys Asp Glu Gly  
 610 615 620  
 Glu Asn Met Ala Leu Ile Tyr Glu Tyr Met Ala Asn Gly Asp Leu Lys  
 625 630 635 640  
 Glu His Met Ser Gly Thr Arg Asn Arg Phe Thr Leu Asn Trp Gly Thr  
 645 650 655  
 Arg Leu Lys Ile Val Val Glu Ser Ala Gln Gly Leu Glu Tyr Leu His  
 660 665 670  
 Asn Gly Cys Lys Pro Pro Met Val His Arg Asp Val Lys Thr Thr Asn  
 675 680 685  
 Ile Leu Leu Asn Glu His Phe Gln Ala Lys Leu Ala Asp Phe Gly Leu  
 690 695 700  
 Ser Arg Ser Phe Pro Ile Glu Gly Glu Thr His Val Ser Thr Val Val  
 705 710 715 720  
 Ala Gly Thr Pro Gly Tyr Leu Asp Pro Glu Tyr Tyr Lys Thr Asn Trp  
 725 730 735

047-E2F-PCT.ST25.txt

Leu Thr Glu Lys Ser Asp Val Tyr Ser Phe Gly Ile Val Leu Leu Glu  
740 745 750

Leu Ile Thr Asn Arg Pro Val Ile Asp Lys Ser Arg Glu Lys Pro His  
755 760 765

Ile Ala Glu Trp Val Gly Val Met Leu Thr Lys Gly Asp Ile Asn Ser  
770 775 780

Ile Met Asp Pro Asn Leu Asn Glu Asp Tyr Asp Ser Gly Ser Val Trp  
785 790 795 800

Lys Ala Val Glu Leu Ala Met Ser Cys Leu Asn Pro Ser Ser Ala Arg  
805 810 815

Arg Pro Thr Met Ser Gln Val Val Ile Glu Leu Asn Glu Cys Ile Ala  
820 825 830

Ser Glu Asn Ser Arg Gly Gly Ala Ser Arg Asp Met Asp Ser Lys Ser  
835 840 845

Ser Ile Glu Val Ser Leu Thr Phe Asp Thr Glu Leu Ser Pro Thr Ala  
850 855 860

Arg  
865

<210> 2301

<211> 810

<212> DNA

<213> Arabidopsis thaliana

<400> 2301

atgttaaggt ctctgatttg gaaacgatca caggcatatt cttcagtcgt cacgatgtct	60
tcaatcagtc agagaggaaa tgaaaggctt ttgtctgaag tcgctggttc acattcaaga	120
gataataaga tattggtttt gggaggaaat ggttatgtag gttcacacat atgtaaggag	180
gcactgagac aaggtttctc tgtatctagt cttagcaggt ctggaagatc ttctcttcac	240
gattcgtggg tcgatgatgt aacctggcat caaggtgatt tgctttcacc cgattctctg	300
aagcctgcac tagaaggaat tacatctgtg atttcatgtg ttggtggttt tggttccaac	360
tcacaaatgg tcagaattaa cggtactgca aacatcaatg ctgttaaagc tgcagcagaa	420

```

caaggtgtga agagatttgt gtatatatca gctgcggatt ttggtgtcat aaataacttg 480
attcgaggat atttcgaagg gaagagagca accgaagctg agattttgga taaatttgga 540
aacagagggtt cggttttaag gccaggattc atacatggga ctcgtcaggt cggtagcata 600
aagctgccac ttagtctcat tggagctcct ctcgaaatgg ttttgaagct gttgccaaaa 660
gaggtgacga aaattcctgt gatcggggcca cttttaatac ctccgggtcaa tgtcaaattcc 720
gttgcagcaa cagcggtaaa agctgcagtt gatcccgagt ttgcttctgg agtcatcgat 780
gtgtaccgga ttcttcaaca tggtcactga 810

```

&lt;210&gt; 2302

&lt;211&gt; 269

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2302

```

Met Leu Arg Ser Leu Ile Trp Lys Arg Ser Gln Ala Tyr Ser Ser Val
1      5      10     15
Val Thr Met Ser Ser Ile Ser Gln Arg Gly Asn Glu Arg Leu Leu Ser
20     25     30
Glu Val Ala Gly Ser His Ser Arg Asp Asn Lys Ile Leu Val Leu Gly
35     40     45
Gly Asn Gly Tyr Val Gly Ser His Ile Cys Lys Glu Ala Leu Arg Gln
50     55     60
Gly Phe Ser Val Ser Ser Leu Ser Arg Ser Gly Arg Ser Ser Leu His
65     70     75     80
Asp Ser Trp Val Asp Asp Val Thr Trp His Gln Gly Asp Leu Leu Ser
85     90     95
Pro Asp Ser Leu Lys Pro Ala Leu Glu Gly Ile Thr Ser Val Ile Ser
100    105    110
Cys Val Gly Gly Phe Gly Ser Asn Ser Gln Met Val Arg Ile Asn Gly
115    120    125
Thr Ala Asn Ile Asn Ala Val Lys Ala Ala Ala Glu Gln Gly Val Lys
130    135    140

```



Arg Phe Val Tyr Ile Ser Ala Ala Asp Phe Gly Val Ile Asn Asn Leu  
145 150 155 160

Ile Arg Gly Tyr Phe Glu Gly Lys Arg Ala Thr Glu Ala Glu Ile Leu  
165 170 175

Asp Lys Phe Gly Asn Arg Gly Ser Val Leu Arg Pro Gly Phe Ile His  
180 185 190

Gly Thr Arg Gln Val Gly Ser Ile Lys Leu Pro Leu Ser Leu Ile Gly  
195 200 205

Ala Pro Leu Glu Met Val Leu Lys Leu Leu Pro Lys Glu Val Thr Lys  
210 215 220

Ile Pro Val Ile Gly Pro Leu Leu Ile Pro Pro Val Asn Val Lys Ser  
225 230 235 240

Val Ala Ala Thr Ala Val Lys Ala Ala Val Asp Pro Glu Phe Ala Ser  
245 250 255

Gly Val Ile Asp Val Tyr Arg Ile Leu Gln His Gly His  
260 265

<210> 2303

<211> 1077

<212> DNA

<213> Arabidopsis thaliana

<400> 2303

atgtctgcga aaacaatcct atcatcagta gttttggtgg ttctcgtcgc cgcacagca	60
gcggctaata tcggattcga tgagtcaaac ccgatccgaa tgggtctccga tgggtctccgg	120
gaggtagaag aatctgtttc ccagatctta ggtcaatctc gtcacgttct ctctttcgct	180
cgcttcactc accgatatgg taaaaagtat cagaacgtgg aggagatgaa gcttcgattc	240
tcgattttca aggagaatct tgatttgatc agatccacca acaagaaagg cttatcttac	300
aaactcggtg ttaatcaatt tgctgatttg acatggcaag agtttcaaag gaccaagctt	360
ggtgctgctc agaactgctc tgccacttta aagggcagcc acaaggtcac agaagcagct	420
cttctgaaa caaaagactg gagagaagat ggtatcgta gtccgggtcaa agatcaggga	480
ggttggtgat cttgctggac attcagcaca actggagctc ttgaggcagc ttaccatcag	540
gcatttgga aaggaatttc tctctctgag caacagcttg tggattgtgc tggagctttc	600

047-E2F-PCT.ST25.txt

aataactatg gttgcaatgg tggccttcct tctcaagcct ttgaatacat caaatccaac 660  
 ggtggcctcg acacagagaa agcttatacct tataccggta aagatgaaac ctgcaaattt 720  
 tcagctgaaa acgttggtgt acaagtcctc aactcagtca acattactct gggtgctgaa 780  
 gatgaactga agcatgcggt tggattggta cggccagtaa gcatagcatt tgagggttata 840  
 cactcgttcc ggctttacaa gagtggagtt tacactgata gtcactgtgg aagtactcca 900  
 atggatgtga accacgcggt tttggccggt gggttatggag ttgaagacgg tgtaccatat 960  
 tggcttatta agaactcatg gggagcggat tggggcgaca aagggttactt caagatggag 1020  
 atggggaaga acatgtgtgg tattgctaca tgtgcatcat accccgttgt ggcttga 1077

<210> 2304

<211> 358

<212> PRT

<213> Arabidopsis thaliana

<400> 2304

Met Ser Ala Lys Thr Ile Leu Ser Ser Val Val Leu Val Val Leu Val  
 1 5 10 15

Ala Ala Ser Ala Ala Ala Asn Ile Gly Phe Asp Glu Ser Asn Pro Ile  
 20 25 30

Arg Met Val Ser Asp Gly Leu Arg Glu Val Glu Glu Ser Val Ser Gln  
 35 40 45

Ile Leu Gly Gln Ser Arg His Val Leu Ser Phe Ala Arg Phe Thr His  
 50 55 60

Arg Tyr Gly Lys Lys Tyr Gln Asn Val Glu Glu Met Lys Leu Arg Phe  
 65 70 75 80

Ser Ile Phe Lys Glu Asn Leu Asp Leu Ile Arg Ser Thr Asn Lys Lys  
 85 90 95

Gly Leu Ser Tyr Lys Leu Gly Val Asn Gln Phe Ala Asp Leu Thr Trp  
 100 105 110

Gln Glu Phe Gln Arg Thr Lys Leu Gly Ala Ala Gln Asn Cys Ser Ala  
 115 120 125

Thr Leu Lys Gly Ser His Lys Val Thr Glu Ala Ala Leu Pro Glu Thr  
 130 135 140

047-E2F-PCT.ST25.txt

Lys Asp Trp Arg Glu Asp Gly Ile Val Ser Pro Val Lys Asp Gln Gly  
145 150 155 160

Gly Cys Gly Ser Cys Trp Thr Phe Ser Thr Thr Gly Ala Leu Glu Ala  
165 170 175

Ala Tyr His Gln Ala Phe Gly Lys Gly Ile Ser Leu Ser Glu Gln Gln  
180 185 190

Leu Val Asp Cys Ala Gly Ala Phe Asn Asn Tyr Gly Cys Asn Gly Gly  
195 200 205

Leu Pro Ser Gln Ala Phe Glu Tyr Ile Lys Ser Asn Gly Gly Leu Asp  
210 215 220

Thr Glu Lys Ala Tyr Pro Tyr Thr Gly Lys Asp Glu Thr Cys Lys Phe  
225 230 235 240

Ser Ala Glu Asn Val Gly Val Gln Val Leu Asn Ser Val Asn Ile Thr  
245 250 255

Leu Gly Ala Glu Asp Glu Leu Lys His Ala Val Gly Leu Val Arg Pro  
260 265 270

Val Ser Ile Ala Phe Glu Val Ile His Ser Phe Arg Leu Tyr Lys Ser  
275 280 285

Gly Val Tyr Thr Asp Ser His Cys Gly Ser Thr Pro Met Asp Val Asn  
290 295 300

His Ala Val Leu Ala Val Gly Tyr Gly Val Glu Asp Gly Val Pro Tyr  
305 310 315 320

Trp Leu Ile Lys Asn Ser Trp Gly Ala Asp Trp Gly Asp Lys Gly Tyr  
325 330 335

Phe Lys Met Glu Met Gly Lys Asn Met Cys Gly Ile Ala Thr Cys Ala  
340 345 350

Ser Tyr Pro Val Val Ala  
355

<210> 2305

<211> 1035

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2305

```

atggctccgg ggcttactca aaccgctgat gctatgtcca ccgtgacgat aacaaaaccg      60
tcaactgccat cagtccaaga cagcgatcga gcttacgtga cgtttcttgc tggaaacggt      120
gattacgtga aaggagtcgt tggtttagcc aaaggggttaa ggaaagtcaa atcggcttat      180
ccactcgtag tagcgatggt acccgacgtc ccggaggaac accgtcgtat acttgtggat      240
caaggatgca tcgtccgtga aatcgaaccc gtttaccac ccgagaacca aactcagttc      300
gccatggctt attacgtcat caactactct aaactccgta tctggaagtt tgtggagtat      360
agtaaaatga tatatttaga tggagacatt caagtttacg aaaacatcga tcacttgttt      420
gacctaccag atggctatgt gtacgcggtg atggattggt tctgtgagaa aacatggagt      480
cacacgccgc aatacaagat cagatattgc caacaatgcc ccgacaaagt ccagtggcca      540
aaagcggagc ttggagagcc accggctctt tacttcaacg ccggaatggt cttgtacgag      600
cctaacctcg agacttacga ggatctacta cgaacactta aaatcactcc tccgactcct      660
ttcgtgaac aggatTTTTT gaacatgtac ttttaagaaa tctacaagcc gattccttta      720
gtgtacaatc tcgtccttgc gatgttatgg cgtcaccacg aaaatgtaga gcttggaaaa      780
gtcaagggtg ttcaactactg tgcagcgggt tcgaagccgt ggagatacac agggaaagaa      840
gcgaacatgg agagggaaga tataaaaatg ttagtgaaaa aatgggtggga catttacgac      900
gacgaatcct tggattacaa gaaacctgtt accgttgttg acacagaggt cgatctcgtg      960
aatctgaagc cgttcatcac cgctcttact gaagctggcc ggctcaacta cgtgaccgca     1020
ccgtccgctg cttga                                           1035

```

&lt;210&gt; 2306

&lt;211&gt; 344

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2306

```

Met Ala Pro Gly Leu Thr Gln Thr Ala Asp Ala Met Ser Thr Val Thr
1          5          10          15
Ile Thr Lys Pro Ser Leu Pro Ser Val Gln Asp Ser Asp Arg Ala Tyr
          20          25          30

```

Val Thr Phe Leu Ala Gly Asn Gly Asp Tyr Val Lys Gly Val Val Gly  
 35 40 45  
 Leu Ala Lys Gly Leu Arg Lys Val Lys Ser Ala Tyr Pro Leu Val Val  
 50 55 60  
 Ala Met Leu Pro Asp Val Pro Glu Glu His Arg Arg Ile Leu Val Asp  
 65 70 75 80  
 Gln Gly Cys Ile Val Arg Glu Ile Glu Pro Val Tyr Pro Pro Glu Asn  
 85 90 95  
 Gln Thr Gln Phe Ala Met Ala Tyr Tyr Val Ile Asn Tyr Ser Lys Leu  
 100 105 110  
 Arg Ile Trp Lys Phe Val Glu Tyr Ser Lys Met Ile Tyr Leu Asp Gly  
 115 120 125  
 Asp Ile Gln Val Tyr Glu Asn Ile Asp His Leu Phe Asp Leu Pro Asp  
 130 135 140  
 Gly Tyr Leu Tyr Ala Val Met Asp Cys Phe Cys Glu Lys Thr Trp Ser  
 145 150 155 160  
 His Thr Pro Gln Tyr Lys Ile Arg Tyr Cys Gln Gln Cys Pro Asp Lys  
 165 170 175  
 Val Gln Trp Pro Lys Ala Glu Leu Gly Glu Pro Pro Ala Leu Tyr Phe  
 180 185 190  
 Asn Ala Gly Met Phe Leu Tyr Glu Pro Asn Leu Glu Thr Tyr Glu Asp  
 195 200 205  
 Leu Leu Arg Thr Leu Lys Ile Thr Pro Pro Thr Pro Phe Ala Glu Gln  
 210 215 220  
 Asp Phe Leu Asn Met Tyr Phe Lys Lys Ile Tyr Lys Pro Ile Pro Leu  
 225 230 235 240  
 Val Tyr Asn Leu Val Leu Ala Met Leu Trp Arg His Pro Glu Asn Val  
 245 250 255  
 Glu Leu Gly Lys Val Lys Val Val His Tyr Cys Ala Ala Gly Ser Lys  
 260 265 270  
 Pro Trp Arg Tyr Thr Gly Lys Glu Ala Asn Met Glu Arg Glu Asp Ile  
 275 280 285

047-E2F-PCT.ST25.txt

Lys Met Leu Val Lys Lys Trp Trp Asp Ile Tyr Asp Asp Glu Ser Leu  
290 295 300

Asp Tyr Lys Lys Pro Val Thr Val Val Asp Thr Glu Val Asp Leu Val  
305 310 315 320

Asn Leu Lys Pro Phe Ile Thr Ala Leu Thr Glu Ala Gly Arg Leu Asn  
325 330 335

Tyr Val Thr Ala Pro Ser Ala Ala  
340

<210> 2307

<211> 789

<212> DNA

<213> Arabidopsis thaliana

<400> 2307

atgggaggag aaggtggtgc tgagcccgta attcactttg tgtttggttca tggagccagt	60
cacggagcctt ggtggttggt taaactcacc actcttctcg acgccgccgg gttcaaataca	120
acctccgtag atctcaccgg cgctggcatc agcctcatag actctaakat cgtcttcgac	180
tccgaccaat ataaccgtcc tctcttctct ctcttggtccg atctccctcc tcaccacaaa	240
gtcataactcg ttggacatag catcggtgga ggaagtgtca ccgaagctct ttgcaagttc	300
actgacaaaa tctccatggc catttacctc gcggcttcca tggttcaacc cggatccatc	360
ccttctccgc atctttcaaa catacatgtg ggagaagaag atatattgga gtacacatat	420
ggtgaaggta ccgataaacc acccaccgga gtcctcatga aaccggagtt tatacgccat	480
tattactata gccaaagccc tcttgaggac gtaactttgt catctaagct gttgcgtcct	540
gctcctatga gggcctttca agatcttgat aagctacctc caaatccga ggccgagaaa	600
gttcctcgag ttacatcaa gactgctaag gataatctat ttgattctgt gcgtcaagac	660
cttttggtgg agaattggcc accttctcag ctgtatgtct tggaggatag tgaccattct	720
gctttcttct ctgtcccaac taccttattc gcgtatctcc tccgtgcggt ttcttttctt	780
caacgataa	789

<210> 2308

<211> 262

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2308

Met Gly Gly Glu Gly Gly Ala Glu Pro Val Ile His Phe Val Phe Val  
 1 5 10 15

His Gly Ala Ser His Gly Ala Trp Cys Trp Tyr Lys Leu Thr Thr Leu  
 20 25 30

Leu Asp Ala Ala Gly Phe Lys Ser Thr Ser Val Asp Leu Thr Gly Ala  
 35 40 45

Gly Ile Ser Leu Ile Asp Ser Asn Ile Val Phe Asp Ser Asp Gln Tyr  
 50 55 60

Asn Arg Pro Leu Phe Ser Leu Leu Ser Asp Leu Pro Pro His His Lys  
 65 70 75 80

Val Ile Leu Val Gly His Ser Ile Gly Gly Gly Ser Val Thr Glu Ala  
 85 90 95

Leu Cys Lys Phe Thr Asp Lys Ile Ser Met Ala Ile Tyr Leu Ala Ala  
 100 105 110

Ser Met Val Gln Pro Gly Ser Ile Pro Ser Pro His Leu Ser Asn Ile  
 115 120 125

His Val Gly Glu Glu Asp Ile Trp Glu Tyr Thr Tyr Gly Glu Gly Thr  
 130 135 140

Asp Lys Pro Pro Thr Gly Val Leu Met Lys Pro Glu Phe Ile Arg His  
 145 150 155 160

Tyr Tyr Tyr Ser Gln Ser Pro Leu Glu Asp Val Thr Leu Ser Ser Lys  
 165 170 175

Leu Leu Arg Pro Ala Pro Met Arg Ala Phe Gln Asp Leu Asp Lys Leu  
 180 185 190

Pro Pro Asn Pro Glu Ala Glu Lys Val Pro Arg Val Tyr Ile Lys Thr  
 195 200 205

Ala Lys Asp Asn Leu Phe Asp Ser Val Arg Gln Asp Leu Leu Val Glu  
 210 215 220

Asn Trp Pro Pro Ser Gln Leu Tyr Val Leu Glu Asp Ser Asp His Ser  
 Page 3305

047-E2F-PCT.ST25.txt  
235

047-EZ-FCF-S129-EXC

225	230	235	240
-----	-----	-----	-----

Ala Phe Phe Ser Val Pro Thr Thr Leu Phe Ala Tyr Leu Leu Arg Ala  
245 250 255

Val Ser Phe Leu Gln Arg  
260

<210> 2309

<211> 1020

<212> DNA

<213> Arabidopsis thaliana

<400>	2309						
atggcgggga	tactagtga	caatatcctc	cctcaacctc	cgatttctcg	atcgctttct		60
tcttcttcgc	gaagaagttc	aattcgaacc	ctagtatatg	tcaaagcttc	ttcctctgaa		120
ccttccgagt	ctgtttcagt	ctccacgaag	accagtgacg	acactggagc	tgttgttgtg		180
ttcactgctc	ctcctggttt	caagccaccg	gagccaaaac	ggttcgccgt	caaatccgga		240
aaactcttcg	atgtcttggg	tgcagcaatt	ggattgtttt	tccgattcgg	cactggtgtt		300
ttcgtttctg	ggtactctgc	atcttttgtg	tctaaggaag	agattccagc	tgatcagtat		360
gcgttgcggt	taggcgggat	cacggtaaag	gaaactgcta	aggtcggggc	tcgtcctgag		420
aaaccattg	agatatatga	gtttgaaggc	tgtcccttct	gccggaaggt	cagggaaatg		480
gttgacgtgt	tggatcttga	tattctctac	tatccttgtc	caagagggag	tccaaatttc		540
cgcccgaag	ttaaacagat	gggcgggaaa	caacagtttc	cgtacatggt	tgatcccaat		600
accggagtgt	ccatgtatga	atcagatgga	atcatcaa	atctatccga	gaaatatgga		660
gatggaacag	ttcctttaag	tctgtcactt	ggtgcttta	cggctataac	agcaggcttt		720
gcaatgattg	gtcgtatggg	aaagggtaac	ttgtacacac	cagcgaaact	accacctaag		780
ccactcgaat	tctgggcata	tgagggttct	ccgttttgta	agcttgtagc	cgaagtctct		840
gtagaactgg	agttaccaca	cattcagcgc	agttgtgctc	gtggtagccc	caaacggcag		900
gtattgcttg	agaaaagctg	tcactttcag	gtgccttacc	tggaagatcc	aaacactgga		960
gtcgcgatgt	ttgagagtg	agaaattggt	gaqtatctca	aqcaaaactta	tgctgcctaa		1020

$\langle 210 \rangle$     2310

<211> 339

<212> PRT



<213> *Arabidopsis thaliana*

&lt;400&gt; 2310

Met Ala Gly Ile Leu Val Asn Asn Ile Leu Pro Gln Pro Pro Ile Leu  
 1 5 10 15

Arg Ser Leu Ser Ser Ser Ser Arg Arg Ser Ser Ile Arg Thr Leu Val  
 20 25 30

Met Val Lys Ala Ser Ser Ser Glu Pro Ser Glu Ser Val Ser Val Ser  
 35 40 45

Thr Lys Thr Ser Asp Asp Thr Gly Ala Val Val Val Phe Thr Ala Pro  
 50 55 60

Pro Gly Phe Lys Pro Pro Glu Pro Lys Arg Phe Ala Val Lys Ser Gly  
 65 70 75 80

Lys Leu Phe Asp Val Leu Gly Ala Ala Ile Gly Leu Phe Phe Arg Phe  
 85 90 95

Gly Thr Gly Val Phe Val Ser Gly Tyr Ser Ala Ser Phe Val Ser Lys  
 100 105 110

Glu Glu Ile Pro Ala Asp Gln Tyr Ala Leu Arg Leu Gly Gly Ile Thr  
 115 120 125

Val Lys Glu Thr Ala Lys Val Gly Pro Arg Pro Glu Lys Pro Ile Glu  
 130 135 140

Ile Tyr Glu Phe Glu Gly Cys Pro Phe Cys Arg Lys Val Arg Glu Met  
 145 150 155 160

Val Ala Val Leu Asp Leu Asp Ile Leu Tyr Tyr Pro Cys Pro Arg Gly  
 165 170 175

Ser Pro Asn Phe Arg Pro Lys Val Lys Gln Met Gly Gly Lys Gln Gln  
 180 185 190

Phe Pro Tyr Met Val Asp Pro Asn Thr Gly Val Ser Met Tyr Glu Ser  
 195 200 205

Asp Gly Ile Ile Lys Tyr Leu Ser Glu Lys Tyr Gly Asp Gly Thr Val  
 210 215 220

Pro Leu Ser Leu Ser Leu Gly Ala Leu Thr Ala Ile Thr Ala Gly Phe  
 Page 3307

225 230 235 240

Ala Met Ile Gly Arg Met Gly Lys Gly Asn Leu Tyr Thr Pro Ala Lys  
245 250 255

Leu Pro Pro Lys Pro Leu Glu Phe Trp Ala Tyr Glu Gly Ser Pro Phe  
260 265 270

Cys Lys Leu Val Arg Glu Val Leu Val Glu Leu Glu Leu Pro His Ile  
275 280 285

Gln Arg Ser Cys Ala Arg Gly Ser Pro Lys Arg Gln Val Leu Leu Glu  
290 295 300

Lys Ala Gly His Phe Gln Val Pro Tyr Leu Glu Asp Pro Asn Thr Gly  
305 310 315 320

Val Ala Met Phe Glu Ser Ala Glu Ile Val Glu Tyr Leu Lys Gln Thr  
325 330 335

Tyr Ala Ala

<210> 2311

$\langle 211 \rangle$  1323

<212> DNA

<213> Arabidopsis thaliana

<400>	2311						
atgccttggc	caggaagagg	ccacatcaac	ccaatgttaa	acctctgcaa	aagcctcgtc		60
cggcgagacc	caaacctcac	cgtcacattc	gtcgtcaccg	aagaatggct	cgggttcatc		120
gggtccgacc	cgaaacctaa	ccggatccat	ttcgccactc	tccccaacat	cattccctcc		180
gagctcgtcc	gagccaacga	cttcatcgcc	ttcatcgacg	ccgtcctcac	cagattagaa		240
gagccgttcg	aacagctact	tgaccgtcta	aactctcttc	ccaccgcaat	catcgccgat		300
acttacatca	tttgggcagt	acgtgtaggc	acaaaaagga	atattccggt	ggcttctttc		360
tggactacgt	cagccacgat	tctctccctc	ttcattaact	ccgatcttct	cgcaagtcac		420
ggccattttc	cgatcgaacc	atcagaatca	aaactagacg	agattgttga	ttacatcccc		480
ggtttatctc	cgacaagact	cagtgactta	cagatcttac	acggctatag	tcatcaagtc		540
ttcaatatat	tcaaaaagtc	tttcggtgag	ctttataaag	ctaagtatct	tctcttccct		600
tctgcttatg	agctcgaacc	aaaagccatt	gactttttca	cttccaagtt	tgatttcccg		660

047-E2F-PCT.ST25.txt

```

gtttactcca ctggtccggt aatacccttg gaagaactat ccgttggaaa tgagaataga 720
gaacttgatt actttaagtg gcttgatgag caacctgaaa gctctgttct ttacatatct 780
caagggaggtt ttctttcagt ctccgaagct cagatggagg agattgttgt aggagttaga 840
gaggctggag ttaagttctt ttgggtggct cgtgggggtg agttaaagct taaggaggct 900
cttgaaggta gcttgggtgt tgtggtgagc tgggtgtgatc agctacgtgt tttgtgtcat 960
gcggttatag gcgggttttg gacgcattgc ggggtataact cgacattgga agggatatgt 1020
tcgggagtac cgttgcttac atttcctgtt ttttgggatc agtttctgaa tgctaagatg 1080
attgttgagg agtggagagt tggaatgggg atcgagagga agaagcagat ggagttgttg 1140
atagttagtg atgagatcaa ggaattggta aaaaggttta tggatggaga gagtgaagaa 1200
gggaaagaga tgagaagaag gacttgtgat ctcatgaga tatgtcgtgg agcggttgcg 1260
aaaggtgggt cttctgatgc taacatcgat gctttcatta aagatattac taagatcgtg 1320
tga 1323

```

<210> 2312

<211> 440

<212> PRT

<213> Arabidopsis thaliana

<400> 2312

Met Pro Trp Pro Gly Arg Gly His Ile Asn Pro Met Leu Asn Leu Cys  
1 5 10 15

Lys Ser Leu Val Arg Arg Asp Pro Asn Leu Thr Val Thr Phe Val Val  
20 25 30

Thr Glu Glu Trp Leu Gly Phe Ile Gly Ser Asp Pro Lys Pro Asn Arg  
35 40 45

Ile His Phe Ala Thr Leu Pro Asn Ile Ile Pro Ser Glu Leu Val Arg  
50 55 60

Ala Asn Asp Phe Ile Ala Phe Ile Asp Ala Val Leu Thr Arg Leu Glu  
65 70 75 80

Glu Pro Phe Glu Gln Leu Leu Asp Arg Leu Asn Ser Pro Pro Thr Ala  
85 90 95

Ile Ile Ala Asp Thr Tyr Ile Ile Trp Ala Val Arg Val Gly Thr Lys  
Page 3309

100  
 105  
 110  
 Arg Asn Ile Pro Val Ala Ser Phe Trp Thr Thr Ser Ala Thr Ile Leu  
 115 120 125  
 Ser Leu Phe Ile Asn Ser Asp Leu Leu Ala Ser His Gly His Phe Pro  
 130 135 140  
 Ile Glu Pro Ser Glu Ser Lys Leu Asp Glu Ile Val Asp Tyr Ile Pro  
 145 150 155 160  
 Gly Leu Ser Pro Thr Arg Leu Ser Asp Leu Gln Ile Leu His Gly Tyr  
 165 170 175  
 Ser His Gln Val Phe Asn Ile Phe Lys Lys Ser Phe Gly Glu Leu Tyr  
 180 185 190  
 Lys Ala Lys Tyr Leu Leu Phe Pro Ser Ala Tyr Glu Leu Glu Pro Lys  
 195 200 205  
 Ala Ile Asp Phe Phe Thr Ser Lys Phe Asp Phe Pro Val Tyr Ser Thr  
 210 215 220  
 Gly Pro Leu Ile Pro Leu Glu Glu Leu Ser Val Gly Asn Glu Asn Arg  
 225 230 235 240  
 Glu Leu Asp Tyr Phe Lys Trp Leu Asp Glu Gln Pro Glu Ser Ser Val  
 245 250 255  
 Leu Tyr Ile Ser Gln Gly Ser Phe Leu Ser Val Ser Glu Ala Gln Met  
 260 265 270  
 Glu Glu Ile Val Val Gly Val Arg Glu Ala Gly Val Lys Phe Phe Trp  
 275 280 285  
 Val Ala Arg Gly Gly Glu Leu Lys Leu Lys Glu Ala Leu Glu Gly Ser  
 290 295 300  
 Leu Gly Val Val Val Ser Trp Cys Asp Gln Leu Arg Val Leu Cys His  
 305 310 315 320  
 Ala Ala Ile Gly Gly Phe Trp Thr His Cys Gly Tyr Asn Ser Thr Leu  
 325 330 335  
 Glu Gly Ile Cys Ser Gly Val Pro Leu Leu Thr Phe Pro Val Phe Trp  
 340 345 350

Asp Gln Phe Leu Asn Ala Lys Met Ile Val Glu Glu Trp Arg Val Gly  
 355 360 365

Met Gly Ile Glu Arg Lys Lys Gln Met Glu Leu Leu Ile Val Ser Asp  
 370 375 380

Glu Ile Lys Glu Leu Val Lys Arg Phe Met Asp Gly Glu Ser Glu Glu  
 385 390 395 400

Gly Lys Glu Met Arg Arg Arg Thr Cys Asp Leu Ser Glu Ile Cys Arg  
 405 410 415

Gly Ala Val Ala Lys Gly Gly Ser Ser Asp Ala Asn Ile Asp Ala Phe  
 420 425 430

Ile Lys Asp Ile Thr Lys Ile Val  
 435 440

<210> 2313

<211> 1095

<212> DNA

<213> Arabidopsis thaliana

<400> 2313

atgaaacttt tctttattgt tctcatctct tttctttccc tcctccaagc atcaaaagga	60
ttcgatttcg acgaaaaaga attagaaacc gaagagaacg tatggaagct ctatgagagg	120
tgagagggcc accactctgt atccagagcc tcccacgagg caataaagcg gttcaacggt	180
tttagacaca atgtccttca tgtccacagg actaacaaaa agaacaagcc ttacaaactc	240
aagatcaata gattcgccga cataacgcac cactgagttta gaagctccta cgctggctct	300
aatgttaagc atcaccgaat gcttcgtgga ccgaagcgcg gatctggtgg tttcatgtat	360
gagaatgtga ccagagttcc gagttctggt gattggcgag agaaaggagc tgtcactgag	420
gtcaagaatc aacaagattg tggaagttgc tgggcgtttt cgacggttgc agcagtggaa	480
gggataaaca agatcagaac aaacaaactg gtttcattgt ctgaacaaga gcttgtggat	540
tgtgacactg aagagaatca aggttgtgca ggaggtctca tggaacctgc gtttgaattt	600
ataaagaaca atggtggcat caaaaccgaa gagacttatc cttacgattc cagtgcggtt	660
caattctgta gagctaatag tattggtgga gaaactgtaa ccatcgatgg acacgaacac	720
gtccctgaga atgatgagga agaacttctc aaagctgttg ctcaccagcc tgtctctgta	780
gctattgatg ctgggagctc agatttccag ctttactctg aggggtgtgtt tatcggagaa	840

tgcgggactc agttgaacca cggggtggtg attgttgggt atggagagac caaaaatgga 900  
 acaaaatatt ggatagtaag gaactcatgg ggacctgaat ggggagaagg aggctatggt 960  
 cggatagaaa gaggaatatc ggagaatgaa ggacgttgcg gtatagccat ggaggcttct 1020  
 tatcccacca agctctcttc gactccttct actcatgagt cagtagttcg tgatgatggt 1080  
 aaagacgagc tctag 1095

<210> 2314

<211> 364

<212> PRT

<213> Arabidopsis thaliana

<400> 2314

Met Lys Leu Phe Phe Ile Val Leu Ile Ser Phe Leu Ser Leu Leu Gln  
 1 5 10 15

Ala Ser Lys Gly Phe Asp Phe Asp Glu Lys Glu Leu Glu Thr Glu Glu  
 20 25 30

Asn Val Trp Lys Leu Tyr Glu Arg Trp Arg Gly His His Ser Val Ser  
 35 40 45

Arg Ala Ser His Glu Ala Ile Lys Arg Phe Asn Val Phe Arg His Asn  
 50 55 60

Val Leu His Val His Arg Thr Asn Lys Lys Asn Lys Pro Tyr Lys Leu  
 65 70 75 80

Lys Ile Asn Arg Phe Ala Asp Ile Thr His His Glu Phe Arg Ser Ser  
 85 90 95

Tyr Ala Gly Ser Asn Val Lys His His Arg Met Leu Arg Gly Pro Lys  
 100 105 110

Arg Gly Ser Gly Gly Phe Met Tyr Glu Asn Val Thr Arg Val Pro Ser  
 115 120 125

Ser Val Asp Trp Arg Glu Lys Gly Ala Val Thr Glu Val Lys Asn Gln  
 130 135 140

Gln Asp Cys Gly Ser Cys Trp Ala Phe Ser Thr Val Ala Ala Val Glu  
 145 150 155 160

Gly Ile Asn Lys Ile Arg Thr Asn Lys Leu Val Ser Leu Ser Glu Gln  
 165 170 175

Glu Leu Val Asp Cys Asp Thr Glu Glu Asn Gln Gly Cys Ala Gly Gly  
 180 185 190

Leu Met Glu Pro Ala Phe Glu Phe Ile Lys Asn Asn Gly Gly Ile Lys  
 195 200 205

Thr Glu Glu Thr Tyr Pro Tyr Asp Ser Ser Asp Val Gln Phe Cys Arg  
 210 215 220

Ala Asn Ser Ile Gly Gly Glu Thr Val Thr Ile Asp Gly His Glu His  
 225 230 235 240

Val Pro Glu Asn Asp Glu Glu Glu Leu Leu Lys Ala Val Ala His Gln  
 245 250 255

Pro Val Ser Val Ala Ile Asp Ala Gly Ser Ser Asp Phe Gln Leu Tyr  
 260 265 270

Ser Glu Gly Val Phe Ile Gly Glu Cys Gly Thr Gln Leu Asn His Gly  
 275 280 285

Val Val Ile Val Gly Tyr Gly Glu Thr Lys Asn Gly Thr Lys Tyr Trp  
 290 295 300

Ile Val Arg Asn Ser Trp Gly Pro Glu Trp Gly Glu Gly Gly Tyr Val  
 305 310 315 320

Arg Ile Glu Arg Gly Ile Ser Glu Asn Glu Gly Arg Cys Gly Ile Ala  
 325 330 335

Met Glu Ala Ser Tyr Pro Thr Lys Leu Ser Ser Thr Pro Ser Thr His  
 340 345 350

Glu Ser Val Val Arg Asp Asp Val Lys Asp Glu Leu  
 355 360

<210> 2315

<211> 2088

<212> DNA

<213> Arabidopsis thaliana

<400> 2315

atggcggttt	tattagcttc	tcagagctgc	tgctatggcg	gtgagaccgc	aagagtcacc	60
aaagctattg	gtttcagtag	ctctttggag	aatcatttca	ctggggaagc	cactcagtgt	120
tatggcagca	agtctaagag	atttcgtatt	gagatgagac	agtcggaatt	gccctctaag	180
gttggaatca	atggacgttc	agtcaaaatg	gttcctgcga	gtgaggtggt	gaagaggaaa	240
gatggtgtga	atggatcggc	tgggaaaggt	gttaatggag	cgagtttggt	tagtagtaga	300
aacattaatg	gtgcggcgtc	aactttgggt	aaggcaccaa	agaaaacaac	agaatcgtac	360
cttcctccac	cggttgaagg	agttaggggt	cttccttctg	atgaagggtt	tagctgggct	420
gatgagaatt	atagctcact	tcaacgcagt	attgatgttt	ggtcatttgt	tatttccttg	480
aggattcgta	tcttgttcga	taattcgaaa	tgggcttatg	ttggaggatt	cacagaagaa	540
aaacagaaaa	gcagaagaag	agaaacagct	tcatggttga	gagagagtgt	attgcagctt	600
ggtccaacgt	ttatcaaact	gggacagttg	tcttcaacta	ggtcagactt	gtttccgcgc	660
gaattcgtgg	atgagctttc	caagttgcag	gacagagtcc	ccgctttttc	tccagagaaa	720
gcaaagcgct	tcattgaggc	tgaacttggg	gctcctatta	gtgtaatgta	taaagaattt	780
gaagagcaac	ccatagctgc	agctagcctt	ggtcagggtac	acagagctgt	tttgcacaat	840
ggcgagaaaag	tggtagtaaa	agtacaaaga	cccggactaa	agaaactttt	cgatattgat	900
ctacgaaatc	tgaagctgat	tgccgagtat	ttccagaaaa	gtgaatcatt	tggtacaaac	960
gattgggttg	gtatctatga	agaatgtgcc	ttaattttgt	atcaagagat	tgactacata	1020
aacgaagcta	agaacgctga	cagattccgg	agagacttcc	ggaatataaa	ctgggtccgc	1080
gtacctttgg	tttattggga	ttactctgcc	atgaagggtct	tgactttgga	gtatgtacca	1140
ggtgttaaga	tcaacaactt	ggacgcctta	gctgcacggg	gttttaaccg	ttctagaatc	1200
gcatcacggg	ccattgaagc	ttatcttata	cagatactca	aaaccggctt	ctttcatgcg	1260
gatccgcacc	caggaaacct	tgcaattgat	gtagatgaat	caatcatcta	ctatgacttc	1320
ggcatgatgg	gagagatcaa	aacatttact	cggaagagat	tacttgatct	cttctattct	1380
gtttatgaaa	aagatgcaaa	aaagggtcatg	caaaacctta	tagaccttga	agcacttcaa	1440
cccactggag	atctttcatc	ggtaaggaga	tctgttcagt	ttttcttgga	caacctatta	1500
agccaatcac	cagatcagca	acagactttg	gcagctattg	gagaggatct	gtttgcaatt	1560
tcccaggatc	agccattccg	tttcccatca	actttcacct	ttgtcatccg	agcattttcc	1620
acacttgagg	gtattggtta	catccttgat	ccagaatttt	cctttgtgaa	ggttgctggc	1680
ccttatgcgc	aggaactcct	ggatctaaaa	caaaggcaac	gctcggaac	tcagcttgtc	1740
caagaaataa	gaaagcaggc	tgatgatgcc	aggtcttcta	ctctgtctat	gccatatcga	1800
gtgcagcgaa	tagaagagtt	tgtgaaagaa	ctcgattcag	gcgatctgaa	actccgtggt	1860
cgggttcttg	agtcggaaaag	agcagcccgg	aaagcgacaa	tactgcagat	ggcgacgatg	1920



047-E2F-PCT.ST25.txt

tatacagttc ttggaggaac tctacttaat attgggggtta catttagcaa ccaaggaagt 1980  
cagcttggtg ccaatggatc cttcattgga gcagggatat tcatgttatt ggtactgagg 2040  
tctatgcaaa gggtaaataa gcttgataaa tttgagaaga tgatatga 2088

<210> 2316

<211> 695

<212> PRT

<213> Arabidopsis thaliana

<400> 2316

Met Ala Ala Leu Leu Ala Ser Gln Ser Cys Cys Tyr Gly Gly Glu Thr  
1 5 10 15

Ala Arg Val Thr Lys Ala Ile Gly Phe Ser Ser Ser Leu Glu Asn His  
20 25 30

Phe Thr Gly Glu Ala Thr Gln Cys Tyr Gly Ser Lys Ser Lys Arg Phe  
35 40 45

Arg Ile Glu Met Arg Gln Ser Glu Leu Pro Ser Lys Val Gly Ile Asn  
50 55 60

Gly Arg Ser Val Lys Met Val Pro Ala Ser Glu Val Val Lys Arg Lys  
65 70 75 80

Asp Gly Val Asn Gly Ser Ala Gly Lys Gly Val Asn Gly Ala Ser Leu  
85 90 95

Val Ser Ser Arg Asn Ile Asn Gly Ala Ala Ser Thr Leu Val Lys Ala  
100 105 110

Pro Lys Lys Thr Thr Glu Ser Tyr Leu Pro Pro Pro Val Glu Gly Val  
115 120 125

Arg Val Leu Pro Ser Asp Glu Gly Phe Ser Trp Ala Asp Glu Asn Tyr  
130 135 140

Ser Ser Leu Gln Arg Ser Ile Asp Val Trp Ser Phe Val Ile Ser Leu  
145 150 155 160

Arg Ile Arg Ile Leu Phe Asp Asn Ser Lys Trp Ala Tyr Val Gly Gly  
165 170 175

047-E2F-PCT.ST25.txt

Phe Thr Glu Glu Lys Gln Lys Ser Arg Arg Arg Glu Thr Ala Ser Trp  
 180 185 190  
 Leu Arg Glu Ser Val Leu Gln Leu Gly Pro Thr Phe Ile Lys Leu Gly  
 195 200 205  
 Gln Leu Ser Ser Thr Arg Ser Asp Leu Phe Pro Arg Glu Phe Val Asp  
 210 215 220  
 Glu Leu Ser Lys Leu Gln Asp Arg Val Pro Ala Phe Ser Pro Glu Lys  
 225 230 235 240  
 Ala Lys Arg Phe Ile Glu Ala Glu Leu Gly Ala Pro Ile Ser Val Met  
 245 250 255  
 Tyr Lys Glu Phe Glu Glu Gln Pro Ile Ala Ala Ala Ser Leu Gly Gln  
 260 265 270  
 Val His Arg Ala Val Leu His Asn Gly Glu Lys Val Val Val Lys Val  
 275 280 285  
 Gln Arg Pro Gly Leu Lys Lys Leu Phe Asp Ile Asp Leu Arg Asn Leu  
 290 295 300  
 Lys Leu Ile Ala Glu Tyr Phe Gln Lys Ser Glu Ser Phe Gly Thr Asn  
 305 310 315 320  
 Asp Trp Val Gly Ile Tyr Glu Glu Cys Ala Leu Ile Leu Tyr Gln Glu  
 325 330 335  
 Ile Asp Tyr Ile Asn Glu Ala Lys Asn Ala Asp Arg Phe Arg Arg Asp  
 340 345 350  
 Phe Arg Asn Ile Asn Trp Val Arg Val Pro Leu Val Tyr Trp Asp Tyr  
 355 360 365  
 Ser Ala Met Lys Val Leu Thr Leu Glu Tyr Val Pro Gly Val Lys Ile  
 370 375 380  
 Asn Asn Leu Asp Ala Leu Ala Ala Arg Gly Phe Asn Arg Ser Arg Ile  
 385 390 395 400  
 Ala Ser Arg Ala Ile Glu Ala Tyr Leu Ile Gln Ile Leu Lys Thr Gly  
 405 410 415  
 Phe Phe His Ala Asp Pro His Pro Gly Asn Leu Ala Ile Asp Val Asp  
 420 425 430

047-E2F-PCT.ST25.txt

Glu Ser Ile Ile Tyr Tyr Asp Phe Gly Met Met Gly Glu Ile Lys Thr  
 435 440 445  
 Phe Thr Arg Lys Arg Leu Leu Asp Leu Phe Tyr Ser Val Tyr Glu Lys  
 450 455 460  
 Asp Ala Lys Lys Val Met Gln Asn Leu Ile Asp Leu Glu Ala Leu Gln  
 465 470 475 480  
 Pro Thr Gly Asp Leu Ser Ser Val Arg Arg Ser Val Gln Phe Phe Leu  
 485 490 495  
 Asp Asn Leu Leu Ser Gln Ser Pro Asp Gln Gln Gln Thr Leu Ala Ala  
 500 505 510  
 Ile Gly Glu Asp Leu Phe Ala Ile Ser Gln Asp Gln Pro Phe Arg Phe  
 515 520 525  
 Pro Ser Thr Phe Thr Phe Val Ile Arg Ala Phe Ser Thr Leu Glu Gly  
 530 535 540  
 Ile Gly Tyr Ile Leu Asp Pro Glu Phe Ser Phe Val Lys Val Ala Ala  
 545 550 555 560  
 Pro Tyr Ala Gln Glu Leu Leu Asp Leu Lys Gln Arg Gln Arg Ser Gly  
 565 570 575  
 Thr Gln Leu Val Gln Glu Ile Arg Lys Gln Ala Asp Asp Ala Arg Ser  
 580 585 590  
 Ser Thr Leu Ser Met Pro Tyr Arg Val Gln Arg Ile Glu Glu Phe Val  
 595 600 605  
 Lys Glu Leu Asp Ser Gly Asp Leu Lys Leu Arg Val Arg Val Leu Glu  
 610 615 620  
 Ser Glu Arg Ala Ala Arg Lys Ala Thr Ile Leu Gln Met Ala Thr Met  
 625 630 635 640  
 Tyr Thr Val Leu Gly Gly Thr Leu Leu Asn Ile Gly Val Thr Phe Ser  
 645 650 655  
 Asn Gln Gly Ser Gln Leu Val Ala Asn Gly Ser Phe Ile Gly Ala Gly  
 660 665 670  
 Ile Phe Met Leu Leu Val Leu Arg Ser Met Gln Arg Val Asn Lys Leu

675

680

685

Asp Lys Phe Glu Lys Met Ile  
690 695

&lt;210&gt; 2317

&lt;211&gt; 651

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2317

```

atggctgctt catcttcctc tttcactctc tgtaatcaca ccacacttcg tactctccct    60
ctgagaaaga cccttgtcac caaaacccaa ttttcagttc ccacaaaatc atcagaatct    120
aacttctttg gctccacact cactcactca tcgtatatct ccccagtctc ttcctcttct    180
ctcaaaggct taatctttgc caagggtaac aagggtcagg ctgcaccaga cttcacacta    240
aaggatcaaa acggaaagcc ggtgagcctc aaaaagtata aagggaagcc tgttgttctc    300
tacttctacc ctgcagatga aacccttggc tgcaccaagc aggccttgctc tttcagagac    360
tcttatgaga aattcaagaa agctggtgca gaggtcattg gcattagtgg agatgactct    420
gcttctcaca aggcgtttgc aagcaaatac aaactaccgt atacattggt aagcgacgaa    480
gggaataagg tgagaaaaga ttggggagtg cctggagacc tgtttgagac attgccaggg    540
agacagactt acgttcttga caaaaacggt gttgttcagc tcattctaca caaccagttc    600
cagcctgaga aacacatcga cgagaccttg aagtttctca aagctgcttg a          651

```

&lt;210&gt; 2318

&lt;211&gt; 216

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2318

```

Met Ala Ala Ser Ser Ser Ser Phe Thr Leu Cys Asn His Thr Thr Leu
1      5      10     15
Arg Thr Leu Pro Leu Arg Lys Thr Leu Val Thr Lys Thr Gln Phe Ser
20     25     30
Val Pro Thr Lys Ser Ser Glu Ser Asn Phe Phe Gly Ser Thr Leu Thr
35     40     45

```

047-E2F-PCT.ST25.txt

His Ser Ser Tyr Ile Ser Pro Val Ser Ser Ser Ser Leu Lys Gly Leu  
50 55 60

Ile Phe Ala Lys Val Asn Lys Gly Gln Ala Ala Pro Asp Phe Thr Leu  
65 70 75 80

Lys Asp Gln Asn Gly Lys Pro Val Ser Leu Lys Lys Tyr Lys Gly Lys  
85 90 95

Pro Val Val Leu Tyr Phe Tyr Pro Ala Asp Glu Thr Pro Gly Cys Thr  
100 105 110

Lys Gln Ala Cys Ala Phe Arg Asp Ser Tyr Glu Lys Phe Lys Lys Ala  
115 120 125

Gly Ala Glu Val Ile Gly Ile Ser Gly Asp Asp Ser Ala Ser His Lys  
130 135 140

Ala Phe Ala Ser Lys Tyr Lys Leu Pro Tyr Thr Leu Leu Ser Asp Glu  
145 150 155 160

Gly Asn Lys Val Arg Lys Asp Trp Gly Val Pro Gly Asp Leu Phe Gly  
165 170 175

Ala Leu Pro Gly Arg Gln Thr Tyr Val Leu Asp Lys Asn Gly Val Val  
180 185 190

Gln Leu Ile Tyr Asn Asn Gln Phe Gln Pro Glu Lys His Ile Asp Glu  
195 200 205

Thr Leu Lys Phe Leu Lys Ala Ala  
210 215

<210> 2319

<211> 933

<212> DNA

<213> Arabidopsis thaliana

<400> 2319

atggccttttag tacgtgaacg tcgtcagcta aatctccgtc ttctctttcc tccaatctcc	60
gaccgccgct tctccacctc ttctctctca gccaccacca ccaccgtcgc tggctgtaac	120
ggaatctccg cttgtgatct cgagaaactc aacgttctcg gatgcggaaa cggcgggatt	180

047-E2F-PCT.ST25.txt

gtttacaaag tccgtcataa aaccacatcg gagatctacg ctttgaaaac agttaacggc 240  
gacatggatc cgattttcac aagacagttg atgcgagaga tggagattct ccgccgtaca 300  
gattcaccgt acgtcgtaa gtgtcacgga atcttcgaga aacctgtcgt cgggtgaagta 360  
tcgattctaa tggagtatat ggacggcgga accctagaat cactacgcgg cgggtgtaacg 420  
gagcaaaaac tcgccggatt cgctaaacag atcttaaaag gattaagcta ttacacgct 480  
cttaagatcg ttcacgtga tatcaaaccg gcgaatcttc ttctcaattc gaaaaacgaa 540  
gttaaaatcg ctgatttcgg agttagtaag atcttagtcc gatcattaga ttcgtgtaat 600  
tcgtatgttg gtacttgtgc ttatatgagt ccggagaggt ttgattcgga atcttcgggt 660  
ggaagctctg atatctacgc cggagatatc tggagtttcg gattgatgat gcttgagctt 720  
ctcgttggtc attttccttt gcttccgccg ggacagagac ctgattgggc gacgttgatg 780  
tgcgcggtgt gttttggaga accgccgcga gcgccggagg gatgttctga agagtttagg 840  
agcttcgttg agtggtgtct ccgtaaagat tcgagtaagc gatggacggc gccgcagctt 900  
cttgcctatc cttttctccg ggaagatctt tga 933

<210> 2320

<211> 310

<212> PRT

<213> Arabidopsis thaliana

<400> 2320

Met Ala Leu Val Arg Glu Arg Arg Gln Leu Asn Leu Arg Leu Pro Leu  
1 5 10 15

Pro Pro Ile Ser Asp Arg Arg Phe Ser Thr Ser Ser Ser Ser Ala Thr  
20 25 30

Thr Thr Thr Val Ala Gly Cys Asn Gly Ile Ser Ala Cys Asp Leu Glu  
35 40 45

Lys Leu Asn Val Leu Gly Cys Gly Asn Gly Gly Ile Val Tyr Lys Val  
50 55 60

Arg His Lys Thr Thr Ser Glu Ile Tyr Ala Leu Lys Thr Val Asn Gly  
65 70 75 80

Asp Met Asp Pro Ile Phe Thr Arg Gln Leu Met Arg Glu Met Glu Ile  
85 90 95

Leu Arg Arg Thr Asp Ser Pro Tyr Val Val Lys Cys His Gly Ile Phe  
 100 105 110  
 Glu Lys Pro Val Val Gly Glu Val Ser Ile Leu Met Glu Tyr Met Asp  
 115 120 125  
 Gly Gly Thr Leu Glu Ser Leu Arg Gly Gly Val Thr Glu Gln Lys Leu  
 130 135 140  
 Ala Gly Phe Ala Lys Gln Ile Leu Lys Gly Leu Ser Tyr Leu His Ala  
 145 150 155 160  
 Leu Lys Ile Val His Arg Asp Ile Lys Pro Ala Asn Leu Leu Leu Asn  
 165 170 175  
 Ser Lys Asn Glu Val Lys Ile Ala Asp Phe Gly Val Ser Lys Ile Leu  
 180 185 190  
 Val Arg Ser Leu Asp Ser Cys Asn Ser Tyr Val Gly Thr Cys Ala Tyr  
 195 200 205  
 Met Ser Pro Glu Arg Phe Asp Ser Glu Ser Ser Gly Gly Ser Ser Asp  
 210 215 220  
 Ile Tyr Ala Gly Asp Ile Trp Ser Phe Gly Leu Met Met Leu Glu Leu  
 225 230 235 240  
 Leu Val Gly His Phe Pro Leu Leu Pro Pro Gly Gln Arg Pro Asp Trp  
 245 250 255  
 Ala Thr Leu Met Cys Ala Val Cys Phe Gly Glu Pro Pro Arg Ala Pro  
 260 265 270  
 Glu Gly Cys Ser Glu Glu Phe Arg Ser Phe Val Glu Cys Cys Leu Arg  
 275 280 285  
 Lys Asp Ser Ser Lys Arg Trp Thr Ala Pro Gln Leu Leu Ala His Pro  
 290 295 300  
 Phe Leu Arg Glu Asp Leu  
 305 310

&lt;210&gt; 2321

&lt;211&gt; 1545

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

<400> 2321  
atggacaccg caaccaccac atgctctgcc gtagatctat ctgccctcct atcctcttct 60  
tctaactcaa catcttccct cgccgcggca acctttttat gttcccaa at ttcaaacatc 120  
tccaacaaac tctccgacac aacttatgcc gtcgacaaca cgtatctcct cttctccgcc 180  
taccttgtct ttgccatgca gctcggtttc gctatgcttt gtgctggatc agtccgagcc 240  
aagaacacta tgaacatcat gcttaccaat gtccttgatg ctgccgctgg agccatctct 300  
tactacctct tcggattcgc attcgccttt ggtacacctt ccaacggatt catcggtcgc 360  
caccatagct tcttcgcttt aagctcttac cctgaacgcc ccggctccga cttcagcttt 420  
ttcctctacc aatgggcttt tgccatagcc gcggccggaa tcactagcgg ttccatcgcc 480  
gagcgaacgc aattcgttgc ttaccttata tactctactt tcttgaccgg ttttgtttac 540  
ccgacagtct cgcactggtt ctggtcaagt gatggatggg ctagcgcgtc ccggtctgac 600  
aacaatctct tgtttggctc aggtgctatt gatttcgcag gttcaggagt tgttcacatg 660  
gtaggtggaa ttgccggttt atgtggagcg ttagttgaag gaccaagaat aggtagattt 720  
gaccggctcag gccggctcgt ggctttacgt ggtcacagtg catcccttgt cgtgcttggt 780  
accttcttgt tgtggtttgg atggtatggg ttttaaccctg gttccttttt aaccattctt 840  
aaaggctacg acaagtctcg gccatattat ggtcaatgga gcgctgtagg tcgcaccgcg 900  
gtcaccacaa cgctttctgg ctgcaccgct gcgttgacta ctctattcag taaacggctt 960  
ttagcaggctc attggaacgt tattgacgta tgcaacggac ttctaggcgg ctttgcagct 1020  
ataacctccg gatgtgccgt ggtggagccg tgggctgcta tagtatgtgg ctttgtggca 1080  
tcatgggttt taatcggaatt taacttgctt gccagaacaa ttaaataatga tgaccactc 1140  
gaggctgctc agctccacgg tggatgtgga gcatggggat taatctttac cgggctgttc 1200  
gcaaggaaag aatacgttaa cgagatttac tccggtgata ggccttacgg actgttcatg 1260  
ggcgggggag gaaaactgct cgccgcgcag atcgttcaga ttattgtgat cgttgggtgg 1320  
gtgacggtaa ctatgggacc gttgttttat gggttacata agatgaatct tttgaggata 1380  
tcagcagaag atgagatggc aggaatggac atgacacgtc atggaggatt tgcttacgca 1440  
tacaatgacg aagacgacgt gtcgactaaa ccatggggtc atttcgctgg aagagtggag 1500  
cctacaagcc ggagctcgac tcctacaccg accttgactg tttga 1545

<210> 2322

<211> 514

<212> PRT



<213> *Arabidopsis thaliana*

&lt;400&gt; 2322

Met Asp Thr Ala Thr Thr Thr Cys Ser Ala Val Asp Leu Ser Ala Leu  
 1 5 10 15

Leu Ser Ser Ser Ser Asn Ser Thr Ser Ser Leu Ala Ala Ala Thr Phe  
 20 25 30

Leu Cys Ser Gln Ile Ser Asn Ile Ser Asn Lys Leu Ser Asp Thr Thr  
 35 40 45

Tyr Ala Val Asp Asn Thr Tyr Leu Leu Phe Ser Ala Tyr Leu Val Phe  
 50 55 60

Ala Met Gln Leu Gly Phe Ala Met Leu Cys Ala Gly Ser Val Arg Ala  
 65 70 75 80

Lys Asn Thr Met Asn Ile Met Leu Thr Asn Val Leu Asp Ala Ala Ala  
 85 90 95

Gly Ala Ile Ser Tyr Tyr Leu Phe Gly Phe Ala Phe Ala Phe Gly Thr  
 100 105 110

Pro Ser Asn Gly Phe Ile Gly Arg His His Ser Phe Phe Ala Leu Ser  
 115 120 125

Ser Tyr Pro Glu Arg Pro Gly Ser Asp Phe Ser Phe Phe Leu Tyr Gln  
 130 135 140

Trp Ala Phe Ala Ile Ala Ala Ala Gly Ile Thr Ser Gly Ser Ile Ala  
 145 150 155 160

Glu Arg Thr Gln Phe Val Ala Tyr Leu Ile Tyr Ser Thr Phe Leu Thr  
 165 170 175

Gly Phe Val Tyr Pro Thr Val Ser His Trp Phe Trp Ser Ser Asp Gly  
 180 185 190

Trp Ala Ser Ala Ser Arg Ser Asp Asn Asn Leu Leu Phe Gly Ser Gly  
 195 200 205

Ala Ile Asp Phe Ala Gly Ser Gly Val Val His Met Val Gly Gly Ile  
 210 215 220

Ala Gly Leu Cys Gly Ala Leu Val Glu Gly Pro Arg Ile Gly Arg Phe  
 Page 3323

225                      230                      235                      240  
 Asp Arg Ser Gly Arg Ser Val Ala Leu Arg Gly His Ser Ala Ser Leu  
                                  245                      250                      255  
 Val Val Leu Gly Thr Phe Leu Leu Trp Phe Gly Trp Tyr Gly Phe Asn  
                                  260                      265                      270  
 Pro Gly Ser Phe Leu Thr Ile Leu Lys Gly Tyr Asp Lys Ser Arg Pro  
                                  275                      280                      285  
 Tyr Tyr Gly Gln Trp Ser Ala Val Gly Arg Thr Ala Val Thr Thr Thr  
                                  290                      295                      300  
 Leu Ser Gly Cys Thr Ala Ala Leu Thr Thr Leu Phe Ser Lys Arg Leu  
                                  305                      310                      315                      320  
 Leu Ala Gly His Trp Asn Val Ile Asp Val Cys Asn Gly Leu Leu Gly  
                                  325                      330                      335  
 Gly Phe Ala Ala Ile Thr Ser Gly Cys Ala Val Val Glu Pro Trp Ala  
                                  340                      345                      350  
 Ala Ile Val Cys Gly Phe Val Ala Ser Trp Val Leu Ile Gly Phe Asn  
                                  355                      360                      365  
 Leu Leu Ala Lys Lys Leu Lys Tyr Asp Asp Pro Leu Glu Ala Ala Gln  
                                  370                      375                      380  
 Leu His Gly Gly Cys Gly Ala Trp Gly Leu Ile Phe Thr Gly Leu Phe  
                                  385                      390                      395                      400  
 Ala Arg Lys Glu Tyr Val Asn Glu Ile Tyr Ser Gly Asp Arg Pro Tyr  
                                  405                      410                      415  
 Gly Leu Phe Met Gly Gly Gly Gly Lys Leu Leu Ala Ala Gln Ile Val  
                                  420                      425                      430  
 Gln Ile Ile Val Ile Val Gly Trp Val Thr Val Thr Met Gly Pro Leu  
                                  435                      440                      445  
 Phe Tyr Gly Leu His Lys Met Asn Leu Leu Arg Ile Ser Ala Glu Asp  
                                  450                      455                      460  
 Glu Met Ala Gly Met Asp Met Thr Arg His Gly Gly Phe Ala Tyr Ala  
                                  465                      470                      475                      480

Tyr Asn Asp Glu Asp Asp Val Ser Thr Lys Pro Trp Gly His Phe Ala  
 485 490 495

Gly Arg Val Glu Pro Thr Ser Arg Ser Ser Thr Pro Thr Pro Thr Leu  
 500 505 510

Thr Val

<210> 2323

<211> 1362

<212> DNA

<213> Arabidopsis thaliana

<400> 2323

```

atgaccaa at tctccgagcc aatcagagac tcccacgtgg cagttctcgc gtttttcccc 60
gttggcgtc atgcccgtcc tctcttagcc gtcactcgcc gtctcgccgc cgcttctccc 120
tccaccatct tttctttctt caacaccgca agatcaaacg cgtcgttggt ctcctctgat 180
catcccgaga acatcaaggt ccacgacgtc tctgacggtg ttccggaggg aaccatgctc 240
gggaatccac tggagatggt cgagctgttt ctcgaagcgg ctccacgtat tttccggagc 300
gaaatcgcgg cggcagagat agaagttgga aagaaagtga catgcatgct aacagatgcc 360
ttcttctggt tcgcagcgga catagcggct gagctgaacg cgacttggtg tgccttctgg 420
gccggcggag caaactcact ctgtgctcat ctctacactg atctcatcag agaaaccatc 480
ggtctcaaag atgtgagtat ggaagagaca ttagggttta taccaggaat ggagaattac 540
agagttaaag atataccaga ggaagttgta tttgaagatt tggactctgt tttcccaaag 600
gctttatacc aaatgagtct tgctttacct cgtgcctctg ctgttttcat cagttccttt 660
gaagagttag aacctacatt gaactataac ctaagatcca aacttaaacg tttcttgaac 720
atcgcccctc tcacgttatt atcttctaca tcggagaaaag agatgcgtga tcctcatggc 780
tgctttgctt ggatggggaa gagatcagct gcttctgtag cgtacattag cttcggcacc 840
gtcatggaac ctctcctga agagcttggt gcgatagcac aagggttgga atcaagcaaa 900
gtgccgtttg tttggtcgct gaaggagaag aacatggttc atctacaaa agggtttttg 960
gatcggacaa gagagcaagg gatagtgggt ccttgggctc cacaagtgga actgctgaaa 1020
cacgaggcaa tgggtgtgaa tgtgacacat tgtggatgga actcagtgtt ggagagtgtg 1080
tcggcaggtg taccgatgat cggcagaccg attttggcgg ataataggct caacggaaga 1140
gcagtggagg ttgtgtggaa ggttggagtg atgatggata atggagtctt cacgaaagaa 1200

```

ggatttgaga agtgtttgaa tgatgttttt gttcatgatg atggttaagac gatgaaggct 1260  
aatgccaaga agcttaaaga aaaactccaa gaagatttct ccatgaaagg aagctcttta 1320  
gagaatttca aaatattgtt ggacgaaatt gtgaaagttt ag 1362

<210> 2324

<211> 453

<212> PRT

<213> Arabidopsis thaliana

<400> 2324

Met Thr Lys Phe Ser Glu Pro Ile Arg Asp Ser His Val Ala Val Leu  
1 5 10 15

Ala Phe Phe Pro Val Gly Ala His Ala Gly Pro Leu Leu Ala Val Thr  
20 25 30

Arg Arg Leu Ala Ala Ala Ser Pro Ser Thr Ile Phe Ser Phe Phe Asn  
35 40 45

Thr Ala Arg Ser Asn Ala Ser Leu Phe Ser Ser Asp His Pro Glu Asn  
50 55 60

Ile Lys Val His Asp Val Ser Asp Gly Val Pro Glu Gly Thr Met Leu  
65 70 75 80

Gly Asn Pro Leu Glu Met Val Glu Leu Phe Leu Glu Ala Ala Pro Arg  
85 90 95

Ile Phe Arg Ser Glu Ile Ala Ala Ala Glu Ile Glu Val Gly Lys Lys  
100 105 110

Val Thr Cys Met Leu Thr Asp Ala Phe Phe Trp Phe Ala Ala Asp Ile  
115 120 125

Ala Ala Glu Leu Asn Ala Thr Trp Val Ala Phe Trp Ala Gly Gly Ala  
130 135 140

Asn Ser Leu Cys Ala His Leu Tyr Thr Asp Leu Ile Arg Glu Thr Ile  
145 150 155 160

Gly Leu Lys Asp Val Ser Met Glu Glu Thr Leu Gly Phe Ile Pro Gly  
165 170 175

Met Glu Asn Tyr Arg Val Lys Asp Ile Pro Glu Glu Val Val Phe Glu  
 180 185 190  
 Asp Leu Asp Ser Val Phe Pro Lys Ala Leu Tyr Gln Met Ser Leu Ala  
 195 200 205  
 Leu Pro Arg Ala Ser Ala Val Phe Ile Ser Ser Phe Glu Glu Leu Glu  
 210 215 220  
 Pro Thr Leu Asn Tyr Asn Leu Arg Ser Lys Leu Lys Arg Phe Leu Asn  
 225 230 235 240  
 Ile Ala Pro Leu Thr Leu Leu Ser Ser Thr Ser Glu Lys Glu Met Arg  
 245 250 255  
 Asp Pro His Gly Cys Phe Ala Trp Met Gly Lys Arg Ser Ala Ala Ser  
 260 265 270  
 Val Ala Tyr Ile Ser Phe Gly Thr Val Met Glu Pro Pro Pro Glu Glu  
 275 280 285  
 Leu Val Ala Ile Ala Gln Gly Leu Glu Ser Ser Lys Val Pro Phe Val  
 290 295 300  
 Trp Ser Leu Lys Glu Lys Asn Met Val His Leu Pro Lys Gly Phe Leu  
 305 310 315 320  
 Asp Arg Thr Arg Glu Gln Gly Ile Val Val Pro Trp Ala Pro Gln Val  
 325 330 335  
 Glu Leu Leu Lys His Glu Ala Met Gly Val Asn Val Thr His Cys Gly  
 340 345 350  
 Trp Asn Ser Val Leu Glu Ser Val Ser Ala Gly Val Pro Met Ile Gly  
 355 360 365  
 Arg Pro Ile Leu Ala Asp Asn Arg Leu Asn Gly Arg Ala Val Glu Val  
 370 375 380  
 Val Trp Lys Val Gly Val Met Met Asp Asn Gly Val Phe Thr Lys Glu  
 385 390 395 400  
 Gly Phe Glu Lys Cys Leu Asn Asp Val Phe Val His Asp Asp Gly Lys  
 405 410 415  
 Thr Met Lys Ala Asn Ala Lys Lys Leu Lys Glu Lys Leu Gln Glu Asp  
 420 425 430

047-E2F-PCT.ST25.txt

Phe Ser Met Lys Gly Ser Ser Leu Glu Asn Phe Lys Ile Leu Leu Asp  
 435 440 445

Glu Ile Val Lys Val  
 450

<210> 2325

<211> 1002

<212> DNA

<213> Arabidopsis thaliana

<400> 2325

atggctgctt ctgtcgaaac tccttcacct aatcatacga acaacgaagg aacacgcttg	60
aacatggttt ctgcaacttc ttttgattct tcttctccat cggttagtcc atcttcagac	120
aaacgtctct ggagcaatgt acgtaacagg gttgatgttc ttctcgaaga aaatagcaaa	180
aatcacaac ccgttaccaa tacgattgct atagaatcag agagatcaaa gagatttaag	240
aatgattcga tgcttttgct taaaggggtt gattctgttt ctcatactct gtctctcctt	300
tctagtaatc tcgacaatgc ctttcagggg gttagagaat tagctaaacc accttcatat	360
tctgagatac tccattcgaa tctcaaagct gatcagattc aacgacaaca gaaagaagaa	420
gatgaagagg aagaagagag taaaggggaag aagaggaaac acgaatctga tgttgaacaa	480
acagaagatt cgtctaataga agaagagaag agaccaaag agaggaaaat catgaagaag	540
gctaagaaca ttgctatatc catggcagct aaggcgaatt cgcttgcaag agagcttaaa	600
actataaaat cagacctgag ttttatccaa gaacgttgtg gggttgcttga agaagagaac	660
aagagactca gagatgggtt tgtgaaaggt gttagacctg aagaagatga tttggtgagg	720
ctacaactgg aggtgttgct tgcagagaaa gctagactag cgaatgagaa cgcgaattta	780
gttagggaaa atcagtgtct tcatcagatg gttgagtacc atcagattac atctcaagat	840
ctatctcctt catatgaaca agttgttcaa ggtttttgct tagatttctc atccccctctg	900
cctcaatacg atgatgaaga agaagagcat gaaacaagag ctcgagatgt ctcgaaagcc	960
ctcaacgaaa gctttgaaaa agctgaagaa gaacaatact aa	1002

<210> 2326

<211> 333

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 2326

```

Met Ala Ala Ser Val Glu Thr Pro Ser Pro Asn His Thr Asn Asn Glu
1      5      10     15
Gly Thr Arg Leu Asn Met Val Ser Ala Thr Ser Phe Asp Ser Ser Ser
20     25     30
Pro Ser Val Ser Pro Ser Ser Asp Lys Arg Leu Trp Ser Asn Val Arg
35     40     45
Asn Arg Val Asp Val Leu Leu Glu Glu Asn Ser Lys Asn His Lys Pro
50     55     60
Val Thr Asn Thr Ile Ala Ile Glu Ser Glu Arg Ser Lys Arg Phe Lys
65     70     75     80
Asn Asp Ser Met Leu Leu Leu Lys Gly Phe Asp Ser Val Ser His Thr
85     90     95
Leu Ser Leu Leu Ser Ser Asn Leu Asp Asn Ala Leu Gln Gly Val Arg
100    105    110
Glu Leu Ala Lys Pro Pro Ser Tyr Ser Glu Ile Leu His Ser Asn Leu
115    120    125
Lys Ala Asp Gln Ile Gln Arg Gln Gln Lys Glu Glu Asp Glu Glu Glu
130    135    140
Glu Glu Ser Lys Gly Lys Lys Arg Lys His Glu Ser Asp Val Glu Gln
145    150    155    160
Thr Glu Asp Ser Ser Asn Glu Glu Glu Lys Arg Pro Lys Glu Arg Lys
165    170    175
Ile Met Lys Lys Ala Lys Asn Ile Ala Ile Ser Met Ala Ala Lys Ala
180    185    190
Asn Ser Leu Ala Arg Glu Leu Lys Thr Ile Lys Ser Asp Leu Ser Phe
195    200    205
Ile Gln Glu Arg Cys Gly Leu Leu Glu Glu Glu Asn Lys Arg Leu Arg
210    215    220
Asp Gly Phe Val Lys Gly Val Arg Pro Glu Glu Asp Asp Leu Val Arg
225    230    235    240

```

047-E2F-PCT.ST25.txt

Leu Gln Leu Glu Val Leu Leu Ala Glu Lys Ala Arg Leu Ala Asn Glu  
245 250 255

Asn Ala Asn Leu Val Arg Glu Asn Gln Cys Leu His Gln Met Val Glu  
260 265 270

Tyr His Gln Ile Thr Ser Gln Asp Leu Ser Pro Ser Tyr Glu Gln Val  
275 280 285

Val Gln Gly Phe Cys Leu Asp Phe Ser Ser Pro Leu Pro Gln Tyr Asp  
290 295 300

Asp Glu Glu Glu Glu His Glu Thr Arg Ala Arg Asp Val Ser Lys Ala  
305 310 315 320

Leu Asn Glu Ser Phe Glu Lys Ala Glu Glu Glu Gln Tyr  
325 330

<210> 2327

<211> 843

<212> DNA

<213> Arabidopsis thaliana

<400> 2327

atgagcaatc atcaaactca ggtgttgaag ctattggagc catggtgtga acttaaagac	60
aaagtgggttc ttgtgacagg agcttcctct ggtattggaa gagagatctg tcttgatctt	120
gccaaagctg gttgccaggt tattgcagca gctcgtcgtg ttgatcgact caactctctc	180
tgctctgaaa tcaacagctt cagttcaact ggaatccaag ccgcagctct tgagttagac	240
gtttcatcag acgcagccac cattcaaaaa gcggtcaggg aagcttggga catctttgga	300
aagatcgatg cattgatcaa caatgctgga atcagaggca atgtcaagtc gagtttggat	360
ttgtcagagg acgaatggga caacgtcttc aagaccaact taaaggggtcc ttggttagta	420
tccaaacatg tttgtatggt aatgcgtgac gctaaacgag gtggctcggg gataaacatc	480
tcatcgatcg ccgggatccg ggggtatgttg cccgggtggac ttgcttatgc ttgttccaaa	540
ggcgggtgttg acaccatgtc aaggatgatg gcacttgagt taggtgttca taagatcaga	600
gtgaactcga tcgcaccggg gcttttcaag tcagagatca cacaaggctt tatgcaaaag	660
gagtggctca agaattgttac cgagaggact gtgccgttaa aggtgcaaca gaccgttgat	720
ccagggttta cttctctggt tcgctatctc attcatgact cttctcaata tatatccggg	780
aatacataca ttgttgattc cggtgctaca ttgccgggtg tgcctatctt ttcattctctc	840



tga

843

&lt;210&gt; 2328

&lt;211&gt; 280

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2328

Met Ser Asn His Gln Thr Gln Val Leu Lys Leu Leu Glu Pro Trp Cys  
 1 5 10 15

Glu Leu Lys Asp Lys Val Val Leu Val Thr Gly Ala Ser Ser Gly Ile  
 20 25 30

Gly Arg Glu Ile Cys Leu Asp Leu Ala Lys Ala Gly Cys Gln Val Ile  
 35 40 45

Ala Ala Ala Arg Arg Val Asp Arg Leu Asn Ser Leu Cys Ser Glu Ile  
 50 55 60

Asn Ser Phe Ser Ser Thr Gly Ile Gln Ala Ala Ala Leu Glu Leu Asp  
 65 70 75 80

Val Ser Ser Asp Ala Ala Thr Ile Gln Lys Ala Val Arg Glu Ala Trp  
 85 90 95

Asp Ile Phe Gly Lys Ile Asp Ala Leu Ile Asn Asn Ala Gly Ile Arg  
 100 105 110

Gly Asn Val Lys Ser Ser Leu Asp Leu Ser Glu Asp Glu Trp Asp Asn  
 115 120 125

Val Phe Lys Thr Asn Leu Lys Gly Pro Trp Leu Val Ser Lys His Val  
 130 135 140

Cys Met Leu Met Arg Asp Ala Lys Arg Gly Gly Ser Val Ile Asn Ile  
 145 150 155 160

Ser Ser Ile Ala Gly Ile Arg Gly Met Leu Pro Gly Gly Leu Ala Tyr  
 165 170 175

Ala Cys Ser Lys Gly Gly Val Asp Thr Met Ser Arg Met Met Ala Leu  
 180 185 190

047-E2F-PCT.ST25.txt

Glu Leu Gly Val His Lys Ile Arg Val Asn Ser Ile Ala Pro Gly Leu  
195 200 205

Phe Lys Ser Glu Ile Thr Gln Gly Leu Met Gln Lys Glu Trp Leu Lys  
210 215 220

Asn Val Thr Glu Arg Thr Val Pro Leu Lys Val Gln Gln Thr Val Asp  
225 230 235 240

Pro Gly Leu Thr Ser Leu Val Arg Tyr Leu Ile His Asp Ser Ser Gln  
245 250 255

Tyr Ile Ser Gly Asn Thr Tyr Ile Val Asp Ser Gly Ala Thr Leu Pro  
260 265 270

Gly Val Pro Ile Phe Ser Ser Leu  
275 280

<210> 2329

<211> 627

<212> DNA

<213> Arabidopsis thaliana

<400> 2329  
atggaaggaa tcattgtgag aagagttata ccatctgata acagttgtct cttcaatgca 60  
atcggttatg tcatggacaa ggacaaaaac aaagctcctg agctcagaca ggtgatagca 120  
gcagcagttg caagcaacaa ggagaaatat aatgaagcat ttctagggaa gctcaatgaa 180  
gaatattgtg cttggattct caatccagac aagtggggag gtgcgattga gctttcgata 240  
ttagcagatt attatggctg agaaattgca gcttacgaca ttcaaactag tcgatgtgac 300  
ttgtatggac agacgagaaa ctacgacgaa agagttatgc tgatctatga cggctcttcat 360  
tacgatgctc ttgctctgtc tccatttgaa ggggccgagg aagattttga tatgactata 420  
tatccagttg gtaaagatag atccatagga tcaattgaag ggcttgcttt gaatctagtg 480  
aaggaccaac aaaggaaaag gagttacaca gatactgcaa acttcactct acgttgcggt 540  
gtttgccaaa ttggagttat tggacaaaag gaagctgtgg aacatgctca agcaactggt 600  
catgttaatt ttcaagaata caaataa 627

<210> 2330

<211> 208

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2330

```

Met Glu Gly Ile Ile Val Arg Arg Val Ile Pro Ser Asp Asn Ser Cys
 1      5      10      15
Leu Phe Asn Ala Ile Gly Tyr Val Met Asp Lys Asp Lys Asn Lys Ala
 20      25      30
Pro Glu Leu Arg Gln Val Ile Ala Ala Ala Val Ala Ser Asn Lys Glu
 35      40      45
Lys Tyr Asn Glu Ala Phe Leu Gly Lys Leu Asn Glu Glu Tyr Cys Ala
 50      55      60
Trp Ile Leu Asn Pro Asp Lys Trp Gly Gly Ala Ile Glu Leu Ser Ile
 65      70      75      80
Leu Ala Asp Tyr Tyr Gly Arg Glu Ile Ala Ala Tyr Asp Ile Gln Thr
 85      90      95
Ser Arg Cys Asp Leu Tyr Gly Gln Thr Arg Asn Tyr Asp Glu Arg Val
100      105      110
Met Leu Ile Tyr Asp Gly Leu His Tyr Asp Ala Leu Ala Leu Ser Pro
115      120      125
Phe Glu Gly Ala Glu Glu Asp Phe Asp Met Thr Ile Tyr Pro Val Gly
130      135      140
Lys Asp Arg Ser Ile Gly Ser Ile Glu Gly Leu Ala Leu Asn Leu Val
145      150      155      160
Lys Asp Gln Gln Arg Lys Arg Ser Tyr Thr Asp Thr Ala Asn Phe Thr
165      170      175
Leu Arg Cys Gly Val Cys Gln Ile Gly Val Ile Gly Gln Lys Glu Ala
180      185      190
Val Glu His Ala Gln Ala Thr Gly His Val Asn Phe Gln Glu Tyr Lys
195      200      205

```

&lt;210&gt; 2331

&lt;211&gt; 903

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2331

```

atggcggatg cgtggaagga tttagcttca gggactgttg gaggagctgc tcaactagtt    60
gttggtcatc catttgacac tatcaaggtc aaacttcaga gccaacccgac tccagcacca    120
ggccaacttc caaggtacac cggtgcaatc gatgcggtta aacagaccgt tgcttctgaa    180
ggaaccaaag gtttgtataa aggtatggga gctccacttg caaccgttgc tgccttcaat    240
gcggttttgt tctactgtgag aggtcaaagt gaagggctgc ttaggtctga agctggagtt    300
cctttgacca ttagtcaaca gtttgtggcc ggtgcaggcg ctggtttcgc tgtttcgttc    360
cttgcttgtc ctaccgagtt gatcaagtgc aggttgcaag cacaaggtgc attagctggt    420
gcctctacta caagctcagt ggttgacagc gtgaaatacg gtggaccaat ggatgtagcc    480
cgtcatgtcc tacgatcaga aggaggagca cgaggtctat tcaaaggttt attccctaca    540
ttcgcccgtg aagtcccggg aaatgcaaca atgtttgcag cctacgaagc tttcaagcgg    600
tttttagccg gtggttcaga cacttcaagc ttaggacaag ggtcattgat catggcgggt    660
ggagtcgctg gtgcttcttt ttggggaata gtatatccga cagatgttgt gaagagtgtt    720
cttcaagtcg acgattacaa aaacccgaga tacacggggg cgatggatgc ttttcggaag    780
attctgaaat ctgaaggagt taaaggtttg tataaaggat ttgggtccagc tatggctagg    840
agtgttcctg ctaatgctgc ttgcttcttg gcttatgaga tgacaaggtc aagcttggga    900
taa                                                                    903

```

&lt;210&gt; 2332

&lt;211&gt; 300

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2332

```

Met Ala Asp Ala Trp Lys Asp Leu Ala Ser Gly Thr Val Gly Gly Ala
1           5           10          15

Ala Gln Leu Val Val Gly His Pro Phe Asp Thr Ile Lys Val Lys Leu
20          25          30

Gln Ser Gln Pro Thr Pro Ala Pro Gly Gln Leu Pro Arg Tyr Thr Gly
35          40          45

```

047-E2F-PCT.ST25.txt

Ala Ile Asp Ala Val Lys Gln Thr Val Ala Ser Glu Gly Thr Lys Gly  
50 55 60

Leu Tyr Lys Gly Met Gly Ala Pro Leu Ala Thr Val Ala Ala Phe Asn  
65 70 75 80

Ala Val Leu Phe Thr Val Arg Gly Gln Met Glu Gly Leu Leu Arg Ser  
85 90 95

Glu Ala Gly Val Pro Leu Thr Ile Ser Gln Gln Phe Val Ala Gly Ala  
100 105 110

Gly Ala Gly Phe Ala Val Ser Phe Leu Ala Cys Pro Thr Glu Leu Ile  
115 120 125

Lys Cys Arg Leu Gln Ala Gln Gly Ala Leu Ala Gly Ala Ser Thr Thr  
130 135 140

Ser Ser Val Val Ala Ala Val Lys Tyr Gly Gly Pro Met Asp Val Ala  
145 150 155 160

Arg His Val Leu Arg Ser Glu Gly Gly Ala Arg Gly Leu Phe Lys Gly  
165 170 175

Leu Phe Pro Thr Phe Ala Arg Glu Val Pro Gly Asn Ala Thr Met Phe  
180 185 190

Ala Ala Tyr Glu Ala Phe Lys Arg Phe Leu Ala Gly Gly Ser Asp Thr  
195 200 205

Ser Ser Leu Gly Gln Gly Ser Leu Ile Met Ala Gly Gly Val Ala Gly  
210 215 220

Ala Ser Phe Trp Gly Ile Val Tyr Pro Thr Asp Val Val Lys Ser Val  
225 230 235 240

Leu Gln Val Asp Asp Tyr Lys Asn Pro Arg Tyr Thr Gly Ser Met Asp  
245 250 255

Ala Phe Arg Lys Ile Leu Lys Ser Glu Gly Val Lys Gly Leu Tyr Lys  
260 265 270

Gly Phe Gly Pro Ala Met Ala Arg Ser Val Pro Ala Asn Ala Ala Cys  
275 280 285

290

295

<210> 2333

<211> 900

<212> DNA

<213> Arabidopsis thaliana

<400> 2333

```
atgtcgcgac caatcccat tgaagaaatg gtgaggctgt tcaaaatagc tcacacaaca    60
tctcacttgt tcaagataga caacttctct ttactcaaaa agcatggaat cgaaaaggctc    120
gaatcctctg ttttcgatct cgctgggtcac aaatggaaac tctctgtgta cccaaatggg    180
cataagaatg ctaaggggac tcatgtctcc atgttcttag tgaatcaagt tccggtaaata    240
gatatgccta catatgagct cctagtcgtc agtcaactag agcgaaaatg gcacacccat    300
ggacgagatg agtttgatat aaatccagaa ccagctagtg agggggtttt aagggttcata    360
tctcttgctg atcttgagag aaaagggttc cttattggag attggtgtat gtttggtgtc    420
aagtttcatg ggattgaacc tgctaatacc ggaacagcag agtgttttag cttaatagag    480
aagcctctta accacaaagt cacttgatg atgagcaagt tctcgtcctt caaccctgga    540
aaggctcatc agtctaata atttgtcgtt ggaaccagga aatggagact tgaagttcat    600
ccaagagggg atatggatga aaaagacaaa tcattttctg tgtatctatc agcagaaggg    660
tttgtcaaca atgcaccaat gacaaaaact tacgccaaagt tcaagctgcg ggtattggat    720
caagttagct ggaatcatgt tgaggaatca ggtttgagct ggtttgatgc agaaccttcg    780
gaccaaagtg gctttgcgga tttcatgcct ctggggaaac taaatgaacc ttatttggtg    840
aaggataagc tttatgtggg agttgagttt gaagtcgttt ctaccactta ttactgttag    900
```

<210> 2334

<211> 299

<212> PRT

<213> Arabidopsis thaliana

<400> 2334

```
Met Ser Arg Pro Ile Pro Ile Glu Glu Met Val Arg Leu Phe Lys Ile
1           5           10           15
```

```
Arg His Thr Thr Ser His Leu Phe Lys Ile Asp Asn Phe Ser Leu Leu
20           25           30
```

047-E2F-PCT.ST25.txt

Lys Lys His Gly Ile Glu Lys Val Glu Ser Ser Val Phe Asp Leu Ala  
 35 40 45  
 Gly His Lys Trp Lys Leu Ser Val Tyr Pro Asn Gly His Lys Asn Ala  
 50 55 60  
 Lys Gly Thr His Val Ser Met Phe Leu Val Asn Gln Val Pro Val Asn  
 65 70 75 80  
 Asp Met Pro Thr Tyr Glu Leu Leu Val Val Ser Gln Leu Glu Arg Lys  
 85 90 95  
 Trp His Thr His Gly Arg Asp Glu Phe Asp Ile Asn Pro Glu Pro Ala  
 100 105 110  
 Ser Glu Gly Phe Leu Arg Phe Ile Ser Leu Ala Asp Leu Glu Arg Lys  
 115 120 125  
 Gly Phe Leu Ile Gly Asp Cys Cys Met Phe Gly Val Lys Phe His Gly  
 130 135 140  
 Ile Glu Pro Ala Asn Pro Gly Thr Ala Glu Cys Phe Ser Leu Ile Glu  
 145 150 155 160  
 Lys Pro Leu Asn His Lys Val Thr Trp Met Met Ser Lys Phe Ser Ser  
 165 170 175  
 Phe Asn Pro Gly Lys Ala His Gln Ser Asn Glu Phe Val Val Gly Thr  
 180 185 190  
 Arg Lys Trp Arg Leu Glu Val His Pro Arg Gly Tyr Met Asp Glu Lys  
 195 200 205  
 Asp Lys Ser Phe Ser Val Tyr Leu Ser Ala Glu Gly Phe Val Asn Asn  
 210 215 220  
 Ala Pro Met Thr Lys Thr Tyr Ala Lys Phe Lys Leu Arg Val Leu Asp  
 225 230 235 240  
 Gln Val Ser Trp Asn His Val Glu Glu Ser Gly Leu Ser Trp Phe Asp  
 245 250 255  
 Ala Glu Pro Ser Asp Gln Ser Gly Phe Ala Asp Phe Met Pro Leu Gly  
 260 265 270

275 047-E2F-PCT.ST25.txt 280 285

Glu Phe Glu Val Val Ser Thr Thr Tyr Tyr Cys  
290 295

<210> 2335

<211> 333

<212> DNA

<213> Arabidopsis thaliana

<400> 2335  
atgttgaaat ttccactttg ttgcagtgag ttatcttttag aaccgaagat tctagctttt 60  
gaaagtcagc ttgtttcggg gcgacgcgat acaatcaaag tttctgcggg aaaaatcgga 120  
aatttctctc ttggttcgat attcaaaagt tgtgagactt gtggagccaa aggagcaatt 180  
gaatgtcccg gttgcaaggg aacaggtaaa aataagaaga acggaaatat gtttgagagg 240  
tggaatggtt ttgattgtca aggatttggt atgaagagtt gtcctaaatg tggcaaggga 300  
ggcttgacgc ctgaacagag aggggaacga tag 333

<210> 2336

<211> 110

<212> PRT

<213> Arabidopsis thaliana

<400> 2336

Met Leu Lys Phe Pro Leu Cys Cys Ser Glu Leu Ser Leu Glu Pro Lys  
1 5 10 15

Ile Leu Ala Phe Glu Ser Gln Leu Val Ser Gly Arg Arg Asp Thr Ile  
20 25 30

Lys Val Ser Ala Gly Lys Ile Gly Asn Phe Ser Leu Gly Ser Ile Phe  
35 40 45

Lys Ser Cys Glu Thr Cys Gly Ala Lys Gly Ala Ile Glu Cys Pro Gly  
50 55 60

Cys Lys Gly Thr Gly Lys Asn Lys Lys Asn Gly Asn Met Phe Glu Arg  
65 70 75 80



Trp Lys Cys Phe Asp Cys Gln Gly Phe Gly Met Lys Ser Cys Pro Lys  
 85 90 95

Cys Gly Lys Gly Gly Leu Thr Pro Glu Gln Arg Gly Glu Arg  
 100 105 110

<210> 2337

<211> 1479

<212> DNA

<213> Arabidopsis thaliana

<400> 2337

```

atggatttga accaaatctt gatcctctca tttctctctc tttttacctt agccatattc      60
ttgctcacia gatccaaacg gaaactaaac cttcctccgt cgccggcgat ctccttgccg      120
gtgatcggac acctccatct cctcaagcca ccgcttcacc gtaccttctt ttccttttcc      180
aaatccatcg gaaatgctcc ggtcttccat ctccgactcg gaaatcgctt cgtttatgtc      240
atctctttcac gttccatcgc tgaagaatgt ttcacaaaga acgatgtcgt tctcgcgaac      300
cgccccaagt tcaccataag taagcacctc ggctacaacg ccacctactt actctcggca      360
tcttacggcg atcattggag gaacctccgc cgcatagccg ccgtcgagat attctccact      420
catagactca attcgtttct gtatatctgt aaggacgaga tccgacggct catttcacat      480
ctctctcgtg attccttaca cggatttgtg gaggtagaga tgaaaacatt gttaaccaat      540
ttggcatcca acaccaccat cagaatgttg gccgggaaga gatatttcgg tgaggacaac      600
gatgacgcta aactcgtgaa gaaccttgtg tcggaggcgg tgaccagcgc cgggtgcagga      660
aaccctattg attatctttc cattttacgt tgggtctcga gttatgaaaa acgaatcaag      720
aatattgggaa ataggtttga tacgtttttg cagaaattag tcgacgaaaa acgtgcggag      780
aaggaaaaag gtgaaactat gatcgatcac ttgcttgctc tccaagacat tcaacctgat      840
tactatacgg atgtcatcat caaaggaatc atacttaccc tgataattgc agggacagat      900
acgtcatcag taacactaga atgggcaatg tcaaactctgt tgaaccatcc agaaatactt      960
aagaaagcga gaatggaaat cgatgaaaaa gtcgggtttag accgattagt agacgaatcg     1020
gacattgtaa atctctctta tctccaaagc attgtattgg aaacactacg tatgtacccg     1080
gcagtcccac tactactacc tcatttgtca tcagaagatt gtaaagttgg aggctacgat     1140
ataccaagtg gaacaatggt attgaccaac gcatgggcca tgcatagaga tccagaggta     1200
tggaagatc ctgagatatt caaaccagaa agatttgaaa aagaaggaga ggctgagaag     1260
ctaattctcat ttgggatggg acgaagagct tgtcctggag ccgggctagc tcatcggcta     1320

```

ataaaccagg ctcttggaag tttggttcaa tgttttgagt gggaaagagt tggtgaggat 1380  
 tttgtggaca tgaccgaaga caaaggagcc acattgccca aagctatacc attaagagcc 1440  
 atgtgcaaag cacgttctat tgttgataaa ctgatataa 1479

<210> 2338

<211> 492

<212> PRT

<213> *Arabidopsis thaliana*

<400> 2338

Met Asp Leu Asn Gln Ile Leu Ile Leu Ser Phe Leu Ser Leu Phe Thr  
 1 5 10 15  
 Leu Ala Ile Phe Leu Leu Thr Arg Ser Lys Arg Lys Leu Asn Leu Pro  
 20 25 30  
 Pro Ser Pro Ala Ile Ser Leu Pro Val Ile Gly His Leu His Leu Leu  
 35 40 45  
 Lys Pro Pro Leu His Arg Thr Phe Leu Ser Leu Ser Lys Ser Ile Gly  
 50 55 60  
 Asn Ala Pro Val Phe His Leu Arg Leu Gly Asn Arg Leu Val Tyr Val  
 65 70 75 80  
 Ile Ser Ser Arg Ser Ile Ala Glu Glu Cys Phe Thr Lys Asn Asp Val  
 85 90 95  
 Val Leu Ala Asn Arg Pro Lys Phe Thr Ile Ser Lys His Leu Gly Tyr  
 100 105 110  
 Asn Ala Thr Tyr Leu Leu Ser Ala Ser Tyr Gly Asp His Trp Arg Asn  
 115 120 125  
 Leu Arg Arg Ile Ala Ala Val Glu Ile Phe Ser Thr His Arg Leu Asn  
 130 135 140  
 Ser Phe Leu Tyr Ile Arg Lys Asp Glu Ile Arg Arg Leu Ile Ser His  
 145 150 155 160  
 Leu Ser Arg Asp Ser Leu His Gly Phe Val Glu Val Glu Met Lys Thr  
 165 170 175

Leu Leu Thr Asn Leu Ala Ser Asn Thr Thr Ile Arg Met Leu Ala Gly  
 180 185 190  
 Lys Arg Tyr Phe Gly Glu Asp Asn Asp Asp Ala Lys Leu Val Lys Asn  
 195 200 205  
 Leu Val Ser Glu Ala Val Thr Ser Ala Gly Ala Gly Asn Pro Ile Asp  
 210 215 220  
 Tyr Leu Ser Ile Leu Arg Trp Val Ser Ser Tyr Glu Lys Arg Ile Lys  
 225 230 235 240  
 Asn Leu Gly Asn Arg Phe Asp Thr Phe Leu Gln Lys Leu Val Asp Glu  
 245 250 255  
 Lys Arg Ala Glu Lys Glu Lys Gly Glu Thr Met Ile Asp His Leu Leu  
 260 265 270  
 Ala Leu Gln Asp Ile Gln Pro Asp Tyr Tyr Thr Asp Val Ile Ile Lys  
 275 280 285  
 Gly Ile Ile Leu Thr Leu Ile Ile Ala Gly Thr Asp Thr Ser Ser Val  
 290 295 300  
 Thr Leu Glu Trp Ala Met Ser Asn Leu Leu Asn His Pro Glu Ile Leu  
 305 310 315 320  
 Lys Lys Ala Arg Met Glu Ile Asp Glu Lys Val Gly Leu Asp Arg Leu  
 325 330 335  
 Val Asp Glu Ser Asp Ile Val Asn Leu Ser Tyr Leu Gln Ser Ile Val  
 340 345 350  
 Leu Glu Thr Leu Arg Met Tyr Pro Ala Val Pro Leu Leu Leu Pro His  
 355 360 365  
 Leu Ser Ser Glu Asp Cys Lys Val Gly Gly Tyr Asp Ile Pro Ser Gly  
 370 375 380  
 Thr Met Val Leu Thr Asn Ala Trp Ala Met His Arg Asp Pro Glu Val  
 385 390 395 400  
 Trp Glu Asp Pro Glu Ile Phe Lys Pro Glu Arg Phe Glu Lys Glu Gly  
 405 410 415  
 Glu Ala Glu Lys Leu Ile Ser Phe Gly Met Gly Arg Arg Ala Cys Pro  
 420 425 430

047-E2F-PCT.ST25.txt

Gly Ala Gly Leu Ala His Arg Leu Ile Asn Gln Ala Leu Gly Ser Leu  
 435 440 445

Val Gln Cys Phe Glu Trp Glu Arg Val Gly Glu Asp Phe Val Asp Met  
 450 455 460

Thr Glu Asp Lys Gly Ala Thr Leu Pro Lys Ala Ile Pro Leu Arg Ala  
 465 470 475 480

Met Cys Lys Ala Arg Ser Ile Val Asp Lys Leu Ile  
 485 490

<210> 2339

<211> 1551

<212> DNA

<213> Arabidopsis thaliana

<400> 2339

atggctcttc ttctagtttc ttcttctctc tcctatgccc tcagagtcac cattttcttg	60
tctttcttct tctttctctg caatggcttc tcttacccta ctacttcttc tcttttcaac	120
acccatcacc atcgtcacca cttggccaag cacaactaca aagatgctct cactaaatca	180
atcctcttct ttgaaggcca aaggtcaggg aaacttctt ctaaccagag aatgagttgg	240
agaagagact ctggtctctc tgatggctct gctcttcatg tggatttggt tggaggggtac	300
tatgatgcag gagacaatat caaatttggt ttcccaatgg cattcacaac cacaatgctt	360
tcatggagtg taattgaatt cgggtggactc atgaaatctg aattacaaaa cgctaaaata	420
gcgattcggt gggctactga ttatctctc aaagccactt cacaacctga cacaatctat	480
gttcaagttg gtgatgctaa taaagacat tcttggtggg aaagacctga agacatggat	540
actgtaagaa gtgtgtttta agttgacaag aacattcctg gttctgatgt cgccgctgaa	600
accgccgctg ctctagccgc cgccgccatt gtattcagaa aatctgatcc ttcttactcc	660
aaagtcctcc tcaaacgagc catcagtgtt ttgcatctt cggacaaata cagaggaact	720
tatagtgcag gattaaaacc tgatgtttgt ccattttatt gctcttactc tggttatcag	780
gatgaattgt tgtggggagc tgcttggtta caaaaagcga caaagaatat aaaatatttg	840
aattacataa aaatcaatgg acaaatcctt ggagctgctg aatatgataa cacttttggt	900
tgggataaca agcacgctgg tgccagaatc cttcttacta aggcattttt gggttcagaat	960
gtgaagacac ttcataaata caaaggtcat gctgataatt tcatctgctc tgttattcct	1020
ggagctcctt tctcttctac tcagtataca ccaggtggat tattgtttta aatggcagac	1080

047-E2F-PCT.ST25.txt

gccaacatgc aatacgtgac gtcaacatcg ttcttgctct taacctatgc caaataactta 1140  
 acctccgcc aaaccgtcgt ccattgcggt ggctccgtct acactcccgg tcgtcttcgc 1200  
 tccatcgcca aaagacaggt ggattatctt cttggagaca acccattaag aatgtcttac 1260  
 atggttggtt acggtccaaa attcccacgg agaatccacc accgtggctc ctcattacct 1320  
 tgtgttgcaa gccacccggc caagatccaa tgccaccaag gatttgcaat catgaactct 1380  
 caatctccaa accctaactt ccttggttggt gcagtcgttg gtgggtccgga ccagcatgat 1440  
 cgcttcccag acgaacggtc tgattacgag cagtccgagc cggctactta catcaattca 1500  
 ccactcgttg gagctcttgc ctacttcgcc cagcctatg gtcaactcta g 1551

<210> 2340

<211> 516

<212> PRT

<213> Arabidopsis thaliana

<400> 2340

Met Ala Leu Leu Leu Val Ser Ser Ser Ser Ser Tyr Ala Leu Arg Val  
 1 5 10 15

Thr Ile Phe Leu Ser Phe Phe Phe Phe Leu Cys Asn Gly Phe Ser Tyr  
 20 25 30

Pro Thr Thr Ser Ser Leu Phe Asn Thr His His His Arg His His Leu  
 35 40 45

Ala Lys His Asn Tyr Lys Asp Ala Leu Thr Lys Ser Ile Leu Phe Phe  
 50 55 60

Glu Gly Gln Arg Ser Gly Lys Leu Pro Ser Asn Gln Arg Met Ser Trp  
 65 70 75 80

Arg Arg Asp Ser Gly Leu Ser Asp Gly Ser Ala Leu His Val Asp Leu  
 85 90 95

Val Gly Gly Tyr Tyr Asp Ala Gly Asp Asn Ile Lys Phe Gly Phe Pro  
 100 105 110

Met Ala Phe Thr Thr Thr Met Leu Ser Trp Ser Val Ile Glu Phe Gly  
 115 120 125

Gly Leu Met Lys Ser Glu Leu Gln Asn Ala Lys Ile Ala Ile Arg Trp  
 Page 3343

130

135

Ala Thr Asp Tyr Leu Leu Lys Ala Thr Ser Gln Pro Asp Thr Ile Tyr  
145 150 155 160

Val Gln Val Gly Asp Ala Asn Lys Asp His Ser Cys Trp Glu Arg Pro  
165 170 175

Glu Asp Met Asp Thr Val Arg Ser Val Phe Lys Val Asp Lys Asn Ile  
180 185 190

Pro Gly Ser Asp Val Ala Ala Glu Thr Ala Ala Ala Leu Ala Ala Ala  
195 200 205

Ala Ile Val Phe Arg Lys Ser Asp Pro Ser Tyr Ser Lys Val Leu Leu  
210 215 220

Lys Arg Ala Ile Ser Val Phe Ala Phe Ala Asp Lys Tyr Arg Gly Thr  
225 230 235 240

Tyr Ser Ala Gly Leu Lys Pro Asp Val Cys Pro Phe Tyr Cys Ser Tyr  
245 250 255

Ser Gly Tyr Gln Asp Glu Leu Leu Trp Gly Ala Ala Trp Leu Gln Lys  
260 265 270

Ala Thr Lys Asn Ile Lys Tyr Leu Asn Tyr Ile Lys Ile Asn Gly Gln  
275 280 285

Ile Leu Gly Ala Ala Glu Tyr Asp Asn Thr Phe Gly Trp Asp Asn Lys  
290 295 300

His Ala Gly Ala Arg Ile Leu Leu Thr Lys Ala Phe Leu Val Gln Asn  
305 310 315 320

Val Lys Thr Leu His Glu Tyr Lys Gly His Ala Asp Asn Phe Ile Cys  
325 330 335

Ser Val Ile Pro Gly Ala Pro Phe Ser Ser Thr Gln Tyr Thr Pro Gly  
340 345 350

Gly Leu Leu Phe Lys Met Ala Asp Ala Asn Met Gln Tyr Val Thr Ser  
355 360 365

Thr Ser Phe Leu Leu Leu Thr Tyr Ala Lys Tyr Leu Thr Ser Ala Lys  
370 375 380

Thr Val Val His Cys Gly Gly Ser Val Tyr Thr Pro Gly Arg Leu Arg  
385 390 395 400

Ser Ile Ala Lys Arg Gln Val Asp Tyr Leu Leu Gly Asp Asn Pro Leu  
405 410 415

Arg Met Ser Tyr Met Val Gly Tyr Gly Pro Lys Phe Pro Arg Arg Ile  
420 425 430

His His Arg Gly Ser Ser Leu Pro Cys Val Ala Ser His Pro Ala Lys  
435 440 445

Ile Gln Cys His Gln Gly Phe Ala Ile Met Asn Ser Gln Ser Pro Asn  
450 455 460

Pro Asn Phe Leu Val Gly Ala Val Val Gly Gly Pro Asp Gln His Asp  
465 470 475 480

Arg Phe Pro Asp Glu Arg Ser Asp Tyr Glu Gln Ser Glu Pro Ala Thr  
485 490 495

Tyr Ile Asn Ser Pro Leu Val Gly Ala Leu Ala Tyr Phe Ala His Ala  
500 505 510

Tyr Gly Gln Leu  
515

<210> 2341

<211> 639

<212> DNA

<213> Arabidopsis thaliana

<400> 2341

atgaagatca gacttagcat aaccatcata cttttatcat acacagtggc tacggtggcc	60
ggacaacaat gcggtcgtca aggcggtggt cgaacttgct ccggtaacat ctgctgcagt	120
cagtacggtt actgtggtac caccgcggac tactgtttctc cgaccaacaa ctgtcagagc	180
aattgttggg gaagtgggccc tagcggacca ggggagagcg cgtcgaacgt acgcgccacc	240
taccatttct ataatccggc gcagaataat tgggatttga gagccgtgag tgcttattgc	300
tccacgtggg atgctgataa gccgtacgca tggcggagca agtatggctg gaccgccttc	360
tgcgggccgg caggacctcg tgggtcaagct tcttgcggca agtgtttaag ggtgaagaac	420
acaagaacaa atgctgcagt aactgtgaga atagtggacc aatgcagcaa cggaggcttg	480

gatttggatg tagcaatggt caatcaaata gacaccgatg gttttggcta tcaacaaggc 540  
catctcattg ttgactacca atttgtcgac tgtggcaatg agctcattgg gcagcctgat 600  
tccagaaaca tgcttgtttc ggccattgat cgcgtttga 639

<210> 2342

<211> 212

<212> PRT

<213> Arabidopsis thaliana

<400> 2342

Met Lys Ile Arg Leu Ser Ile Thr Ile Ile Leu Leu Ser Tyr Thr Val  
1 5 10 15  
Ala Thr Val Ala Gly Gln Gln Cys Gly Arg Gln Gly Gly Gly Arg Thr  
20 25 30  
Cys Pro Gly Asn Ile Cys Cys Ser Gln Tyr Gly Tyr Cys Gly Thr Thr  
35 40 45  
Ala Asp Tyr Cys Ser Pro Thr Asn Asn Cys Gln Ser Asn Cys Trp Gly  
50 55 60  
Ser Gly Pro Ser Gly Pro Gly Glu Ser Ala Ser Asn Val Arg Ala Thr  
65 70 75 80  
Tyr His Phe Tyr Asn Pro Ala Gln Asn Asn Trp Asp Leu Arg Ala Val  
85 90 95  
Ser Ala Tyr Cys Ser Thr Trp Asp Ala Asp Lys Pro Tyr Ala Trp Arg  
100 105 110  
Ser Lys Tyr Gly Trp Thr Ala Phe Cys Gly Pro Ala Gly Pro Arg Gly  
115 120 125  
Gln Ala Ser Cys Gly Lys Cys Leu Arg Val Lys Asn Thr Arg Thr Asn  
130 135 140  
Ala Ala Val Thr Val Arg Ile Val Asp Gln Cys Ser Asn Gly Gly Leu  
145 150 155 160  
Asp Leu Asp Val Ala Met Phe Asn Gln Ile Asp Thr Asp Gly Phe Gly  
165 170 175



Tyr Gln Gln Gly His Leu Ile Val Asp Tyr Gln Phe Val Asp Cys Gly  
 180 185 190

Asn Glu Leu Ile Gly Gln Pro Asp Ser Arg Asn Met Leu Val Ser Ala  
 195 200 205

Ile Asp Arg Val  
 210

<210> 2343

<211> 1230

<212> DNA

<213> Arabidopsis thaliana

<400> 2343

atggcggctg aaatggcggt agtgaaaccc atctccaagt tctcttcccc aaagctctca	60
aacccgagca aattcctctc cggccgacgt ttctccaccg tgatcagaat gtcagcctct	120
tcctcaccgc ctctccaac caccgccacc tcgaagtcca agaagggaac gaagaaagag	180
attcaagagt cgcttcttac tccgaggttc tacacgacgg acttcgagga aatggaacag	240
cttttcaaca cggagatcaa caagaacctt aacgaagcag agttcgaggc tctgcttcaa	300
gagttcaaga ccgattacaa ccagacacat ttcgtgagga acaaggagtt taaagaagct	360
gcagacaaat tgcaaggacc tctccgacag atcttcggtg agttccttga gcggtcttgt	420
actgctgagt tctctggttt cttctcttac aaggagcttg gtcgaagact caagaaaaca	480
aaccctgttg tggctgagat cttctctctt atgtctagag atgaagcaag acatgccggg	540
ttcttgaaca agggattgtc tgatttcaac ttggctcttg atttgggttt cctgacaaag	600
gcaaggaaat acactttctt caagccaaaa ttcattctct acgcgactta cttatccgag	660
aaaatcgggt actggagata catcacaatc tacagacacc tcaaggaaaa ccctgagttc	720
caatgttacc caatcttcaa gtactttgag aactggtgtc aagacgagaa ccgtcatggt	780
gatttcttct ctgctttgat gaaagctcag cctcagttcc tcaatgactg gcaagccaag	840
ctctgggtctc gcttcttctg cctctcggtt tatgtgacaa tgtacctcaa tgactgccaa	900
agaactaatt tctacgaggg tatcgggtta aacacaaagg agttcgatat gcatgtcatc	960
atcgagacaa accgaaccac ggcaagaata ttccctgcgg tgctggatgt tgagaaccct	1020
gagttcaaga ggaaactgga tagaatggtt gtgagctatg agaagctgct ggctatagga	1080
gaaacagatg atgcttcctt catcaagacc ctcaagagga ttcctttggt tacttcttta	1140
gcctctgaga tcttggctgc ttatctcatg cctcctggtg agtctggctc tgttgatttc	1200

gccgagtttg agcctaattct tgtctattag

1230

&lt;210&gt; 2344

&lt;211&gt; 409

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2344

Met Ala Ala Glu Met Ala Leu Val Lys Pro Ile Ser Lys Phe Ser Ser  
 1 5 10 15

Pro Lys Leu Ser Asn Pro Ser Lys Phe Leu Ser Gly Arg Arg Phe Ser  
 20 25 30

Thr Val Ile Arg Met Ser Ala Ser Ser Ser Pro Pro Pro Pro Thr Thr  
 35 40 45

Ala Thr Ser Lys Ser Lys Lys Gly Thr Lys Lys Glu Ile Gln Glu Ser  
 50 55 60

Leu Leu Thr Pro Arg Phe Tyr Thr Thr Asp Phe Glu Glu Met Glu Gln  
 65 70 75 80

Leu Phe Asn Thr Glu Ile Asn Lys Asn Leu Asn Glu Ala Glu Phe Glu  
 85 90 95

Ala Leu Leu Gln Glu Phe Lys Thr Asp Tyr Asn Gln Thr His Phe Val  
 100 105 110

Arg Asn Lys Glu Phe Lys Glu Ala Ala Asp Lys Leu Gln Gly Pro Leu  
 115 120 125

Arg Gln Ile Phe Val Glu Phe Leu Glu Arg Ser Cys Thr Ala Glu Phe  
 130 135 140

Ser Gly Phe Leu Leu Tyr Lys Glu Leu Gly Arg Arg Leu Lys Lys Thr  
 145 150 155 160

Asn Pro Val Val Ala Glu Ile Phe Ser Leu Met Ser Arg Asp Glu Ala  
 165 170 175

Arg His Ala Gly Phe Leu Asn Lys Gly Leu Ser Asp Phe Asn Leu Ala  
 180 185 190

Leu Asp Leu Gly Phe Leu Thr Lys Ala Arg Lys Tyr Thr Phe Phe Lys  
 195 200 205

Pro Lys Phe Ile Phe Tyr Ala Thr Tyr Leu Ser Glu Lys Ile Gly Tyr  
 210 215 220

Trp Arg Tyr Ile Thr Ile Tyr Arg His Leu Lys Glu Asn Pro Glu Phe  
 225 230 235 240

Gln Cys Tyr Pro Ile Phe Lys Tyr Phe Glu Asn Trp Cys Gln Asp Glu  
 245 250 255

Asn Arg His Gly Asp Phe Phe Ser Ala Leu Met Lys Ala Gln Pro Gln  
 260 265 270

Phe Leu Asn Asp Trp Gln Ala Lys Leu Trp Ser Arg Phe Phe Cys Leu  
 275 280 285

Ser Val Tyr Val Thr Met Tyr Leu Asn Asp Cys Gln Arg Thr Asn Phe  
 290 295 300

Tyr Glu Gly Ile Gly Leu Asn Thr Lys Glu Phe Asp Met His Val Ile  
 305 310 315 320

Ile Glu Thr Asn Arg Thr Thr Ala Arg Ile Phe Pro Ala Val Leu Asp  
 325 330 335

Val Glu Asn Pro Glu Phe Lys Arg Lys Leu Asp Arg Met Val Val Ser  
 340 345 350

Tyr Glu Lys Leu Leu Ala Ile Gly Glu Thr Asp Asp Ala Ser Phe Ile  
 355 360 365

Lys Thr Leu Lys Arg Ile Pro Leu Val Thr Ser Leu Ala Ser Glu Ile  
 370 375 380

Leu Ala Ala Tyr Leu Met Pro Pro Val Glu Ser Gly Ser Val Asp Phe  
 385 390 395 400

Ala Glu Phe Glu Pro Asn Leu Val Tyr  
 405

<210> 2345

<211> 2181

<212> DNA

<213> Arabidopsis thaliana

&lt;400&gt; 2345

atgacggaga	tcgatcgttc	acgcgcgttc	gccaaagacg	ttaagcgtat	cgtcgtcaag	60
gttgggactg	cagttgttac	tgggaaaggt	ggaagattgg	ctcttgacg	tttaggagct	120
atctgtgaac	agcttgcgga	gttaaactca	gatggatttg	aggtcatttt	ggtgtcatct	180
ggtgccgttg	gtcttggtcg	acaaaggctt	cgatacagac	aattagtcaa	cagcagtttt	240
gcagattttac	agaagccaca	aatggaactt	gatgggaagg	cttgtgctgg	tgttgggcag	300
agcagtctca	tggcttacta	tgagactatg	tttgaccagt	tggatgtgac	ggttgctcaa	360
atgcttgtga	ccgatagcag	ttttagagat	aaggatttca	ggaagcaact	tagtgaaact	420
gtcaaagcga	tgctgaggat	gagggttatt	ccagttttca	atgagaatga	tgctataagc	480
actcgcagag	ccccctacaa	ggattctact	ggtatatattt	gggataatga	cagcttagcc	540
gctcttctgt	cgctagagct	gaaagctgat	cttttgattc	ttctaagtga	tgttgagggc	600
ctttacactg	gccctccaag	tgattctacc	tcaaaattaa	tacacacatt	cattaaagaa	660
aaacaccagg	acgagattac	ttttggcgaa	aagtccaaat	taggacgagg	gggtatgact	720
gcaaaagtta	aagctgctgt	taatgcagct	tatgggtggcg	ttcctgttat	cataaccagt	780
ggatatgcag	ctgagaatat	aagtaaagtc	cttagaggac	tgctgtttgg	taccctgttc	840
catcaagatg	ctcatttatg	ggctccggtc	gtagatacta	cttctcgtga	catggcagtt	900
gctgcaaggg	aaagctcaag	aaagcttcag	gccttatctt	cagaagatag	gaaacaaatt	960
ctacacgaca	ttgccaatgc	ccttgaagta	aatgagaaaa	caattaaagc	tgagaatgat	1020
ttagatgttg	ctgcagcaca	agaagctgga	tatgaagagt	ctttggtagc	tcgcttagtt	1080
atgaagcctg	ggaagatctc	aagccttgca	gcttccggtc	gccagctagc	cgaaatggaa	1140
gatccaatag	gccgtgtatt	aaagaaaact	caggttgcag	atgatcttat	tttagagaag	1200
acctcatcac	caataggtgt	tcttctgatt	gtttttgaat	cccggcctga	tgcaattggt	1260
cagatagctt	cgcttgcaat	ccggagtgga	aatggctctt	tgctgaaggg	tggaaaggag	1320
gctcgtcgat	caaatgctat	cttacacaag	gtgatcactg	atgcaattcc	ggagactggt	1380
ggaggtaaac	tcataggact	tgtgacctca	agagaggaga	ttcctgattt	gctcaagctt	1440
gatgacgtta	ttgatcttgt	gatcccaaga	ggcagcaaca	agcttgtttc	tcaaataaaa	1500
aactcgacga	aaatcccagt	gctaggccat	gctgatggaa	tctgtcatgt	atatgttgat	1560
aagtctggta	aactggacat	ggcaaagcgc	attgtttccg	atgcaaagtt	ggactatcca	1620
gcagcctgta	atgcgatgga	aacccttctt	gtacataaag	atgttgagca	gaatgggtttt	1680
ctcgatgadc	ttatttatgt	tctgcaaacc	aaaggcgtca	ctttgtatgg	tgggccaaga	1740
gcaagtgcaa	aactgaatat	tccggaaaca	aatcatattc	accacgagta	cagttccaag	1800

047-E2F-PCT.ST25.txt

gcctgcaccg ttgaaattgt agaagacgta tatggtgcta tagatcatat tcaccaacat 1860  
 ggaagtgcac aacttgattg catagtgcgc gaagatagtg aagtagcaga aatattcctc 1920  
 cgccaagtgg acagtgcctgc tgttttccac aatgcaagca caagattctc tgatggtttt 1980  
 aggttcggac ttggtgctga ggtgggaata agcacaagca ggattcatgc ccgtgggtcca 2040  
 gttggagttg aaggattatt gacaacaaga tggataatga gaggaaaggg acaagttgtg 2100  
 gatggagaca atggaatcgt ttacacccat aaggatcttc ctgtcttaca aaggacagag 2160  
 gctgttgaga atggaattta g 2181

<210> 2346

<211> 726

<212> PRT

<213> Arabidopsis thaliana

<400> 2346

Met Thr Glu Ile Asp Arg Ser Arg Ala Phe Ala Lys Asp Val Lys Arg  
 1 5 10 15

Ile Val Val Lys Val Gly Thr Ala Val Val Thr Gly Lys Gly Gly Arg  
 20 25 30

Leu Ala Leu Gly Arg Leu Gly Ala Ile Cys Glu Gln Leu Ala Glu Leu  
 35 40 45

Asn Ser Asp Gly Phe Glu Val Ile Leu Val Ser Ser Gly Ala Val Gly  
 50 55 60

Leu Gly Arg Gln Arg Leu Arg Tyr Arg Gln Leu Val Asn Ser Ser Phe  
 65 70 75 80

Ala Asp Leu Gln Lys Pro Gln Met Glu Leu Asp Gly Lys Ala Cys Ala  
 85 90 95

Gly Val Gly Gln Ser Ser Leu Met Ala Tyr Tyr Glu Thr Met Phe Asp  
 100 105 110

Gln Leu Asp Val Thr Val Ala Gln Met Leu Val Thr Asp Ser Ser Phe  
 115 120 125

Arg Asp Lys Asp Phe Arg Lys Gln Leu Ser Glu Thr Val Lys Ala Met  
 130 135 140

047-E2F-PCT.ST25.txt

Leu Arg Met Arg Val Ile Pro Val Phe Asn Glu Asn Asp Ala Ile Ser  
 145 150 155 160  
 Thr Arg Arg Ala Pro Tyr Lys Asp Ser Thr Gly Ile Phe Trp Asp Asn  
 165 170 175  
 Asp Ser Leu Ala Ala Leu Leu Ser Leu Glu Leu Lys Ala Asp Leu Leu  
 180 185 190  
 Ile Leu Leu Ser Asp Val Glu Gly Leu Tyr Thr Gly Pro Pro Ser Asp  
 195 200 205  
 Ser Thr Ser Lys Leu Ile His Thr Phe Ile Lys Glu Lys His Gln Asp  
 210 215 220  
 Glu Ile Thr Phe Gly Glu Lys Ser Lys Leu Gly Arg Gly Gly Met Thr  
 225 230 235 240  
 Ala Lys Val Lys Ala Ala Val Asn Ala Ala Tyr Gly Gly Val Pro Val  
 245 250 255  
 Ile Ile Thr Ser Gly Tyr Ala Ala Glu Asn Ile Ser Lys Val Leu Arg  
 260 265 270  
 Gly Leu Arg Val Gly Thr Leu Phe His Gln Asp Ala His Leu Trp Ala  
 275 280 285  
 Pro Val Val Asp Thr Thr Ser Arg Asp Met Ala Val Ala Ala Arg Glu  
 290 295 300  
 Ser Ser Arg Lys Leu Gln Ala Leu Ser Ser Glu Asp Arg Lys Gln Ile  
 305 310 315 320  
 Leu His Asp Ile Ala Asn Ala Leu Glu Val Asn Glu Lys Thr Ile Lys  
 325 330 335  
 Ala Glu Asn Asp Leu Asp Val Ala Ala Ala Gln Glu Ala Gly Tyr Glu  
 340 345 350  
 Glu Ser Leu Val Ala Arg Leu Val Met Lys Pro Gly Lys Ile Ser Ser  
 355 360 365  
 Leu Ala Ala Ser Val Arg Gln Leu Ala Glu Met Glu Asp Pro Ile Gly  
 370 375 380  
 Arg Val Leu Lys Lys Thr Gln Val Ala Asp Asp Leu Ile Leu Glu Lys  
 385 390 395 400

047-E2F-PCT.ST25.txt

Thr Ser Ser Pro Ile Gly Val Leu Leu Ile Val Phe Glu Ser Arg Pro  
405 410 415

Asp Ala Leu Val Gln Ile Ala Ser Leu Ala Ile Arg Ser Gly Asn Gly  
420 425 430

Leu Leu Leu Lys Gly Gly Lys Glu Ala Arg Arg Ser Asn Ala Ile Leu  
435 440 445

His Lys Val Ile Thr Asp Ala Ile Pro Glu Thr Val Gly Gly Lys Leu  
450 455 460

Ile Gly Leu Val Thr Ser Arg Glu Glu Ile Pro Asp Leu Leu Lys Leu  
465 470 475 480

Asp Asp Val Ile Asp Leu Val Ile Pro Arg Gly Ser Asn Lys Leu Val  
485 490 495

Ser Gln Ile Lys Asn Ser Thr Lys Ile Pro Val Leu Gly His Ala Asp  
500 505 510

Gly Ile Cys His Val Tyr Val Asp Lys Ser Gly Lys Leu Asp Met Ala  
515 520 525

Lys Arg Ile Val Ser Asp Ala Lys Leu Asp Tyr Pro Ala Ala Cys Asn  
530 535 540

Ala Met Glu Thr Leu Leu Val His Lys Asp Leu Glu Gln Asn Gly Phe  
545 550 555 560

Leu Asp Asp Leu Ile Tyr Val Leu Gln Thr Lys Gly Val Thr Leu Tyr  
565 570 575

Gly Gly Pro Arg Ala Ser Ala Lys Leu Asn Ile Pro Glu Thr Lys Ser  
580 585 590

Phe His His Glu Tyr Ser Ser Lys Ala Cys Thr Val Glu Ile Val Glu  
595 600 605

Asp Val Tyr Gly Ala Ile Asp His Ile His Gln His Gly Ser Ala His  
610 615 620

Thr Asp Cys Ile Val Thr Glu Asp Ser Glu Val Ala Glu Ile Phe Leu  
625 630 635 640

Arg Gln Val Asp Ser Ala Ala Val Phe His Asn Ala Ser Thr Arg Phe  
Page 3353

645

655

Ser Asp Gly Phe Arg Phe Gly Leu Gly Ala Glu Val Gly Ile Ser Thr  
660 665 670

Ser Arg Ile His Ala Arg Gly Pro Val Gly Val Glu Gly Leu Leu Thr  
675 680 685

Thr Arg Trp Ile Met Arg Gly Lys Gly Gln Val Val Asp Gly Asp Asn  
690 695 700

Gly Ile Val Tyr Thr His Lys Asp Leu Pro Val Leu Gln Arg Thr Glu  
705 710 715 720

Ala Val Glu Asn Gly Ile  
725

<210> 2347

<211> 573

<212> DNA

<213> Arabidopsis thaliana

<400> 2347

atggcggagg agcaaaagac gagtaagggtt gacgtagaat ctccggctgt tttagctccg	60
gcgaaggaac cgactcctgc tccggtggaa gtcgcggatg agaaaattca taatccacct	120
cccgtcgagt ccaaagctct tgccgttgta gaaaaacca tcgaggagca tacacctaa	180
aaagcttcat ctggttcggc cgatagagat gtgatacttg ccgacttgga aaaagagaag	240
aaaacgtcat tcatcaaagc atgggaagag agtgagaagt caaaggctga gaacagggca	300
caaaagaaga tctctgatgt gcatgcttgg gaaaatagca agaaagcagc cgtagaagct	360
caacttagga agatcgagga aaaattagag aagaaaaaag cgcagtacgg tgagaaaatg	420
aagaacaaag tagctgcaat ccacaagtta gcagaagaga agagagcaat ggttgaagct	480
aaaaaaggag aagagcttct caaagctgaa gaaatgggtg ctaagtatag agccactggt	540
gtagtaccaa aggcaacgtg tggatgtttc taa	573

<210> 2348

<211> 190

<212> PRT

<213> Arabidopsis thaliana



&lt;400&gt; 2348

Met Ala Glu Glu Gln Lys Thr Ser Lys Val Asp Val Glu Ser Pro Ala  
 1 5 10 15  
 Val Leu Ala Pro Ala Lys Glu Pro Thr Pro Ala Pro Val Glu Val Ala  
 20 25 30  
 Asp Glu Lys Ile His Asn Pro Pro Val Glu Ser Lys Ala Leu Ala  
 35 40 45  
 Val Val Glu Lys Pro Ile Glu Glu His Thr Pro Lys Lys Ala Ser Ser  
 50 55 60  
 Gly Ser Ala Asp Arg Asp Val Ile Leu Ala Asp Leu Glu Lys Glu Lys  
 65 70 75 80  
 Lys Thr Ser Phe Ile Lys Ala Trp Glu Glu Ser Glu Lys Ser Lys Ala  
 85 90 95  
 Glu Asn Arg Ala Gln Lys Lys Ile Ser Asp Val His Ala Trp Glu Asn  
 100 105 110  
 Ser Lys Lys Ala Ala Val Glu Ala Gln Leu Arg Lys Ile Glu Glu Lys  
 115 120 125  
 Leu Glu Lys Lys Lys Ala Gln Tyr Gly Glu Lys Met Lys Asn Lys Val  
 130 135 140  
 Ala Ala Ile His Lys Leu Ala Glu Glu Lys Arg Ala Met Val Glu Ala  
 145 150 155 160  
 Lys Lys Gly Glu Glu Leu Leu Lys Ala Glu Glu Met Gly Ala Lys Tyr  
 165 170 175  
 Arg Ala Thr Gly Val Val Pro Lys Ala Thr Cys Gly Cys Phe  
 180 185 190

&lt;210&gt; 2349

&lt;211&gt; 1023

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2349

```

atgatgtttt cggtgacggt tgcgatcctt gtttgtctta ttggctacat ttaccgatca    60
tttaagcctc caccaccgcg aatctgcggc catcctaacg gtcctccggt tacttctccg    120
agaatcaagc tcagtgatgg aagatatctt gcttatagag aatctggggg tgatagagac    180
aatgctaact acaagatcat tgtcgttcat ggcttcaaca gtcctcaaaga cactgaattt    240
cccatcccta aggatgtaat tgaggagctt gggatatact ttgtgttcta cgatagagca    300
ggatatggag aaagtgatcc acacccatca cgcactgtta agagtgaagc atacgacatt    360
caagaactcg ccgataaact caagatcgga ccaaagttct atgttcttgg tatatcacta    420
gggtgcttact cggtttatag ttgcctcaaa tacattcccc acagactagc tggagcagtc    480
ttaatggttc catttgtgaa ctattgggtg actaaagtgc ctcaagaaaa attgagtaaa    540
gcgttggagc taatgccaaa gaaagaccaa tggacgttta aagtgggtca ttatgttccg    600
tggttgttat attggtggtt gacccaaaaa ctatttccgt cttcgagtat ggtcacgggg    660
aacaatgcgt tatgcagcga caaagatttg gtcgtcataa agaagaaaat ggagaatcca    720
cgccctggct tggaaaaagt tagacaacaa ggagaccatg aatgtcttca ccgggacatg    780
atagccggat tcgcgacatg ggaattcgac ccgactgaat tagaaaatcc gtttgcgga    840
ggcgaaggat cggtccacgt ttggcaaggg atggaagaca gaatcattcc atacgaaatt    900
aatcgatata tatcagagaa gcttccatgg attaagtacc atgaggtctt aggttatgga    960
catcttctaa acgccgagga ggagaaatgc aaagacatta tcaaggcact tcttgtcaac   1020
tga                                                                    1023

```

&lt;210&gt; 2350

&lt;211&gt; 340

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2350

```

Met Met Phe Ser Val Thr Val Ala Ile Leu Val Cys Leu Ile Gly Tyr
1          5          10          15

```

```

Ile Tyr Arg Ser Phe Lys Pro Pro Pro Arg Ile Cys Gly His Pro
          20          25          30

```

```

Asn Gly Pro Pro Val Thr Ser Pro Arg Ile Lys Leu Ser Asp Gly Arg
          35          40          45

```

```

Tyr Leu Ala Tyr Arg Glu Ser Gly Val Asp Arg Asp Asn Ala Asn Tyr
50          55          60

```

047-E2F-PCT.ST25.txt

Lys Ile Ile Val Val His Gly Phe Asn Ser Ser Lys Asp Thr Glu Phe  
 65 70 75 80  
 Pro Ile Pro Lys Asp Val Ile Glu Glu Leu Gly Ile Tyr Phe Val Phe  
 85 90 95  
 Tyr Asp Arg Ala Gly Tyr Gly Glu Ser Asp Pro His Pro Ser Arg Thr  
 100 105 110  
 Val Lys Ser Glu Ala Tyr Asp Ile Gln Glu Leu Ala Asp Lys Leu Lys  
 115 120 125  
 Ile Gly Pro Lys Phe Tyr Val Leu Gly Ile Ser Leu Gly Ala Tyr Ser  
 130 135 140  
 Val Tyr Ser Cys Leu Lys Tyr Ile Pro His Arg Leu Ala Gly Ala Val  
 145 150 155 160  
 Leu Met Val Pro Phe Val Asn Tyr Trp Trp Thr Lys Val Pro Gln Glu  
 165 170 175  
 Lys Leu Ser Lys Ala Leu Glu Leu Met Pro Lys Lys Asp Gln Trp Thr  
 180 185 190  
 Phe Lys Val Ala His Tyr Val Pro Trp Leu Leu Tyr Trp Trp Leu Thr  
 195 200 205  
 Gln Lys Leu Phe Pro Ser Ser Ser Met Val Thr Gly Asn Asn Ala Leu  
 210 215 220  
 Cys Ser Asp Lys Asp Leu Val Val Ile Lys Lys Lys Met Glu Asn Pro  
 225 230 235 240  
 Arg Pro Gly Leu Glu Lys Val Arg Gln Gln Gly Asp His Glu Cys Leu  
 245 250 255  
 His Arg Asp Met Ile Ala Gly Phe Ala Thr Trp Glu Phe Asp Pro Thr  
 260 265 270  
 Glu Leu Glu Asn Pro Phe Ala Glu Gly Glu Gly Ser Val His Val Trp  
 275 280 285  
 Gln Gly Met Glu Asp Arg Ile Ile Pro Tyr Glu Ile Asn Arg Tyr Ile  
 290 295 300  
 Ser Glu Lys Leu Pro Trp Ile Lys Tyr His Glu Val Leu Gly Tyr Gly  
 Page 3357

305

310

320

His Leu Leu Asn Ala Glu Glu Glu Lys Cys Lys Asp Ile Ile Lys Ala  
325 330 335

Leu Leu Val Asn  
340

<210> 2351

<211> 831

<212> DNA

<213> Arabidopsis thaliana

<400> 2351

atgcagattc acaaactctg ttttcttggt ctgttcttag ctaacgcagc ttttgccgtc	60
aaattcaact tcgattcctt cgatggcagc aacttggtat tcctaggaga cgcagagctt	120
ggtccttcct ctgatggtgt aagccgatcc ggagctttat ccatgaccgc agacgagaac	180
ccattctctc atggtcaagg tctttacatc aatcaaattc cattcaaacc ttcaaact	240
tcttctcctt tttcatttga aacttctttc actttctcca tcaactcctc caccaaact	300
aactccgggc aaggtttcgc cttcatcata accccggaag ctgataactc cgggtgcttca	360
gatggcggat atctcggaat cctcaacaaa accaactgat gaaagccaga gaaccacatc	420
ttggctatcg aattcgatac ttttcagaac aaagagtttc tagacattag tggtaaccat	480
gttggagtta acatcaactc aatgacttct cttgtcgtc agaaagctgg ttactgggtt	540
cagacaagag tcgggaaaag gaaagtttgg tcgtttaaag atgtgaatct tagcagtgga	600
gagaggttca aggcttgggt tgagttcaga acaaagact ctacgattac gggttactc	660
gcgcctgaaa acgttaagaa acctaagcgg gctttgatcg aagctcccag agtgctcaat	720
gaagttcttc ttcaaaacat gtacgccggt tttgctggtt ccatgggacg tgccgttgag	780
cgtcacgata tttggagctg gtcgtttgaa aacgccgcca aaaacaacta a	831

<210> 2352

<211> 276

<212> PRT

<213> Arabidopsis thaliana

<400> 2352

Met Gln Ile His Lys Leu Cys Phe Leu Val Leu Phe Leu Ala Asn Ala  
 1 5 10 15  
 Ala Phe Ala Val Lys Phe Asn Phe Asp Ser Phe Asp Gly Ser Asn Leu  
 20 25 30  
 Leu Phe Leu Gly Asp Ala Glu Leu Gly Pro Ser Ser Asp Gly Val Ser  
 35 40 45  
 Arg Ser Gly Ala Leu Ser Met Thr Arg Asp Glu Asn Pro Phe Ser His  
 50 55 60  
 Gly Gln Gly Leu Tyr Ile Asn Gln Ile Pro Phe Lys Pro Ser Asn Thr  
 65 70 75 80  
 Ser Ser Pro Phe Ser Phe Glu Thr Ser Phe Thr Phe Ser Ile Thr Pro  
 85 90 95  
 Arg Thr Lys Pro Asn Ser Gly Gln Gly Phe Ala Phe Ile Ile Thr Pro  
 100 105 110  
 Glu Ala Asp Asn Ser Gly Ala Ser Asp Gly Gly Tyr Leu Gly Ile Leu  
 115 120 125  
 Asn Lys Thr Asn Asp Gly Lys Pro Glu Asn His Ile Leu Ala Ile Glu  
 130 135 140  
 Phe Asp Thr Phe Gln Asn Lys Glu Phe Leu Asp Ile Ser Gly Asn His  
 145 150 155 160  
 Val Gly Val Asn Ile Asn Ser Met Thr Ser Leu Val Ala Glu Lys Ala  
 165 170 175  
 Gly Tyr Trp Val Gln Thr Arg Val Gly Lys Arg Lys Val Trp Ser Phe  
 180 185 190  
 Lys Asp Val Asn Leu Ser Ser Gly Glu Arg Phe Lys Ala Trp Val Glu  
 195 200 205  
 Phe Arg Asn Lys Asp Ser Thr Ile Thr Val Thr Leu Ala Pro Glu Asn  
 210 215 220  
 Val Lys Lys Pro Lys Arg Ala Leu Ile Glu Ala Pro Arg Val Leu Asn  
 225 230 235 240  
 Glu Val Leu Leu Gln Asn Met Tyr Ala Gly Phe Ala Gly Ser Met Gly  
 245 250 255

Arg Ala Val Glu Arg His Asp Ile Trp Ser Trp Ser Phe Glu Asn Ala  
 260 265 270

Ala Lys Asn Asn  
 275

<210> 2353

<211> 1056

<212> DNA

<213> Arabidopsis thaliana

<400> 2353

```

atggatagtc acaaatggag tctaggtttc acattacttg ctttcctctt catcacttcc      60
tcttccgctg agctcatcat taaacaggtc acacagggca gaggaataga gtacaacaac      120
tcttacagtc tcacgtcgaa tcttggagtg acgacaagag agttgagaga cgagcgacca      180
tcaagtaaga tagtgacaat cacaagcttc tctgtgatta aggacagagg agaaccctat      240
gaatcatcta tttttgaggc tgccggttac aaatggagat tagttttgta cgtgaagggt      300
aatccgaaag gcggtataaa taatcatatt tcactttacg cgaggataga agagacagaa      360
actcttccaa gaggggtgga agtgaatggt gatctcaaac tctttgtcca caatcggaag      420
ttaaagaaat atttgtctgt tacagatgga acagtgaagc gatacaacga tgcaaaaaaa      480
gagtggggat tcacacaatt gatttctctt ccaacattct acaacgcgaa cgaagggtac      540
cttgtgcagg acacagcttc ttttggtgct gagatcttca tcgttaaccc gacagaaaaa      600
caagagaaag tcacattcat atcaaaccct ccagacaatg ttttcacttg gaagatactt      660
cgtttctcta ccttgaaga taaattctat tactctgatg attttcttgt tggagaccga      720
tactggagac taggatttaa cccgaaagga tctggtggag gaagaccaca tgcacttcca      780
atcttcctat atgctcaagg ccataaggca aacgcagttg ttacaaacac ttggggagcg      840
gttaatctgc ggttaaagaa tcaacgaagc tccaaccaca aacaattata ttctgcagct      900
tggtacccga ttcgaagcga ttatggtgtg ggagtgaaca atataatatt gatgtcagag      960
ctaaaagatg catcaaaagg gtatatggtg aatgatgcca ttatctttga agctgaaatg     1020
gttaagggtct ctgtgacaaa catagtctcc gtttaa                                1056

```

<210> 2354

<211> 351

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2354

```

Met Asp Ser His Lys Trp Ser Leu Gly Phe Thr Leu Leu Ala Phe Leu
 1          5          10          15

Phe Ile Thr Ser Ser Ser Ala Glu Leu Ile Ile Lys Gln Val Thr Gln
          20          25          30

Gly Arg Gly Ile Glu Tyr Asn Asn Ser Tyr Ser Leu Thr Ser Asn Leu
          35          40          45

Gly Val Thr Thr Arg Glu Leu Arg Asp Glu Arg Pro Ser Ser Lys Ile
          50          55          60

Val Thr Ile Thr Ser Phe Ser Val Ile Lys Asp Arg Gly Glu Pro Tyr
65          70          75          80

Glu Ser Ser Ile Phe Glu Ala Ala Gly Tyr Lys Trp Arg Leu Val Leu
          85          90          95

Tyr Val Lys Gly Asn Pro Lys Gly Gly Ile Asn Asn His Ile Ser Leu
          100          105          110

Tyr Ala Arg Ile Glu Glu Thr Glu Thr Leu Pro Arg Gly Trp Glu Val
          115          120          125

Asn Val Asp Leu Lys Leu Phe Val His Asn Arg Lys Leu Lys Lys Tyr
          130          135          140

Leu Ser Val Thr Asp Gly Thr Val Lys Arg Tyr Asn Asp Ala Lys Lys
145          150          155          160

Glu Trp Gly Phe Thr Gln Leu Ile Ser Leu Pro Thr Phe Tyr Asn Ala
          165          170          175

Asn Glu Gly Tyr Leu Val Gln Asp Thr Ala Ser Phe Gly Ala Glu Ile
          180          185          190

Phe Ile Val Asn Pro Thr Glu Lys Gln Glu Lys Val Thr Phe Ile Ser
          195          200          205

Asn Pro Pro Asp Asn Val Phe Thr Trp Lys Ile Leu Arg Phe Ser Thr
          210          215          220

Leu Glu Asp Lys Phe Tyr Tyr Ser Asp Asp Phe Leu Val Gly Asp Arg
          225          230          235

```

225 230 235 240

Tyr Trp Arg Leu Gly Phe Asn Pro Lys Gly Ser Gly Gly Gly Arg Pro  
245 250 255

His Ala Leu Pro Ile Phe Leu Tyr Ala Gln Gly His Lys Ala Asn Ala  
260 265 270

Val Val Thr Asn Thr Trp Gly Ala Val Asn Leu Arg Leu Lys Asn Gln  
275 280 285

Arg Ser Ser Asn His Lys Gln Leu Tyr Ser Ala Ala Trp Tyr Pro Ile  
290 295 300

Arg Ser Asp Tyr Gly Val Gly Val Asn Asn Ile Ile Leu Met Ser Glu  
305 310 315 320

Leu Lys Asp Ala Ser Lys Gly Tyr Met Val Asn Asp Ala Ile Ile Phe  
325 330 335

Glu Ala Glu Met Val Lys Val Ser Val Thr Asn Ile Val Ser Val  
340 345 350

<210> 2355

<211> 783

<212> DNA

<213> Arabidopsis thaliana

<400> 2355						
atggcttctt	cgtcttctat	gcagatggtt	cacacttccc	gctccattgc	ccagattggg	60
ttcgggtgta	agtcgcaatt	agtttctgca	aatcgaaaca	ctcaatcagt	ttgctttgga	120
gctcgttcct	ctggaattgc	attatcttcg	agattgcact	atgcatcacc	cattaagcaa	180
ttttctgggg	tttatgcgac	caccaagcat	cagagaaccg	cttgtgttaa	atccatggct	240
gctgaggaag	aagaagtaat	cgaacctcaa	gctaaagtga	caaacaagg	ttactttgat	300
gtggaaattg	gaggtgaagt	tgctggcaga	attgtgatgg	gtctcttttg	agaagttgtg	360
cctaaaaccg	ttgaaaactt	ccgtgccttg	tgtactgggtg	agaagaaata	cgggtacaag	420
ggttcctctt	tccatcgtat	tattaaggat	ttcatgatcc	aaggagggtga	tttcaccgag	480
ggaaatggta	ctggagggtat	tagtattttac	ggtgccaagt	tcgaagatga	aaacttcacc	540
ctgaagcata	ctggacctgg	aatcttgagc	atggcaaacg	ctggtcctaa	tactaatgga	600
agccagtttt	tcattttgtac	cgtcaagact	tcatgggttag	ataacaagca	tgtcgtgttt	660



ggacaagtaa ttgaaggtat gaagcttggtt aggactcttg agtctcaaga gactcgcgct 720  
 ttcgatgttc ccaagaaagg ttgtagaatc tatgcctgcg gagagctccc gttagatgct 780  
 tga 783

<210> 2356

<211> 260

<212> PRT

<213> Arabidopsis thaliana

<400> 2356

Met Ala Ser Ser Ser Ser Met Gln Met Val His Thr Ser Arg Ser Ile  
 1 5 10 15

Ala Gln Ile Gly Phe Gly Val Lys Ser Gln Leu Val Ser Ala Asn Arg  
 20 25 30

Thr Thr Gln Ser Val Cys Phe Gly Ala Arg Ser Ser Gly Ile Ala Leu  
 35 40 45

Ser Ser Arg Leu His Tyr Ala Ser Pro Ile Lys Gln Phe Ser Gly Val  
 50 55 60

Tyr Ala Thr Thr Lys His Gln Arg Thr Ala Cys Val Lys Ser Met Ala  
 65 70 75 80

Ala Glu Glu Glu Glu Val Ile Glu Pro Gln Ala Lys Val Thr Asn Lys  
 85 90 95

Val Tyr Phe Asp Val Glu Ile Gly Gly Glu Val Ala Gly Arg Ile Val  
 100 105 110

Met Gly Leu Phe Gly Glu Val Val Pro Lys Thr Val Glu Asn Phe Arg  
 115 120 125

Ala Leu Cys Thr Gly Glu Lys Lys Tyr Gly Tyr Lys Gly Ser Ser Phe  
 130 135 140

His Arg Ile Ile Lys Asp Phe Met Ile Gln Gly Gly Asp Phe Thr Glu  
 145 150 155 160

Gly Asn Gly Thr Gly Gly Ile Ser Ile Tyr Gly Ala Lys Phe Glu Asp  
 165 170 175

047-E2F-PCT.ST25.txt

Glu Asn Phe Thr Leu Lys His Thr Gly Pro Gly Ile Leu Ser Met Ala  
180 185 190

Asn Ala Gly Pro Asn Thr Asn Gly Ser Gln Phe Phe Ile Cys Thr Val  
195 200 205

Lys Thr Ser Trp Leu Asp Asn Lys His Val Val Phe Gly Gln Val Ile  
210 215 220

Glu Gly Met Lys Leu Val Arg Thr Leu Glu Ser Gln Glu Thr Arg Ala  
225 230 235 240

Phe Asp Val Pro Lys Lys Gly Cys Arg Ile Tyr Ala Cys Gly Glu Leu  
245 250 255

Pro Leu Asp Ala  
260

<210> 2357

<211> 1122

<212> DNA

<213> Arabidopsis thaliana

<400> 2357  
atgggataacc ttctagaaga aaccttaagc tctaactcta aaaccccaat tgttatcgat 60  
gatgataacg agttggggtt gatggccgtg agactagcca atgctgctgc ctttccgatg 120  
gtttctcaaag ccgccctcga gctcgggtgtc tttagacctc tctatgctga agcctctcgc 180  
agcgactcgt tccttttcacc atctgaaata gcgagtaagc taccaactac acctcgtaac 240  
cctgaggctc cggtttttgtt ggaccgtatg cttcgtctac tcgctagcta ttctgtggtc 300  
aagtgtggta aggtctcaga aggaaagggg gagaggggtct acagagcaga gccaatttgc 360  
agggtttttct tgaaggataa cattcaagat attggatccc ttgctttctca agtcattgtc 420  
aatttcgata gcgtcttcct caatacttgg gcacaattga aagacgtggg tctagaagga 480  
ggagatgcat ttggccgcgc acatgggtggg atgaagctct ttgactatat gggtagagat 540  
gagagattca gcaaactatt taaccagacc ggtttttacca ttgcggttgt gaagaaggct 600  
cttgaagttt accaaggctt caaagggtgtg aatgttttag ttgatgtggg aggaggagtt 660  
ggtaacactc ttggtgttgt tgcttctaag tatccaaata ttaagggat caactttgat 720  
ctaacctgtg ccttggcaca agcaccttct tatcccgggtg tggagcatgt tgccggagat 780  
atgtttgtgg atgtcccaac cggagatgcc atgatcttga aacgtatact tcatgattgg 840

047-E2F-PCT.ST25.txt

accgatgaag atttgtgtcaa gattcttaag aattgttgga aatcactacc agaaagcggg 900  
aaagtagttg ttatagaatt agtcactcct gatgaggcag agaatggaga catcaacgca 960  
aacattgcct ttgacatgga catgttaatg ttcacacaat gttccggagg aaaagagaga 1020  
tcaagagctg agtttgaagc tttggctgca gcttctggct ttaccattg caagttcggt 1080  
tgccaagctt atcactgctg gattattgag ttctgtaaat aa 1122

<210> 2358

<211> 373

<212> PRT

<213> Arabidopsis thaliana

<400> 2358

Met Gly Tyr Leu Leu Glu Glu Thr Leu Ser Ser Asn Ser Lys Thr Pro  
1 5 10 15

Ile Val Ile Asp Asp Asp Asn Glu Leu Gly Leu Met Ala Val Arg Leu  
20 25 30

Ala Asn Ala Ala Ala Phe Pro Met Val Leu Lys Ala Ala Leu Glu Leu  
35 40 45

Gly Val Phe Asp Thr Leu Tyr Ala Glu Ala Ser Arg Ser Asp Ser Phe  
50 55 60

Leu Ser Pro Ser Glu Ile Ala Ser Lys Leu Pro Thr Thr Pro Arg Asn  
65 70 75 80

Pro Glu Ala Pro Val Leu Leu Asp Arg Met Leu Arg Leu Leu Ala Ser  
85 90 95

Tyr Ser Val Val Lys Cys Gly Lys Val Ser Glu Gly Lys Gly Glu Arg  
100 105 110

Val Tyr Arg Ala Glu Pro Ile Cys Arg Phe Phe Leu Lys Asp Asn Ile  
115 120 125

Gln Asp Ile Gly Ser Leu Ala Ser Gln Val Ile Val Asn Phe Asp Ser  
130 135 140

Val Phe Leu Asn Thr Trp Ala Gln Leu Lys Asp Val Val Leu Glu Gly  
145 150 155 160

047-E2F-PCT.ST25.txt

Gly Asp Ala Phe Gly Arg Ala His Gly Gly Met Lys Leu Phe Asp Tyr  
 165 170 175  
 Met Gly Thr Asp Glu Arg Phe Ser Lys Leu Phe Asn Gln Thr Gly Phe  
 180 185 190  
 Thr Ile Ala Val Val Lys Lys Ala Leu Glu Val Tyr Gln Gly Phe Lys  
 195 200 205  
 Gly Val Asn Val Leu Val Asp Val Gly Gly Gly Val Gly Asn Thr Leu  
 210 215 220  
 Gly Val Val Ala Ser Lys Tyr Pro Asn Ile Lys Gly Ile Asn Phe Asp  
 225 230 235 240  
 Leu Thr Cys Ala Leu Ala Gln Ala Pro Ser Tyr Pro Gly Val Glu His  
 245 250 255  
 Val Ala Gly Asp Met Phe Val Asp Val Pro Thr Gly Asp Ala Met Ile  
 260 265 270  
 Leu Lys Arg Ile Leu His Asp Trp Thr Asp Glu Asp Cys Val Lys Ile  
 275 280 285  
 Leu Lys Asn Cys Trp Lys Ser Leu Pro Glu Ser Gly Lys Val Val Val  
 290 295 300  
 Ile Glu Leu Val Thr Pro Asp Glu Ala Glu Asn Gly Asp Ile Asn Ala  
 305 310 315 320  
 Asn Ile Ala Phe Asp Met Asp Met Leu Met Phe Thr Gln Cys Ser Gly  
 325 330 335  
 Gly Lys Glu Arg Ser Arg Ala Glu Phe Glu Ala Leu Ala Ala Ala Ser  
 340 345 350  
 Gly Phe Thr His Cys Lys Phe Val Cys Gln Ala Tyr His Cys Trp Ile  
 355 360 365  
 Ile Glu Phe Cys Lys  
 370

<210> 2359

<211> 552

<212> DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2359

```

atgcggattt tgtgcatgc ttgcgagaac gcagccgcaa tcatcttttg cgccgccgat    60
gaagctgccc tttgtcgcgc ctgcatgaa aaagtccata tgtgcaacaa gctagctagt    120
cggcatgtac gtgttggttt agctgaacca agcaatgccc catgctgtga tatatgcgaa    180
aatgcacctg ctttctttta ctgtgagata gacggtagtt ctctttgtct gcaatgtgac    240
atggtagtac atgttggtgg caagagaaca cacggtcggt ttcttttgct gagacagaga    300
atcgagtttc caggggataa gcctaaagaa aacaatacga gggacaattt gcagaaccaa    360
agagtctcta caaatggaaa tggatgaagcc aatgggaaga ttgatgacga aatgattgat    420
ctaaatgcta atccacaaag agtacatgag ccatcatcaa ataacaacgg gattgatgta    480
aataacgaga acaatcacga gcctgcaggc cttgtaccag ttggaccctt taaacgagag    540
tctgagaagt ga                                     552

```

&lt;210&gt; 2360

&lt;211&gt; 183

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2360

```

Met Arg Ile Leu Cys Asp Ala Cys Glu Asn Ala Ala Ala Ile Ile Phe
1      5      10
Cys Ala Ala Asp Glu Ala Ala Leu Cys Arg Pro Cys Asp Glu Lys Val
20     25     30
His Met Cys Asn Lys Leu Ala Ser Arg His Val Arg Val Gly Leu Ala
35     40     45
Glu Pro Ser Asn Ala Pro Cys Cys Asp Ile Cys Glu Asn Ala Pro Ala
50     55     60
Phe Phe Tyr Cys Glu Ile Asp Gly Ser Ser Leu Cys Leu Gln Cys Asp
65     70     75     80
Met Val Val His Val Gly Gly Lys Arg Thr His Gly Arg Phe Leu Leu
85     90     95
Leu Arg Gln Arg Ile Glu Phe Pro Gly Asp Lys Pro Lys Glu Asn Asn

```

100

105

110

Thr Arg Asp Asn Leu Gln Asn Gln Arg Val Ser Thr Asn Gly Asn Gly  
115 120 125

Glu Ala Asn Gly Lys Ile Asp Asp Glu Met Ile Asp Leu Asn Ala Asn  
130 135 140

Pro Gln Arg Val His Glu Pro Ser Ser Asn Asn Asn Gly Ile Asp Val  
145 150 155 160

Asn Asn Glu Asn Asn His Glu Pro Ala Gly Leu Val Pro Val Gly Pro  
165 170 175

Phe Lys Arg Glu Ser Glu Lys  
180

<210> 2361

<211> 468

<212> DNA

<213> Arabidopsis thaliana

<400> 2361

atgaatttca tctccgatca ggtaaagaaa ctctcaagct caacaccaga ggagccagac	60
cacaacaagc cagtcgaagg aaccgaaaca gctacaagac cagctaccaa cgccgagctc	120
atggcaagtg ccaaggttgt agctgaagct gctcaagccg cagctcgtaa cgaatcagac	180
aaactcgaca agggtaaagt cgccggagcc tctgctgata tcttagacgc tgccgagaaa	240
tacggtaagt tcgatgaaaa gagtagcact ggtcagtacc tcgacaaggc tgagaagtat	300
ctcaacgact acgagtcgtc aactccacc ggtgctggtg gtcctcctcc tccgacgagt	360
caggctgagc cagcaagtca gcctgagccg gcggctaaga aagacgatga agagtctggt	420
ggtgggcttg gaggttatgc caagatggct caaggtttct tgaagtga	468

<210> 2362

<211> 155

<212> PRT

<213> Arabidopsis thaliana

<400> 2362

Met Asn Phe Ile Ser Asp Gln Val Lys Lys Leu Ser Ser Ser Thr Pro  
 1 5 10 15

Glu Glu Pro Asp His Asn Lys Pro Val Glu Gly Thr Glu Thr Ala Thr  
 20 25 30

Arg Pro Ala Thr Asn Ala Glu Leu Met Ala Ser Ala Lys Val Val Ala  
 35 40 45

Glu Ala Ala Gln Ala Ala Ala Arg Asn Glu Ser Asp Lys Leu Asp Lys  
 50 55 60

Gly Lys Val Ala Gly Ala Ser Ala Asp Ile Leu Asp Ala Ala Glu Lys  
 65 70 75 80

Tyr Gly Lys Phe Asp Glu Lys Ser Ser Thr Gly Gln Tyr Leu Asp Lys  
 85 90 95

Ala Glu Lys Tyr Leu Asn Asp Tyr Glu Ser Ser His Ser Thr Gly Ala  
 100 105 110

Gly Gly Pro Pro Pro Pro Thr Ser Gln Ala Glu Pro Ala Ser Gln Pro  
 115 120 125

Glu Pro Ala Ala Lys Lys Asp Asp Glu Glu Ser Gly Gly Gly Leu Gly  
 130 135 140

Gly Tyr Ala Lys Met Ala Gln Gly Phe Leu Lys  
 145 150 155

<210> 2363

<211> 996

<212> DNA

<213> Arabidopsis thaliana

<400> 2363  
 atggcaactt ctctccaagc cgccgcaact tttcttcaac cggcgaagat tgccgcttct 60  
 ctttctcgta atgtccatct ccgatcaaac caaacctgtg gcaagtcctt tgggttagac 120  
 tcttcacaag ctaggctcac gtgctctctc cactctgacc tcaaagactt cgctggaaaa 180  
 tgctccgacg ccgccaagat cgccggtttt gctctagcca cctctgctct cgttgtctcg 240  
 ggggccggtg cggaggggagc accaaagagg ctaacgtacg acgagataca gagcaagact 300  
 tacatggagg taaagggtac cggtacggca aaccagtgtc caactatcga tggtggctct 360

047-E2F-PCT.ST25.txt

gagacattct cgttcaaagc tggtaagtac acaggcaaga agttctgctt cgagcccact 420  
tccttcaccg tcaaggcaga tagcgtcagc aagaatgcac cgccggattt ccaaaacacc 480  
aagctcatga cccgtctcac ttacacactc gatgagatcg aaggaccctt cgaggttggt 540  
tcagacggaa gcgtgaagtt caaggaagaa gatggtatcg attacgcagc agtcacagtc 600  
cagcttccgg gaggagaacg cgtgccgttc ctcttcacgg ttaagcagct cgaggcttca 660  
gggaaacccg aaagcttcag tggcaagttc ttagttccat cgtaccgtgg ctcgtccttt 720  
ttggacccaa agggtcgtgg tggatccact ggggtacgata atgcagtggc tttgcctgcc 780  
ggaggcagag gagacgagga agagctatcc aagggaaaacg tcaagaacac ggcggcttcc 840  
gtcggagaga tcactttgaa gatcaciaaag agcaaaccgg agacaggtga agtgatcgga 900  
gtgttcgaga gtcttcagcc atcggatact gacttgggtg ctaagggtacc aaaagatgtg 960  
aagatccaag gggtttggtg cggtcagatt gagtga 996

<210> 2364

<211> 331

<212> PRT

<213> Arabidopsis thaliana

<400> 2364

Met Ala Thr Ser Leu Gln Ala Ala Ala Thr Phe Leu Gln Pro Ala Lys  
1 5 10 15

Ile Ala Ala Ser Pro Ser Arg Asn Val His Leu Arg Ser Asn Gln Thr  
20 25 30

Val Gly Lys Ser Phe Gly Leu Asp Ser Ser Gln Ala Arg Leu Thr Cys  
35 40 45

Ser Leu His Ser Asp Leu Lys Asp Phe Ala Gly Lys Cys Ser Asp Ala  
50 55 60

Ala Lys Ile Ala Gly Phe Ala Leu Ala Thr Ser Ala Leu Val Val Ser  
65 70 75 80

Gly Ala Gly Ala Glu Gly Ala Pro Lys Arg Leu Thr Tyr Asp Glu Ile  
85 90 95

Gln Ser Lys Thr Tyr Met Glu Val Lys Gly Thr Gly Thr Ala Asn Gln  
100 105 110



Cys Pro Thr Ile Asp Gly Gly Ser Glu Thr Phe Ser Phe Lys Ala Gly  
 115 120 125  
 Lys Tyr Thr Gly Lys Lys Phe Cys Phe Glu Pro Thr Ser Phe Thr Val  
 130 135 140  
 Lys Ala Asp Ser Val Ser Lys Asn Ala Pro Pro Asp Phe Gln Asn Thr  
 145 150 155 160  
 Lys Leu Met Thr Arg Leu Thr Tyr Thr Leu Asp Glu Ile Glu Gly Pro  
 165 170 175  
 Phe Glu Val Gly Ser Asp Gly Ser Val Lys Phe Lys Glu Glu Asp Gly  
 180 185 190  
 Ile Asp Tyr Ala Ala Val Thr Val Gln Leu Pro Gly Gly Glu Arg Val  
 195 200 205  
 Pro Phe Leu Phe Thr Val Lys Gln Leu Glu Ala Ser Gly Lys Pro Glu  
 210 215 220  
 Ser Phe Ser Gly Lys Phe Leu Val Pro Ser Tyr Arg Gly Ser Ser Phe  
 225 230 235 240  
 Leu Asp Pro Lys Gly Arg Gly Gly Ser Thr Gly Tyr Asp Asn Ala Val  
 245 250 255  
 Ala Leu Pro Ala Gly Gly Arg Gly Asp Glu Glu Glu Leu Ser Lys Glu  
 260 265 270  
 Asn Val Lys Asn Thr Ala Ala Ser Val Gly Glu Ile Thr Leu Lys Ile  
 275 280 285  
 Thr Lys Ser Lys Pro Glu Thr Gly Glu Val Ile Gly Val Phe Glu Ser  
 290 295 300  
 Leu Gln Pro Ser Asp Thr Asp Leu Gly Ala Lys Val Pro Lys Asp Val  
 305 310 315 320  
 Lys Ile Gln Gly Val Trp Tyr Gly Gln Ile Glu  
 325 330

&lt;210&gt; 2365

&lt;211&gt; 1062

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

```

<400> 2365
atgactacta ctccagattg gatcatgatt ggaggagacg gtcctgagag ttataaccaa      60
caatcctcgt atcagagagc attgttggaa gcgacaaagg acaagatgac caaggcgatc      120
tcagccaatc tcgacctaga cttgatttcg aatcgcttca ttgtagcgga tttcggttgt      180
gcaagtggac ctaacacttt tgtggcagtt caaaacataa tagatgcggt agaagaaaag      240
taccgtagag aaaccggaca aaaccgggca gataacatcg agttccaagt cctcttcaat      300
gatttcagcc tcaatgattt caacactctc ttccagacac ttccacccgg aagaagatac      360
ttcagcgctg gagttcctgg ttccttcttc gaacgtgttc ttcctaagga gagtttccac      420
atcggagtca tgagttacgc gttccatttc acctccaaaa tcccaaagg gattatggac      480
cgcgactctc ccttgtggaa caaagacatg cagtgcacgg ggttcaaccc cgctgtcaag      540
aaagcgtatc ttgaccagta ctctatcgac accaaaattc ttttagatgc tagagctgaa      600
gagctcgtgc cgggggggtt gatgttgctt ttaggatcgt gtctaagaga cggagttaag      660
atgtccgaga cccctaaagg aactgtaatg gattttattg gagaatctct tagcgatctt      720
gctaaacagg gtgtcaccga gcaagagaag gtggacactt tcagaacctc aatttacttt      780
gcagaacaag gtgagataag gcaaatcatt gaggagaatg ggaagttcac aatcgaggct      840
tttgaagata tcattcacgc taaaaacgag tttccttttg accccaagac attggccatc      900
tctttcaagg ccttctatgg tgctttcatt tccgcacatt ttggagtcga agtcatgagg      960
aaagcctttg agcttgttga ggtcaaggca cgcgaaacaga tttctcgcct ccataactcc     1020
aaaccggaa tgcagtacct catcgtgctt cgcaagaact aa                               1062

```

<210> 2366

<211> 353

<212> PRT

<213> Arabidopsis thaliana

<400> 2366

```

Met Thr Thr Thr Pro Asp Trp Ile Met Ile Gly Gly Asp Gly Pro Glu
1          5          10          15

Ser Tyr Asn Gln Gln Ser Ser Tyr Gln Arg Ala Leu Leu Glu Ala Thr
          20          25          30

Lys Asp Lys Met Thr Lys Ala Ile Ser Ala Asn Leu Asp Leu Asp Leu
          35          40          45

```

047-E2F-PCT.ST25.txt

Ile Ser Asn Arg Phe Ile Val Ala Asp Phe Gly Cys Ala Ser Gly Pro  
50 55 60

Asn Thr Phe Val Ala Val Gln Asn Ile Ile Asp Ala Val Glu Glu Lys  
65 70 75 80

Tyr Arg Arg Glu Thr Gly Gln Asn Pro Ala Asp Asn Ile Glu Phe Gln  
85 90 95

Val Leu Phe Asn Asp Phe Ser Leu Asn Asp Phe Asn Thr Leu Phe Gln  
100 105 110

Thr Leu Pro Pro Gly Arg Arg Tyr Phe Ser Ala Gly Val Pro Gly Ser  
115 120 125

Phe Phe Glu Arg Val Leu Pro Lys Glu Ser Phe His Ile Gly Val Met  
130 135 140

Ser Tyr Ala Phe His Phe Thr Ser Lys Ile Pro Lys Gly Ile Met Asp  
145 150 155 160

Arg Asp Ser Pro Leu Trp Asn Lys Asp Met Gln Cys Thr Gly Phe Asn  
165 170 175

Pro Ala Val Lys Lys Ala Tyr Leu Asp Gln Tyr Ser Ile Asp Thr Lys  
180 185 190

Ile Leu Leu Asp Ala Arg Ala Glu Glu Leu Val Pro Gly Gly Leu Met  
195 200 205

Leu Leu Leu Gly Ser Cys Leu Arg Asp Gly Val Lys Met Ser Glu Thr  
210 215 220

Pro Lys Gly Thr Val Met Asp Phe Ile Gly Glu Ser Leu Ser Asp Leu  
225 230 235 240

Ala Lys Gln Gly Val Thr Glu Gln Glu Lys Val Asp Thr Phe Arg Thr  
245 250 255

Ser Ile Tyr Phe Ala Glu Gln Gly Glu Ile Arg Gln Ile Ile Glu Glu  
260 265 270

Asn Gly Lys Phe Thr Ile Glu Ala Phe Glu Asp Ile Ile His Ala Lys  
275 280 285

Asn Glu Phe Pro Phe Asp Pro Lys Thr Leu Ala Ile Ser Phe Lys Ala

290

295

Phe Tyr Gly Ala Phe Ile Ser Ala His Phe Gly Val Glu Val Met Arg  
305 310 315 320

Lys Ala Phe Glu Leu Val Glu Val Lys Ala Arg Glu Gln Ile Ser Arg  
325 330 335

Leu His Asn Ser Lys Pro Gly Met Gln Tyr Leu Ile Val Leu Arg Lys  
340 345 350

Asn

<210> 2367

<211> 921

<212> DNA

<213> Arabidopsis thaliana

<400> 2367

atggctgctg cttcactcca cacttcaatc tcaccacgta gcttccttcc tctctccaaa	60
ccatctctaa aacctcaccg ttcccaaatt ctactgagaa acaaacagag gaattgcggt	120
tcgtgcgcat tgatccgtga cgaaatcgac ctgattccgg ttcagagccg agatcggacc	180
gaccatgagg aagggttcggt ggtagtgatg agcactgaga cggcgggttg tggtaatgaa	240
tcggttggtg taggttttag tgctgcgacg agtgaaggtc agctttcggt agaagggttt	300
ccttcttctt cttcttcggg agctgattta ggagatgaaa agagaagaga gaacgaagaa	360
atggagaaga tgatcgatcg aaccattaac gctacgattg ttttagctgc tggttcttac	420
gctattacca aattgcttac catcgatcat gattattggc atggatggac tctgtttgag	480
atactaagat atgctcctca acataactgg attgcttacg aagaagcgct aaagcaaac	540
ccggttctag caaaaatggt cattagtggg gttgtctact ctgtaggaga ttggatagct	600
cagtgttacg aaggcaaacc gttgtttgaa attgatagag caagaacatt gagatcagga	660
ctagtaggtt tcaactctcca tggctcggtt tcgcatttct attaccagtt ctgtgaagag	720
cttttcccggt ttcaagattg gtgggtgggt cctgtgaaag ttgcctttga tcaaacagtc	780
tggtcagcta tatggaacag tatttacttc acggttcttg gtttcctgcg tttcgaatcg	840
cctatcagca tcttcaaaga actaaaagct acgttcttgc ctatgctaac agttggaagc	900
tttgccatt tgctcatttg a	921

&lt;210&gt; 2368

&lt;211&gt; 306

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2368

Met Ala Ala Ala Ser Leu His Thr Ser Ile Ser Pro Arg Ser Phe Leu  
 1 5 10 15

Pro Leu Ser Lys Pro Ser Leu Lys Pro His Arg Ser Gln Ile Leu Leu  
 20 25 30

Arg Asn Lys Gln Arg Asn Cys Val Ser Cys Ala Leu Ile Arg Asp Glu  
 35 40 45

Ile Asp Leu Ile Pro Val Gln Ser Arg Asp Arg Thr Asp His Glu Glu  
 50 55 60

Gly Ser Val Val Val Met Ser Thr Glu Thr Ala Val Asp Gly Asn Glu  
 65 70 75 80

Ser Val Val Val Gly Phe Ser Ala Ala Thr Ser Glu Gly Gln Leu Ser  
 85 90 95

Leu Glu Gly Phe Pro Ser Ser Ser Ser Gly Ala Asp Leu Gly Asp  
 100 105 110

Glu Lys Arg Arg Glu Asn Glu Glu Met Glu Lys Met Ile Asp Arg Thr  
 115 120 125

Ile Asn Ala Thr Ile Val Leu Ala Ala Gly Ser Tyr Ala Ile Thr Lys  
 130 135 140

Leu Leu Thr Ile Asp His Asp Tyr Trp His Gly Trp Thr Leu Phe Glu  
 145 150 155 160

Ile Leu Arg Tyr Ala Pro Gln His Asn Trp Ile Ala Tyr Glu Glu Ala  
 165 170 175

Leu Lys Gln Asn Pro Val Leu Ala Lys Met Val Ile Ser Gly Val Val  
 180 185 190

Tyr Ser Val Gly Asp Trp Ile Ala Gln Cys Tyr Glu Gly Lys Pro Leu  
 195 200 205

047-E2F-PCT.ST25.txt

Phe Glu Ile Asp Arg Ala Arg Thr Leu Arg Ser Gly Leu Val Gly Phe  
210 215 220

Thr Leu His Gly Ser Leu Ser His Phe Tyr Tyr Gln Phe Cys Glu Glu  
225 230 235 240

Leu Phe Pro Phe Gln Asp Trp Trp Val Val Pro Val Lys Val Ala Phe  
245 250 255

Asp Gln Thr Val Trp Ser Ala Ile Trp Asn Ser Ile Tyr Phe Thr Val  
260 265 270

Leu Gly Phe Leu Arg Phe Glu Ser Pro Ile Ser Ile Phe Lys Glu Leu  
275 280 285

Lys Ala Thr Phe Leu Pro Met Leu Thr Val Gly Ser Phe Gly His Leu  
290 295 300

Leu Ile  
305

<210> 2369

<211> 2100

<212> DNA

<213> Arabidopsis thaliana

<400> 2369  
atggcggacg cagaaacctt tgctttccaa gctgagatca accagttgct ctccctcatc 60  
atcaatacct ttactctaa caaggagatc ttccttcgtg aactcatcag taactcttct 120  
gatgcttttg acaagattag gtttgagtcc ttgacagaca agagcaagct cgatggtcag 180  
ccagagctct tcattcacat cattcccgcac aagactaaca acaccttgac gattatcgat 240  
agtggatttg ggatgaccaa ggctgatctg gtgaacaacc ttggaacaat tgcaagatct 300  
ggaaccaaag aattcatgga ggcgttggct gctggagctg atgttagcat gattggacag 360  
tttggtgttg gtttctactc tgcttacttg gttgctgaca aggttggttg tactaccaag 420  
cacaatgacg atgagcagta cgtgtgggag tctcaggccg gtggatcttt caccgtcacc 480  
agagacacct ctggtgaggc tcttggtaga ggaactaaga tggtccttta cctcaaggaa 540  
gaccagatgg agtacattga ggagcgaagg cttaaggatt tggatgaaga gcactctgag 600  
ttcatcagct acccaatctc tctctggatt gagaagacca ttgagaagga gatctctgat 660  
gatgaagagg aggaagagaa gaaggatgag gaaggcaagg ttgaggaagt tgatgaggag 720

## 047-E2F-PCT.ST25.txt

```

aaagaaaagg aggagaagaa aaagaagaag attaaggagg tttctcatga gtgggatttg 780
gtgaacaagc agaaaccgat ttggatgagg aagccagagg agatcaacaa ggaggagtac 840
gctgctttct acaagagttt gagcaatgac tgggaagagc atttggctgt gaagcatttc 900
tcagttgaag gacagcttga gttcaaagct atcctctttg ttcccaagag agctcctttt 960
gatctctttg aactaagaa gaagcccaac aacatcaagc tctatgtccg tcgtgtcttc 1020
atcatggaca actgtgaaga catcattcct gagtaccttg ggtttgtcaa gggatttggt 1080
gactctgaag atcttcctct caacatctca agagaaacat tgcagcagaa caagatcctc 1140
aaggatcatcc gcaagaacct tgtgaagaag tgtcttgagc tcttctttga gattgctgag 1200
aacaaggagg actacaacaa gttctatgag gctttctcta agaacctgaa gctcggtatc 1260
catgaggact cccaaaacag aaccaagatt gctgagttgc tccgttacca ctcaaccaag 1320
agcggatgatg aattgaccag tctcaaggac tacgtgacaa ggatgaagga aggtcagaac 1380
gatatcttct atatcactgg tgagagcaag aaggctgttg agaactctcc attccttgag 1440
aagctcaaga agaagggtat tgaagttctc tacatggttg acgctatcga tgagtatgct 1500
attggtcagc tcaaggaatt cgaaggaaag aagcttgtct ctgcaaccaa ggaagggtctg 1560
aaactggatg agactgaaga cgagaagaag aagaaagaag agctcaagga gaagtttgag 1620
ggactctgca aagtgatcaa ggacgttttg ggagacaagg ttgagaagg ttcgtctct 1680
gaccgtgttg tggactcacc ctgctgtctt gtaacaggcg agtatggctg gactgcaaac 1740
atggagagga tcatgaaagc tcaagccttg agagacagca gcatgggtgg ctacatgtcg 1800
agcaagaaga caatggagat taaccagag aactccatca tggatgagct gagaaagaga 1860
gctgatgcag acaagaacga caagtctgtg aaggaccttg tacttcttct ctttgagacc 1920
gctcttctca cttctggttt cagcctcgat gagcccaaca ctttcgggag caggattcac 1980
aggatgttga agcttgatt gagcattgat gacgatgatg ttgttgaagc cgatgctgac 2040
atgcctccac ttgaagatga tgccgatgct gaaggtagca agatggagga agttgactaa 2100

```

&lt;210&gt; 2370

&lt;211&gt; 699

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2370

Met Ala Asp Ala Glu Thr Phe Ala Phe Gln Ala Glu Ile Asn Gln Leu  
1 5 10 15

047-E2F-PCT.ST25.txt

Leu Ser Leu Ile Ile Asn Thr Phe Tyr Ser Asn Lys Glu Ile Phe Leu  
 20 25 30  
 Arg Glu Leu Ile Ser Asn Ser Ser Asp Ala Leu Asp Lys Ile Arg Phe  
 35 40 45  
 Glu Ser Leu Thr Asp Lys Ser Lys Leu Asp Gly Gln Pro Glu Leu Phe  
 50 55 60  
 Ile His Ile Ile Pro Asp Lys Thr Asn Asn Thr Leu Thr Ile Ile Asp  
 65 70 75 80  
 Ser Gly Ile Gly Met Thr Lys Ala Asp Leu Val Asn Asn Leu Gly Thr  
 85 90 95  
 Ile Ala Arg Ser Gly Thr Lys Glu Phe Met Glu Ala Leu Ala Ala Gly  
 100 105 110  
 Ala Asp Val Ser Met Ile Gly Gln Phe Gly Val Gly Phe Tyr Ser Ala  
 115 120 125  
 Tyr Leu Val Ala Asp Lys Val Val Val Thr Thr Lys His Asn Asp Asp  
 130 135 140  
 Glu Gln Tyr Val Trp Glu Ser Gln Ala Gly Gly Ser Phe Thr Val Thr  
 145 150 155 160  
 Arg Asp Thr Ser Gly Glu Ala Leu Gly Arg Gly Thr Lys Met Val Leu  
 165 170 175  
 Tyr Leu Lys Glu Asp Gln Met Glu Tyr Ile Glu Glu Arg Arg Leu Lys  
 180 185 190  
 Asp Leu Val Lys Lys His Ser Glu Phe Ile Ser Tyr Pro Ile Ser Leu  
 195 200 205  
 Trp Ile Glu Lys Thr Ile Glu Lys Glu Ile Ser Asp Asp Glu Glu Glu  
 210 215 220  
 Glu Glu Lys Lys Asp Glu Glu Gly Lys Val Glu Glu Val Asp Glu Glu  
 225 230 235 240  
 Lys Glu Lys Glu Glu Lys Lys Lys Lys Lys Ile Lys Glu Val Ser His  
 245 250 255  
 Glu Trp Asp Leu Val Asn Lys Gln Lys Pro Ile Trp Met Arg Lys Pro  
 260 265 270



047-E2F-PCT.ST25.txt

Glu Glu Ile Asn Lys Glu Glu Tyr Ala Ala Phe Tyr Lys Ser Leu Ser  
 275 280 285  
 Asn Asp Trp Glu Glu His Leu Ala Val Lys His Phe Ser Val Glu Gly  
 290 295 300  
 Gln Leu Glu Phe Lys Ala Ile Leu Phe Val Pro Lys Arg Ala Pro Phe  
 305 310 315 320  
 Asp Leu Phe Asp Thr Lys Lys Lys Pro Asn Asn Ile Lys Leu Tyr Val  
 325 330 335  
 Arg Arg Val Phe Ile Met Asp Asn Cys Glu Asp Ile Ile Pro Glu Tyr  
 340 345 350  
 Leu Gly Phe Val Lys Gly Ile Val Asp Ser Glu Asp Leu Pro Leu Asn  
 355 360 365  
 Ile Ser Arg Glu Thr Leu Gln Gln Asn Lys Ile Leu Lys Val Ile Arg  
 370 375 380  
 Lys Asn Leu Val Lys Lys Cys Leu Glu Leu Phe Phe Glu Ile Ala Glu  
 385 390 395 400  
 Asn Lys Glu Asp Tyr Asn Lys Phe Tyr Glu Ala Phe Ser Lys Asn Leu  
 405 410 415  
 Lys Leu Gly Ile His Glu Asp Ser Gln Asn Arg Thr Lys Ile Ala Glu  
 420 425 430  
 Leu Leu Arg Tyr His Ser Thr Lys Ser Gly Asp Glu Leu Thr Ser Leu  
 435 440 445  
 Lys Asp Tyr Val Thr Arg Met Lys Glu Gly Gln Asn Asp Ile Phe Tyr  
 450 455 460  
 Ile Thr Gly Glu Ser Lys Lys Ala Val Glu Asn Ser Pro Phe Leu Glu  
 465 470 475 480  
 Lys Leu Lys Lys Lys Gly Ile Glu Val Leu Tyr Met Val Asp Ala Ile  
 485 490 495  
 Asp Glu Tyr Ala Ile Gly Gln Leu Lys Glu Phe Glu Gly Lys Lys Leu  
 500 505 510  
 Val Ser Ala Thr Lys Glu Gly Leu Lys Leu Asp Glu Thr Glu Asp Glu

515

520

525

Lys Lys Lys Lys Glu Glu Leu Lys Glu Lys Phe Glu Gly Leu Cys Lys  
 530 535 540  
 Val Ile Lys Asp Val Leu Gly Asp Lys Val Glu Lys Val Ile Val Ser  
 545 550 555 560  
 Asp Arg Val Val Asp Ser Pro Cys Cys Leu Val Thr Gly Glu Tyr Gly  
 565 570 575  
 Trp Thr Ala Asn Met Glu Arg Ile Met Lys Ala Gln Ala Leu Arg Asp  
 580 585 590  
 Ser Ser Met Gly Gly Tyr Met Ser Ser Lys Lys Thr Met Glu Ile Asn  
 595 600 605  
 Pro Glu Asn Ser Ile Met Asp Glu Leu Arg Lys Arg Ala Asp Ala Asp  
 610 615 620  
 Lys Asn Asp Lys Ser Val Lys Asp Leu Val Leu Leu Leu Phe Glu Thr  
 625 630 635 640  
 Ala Leu Leu Thr Ser Gly Phe Ser Leu Asp Glu Pro Asn Thr Phe Gly  
 645 650 655  
 Ser Arg Ile His Arg Met Leu Lys Leu Gly Leu Ser Ile Asp Asp Asp  
 660 665 670  
 Asp Val Val Glu Ala Asp Ala Asp Met Pro Pro Leu Glu Asp Asp Ala  
 675 680 685  
 Asp Ala Glu Gly Ser Lys Met Glu Glu Val Asp  
 690

&lt;210&gt; 2371

&lt;211&gt; 2010

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2371

atggcttcgt acactcccaa gaacattctc atcaccggag ctgctggttt cattgcgtct 60

catgtcgcca acagactcat acgaagctat cctgattaca aaatcgttgt gcttgacaag 120

cttgattact gttcaaattct caagaatctc aatccttcta agcactctcc gaacttcaag 180

## 047-E2F-PCT.ST25.txt

tttgtcaaag	gtgatatcgc	tagtgctgac	ttggtgaatc	atcttctcat	caactgaaggt	240
attgacacca	tcatgcattt	cgctgctcag	actcacgtcg	acaattcctt	cggtaacagt	300
ttcgagttta	ctaagaataa	tatctatgga	actcatgtcc	ttcttgaggc	ttgtaaagtt	360
actggtcaga	ttaggaggtt	tattcatggt	agtactgatg	aagtttatgg	tgaaactgat	420
gaggatgctc	ttgttggtta	ccatgaggct	tctcagctgc	ttccgacgaa	tccttactct	480
gccacgaaag	ctggtgctga	gatgcttggt	atggccttatg	gtagatctta	tggtttgcct	540
gttattacca	ctcgtgggaa	taacgtctat	ggaccgaatc	agtttcctga	gaagttgatt	600
cctaagttca	ttttgctggc	aatgagaggg	caggttcttc	ccattcatgg	agatggatca	660
aatgtcagga	gctacctcta	ctgtgaagac	gttgctgagg	cttttgaagt	tgttcttcac	720
aagggagaag	ttggccatgt	ttacaatatt	gggacgaaga	aggagaggag	agtgaatgat	780
gttgccaaag	acatctgcaa	actcttcaac	atggaccctg	aggcgaacat	caagtttgtc	840
gacaacagac	cttttaacga	tcagaggtac	ttccttgacg	atcagaagct	caaaaagttg	900
ggatggtcag	agagaaccac	gtgggaagaa	gggttgaaga	aaactatgga	ttggtacaca	960
cagaacccgg	agtgggtggg	tgatgtttct	ggagcattgc	ttcctcatcc	aaggatgctg	1020
atgatgcctg	gtgggcgaca	ctttgatggc	tccgaggaca	attcgctggc	agctacttta	1080
tctgaaaaac	caagtcaaac	ccatatggtt	gttccaagcc	aaaggagcaa	cggcacacct	1140
caaaagcctt	cgctgaagtt	cctgatatat	ggaaagaccg	gatggatcgg	tggtctgctt	1200
ggaaagatat	gtgataagca	aggaattgct	tacgagtatg	ggaaaggctg	gttgaggat	1260
cgatcttctc	ttctgcagga	tattcagagt	gttaagccaa	cccatgtttt	caattccgct	1320
gggtgtgactg	ggagacccaa	tgttgactgg	tgtgagtctc	acaagaccga	gactatccgt	1380
gccaatgtag	ctggcacatt	gactctagct	gatgtctgca	gagagcacgg	actcctaattg	1440
atgaatttcg	ctactggttg	tatattcgaa	tatgacgaca	agcatccgga	aggttcagga	1500
attggcttca	aggaggaaga	cacacccaac	ttcactggct	ctttctactc	gaaaaccaa	1560
gccatggtcg	aggagctgct	aaaggagtat	gacaacgtat	gcacattgag	ggtaaggatg	1620
ccgatctcct	cggatctaaa	caaccgcgc	aacttcatca	ccaagatctc	caggtacaac	1680
aaagtagtga	acatcccaa	cagcatgact	gtgttgagc	agttattacc	aatctccatc	1740
gagatggcga	aaagaaactt	gaaaggaatc	tggaacttca	caaaccagg	tgtggtgagc	1800
cacaacgaga	tcctagagat	gtacagagac	tacatcaacc	ctgaattcaa	atgggcaaac	1860
ttcacattag	aggagcaagc	taaagtcatt	gtggctccaa	gaagcaaaa	cgagatggat	1920
gcttccaagc	tcaagaaaga	gttccttgag	ctactctcta	tcaaggagtc	tctgattaag	1980
tatgcatacg	ggccaaacaa	gaaaacctga				2010

&lt;210&gt; 2372

&lt;211&gt; 669

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2372

Met Ala Ser Tyr Thr Pro Lys Asn Ile Leu Ile Thr Gly Ala Ala Gly  
 1 5 10 15

Phe Ile Ala Ser His Val Ala Asn Arg Leu Ile Arg Ser Tyr Pro Asp  
 20 25 30

Tyr Lys Ile Val Val Leu Asp Lys Leu Asp Tyr Cys Ser Asn Leu Lys  
 35 40 45

Asn Leu Asn Pro Ser Lys His Ser Pro Asn Phe Lys Phe Val Lys Gly  
 50 55 60

Asp Ile Ala Ser Ala Asp Leu Val Asn His Leu Leu Ile Thr Glu Gly  
 65 70 75 80

Ile Asp Thr Ile Met His Phe Ala Ala Gln Thr His Val Asp Asn Ser  
 85 90 95

Phe Gly Asn Ser Phe Glu Phe Thr Lys Asn Asn Ile Tyr Gly Thr His  
 100 105 110

Val Leu Leu Glu Ala Cys Lys Val Thr Gly Gln Ile Arg Arg Phe Ile  
 115 120 125

His Val Ser Thr Asp Glu Val Tyr Gly Glu Thr Asp Glu Asp Ala Leu  
 130 135 140

Val Gly Asn His Glu Ala Ser Gln Leu Leu Pro Thr Asn Pro Tyr Ser  
 145 150 155 160

Ala Thr Lys Ala Gly Ala Glu Met Leu Val Met Ala Tyr Gly Arg Ser  
 165 170 175

Tyr Gly Leu Pro Val Ile Thr Thr Arg Gly Asn Asn Val Tyr Gly Pro  
 180 185 190

Asn Gln Phe Pro Glu Lys Leu Ile Pro Lys Phe Ile Leu Leu Ala Met  
 195 200 205

047-E2F-PCT.ST25.txt

Arg Gly Gln Val Leu Pro Ile His Gly Asp Gly Ser Asn Val Arg Ser  
210 215 220

Tyr Leu Tyr Cys Glu Asp Val Ala Glu Ala Phe Glu Val Val Leu His  
225 230 235 240

Lys Gly Glu Val Gly His Val Tyr Asn Ile Gly Thr Lys Lys Glu Arg  
245 250 255

Arg Val Asn Asp Val Ala Lys Asp Ile Cys Lys Leu Phe Asn Met Asp  
260 265 270

Pro Glu Ala Asn Ile Lys Phe Val Asp Asn Arg Pro Phe Asn Asp Gln  
275 280 285

Arg Tyr Phe Leu Asp Asp Gln Lys Leu Lys Lys Leu Gly Trp Ser Glu  
290 295 300

Arg Thr Thr Trp Glu Glu Gly Leu Lys Lys Thr Met Asp Trp Tyr Thr  
305 310 315 320

Gln Asn Pro Glu Trp Trp Gly Asp Val Ser Gly Ala Leu Leu Pro His  
325 330 335

Pro Arg Met Leu Met Met Pro Gly Gly Arg His Phe Asp Gly Ser Glu  
340 345 350

Asp Asn Ser Leu Ala Ala Thr Leu Ser Glu Lys Pro Ser Gln Thr His  
355 360 365

Met Val Val Pro Ser Gln Arg Ser Asn Gly Thr Pro Gln Lys Pro Ser  
370 375 380

Leu Lys Phe Leu Ile Tyr Gly Lys Thr Gly Trp Ile Gly Gly Leu Leu  
385 390 395 400

Gly Lys Ile Cys Asp Lys Gln Gly Ile Ala Tyr Glu Tyr Gly Lys Gly  
405 410 415

Arg Leu Glu Asp Arg Ser Ser Leu Leu Gln Asp Ile Gln Ser Val Lys  
420 425 430

Pro Thr His Val Phe Asn Ser Ala Gly Val Thr Gly Arg Pro Asn Val  
435 440 445

Asp Trp Cys Glu Ser His Lys Thr Glu Thr Ile Arg Ala Asn Val Ala

450

455

Gly Thr Leu Thr Leu Ala Asp Val Cys Arg Glu His Gly Leu Leu Met  
465 470 475 480

Met Asn Phe Ala Thr Gly Cys Ile Phe Glu Tyr Asp Asp Lys His Pro  
485 490 495

Glu Gly Ser Gly Ile Gly Phe Lys Glu Glu Asp Thr Pro Asn Phe Thr  
500 505 510

Gly Ser Phe Tyr Ser Lys Thr Lys Ala Met Val Glu Glu Leu Leu Lys  
515 520 525

Glu Tyr Asp Asn Val Cys Thr Leu Arg Val Arg Met Pro Ile Ser Ser  
530 535 540

Asp Leu Asn Asn Pro Arg Asn Phe Ile Thr Lys Ile Ser Arg Tyr Asn  
545 550 555 560

Lys Val Val Asn Ile Pro Asn Ser Met Thr Val Leu Asp Glu Leu Leu  
565 570 575

Pro Ile Ser Ile Glu Met Ala Lys Arg Asn Leu Lys Gly Ile Trp Asn  
580 585 590

Phe Thr Asn Pro Gly Val Val Ser His Asn Glu Ile Leu Glu Met Tyr  
595 600 605

Arg Asp Tyr Ile Asn Pro Glu Phe Lys Trp Ala Asn Phe Thr Leu Glu  
610 615 620

Glu Gln Ala Lys Val Ile Val Ala Pro Arg Ser Asn Asn Glu Met Asp  
625 630 635 640

Ala Ser Lys Leu Lys Lys Glu Phe Pro Glu Leu Leu Ser Ile Lys Glu  
645 650 655

Ser Leu Ile Lys Tyr Ala Tyr Gly Pro Asn Lys Lys Thr  
660 665

<210> 2373

<211> 1446

<212> DNA

<213> Arabidopsis thaliana

<400> 2373  
atggcttccg ctgccgcaag ttccgccttt tcactcctta agtccaccgg cgctgttgct 60  
tcctccgccg gaactcgcgc acgtgcctcc cttctgccaa ttccctctac ctctgtttcc 120  
gcgcgtcctc taggctttctc cgccactcta gattccccgtc gtttctctct ccacgttgct 180  
tccaaagttg aatcgggtgcg tgggaagggg agcagaggag tggtttctat ggcgaagaag 240  
agcgctcgag atctgacctc agctgatttg aaggggaaga aggttttctgt gagagctgat 300  
ctcaatgtac ctctcgatga taatcagact atcactgacg ataccagaat ccgtgccgcc 360  
attccaacga tcaagtatth gattgaaaat ggtgctaaag ttatcctctc cactcatctg 420  
ggaaggccaa agggagtcac cccaaagttt agtttggtct ctcttgctcc taggctctcc 480  
gagcttcttg gtattgaggt cacgaaagct gatgattgta ttggcccaga agtggaagc 540  
ttggtggctt ctctacctga aggtggagtt ttgcttcttg agaacgtcag gttttacaag 600  
gaggaagaga agaacgatcc tgagtttgct aagaagcttg cttctctagc tgacctttat 660  
gtcaatgatg ctttcggaac tgctcacaga gctcatgctt ctaccgaagg agtcactaag 720  
ttcttgaaagc cttcagttgc tggtttcctt ttgcaaaagg aactggacta cctagttggt 780  
gctgtttcaa acccaaagag accatttgca gccatagtgg gtggttccaa agtctcatcc 840  
aagattggag ttattgaatc gcttctggag aagtgtgata ttcttcttct tgggtggtgga 900  
atgatcttca cattctacaa ggcacagggg ctttcagttg gttcgtccct tgttgaagaa 960  
gacaagcttg aattggctac agaactcctt gccaaagcta aggccaaagg agtctctctt 1020  
ttgttgccaa cagatgttgt agttgctgac aagtttgctc ctgatgccaa cagcaagatt 1080  
gtgcctgcat caggcattga ggacggatgg atgggactgg acattgggtc agactctatc 1140  
aaaactttca acgaagctct ggacacaaca caaacagtca tttggaatgg acctatggga 1200  
gttttcgaga tggaaaagtt tgcggctgga acagaggcga tagcgaataa actagcagag 1260  
ctaagtgaaa aaggagtgc aacgataata ggaggaggag actcagtggc tgcagtggag 1320  
aaagtaggag tagcaggagt catgagtcac atctccactg gtggtggagc cagcttggag 1380  
ctgttggaag gaaaagtact tcccggtgtg atcgcccttg atgaagcaat ccagtcact 1440  
gttttag 1446

<210> 2374

<211> 481

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2374

```

Met Ala Ser Ala Ala Ala Ser Ser Ala Phe Ser Leu Leu Lys Ser Thr
1      5      10      15

Gly Ala Val Ala Ser Ser Ala Gly Thr Arg Ala Arg Ala Ser Leu Leu
20     25     30

Pro Ile Pro Ser Thr Ser Val Ser Ala Arg Pro Leu Gly Phe Ser Ala
35     40     45

Thr Leu Asp Ser Arg Arg Phe Ser Leu His Val Ala Ser Lys Val Glu
50     55     60

Ser Val Arg Gly Lys Gly Ser Arg Gly Val Val Ser Met Ala Lys Lys
65     70     75     80

Ser Val Gly Asp Leu Thr Ser Ala Asp Leu Lys Gly Lys Lys Val Phe
85     90     95

Val Arg Ala Asp Leu Asn Val Pro Leu Asp Asp Asn Gln Thr Ile Thr
100    105    110

Asp Asp Thr Arg Ile Arg Ala Ala Ile Pro Thr Ile Lys Tyr Leu Ile
115    120    125

Glu Asn Gly Ala Lys Val Ile Leu Ser Thr His Leu Gly Arg Pro Lys
130    135    140

Gly Val Thr Pro Lys Phe Ser Leu Ala Pro Leu Val Pro Arg Leu Ser
145    150    155    160

Glu Leu Leu Gly Ile Glu Val Thr Lys Ala Asp Asp Cys Ile Gly Pro
165    170    175

Glu Val Glu Ser Leu Val Ala Ser Leu Pro Glu Gly Gly Val Leu Leu
180    185    190

Leu Glu Asn Val Arg Phe Tyr Lys Glu Glu Glu Lys Asn Asp Pro Glu
195    200    205

Phe Ala Lys Lys Leu Ala Ser Leu Ala Asp Leu Tyr Val Asn Asp Ala
210    215    220

Phe Gly Thr Ala His Arg Ala His Ala Ser Thr Glu Gly Val Thr Lys
225    230    235    240

```



Phe Leu Lys Pro Ser Val Ala Gly Phe Leu Leu Gln Lys Glu Leu Asp  
 245 250 255  
 Tyr Leu Val Gly Ala Val Ser Asn Pro Lys Arg Pro Phe Ala Ala Ile  
 260 265 270  
 Val Gly Gly Ser Lys Val Ser Ser Lys Ile Gly Val Ile Glu Ser Leu  
 275 280 285  
 Leu Glu Lys Cys Asp Ile Leu Leu Leu Gly Gly Gly Met Ile Phe Thr  
 290 295 300  
 Phe Tyr Lys Ala Gln Gly Leu Ser Val Gly Ser Ser Leu Val Glu Glu  
 305 310 315 320  
 Asp Lys Leu Glu Leu Ala Thr Glu Leu Leu Ala Lys Ala Lys Ala Lys  
 325 330 335  
 Gly Val Ser Leu Leu Leu Pro Thr Asp Val Val Val Ala Asp Lys Phe  
 340 345 350  
 Ala Pro Asp Ala Asn Ser Lys Ile Val Pro Ala Ser Gly Ile Glu Asp  
 355 360 365  
 Gly Trp Met Gly Leu Asp Ile Gly Pro Asp Ser Ile Lys Thr Phe Asn  
 370 375 380  
 Glu Ala Leu Asp Thr Thr Gln Thr Val Ile Trp Asn Gly Pro Met Gly  
 385 390 395 400  
 Val Phe Glu Met Glu Lys Phe Ala Ala Gly Thr Glu Ala Ile Ala Asn  
 405 410 415  
 Lys Leu Ala Glu Leu Ser Glu Lys Gly Val Thr Thr Ile Ile Gly Gly  
 420 425 430  
 Gly Asp Ser Val Ala Ala Val Glu Lys Val Gly Val Ala Gly Val Met  
 435 440 445  
 Ser His Ile Ser Thr Gly Gly Gly Ala Ser Leu Glu Leu Leu Glu Gly  
 450 455 460  
 Lys Val Leu Pro Gly Val Ile Ala Leu Asp Glu Ala Ile Pro Val Thr  
 465 470 475 480  
 Val

&lt;210&gt; 2375

&lt;211&gt; 1413

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2375

```

atggcccaaa agctagaagc aaaggggtggt gagatgggag atgtatggga tgatgggtgtt    60
tacgaaaatg ttagaaaggt atatgtaggg caagcacaat acggtatagc cttcgtcaag    120
tttgagtatg tcaatgggtt tcaagtgggt gttggagatg aacatggaaa gaagacagag    180
ctaggagtgt aagagtttga gattgatgct gatgactaca tcgtatacgt ggaagggttac    240
cgtgagaaaag ttaacgatat gacgtcagaa atgatcacgt ttctttctat taagactttt    300
aaaggcaaaa cctctcatcc tatcgaaaaa agacctgggg ttaagtttgt gctacatgggt    360
ggaaaaatcg ttgggtttca cggacgttca acagatgttt tacactccct tggggcctat    420
gtttctttgt catccactat caaattgctt ggggaagtga ttaaggtgga gcaaaaagga    480
gaaggtccag ggctaagatg ctcacatggc atagcacaag taggcaacaa gatttactcc    540
tttggtggcg agttcacacc aaatcagccc atcgacaaac acctttacgt ctttgacctc    600
gagacccgga cttggtccat ttctccagcc accggagacg ttccacacct ctcttgttta    660
ggtgtccgga tgggtgtcagt aggatcgacc ctctatgtct ttggaggccg agacgcttca    720
cgccaataca acggttttcta ctcgtttgac acgaccacta acgagtggaa actgctaact    780
ccggtcgaag aaggaccac tcctcgtagt ttccactcaa tggcagccga tgaggaaaac    840
gtttacgttt tcggtggagt gagtgtctac gcacgactca atacactaga ctcttacaac    900
atcgttgata agaagtgggt tcattgttcg actccaggag attcccttac cgcaagagga    960
ggagcagggc tcgaagtgggt gcaagggaaag gtatggggtt tgatggggtt taacggatgt   1020
gaagtagatg atgttcatta ctacgatcct gttcaagaca agtggacaca agtggaaaca   1080
ttcgggtgtga ggccttccga aagaagtgtt ttcgctagtg cggctatttg gaaacacatt   1140
gtgatttttg gaggtgaaat tgcgatggac ccgctagctc acgtgggtcc aggtcaattg   1200
accgatggaa cttttgcatt ggacacagag acgttgcaat gggagaggct ggataagttt   1260
ggtggagagg aagagactcc gagtagcaga ggatggaccg cgtccacgac tgctaccatt   1320
gatggtaaga aaggacttgt gatgcatggt ggtaaagctc caaccaatga ccggtttgat   1380
gatctcttct ttacgggat tgactctgcc taa                                1413

```

&lt;210&gt; 2376

&lt;211&gt; 470

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2376

Met Ala Gln Lys Leu Glu Ala Lys Gly Gly Glu Met Gly Asp Val Trp  
 1 5 10 15

Asp Asp Gly Val Tyr Glu Asn Val Arg Lys Val Tyr Val Gly Gln Ala  
 20 25 30

Gln Tyr Gly Ile Ala Phe Val Lys Phe Glu Tyr Val Asn Gly Ser Gln  
 35 40 45

Val Val Val Gly Asp Glu His Gly Lys Lys Thr Glu Leu Gly Val Glu  
 50 55 60

Glu Phe Glu Ile Asp Ala Asp Asp Tyr Ile Val Tyr Val Glu Gly Tyr  
 65 70 75 80

Arg Glu Lys Val Asn Asp Met Thr Ser Glu Met Ile Thr Phe Leu Ser  
 85 90 95

Ile Lys Thr Phe Lys Gly Lys Thr Ser His Pro Ile Glu Lys Arg Pro  
 100 105 110

Gly Val Lys Phe Val Leu His Gly Gly Lys Ile Val Gly Phe His Gly  
 115 120 125

Arg Ser Thr Asp Val Leu His Ser Leu Gly Ala Tyr Val Ser Leu Ser  
 130 135 140

Ser Thr Ile Lys Leu Leu Gly Lys Trp Ile Lys Val Glu Gln Lys Gly  
 145 150 155 160

Glu Gly Pro Gly Leu Arg Cys Ser His Gly Ile Ala Gln Val Gly Asn  
 165 170 175

Lys Ile Tyr Ser Phe Gly Gly Glu Phe Thr Pro Asn Gln Pro Ile Asp  
 180 185 190

Lys His Leu Tyr Val Phe Asp Leu Glu Thr Arg Thr Trp Ser Ile Ser  
 195 200 205

Pro Ala Thr Gly Asp Val Pro His Leu Ser Cys Leu Gly Val Arg Met  
 Page 3389

210

215

Val Ser Val Gly Ser Thr Leu Tyr Val Phe Gly Gly Arg Asp Ala Ser  
225 230 235 240

Arg Gln Tyr Asn Gly Phe Tyr Ser Phe Asp Thr Thr Thr Asn Glu Trp  
245 250 255

Lys Leu Leu Thr Pro Val Glu Glu Gly Pro Thr Pro Arg Ser Phe His  
260 265 270

Ser Met Ala Ala Asp Glu Glu Asn Val Tyr Val Phe Gly Gly Val Ser  
275 280 285

Ala Thr Ala Arg Leu Asn Thr Leu Asp Ser Tyr Asn Ile Val Asp Lys  
290 295 300

Lys Trp Phe His Cys Ser Thr Pro Gly Asp Ser Leu Thr Ala Arg Gly  
305 310 315 320

Gly Ala Gly Leu Glu Val Val Gln Gly Lys Val Trp Val Val Tyr Gly  
325 330 335

Phe Asn Gly Cys Glu Val Asp Asp Val His Tyr Tyr Asp Pro Val Gln  
340 345 350

Asp Lys Trp Thr Gln Val Glu Thr Phe Gly Val Arg Pro Ser Glu Arg  
355 360 365

Ser Val Phe Ala Ser Ala Ala Ile Gly Lys His Ile Val Ile Phe Gly  
370 375 380

Gly Glu Ile Ala Met Asp Pro Leu Ala His Val Gly Pro Gly Gln Leu  
385 390 395 400

Thr Asp Gly Thr Phe Ala Leu Asp Thr Glu Thr Leu Gln Trp Glu Arg  
405 410 415

Leu Asp Lys Phe Gly Gly Glu Glu Glu Thr Pro Ser Ser Arg Gly Trp  
420 425 430

Thr Ala Ser Thr Thr Ala Thr Ile Asp Gly Lys Lys Gly Leu Val Met  
435 440 445

His Gly Gly Lys Ala Pro Thr Asn Asp Arg Phe Asp Asp Leu Phe Phe  
450 455 460

Tyr Gly Ile Asp Ser Ala  
465 470

<210> 2377

<211> 396

<212> DNA

<213> *Arabidopsis thaliana*

<400> 2377

```
atgtcgtggc aatcatacgt cgatgaccat ctcatgtgcg aggtcgaagg caaccacctc    60
acacacgccg ccattcttcgg ccaagacggc agtgtctggg ctgagagctc agctttccct    120
cagttgaagc ctgcagagat agcaggaatc aacaaagact ttgaagaagc cggacatctt    180
gccccaaaccg ggctattcct tggcgggtgag aagtacatgg ttgtccaagg tgaggctgga    240
gccgtcatcc gagggaaaaa gggacctggt ggagtcacta tcaagaagac tactcaagct    300
ctagtctttg gtatctatga tgaaccgatg accggagggc aatgcaactt ggtcgtggag    360
aggctcggcg attaccttat cgagtctggt ctctaa                                396
```

<210> 2378

<211> 131

<212> PRT

<213> *Arabidopsis thaliana*

<400> 2378

```
Met Ser Trp Gln Ser Tyr Val Asp Asp His Leu Met Cys Glu Val Glu
1          5          10          15

Gly Asn His Leu Thr His Ala Ala Ile Phe Gly Gln Asp Gly Ser Val
20          25          30

Trp Ala Gln Ser Ser Ala Phe Pro Gln Leu Lys Pro Ala Glu Ile Ala
35          40          45

Gly Ile Asn Lys Asp Phe Glu Glu Ala Gly His Leu Ala Pro Thr Gly
50          55          60

Leu Phe Leu Gly Gly Glu Lys Tyr Met Val Val Gln Gly Glu Ala Gly
65          70          75          80

Ala Val Ile Arg Gly Lys Lys Gly Pro Gly Gly Val Thr Ile Lys Lys
```

Thr Thr Gln Ala Leu Val Phe Gly Ile Tyr Asp Glu Pro Met Thr Gly  
 100 105 110

Gly Gln Cys Asn Leu Val Val Glu Arg Leu Gly Asp Tyr Leu Ile Glu  
 115 120 125

Ser Gly Leu  
 130

<210> 2379

<211> 1326

<212> DNA

<213> Arabidopsis thaliana

<400> 2379

```

atggattcaa cgaagcttag tgagctaaag gtcttcatcg atcaatgcaa gtctgaccct    60
tccctttctca ctactccttc actctccttc ttccgtgact atctcgagag tcttggtgct    120
aagataccta ctggtgtcca tgaagaagac aaagacacta agccgaggag tttcgtagtg    180
gaagagagtg atgatgatat ggatgaaact gaagaagtaa aaccgaaagt ggaggaagaa    240
gaagaagagg atgagattgt tgaatctgat gtagagcttg aaggagacac tgttgagcct    300
gataatgata ctcctcagaa gatgggggat tcatcagtgg aggtgactga tgagaatcgt    360
gaagctgctc aagaagctaa gggcaaagcc atggaggccc tttctgaagg aaactttgat    420
gaagcaattg agcatttaac tcgggcaata acgttgaacc cgacttcagc tattatgtat    480
ggaaacagag ctagtgtcta cattaagttg aagaagccaa acgctgctat tcgagatgca    540
aacgcagcat tggagattaa ccctgattct gccaaaggat acaagtcacg aggtatggct    600
cgtgccatgc ttggagaatg ggcagaggct gcaaaagacc ttcaccttgc atctacgata    660
gactatgatg aggaaattag tgctgttctc aaaaaggttg aacctaatgc acataagctt    720
gaggagcacc gtagaaagta tgacagatta cgtaaggaaa gagaggacaa aaaggctgaa    780
cgggatatag tacgtcgccg tgctgaagca caggctgcct atgataaagc taagaaagaa    840
gaacagtcac catctagcag accatcagga ggcgggtttcc caggaggtat gcccgggtgg    900
ttcccaggag gtatgcccgg tggattccca ggaggaatgg gaggcattgcc cggcggattc    960
ccgggaggaa tgggtggtat gggcgggtat cccgggtggat tcccaggagg aatgggagggt   1020
ggatatgcctg caggaatggg cggtggtatg cccggaatgg gcggtggtat gcctgctgga   1080
atgggtggtg gcggtatgcc aggtgcaggc ggtggtatgc ctggtggtgg cggtatgcct   1140

```

047-E2F-PCT.ST25.txt

ggtggtatgg acttcagcaa aatattgaat gatcctgagc taatgacggc atttagcgac 1200  
cctgaagtca tggctgctct tcaagatgtg atgaagaacc ctgcgaatct agcgaagcat 1260  
caggcgaatc cgaaggtggc tcccgtgatt gcaaagatga tgggcaaatt tgcaggacct 1320  
cagtaa 1326

<210> 2380

<211> 441

<212> PRT

<213> Arabidopsis thaliana

<400> 2380

Met Asp Ser Thr Lys Leu Ser Glu Leu Lys Val Phe Ile Asp Gln Cys  
1 5 10 15

Lys Ser Asp Pro Ser Leu Leu Thr Thr Pro Ser Leu Ser Phe Phe Arg  
20 25 30

Asp Tyr Leu Glu Ser Leu Gly Ala Lys Ile Pro Thr Gly Val His Glu  
35 40 45

Glu Asp Lys Asp Thr Lys Pro Arg Ser Phe Val Val Glu Glu Ser Asp  
50 55 60

Asp Asp Met Asp Glu Thr Glu Glu Val Lys Pro Lys Val Glu Glu Glu  
65 70 75 80

Glu Glu Glu Asp Glu Ile Val Glu Ser Asp Val Glu Leu Glu Gly Asp  
85 90 95

Thr Val Glu Pro Asp Asn Asp Pro Pro Gln Lys Met Gly Asp Ser Ser  
100 105 110

Val Glu Val Thr Asp Glu Asn Arg Glu Ala Ala Gln Glu Ala Lys Gly  
115 120 125

Lys Ala Met Glu Ala Leu Ser Glu Gly Asn Phe Asp Glu Ala Ile Glu  
130 135 140

His Leu Thr Arg Ala Ile Thr Leu Asn Pro Thr Ser Ala Ile Met Tyr  
145 150 155 160

Gly Asn Arg Ala Ser Val Tyr Ile Lys Leu Lys Lys Pro Asn Ala Ala  
Page 3393

Ile Arg Asp Ala Asn Ala Ala Leu Glu Ile Asn Pro Asp Ser Ala Lys  
180 185 190

Gly Tyr Lys Ser Arg Gly Met Ala Arg Ala Met Leu Gly Glu Trp Ala  
195 200 205

Glu Ala Ala Lys Asp Leu His Leu Ala Ser Thr Ile Asp Tyr Asp Glu  
210 215 220

Glu Ile Ser Ala Val Leu Lys Lys Val Glu Pro Asn Ala His Lys Leu  
225 230 235 240

Glu Glu His Arg Arg Lys Tyr Asp Arg Leu Arg Lys Glu Arg Glu Asp  
245 250 255

Lys Lys Ala Glu Arg Asp Arg Leu Arg Arg Arg Ala Glu Ala Gln Ala  
260 265 270

Ala Tyr Asp Lys Ala Lys Lys Glu Glu Gln Ser Ser Ser Ser Arg Pro  
275 280 285

Ser Gly Gly Gly Phe Pro Gly Gly Met Pro Gly Gly Phe Pro Gly Gly  
290 295 300

Met Pro Gly Gly Phe Pro Gly Gly Met Gly Gly Met Pro Gly Gly Phe  
305 310 315 320

Pro Gly Gly Met Gly Gly Met Gly Gly Met Pro Gly Gly Phe Pro Gly  
325 330 335

Gly Met Gly Gly Gly Met Pro Ala Gly Met Gly Gly Gly Met Pro Gly  
340 345 350

Met Gly Gly Gly Met Pro Ala Gly Met Gly Gly Gly Gly Met Pro Gly  
355 360 365

Ala Gly Gly Gly Met Pro Gly Gly Gly Gly Met Pro Gly Gly Met Asp  
370 375 380

Phe Ser Lys Ile Leu Asn Asp Pro Glu Leu Met Thr Ala Phe Ser Asp  
385 390 395 400

Pro Glu Val Met Ala Ala Leu Gln Asp Val Met Lys Asn Pro Ala Asn  
405 410 415



Leu Ala Lys His Gln Ala Asn Pro Lys Val Ala Pro Val Ile Ala Lys  
 420 425 430

Met Met Gly Lys Phe Ala Gly Pro Gln  
 435 440

<210> 2381

<211> 948

<212> DNA

<213> Arabidopsis thaliana

<400> 2381

atggacaaca atggagttaa acccgctggt tccgccatgg aagcctttga aaagcttgag	60
aaagtaggtg aagggactta tgggaaagtt tacagagcaa gagagaaagc tactgggatg	120
atcgttgctt tgaagaagac gcgtctccat gaggatgaag aaggtgttcc tcccactact	180
cttcgcgaga tctctatctt gcgtatgctc gctcgtgatc ctcacatcgt taggttgatg	240
gatgttaagc aaggaataaa caaagaagga aaaactgtac ttaccttgt tttcgagtat	300
gttgatactg atctcaagaa attcatcaga agctttcgtc aagctggaca gaacattcca	360
caaaatactg tcaagtgctt gatgtaccag ttatgcaaag gcatggcttt ttgccatggt	420
catggagtgt tgcacaggga tcttaagcct cacaatctct tgatggaccg gaagacaatg	480
acgctcaaaa tagcagatct tggattagcc agagccttca ctctcccaat gaaaaagtat	540
acacatgaga ttctaactct atggtataga gctccggaag ttcttcttgg agcaacccat	600
tactctactg gagtggatat gtggtctggt ggctgtatct ttgctgaact agtgaccaag	660
caagcaatct ttgcgggaga ctctgagctc caacagctcc tccgtatatt caggttgttg	720
ggaacaccaa acgaagaagt ttggcctgga gtaagcaaac tcaaggactg gcatgaatac	780
ccgcaatgga aaccgttgag tctctccaca gctgtgccaa acctcgacga ggctggactt	840
gatctcttat ctaaaatgct ggagtacgag ccagcaaaac gaatctcagc aaagaaagct	900
atggagcatc cttacttcga tgatttgctt gacaagtcct ctctctga	948

<210> 2382

<211> 315

<212> PRT

<213> Arabidopsis thaliana

<400> 2382

## 047-E2F-PCT.ST25.txt

Met Asp Asn Asn Gly Val Lys Pro Ala Val Ser Ala Met Glu Ala Phe  
 1 5 10 15  
 Glu Lys Leu Glu Lys Val Gly Glu Gly Thr Tyr Gly Lys Val Tyr Arg  
 20 25 30  
 Ala Arg Glu Lys Ala Thr Gly Met Ile Val Ala Leu Lys Lys Thr Arg  
 35 40 45  
 Leu His Glu Asp Glu Glu Gly Val Pro Pro Thr Thr Leu Arg Glu Ile  
 50 55 60  
 Ser Ile Leu Arg Met Leu Ala Arg Asp Pro His Ile Val Arg Leu Met  
 65 70 75 80  
 Asp Val Lys Gln Gly Ile Asn Lys Glu Gly Lys Thr Val Leu Tyr Leu  
 85 90 95  
 Val Phe Glu Tyr Val Asp Thr Asp Leu Lys Lys Phe Ile Arg Ser Phe  
 100 105 110  
 Arg Gln Ala Gly Gln Asn Ile Pro Gln Asn Thr Val Lys Cys Leu Met  
 115 120 125  
 Tyr Gln Leu Cys Lys Gly Met Ala Phe Cys His Gly His Gly Val Leu  
 130 135 140  
 His Arg Asp Leu Lys Pro His Asn Leu Leu Met Asp Arg Lys Thr Met  
 145 150 155 160  
 Thr Leu Lys Ile Ala Asp Leu Gly Leu Ala Arg Ala Phe Thr Leu Pro  
 165 170 175  
 Met Lys Lys Tyr Thr His Glu Ile Leu Thr Leu Trp Tyr Arg Ala Pro  
 180 185 190  
 Glu Val Leu Leu Gly Ala Thr His Tyr Ser Thr Gly Val Asp Met Trp  
 195 200 205  
 Ser Val Gly Cys Ile Phe Ala Glu Leu Val Thr Lys Gln Ala Ile Phe  
 210 215 220  
 Ala Gly Asp Ser Glu Leu Gln Gln Leu Leu Arg Ile Phe Arg Leu Leu  
 225 230 235 240  
 Gly Thr Pro Asn Glu Glu Val Trp Pro Gly Val Ser Lys Leu Lys Asp  
 245 250 255

047-E2F-PCT.ST25.txt

Trp His Glu Tyr Pro Gln Trp Lys Pro Leu Ser Leu Ser Thr Ala Val  
260 265 270

Pro Asn Leu Asp Glu Ala Gly Leu Asp Leu Leu Ser Lys Met Leu Glu  
275 280 285

Tyr Glu Pro Ala Lys Arg Ile Ser Ala Lys Lys Ala Met Glu His Pro  
290 295 300

Tyr Phe Asp Asp Leu Pro Asp Lys Ser Ser Leu  
305 310 315

<210> 2383

<211> 477

<212> DNA

<213> Arabidopsis thaliana

<400> 2383

atggcggcta aactaatctg ttcgtcttta acagtgcatt caatggcaaa taagaagcca	60
tcaccttctg ctgcaacaag aacaataacc tcaaagaaga gcacagcgac tccacaggtg	120
aaactgctga caagagtcga gcagctcaag cttctgacca aagccgagaa agcaggactt	180
ttgtcttttag cagagaaatc aggtttctct ctatcgacca tcgagcgtct tggattgctg	240
accaaagcag aggagttcgg cgttttgtct gccgccacaa acccggaac gcctggaacg	300
ttattcactt tgagcctcgg ttacttcctt cttggaccgg tttttgcata tgtggttcct	360
gaagattaca cttgggaagt agtgattcag gttcttgtgg ctctactctc tgttcttggt	420
ggctctgctg cttttgctgc ttctggtttt gtctccaatt tgcagaaatc tgattag	477

<210> 2384

<211> 158

<212> PRT

<213> Arabidopsis thaliana

<400> 2384

Met Ala Ala Lys Leu Ile Cys Ser Ser Leu Thr Val His Ser Met Ala  
1 5 10 15

Asn Lys Lys Pro Ser Pro Ser Ala Ala Thr Arg Thr Ile Thr Ser Lys  
Page 3397

20

25

30

Lys Ser Thr Ala Thr Pro Gln Val Lys Leu Leu Thr Arg Val Glu Gln  
 35 40 45

Leu Lys Leu Leu Thr Lys Ala Glu Lys Ala Gly Leu Leu Ser Leu Ala  
 50 55 60

Glu Lys Ser Gly Phe Ser Leu Ser Thr Ile Glu Arg Leu Gly Leu Leu  
 65 70 75 80

Thr Lys Ala Glu Glu Phe Gly Val Leu Ser Ala Ala Thr Asn Pro Glu  
 85 90 95

Thr Pro Gly Thr Leu Phe Thr Leu Ser Leu Gly Leu Leu Leu Leu Gly  
 100 105 110

Pro Val Phe Ala Tyr Val Val Pro Glu Asp Tyr Thr Trp Glu Val Val  
 115 120 125

Ile Gln Val Leu Val Ala Leu Leu Ser Val Leu Gly Gly Ser Ala Ala  
 130 135 140

Phe Ala Ala Ser Gly Phe Val Ser Asn Leu Gln Lys Ser Asp  
 145 150 155

&lt;210&gt; 2385

&lt;211&gt; 255

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2385

atggtgctcc aaaacgacat cgatctcctt catccgccac ctgagcttga gaagagaaag 60

cataagctca agcgtctcgt gcaatctccc aactccttct tcatggatgt taagtgtcag 120

ggatgcttca acataaccac tgtgttcagc cattctcaaa ctgttggtgt atgtggaaac 180

tgtcagacag ttctgtgccca gccacccggt ggtaaagcga ggctacaaga gggatgctct 240

ttcaggaaga agtga 255

&lt;210&gt; 2386

&lt;211&gt; 84

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2386

Met Val Leu Gln Asn Asp Ile Asp Leu Leu His Pro Pro Pro Glu Leu  
 1 5 10 15

Glu Lys Arg Lys His Lys Leu Lys Arg Leu Val Gln Ser Pro Asn Ser  
 20 25 30

Phe Phe Met Asp Val Lys Cys Gln Gly Cys Phe Asn Ile Thr Thr Val  
 35 40 45

Phe Ser His Ser Gln Thr Val Val Val Cys Gly Asn Cys Gln Thr Val  
 50 55 60

Leu Cys Gln Pro Thr Gly Gly Lys Ala Arg Leu Gln Glu Gly Cys Ser  
 65 70 75 80

Phe Arg Lys Lys

&lt;210&gt; 2387

&lt;211&gt; 495

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2387

atgtctacgt tcagcggcga tgaaacagct cccttcttcg gcttcctcgg cgctgcagcc 60  
 gcactcgttt tctcctgtat gggagctgct tatggaaccg caaagagtgg tgttggtgtg 120  
 gcttctatgg gagttatgag acctgagttg gtgatgaaat ctattgtccc tgttggtatg 180  
 gctggagtgt tgggtatcta tggattgata attgctgtta tcatcagtac cgggattaac 240  
 cccaaggcta agtcttacta cctctttgat ggatacgcac atctctcgtc tggctcttgct 300  
 tgttggctcttg ctggtctctc agctggaatg gccattggga ttgttggtga tgccggtgtc 360  
 agggcaaattg ctcagcagcc taagctcttt gttgggatga ttcttatacct tattttcgca 420  
 gaagcgcttg ctctttacgg gcttattgta ggaatcattc tttcctcacg agctggccag 480  
 tctagagctg aatga 495

&lt;210&gt; 2388

&lt;211&gt; 164

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2388

Met Ser Thr Phe Ser Gly Asp Glu Thr Ala Pro Phe Phe Gly Phe Leu  
 1 5 10 15

Gly Ala Ala Ala Ala Leu Val Phe Ser Cys Met Gly Ala Ala Tyr Gly  
 20 25 30

Thr Ala Lys Ser Gly Val Gly Val Ala Ser Met Gly Val Met Arg Pro  
 35 40 45

Glu Leu Val Met Lys Ser Ile Val Pro Val Val Met Ala Gly Val Leu  
 50 55 60

Gly Ile Tyr Gly Leu Ile Ile Ala Val Ile Ile Ser Thr Gly Ile Asn  
 65 70 75 80

Pro Lys Ala Lys Ser Tyr Tyr Leu Phe Asp Gly Tyr Ala His Leu Ser  
 85 90 95

Ser Gly Leu Ala Cys Gly Leu Ala Gly Leu Ser Ala Gly Met Ala Ile  
 100 105 110

Gly Ile Val Gly Asp Ala Gly Val Arg Ala Asn Ala Gln Gln Pro Lys  
 115 120 125

Leu Phe Val Gly Met Ile Leu Ile Leu Ile Phe Ala Glu Ala Leu Ala  
 130 135 140

Leu Tyr Gly Leu Ile Val Gly Ile Ile Leu Ser Ser Arg Ala Gly Gln  
 145 150 155 160

Ser Arg Ala Glu

&lt;210&gt; 2389

&lt;211&gt; 768

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

047-E2F-PCT.ST25.txt

<400> 2389  
atgggagttt tagtaatctc gcttctcgtg gttcatctcc tagctttttc cgtctgcgtt 60  
cagggcggct accgtcgtgg cggacacccat cccggcggtc acatgggacc ttggatcaac 120  
gctcatgccca ctttttacgg cggcgggtgat gcttccggca ctatgggtgg agcatgcggg 180  
tacggcaatc tgtatagcca aggttatgga ctggagacgg cagcgctgag cacagcgтта 240  
ttcgaccaag gacttagttg tggcgcgatgt tttgagctga tgtgtgtcaa cgatcctcaa 300  
tggtgcataa aaggccgatc cattgtgggtc actgccacta acttttgtcc tcctgggtgg 360  
gcatgcgacc ctcccaacca ccatttcgat ctttctcagc cgatctacga gaaaattgct 420  
ctctacaaat cgggtatcat tcccgttatg tatagaaggg ttcggtgcaa gagaagtgg 480  
gggataaggt tcacgatcaa cggccactca tactttaact tggtgttggt cacaacgtg 540  
ggtggagccg gggacgtaca ctcggtctca atgaaagggt cgaggacaaa atggcaatta 600  
atgtcgagaa attgggggca aaattggcaa agcaactctt atctcaatgg tcaaagtctg 660  
tcgtttgttg ttaccacaag tgatcgtcga agtgtcgtct cttttaatgt tgcaccaccc 720  
acttggtcct ttggccagac ctacaccgga gggcagtttc ggtattaa 768

<210> 2390

<211> 255

<212> PRT

<213> *Arabidopsis thaliana*

<400> 2390

Met Gly Val Leu Val Ile Ser Leu Leu Val Val His Leu Leu Ala Phe  
1 5 10 15  
Ser Val Cys Val Gln Gly Gly Tyr Arg Arg Gly Gly His His Pro Gly  
20 25 30  
Gly His Met Gly Pro Trp Ile Asn Ala His Ala Thr Phe Tyr Gly Gly  
35 40 45  
Gly Asp Ala Ser Gly Thr Met Gly Gly Ala Cys Gly Tyr Gly Asn Leu  
50 55 60  
Tyr Ser Gln Gly Tyr Gly Leu Glu Thr Ala Ala Leu Ser Thr Ala Leu  
65 70 75 80  
Phe Asp Gln Gly Leu Ser Cys Gly Ala Cys Phe Glu Leu Met Cys Val  
85 90 95

047-E2F-PCT.ST25.txt

Asn Asp Pro Gln Trp Cys Ile Lys Gly Arg Ser Ile Val Val Thr Ala  
100 105 110

Thr Asn Phe Cys Pro Pro Gly Gly Ala Cys Asp Pro Pro Asn His His  
115 120 125

Phe Asp Leu Ser Gln Pro Ile Tyr Glu Lys Ile Ala Leu Tyr Lys Ser  
130 135 140

Gly Ile Ile Pro Val Met Tyr Arg Arg Val Arg Cys Lys Arg Ser Gly  
145 150 155 160

Gly Ile Arg Phe Thr Ile Asn Gly His Ser Tyr Phe Asn Leu Val Leu  
165 170 175

Val Thr Asn Val Gly Gly Ala Gly Asp Val His Ser Val Ser Met Lys  
180 185 190

Gly Ser Arg Thr Lys Trp Gln Leu Met Ser Arg Asn Trp Gly Gln Asn  
195 200 205

Trp Gln Ser Asn Ser Tyr Leu Asn Gly Gln Ser Leu Ser Phe Val Val  
210 215 220

Thr Thr Ser Asp Arg Arg Ser Val Val Ser Phe Asn Val Ala Pro Pro  
225 230 235 240

Thr Trp Ser Phe Gly Gln Thr Tyr Thr Gly Gly Gln Phe Arg Tyr  
245 250 255

<210> 2391

<211> 594

<212> DNA

<213> Arabidopsis thaliana

<400> 2391

atgcctatga agtcgttgag gaatgaccat ggaaccctta aggccatgat cggatccgat	60
ttcaacgagc tcactatcgc tgctaagaac ctagctacac acgccttcac actcactggt	120
ttaggctttg gtacctctgt cctcgaatgg gttgcttcaa tcgccgccat atacttgttg	180
gtgttgatc gaaccaattg gaagacgaat atgctcacat cacttctcat tccttacatc	240
ttcttcagtc ttccttcctt gatctttggt attttcagag gagaaattgg taaatggatt	300
gctttcgtag ctgttggtgt acaactcttc tttcctaaac acgccagaga atacctggaa	360



047-E2F-PCT.ST25.txt

ttaccggtgg ctttggttct tctcgccgtg gtggcaccaa atttgattgc tggcacattc 420  
agagacagtt ggattggttt agctatatgt ttaggtattg gatgttactt gcttcaagaa 480  
cacattagag cttcaggtgg attcagaaat gcatttacta aagccaatgg tatctccaac 540  
accgtcggga tcatctgtct cgtcgtcttc cccgtctggg ctcttatctt ttaa 594

<210> 2392

<211> 197

<212> PRT

<213> Arabidopsis thaliana

<400> 2392

Met Pro Met Lys Ser Leu Arg Asn Asp His Gly Thr Leu Lys Ala Met  
1 5 10 15

Ile Gly Ser Asp Phe Asn Glu Leu Thr Ile Ala Ala Lys Asn Leu Ala  
20 25 30

Thr His Ala Phe Thr Leu Thr Gly Leu Gly Phe Gly Thr Ser Val Leu  
35 40 45

Glu Trp Val Ala Ser Ile Ala Ala Ile Tyr Leu Leu Val Leu Asp Arg  
50 55 60

Thr Asn Trp Lys Thr Asn Met Leu Thr Ser Leu Leu Ile Pro Tyr Ile  
65 70 75 80

Phe Phe Ser Leu Pro Ser Leu Ile Phe Gly Ile Phe Arg Gly Glu Ile  
85 90 95

Gly Lys Trp Ile Ala Phe Val Ala Val Val Val Gln Leu Phe Phe Pro  
100 105 110

Lys His Ala Arg Glu Tyr Leu Glu Leu Pro Val Ala Leu Val Leu Leu  
115 120 125

Ala Val Val Ala Pro Asn Leu Ile Ala Gly Thr Phe Arg Asp Ser Trp  
130 135 140

Ile Gly Leu Ala Ile Cys Leu Gly Ile Gly Cys Tyr Leu Leu Gln Glu  
145 150 155 160

His Ile Arg Ala Ser Gly Gly Phe Arg Asn Ala Phe Thr Lys Ala Asn  
Page 3403

165

175

Gly Ile Ser Asn Thr Val Gly Ile Ile Cys Leu Val Val Phe Pro Val  
180 185 190

Trp Ala Leu Ile Phe  
195

<210> 2393

<211> 1389

<212> DNA

<213> Arabidopsis thaliana

<400> 2393

atggcgagag ttctagtctc gtctccatct tcattcttcg gttcaccgtt gattaaaccg	60
tcgtcatctc tccgtcacag tggagtagga ggaggaggaa ccgctcaatt tcttccatac	120
cggagtaata ataacaaact cttcactact tcaaccaccg tacgattcag cttaaaccgag	180
attcctcctt tccatggcct ggattcatct gtagacatcg gagcgatttt caccagagct	240
gaatctcttc tctatacaat agctgacgcc gccgttggtg gtgctgattc cgtcgttaact	300
actgattcat ccgccgtgca gaagagtggg gggttggttg gttttatctc cgatgctatg	360
gaattgggtc ttaagatttt gaaggatgga ttatcagcgg ttcattgtacc ttatgcttat	420
ggatttgcca ttatcttgct tacgattatc gtcaaagcag cgacgtatcc ttgactaag	480
caacagggtg aatcaacact agcgatgcaa aatcttcaac cgaaaatcaa agcgattcaa	540
caacgttacg caggaaatca ggagaggata caactagaga catcgcgatt gtataaacia	600
gctggtgtta atccgttggc aggttgctta ccaactttag caaccatacc agtttggtt	660
ggtttatacc aagctctctc taacgtggcc aacgagggat tgtttacaga aggtttcttt	720
tggattccat ctctgggtgg accaacatct atagctgctc ggcagagtgg atccggcatt	780
tcgtggcttt ttccgtttgt ggacgggcat ccaccattgg gatggtatga cactgtagct	840
tatcttggtc tacctgttct acttattgcc tcccagtatg tgtcaatgga aattatgaag	900
cctcctcaaa ctgatgatcc tgcacagaag aatacgcttc ttgttttcaa gtttcttcca	960
ctcatgatcg gttactttgc attgtctgtc ccatcaggac tatctattta ctggctcaca	1020
aataatgtac ttagtaccgc ccaacaagta tatctgcgta aactaggtgg tgcaaagcca	1080
aatatggatg aaaacgcaag caaaataata agtgcgggac gagcaaagag atctattgct	1140
cagcctgacg atgctggcga aagatttaga caattaaaag agcaagagaa gcgcagcaag	1200
aagaacaagg cggttgcgaa agatacagtt gaattggtag aagaatctca gtctgaatca	1260

047-E2F-PCT.ST25.txt

gaagaaggggt ctgatgatga ggaagaagag gctcgtgaag gagcgtttagc ttcgagcaca 1320  
acaagcaagc cgcttcctga ggttggccaa cgaagaagca aaagatcgaa gcggaaacgc 1380  
actgtatatag 1389

<210> 2394

<211> 462

<212> PRT

<213> Arabidopsis thaliana

<400> 2394

Met Ala Arg Val Leu Val Ser Ser Pro Ser Ser Phe Phe Gly Ser Pro  
1 5 10 15  
Leu Ile Lys Pro Ser Ser Ser Leu Arg His Ser Gly Val Gly Gly Gly  
20 25 30  
Gly Thr Ala Gln Phe Leu Pro Tyr Arg Ser Asn Asn Asn Lys Leu Phe  
35 40 45  
Thr Thr Ser Thr Thr Val Arg Phe Ser Leu Asn Glu Ile Pro Pro Phe  
50 55 60  
His Gly Leu Asp Ser Ser Val Asp Ile Gly Ala Ile Phe Thr Arg Ala  
65 70 75 80  
Glu Ser Leu Leu Tyr Thr Ile Ala Asp Ala Ala Val Val Gly Ala Asp  
85 90 95  
Ser Val Val Thr Thr Asp Ser Ser Ala Val Gln Lys Ser Gly Gly Trp  
100 105 110  
Phe Gly Phe Ile Ser Asp Ala Met Glu Leu Val Leu Lys Ile Leu Lys  
115 120 125  
Asp Gly Leu Ser Ala Val His Val Pro Tyr Ala Tyr Gly Phe Ala Ile  
130 135 140  
Ile Leu Leu Thr Ile Ile Val Lys Ala Ala Thr Tyr Pro Leu Thr Lys  
145 150 155 160  
Gln Gln Val Glu Ser Thr Leu Ala Met Gln Asn Leu Gln Pro Lys Ile  
165 170 175

047-E2F-PCT.ST25.txt

Lys Ala Ile Gln Gln Arg Tyr Ala Gly Asn Gln Glu Arg Ile Gln Leu  
 180 185 190  
 Glu Thr Ser Arg Leu Tyr Lys Gln Ala Gly Val Asn Pro Leu Ala Gly  
 195 200 205  
 Cys Leu Pro Thr Leu Ala Thr Ile Pro Val Trp Ile Gly Leu Tyr Gln  
 210 215 220  
 Ala Leu Ser Asn Val Ala Asn Glu Gly Leu Phe Thr Glu Gly Phe Phe  
 225 230 235 240  
 Trp Ile Pro Ser Leu Gly Gly Pro Thr Ser Ile Ala Ala Arg Gln Ser  
 245 250 255  
 Gly Ser Gly Ile Ser Trp Leu Phe Pro Phe Val Asp Gly His Pro Pro  
 260 265 270  
 Leu Gly Trp Tyr Asp Thr Val Ala Tyr Leu Val Leu Pro Val Leu Leu  
 275 280 285  
 Ile Ala Ser Gln Tyr Val Ser Met Glu Ile Met Lys Pro Pro Gln Thr  
 290 295 300  
 Asp Asp Pro Ala Gln Lys Asn Thr Leu Leu Val Phe Lys Phe Leu Pro  
 305 310 315 320  
 Leu Met Ile Gly Tyr Phe Ala Leu Ser Val Pro Ser Gly Leu Ser Ile  
 325 330 335  
 Tyr Trp Leu Thr Asn Asn Val Leu Ser Thr Ala Gln Gln Val Tyr Leu  
 340 345 350  
 Arg Lys Leu Gly Gly Ala Lys Pro Asn Met Asp Glu Asn Ala Ser Lys  
 355 360 365  
 Ile Ile Ser Ala Gly Arg Ala Lys Arg Ser Ile Ala Gln Pro Asp Asp  
 370 375 380  
 Ala Gly Glu Arg Phe Arg Gln Leu Lys Glu Gln Glu Lys Arg Ser Lys  
 385 390 395 400  
 Lys Asn Lys Ala Val Ala Lys Asp Thr Val Glu Leu Val Glu Glu Ser  
 405 410 415  
 Gln Ser Glu Ser Glu Glu Gly Ser Asp Asp Glu Glu Glu Glu Ala Arg  
 420 425 430

Glu Gly Ala Leu Ala Ser Ser Thr Thr Ser Lys Pro Leu Pro Glu Val  
435 440 445

Gly Gln Arg Arg Ser Lys Arg Ser Lys Arg Lys Arg Thr Val  
450 455 460

<210> 2395

<211> 828

<212> DNA

<213> Arabidopsis thaliana

<400> 2395

atgacggaag tgattagcaa aacgagtttg ttcttaggag cttgtggtaa tcatcaccgt	60
gttgatgatt tctctttctc tccggtgagt tttggtgggt ttggtttgaa aaagagtttc	120
tcttgtctga agcttaagag tcagaagcct cttagaagtg tattttacgg aaaacagatc	180
gttttcggag atttctcaaga cgagagcttc agaagatcat cagctatcac agctcagaca	240
actttgagga ttgggacagc tcagaagtgg tgggagaaag gtctgaaaga taacatgaga	300
gagatctctt cagctcaaga gctcgttgat tctcttacta acgctggtga taagcttggt	360
gttggtgatt tcttctcacc tggctgtggt ggctgcaagg ctctccatcc taagatatgt	420
cagtttgcag agatgaaccc ggatgtgcag tttcttcagg tgaattacga ggagcataag	480
tccatgtggt atagtcttg tgtccatggt ctcccttttt tccgattcta ccgtggctct	540
cagggctcgtg ttgacagctt tagctgtacc aatgccacga tcaagaaatt cagagatgcc	600
ttggcaaagc atggtccaga taggtgcagc ctcggaccga ccaaaggcct tgaagagaaa	660
gagcttgtgg cacttgcagc caacaaagaa ctcaacttta cttacacacc aaagcctgta	720
ccagttgaga aagaagcagc cactcctgat tcaaacccaa gtctccctgt tcctcttcct	780
tcgatgagct ccaatgacga aaaaacattg gtctccgcag ggagatga	828

<210> 2396

<211> 275

<212> PRT

<213> Arabidopsis thaliana

<400> 2396

Met Thr Glu Val Ile Ser Lys Thr Ser Leu Phe Leu Gly Ala Cys Gly  
Page 3407

1		5												15	
Asn	His	His	Arg	Val	Asp	Asp	Phe	Ser	Phe	Ser	Pro	Val	Ser	Phe	Gly
			20					25					30		
Gly	Phe	Gly	Leu	Lys	Lys	Ser	Phe	Ser	Cys	Leu	Lys	Leu	Lys	Ser	Gln
		35					40					45			
Lys	Pro	Leu	Arg	Ser	Val	Phe	Tyr	Gly	Lys	Gln	Ile	Val	Phe	Gly	Asp
	50					55					60				
Ser	Gln	Asp	Glu	Ser	Phe	Arg	Arg	Ser	Ser	Ala	Ile	Thr	Ala	Gln	Thr
65					70					75					80
Thr	Leu	Arg	Ile	Gly	Thr	Ala	Gln	Lys	Trp	Trp	Glu	Lys	Gly	Leu	Lys
				85					90					95	
Asp	Asn	Met	Arg	Glu	Ile	Ser	Ser	Ala	Gln	Glu	Leu	Val	Asp	Ser	Leu
			100					105					110		
Thr	Asn	Ala	Gly	Asp	Lys	Leu	Val	Val	Val	Asp	Phe	Phe	Ser	Pro	Gly
		115					120					125			
Cys	Gly	Gly	Cys	Lys	Ala	Leu	His	Pro	Lys	Ile	Cys	Gln	Phe	Ala	Glu
	130					135					140				
Met	Asn	Pro	Asp	Val	Gln	Phe	Leu	Gln	Val	Asn	Tyr	Glu	Glu	His	Lys
145					150					155					160
Ser	Met	Cys	Tyr	Ser	Leu	Gly	Val	His	Val	Leu	Pro	Phe	Phe	Arg	Phe
				165					170					175	
Tyr	Arg	Gly	Ser	Gln	Gly	Arg	Val	Cys	Ser	Phe	Ser	Cys	Thr	Asn	Ala
			180					185					190		
Thr	Ile	Lys	Lys	Phe	Arg	Asp	Ala	Leu	Ala	Lys	His	Gly	Pro	Asp	Arg
		195					200					205			
Cys	Ser	Leu	Gly	Pro	Thr	Lys	Gly	Leu	Glu	Glu	Lys	Glu	Leu	Val	Ala
	210					215					220				
Leu	Ala	Ala	Asn	Lys	Glu	Leu	Asn	Phe	Thr	Tyr	Thr	Pro	Lys	Pro	Val
225					230					235					240
Pro	Val	Glu	Lys	Glu	Ala	Ala	Thr	Pro	Asp	Ser	Asn	Pro	Ser	Leu	Pro
				245					250					255	

047-E2F-PCT.ST25.txt  
Val Pro Leu Pro Ser Met Ser Ser Asn Asp Glu Lys Thr Leu Val Ser  
260 265 270

Ala Gly Arg  
275

<210> 2397

<211> 423

<212> DNA

<213> Arabidopsis thaliana

<400> 2397  
atggcagcaa catttgcaac accatcgacg gtgataggcc tcggaggatc atccatcacc 60  
accaaaccct tctcttcatc ctttttaaaa ccaacattaa gcgccaagaa ccctttgaga 120  
ctcgccggtg catcgggagg aagagtcact tgctttgaga ggaactgggtt gaggagagat 180  
ttgaacgtgg taggatttgg gctgacgga tggctagctc cgtcgagcat tccagcgata 240  
aatgggaaga gcctgacggg tctcttcttc gatagcatcg gaactgagct cgctcacttc 300  
ccgactcctc cagctctcac ttcacagtcc tggttgtggt tggttacgtg gcacttaggc 360  
ctcttcctct gcctcacttt cggacaaatc ggattcaagg gcaggactga agattacttc 420  
taa 423

<210> 2398

<211> 140

<212> PRT

<213> Arabidopsis thaliana

<400> 2398

Met Ala Ala Thr Phe Ala Thr Pro Ser Thr Val Ile Gly Leu Gly Gly  
1 5 10 15  
Ser Ser Ile Thr Thr Lys Pro Phe Ser Ser Ser Phe Leu Lys Pro Thr  
20 25 30  
Leu Ser Ala Lys Asn Pro Leu Arg Leu Ala Gly Ala Ser Gly Gly Arg  
35 40 45  
Val Thr Cys Phe Glu Arg Asn Trp Leu Arg Arg Asp Leu Asn Val Val  
50 55 60

047-E2F-PCT.ST25.txt

Gly Phe Gly Leu Ile Gly Trp Leu Ala Pro Ser Ser Ile Pro Ala Ile  
65 70 75 80

Asn Gly Lys Ser Leu Thr Gly Leu Phe Phe Asp Ser Ile Gly Thr Glu  
85 90 95

Leu Ala His Phe Pro Thr Pro Pro Ala Leu Thr Ser Gln Phe Trp Leu  
100 105 110

Trp Leu Val Thr Trp His Leu Gly Leu Phe Leu Cys Leu Thr Phe Gly  
115 120 125

Gln Ile Gly Phe Lys Gly Arg Thr Glu Asp Tyr Phe  
130 135 140

<210> 2399

<211> 1533

<212> DNA

<213> Arabidopsis thaliana

<400> 2399

atgttgtgga tcaaaaacct agcaagaatc tcgcagacca cttcttcgtc tgtcggaaac	60
gtgttcagaa accccgaatc ctacactctc tcgtcccggt tctgcaccgc tctgcaaaag	120
caacaagtaa cgcacacggt tcaagcaaag gaggatgtag ttaatgcgtt ggagccacaa	180
cgttacgacg gtttggctcc gacgaaagag ggagagaagc cgagagtttt gggtctcggg	240
tcgggttggt cgggttggtc ggtattaaaa gggatcgata ctagtattta cgacgtcggt	300
tgtgtctctc ctaggaacca catggtcttc actcctctct tggcttctac ttgcgttggt	360
acgcttgagt ttaggtctgt tgctgaacca atctctcgta tccaaccggc gatttcacga	420
gaaccgggtt cttattactt ctttgcta attgctccaaac ttgatgctga taatcatgag	480
gtgcattgtg agactgtaac tgaggggtct agcacattga agccatggaa gttcaagata	540
gcttatgaca aactggtact agcttggtgt gcagaagcat ccacatttgg aattaatggc	600
gtcttagaaa acgccatttt cctccgtgag gttcaccacg ctcaggagat ccgtaggaag	660
cttcttctta acctcatgct ctctgaagtt ccaggcatag gtgaagatga gaagaagagg	720
ctgttgcatc gcgttggtgt tggaggtggg ccaactggtg ttgagtttag tgggtgaattg	780
agtgatttca tcatgaaaga tggttcgtcag agatattctc atgtgaaaga cgacattcgt	840
gttactctga ttgaggcaag ggatatactt tcttcttttg acgatcggct aaggcactat	900
gcaatcaagc agttaaacia gtctggagtg aagcttgtgc gtgggattgt gaaagaagtg	960



047-E2F-PCT.ST25.txt

aagcctcaga agctaatacct tgatgatggc actgaagttc cttacggtcc cttagtctgg 1020  
tcaactggtg ttggtccatc ttcatTTgtg aggtctcttg attttcctaa agatccaggt 1080  
ggaaggattg gtattgatga gtggatgCGt gtaccttctg tacaagacgt gtttgcaatt 1140  
ggtgactgta gCGgttatct cgagagcaca gggaaatcaa cacttcctgc acttgcacag 1200  
gtggctgaga gagaaggcaa atacttggcg aatctgttta acgtgatggg aaaagctgga 1260  
ggaggacggg ccaatagcgc aaaggaaatg gagcttgggg aaccatttgt gtataaacat 1320  
ctcggaahta tggctactat tgggagatac aaagctctcg ttgatctccg tgagagcaag 1380  
gaagggaag gaatatcaat ggcaggTTTT ctgagctggg tcatatggag gtctgcttat 1440  
ctgactcgag tcgtcagctg gagaaaccgt ttctacgttg ctatcaattg gctcactacc 1500  
tttgtctttg gtcgggacat tagccgaatc tga 1533

<210> 2400

<211> 510

<212> PRT

<213> Arabidopsis thaliana

<400> 2400

Met Leu Trp Ile Lys Asn Leu Ala Arg Ile Ser Gln Thr Thr Ser Ser  
1 5 10 15

Ser Val Gly Asn Val Phe Arg Asn Pro Glu Ser Tyr Thr Leu Ser Ser  
20 25 30

Arg Phe Cys Thr Ala Leu Gln Lys Gln Gln Val Thr Asp Thr Val Gln  
35 40 45

Ala Lys Glu Asp Val Val Asn Ala Leu Glu Pro Gln Arg Tyr Asp Gly  
50 55 60

Leu Ala Pro Thr Lys Glu Gly Glu Lys Pro Arg Val Leu Val Leu Gly  
65 70 75 80

Ser Gly Trp Ala Gly Cys Arg Val Leu Lys Gly Ile Asp Thr Ser Ile  
85 90 95

Tyr Asp Val Val Cys Val Ser Pro Arg Asn His Met Val Phe Thr Pro  
100 105 110

Leu Leu Ala Ser Thr Cys Val Gly Thr Leu Glu Phe Arg Ser Val Ala  
Page 3411

115

120

125

Glu Pro Ile Ser Arg Ile Gln Pro Ala Ile Ser Arg Glu Pro Gly Ser  
 130 135 140  
 Tyr Tyr Phe Leu Ala Asn Cys Ser Lys Leu Asp Ala Asp Asn His Glu  
 145 150 155 160  
 Val His Cys Glu Thr Val Thr Glu Gly Ser Ser Thr Leu Lys Pro Trp  
 165 170 175  
 Lys Phe Lys Ile Ala Tyr Asp Lys Leu Val Leu Ala Cys Gly Ala Glu  
 180 185 190  
 Ala Ser Thr Phe Gly Ile Asn Gly Val Leu Glu Asn Ala Ile Phe Leu  
 195 200 205  
 Arg Glu Val His His Ala Gln Glu Ile Arg Arg Lys Leu Leu Leu Asn  
 210 215 220  
 Leu Met Leu Ser Glu Val Pro Gly Ile Gly Glu Asp Glu Lys Lys Arg  
 225 230 235 240  
 Leu Leu His Cys Val Val Val Gly Gly Gly Pro Thr Gly Val Glu Phe  
 245 250 255  
 Ser Gly Glu Leu Ser Asp Phe Ile Met Lys Asp Val Arg Gln Arg Tyr  
 260 265 270  
 Ser His Val Lys Asp Asp Ile Arg Val Thr Leu Ile Glu Ala Arg Asp  
 275 280 285  
 Ile Leu Ser Ser Phe Asp Asp Arg Leu Arg His Tyr Ala Ile Lys Gln  
 290 295 300  
 Leu Asn Lys Ser Gly Val Lys Leu Val Arg Gly Ile Val Lys Glu Val  
 305 310 315 320  
 Lys Pro Gln Lys Leu Ile Leu Asp Asp Gly Thr Glu Val Pro Tyr Gly  
 325 330 335  
 Pro Leu Val Trp Ser Thr Gly Val Gly Pro Ser Ser Phe Val Arg Ser  
 340 345 350  
 Leu Asp Phe Pro Lys Asp Pro Gly Gly Arg Ile Gly Ile Asp Glu Trp  
 355 360 365

Met Arg Val Pro Ser Val Gln Asp Val Phe Ala Ile Gly Asp Cys Ser  
 370 375 380

Gly Tyr Leu Glu Ser Thr Gly Lys Ser Thr Leu Pro Ala Leu Ala Gln  
 385 390 395 400

Val Ala Glu Arg Glu Gly Lys Tyr Leu Ala Asn Leu Phe Asn Val Met  
 405 410 415

Gly Lys Ala Gly Gly Gly Arg Ala Asn Ser Ala Lys Glu Met Glu Leu  
 420 425 430

Gly Glu Pro Phe Val Tyr Lys His Leu Gly Ser Met Ala Thr Ile Gly  
 435 440 445

Arg Tyr Lys Ala Leu Val Asp Leu Arg Glu Ser Lys Glu Gly Lys Gly  
 450 455 460

Ile Ser Met Ala Gly Phe Leu Ser Trp Phe Ile Trp Arg Ser Ala Tyr  
 465 470 475 480

Leu Thr Arg Val Val Ser Trp Arg Asn Arg Phe Tyr Val Ala Ile Asn  
 485 490 495

Trp Leu Thr Thr Phe Val Phe Gly Arg Asp Ile Ser Arg Ile  
 500 505 510

<210> 2401

<211> 1053

<212> DNA

<213> Arabidopsis thaliana

<400> 2401

atggaatcag aaaccctaac cgccaaggct acgatcacga ccacgaccct accgagtcac	60
gacgagacca agacagaatc aacagagttc gagaaaaatc aaaaacggta tcaagacctc	120
atctccacgt ttcctcacga gaaaggctgg agaccgaaag agcccctgat cgagtatggt	180
ggttactggt ggctaccgtc tctcctcgaa ggttgtattc acgcgcaaga gttctttcaa	240
gcacgaccca gtgacttcct cgtctgtagc tacccaaaga caggcaccac ttgggtcaaa	300
gccctgactt tcgccatcgc aaatcgttcc cgcttcgatg attcctccaa ccctctcctg	360
aaacgtaacc ctcacgagtt tgttccttac attgagatag atttcccttt cttccctgaa	420
gttgatgttc tcaaagacaa agggaacact ctgttttcga ctcatatccc atacgagtta	480

047-E2F-PCT.ST25.txt

ttacctgatt cggttgtgaa atccggttgt aagatgggtt acatatggag agaaccaaag 540  
gacactttca tctccatgtg gactttcctt cacaaggaaa ggacagagct tggacctgtc 600  
agcaatcttg aggagtcttt tgatatgttc tgtcgtgggc tgtctgggta tggtccttat 660  
cttaatcata tcctggcgta ttggaaagca taccaagaga atccagatag gatcttggtc 720  
ctcaagtacg agacgatgag agctgatcct ttaccgtacg tgaagagtct ggctgagttt 780  
atgggtcatg gattcacagc cgaggaagag gagaaagggt ttgttgagaa agtggtgaat 840  
ctttgcagct tcgagacgtt gaagaatctt gaagctaaca aaggggagaa agacagagag 900  
gatcgtcctg gtgttttacgc gaatagcgcg tatttcagga aaggaaagggt gggagattgg 960  
tcgaactatc tgactccgga gatggctgct cgtatagatg ggттаатgga agagaaattt 1020  
aagggcaccg gcttgcttga acatggtaaa tga 1053

<210> 2402

<211> 350

<212> PRT

<213> Arabidopsis thaliana

<400> 2402

Met Glu Ser Glu Thr Leu Thr Ala Lys Ala Thr Ile Thr Thr Thr Thr  
1 5 10 15

Leu Pro Ser His Asp Glu Thr Lys Thr Glu Ser Thr Glu Phe Glu Lys  
20 25 30

Asn Gln Lys Arg Tyr Gln Asp Leu Ile Ser Thr Phe Pro His Glu Lys  
35 40 45

Gly Trp Arg Pro Lys Glu Pro Leu Ile Glu Tyr Gly Gly Tyr Trp Trp  
50 55 60

Leu Pro Ser Leu Leu Glu Gly Cys Ile His Ala Gln Glu Phe Phe Gln  
65 70 75 80

Ala Arg Pro Ser Asp Phe Leu Val Cys Ser Tyr Pro Lys Thr Gly Thr  
85 90 95

Thr Trp Leu Lys Ala Leu Thr Phe Ala Ile Ala Asn Arg Ser Arg Phe  
100 105 110

Asp Asp Ser Ser Asn Pro Leu Leu Lys Arg Asn Pro His Glu Phe Val  
115 120 125

047-E2F-PCT.ST25.txt

Pro Tyr Ile Glu Ile Asp Phe Pro Phe Phe Pro Glu Val Asp Val Leu  
130 135 140

Lys Asp Lys Gly Asn Thr Leu Phe Ser Thr His Ile Pro Tyr Glu Leu  
145 150 155 160

Leu Pro Asp Ser Val Val Lys Ser Gly Cys Lys Met Val Tyr Ile Trp  
165 170 175

Arg Glu Pro Lys Asp Thr Phe Ile Ser Met Trp Thr Phe Leu His Lys  
180 185 190

Glu Arg Thr Glu Leu Gly Pro Val Ser Asn Leu Glu Glu Ser Phe Asp  
195 200 205

Met Phe Cys Arg Gly Leu Ser Gly Tyr Gly Pro Tyr Leu Asn His Ile  
210 215 220

Leu Ala Tyr Trp Lys Ala Tyr Gln Glu Asn Pro Asp Arg Ile Leu Phe  
225 230 235 240

Leu Lys Tyr Glu Thr Met Arg Ala Asp Pro Leu Pro Tyr Val Lys Ser  
245 250 255

Leu Ala Glu Phe Met Gly His Gly Phe Thr Ala Glu Glu Glu Glu Lys  
260 265 270

Gly Val Val Glu Lys Val Val Asn Leu Cys Ser Phe Glu Thr Leu Lys  
275 280 285

Asn Leu Glu Ala Asn Lys Gly Glu Lys Asp Arg Glu Asp Arg Pro Gly  
290 295 300

Val Tyr Ala Asn Ser Ala Tyr Phe Arg Lys Gly Lys Val Gly Asp Trp  
305 310 315 320

Ser Asn Tyr Leu Thr Pro Glu Met Ala Ala Arg Ile Asp Gly Leu Met  
325 330 335

Glu Glu Lys Phe Lys Gly Thr Gly Leu Leu Glu His Gly Lys  
340 345 350

<210> 2403

<211> 957

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2403

```

atgatgggga ataagcgaaa tctcggattt gtgatcttct tctgggctct ggtggttgca    60
gtagtagcca cggccatcga gcatcgctgc aatgagagga ctaaaggcgt caatggtctt    120
gacaagatca tcatccgcga ccgtcgtggc cgatctgctg aggtttactt gtatggaggt    180
caagtcagtt cttggaaaaa tgagaatgga gaggagttac ttgttatgag tagcaaggct    240
atattccagc ctccaacacc gattcgtgga ggaattccag tattgtttcc gcaatacagt    300
aacaccggtc cacttccttc acatggattt gtaagacaga ggttctggga ggttgagact    360
aaaccacctc ctttgccatc actttctact gtcgatgttg acctgatcgt aagatcatcc    420
aatgaggatt tgaagatctg gccgcataag tttgagtata gactgagagt agcattggga    480
catgatggag atttgacgtt aacatctcgt gttaagaata ctgatacaaa accatttaac    540
ttcacatttg ctcttcaccc ctacttcgct gtttccaata tcagtgaaat ccatgtcgaa    600
ggattacaca acttggatta ccttgaccaa caaaagaaca gaacacgttt cactgatcat    660
gagaaggtta taactttcaa tgctcaactt gacaggttgt acctaagcac tccagatcaa    720
ctaagaatcg tggaccataa gaaaaagaag actattgttg tacacaagga gggacaagtt    780
gatgccgtgg tgtggaatcc atgggataag aaagtatccg atttgggagt tgaagactat    840
aagcgttttg taacggtgga aagcgcggct gtcgcgaaac cgatcacagt gaaccccggc    900
aaagaatgga aaggaatact ccatgtttct gtggttccat caaatcgga agcttga      957

```

&lt;210&gt; 2404

&lt;211&gt; 318

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2404

```

Met Met Gly Asn Lys Arg Asn Leu Gly Phe Val Ile Phe Phe Trp Ala
1           5           10           15
Leu Val Val Ala Val Val Ala Thr Ala Ile Glu His Arg Arg Asn Glu
                20                25                30
Arg Thr Lys Gly Val Asn Gly Leu Asp Lys Ile Ile Ile Arg Asp Arg
        35                40                45

```

Arg Gly Arg Ser Ala Glu Val Tyr Leu Tyr Gly Gly Gln Val Ser Ser  
 50 55 60  
 Trp Lys Asn Glu Asn Gly Glu Glu Leu Leu Val Met Ser Ser Lys Ala  
 65 70 75 80  
 Ile Phe Gln Pro Pro Thr Pro Ile Arg Gly Gly Ile Pro Val Leu Phe  
 85 90 95  
 Pro Gln Tyr Ser Asn Thr Gly Pro Leu Pro Ser His Gly Phe Val Arg  
 100 105 110  
 Gln Arg Phe Trp Glu Val Glu Thr Lys Pro Pro Pro Leu Pro Ser Leu  
 115 120 125  
 Ser Thr Ala His Val Asp Leu Ile Val Arg Ser Ser Asn Glu Asp Leu  
 130 135 140  
 Lys Ile Trp Pro His Lys Phe Glu Tyr Arg Leu Arg Val Ala Leu Gly  
 145 150 155 160  
 His Asp Gly Asp Leu Thr Leu Thr Ser Arg Val Lys Asn Thr Asp Thr  
 165 170 175  
 Lys Pro Phe Asn Phe Thr Phe Ala Leu His Pro Tyr Phe Ala Val Ser  
 180 185 190  
 Asn Ile Ser Glu Ile His Val Glu Gly Leu His Asn Leu Asp Tyr Leu  
 195 200 205  
 Asp Gln Gln Lys Asn Arg Thr Arg Phe Thr Asp His Glu Lys Val Ile  
 210 215 220  
 Thr Phe Asn Ala Gln Leu Asp Arg Leu Tyr Leu Ser Thr Pro Asp Gln  
 225 230 235 240  
 Leu Arg Ile Val Asp His Lys Lys Lys Lys Thr Ile Val Val His Lys  
 245 250 255  
 Glu Gly Gln Val Asp Ala Val Val Trp Asn Pro Trp Asp Lys Lys Val  
 260 265 270  
 Ser Asp Leu Gly Val Glu Asp Tyr Lys Arg Phe Val Thr Val Glu Ser  
 275 280 285  
 Ala Ala Val Ala Lys Pro Ile Thr Val Asn Pro Gly Lys Glu Trp Lys  
 290 295 300

Gly Ile Leu His Val Ser Val Val Pro Ser Asn Arg Lys Ala  
 305 310 315

<210> 2405

<211> 1104

<212> DNA

<213> *Arabidopsis thaliana*

<400> 2405

atggagatca ctaacgttac cgagtatgat gcaatcgcaa agcagaagct gcctaagatg	60
gtgtacgact actatgcatc tgggtgcagaa gaccaatgga ctcttcaaga gaacagaaac	120
gcttttgcaa ggatcctctt tcggcctcgg attctgattg atgtgagcaa gattgacatg	180
acaaccaccg tcttgggggt caagatctcg atgcccatca tggttgctcc aactgccatg	240
caaaagatgg ctcaccctga tggggaatat gctactgcta gagctgcatc tgcagctgga	300
actatcatga cactatcttc atgggctact tccagcgttg aagaagttgc gtctacaggg	360
ccagggatcc gattcttcca gctctatgta tacaagaaca ggaatgtggt tgagcagctc	420
gtgagaagag ctgagagggc tgggttcaaa gccattgctc tctctgtaga caccccaagg	480
ctaggccgca gagagtctga tatcaagaac agattcactt tgcctccaaa cctgacattg	540
aagaactttg aaggacttga cctcggaag atggacgagg ccaatgactc tggcttggct	600
tcatatgttg ctggtcaaat tgaccgtacc ttaagctgga aggatgtcca gtggctccag	660
acaatcacca agttgcccac tcttgtcaaa ggtgttctta caggagagga tgcaaggata	720
gcgattcaag ctggtgcagc cggaatcatt gtatcaaacc atggagctcg ccagcttgac	780
tatgtcccag caaccatctc ggcccttgaa gaggttgtca aagcgacaca aggacgaatt	840
cctgtcttct tggatggtgg tgttcgacgt ggcactgatg tcttcaaagc acttgcaactt	900
ggagcctccg ggatatttat tggaagacca gtggtattct cattggcagc tgaaggagag	960
gctggagtta gaaaggtgct tcaaagtcta cgtgatgagt tcgagctgac catggcactg	1020
agtgggtgtc ggtccctaaa ggaaatctcc cgtaaccaca ttaccaccga atgggacact	1080
ccacgtcctt cagccagggt atag	1104

<210> 2406

<211> 367

<212> PRT

<213> *Arabidopsis thaliana*



&lt;400&gt; 2406

```

Met Glu Ile Thr Asn Val Thr Glu Tyr Asp Ala Ile Ala Lys Gln Lys
 1      5      10      15
Leu Pro Lys Met Val Tyr Asp Tyr Tyr Ala Ser Gly Ala Glu Asp Gln
 20      25      30
Trp Thr Leu Gln Glu Asn Arg Asn Ala Phe Ala Arg Ile Leu Phe Arg
 35      40      45
Pro Arg Ile Leu Ile Asp Val Ser Lys Ile Asp Met Thr Thr Thr Val
 50      55      60
Leu Gly Phe Lys Ile Ser Met Pro Ile Met Val Ala Pro Thr Ala Met
 65      70      75      80
Gln Lys Met Ala His Pro Asp Gly Glu Tyr Ala Thr Ala Arg Ala Ala
 85      90      95
Ser Ala Ala Gly Thr Ile Met Thr Leu Ser Ser Trp Ala Thr Ser Ser
100      105      110
Val Glu Glu Val Ala Ser Thr Gly Pro Gly Ile Arg Phe Phe Gln Leu
115      120      125
Tyr Val Tyr Lys Asn Arg Asn Val Val Glu Gln Leu Val Arg Arg Ala
130      135      140
Glu Arg Ala Gly Phe Lys Ala Ile Ala Leu Thr Val Asp Thr Pro Arg
145      150      155      160
Leu Gly Arg Arg Glu Ser Asp Ile Lys Asn Arg Phe Thr Leu Pro Pro
165      170      175
Asn Leu Thr Leu Lys Asn Phe Glu Gly Leu Asp Leu Gly Lys Met Asp
180      185      190
Glu Ala Asn Asp Ser Gly Leu Ala Ser Tyr Val Ala Gly Gln Ile Asp
195      200      205
Arg Thr Leu Ser Trp Lys Asp Val Gln Trp Leu Gln Thr Ile Thr Lys
210      215      220
Leu Pro Ile Leu Val Lys Gly Val Leu Thr Gly Glu Asp Ala Arg Ile
225      230      235      240

```

047-E2F-PCT.ST25.txt

Ala Ile Gln Ala Gly Ala Ala Gly Ile Ile Val Ser Asn His Gly Ala  
245 250 255

Arg Gln Leu Asp Tyr Val Pro Ala Thr Ile Ser Ala Leu Glu Glu Val  
260 265 270

Val Lys Ala Thr Gln Gly Arg Ile Pro Val Phe Leu Asp Gly Gly Val  
275 280 285

Arg Arg Gly Thr Asp Val Phe Lys Ala Leu Ala Leu Gly Ala Ser Gly  
290 295 300

Ile Phe Ile Gly Arg Pro Val Val Phe Ser Leu Ala Ala Glu Gly Glu  
305 310 315 320

Ala Gly Val Arg Lys Val Leu Gln Met Leu Arg Asp Glu Phe Glu Leu  
325 330 335

Thr Met Ala Leu Ser Gly Cys Arg Ser Leu Lys Glu Ile Ser Arg Asn  
340 345 350

His Ile Thr Thr Glu Trp Asp Thr Pro Arg Pro Ser Ala Arg Leu  
355 360 365

<210> 2407

<211> 984

<212> DNA

<213> Arabidopsis thaliana

<400> 2407

atggccaatg cgaagccctt ttgtctcctc ggcttctttt gtctgttatt acagttattc	60
tccatcttcc atatcggaat tggggaattg gagatgaact attacaaaga gagttgtcca	120
aaagcggaag agataataag acaacaagtg gagacgcttt actacaaaca cggtaacaca	180
gccgtatctt ggctccgtaa tctcttccat gactgtgtcg tcaagtcgtg tgatgcgtcg	240
ctgctgctag agacagcgag aggtgtggaa tctgagcaga aatcgaagag gagtttcggt	300
atgagaaact ttaagtacgt taagattatc aaagacgcac tcgagaaaga gtgtccttcc	360
acagtctctt gtgctgatat tgtcgctctt tctgcgagag acggtattgt catgttgaaa	420
gggccaaaga tagagatgat aaagacagga aggagagata gtagaggag ctacttggga	480
gatgttgaga ctctaattccc taaccacaat gactctctct catctgttat ctccaccttt	540
aactccattg gcatcgatgt cgaagccacc gtcgctctct taggtgctca ctcagtgggt	600

047-E2F-PCT.ST25.txt

```

agggtccact gcgtaaact agtgcaccgg ctatacccaa cgattgaccc tactctcgac 660
ccaagttacg ccctttactt aaaaaaacgt tgcccaagtc caacaccgga cccgaacgcc 720
gtctttgtact cccgtaacga tcgtgagact ccgatgggtg tggacaacat gtattataag 780
aacatcatgg ccataaggg gcttcttgtc attgatgatg agctagccac cgatcccagg 840
accgcaccgt ttgtggccaa gatggctgcg gacaataatt acttccatga gcagttctca 900
cgtggcgtca ggctcttgtc cgagaccaac ccgctcacgg gagaccaagg ggagatcagg 960
aaggattgtc gttatgtgaa ctaa 984

```

<210> 2408

<211> 327

<212> PRT

<213> Arabidopsis thaliana

<400> 2408

```

Met Ala Asn Ala Lys Pro Phe Cys Leu Leu Gly Phe Phe Cys Leu Leu
1          5          10
Leu Gln Leu Phe Ser Ile Phe His Ile Gly Asn Gly Glu Leu Glu Met
20         25         30
Asn Tyr Tyr Lys Glu Ser Cys Pro Lys Ala Glu Glu Ile Ile Arg Gln
35         40         45
Gln Val Glu Thr Leu Tyr Tyr Lys His Gly Asn Thr Ala Val Ser Trp
50         55         60
Leu Arg Asn Leu Phe His Asp Cys Val Val Lys Ser Cys Asp Ala Ser
65         70         75         80
Leu Leu Leu Glu Thr Ala Arg Gly Val Glu Ser Glu Gln Lys Ser Lys
85         90         95
Arg Ser Phe Gly Met Arg Asn Phe Lys Tyr Val Lys Ile Ile Lys Asp
100        105        110
Ala Leu Glu Lys Glu Cys Pro Ser Thr Val Ser Cys Ala Asp Ile Val
115        120        125
Ala Leu Ser Ala Arg Asp Gly Ile Val Met Leu Lys Gly Pro Lys Ile
130        135        140

```

047-E2F-PCT.ST25.txt

Glu Met Ile Lys Thr Gly Arg Arg Asp Ser Arg Gly Ser Tyr Leu Gly  
145 150 155 160

Asp Val Glu Thr Leu Ile Pro Asn His Asn Asp Ser Leu Ser Ser Val  
165 170 175

Ile Ser Thr Phe Asn Ser Ile Gly Ile Asp Val Glu Ala Thr Val Ala  
180 185 190

Leu Leu Gly Ala His Ser Val Gly Arg Val His Cys Val Asn Leu Val  
195 200 205

His Arg Leu Tyr Pro Thr Ile Asp Pro Thr Leu Asp Pro Ser Tyr Ala  
210 215 220

Leu Tyr Leu Lys Lys Arg Cys Pro Ser Pro Thr Pro Asp Pro Asn Ala  
225 230 235 240

Val Leu Tyr Ser Arg Asn Asp Arg Glu Thr Pro Met Val Val Asp Asn  
245 250 255

Met Tyr Tyr Lys Asn Ile Met Ala His Lys Gly Leu Leu Val Ile Asp  
260 265 270

Asp Glu Leu Ala Thr Asp Pro Arg Thr Ala Pro Phe Val Ala Lys Met  
275 280 285

Ala Ala Asp Asn Asn Tyr Phe His Glu Gln Phe Ser Arg Gly Val Arg  
290 295 300

Leu Leu Ser Glu Thr Asn Pro Leu Thr Gly Asp Gln Gly Glu Ile Arg  
305 310 315 320

Lys Asp Cys Arg Tyr Val Asn  
325

<210> 2409

<211> 609

<212> DNA

<213> Arabidopsis thaliana

<400> 2409

atggcggttca atatcataac acctgggtcgt gtttattcag ccacgtctct cactttcgtt 60

tccaccatta aagctgcttt cgttaaacct cctttggcct ctccgtctcg tcgtaacctc 120

047-E2F-PCT.ST25.txt

```

cttcgtttct catcatctcc ttgtcattt ccgtcgctcc gtcgaggttt ccacggtggt 180
cgtattgtgg caatgggttc ttctgctcct gaatcgggtca ataagccgga agaagagtgg 240
cgtgcgattc ttctctctga acaatttagg attctcagac agaaaggcac tgaatatcca 300
ggaactggag aatacaacaa agtattcgac gatggcatct attgttgtgc aggatgtgga 360
actcctctct acaaatccac caccaaattc gactctggtt gtggctggcc agctttcttt 420
gatggactcc ccggagctat aaccgaacc cctgatccag atgggagacg aatcgagatc 480
acatgtgctg cttgtggagg acatcttggg cacgttttta aaggagaagg tttccctact 540
cctaccgatg agcgacactg tgtaaacagt atctctctca agttcacacc agagaatccg 600
accctgtaa 609

```

<210> 2410

<211> 202

<212> PRT

<213> Arabidopsis thaliana

<400> 2410

```

Met Ala Phe Asn Ile Ile Thr Pro Gly Arg Val Tyr Ser Ala Thr Ser
1          5          10          15

```

```

Leu Thr Phe Val Ser Thr Ile Lys Ala Ala Phe Val Lys Pro Pro Leu
          20          25          30

```

```

Ala Ser Pro Ser Arg Arg Asn Leu Leu Arg Phe Ser Ser Ser Pro Leu
          35          40          45

```

```

Ser Phe Pro Ser Leu Arg Arg Gly Phe His Gly Gly Arg Ile Val Ala
50          55          60

```

```

Met Gly Ser Ser Ala Pro Glu Ser Val Asn Lys Pro Glu Glu Glu Trp
65          70          75          80

```

```

Arg Ala Ile Leu Ser Pro Glu Gln Phe Arg Ile Leu Arg Gln Lys Gly
85          90          95

```

```

Thr Glu Tyr Pro Gly Thr Gly Glu Tyr Asn Lys Val Phe Asp Asp Gly
100          105          110

```

```

Ile Tyr Cys Cys Ala Gly Cys Gly Thr Pro Leu Tyr Lys Ser Thr Thr
115          120          125

```

047-E2F-PCT.ST25.txt

Lys Phe Asp Ser Gly Cys Gly Trp Pro Ala Phe Phe Asp Gly Leu Pro  
130 135 140

Gly Ala Ile Thr Arg Thr Pro Asp Pro Asp Gly Arg Arg Ile Glu Ile  
145 150 155 160

Thr Cys Ala Ala Cys Gly Gly His Leu Gly His Val Phe Lys Gly Glu  
165 170 175

Gly Phe Pro Thr Pro Thr Asp Glu Arg His Cys Val Asn Ser Ile Ser  
180 185 190

Leu Lys Phe Thr Pro Glu Asn Pro Thr Leu  
195 200

<210> 2411

<211> 1161

<212> DNA

<213> Arabidopsis thaliana

<400> 2411

atggcgaaac	cggtgtccat	tgaagtgtat	aatcctaata	ggaaatacag	agttgttagc	60
acaaaaccga	tgcttggaac	tcgctggatc	aatctcttgg	tagaccaagg	ttgtcgcgtt	120
gagatatgtc	atttgaagaa	gacaatcttg	tctgtagaag	atatcattga	tctgatcgga	180
gacaagtgtg	atggagtcac	cggtcagttg	acggaagatt	ggggagagac	tctgttctca	240
gcttttagca	aagctggagg	gaaagctttc	agtaacatgg	ccgttggtta	taacaacgtt	300
gatgttgaag	ctgccaataa	gtatggaatt	gctgtcggta	acactccggg	agtgttgact	360
gagacgacgg	ctgaactagc	tgcttctctt	tccttggtcg	ctgcaagaag	aattgttgaa	420
gccgacgaat	tcattgagagg	tggtctgtac	gagggatggc	ttcctcatct	gtttgtgggg	480
aacttactta	aaggacagac	tggtggagtt	attggagctg	gacgtattgg	atctgcttat	540
gctagaatga	tggtggaagg	gttcaagatg	aatttgatct	actttgatct	ttaccaatcc	600
actcgtcttg	agaaatttgt	gacagcttat	ggacagttct	tgaaagcaaa	tggaagaacaa	660
cctgtgacat	ggaaacgagc	ttcgtccatg	gaggaggtgc	tgctgtaggc	tgatctgata	720
agtcttcacc	cggtgctgga	caaaaccact	taccatcttg	tcaacaagga	gaggcttgcc	780
atgatgaaaa	aggaagcaat	ccttgtgaac	tgacgacagag	gtcctgtgat	cgatgaggca	840
gctttggtcg	aacatctcaa	agagaacccg	atgttccgag	ttggtctcga	tgtgttcgag	900
gaagagccat	tcattgaaacc	agggttggct	gatacgaaaa	acgtatttgt	tgttcctcac	960

047-E2F-PCT.ST25.txt

attgcttctg cttccaagtg gactcgtgaa ggaatggcta cgcttgcagc tctcaacgtc 1020  
ctcgggaagag tcaaagggta cccgatttgg catgacccga accgagtcga tccattcttg 1080  
aacgaaaacg cttcaccgcc caatgccagt ccaagcatcg tcaactcaaa ggccttagga 1140  
ttgcctgttt cgaagctatg a 1161

<210> 2412

<211> 386

<212> PRT

<213> Arabidopsis thaliana

<400> 2412

Met Ala Lys Pro Val Ser Ile Glu Val Tyr Asn Pro Asn Gly Lys Tyr  
1 5 10 15

Arg Val Val Ser Thr Lys Pro Met Pro Gly Thr Arg Trp Ile Asn Leu  
20 25 30

Leu Val Asp Gln Gly Cys Arg Val Glu Ile Cys His Leu Lys Lys Thr  
35 40 45

Ile Leu Ser Val Glu Asp Ile Ile Asp Leu Ile Gly Asp Lys Cys Asp  
50 55 60

Gly Val Ile Gly Gln Leu Thr Glu Asp Trp Gly Glu Thr Leu Phe Ser  
65 70 75 80

Ala Leu Ser Lys Ala Gly Gly Lys Ala Phe Ser Asn Met Ala Val Gly  
85 90 95

Tyr Asn Asn Val Asp Val Glu Ala Ala Asn Lys Tyr Gly Ile Ala Val  
100 105 110

Gly Asn Thr Pro Gly Val Leu Thr Glu Thr Thr Ala Glu Leu Ala Ala  
115 120 125

Ser Leu Ser Leu Ala Ala Ala Arg Arg Ile Val Glu Ala Asp Glu Phe  
130 135 140

Met Arg Gly Gly Leu Tyr Glu Gly Trp Leu Pro His Leu Phe Val Gly  
145 150 155 160

Asn Leu Leu Lys Gly Gln Thr Val Gly Val Ile Gly Ala Gly Arg Ile

165

175

Gly Ser Ala Tyr Ala Arg Met Met Val Glu Gly Phe Lys Met Asn Leu  
180 185 190

Ile Tyr Phe Asp Leu Tyr Gln Ser Thr Arg Leu Glu Lys Phe Val Thr  
195 200 205

Ala Tyr Gly Gln Phe Leu Lys Ala Asn Gly Glu Gln Pro Val Thr Trp  
210 215 220

Lys Arg Ala Ser Ser Met Glu Glu Val Leu Arg Glu Ala Asp Leu Ile  
225 230 235 240

Ser Leu His Pro Val Leu Asp Lys Thr Thr Tyr His Leu Val Asn Lys  
245 250 255

Glu Arg Leu Ala Met Met Lys Lys Glu Ala Ile Leu Val Asn Cys Ser  
260 265 270

Arg Gly Pro Val Ile Asp Glu Ala Ala Leu Val Glu His Leu Lys Glu  
275 280 285

Asn Pro Met Phe Arg Val Gly Leu Asp Val Phe Glu Glu Glu Pro Phe  
290 295 300

Met Lys Pro Gly Leu Ala Asp Thr Lys Asn Ala Ile Val Val Pro His  
305 310 315 320

Ile Ala Ser Ala Ser Lys Trp Thr Arg Glu Gly Met Ala Thr Leu Ala  
325 330 335

Ala Leu Asn Val Leu Gly Arg Val Lys Gly Tyr Pro Ile Trp His Asp  
340 345 350

Pro Asn Arg Val Asp Pro Phe Leu Asn Glu Asn Ala Ser Pro Pro Asn  
355 360 365

Ala Ser Pro Ser Ile Val Asn Ser Lys Ala Leu Gly Leu Pro Val Ser  
370 375 380

Lys Leu  
385

<210> 2413

<211> 516



&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2413

```

atggcggcca tgaactcgag tgttctcact tgcagctacg caattgctgg ctctggctcg      60
gtagagctta accagaaagt tggtttggtg aattcatcag ttgggtttgg tcagaagaaa      120
cagatgatta tgcctgtgat caaagctcaa cgcgttggtg gtgatgatgt tgatggatct      180
aatggaagac gatcagccat ggttttctta gcagctacac tcttctccac tgctgctggt      240
tctgcttctg ctaatgctgg cgtcattgac gaatacctcg agaggagcaa aaccaacaaa      300
gaacttaatg ataagaagag attggcaaca agtggagcaa actttgagag agcattcact      360
gttcaattcg gaagctgcaa gttccctgag aatttcactg gctgccaaga tcttgccaag      420
caaaagaaag ttccatttat ctcagaagat attgctttgg aatgcgaagg caaggacaag      480
tacaagtgtg gttccaatgt tttctggaaa tgggtga                                516

```

&lt;210&gt; 2414

&lt;211&gt; 171

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2414

```

Met Ala Ala Met Asn Ser Ser Val Leu Thr Cys Ser Tyr Ala Ile Ala
1      5      10      15
Gly Ser Gly Ser Val Glu Leu Asn Gln Lys Val Gly Leu Val Asn Ser
20     25     30
Ser Val Gly Phe Gly Gln Lys Lys Gln Met Ile Met Pro Val Ile Lys
35     40     45
Ala Gln Arg Val Val Gly Asp Asp Val Asp Gly Ser Asn Gly Arg Arg
50     55     60
Ser Ala Met Val Phe Leu Ala Ala Thr Leu Phe Ser Thr Ala Ala Val
65     70     75     80
Ser Ala Ser Ala Asn Ala Gly Val Ile Asp Glu Tyr Leu Glu Arg Ser
85     90     95
Lys Thr Asn Lys Glu Leu Asn Asp Lys Lys Arg Leu Ala Thr Ser Gly

```

100

105

110

Ala Asn Phe Ala Arg Ala Phe Thr Val Gln Phe Gly Ser Cys Lys Phe  
 115 120 125

Pro Glu Asn Phe Thr Gly Cys Gln Asp Leu Ala Lys Gln Lys Lys Val  
 130 135 140

Pro Phe Ile Ser Glu Asp Ile Ala Leu Glu Cys Glu Gly Lys Asp Lys  
 145 150 155 160

Tyr Lys Cys Gly Ser Asn Val Phe Trp Lys Trp  
 165 170

&lt;210&gt; 2415

&lt;211&gt; 624

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2415

```

atggcgtctt cgctgtgtgt atcaaattcc acaatttgcc ctctgcctaa tgtatcttcg      60
cagccgctgc tatcattctc cactctctc aggccattca tttccaagtc gaaacctatg      120
tgtgcctcga tacagaagag agatggctct caatttgtgg tgaaatctca ggctcttgac      180
ttctctggaa ctttctttga aggtggattc gggtcggatg atgacccgac ttctccttcc      240
gggtcgggag tctcaactgc cttgaagac aaaccggaac ctcagtgccc acctgggctc      300
aggcagtacg aaacaatggc ggttttgaga ccagacatgt ctgaagatga acggcttggt      360
cttaccaga aatacgaaga gttgcttggt gcaggagggt gaatgtatgt ggaagtgttt      420
aacagaggag tgattccgtt ggcttacagc ataagaaaga agaacaaagc tggagaaacc      480
aacacttact tggatggaat ctaccttctc ttcacttact tcaccaaacc cgaatcaata      540
gttccactcg agaccgttct cactgccgac gatgacatta tccgatcatc ttccttcaag      600
ataaagaaga ggaagtacaa ctga                                           624

```

&lt;210&gt; 2416

&lt;211&gt; 207

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2416

Met Ala Ser Ser Leu Cys Val Ser Asn Ser Thr Ile Cys Pro Leu Pro  
 1 5 10 15

Asn Val Ser Ser Gln Pro Leu Leu Ser Phe Ser His Ser Leu Arg Pro  
 20 25 30

Phe Ile Ser Lys Ser Lys Pro Met Cys Ala Ser Ile Gln Lys Arg Asp  
 35 40 45

Gly Ser Gln Phe Val Val Lys Ser Gln Ala Leu Asp Phe Ser Gly Thr  
 50 55 60

Phe Phe Glu Gly Gly Phe Gly Ser Asp Asp Asp Pro Thr Ser Pro Ser  
 65 70 75 80

Gly Ser Gly Val Ser Thr Ala Leu Glu Asp Lys Pro Glu Pro Gln Cys  
 85 90 95

Pro Pro Gly Leu Arg Gln Tyr Glu Thr Met Ala Val Leu Arg Pro Asp  
 100 105 110

Met Ser Glu Asp Glu Arg Leu Gly Leu Thr Gln Lys Tyr Glu Glu Leu  
 115 120 125

Leu Val Ala Gly Gly Gly Met Tyr Val Glu Val Phe Asn Arg Gly Val  
 130 135 140

Ile Pro Leu Ala Tyr Ser Ile Arg Lys Lys Asn Lys Ala Gly Glu Thr  
 145 150 155 160

Asn Thr Tyr Leu Asp Gly Ile Tyr Leu Leu Phe Thr Tyr Phe Thr Lys  
 165 170 175

Pro Glu Ser Ile Val Pro Leu Glu Thr Val Leu Thr Ala Asp Asp Asp  
 180 185 190

Ile Ile Arg Ser Ser Ser Phe Lys Ile Lys Lys Arg Lys Tyr Asn  
 195 200 205

&lt;210&gt; 2417

&lt;211&gt; 1266

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

047-E2F-PCT.ST25.txt

```

<400> 2417
atgaaggtgg ttgataagat caaatccgtg acggagcaag gccaaacagc tttctccttc 60
gagtttttcc caccgaagac agaagatggc gtcgagaatc tctttgaacg aatggatcga 120
ttggtctctt atggacctac cttctgcat atcacttggg gtgctggtgg atccacagct 180
gatctcactc tcgagattgc ttctaggatg cagaatgtta tctgctcga gactatgatg 240
catctcactt gtaccaacat gccgattgag aagattgatc acgcgcttga gacgattaga 300
tctaattgaa ttcagaatgt gcttgctctt agaggagatc ctcctcatgg acaagataag 360
tttgttcagg ttgaaggagg atttgcttgt gctttggatc tggatgaatca cattcgtagc 420
aagtatggtg attacttttg aatcactgtt gctggttatc ctgaggctca tccggatggt 480
attgaagctg atggacttgc tactcctgaa tcttatcaga gtgatcttgc ttacttgaag 540
aaaaaggttg atgctggagc agatttgatt gtgactcagc ttttctatga tactgatata 600
ttcctcaagt ttgtgaatga ttgtcggcaa atcgggatta attgtcccat tgttcctgga 660
attatgccta tttccaacta caaggggttc ttgctgatgg ctggtttctg taagaccaag 720
ataccgctg agctcactgc tgccttagag cctattaagg ataatgacga ggctgttaaa 780
gcctatggaa ttcactttgc aacagaaatg tgcaaaaaga ttttggccca tggaatcact 840
tcccttcac tctacacatt gaacgtggac aaatcagcta ttgggatatt aatgaacctt 900
ggctctgattg atgagtcaaa aatttctcgt tctctacctt ggagacgccc tgcaaatggt 960
ttccgtacta aggaagatgt tcgccaatt ttctgggcaa accgtccaaa gagctacata 1020
tctagaacaa agggctggaa tgacttccca catggacgtt ggggtgattc acacagtgc 1080
gcatacagta cactttcgga ttatcagttt gcgcgcccaa aaggacgtga caagaagctt 1140
cagcaagaat gggctcgtccc actgaaaagc attgaagatg ttcaagaggt aggctttact 1200
ttacggacac tcgtacaaat tgtttcgatc tctttccctc atactcactt gcacattttc 1260
atgtaa 1266

```

<210> 2418

<211> 421

<212> PRT

<213> Arabidopsis thaliana

<400> 2418

Met Lys Val Val Asp Lys Ile Lys Ser Val Thr Glu Gln Gly Gln Thr  
1 5 10 15

Ala Phe Ser Phe Glu Phe Phe Pro Pro Lys Thr Glu Asp Gly Val Glu  
 20 25 30  
 Asn Leu Phe Glu Arg Met Asp Arg Leu Val Ser Tyr Gly Pro Thr Phe  
 35 40 45  
 Cys Asp Ile Thr Trp Gly Ala Gly Gly Ser Thr Ala Asp Leu Thr Leu  
 50 55 60  
 Glu Ile Ala Ser Arg Met Gln Asn Val Ile Cys Val Glu Thr Met Met  
 65 70 75 80  
 His Leu Thr Cys Thr Asn Met Pro Ile Glu Lys Ile Asp His Ala Leu  
 85 90 95  
 Glu Thr Ile Arg Ser Asn Gly Ile Gln Asn Val Leu Ala Leu Arg Gly  
 100 105 110  
 Asp Pro Pro His Gly Gln Asp Lys Phe Val Gln Val Glu Gly Gly Phe  
 115 120 125  
 Ala Cys Ala Leu Asp Leu Val Asn His Ile Arg Ser Lys Tyr Gly Asp  
 130 135 140  
 Tyr Phe Gly Ile Thr Val Ala Gly Tyr Pro Glu Ala His Pro Asp Val  
 145 150 155 160  
 Ile Glu Ala Asp Gly Leu Ala Thr Pro Glu Ser Tyr Gln Ser Asp Leu  
 165 170 175  
 Ala Tyr Leu Lys Lys Lys Val Asp Ala Gly Ala Asp Leu Ile Val Thr  
 180 185 190  
 Gln Leu Phe Tyr Asp Thr Asp Ile Phe Leu Lys Phe Val Asn Asp Cys  
 195 200 205  
 Arg Gln Ile Gly Ile Asn Cys Pro Ile Val Pro Gly Ile Met Pro Ile  
 210 215 220  
 Ser Asn Tyr Lys Gly Phe Leu Arg Met Ala Gly Phe Cys Lys Thr Lys  
 225 230 235 240  
 Ile Pro Ala Glu Leu Thr Ala Ala Leu Glu Pro Ile Lys Asp Asn Asp  
 245 250 255  
 Glu Ala Val Lys Ala Tyr Gly Ile His Phe Ala Thr Glu Met Cys Lys  
 260 265 270

047-E2F-PCT.ST25.txt

Lys Ile Leu Ala His Gly Ile Thr Ser Leu His Leu Tyr Thr Leu Asn  
275 280 285

Val Asp Lys Ser Ala Ile Gly Ile Leu Met Asn Leu Gly Leu Ile Asp  
290 295 300

Glu Ser Lys Ile Ser Arg Ser Leu Pro Trp Arg Arg Pro Ala Asn Val  
305 310 315 320

Phe Arg Thr Lys Glu Asp Val Arg Pro Ile Phe Trp Ala Asn Arg Pro  
325 330 335

Lys Ser Tyr Ile Ser Arg Thr Lys Gly Trp Asn Asp Phe Pro His Gly  
340 345 350

Arg Trp Gly Asp Ser His Ser Ala Ala Tyr Ser Thr Leu Ser Asp Tyr  
355 360 365

Gln Phe Ala Arg Pro Lys Gly Arg Asp Lys Lys Leu Gln Gln Glu Trp  
370 375 380

Val Val Pro Leu Lys Ser Ile Glu Asp Val Gln Glu Val Gly Phe Thr  
385 390 395 400

Leu Arg Thr Leu Val Gln Ile Val Ser Ile Ser Phe Pro His Thr His  
405 410 415

Leu His Ile Phe Met  
420

<210> 2419

<211> 615

<212> DNA

<213> Arabidopsis thaliana

<400> 2419  
atggcaactc aagccgccgg aatcttcagc cccgccataa caaccactac ttccgccgtc 60  
aagaaactcc acctcttctc atcaagccac cgtcccaagt ctctctcctt caccaaaacc 120  
gccatccgcg ccgagaaaaac agagtcctcc tctgctgccc cagccgtgaa agaagctcca 180  
gttggaattca ctccccgcga gctagaccca aacacaccat caccaatctt cgccggaagc 240  
acaggaggtc tcctccgtaa agcacaagta gaggaatttt acgtgatcac atggaactca 300  
ccgaaagaac aaatctttga gatgccaaca ggaggagctg cgataatgag agaaggaccg 360

047-E2F-PCT.ST25.txt

aatctattga aactggcgag gaaagaacag tgtttggctt taggtacgag gttgaggtca 420  
aagtacaaga tcacttacca gttttacaga gtgttccta acggagaggt tcaatatctt 480  
caccgaaag atggagttta tccagagaaa gcgaatccag gaagagaagg tgttggacta 540  
aacatgagat ccacggttaa aaatgttagt cccattgagg ttaaattcac tgggaaacaa 600  
tcttatgatt tgtaa 615

<210> 2420

<211> 204

<212> PRT

<213> Arabidopsis thaliana

<400> 2420

Met Ala Thr Gln Ala Ala Gly Ile Phe Ser Pro Ala Ile Thr Thr Thr  
1 5 10 15

Thr Ser Ala Val Lys Lys Leu His Leu Phe Ser Ser Ser His Arg Pro  
20 25 30

Lys Ser Leu Ser Phe Thr Lys Thr Ala Ile Arg Ala Glu Lys Thr Glu  
35 40 45

Ser Ser Ser Ala Ala Pro Ala Val Lys Glu Ala Pro Val Gly Phe Thr  
50 55 60

Pro Pro Gln Leu Asp Pro Asn Thr Pro Ser Pro Ile Phe Ala Gly Ser  
65 70 75 80

Thr Gly Gly Leu Leu Arg Lys Ala Gln Val Glu Glu Phe Tyr Val Ile  
85 90 95

Thr Trp Asn Ser Pro Lys Glu Gln Ile Phe Glu Met Pro Thr Gly Gly  
100 105 110

Ala Ala Ile Met Arg Glu Gly Pro Asn Leu Leu Lys Leu Ala Arg Lys  
115 120 125

Glu Gln Cys Leu Ala Leu Gly Thr Arg Leu Arg Ser Lys Tyr Lys Ile  
130 135 140

Thr Tyr Gln Phe Tyr Arg Val Phe Pro Asn Gly Glu Val Gln Tyr Leu  
145 150 155 160

047-E2F-PCT.ST25.txt

His Pro Lys Asp Gly Val Tyr Pro Glu Lys Ala Asn Pro Gly Arg Glu  
165 170 175

Gly Val Gly Leu Asn Met Arg Ser Ile Gly Lys Asn Val Ser Pro Ile  
180 185 190

Glu Val Lys Phe Thr Gly Lys Gln Ser Tyr Asp Leu  
195 200

<210> 2421

<211> 849

<212> DNA

<213> Arabidopsis thaliana

<400> 2421  
atgagtgtga ttggaagcaa gagctgtatt ttctctgtgg ctagatacac ccgagaaaat 60  
gagaaatctt cttgcttcac ttctatcaac aagaaatctt cgcttgatct gagatttccc 120  
agaaatctgg cgggagtttc ctgcaaattc tctggagaaa atccaggaac aaatgggggtt 180  
tctcttagct ccaagaacaa aatggaggat tacaatacag ctatgaagag attgatgaga 240  
agcccttatg aatatcatca tgatctaggt atgaactata cattgataag agatgaactt 300  
atagttgggt cacagccaca gaaacctgag gacatagatc acttgaagca ggaacagaat 360  
gttgcttaca tacttaactt gcagcaggat aaggacattg agtattgggg aatcgatttg 420  
gattccattg ttagaagatg taaggagctt ggaatccgtc acatgagaag gcctgctaaa 480  
gattttgatc cactttcgtt gagaagccaa cttccaaaag ctgtttcttc tttggaatgg 540  
gcggtttcag aaggtaaagg aagagtctat gtgcattgct cagccggatt gggaagagct 600  
ccaggggttt ccattgctta tatgtattgg ttctgtgaca tgaatcttaa cacggcttat 660  
gacactttgg tatcaaagcg tccatgtggg cctaacaaag gagccatccg tgggtgaaca 720  
tatgatctgg ctaagaatga tccctggaaa gagccctttg agagtctccc tgagaacgca 780  
ttcgaggaca ttgcagattg ggaaaggaag ttgattcaag aacgtgttcg ggccctccgt 840  
ggaacctga 849

<210> 2422

<211> 282

<212> PRT

<213> Arabidopsis thaliana



&lt;400&gt; 2422

```

Met Ser Val Ile Gly Ser Lys Ser Cys Ile Phe Ser Val Ala Arg Tyr
1      5      10      15
Thr Arg Glu Asn Glu Lys Ser Ser Cys Phe Thr Ser Ile Asn Lys Lys
20      25      30
Ser Ser Leu Asp Leu Arg Phe Pro Arg Asn Leu Ala Gly Val Ser Cys
35      40      45
Lys Phe Ser Gly Glu Asn Pro Gly Thr Asn Gly Val Ser Leu Ser Ser
50      55      60
Lys Asn Lys Met Glu Asp Tyr Asn Thr Ala Met Lys Arg Leu Met Arg
65      70      75      80
Ser Pro Tyr Glu Tyr His His Asp Leu Gly Met Asn Tyr Thr Leu Ile
85      90      95
Arg Asp Glu Leu Ile Val Gly Ser Gln Pro Gln Lys Pro Glu Asp Ile
100     105     110
Asp His Leu Lys Gln Glu Gln Asn Val Ala Tyr Ile Leu Asn Leu Gln
115     120     125
Gln Asp Lys Asp Ile Glu Tyr Trp Gly Ile Asp Leu Asp Ser Ile Val
130     135     140
Arg Arg Cys Lys Glu Leu Gly Ile Arg His Met Arg Arg Pro Ala Lys
145     150     155     160
Asp Phe Asp Pro Leu Ser Leu Arg Ser Gln Leu Pro Lys Ala Val Ser
165     170     175
Ser Leu Glu Trp Ala Val Ser Glu Gly Lys Gly Arg Val Tyr Val His
180     185     190
Cys Ser Ala Gly Leu Gly Arg Ala Pro Gly Val Ser Ile Ala Tyr Met
195     200     205
Tyr Trp Phe Cys Asp Met Asn Leu Asn Thr Ala Tyr Asp Thr Leu Val
210     215     220
Ser Lys Arg Pro Cys Gly Pro Asn Lys Gly Ala Ile Arg Gly Ala Thr
225     230     235     240

```

047-E2F-PCT.ST25.txt

Tyr Asp Leu Ala Lys Asn Asp Pro Trp Lys Glu Pro Phe Glu Ser Leu  
245 250 255

Pro Glu Asn Ala Phe Glu Asp Ile Ala Asp Trp Glu Arg Lys Leu Ile  
260 265 270

Gln Glu Arg Val Arg Ala Leu Arg Gly Thr  
275 280

<210> 2423

<211> 1533

<212> DNA

<213> Arabidopsis thaliana

<400> 2423

atggccgctt tgacaatgca gtttgaagga gagaagaaaa acgtatccga agttgcagac	60
gtaaccctca agcaagaaga tgaacaacaa gaacgtagat cttattcgac gccgtttagg	120
gaagagagag acaccttttg cccgatccaa gttccttccg ataaattatg gggagcacag	180
acgcagagat cgcttcagaa cttcgagatt ggtggtgacc gcgagcgaat gcccgaacca	240
atcgtccgag cttttggtgt cttgaagaaa tgtgctgcca aggttaacat ggagtatggt	300
cttgatccaa tgattgggga agccataatg gaagctgcac aagaagtagc agaaggaaag	360
ctcaatgata atttccctct tgttgtatgg caaactggta gtgggacgca gagtaatatg	420
aatgctaata aggtcattgc caatagagca gctgagattc ttggtcacia acgtggtgaa	480
aaaattgtgc acccaaata ccatgtgaac agatcacaa cttctaata cacttttcca	540
actgtcatgc acattgcagc tgcaaccgag attacttcga ggctaataccc tagtttgaaa	600
aatttgcata gctctttgga atctaagtcc ttcgagttta aagatatagt gaaaatcgga	660
agaactcata ctcaagatgc tacacctttg acattaggac aagaatttgg tggctatgct	720
actcaagttg agtatggact taatagagtc gcatgtactc taccgccat ctatcagctt	780
gcacaaggtg gaactgctgt tgggaccgga ttaaactacta agaaagggtt tgatgtaaag	840
atcgtctgtg cagtagctga agaaacaaac ttgccattcg tcaccgcaga aaacaagttt	900
gaagctctgg ctgcacacga tgcttgtgtt gaaacaagtg gatctcttaa cacaatcgcc	960
acatcattga tgaagattgc caatgatata cgttttcttg gaagtgggtcc aagatgtggt	1020
cttggatgaa tttctctgcc tgagaatgaa ccaggaagca gtattatgcc tggaaaggta	1080
aatcctacac agtgtgaggc cttgactatg gtttgtgctc aagttatggg aaaccatgta	1140
gccgtgacaa ttggtgggtc gaatgggtcat tttgaattga atgtattcaa gccggttatc	1200

047-E2F-PCT.ST25.txt

gcaagcgctc tcttacattc cattagacta atagcagatg cttcagcttc atttgagaaa 1260  
aactgtgtta gaggcattga ggccaacaga gaaaggatct caaagctatt gcacgagtct 1320  
cttatgcttg tgacatcatt gaatcctaaa attggctatg acaatgctgc agcagtagcc 1380  
aaaagagctc acaaagaagg atgcacatta aaggtaaaca ataaactatt aacgttttca 1440  
tcactaaata aatcggaatt taaaccatt tttagcaaga gaaaacatgt tcatgtttgt 1500  
tacaatatat ttgttttct attttgatt taa 1533

<210> 2424

<211> 510

<212> PRT

<213> Arabidopsis thaliana

<400> 2424

Met Ala Ala Leu Thr Met Gln Phe Glu Gly Glu Lys Lys Asn Val Ser  
1 5 10 15

Glu Val Ala Asp Val Thr Leu Lys Gln Glu Asp Glu Gln Gln Glu Arg  
20 25 30

Arg Ser Tyr Ser Thr Pro Phe Arg Glu Glu Arg Asp Thr Phe Gly Pro  
35 40 45

Ile Gln Val Pro Ser Asp Lys Leu Trp Gly Ala Gln Thr Gln Arg Ser  
50 55 60

Leu Gln Asn Phe Glu Ile Gly Gly Asp Arg Glu Arg Met Pro Glu Pro  
65 70 75 80

Ile Val Arg Ala Phe Gly Val Leu Lys Lys Cys Ala Ala Lys Val Asn  
85 90 95

Met Glu Tyr Gly Leu Asp Pro Met Ile Gly Glu Ala Ile Met Glu Ala  
100 105 110

Ala Gln Glu Val Ala Glu Gly Lys Leu Asn Asp His Phe Pro Leu Val  
115 120 125

Val Trp Gln Thr Gly Ser Gly Thr Gln Ser Asn Met Asn Ala Asn Glu  
130 135 140

Val Ile Ala Asn Arg Ala Ala Glu Ile Leu Gly His Lys Arg Gly Glu  
Page 3437

145                      150                      155                      160  
 Lys Ile Val His Pro Asn Asp His Val Asn Arg Ser Gln Ser Ser Asn  
                                  165                      170                      175  
 Asp Thr Phe Pro Thr Val Met His Ile Ala Ala Ala Thr Glu Ile Thr  
                                  180                      185                      190  
 Ser Arg Leu Ile Pro Ser Leu Lys Asn Leu His Ser Ser Leu Glu Ser  
                                  195                      200                      205  
 Lys Ser Phe Glu Phe Lys Asp Ile Val Lys Ile Gly Arg Thr His Thr  
                                  210                      215                      220  
 Gln Asp Ala Thr Pro Leu Thr Leu Gly Gln Glu Phe Gly Gly Tyr Ala  
                                  225                      230                      235                      240  
 Thr Gln Val Glu Tyr Gly Leu Asn Arg Val Ala Cys Thr Leu Pro Arg  
                                  245                      250                      255  
 Ile Tyr Gln Leu Ala Gln Gly Gly Thr Ala Val Gly Thr Gly Leu Asn  
                                  260                      265                      270  
 Thr Lys Lys Gly Phe Asp Val Lys Ile Ala Ala Ala Val Ala Glu Glu  
                                  275                      280                      285  
 Thr Asn Leu Pro Phe Val Thr Ala Glu Asn Lys Phe Glu Ala Leu Ala  
                                  290                      295                      300  
 Ala His Asp Ala Cys Val Glu Thr Ser Gly Ser Leu Asn Thr Ile Ala  
                                  305                      310                      315                      320  
 Thr Ser Leu Met Lys Ile Ala Asn Asp Ile Arg Phe Leu Gly Ser Gly  
                                  325                      330                      335  
 Pro Arg Cys Gly Leu Gly Glu Leu Ser Leu Pro Glu Asn Glu Pro Gly  
                                  340                      345                      350  
 Ser Ser Ile Met Pro Gly Lys Val Asn Pro Thr Gln Cys Glu Ala Leu  
                                  355                      360                      365  
 Thr Met Val Cys Ala Gln Val Met Gly Asn His Val Ala Val Thr Ile  
                                  370                      375                      380  
 Gly Gly Ser Asn Gly His Phe Glu Leu Asn Val Phe Lys Pro Val Ile  
                                  385                      390                      395                      400

Ala Ser Ala Leu Leu His Ser Ile Arg Leu Ile Ala Asp Ala Ser Ala  
 405 410 415

Ser Phe Glu Lys Asn Cys Val Arg Gly Ile Glu Ala Asn Arg Glu Arg  
 420 425 430

Ile Ser Lys Leu Leu His Glu Ser Leu Met Leu Val Thr Ser Leu Asn  
 435 440 445

Pro Lys Ile Gly Tyr Asp Asn Ala Ala Ala Val Ala Lys Arg Ala His  
 450 455 460

Lys Glu Gly Cys Thr Leu Lys Val Asn Asn Lys Leu Leu Thr Phe Ser  
 465 470 475 480

Ser Leu Asn Lys Ser Glu Phe Lys Pro Ile Phe Ser Lys Arg Lys His  
 485 490 495

Val His Val Cys Tyr Asn Ile Phe Val Val Leu Phe Trp Ile  
 500 505 510

<210> 2425

<211> 777

<212> DNA

<213> Arabidopsis thaliana

<400> 2425  
 atgtctatat ccatggcggtt attctctccg ccgatctctt cctcacttca gaaccctaatt 60  
 ctcatcccca agatctcaac ctctcttctc tccaccaagc gtttctctct aatctccgctc 120  
 cctagagctt cctccgacaa tggtagcact tccccgctcg tggagattcc gaagcctgct 180  
 tctgtggctg tagaggaagt tccagttaaa tctccagccg aaagctcctc cgcttctgaa 240  
 aacggcgccg ttggaggtga agcgactgat tcgagtactg agacggtaat caaatatcag 300  
 aatgcgaagt gggttaatgg aacttgggat ctgaaacagt tcgagaaaga tggcaaaact 360  
 gattgggatt ctgttatcgt ttctgaggca aagaggagaa aatggcttga agataaccg 420  
 gaaacaacga gtaacgacga gcttggtgtc ttcgatactt cgattattcc atggtgggca 480  
 tggatgaaga gataccatct acctgaagct gaacttctca atggctcgtgc tgcgatgata 540  
 gggttcttca tggcttactt tggtgatagt cttaccggag taggacttgt tgatcaaattg 600  
 ggaaatttct tctgcaaaac actcttggtt gtggctgtag ctggagttct cttcatccgt 660  
 aagaatgaag atttagacaa acttaaggat ctgttcgatg agactacgtt atatgacaaa 720

caatggcaag ctgcatggaa agagccagat tcatcaacag tttcttcaaa gaagtga

777

<210> 2426

<211> 258

<212> PRT

<213> Arabidopsis thaliana

<400> 2426

Met Ser Ile Ser Met Ala Leu Phe Ser Pro Pro Ile Ser Ser Ser Leu  
1 5 10 15

Gln Asn Pro Asn Leu Ile Pro Lys Ile Ser Thr Ser Leu Leu Ser Thr  
20 25 30

Lys Arg Phe Ser Leu Ile Ser Val Pro Arg Ala Ser Ser Asp Asn Gly  
35 40 45

Thr Thr Ser Pro Val Val Glu Ile Pro Lys Pro Ala Ser Val Ala Val  
50 55 60

Glu Glu Val Pro Val Lys Ser Pro Ala Glu Ser Ser Ser Ala Ser Glu  
65 70 75 80

Asn Gly Ala Val Gly Gly Glu Ala Thr Asp Ser Ser Thr Glu Thr Val  
85 90 95

Ile Lys Tyr Gln Asn Ala Lys Trp Val Asn Gly Thr Trp Asp Leu Lys  
100 105 110

Gln Phe Glu Lys Asp Gly Lys Thr Asp Trp Asp Ser Val Ile Val Ser  
115 120 125

Glu Ala Lys Arg Arg Lys Trp Leu Glu Asp Asn Pro Glu Thr Thr Ser  
130 135 140

Asn Asp Glu Leu Val Val Phe Asp Thr Ser Ile Ile Pro Trp Trp Ala  
145 150 155 160

Trp Met Lys Arg Tyr His Leu Pro Glu Ala Glu Leu Leu Asn Gly Arg  
165 170 175

Ala Ala Met Ile Gly Phe Phe Met Ala Tyr Phe Val Asp Ser Leu Thr  
180 185 190

Gly Val Gly Leu Val Asp Gln Met Gly Asn Phe Phe Cys Lys Thr Leu  
 195 200 205

Leu Phe Val Ala Val Ala Gly Val Leu Phe Ile Arg Lys Asn Glu Asp  
 210 215 220

Leu Asp Lys Leu Lys Asp Leu Phe Asp Glu Thr Thr Leu Tyr Asp Lys  
 225 230 235 240

Gln Trp Gln Ala Ala Trp Lys Glu Pro Asp Ser Ser Thr Val Ser Ser  
 245 250 255

Lys Lys

<210> 2427

<211> 1422

<212> DNA

<213> Arabidopsis thaliana

<400> 2427

atggacaaca acaacaacaa caacactttt agttctctgg ataatgtcat gactaaccaa	60
aatcctcttc tcatggattt tataccttca agagaagatt caacttcatt ctcaacaatg	120
cttccatgga ataccatcag atcagatcct ctacaaatgg gtggctttga tttttcaat	180
tctatgctga ctaacaaata cttatcatct tctccacggt ctatcgatgt tcaagataac	240
cgcaatgttg agttcatggc tcctcctcct catcctcctc cacttcatcc tttggatcat	300
ttaagacact atgatgattc ctcaaacaac atgtgggggt ttgaagcaaa tagtgagttt	360
caggcatttt cagggtgtagt tgggtccaagt gaaccaatga tgtctacatt cgggtgaagaa	420
gatttcccggt ttctaatttc gaataaaaga aacaatgagc tttcattgag tcttgcata	480
gatgtttctg atgaatgctc ggagataagt ctttgtgcag ctacaagatt agcctcagag	540
caagcttctt gcagcagcaa agacatttct aataacgttg ttactcaagg tttctctcaa	600
cttatatttg gctcaaaata ctttactctt gttcaagaaa tactatctca tttcgccgca	660
tactcgctcg attattcatc tcgaggaacc gagtcaggag ctgctagttc agcctttact	720
tcacgttttg agaataaac tgagtttctt gatggtgatt ctaataactc ggaggcgggt	780
ttcggatcta cttttcaaag gagagcatta gaagcaaaga aaacccatct cttggatctt	840
cttcaaattg tggtgatcg atatagtcac tgcgtagatg agattcatac gggttatatca	900
gcgttccatg ctgcaaccga gttagatcca cagttacaca cccggtttgc cctccaaacc	960

gtttccttct tatacaagaa cctgagagag agaatctgca agaagataat ctctatggga 1020  
tctgtattgg agagaggcaa agacaagact caagaaacct ctatgttcca ccagcattgc 1080  
cttcttcagc agctgaaacg aaagaacat cagatttgga gacctcaacg aggtttgcct 1140  
gagaaatctg tttcggttct acggaattgg atgttccaaa acttccttca cccttaccg 1200  
aaagattcgg agaaacatct tctagctata cgaagtggct tgacaagaag tcaggtatca 1260  
aactggttta taaatgcgcg ggtaggcta tggaagccga tgatagaaga gatgtatgcg 1320  
gaaatgaaca agaggaagct caataacagt cacattcaac ccaacggacc aactcttcga 1380  
atgccaaaat ctgttatgat gagccaagca atgcataaat aa 1422

<210> 2428

<211> 473

<212> PRT

<213> Arabidopsis thaliana

<400> 2428

Met Asp Asn Asn Asn Asn Asn Asn Thr Phe Ser Ser Leu Asp Asn Val  
1 5 10 15

Met Thr Asn Gln Asn Pro Leu Leu Met Asp Phe Ile Pro Ser Arg Glu  
20 25 30

Asp Ser Thr Ser Phe Ser Thr Met Leu Pro Trp Asn Thr Ile Arg Ser  
35 40 45

Asp Pro Leu Gln Met Gly Gly Phe Asp Ile Phe Asn Ser Met Leu Thr  
50 55 60

Asn Lys Tyr Leu Ser Ser Ser Pro Arg Ser Ile Asp Val Gln Asp Asn  
65 70 75 80

Arg Asn Val Glu Phe Met Ala Pro Pro Pro His Pro Pro Pro Leu His  
85 90 95

Pro Leu Asp His Leu Arg His Tyr Asp Asp Ser Ser Asn Asn Met Trp  
100 105 110

Gly Phe Glu Ala Asn Ser Glu Phe Gln Ala Phe Ser Gly Val Val Gly  
115 120 125

Pro Ser Glu Pro Met Met Ser Thr Phe Gly Glu Glu Asp Phe Pro Phe  
130 135 140



047-E2F-PCT.ST25.txt

Leu Ile Ser Asn Lys Arg Asn Asn Glu Leu Ser Leu Ser Leu Ala Ser  
 145 150 155 160  
 Asp Val Ser Asp Glu Cys Ser Glu Ile Ser Leu Cys Ala Ala Thr Arg  
 165 170 175  
 Leu Ala Ser Glu Gln Ala Ser Cys Ser Ser Lys Asp Ile Ser Asn Asn  
 180 185 190  
 Val Val Thr Gln Gly Phe Ser Gln Leu Ile Phe Gly Ser Lys Tyr Leu  
 195 200 205  
 His Ser Val Gln Glu Ile Leu Ser His Phe Ala Ala Tyr Ser Leu Asp  
 210 215 220  
 Tyr Ser Ser Arg Gly Thr Glu Ser Gly Ala Ala Ser Ser Ala Phe Thr  
 225 230 235 240  
 Ser Arg Phe Glu Asn Ile Thr Glu Phe Leu Asp Gly Asp Ser Asn Asn  
 245 250 255  
 Ser Glu Ala Gly Phe Gly Ser Thr Phe Gln Arg Arg Ala Leu Glu Ala  
 260 265 270  
 Lys Lys Thr His Leu Leu Asp Leu Leu Gln Met Val Asp Asp Arg Tyr  
 275 280 285  
 Ser His Cys Val Asp Glu Ile His Thr Val Ile Ser Ala Phe His Ala  
 290 295 300  
 Ala Thr Glu Leu Asp Pro Gln Leu His Thr Arg Phe Ala Leu Gln Thr  
 305 310 315 320  
 Val Ser Phe Leu Tyr Lys Asn Leu Arg Glu Arg Ile Cys Lys Lys Ile  
 325 330 335  
 Ile Ser Met Gly Ser Val Leu Glu Arg Gly Lys Asp Lys Thr Gln Glu  
 340 345 350  
 Thr Ser Met Phe His Gln His Cys Leu Leu Gln Gln Leu Lys Arg Lys  
 355 360 365  
 Asn His Gln Ile Trp Arg Pro Gln Arg Gly Leu Pro Glu Lys Ser Val  
 370 375 380  
 Ser Val Leu Arg Asn Trp Met Phe Gln Asn Phe Leu His Pro Tyr Pro  
 Page 3443

385 390 395 400

Lys Asp Ser Glu Lys His Leu Leu Ala Ile Arg Ser Gly Leu Thr Arg  
405 410 415

Ser Gln Val Ser Asn Trp Phe Ile Asn Ala Arg Val Arg Leu Trp Lys  
420 425 430

Pro Met Ile Glu Glu Met Tyr Ala Glu Met Asn Lys Arg Lys Leu Asn  
435 440 445

Asn Ser His Ile Gln Pro Asn Gly Pro Thr Leu Arg Met Pro Lys Ser  
450 455 460

Val Met Met Ser Gln Ala Met His Lys  
465 470

<210> 2429

<211> 1404

<212> DNA

<213> Arabidopsis thaliana

<400>	2429					
atggcccaaa	agctagttgc	acaggggtggt	gagacgggag	atgtatggga	tgatggtgtt	60
tacgacaatg	ttacaaaggt	atatgtaggg	caaggccagt	atggtatagc	cttcgtcaag	120
tttgagtatg	ccaatggttc	tgaagtgggt	gttggagatg	aacatggaga	gaagactgag	180
ctaggagttg	aagagtttga	gattgattcg	gatgactaca	tcgtctacgt	ggaaggttac	240
cgtgagaaaag	ttagcgatat	gacctcagaa	atgatcacgt	ttctttcatt	caagacttct	300
aaaggcaaaa	cctctcagcc	tatcgttaaa	aaacctgggg	ttaagtttgt	gctacatggt	360
ggaaaaatcg	ttgggtttca	tggacgttcg	accgacgttc	tacattccct	aggggcctat	420
gtttctttgc	cgtccactcc	caaattgctt	ggaaactgga	ttaaggtgga	gcaaaatgga	480
gaaggcccag	ggctaagatg	ctcacatggc	atagctcaag	taggcaacaa	gatttactct	540
tttggtggtg	agctcatacc	aaatcagccc	atcgataaac	acctttacgt	ctttgacctc	600
gagacccgga	cttgggtccat	tgctccagcc	accggagacg	ttccacacct	ctcttgctta	660
ggtgtccgta	tggtgtcagt	aggatcgacc	ctctatacct	ttggaggccg	agacttttca	720
cgccaataca	acgggtttcta	ctcgtttgac	acgacaacaa	acgagtggaa	actgctaact	780
ccggtggaag	aaggaccac	tcctcgtagt	ttccattcga	tggcagcgga	tgaggaaaac	840
gtttacgttt	tcggtggagt	gggtgctatg	gatcgaatca	agacactaga	ctcttacaat	900

047-E2F-PCT.ST25.txt

atcgttgaca agacgtgggt tcattgttcg aatccaggag attccttttag cataagagga 960  
ggagcagggc tcgaagtgggt gcaagggaaa gtatggattg tgtatggatt taacggatgt 1020  
gaagtagatg atgttcattt ctacgatcct gctgaagaca aatggacaca agtggaacaa 1080  
ttcgggtgtga agcctaacga aaggagtgtt ttcgctagtg cggctattgg gaaacacatt 1140  
gtgatatttg gaggtgagat tgcgatggat ccacgagctc acgtagggtcc ggggtcaatta 1200  
atcgatggga ctttcgctgt ggatacagag acgttgcaat gggagagggt agataagttt 1260  
gaggggactc cgagtagcag aggatggacc gcgtccacga ctggaaccat tgatggtaag 1320  
aaaggacttg tgatgcatgg tggtaaagct ccaaccaatg accggtttga tgacctcttc 1380  
ttttacggaa ttgactctgt ctga 1404

<210> 2430

<211> 467

<212> PRT

<213> Arabidopsis thaliana

<400> 2430

Met Ala Gln Lys Leu Val Ala Gln Gly Gly Glu Thr Gly Asp Val Trp  
1 5 10 15

Asp Asp Gly Val Tyr Asp Asn Val Thr Lys Val Tyr Val Gly Gln Gly  
20 25 30

Gln Tyr Gly Ile Ala Phe Val Lys Phe Glu Tyr Ala Asn Gly Ser Glu  
35 40 45

Val Val Val Gly Asp Glu His Gly Glu Lys Thr Glu Leu Gly Val Glu  
50 55 60

Glu Phe Glu Ile Asp Ser Asp Asp Tyr Ile Val Tyr Val Glu Gly Tyr  
65 70 75 80

Arg Glu Lys Val Ser Asp Met Thr Ser Glu Met Ile Thr Phe Leu Ser  
85 90 95

Phe Lys Thr Ser Lys Gly Lys Thr Ser Gln Pro Ile Val Lys Lys Pro  
100 105 110

Gly Val Lys Phe Val Leu His Gly Gly Lys Ile Val Gly Phe His Gly  
115 120 125

047-E2F-PCT.ST25.txt

Arg Ser Thr Asp Val Leu His Ser Leu Gly Ala Tyr Val Ser Leu Pro  
130 135 140

Ser Thr Pro Lys Leu Leu Gly Asn Trp Ile Lys Val Glu Gln Asn Gly  
145 150 155 160

Glu Gly Pro Gly Leu Arg Cys Ser His Gly Ile Ala Gln Val Gly Asn  
165 170 175

Lys Ile Tyr Ser Phe Gly Gly Glu Leu Ile Pro Asn Gln Pro Ile Asp  
180 185 190

Lys His Leu Tyr Val Phe Asp Leu Glu Thr Arg Thr Trp Ser Ile Ala  
195 200 205

Pro Ala Thr Gly Asp Val Pro His Leu Ser Cys Leu Gly Val Arg Met  
210 215 220

Val Ser Val Gly Ser Thr Leu Tyr Thr Phe Gly Gly Arg Asp Phe Ser  
225 230 235 240

Arg Gln Tyr Asn Gly Phe Tyr Ser Phe Asp Thr Thr Thr Asn Glu Trp  
245 250 255

Lys Leu Leu Thr Pro Val Glu Glu Gly Pro Thr Pro Arg Ser Phe His  
260 265 270

Ser Met Ala Ala Asp Glu Glu Asn Val Tyr Val Phe Gly Gly Val Gly  
275 280 285

Ala Met Asp Arg Ile Lys Thr Leu Asp Ser Tyr Asn Ile Val Asp Lys  
290 295 300

Thr Trp Phe His Cys Ser Asn Pro Gly Asp Ser Phe Ser Ile Arg Gly  
305 310 315 320

Gly Ala Gly Leu Glu Val Val Gln Gly Lys Val Trp Ile Val Tyr Gly  
325 330 335

Phe Asn Gly Cys Glu Val Asp Asp Val His Phe Tyr Asp Pro Ala Glu  
340 345 350

Asp Lys Trp Thr Gln Val Glu Thr Phe Gly Val Lys Pro Asn Glu Arg  
355 360 365

Ser Val Phe Ala Ser Ala Ala Ile Gly Lys His Ile Val Ile Phe Gly  
370 375 380

047-E2F-PCT.ST25.txt

Gly Glu Ile Ala Met Asp Pro Arg Ala His Val Gly Pro Gly Gln Leu  
385 390 395 400

Ile Asp Gly Thr Phe Ala Leu Asp Thr Glu Thr Leu Gln Trp Glu Arg  
405 410 415

Leu Asp Lys Phe Glu Gly Thr Pro Ser Ser Arg Gly Trp Thr Ala Ser  
420 425 430

Thr Thr Gly Thr Ile Asp Gly Lys Lys Gly Leu Val Met His Gly Gly  
435 440 445

Lys Ala Pro Thr Asn Asp Arg Phe Asp Asp Leu Phe Phe Tyr Gly Ile  
450 455 460

Asp Ser Val  
465

<210> 2431

<211> 3177

<212> DNA

<213> Arabidopsis thaliana

<400> 2431

atggatccaa gaacaagact tgactatgct ctgtttcagc tcacaccaac tagaacaaga	60
tgtgatcttg tgatattctc tgggtggtgag aatgagaaac ttgcttctgg gatttttcaa	120
cctttcgtta cgcattctcaa gagcgtagt gatcagattt ctaaagggtgg atactccggt	180
actctccgct cttcctccgt tgggtgttcct tgggtttacta aagtgaccct tcagagattt	240
gtgcgatttg tgactactcc ggagggttctt gagagggtctg taacattaga gaaggagatt	300
gagcagatcg aggattcgat tcaagctaata gcagccgcca ttgccggtga agctgaagga	360
aacgagttgg gtggtacatg gacttctcaa aagtctacgg ctttatcaaa gacgaaaggg	420
gaaactgatg gagacactgt ggaagaaaat tcgaagggttg gtcttcagcg tgttctggag	480
aaccgtaaag cggctttgtg caaagagcaa gcgatggcct atgctcgagc tttggttggt	540
gggtttgaac ttgactacat ggatgacctc ttttcgtttg ctgatgcttt cggagcttcg	600
cggttaaggg aagcgtgtgt taactttgtg gacttgtgca agagaaagaa cgaggataga	660
atgtgggtgg accaaatcac tgctatgcaa gcatttccta ggcctgaatt aacgttcatg	720
ggtgactctg ggatcgact cgctggtgaa gagaatgatt tgttgaatgc tacaacgta	780

aagcatggaa	actctatgga	tgcctcgagc	cagggtagct	ttgagactgg	ccaagaaggg	840
agagctcaaa	tggcaatgcc	gtggccaaac	cagtttcctc	agtacatgca	gaactttcaa	900
ggacatgggt	atccgcctcc	ttatatgttt	ccggggatgc	aaggtcaatc	accatatttc	960
catgggaata	tgcaatggcc	tgtaaacaatg	ggagatgtgg	agtcaaata	gaagtcttcc	1020
aagaagaaaa	agaagaagaa	gaagaataag	aagaagtcga	agcaagatga	atctgccgag	1080
ccaagcgata	attccagtac	tgagaccgaa	tcagaagacg	gaaatgaagg	aaagaaacaa	1140
tccaggaaag	tggttatccg	caacataaat	tatataactt	caaagaggaa	tggagcgaag	1200
gagagtgatt	cagatgagtc	tggagaagaa	gaagggtttg	tggatggaga	ttctattaag	1260
cagcaagtag	aagaagccat	tggctcagtg	gagagacgtc	ataaatcgac	ttcacaccgt	1320
cagaggaaac	acaaaagtca	caacggtgat	gatgattcaa	gtaacaagga	aactaagggg	1380
aatgataatt	gggatgcctt	ccagaatctt	cttttgaaag	acaatgattc	agagccagaa	1440
gaattactac	gtatatcatc	aactgcgtta	aatatggcgt	ctgaagttgt	gagaaagaga	1500
gaaccgcctt	ctgatgattc	attcttgggt	gcaattggaa	atgaggattg	gggaagagaa	1560
accagcattg	agaaattcaa	tgcaggtgag	aatgttcgga	taataaggaa	aggaacaac	1620
tatgacgagg	agatgttgaa	tccgggtaga	agcgatgaat	caagaagcta	ttcgcaggca	1680
gagatgtcgg	ttcatgatgg	gaagctcaga	accagaaatg	aggcggaaga	agactggttc	1740
atacgtaacc	aagctggtcc	agaaacagat	ccaagtcttg	tcaaaacatt	tgtaggagac	1800
catttccact	taaataagag	cagtgaagaa	gatgtcctga	ccgatgactc	tttcatgatc	1860
cattctcgtg	ttgagaacca	agtagaagat	tctcggttaa	ggacagaaat	catggactta	1920
gacgtttacg	gaaccaccca	acaagaaaac	agtgccccgg	agaacactcc	gcatgaacca	1980
gatgacctat	acatggttct	tggacgggaa	caagatgtta	aacctacatt	gttaccatgg	2040
accctgaaa	ttgactttga	gactaacact	ttggctcaaa	gaacaagcag	aatcgatttg	2100
ataactgcca	caaaggcctc	tgcaggtgaa	caaaccttag	atggtaaaga	aaagaagagt	2160
cgtggtatct	ccaaggggaa	ggatgcaaag	tcaagagcat	caagtagacc	tgacccggcg	2220
tcaaaagcca	agagacctgc	ttgggggaagt	agagctgctg	tctccaagtc	caaattccgag	2280
atggaggaag	agagaaagaa	gagaatggag	gaacttttaa	ttcagaggca	aaagagaatt	2340
gcggagaaga	gttccggttg	tagtgtatca	agttcttttag	cgtccaagaa	aactcctact	2400
gtgaccaagt	cagtgaagag	ctcgataaag	aatgagaaga	ctcctgaagc	cgcgagtc	2460
aaggctaagc	cagtactgag	aagttccacc	attgagcgcc	ttgctgttgc	tcggaccgct	2520
caaaggagc	cacagcaaaa	accagtaatc	aaaagaacat	caaaaccttc	aggatacaag	2580
acagagaaag	ctcaggaaaa	gaaatcgagt	aaaataggtc	aatcagatgc	gaaaagtgtg	2640
gaactttctc	gtgacccgag	tctcgaaatc	aaggaaacgg	tgggtggaaga	ttcacattct	2700

047-E2F-PCT.ST25.txt

tacttgtcag agaagcaagt tgatgcactt cctgctgttg cttctgttga tgatttcaaa 2760  
gacattaaag aattgcatag cttgccatca gaagaaacgg ccagagtaaa gaacagaccg 2820  
aatgaaatca tagcagagaa agtacaagat cagacgaaga tcgatgatca ggaaacagtg 2880  
aagaatacat ctgtttctga agataagcaa atcaccacga agcattactc agaggatggt 2940  
ggagaagtcc aggcttcaca ggaaaaaccg gtgtctccaa agaagtcggt gactttttca 3000  
gagacaaaca tggaggagaa gtattatttc tcaccagcgg tctcagagat tgacatctca 3060  
acgccacctg ctactgaagc agatcattcg aggaagaaat ggaacagtga agagacgtct 3120  
cccaaggcaa cggctaaagt cttcaggaag cttcttatgt tcggaaggaa aaagtaa 3177

<210> 2432

<211> 1058

<212> PRT

<213> Arabidopsis thaliana

<400> 2432

Met Asp Pro Arg Thr Arg Leu Asp Tyr Ala Leu Phe Gln Leu Thr Pro  
1 5 10 15

Thr Arg Thr Arg Cys Asp Leu Val Ile Phe Ser Gly Gly Glu Asn Glu  
20 25 30

Lys Leu Ala Ser Gly Ile Phe Gln Pro Phe Val Thr His Leu Lys Ser  
35 40 45

Val Ser Asp Gln Ile Ser Lys Gly Gly Tyr Ser Val Thr Leu Arg Pro  
50 55 60

Ser Ser Val Gly Val Pro Trp Phe Thr Lys Val Thr Leu Gln Arg Phe  
65 70 75 80

Val Arg Phe Val Thr Thr Pro Glu Val Leu Glu Arg Ser Val Thr Leu  
85 90 95

Glu Lys Glu Ile Glu Gln Ile Glu Asp Ser Ile Gln Ala Asn Ala Ala  
100 105 110

Ala Ile Ala Gly Glu Ala Glu Gly Asn Glu Leu Gly Gly Thr Trp Thr  
115 120 125

Ser Gln Lys Ser Thr Ala Leu Ser Lys Thr Lys Gly Glu Thr Asp Gly  
Page 3449

130

135

Asp Thr Val Glu Glu Asn Ser Lys Val Gly Leu Gln Arg Val Leu Glu  
145 150 155 160

Asn Arg Lys Ala Ala Leu Cys Lys Glu Gln Ala Met Ala Tyr Ala Arg  
165 170 175

Ala Leu Val Val Gly Phe Glu Leu Asp Tyr Met Asp Asp Leu Phe Ser  
180 185 190

Phe Ala Asp Ala Phe Gly Ala Ser Arg Leu Arg Glu Ala Cys Val Asn  
195 200 205

Phe Val Asp Leu Cys Lys Arg Lys Asn Glu Asp Arg Met Trp Val Asp  
210 215 220

Gln Ile Thr Ala Met Gln Ala Phe Pro Arg Pro Glu Leu Thr Phe Met  
225 230 235 240

Gly Asp Ser Gly Ile Val Leu Ala Gly Glu Glu Asn Asp Leu Leu Asn  
245 250 255

Ala Thr Asn Val Lys His Gly Asn Ser Met Asp Ala Ser Ser Gln Gly  
260 265 270

Ser Phe Glu Thr Gly Gln Glu Gly Arg Ala Gln Met Ala Met Pro Trp  
275 280 285

Pro Asn Gln Phe Pro Gln Tyr Met Gln Asn Phe Gln Gly His Gly Tyr  
290 295 300

Pro Pro Pro Tyr Met Phe Pro Gly Met Gln Gly Gln Ser Pro Tyr Phe  
305 310 315 320

His Gly Asn Met Gln Trp Pro Val Asn Met Gly Asp Val Glu Ser Asn  
325 330 335

Glu Lys Ser Ser Lys Lys Lys Lys Lys Lys Lys Lys Asn Lys Lys Lys  
340 345 350

Ser Lys Gln Asp Glu Ser Ala Glu Pro Ser Asp Asn Ser Ser Thr Glu  
355 360 365

Thr Glu Ser Glu Asp Gly Asn Glu Gly Lys Lys Gln Ser Arg Lys Val  
370 375 380



Val Ile Arg Asn Ile Asn Tyr Ile Thr Ser Lys Arg Asn Gly Ala Lys  
 385 390 395 400  
 Glu Ser Asp Ser Asp Glu Ser Gly Glu Glu Glu Gly Phe Val Asp Gly  
 405 410 415  
 Asp Ser Ile Lys Gln Gln Val Glu Glu Ala Ile Gly Ser Val Glu Arg  
 420 425 430  
 Arg His Lys Ser Thr Ser His Arg Gln Arg Lys His Lys Ser His Asn  
 435 440 445  
 Gly Asp Asp Asp Ser Ser Asn Lys Glu Thr Lys Gly Asn Asp Asn Trp  
 450 455 460  
 Asp Ala Phe Gln Asn Leu Leu Leu Lys Asp Asn Asp Ser Glu Pro Glu  
 465 470 475 480  
 Glu Leu Leu Arg Ile Ser Ser Thr Ala Leu Asn Met Ala Ser Glu Val  
 485 490 495  
 Val Arg Lys Arg Glu Pro Pro Ser Asp Asp Ser Phe Leu Val Ala Ile  
 500 505 510  
 Gly Asn Glu Asp Trp Gly Arg Glu Thr Ser Ile Glu Lys Phe Asn Ala  
 515 520 525  
 Gly Glu Asn Val Arg Ile Ile Arg Lys Gly Asn Asn Tyr Asp Glu Glu  
 530 535 540  
 Met Leu Asn Pro Gly Arg Ser Asp Glu Ser Arg Ser Tyr Ser Gln Ala  
 545 550 555 560  
 Glu Met Ser Val His Asp Gly Lys Leu Arg Thr Arg Asn Glu Ala Glu  
 565 570 575  
 Glu Asp Trp Phe Ile Arg Asn Gln Ala Gly Pro Glu Thr Asp Pro Ser  
 580 585 590  
 Leu Val Lys Thr Phe Val Gly Asp His Phe His Leu Asn Lys Ser Ser  
 595 600 605  
 Glu Arg Asp Val Leu Thr Asp Asp Ser Phe Met Ile His Ser Arg Val  
 610 615 620  
 Glu Asn Gln Val Glu Asp Ser Arg Leu Arg Thr Glu Ile Met Asp Leu  
 625 630 635 640

047-E2F-PCT.ST25.txt

Asp Val Tyr Gly Thr Thr Gln Gln Glu Asn Ser Ala Pro Glu Asn Thr  
645 650 655

Pro His Glu Pro Asp Asp Leu Tyr Met Val Leu Gly Arg Glu Gln Asp  
660 665 670

Val Lys Pro Thr Leu Leu Pro Trp Thr Pro Glu Ile Asp Phe Glu Thr  
675 680 685

Asn Thr Leu Ala Gln Arg Thr Ser Arg Ile Asp Leu Ile Thr Ala Thr  
690 695 700

Lys Ala Ser Ala Gly Glu Gln Thr Leu Asp Gly Lys Glu Lys Lys Ser  
705 710 715 720

Arg Gly Ile Ser Lys Gly Lys Asp Ala Lys Ser Arg Ala Ser Ser Arg  
725 730 735

Pro Asp Pro Ala Ser Lys Ala Lys Arg Pro Ala Trp Gly Ser Arg Ala  
740 745 750

Ala Val Ser Lys Ser Lys Ser Glu Met Glu Glu Glu Arg Lys Lys Arg  
755 760 765

Met Glu Glu Leu Leu Ile Gln Arg Gln Lys Arg Ile Ala Glu Lys Ser  
770 775 780

Ser Gly Gly Ser Val Ser Ser Ser Leu Ala Ser Lys Lys Thr Pro Thr  
785 790 795 800

Val Thr Lys Ser Val Lys Ser Ser Ile Lys Asn Glu Lys Thr Pro Glu  
805 810 815

Ala Ala Gln Ser Lys Ala Lys Pro Val Leu Arg Ser Ser Thr Ile Glu  
820 825 830

Arg Leu Ala Val Ala Arg Thr Ala Pro Lys Glu Pro Gln Gln Lys Pro  
835 840 845

Val Ile Lys Arg Thr Ser Lys Pro Ser Gly Tyr Lys Thr Glu Lys Ala  
850 855 860

Gln Glu Lys Lys Ser Ser Lys Ile Gly Gln Ser Asp Ala Lys Ser Val  
865 870 875 880

Glu Leu Ser Arg Asp Pro Ser Leu Glu Ile Lys Glu Thr Val Val Glu  
885 890 895

047-E2F-PCT.ST25.txt

Asp Ser His Ser Tyr Leu Ser Glu Lys Gln Val Asp Ala Leu Pro Ala  
900 905 910

Val Ala Ser Val Asp Asp Phe Lys Asp Ile Lys Glu Leu His Ser Leu  
915 920 925

Pro Ser Glu Glu Thr Ala Arg Val Lys Asn Arg Pro Asn Glu Ile Ile  
930 935 940

Ala Glu Lys Val Gln Asp Gln Thr Lys Ile Asp Asp Gln Glu Thr Val  
945 950 955 960

Lys Asn Thr Ser Val Ser Glu Asp Lys Gln Ile Thr Thr Lys His Tyr  
965 970 975

Ser Glu Asp Val Gly Glu Val Gln Ala Ser Gln Glu Lys Pro Val Ser  
980 985 990

Pro Lys Lys Ser Val Thr Phe Ser Glu Thr Asn Met Glu Glu Lys Tyr  
995 1000 1005

Tyr Phe Ser Pro Ala Val Ser Glu Ile Asp Ile Ser Thr Pro Pro  
1010 1015 1020

Ala Thr Glu Ala Asp His Ser Arg Lys Lys Trp Asn Ser Glu Glu  
1025 1030 1035

Thr Ser Pro Lys Ala Thr Ala Lys Val Phe Arg Lys Leu Leu Met  
1040 1045 1050

Phe Gly Arg Lys Lys  
1055

<210> 2433

<211> 1983

<212> DNA

<213> Arabidopsis thaliana

<400> 2433

atgaagtctt ttgcggctaa ggtagaagag ggagttaaag gaatagacgg aaagccgtcg	60
gtaggtccgg tgtaccggaa tcttctgtcg gaaaaagggtt ttcctccgat tgattctgag	120
atcaccactg cttgggacat tttcagtaaa tcagtggaga aattccctga caataatatg	180

cttggatggc gtcgaattgt tgatgagaag gttggaccat atatgtggaa aacgtacaag	240
gaagtatacg aagaagtttt gcagattggc tctgcactac gagccgccgg agctgaacct	300
gggagtcgag tggggatcta cgggtgttaat tgtcctcagt ggatcatagc aatggaggct	360
tgtgcagctc acactctaata ctgtgtacct ctatatgata cattgggttc aggagcagtc	420
gattacattg tagagcatgc ggaaatcgac tttgtgtttg tccaagacac caaaattaaa	480
ggacttcttg agccagattg caaatgtgct aaacggctaa aagctatagt ttccttctact	540
aacgtgagcg acgagcttag ccacaaggct tcagaaattg gagtcaaaac atactcctgg	600
atcgattttc tccatatggg acgtgagaaa ccggaagaca cgaacccgcc taaggcgttt	660
aacatatgca ccataatgta caccagcggc acaagcggtg atcctaaagg tgtggttttg	720
actcaccaag cggtcgcgac ttttgttgtt gggatggatc tctatatgga ccagtttgaa	780
gataagatga cacatgatga tgtgtatctc tccttcttgc ccttggtca tattcttgac	840
cgtatgaacg aggaatactt ctttcgaaa ggcgcttcg tcggctatta ccatggaaat	900
ttgaacgtgt tacgtgacga tattcaagaa ctgaaaccga cttatctagc tggagtacca	960
agagtgtttg agagaatcca tgaggggatt caaaaggctc ttcaagaact taaccaaga	1020
aggagattca tcttcaatgc tctctacaaa cacaagcttg cgtggttgaa tcgtgggtac	1080
tctcatagta aagcttcacc catggctgat ttcattgctt tcagaaagat tagagacaaa	1140
ttgggaggtc gcatccggtt gctagtatct ggaggagcac ctttgagccc tgagattgaa	1200
gagtttttga gagttacttg ttgttgcttt gtcgttcaag gctacggtct aacggagaca	1260
cttggaggaa cggctttggg tttcccggac gagatgtgta tgctagggac agtcggtatt	1320
ccagcggttt acaacgagat acggcttgaa gaggtgtctg aaatgggcta tgacccgctc	1380
ggagaaaatc cggcaggaga gatctgtata agaggacaat gtatgttttc aggggtattac	1440
aagaaccctg aactcactga agaagtcatg aaagatggat ggttccacac aggagatata	1500
ggtgagattc ttccaaacgg agtactcaag atcatcgate gtaaaaagaa tctgatcaaa	1560
ctttctcaag gagaatatgt tgctctcgag cttttgaaa acatcttcgg gcaaaactct	1620
gttgtccaag atatatgggt ttatggagac agcttcaaata ctatgcttgt cgcggtggtt	1680
gttcccaacc cagaaaccgt caacagggtg gctaaagatc tcggtttttac taaaccattc	1740
gaagaactct gttctttccc ggaactaaaa gaacacatca tttcagaact gaagtccacg	1800
gcagaaaaga acaagctaag aaagtttgag tacatcaaag cggtgacagt ggagacaaaa	1860
cctttcgacg tagagagaga cttagtgact gcgacgctca agaatcggag gaacaatctt	1920
ctcaaatatt atcaggtgca aatcgacgaa atgtaccgca aattggcctc aaagaaaatc	1980
tga	1983

&lt;210&gt; 2434

&lt;211&gt; 660

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2434

Met Lys Ser Phe Ala Ala Lys Val Glu Glu Gly Val Lys Gly Ile Asp  
 1 5 10 15

Gly Lys Pro Ser Val Gly Pro Val Tyr Arg Asn Leu Leu Ser Glu Lys  
 20 25 30

Gly Phe Pro Pro Ile Asp Ser Glu Ile Thr Thr Ala Trp Asp Ile Phe  
 35 40 45

Ser Lys Ser Val Glu Lys Phe Pro Asp Asn Asn Met Leu Gly Trp Arg  
 50 55 60

Arg Ile Val Asp Glu Lys Val Gly Pro Tyr Met Trp Lys Thr Tyr Lys  
 65 70 75 80

Glu Val Tyr Glu Glu Val Leu Gln Ile Gly Ser Ala Leu Arg Ala Ala  
 85 90 95

Gly Ala Glu Pro Gly Ser Arg Val Gly Ile Tyr Gly Val Asn Cys Pro  
 100 105 110

Gln Trp Ile Ile Ala Met Glu Ala Cys Ala Ala His Thr Leu Ile Cys  
 115 120 125

Val Pro Leu Tyr Asp Thr Leu Gly Ser Gly Ala Val Asp Tyr Ile Val  
 130 135 140

Glu His Ala Glu Ile Asp Phe Val Phe Val Gln Asp Thr Lys Ile Lys  
 145 150 155 160

Gly Leu Leu Glu Pro Asp Cys Lys Cys Ala Lys Arg Leu Lys Ala Ile  
 165 170 175

Val Ser Phe Thr Asn Val Ser Asp Glu Leu Ser His Lys Ala Ser Glu  
 180 185 190

Ile Gly Val Lys Thr Tyr Ser Trp Ile Asp Phe Leu His Met Gly Arg  
 195 200 205

047-E2F-PCT.ST25.txt

Glu Lys Pro Glu Asp Thr Asn Pro Pro Lys Ala Phe Asn Ile Cys Thr  
 210 215 220  
 Ile Met Tyr Thr Ser Gly Thr Ser Gly Asp Pro Lys Gly Val Val Leu  
 225 230 235  
 Thr His Gln Ala Val Ala Thr Phe Val Val Gly Met Asp Leu Tyr Met  
 245 250 255  
 Asp Gln Phe Glu Asp Lys Met Thr His Asp Asp Val Tyr Leu Ser Phe  
 260 265 270  
 Leu Pro Leu Ala His Ile Leu Asp Arg Met Asn Glu Glu Tyr Phe Phe  
 275 280 285  
 Arg Lys Gly Ala Ser Val Gly Tyr Tyr His Gly Asn Leu Asn Val Leu  
 290 295 300  
 Arg Asp Asp Ile Gln Glu Leu Lys Pro Thr Tyr Leu Ala Gly Val Pro  
 305 310 315 320  
 Arg Val Phe Glu Arg Ile His Glu Gly Ile Gln Lys Ala Leu Gln Glu  
 325 330 335  
 Leu Asn Pro Arg Arg Arg Phe Ile Phe Asn Ala Leu Tyr Lys His Lys  
 340 345 350  
 Leu Ala Trp Leu Asn Arg Gly Tyr Ser His Ser Lys Ala Ser Pro Met  
 355 360 365  
 Ala Asp Phe Ile Ala Phe Arg Lys Ile Arg Asp Lys Leu Gly Gly Arg  
 370 375 380  
 Ile Arg Leu Leu Val Ser Gly Gly Ala Pro Leu Ser Pro Glu Ile Glu  
 385 390 395 400  
 Glu Phe Leu Arg Val Thr Cys Cys Cys Phe Val Val Gln Gly Tyr Gly  
 405 410 415  
 Leu Thr Glu Thr Leu Gly Gly Thr Ala Leu Gly Phe Pro Asp Glu Met  
 420 425 430  
 Cys Met Leu Gly Thr Val Gly Ile Pro Ala Val Tyr Asn Glu Ile Arg  
 435 440 445  
 Leu Glu Glu Val Ser Glu Met Gly Tyr Asp Pro Leu Gly Glu Asn Pro  
 450 455 460

047-E2F-PCT.ST25.txt

Ala Gly Glu Ile Cys Ile Arg Gly Gln Cys Met Phe Ser Gly Tyr Tyr  
465 470 475 480

Lys Asn Pro Glu Leu Thr Glu Glu Val Met Lys Asp Gly Trp Phe His  
485 490 495

Thr Gly Asp Ile Gly Glu Ile Leu Pro Asn Gly Val Leu Lys Ile Ile  
500 505 510

Asp Arg Lys Lys Asn Leu Ile Lys Leu Ser Gln Gly Glu Tyr Val Ala  
515 520 525

Leu Glu His Leu Glu Asn Ile Phe Gly Gln Asn Ser Val Val Gln Asp  
530 535 540

Ile Trp Val Tyr Gly Asp Ser Phe Lys Ser Met Leu Val Ala Val Val  
545 550 555 560

Val Pro Asn Pro Glu Thr Val Asn Arg Trp Ala Lys Asp Leu Gly Phe  
565 570 575

Thr Lys Pro Phe Glu Glu Leu Cys Ser Phe Pro Glu Leu Lys Glu His  
580 585 590

Ile Ile Ser Glu Leu Lys Ser Thr Ala Glu Lys Asn Lys Leu Arg Lys  
595 600 605

Phe Glu Tyr Ile Lys Ala Val Thr Val Glu Thr Lys Pro Phe Asp Val  
610 615 620

Glu Arg Asp Leu Val Thr Ala Thr Leu Lys Asn Arg Arg Asn Asn Leu  
625 630 635 640

Leu Lys Tyr Tyr Gln Val Gln Ile Asp Glu Met Tyr Arg Lys Leu Ala  
645 650 655

Ser Lys Lys Ile  
660

<210> 2435

<211> 525

<212> DNA

<213> Arabidopsis thaliana

```

<400> 2435
atggcgggtgt tatccaccat ctactccatc accagagctt caacgcctac tatggcgtct      60
ctaactaatg actcaccgtc tccacttcct tcttcttcac cgtcgaagct tccctctcct      120
acttctccgt caaagaaacc gttaaaacta agacaagtga gcaaacaat gggaagtcaa      180
aaccagcaac gacgaggcaa caagccttcg atagcacaga ttgagagagc ttttggctct      240
ggatcatatc gtgattccga aggggaaatg gatatgaata cggatattcga tgagcttcta      300
ttaggccatg ctaataaatt cgaaagtaag atcgagaaga agctacggga gattggcgaa      360
atctttgtag ctcgaacaga gcctaagctt cgttcctcgg ggaaaccagt tttgatgttt      420
acaattcaat ggattcttcc aatatggatt atgtcactgc tcgtagcttg tggagttatc      480
aaactccctt ttagcatccc tttccttgat gacttgatca tgtga                        525

```

<210> 2436

<211> 174

<212> PRT

<213> Arabidopsis thaliana

<400> 2436

```

Met Ala Val Leu Ser Thr Ile Tyr Ser Ile Thr Arg Ala Ser Thr Pro
1          5          10          15

Thr Met Ala Ser Leu Thr Asn Asp Ser Pro Ser Pro Leu Pro Ser Ser
          20          25          30

Ser Pro Ser Lys Leu Pro Ser Pro Thr Ser Pro Ser Lys Lys Pro Leu
          35          40          45

Lys Leu Arg Gln Val Ser Lys Gln Met Gly Ser Gln Asn Gln Gln Arg
          50          55          60

Arg Gly Asn Lys Pro Ser Ile Ala Gln Ile Glu Arg Ala Phe Gly Ser
65          70          75          80

Gly Ser Tyr Arg Asp Ser Glu Gly Glu Met Asp Met Asn Thr Val Phe
          85          90          95

Asp Glu Leu Leu Leu Gly His Ala Asn Lys Phe Glu Ser Lys Ile Glu
          100          105          110

Lys Lys Leu Arg Glu Ile Gly Glu Ile Phe Val Ala Arg Thr Glu Pro
          115          120          125

```



Lys Leu Arg Ser Ser Gly Lys Pro Val Leu Met Phe Thr Ile Gln Trp  
 130 135 140

Ile Leu Pro Ile Trp Ile Met Ser Leu Leu Val Ala Cys Gly Val Ile  
 145 150 155 160

Lys Leu Pro Phe Ser Ile Pro Phe Leu Asp Asp Leu Ile Met  
 165 170

<210> 2437

<211> 1416

<212> DNA

<213> Arabidopsis thaliana

<400> 2437

atggaaccag tctcttcatg gggtaacacc tctctcgtct ccgtagatcc agagatccac	60
gacctaatacg agaaggagaa acgtcggcaa tgtcgaggaa tcgaacttat cgcttccgag	120
aatttcactt ccttcgccgt catcgaagct ctcggaagtg ccttaaccaa caaatactcc	180
gaaggtattc ctggtaatcg ttattacgga ggtaacgaat tcatcgatga gatcgagaat	240
ctttgccgtt caagagctct cgaagctttc cattgtgatc cagcagcgtg gggcgttaat	300
gttcagccgt attctggatc tccggcaaat ttcgctgctt acacggcttt gcttcagcct	360
cacgatcgta tcatggggct tgatttgctt tcaggtggtc atttgactca tggttactat	420
acatctggtg gtaagaagat ctctgcgact tcgatctact ttgagagtct tccgtataag	480
gtgaatttca ccaactggta cattgattac gataagcttg aagagaaggc gttggatttc	540
aggcctaagt tgcttatctg tgggtgtagt gcgtatccta gggattggga ttacgctaga	600
tttagagcta ttgctgataa gggtggagct cttttgcttt gtgacatggc tcacatcagt	660
ggctctcgttg ctgctcagga agctgcaaac ccatttgagt actgtgacgt tgtgacaacc	720
acaaccacaa agagtttgag gggccaagg gctggtatga ttttctacag gaagggcca	780
aaaccaccaa agaaggggtca acccgagggg gcagtcctatg attttgagga caaatcaac	840
tttgctgtat tccctgcgct tcaaggtggc cctcacaatc accagattgg tgctctagct	900
gttgcgttga agcaggctaa tactcctggg ttcaaggtct acgcaaaaca agtgaaagcc	960
aatgctgttg cccttggaac ctacctaatg agcaaggggt accagattgt gaccaatgga	1020
actgagaacc accttggttct ctgggatctt cgccctcttg gattgaccgg aaacaagggt	1080
gagaagctct gcgatctgtg cagcattaca ttgaacaaga acgcagtatt tggagacagt	1140

047-E2F-PCT.ST25.txt

agtgtctcttg ctcctggagg tgtaagaatc ggtgcacccg cgatgacatc gagaggattg 1200  
 gtggagaagg actttgagca gataggagaa ttcctgagcc gtgcagtgac actgacgttg 1260  
 gacatccaaa agacatacgg taagttgttg aaggacttca acaaggggtt ggtgaacaac 1320  
 aaagatctcg atcagctcaa ggctgatgtc gagaagttct cggcgtctta tgagatgcct 1380  
 ggattcctca tgtctgagat gaagtacaag gattag 1416

<210> 2438

<211> 471

<212> PRT

<213> Arabidopsis thaliana

<400> 2438

Met Glu Pro Val Ser Ser Trp Gly Asn Thr Ser Leu Val Ser Val Asp  
 1 5 10 15

Pro Glu Ile His Asp Leu Ile Glu Lys Glu Lys Arg Arg Gln Cys Arg  
 20 25 30

Gly Ile Glu Leu Ile Ala Ser Glu Asn Phe Thr Ser Phe Ala Val Ile  
 35 40 45

Glu Ala Leu Gly Ser Ala Leu Thr Asn Lys Tyr Ser Glu Gly Ile Pro  
 50 55 60

Gly Asn Arg Tyr Tyr Gly Gly Asn Glu Phe Ile Asp Glu Ile Glu Asn  
 65 70 75 80

Leu Cys Arg Ser Arg Ala Leu Glu Ala Phe His Cys Asp Pro Ala Ala  
 85 90 95

Trp Gly Val Asn Val Gln Pro Tyr Ser Gly Ser Pro Ala Asn Phe Ala  
 100 105 110

Ala Tyr Thr Ala Leu Leu Gln Pro His Asp Arg Ile Met Gly Leu Asp  
 115 120 125

Leu Pro Ser Gly Gly His Leu Thr His Gly Tyr Tyr Thr Ser Gly Gly  
 130 135 140

Lys Lys Ile Ser Ala Thr Ser Ile Tyr Phe Glu Ser Leu Pro Tyr Lys  
 145 150 155 160

Val Asn Phe Thr Thr Gly Tyr Ile Asp Tyr Asp Lys Leu Glu Glu Lys  
 165 170 175  
 Ala Leu Asp Phe Arg Pro Lys Leu Leu Ile Cys Gly Gly Ser Ala Tyr  
 180 185 190  
 Pro Arg Asp Trp Asp Tyr Ala Arg Phe Arg Ala Ile Ala Asp Lys Val  
 195 200 205  
 Gly Ala Leu Leu Leu Cys Asp Met Ala His Ile Ser Gly Leu Val Ala  
 210 215 220  
 Ala Gln Glu Ala Ala Asn Pro Phe Glu Tyr Cys Asp Val Val Thr Thr  
 225 230 235 240  
 Thr Thr His Lys Ser Leu Arg Gly Pro Arg Ala Gly Met Ile Phe Tyr  
 245 250 255  
 Arg Lys Gly Pro Lys Pro Pro Lys Lys Gly Gln Pro Glu Gly Ala Val  
 260 265 270  
 Tyr Asp Phe Glu Asp Lys Ile Asn Phe Ala Val Phe Pro Ala Leu Gln  
 275 280 285  
 Gly Gly Pro His Asn His Gln Ile Gly Ala Leu Ala Val Ala Leu Lys  
 290 295 300  
 Gln Ala Asn Thr Pro Gly Phe Lys Val Tyr Ala Lys Gln Val Lys Ala  
 305 310 315 320  
 Asn Ala Val Ala Leu Gly Asn Tyr Leu Met Ser Lys Gly Tyr Gln Ile  
 325 330 335  
 Val Thr Asn Gly Thr Glu Asn His Leu Val Leu Trp Asp Leu Arg Pro  
 340 345 350  
 Leu Gly Leu Thr Gly Asn Lys Val Glu Lys Leu Cys Asp Leu Cys Ser  
 355 360 365  
 Ile Thr Leu Asn Lys Asn Ala Val Phe Gly Asp Ser Ser Ala Leu Ala  
 370 375 380  
 Pro Gly Gly Val Arg Ile Gly Ala Pro Ala Met Thr Ser Arg Gly Leu  
 385 390 395 400  
 Val Glu Lys Asp Phe Glu Gln Ile Gly Glu Phe Leu Ser Arg Ala Val  
 405 410 415

047-E2F-PCT.ST25.txt

Thr Leu Thr Leu Asp Ile Gln Lys Thr Tyr Gly Lys Leu Leu Lys Asp  
420 425 430

Phe Asn Lys Gly Leu Val Asn Asn Lys Asp Leu Asp Gln Leu Lys Ala  
435 440 445

Asp Val Glu Lys Phe Ser Ala Ser Tyr Glu Met Pro Gly Phe Leu Met  
450 455 460

Ser Glu Met Lys Tyr Lys Asp  
465 470

<210> 2439

<211> 807

<212> DNA

<213> Arabidopsis thaliana

<400> 2439

atggaagtaa cttcccaatc taccctccct ccagggttca gatttcatcc taccgacgaa	60
gaactcatcg ttactatct tcgaaaccag accatgtcta aaccatgccc tgtctccatc	120
atcccagaag ttgatatcta caaattcgac ccatggcaat tacccgagaa aacagagttt	180
ggagaaaatg agtggtatct cttcagccct agagaaagaa aatatccaaa cggagtcaga	240
ccaaaccggg cagctgtttc cggttattgg aaagcaaccg gtacagacaa agccattcac	300
agcgggttcaa gtaacgtagg tgtcaagaaa gctctagtct tctacaaagg tagacctcct	360
aaaggaatca aaactgactg gatcatgcat gaggatcgtc tccatgattc acgtaaagca	420
tcaacgaaac gtaacgggtc catgagggtta gatgaatggg tactgtgtag gatatacaag	480
aagagaggag caagtaagct tctgaatgag caagagggtt tcatggacga agtactaatg	540
gaggatgaga caaaagttgt agttaacgaa gcagagagaa gaactgaaga agagataatg	600
atgatgacgt cgatgaaact tccaaggacg tggttcgctgg ctcatgtgtt ggaaatggat	660
tacatgggac cgtctctca cattgataat tttagtcagt tcgatcatct tcatcaacct	720
gattcggagt ctagttgggt cggggacctt cagtttaacc aagacgagat cttaaaccat	780
catcgtcaag cgatgtttta gtttttag	807

<210> 2440

<211> 268

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2440

Met Glu Val Thr Ser Gln Ser Thr Leu Pro Pro Gly Phe Arg Phe His  
 1 5 10 15

Pro Thr Asp Glu Glu Leu Ile Val Tyr Tyr Leu Arg Asn Gln Thr Met  
 20 25 30

Ser Lys Pro Cys Pro Val Ser Ile Ile Pro Glu Val Asp Ile Tyr Lys  
 35 40 45

Phe Asp Pro Trp Gln Leu Pro Glu Lys Thr Glu Phe Gly Glu Asn Glu  
 50 55 60

Trp Tyr Phe Phe Ser Pro Arg Glu Arg Lys Tyr Pro Asn Gly Val Arg  
 65 70 75 80

Pro Asn Arg Ala Ala Val Ser Gly Tyr Trp Lys Ala Thr Gly Thr Asp  
 85 90 95

Lys Ala Ile His Ser Gly Ser Ser Asn Val Gly Val Lys Lys Ala Leu  
 100 105 110

Val Phe Tyr Lys Gly Arg Pro Pro Lys Gly Ile Lys Thr Asp Trp Ile  
 115 120 125

Met His Glu Tyr Arg Leu His Asp Ser Arg Lys Ala Ser Thr Lys Arg  
 130 135 140

Asn Gly Ser Met Arg Leu Asp Glu Trp Val Leu Cys Arg Ile Tyr Lys  
 145 150 155 160

Lys Arg Gly Ala Ser Lys Leu Leu Asn Glu Gln Glu Gly Phe Met Asp  
 165 170 175

Glu Val Leu Met Glu Asp Glu Thr Lys Val Val Val Asn Glu Ala Glu  
 180 185 190

Arg Arg Thr Glu Glu Glu Ile Met Met Met Thr Ser Met Lys Leu Pro  
 195 200 205

Arg Thr Cys Ser Leu Ala His Leu Leu Glu Met Asp Tyr Met Gly Pro  
 210 215 220

Val Ser His Ile Asp Asn Phe Ser Gln Phe Asp His Leu His Gln Pro  
 Page 3463

225

230

240

Asp Ser Glu Ser Ser Trp Phe Gly Asp Leu Gln Phe Asn Gln Asp Glu  
245 250 255

Ile Leu Asn His His Arg Gln Ala Met Phe Lys Phe  
260 265

<210> 2441

<211> 1290

<212> DNA

<213> Arabidopsis thaliana

<400> 2441

```
atggaatcac ttccccagcc gcaaaaccaa tcatctccgg caacaactcc ggcgaagatc 60
ctccttgga aatacgaact cggtcgtcgt ctcggttagcg gaagcttcgc gaaagtccat 120
ttagctcgat caatcgaatc cgacgagctc gtcgccgtta aaatcatcga gaagaagaaa 180
acaatcgaat ccggtatgga accaagaata atcagagaga tcgatgcat gcgtcgtctt 240
cgtcatcatc caaacatact caagatccat gaagttatgg caaccaaadc taagatctat 300
ctcgtaatgg aactcgcttc cggtggtgaa cttttctcaa aagtcctccg tcgtggacgt 360
cttcctgaat caacggcgcg tcgttacttt caacaactcg cctccgctct tcgtttctct 420
caccaagacg gtgtcgctca ccgtgatgtg aaacctcaga atctactctt agatgagcaa 480
ggtaacctca aggtctctga ctttggttta tcagctttac cggagcatct acaaaacgga 540
ttgcttcaca cggcgtgtgg tactccggct tatacagctc cggagggttat ttcacggagg 600
ggatacgacg gagcaaaagc tgatgcgtgg tcttgtggtg tgattttggt tgttttattg 660
gttggcgatg ttccatttga tgattcgaat atcgctgcga tgtatcgga gattcatcgg 720
agagattatc ggtttccgag ctggatttcg aaacaagcta aatcgataat ctatcagatg 780
ttagatccga atccagtaac gaggatgagt attgaaacag tgatgaaaac gaattgggtc 840
aagaagtctc tagagacttc tgagtttcat cgtaacgtct ttgattcgga agtagagatg 900
aaatcgagtg ttaattcgat tactgctttt gatttgatct cgttatcgtc gggattagat 960
ctttctggat tgtttgaggc taagaagaag aaggagagga gattcacggc gaagggttcg 1020
ggtgttgaag tggaggagaa ggcgaagatg attggggaga agttagggtta tgtagtgaag 1080
aagaagatga tgaagaagga aggagaagtg aagggtgttg gattagggag aggaagaact 1140
gtgattgtgg tggaagcagt ggagttaacg gtggatgttg tggtggttga agtgaaagtt 1200
gttgaagggtg aagaagatga ttcacggtgg tctgatttga ttactgagct tgaagatata 1260
```

gtttctttcat ggcacaatga catcatgtaa

1290

&lt;210&gt; 2442

&lt;211&gt; 429

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2442

Met Glu Ser Leu Pro Gln Pro Gln Asn Gln Ser Ser Pro Ala Thr Thr  
 1 5 10 15

Pro Ala Lys Ile Leu Leu Gly Lys Tyr Glu Leu Gly Arg Arg Leu Gly  
 20 25 30

Ser Gly Ser Phe Ala Lys Val His Leu Ala Arg Ser Ile Glu Ser Asp  
 35 40 45

Glu Leu Val Ala Val Lys Ile Ile Glu Lys Lys Lys Thr Ile Glu Ser  
 50 55 60

Gly Met Glu Pro Arg Ile Ile Arg Glu Ile Asp Ala Met Arg Arg Leu  
 65 70 75 80

Arg His His Pro Asn Ile Leu Lys Ile His Glu Val Met Ala Thr Lys  
 85 90 95

Ser Lys Ile Tyr Leu Val Met Glu Leu Ala Ser Gly Gly Glu Leu Phe  
 100 105 110

Ser Lys Val Leu Arg Arg Gly Arg Leu Pro Glu Ser Thr Ala Arg Arg  
 115 120 125

Tyr Phe Gln Gln Leu Ala Ser Ala Leu Arg Phe Ser His Gln Asp Gly  
 130 135 140

Val Ala His Arg Asp Val Lys Pro Gln Asn Leu Leu Leu Asp Glu Gln  
 145 150 155 160

Gly Asn Leu Lys Val Ser Asp Phe Gly Leu Ser Ala Leu Pro Glu His  
 165 170 175

Leu Gln Asn Gly Leu Leu His Thr Ala Cys Gly Thr Pro Ala Tyr Thr  
 180 185 190

047-E2F-PCT.ST25.txt

Ala Pro Glu Val Ile Ser Arg Arg Gly Tyr Asp Gly Ala Lys Ala Asp  
195 200 205

Ala Trp Ser Cys Gly Val Ile Leu Phe Val Leu Leu Val Gly Asp Val  
210 215 220

Pro Phe Asp Asp Ser Asn Ile Ala Ala Met Tyr Arg Lys Ile His Arg  
225 230 235 240

Arg Asp Tyr Arg Phe Pro Ser Trp Ile Ser Lys Gln Ala Lys Ser Ile  
245 250 255

Ile Tyr Gln Met Leu Asp Pro Asn Pro Val Thr Arg Met Ser Ile Glu  
260 265 270

Thr Val Met Lys Thr Asn Trp Phe Lys Lys Ser Leu Glu Thr Ser Glu  
275 280 285

Phe His Arg Asn Val Phe Asp Ser Glu Val Glu Met Lys Ser Ser Val  
290 295 300

Asn Ser Ile Thr Ala Phe Asp Leu Ile Ser Leu Ser Ser Gly Leu Asp  
305 310 315 320

Leu Ser Gly Leu Phe Glu Ala Lys Lys Lys Lys Glu Arg Arg Phe Thr  
325 330 335

Ala Lys Val Ser Gly Val Glu Val Glu Glu Lys Ala Lys Met Ile Gly  
340 345 350

Glu Lys Leu Gly Tyr Val Val Lys Lys Lys Met Met Lys Lys Glu Gly  
355 360 365

Glu Val Lys Val Val Gly Leu Gly Arg Gly Arg Thr Val Ile Val Val  
370 375 380

Glu Ala Val Glu Leu Thr Val Asp Val Val Val Val Glu Val Lys Val  
385 390 395 400

Val Glu Gly Glu Glu Asp Asp Ser Arg Trp Ser Asp Leu Ile Thr Glu  
405 410 415

Leu Glu Asp Ile Val Leu Ser Trp His Asn Asp Ile Met  
420 425

<210> 2443



&lt;211&gt; 1239

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2443

```

atggcggagg agaaatgggt ggtgatggtg acggcgcaga ctccaacgaa tatcgccgtg      60
attaagtatt ggggaaagag agatgaggtt cggattcttc ccattaatga tagcattagc      120
gtcacgcttg atcctgatca cctctgtact ctcaccaccg tcgctgttag tccttccttt      180
gatcgagatc gaatgtggct caatggcaag gaaatctcgc tttctggaag taggtaccag      240
aattgcttga gggaaattcg aagtcgtgct gatgatgtag aagataaaga aaagggatc      300
aagattgcga agaaagattg ggagaagctg catctgcaca ttgcttctca taacaacttc      360
cctactgctg ctggcttagc atcttctgct gctgggtttg cttgcttagt ttttgctctt      420
gccaaagtga tgaatgtaaa tgaagatcca agccaacttt ctgctatagc aaggcaaggt      480
tcaggaagtg cttgccgtag tttatttggg ggatttgtca agtggaatat gggaaacaaa      540
gaagatggaa gtgacagtgt tgcagttcaa ctggtagatg ataagcactg ggatgatctt      600
gttatcatta ttgctgtggt tagttcacga cagaaggaaa caagcagcac ctcgggaatg      660
cgtgagagtg ttgagacaag tttgctttta cagcatagag caaaggaagt tgtcccagta      720
cggattttgc aaatggaaga agctataaag aatcgagatt tcacatcttt tacaaaattg      780
acgtgttcag acagtaatca gtttcatgct gtttgtatgg atacatctcc acccatattc      840
tacatgaatg acacctcca caggataatc agcttagttg aaaagtggaa ccgttctgcc      900
ggtacaccag agattgctta tacatttgat gctggcccaa atgcagtcac gattgcaaga      960
aacaggaaag tagcagttga attgctgcag gggctgctct actgcttccc tcctaagcct     1020
gacacagaca tgaagagtta cgtactgggg gatacatcga tagtaaaaga ggcaggcttg     1080
gaaggagagc ttccacaagg aattaaagac aaaattggaa gtcaggatca aaaaggtgaa     1140
gtgagttatt ttatatgcag cagacctgga agaggtcctg tggtgcttca agaccaaact     1200
caagctcttc tccatcctca aactggcctc cccaaataa                                1239

```

&lt;210&gt; 2444

&lt;211&gt; 412

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2444

047-E2F-PCT.ST25.txt

Met Ala Glu Glu Lys Trp Val Val Met Val Thr Ala Gln Thr Pro Thr  
1 5 10 15

Asn Ile Ala Val Ile Lys Tyr Trp Gly Lys Arg Asp Glu Val Arg Ile  
20 25 30

Leu Pro Ile Asn Asp Ser Ile Ser Val Thr Leu Asp Pro Asp His Leu  
35 40 45

Cys Thr Leu Thr Thr Val Ala Val Ser Pro Ser Phe Asp Arg Asp Arg  
50 55 60

Met Trp Leu Asn Gly Lys Glu Ile Ser Leu Ser Gly Ser Arg Tyr Gln  
65 70 75 80

Asn Cys Leu Arg Glu Ile Arg Ser Arg Ala Asp Asp Val Glu Asp Lys  
85 90 95

Glu Lys Gly Ile Lys Ile Ala Lys Lys Asp Trp Glu Lys Leu His Leu  
100 105 110

His Ile Ala Ser His Asn Asn Phe Pro Thr Ala Ala Gly Leu Ala Ser  
115 120 125

Ser Ala Ala Gly Phe Ala Cys Leu Val Phe Ala Leu Ala Lys Leu Met  
130 135 140

Asn Val Asn Glu Asp Pro Ser Gln Leu Ser Ala Ile Ala Arg Gln Gly  
145 150 155 160

Ser Gly Ser Ala Cys Arg Ser Leu Phe Gly Gly Phe Val Lys Trp Asn  
165 170 175

Met Gly Asn Lys Glu Asp Gly Ser Asp Ser Val Ala Val Gln Leu Val  
180 185 190

Asp Asp Lys His Trp Asp Asp Leu Val Ile Ile Ile Ala Val Val Ser  
195 200 205

Ser Arg Gln Lys Glu Thr Ser Ser Thr Ser Gly Met Arg Glu Ser Val  
210 215 220

Glu Thr Ser Leu Leu Leu Gln His Arg Ala Lys Glu Val Val Pro Val  
225 230 235 240

Arg Ile Leu Gln Met Glu Glu Ala Ile Lys Asn Arg Asp Phe Thr Ser  
245 250 255

047-E2F-PCT.ST25.txt

Phe Thr Lys Leu Thr Cys Ser Asp Ser Asn Gln Phe His Ala Val Cys  
260 265 270

Met Asp Thr Ser Pro Pro Ile Phe Tyr Met Asn Asp Thr Ser His Arg  
275 280 285

Ile Ile Ser Leu Val Glu Lys Trp Asn Arg Ser Ala Gly Thr Pro Glu  
290 295 300

Ile Ala Tyr Thr Phe Asp Ala Gly Pro Asn Ala Val Met Ile Ala Arg  
305 310 315 320

Asn Arg Lys Val Ala Val Glu Leu Leu Gln Gly Leu Leu Tyr Cys Phe  
325 330 335

Pro Pro Lys Pro Asp Thr Asp Met Lys Ser Tyr Val Leu Gly Asp Thr  
340 345 350

Ser Ile Val Lys Glu Ala Gly Leu Glu Gly Glu Leu Pro Gln Gly Ile  
355 360 365

Lys Asp Lys Ile Gly Ser Gln Asp Gln Lys Gly Glu Val Ser Tyr Phe  
370 375 380

Ile Cys Ser Arg Pro Gly Arg Gly Pro Val Val Leu Gln Asp Gln Thr  
385 390 395 400

Gln Ala Leu Leu His Pro Gln Thr Gly Leu Pro Lys  
405 410

<210> 2445

<211> 1053

<212> DNA

<213> Arabidopsis thaliana

<400> 2445  
atggaatcag aaaccctaac cgccaaggct acgatcacga ccacgaccct accgagtcac 60  
gacgagacca agacagaatc aacagagttc gagaaaaatc aaaaacggta tcaagacctc 120  
atctccacgt ttcctcacga gaaaggctgg agaccgaaag agcccctgat cgagtatggt 180  
ggttactggt ggctaccgtc tctcctcgaa ggttgtattc acgcgcaaga gttctttcaa 240  
gcacgaccca gtgacttcct cgtctgtagc tacccaaaga caggcaccac ttggctcaaa 300

047-E2F-PCT.ST25.txt

gccctgactt tcgccatcgc aaatcgttcc cgcttcgatg attcctccaa ccctctcctg 360  
aaacgtaacc ctcacgagtt tgttccttac attgagatag atttcccttt cttccctgaa 420  
gttgatgttc tcaaagacaa agggaaact ctgttttcga ctcatatccc atacgagtta 480  
ttacctgatt cggttgtgaa atccggttgt aagatggttt acatatggag agaaccaaag 540  
gacactttca tctccatgtg gactttcctt cacaaggaaa ggacagagct tggacctgtc 600  
agcaatcttg aggagtcttt tgatatgttc tgtcgtggtc tgtctgggta tggtccttat 660  
cttaatcata tcctggcgta ttggaaagca taccaagaga atccagatag gatcttgttc 720  
ctcaagtacg agacgatgag agctgacctt ttaccgtacg tgaagagtct ggctgagttt 780  
atgggtcatg gattcacagc cgaggaagag gagaaagggt ttgttgagaa agtgggtgaat 840  
ctttgcagct tcgagacgtt gaagaatctt gaagctaaca aaggggagaa agacagagag 900  
gatcgtcctg gtgtttacgc gaatagcgcg tatttcagga aaggaaagggt gggagattgg 960  
tcgaactatc tgactccgga gatggctgct cgtatagatg ggtaaatgga agagaaattt 1020  
aagggcaccg gcttgcttga acatggtaaa tga 1053

<210> 2446

<211> 350

<212> PRT

<213> Arabidopsis thaliana

<400> 2446

Met Glu Ser Glu Thr Leu Thr Ala Lys Ala Thr Ile Thr Thr Thr Thr  
1 5 10 15

Leu Pro Ser His Asp Glu Thr Lys Thr Glu Ser Thr Glu Phe Glu Lys  
20 25 30

Asn Gln Lys Arg Tyr Gln Asp Leu Ile Ser Thr Phe Pro His Glu Lys  
35 40 45

Gly Trp Arg Pro Lys Glu Pro Leu Ile Glu Tyr Gly Gly Tyr Trp Trp  
50 55 60

Leu Pro Ser Leu Leu Glu Gly Cys Ile His Ala Gln Glu Phe Phe Gln  
65 70 75 80

Ala Arg Pro Ser Asp Phe Leu Val Cys Ser Tyr Pro Lys Thr Gly Thr  
85 90 95

Thr Trp Leu Lys Ala Leu Thr Phe Ala Ile Ala Asn Arg Ser Arg Phe  
 100 105 110  
 Asp Asp Ser Ser Asn Pro Leu Leu Lys Arg Asn Pro His Glu Phe Val  
 115 120 125  
 Pro Tyr Ile Glu Ile Asp Phe Pro Phe Phe Pro Glu Val Asp Val Leu  
 130 135 140  
 Lys Asp Lys Gly Asn Thr Leu Phe Ser Thr His Ile Pro Tyr Glu Leu  
 145 150 155 160  
 Leu Pro Asp Ser Val Val Lys Ser Gly Cys Lys Met Val Tyr Ile Trp  
 165 170 175  
 Arg Glu Pro Lys Asp Thr Phe Ile Ser Met Trp Thr Phe Leu His Lys  
 180 185 190  
 Glu Arg Thr Glu Leu Gly Pro Val Ser Asn Leu Glu Glu Ser Phe Asp  
 195 200 205  
 Met Phe Cys Arg Gly Leu Ser Gly Tyr Gly Pro Tyr Leu Asn His Ile  
 210 215 220  
 Leu Ala Tyr Trp Lys Ala Tyr Gln Glu Asn Pro Asp Arg Ile Leu Phe  
 225 230 235 240  
 Leu Lys Tyr Glu Thr Met Arg Ala Asp Pro Leu Pro Tyr Val Lys Ser  
 245 250 255  
 Leu Ala Glu Phe Met Gly His Gly Phe Thr Ala Glu Glu Glu Glu Lys  
 260 265 270  
 Gly Val Val Glu Lys Val Val Asn Leu Cys Ser Phe Glu Thr Leu Lys  
 275 280 285  
 Asn Leu Glu Ala Asn Lys Gly Glu Lys Asp Arg Glu Asp Arg Pro Gly  
 290 295 300  
 Val Tyr Ala Asn Ser Ala Tyr Phe Arg Lys Gly Lys Val Gly Asp Trp  
 305 310 315 320  
 Ser Asn Tyr Leu Thr Pro Glu Met Ala Ala Arg Ile Asp Gly Leu Met  
 325 330 335  
 Glu Glu Lys Phe Lys Gly Thr Gly Leu Leu Glu His Gly Lys  
 340 345 350

&lt;210&gt; 2447

&lt;211&gt; 1536

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2447

```

atggaggaga tgactccgc agttgcaatg actcttagct tagcagccaa caccatgtgt      60
gaatcatcac ctgtcgagat cactcagcta aagaacgtta ctgatgcagc tgacttggtta    120
tctgattctg aaaatcaaag cttttgcaac ggagggactg aatgcactat ggaagatggt    180
tctgaactgg aagaggtagg tgaacaggat ttgttgaaaa ctttatccga tacgagaagc    240
gggtcttcca atgtttttga tgaagacgat gtattgtctg ttgtggagga taatagtgtt    300
gtcataagtg agggcttggt agttgttgat gcaggctctg aattaagctt gtctaataca    360
gctatggaaa tagataacgg gcgagttctt gcaaccgcga ttatcgtagg cgaatcaagc    420
attgagcagg ttcccaccgc ggaagttctt atcgcggtg taaatcagga taccaatact    480
tcggagggtg tcattagatt gccagatgaa aatagtaatc atctggtgaa agggagaagt    540
gtttatgaac tagattgtat accgctttgg ggcacggttt ccattcaagg gaatagatct    600
gagatggagg atgcttttgc cgtgtcacct ctttttctga aactacccat caaaatgctt    660
atgggggacc atgaggggtat gagtccaagc ctcacacacc tcaccggtca ttttttcggt    720
gtttatgatg gtcattggagg ccataagggt gctgactatt gccgagatag actccatttt    780
gctttggctg aagaaataga acgtataaaa gacgaattat gcaagaggaa tacaggagag    840
ggtaggcagg tgcagtggga taaagtcttc acgagttggt ttctaactgt cgatggtgag    900
attgaaggaa aaattggtag agccgttggt ggttcttctg ataaggttct tgaggctggt    960
gcgtctgaga ccgtaggatc aactgctggt gttgccttgg tttgctcatc acatatagta   1020
gtttctaact gcggtgattc gagggcggtt ttattccgtg gcaaagaagc catgcccttg   1080
tcagttgatc acaaaccaga tagagaggat gaatatgcaa gaatagaaaa tgctggaggc   1140
aaagttatac aatggcaagg cgcacgtggt tttggtgttc tcgccatgtc taggtccatc   1200
ggtgacagat atctgaagcc atatgtgatc ccagaaccgg aagtgacatt catgcctcgg   1260
tcaagagaag acgagtgtct catactagcc agtgacggtc tttgggatgt aatgaacaac   1320
caagaagtct gcgaaatagc aaggagacgg atattgatgt ggcacaagaa gaacggtgca   1380
ccgcctctag cagagagagg caaaggaata gatccagctt gccaaagccgc agctgactac   1440
ctctcaatgc ttgctctaca aaaaggaagt aaagacaaca tctccatcat tgtgattgac   1500
ttgaaagctc aaagaaagtt caagaccaga acctga                               1536

```

&lt;210&gt; 2448

&lt;211&gt; 511

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2448

Met Glu Glu Met Thr Pro Ala Val Ala Met Thr Leu Ser Leu Ala Ala  
 1 5 10 15

Asn Thr Met Cys Glu Ser Ser Pro Val Glu Ile Thr Gln Leu Lys Asn  
 20 25 30

Val Thr Asp Ala Ala Asp Leu Leu Ser Asp Ser Glu Asn Gln Ser Phe  
 35 40 45

Cys Asn Gly Gly Thr Glu Cys Thr Met Glu Asp Val Ser Glu Leu Glu  
 50 55 60

Glu Val Gly Glu Gln Asp Leu Leu Lys Thr Leu Ser Asp Thr Arg Ser  
 65 70 75 80

Gly Ser Ser Asn Val Phe Asp Glu Asp Asp Val Leu Ser Val Val Glu  
 85 90 95

Asp Asn Ser Ala Val Ile Ser Glu Gly Leu Leu Val Val Asp Ala Gly  
 100 105 110

Ser Glu Leu Ser Leu Ser Asn Thr Ala Met Glu Ile Asp Asn Gly Arg  
 115 120 125

Val Leu Ala Thr Ala Ile Ile Val Gly Glu Ser Ser Ile Glu Gln Val  
 130 135 140

Pro Thr Ala Glu Val Leu Ile Ala Gly Val Asn Gln Asp Thr Asn Thr  
 145 150 155 160

Ser Glu Val Val Ile Arg Leu Pro Asp Glu Asn Ser Asn His Leu Val  
 165 170 175

Lys Gly Arg Ser Val Tyr Glu Leu Asp Cys Ile Pro Leu Trp Gly Thr  
 180 185 190

Val Ser Ile Gln Gly Asn Arg Ser Glu Met Glu Asp Ala Phe Ala Val  
 Page 3473

195

200

205

Ser Pro His Phe Leu Lys Leu Pro Ile Lys Met Leu Met Gly Asp His  
 210 215 220  
 Glu Gly Met Ser Pro Ser Leu Thr His Leu Thr Gly His Phe Phe Gly  
 225 230 235 240  
 Val Tyr Asp Gly His Gly Gly His Lys Val Ala Asp Tyr Cys Arg Asp  
 245 250 255  
 Arg Leu His Phe Ala Leu Ala Glu Glu Ile Glu Arg Ile Lys Asp Glu  
 260 265 270  
 Leu Cys Lys Arg Asn Thr Gly Glu Gly Arg Gln Val Gln Trp Asp Lys  
 275 280 285  
 Val Phe Thr Ser Cys Phe Leu Thr Val Asp Gly Glu Ile Glu Gly Lys  
 290 295 300  
 Ile Gly Arg Ala Val Val Gly Ser Ser Asp Lys Val Leu Glu Ala Val  
 305 310 315 320  
 Ala Ser Glu Thr Val Gly Ser Thr Ala Val Val Ala Leu Val Cys Ser  
 325 330 335  
 Ser His Ile Val Val Ser Asn Cys Gly Asp Ser Arg Ala Val Leu Phe  
 340 345 350  
 Arg Gly Lys Glu Ala Met Pro Leu Ser Val Asp His Lys Pro Asp Arg  
 355 360 365  
 Glu Asp Glu Tyr Ala Arg Ile Glu Asn Ala Gly Gly Lys Val Ile Gln  
 370 375 380  
 Trp Gln Gly Ala Arg Val Phe Gly Val Leu Ala Met Ser Arg Ser Ile  
 385 390 395 400  
 Gly Asp Arg Tyr Leu Lys Pro Tyr Val Ile Pro Glu Pro Glu Val Thr  
 405 410 415  
 Phe Met Pro Arg Ser Arg Glu Asp Glu Cys Leu Ile Leu Ala Ser Asp  
 420 425 430  
 Gly Leu Trp Asp Val Met Asn Asn Gln Glu Val Cys Glu Ile Ala Arg  
 435 440 445



047-E2F-PCT.ST25.txt

Arg Arg Ile Leu Met Trp His Lys Lys Asn Gly Ala Pro Pro Leu Ala  
450 455 460

Glu Arg Gly Lys Gly Ile Asp Pro Ala Cys Gln Ala Ala Ala Asp Tyr  
465 470 475 480

Leu Ser Met Leu Ala Leu Gln Lys Gly Ser Lys Asp Asn Ile Ser Ile  
485 490 495

Ile Val Ile Asp Leu Lys Ala Gln Arg Lys Phe Lys Thr Arg Thr  
500 505 510

<210> 2449

<211> 912

<212> DNA

<213> Arabidopsis thaliana

<400> 2449

atggatcacg acaagtctac ttcttggtgc tgcgttcttg atgcttccac ttatgttggt	60
ttctggattc tcaagaaatt gcttagcaga ggatactctg ttcacgcagc gattcgtaga	120
aacggggaga gtgaaattga ggagatgac agagagatgg aaacaacaga agagagatta	180
gtggtgtacg atgtagatgt gttggattat caaagcatac ttgtctctct caagacatgt	240
aacgtttgtc tctgttgctt agacagccct gaagggtacg atgagaagga ggtggatttg	300
gaagtgagag gagcgatcaa tgtggtggaa gcgtgtggaa gaacagagag tatagagaag	360
attgtgtttt cttcttcatt aacagcttca atttggagag acaacattgg aactcaaaag	420
gatgttgatg agaagtgttg gagtgaccaa gacttctgtc gcagcaagaa gttgtggcat	480
gcactggcaa agatgttgct ggagaaagca gcttgggcat tagccatgga ccgtaggctc	540
aacatggtct ctatcaaccc tggctctgtc gtcggaccat ctgtcgcaca acacaacgct	600
aggcccacca tgtcatacct taaaggagct gcacaaatgt atgagaatgg tgtgttagct	660
tatgtagacg ttaagtttct agcggacgtt catattagag cattcgagga tgtttcagct	720
tgcggtcgat acttctgctt caaccaaadc gtcaacacag aagaagaagc tctcaagcta	780
gtggagagtt tgtctccttt gattcctatg ccaccgaggt atgagaatga gatgcacgga	840
agtgaagttt acgaagaaag attaaggaac aacaaattaa gcaagctggt agaagctggc	900
tctgcttggt aa	912

<210> 2450

<211> 303

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2450

Met Asp His Asp Lys Ser Thr Ser Cys Cys Cys Val Leu Asp Ala Ser  
 1 5 10 15

Thr Tyr Val Gly Phe Trp Ile Leu Lys Lys Leu Leu Ser Arg Gly Tyr  
 20 25 30

Ser Val His Ala Ala Ile Arg Arg Asn Gly Glu Ser Glu Ile Glu Glu  
 35 40 45

Met Ile Arg Glu Met Glu Thr Thr Glu Glu Arg Leu Val Val Tyr Asp  
 50 55 60

Val Asp Val Leu Asp Tyr Gln Ser Ile Leu Val Ser Leu Lys Thr Cys  
 65 70 75 80

Asn Val Val Phe Cys Cys Leu Asp Ser Pro Glu Gly Tyr Asp Glu Lys  
 85 90 95

Glu Val Asp Leu Glu Val Arg Gly Ala Ile Asn Val Val Glu Ala Cys  
 100 105 110

Gly Arg Thr Glu Ser Ile Glu Lys Ile Val Phe Ser Ser Ser Leu Thr  
 115 120 125

Ala Ser Ile Trp Arg Asp Asn Ile Gly Thr Gln Lys Asp Val Asp Glu  
 130 135 140

Lys Cys Trp Ser Asp Gln Asp Phe Cys Arg Ser Lys Lys Leu Trp His  
 145 150 155 160

Ala Leu Ala Lys Met Leu Ser Glu Lys Ala Ala Trp Ala Leu Ala Met  
 165 170 175

Asp Arg Arg Leu Asn Met Val Ser Ile Asn Pro Gly Leu Val Val Gly  
 180 185 190

Pro Ser Val Ala Gln His Asn Ala Arg Pro Thr Met Ser Tyr Leu Lys  
 195 200 205

Gly Ala Ala Gln Met Tyr Glu Asn Gly Val Leu Ala Tyr Val Asp Val  
 210 215 220

047-E2F-PCT.ST25.txt

Lys Phe Leu Ala Asp Val His Ile Arg Ala Phe Glu Asp Val Ser Ala  
225 230 235 240

Cys Gly Arg Tyr Phe Cys Phe Asn Gln Ile Val Asn Thr Glu Glu Glu  
245 250 255

Ala Leu Lys Leu Val Glu Ser Leu Ser Pro Leu Ile Pro Met Pro Pro  
260 265 270

Arg Tyr Glu Asn Glu Met His Gly Ser Glu Val Tyr Glu Glu Arg Leu  
275 280 285

Arg Asn Asn Lys Leu Ser Lys Leu Val Glu Ala Gly Ser Ala Cys  
290 295 300

<210> 2451

<211> 1149

<212> DNA

<213> Arabidopsis thaliana

<400> 2451  
atgtcttcag atcaactaag caaatcctt gatagaaaca aaatggaaga caataaaaga 60  
aaagtattag atgaagaagc gaaagcttct ctagacatat ggaagtatgt ctttgggttt 120  
gcagatatag cagctgcaaa gtgtgccatt gatcttaaaa taccagaagc cattgaaaac 180  
catccttctt cacagcccgt aacactagcc gaactctcct ccgccgtctc cgcctctccc 240  
tcgcatctcc gccgtataat gaggtttctt gtacaccaag gaatctttta agaaatcccc 300  
acaaaagatg gtttagctac aggctacgtt aatacgccac tctctcgccg tttgatgatc 360  
acaagacgtg atggaaaatc gctggctcct tttgttctct tcgaaacaac tcccagatg 420  
ctcgtccat gggttgagact tagctcagtc gtttcttcgc cgggtcaacgg ttcaactcca 480  
ccaccgtttg atgcagtgca cggttaaggac gtgtggtcgt tcgcgagga taatcccttc 540  
ctcagcgata tgatcaatga ggccatggct tgtgatgcaa ggcgcgtggt gccacgtgta 600  
gccggagctt gtcacggctt gtttgatggc gtgactacga tggttgacgt aggaggtggt 660  
acgggagaga cgatgggat gcttgtgaag gagtttcctt ggatcaaagg atttaacttt 720  
gatcttcctc atgtcattga agttgctgaa gtcttggacg gtgttgagaa tgttgagggc 780  
gatatgtttg attctattcc ggcttgcgac gccattttca tcaagtgggt gttacacgat 840  
tggggagaca aagattgcat aaagatattg aagaattgca aagaagcggc ccctccaaat 900

atcggaaaag tgttgatagt ggaatcggtg atcggagaga ataaaaagac gatgatagtg 960  
gacgaacgag atgaaaagtt agagcacgtg agattgatgc ttgatatggt gatgatggct 1020  
cacacaagca caggcaaaga acggactttg aaagaatggg actttgttct taaagaagct 1080  
ggctttgctc gatatgaggt tagggacatt gatgatgttc agagtcttat aatcgcgtat 1140  
cggtcttaa 1149

<210> 2452

<211> 382

<212> PRT

<213> Arabidopsis thaliana

<400> 2452

Met Ser Ser Asp Gln Leu Ser Lys Phe Leu Asp Arg Asn Lys Met Glu  
1 5 10 15

Asp Asn Lys Arg Lys Val Leu Asp Glu Glu Ala Lys Ala Ser Leu Asp  
20 25 30

Ile Trp Lys Tyr Val Phe Gly Phe Ala Asp Ile Ala Ala Ala Lys Cys  
35 40 45

Ala Ile Asp Leu Lys Ile Pro Glu Ala Ile Glu Asn His Pro Ser Ser  
50 55 60

Gln Pro Val Thr Leu Ala Glu Leu Ser Ser Ala Val Ser Ala Ser Pro  
65 70 75 80

Ser His Leu Arg Arg Ile Met Arg Phe Leu Val His Gln Gly Ile Phe  
85 90 95

Lys Glu Ile Pro Thr Lys Asp Gly Leu Ala Thr Gly Tyr Val Asn Thr  
100 105 110

Pro Leu Ser Arg Arg Leu Met Ile Thr Arg Arg Asp Gly Lys Ser Leu  
115 120 125

Ala Pro Phe Val Leu Phe Glu Thr Thr Pro Glu Met Leu Ala Pro Trp  
130 135 140

Leu Arg Leu Ser Ser Val Val Ser Ser Pro Val Asn Gly Ser Thr Pro  
145 150 155 160

Pro Pro Phe Asp Ala Val His Gly Lys Asp Val Trp Ser Phe Ala Gln  
 165 170 175  
 Asp Asn Pro Phe Leu Ser Asp Met Ile Asn Glu Ala Met Ala Cys Asp  
 180 185 190  
 Ala Arg Arg Val Val Pro Arg Val Ala Gly Ala Cys His Gly Leu Phe  
 195 200 205  
 Asp Gly Val Thr Thr Met Val Asp Val Gly Gly Gly Thr Gly Glu Thr  
 210 215 220  
 Met Gly Met Leu Val Lys Glu Phe Pro Trp Ile Lys Gly Phe Asn Phe  
 225 230 235 240  
 Asp Leu Pro His Val Ile Glu Val Ala Glu Val Leu Asp Gly Val Glu  
 245 250 255  
 Asn Val Glu Gly Asp Met Phe Asp Ser Ile Pro Ala Cys Asp Ala Ile  
 260 265 270  
 Phe Ile Lys Trp Val Leu His Asp Trp Gly Asp Lys Asp Cys Ile Lys  
 275 280 285  
 Ile Leu Lys Asn Cys Lys Glu Ala Val Pro Pro Asn Ile Gly Lys Val  
 290 295 300  
 Leu Ile Val Glu Ser Val Ile Gly Glu Asn Lys Lys Thr Met Ile Val  
 305 310 315 320  
 Asp Glu Arg Asp Glu Lys Leu Glu His Val Arg Leu Met Leu Asp Met  
 325 330 335  
 Val Met Met Ala His Thr Ser Thr Gly Lys Glu Arg Thr Leu Lys Glu  
 340 345 350  
 Trp Asp Phe Val Leu Lys Glu Ala Gly Phe Ala Arg Tyr Glu Val Arg  
 355 360 365  
 Asp Ile Asp Asp Val Gln Ser Leu Ile Ile Ala Tyr Arg Ser  
 370 375 380

&lt;210&gt; 2453

&lt;211&gt; 1287

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

```

<400> 2453
atggcgacgg ctttcgctcc cactaagctc actgccacgg ttcctctgca tggatcccat    60
gagaatcgtc tcttgctccc gatccgattg gtcctcctt cttctttcct cggatccacc    120
cgttccctct cccttcgcag actcaatcac tccaacgcca cccgtcgatc tcccgtcgtc    180
tctgtccagg aagttgtcaa ggagaagcaa tccaccaata ataccagcct gttgataacc    240
aaagaggaag gattggagtt gtatgaagat atgatactag gtagatcttt cgaagacatg    300
tgtgctcaaa tgtattaccg aggcaagatg tttggttttg ttcacttgta caatggccaa    360
gaggctgttt ctactggctt tatcaagctc cttaccaagt ctgactctgt cgtagtagtacc    420
taccgtgacc atgtccatgc cctcagcaaa ggtgtctctg ctcgtgctgt tatgagcgag    480
ctcttcggca aggttactgg atgctgcaga ggccaagggt gatccatgca catgttctcc    540
aaagaacaca acatgcttgg tggccttctt tttattgggt aaggcattcc tgtcgccact    600
ggtgctgcct ttagctccaa gtacaggagg gaagtcttga aacaggattg tgatgatgtc    660
actgtcgctt ttttcggaga tggaacttgt aacaacggac agttcttcga gtgtctcaac    720
atggctgctc tctataaact gcctattatc tttgttgctg agaataactt gtggggccatt    780
gggatgtctc acttgagagc cacttctgac cccgagattt ggaagaaagg tcctgcattt    840
gggatgcctg gtgttcatgt tgacggtatg gatgtcttga aggtcaggga agtcgctaaa    900
gaagctgtca ctagagctag aagaggagaa ggtccaacct tggttgaatg tgagacttat    960
agattcagag gacactcctt ggctgatccc gatgagctcc gtgatgctgc tgagaaagcc   1020
aaatacgcgg ctagagaccc aatcgagca ttgaagaagt atttgataga gaacaagctt   1080
gcaaaggaag cagagctaaa gtcaatagag aaaaagatag acgagttggt ggaggaagcg   1140
gttgagtttg cagacgctag tccacagccc ggtcgcagtc agttgctaga gaatgtgttt   1200
gctgatccaa aaggatttgg aattggacct gatggacggt acagatgtga ggacccaag    1260
tttaccgaag gcacagctca agtctga                                1287

```

<210> 2454

<211> 428

<212> PRT

<213> Arabidopsis thaliana

<400> 2454

Met Ala Thr Ala Phe Ala Pro Thr Lys Leu Thr Ala Thr Val Pro Leu  
1 5 10 15

047-E2F-PCT.ST25.txt

His Gly Ser His Glu Asn Arg Leu Leu Leu Pro Ile Arg Leu Ala Pro  
                   20                  25                  30  
 Pro Ser Ser Phe Leu Gly Ser Thr Arg Ser Leu Ser Leu Arg Arg Leu  
                   35                  40                  45  
 Asn His Ser Asn Ala Thr Arg Arg Ser Pro Val Val Ser Val Gln Glu  
           50                  55                  60  
 Val Val Lys Glu Lys Gln Ser Thr Asn Asn Thr Ser Leu Leu Ile Thr  
   65                  70                  75                  80  
 Lys Glu Glu Gly Leu Glu Leu Tyr Glu Asp Met Ile Leu Gly Arg Ser  
                   85                  90                  95  
 Phe Glu Asp Met Cys Ala Gln Met Tyr Tyr Arg Gly Lys Met Phe Gly  
                   100                  105                  110  
 Phe Val His Leu Tyr Asn Gly Gln Glu Ala Val Ser Thr Gly Phe Ile  
                   115                  120                  125  
 Lys Leu Leu Thr Lys Ser Asp Ser Val Val Ser Thr Tyr Arg Asp His  
           130                  135                  140  
 Val His Ala Leu Ser Lys Gly Val Ser Ala Arg Ala Val Met Ser Glu  
   145                  150                  155                  160  
 Leu Phe Gly Lys Val Thr Gly Cys Cys Arg Gly Gln Gly Gly Ser Met  
                   165                  170                  175  
 His Met Phe Ser Lys Glu His Asn Met Leu Gly Gly Phe Ala Phe Ile  
                   180                  185                  190  
 Gly Glu Gly Ile Pro Val Ala Thr Gly Ala Ala Phe Ser Ser Lys Tyr  
           195                  200                  205  
 Arg Arg Glu Val Leu Lys Gln Asp Cys Asp Asp Val Thr Val Ala Phe  
   210                  215                  220  
 Phe Gly Asp Gly Thr Cys Asn Asn Gly Gln Phe Phe Glu Cys Leu Asn  
   225                  230                  235                  240  
 Met Ala Ala Leu Tyr Lys Leu Pro Ile Ile Phe Val Val Glu Asn Asn  
           245                  250                  255  
 Leu Trp Ala Ile Gly Met Ser His Leu Arg Ala Thr Ser Asp Pro Glu

260

265

270

Ile Trp Lys Lys Gly Pro Ala Phe Gly Met Pro Gly Val His Val Asp  
 275 280 285  
 Gly Met Asp Val Leu Lys Val Arg Glu Val Ala Lys Glu Ala Val Thr  
 290 295 300  
 Arg Ala Arg Arg Gly Glu Gly Pro Thr Leu Val Glu Cys Glu Thr Tyr  
 305 310 315 320  
 Arg Phe Arg Gly His Ser Leu Ala Asp Pro Asp Glu Leu Arg Asp Ala  
 325 330 335  
 Ala Glu Lys Ala Lys Tyr Ala Ala Arg Asp Pro Ile Ala Ala Leu Lys  
 340 345 350  
 Lys Tyr Leu Ile Glu Asn Lys Leu Ala Lys Glu Ala Glu Leu Lys Ser  
 355 360 365  
 Ile Glu Lys Lys Ile Asp Glu Leu Val Glu Glu Ala Val Glu Phe Ala  
 370 375 380  
 Asp Ala Ser Pro Gln Pro Gly Arg Ser Gln Leu Leu Glu Asn Val Phe  
 385 390 395 400  
 Ala Asp Pro Lys Gly Phe Gly Ile Gly Pro Asp Gly Arg Tyr Arg Cys  
 405 410 415  
 Glu Asp Pro Lys Phe Thr Glu Gly Thr Ala Gln Val  
 420 425

&lt;210&gt; 2455

&lt;211&gt; 801

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2455

atggccactt cagcaatcca acactcttct ttcgctggcc aaacgaccct aaagccatcc 60  
 aacgatctcc tccgcaaaat cggagcctcc aatggcggtg gccgcatcat catgcgtcgt 120  
 accgtcaagt ctactcctca gagcatctgg tacggaccag accgtcccaa atacctagga 180  
 ccattttccg aaaacacacc atcataccta accggagaat accctggaga ctacggttgg 240  
 gacaccgctg gtctctcagc cgatccagaa acattcgcaa agaatcgtga gctcgaagtg 300



047-E2F-PCT.ST25.txt

atccacagta gatgggcaat gttgggagct ttaggctgca ccttcctga aattctctca 360  
 aaaaacggag tcaaattcgg tgaagccgtg tggttcaagg caggatctca aatcttctca 420  
 gaaggagggc ttgactacct cggaaccct aacttgatcc acgcgcaaag catattagct 480  
 atatgggcgt gtcaagttgt gctaattggga ttcattgaag ggtacagaat cggaggtggt 540  
 cctcttgggg aagggttga cccgctttac ccgggcgggg ccttcgaccc gttgaactta 600  
 gcggaggatc cagaagcgtt ttcagagttg aaagtgaagg agcttaaaaa cggtcgtctt 660  
 gctatgttct caatgtttgg attctttgtc caagccatag ttaccggtaa aggtccgatc 720  
 gaaaatctgt tcgatcacat tgcagaccct gtggctaaca atgcttgggc ttacgccacc 780  
 aacttcgtcc ccgaaaata g 801

<210> 2456

<211> 266

<212> PRT

<213> Arabidopsis thaliana

<400> 2456

Met Ala Thr Ser Ala Ile Gln His Ser Ser Phe Ala Gly Gln Thr Thr  
 1 5 10 15

Leu Lys Pro Ser Asn Asp Leu Leu Arg Lys Ile Gly Ala Ser Asn Gly  
 20 25 30

Gly Gly Arg Ile Ile Met Arg Arg Thr Val Lys Ser Thr Pro Gln Ser  
 35 40 45

Ile Trp Tyr Gly Pro Asp Arg Pro Lys Tyr Leu Gly Pro Phe Ser Glu  
 50 55 60

Asn Thr Pro Ser Tyr Leu Thr Gly Glu Tyr Pro Gly Asp Tyr Gly Trp  
 65 70 75 80

Asp Thr Ala Gly Leu Ser Ala Asp Pro Glu Thr Phe Ala Lys Asn Arg  
 85 90 95

Glu Leu Glu Val Ile His Ser Arg Trp Ala Met Leu Gly Ala Leu Gly  
 100 105 110

Cys Thr Phe Pro Glu Ile Leu Ser Lys Asn Gly Val Lys Phe Gly Glu  
 115 120 125

047-E2F-PCT.ST25.txt

Ala Val Trp Phe Lys Ala Gly Ser Gln Ile Phe Ser Glu Gly Gly Leu  
130 135 140

Asp Tyr Leu Gly Asn Pro Asn Leu Ile His Ala Gln Ser Ile Leu Ala  
145 150 155 160

Ile Trp Ala Cys Gln Val Val Leu Met Gly Phe Ile Glu Gly Tyr Arg  
165 170 175

Ile Gly Gly Gly Pro Leu Gly Glu Gly Leu Asp Pro Leu Tyr Pro Gly  
180 185 190

Gly Ala Phe Asp Pro Leu Asn Leu Ala Glu Asp Pro Glu Ala Phe Ser  
195 200 205

Glu Leu Lys Val Lys Glu Leu Lys Asn Gly Arg Leu Ala Met Phe Ser  
210 215 220

Met Phe Gly Phe Phe Val Gln Ala Ile Val Thr Gly Lys Gly Pro Ile  
225 230 235 240

Glu Asn Leu Phe Asp His Ile Ala Asp Pro Val Ala Asn Asn Ala Trp  
245 250 255

Ala Tyr Ala Thr Asn Phe Val Pro Gly Lys  
260 265

<210> 2457

<211> 1509

<212> DNA

<213> Arabidopsis thaliana

<400> 2457

atgaaggagc caacgacgga gatagagatt gaaacttcag ctgtcgcaac gatcctgcct	60
cctcctcttc ctccgacggc gtcacatcat caagcgtag tcgagaggct caaggattat	120
ggacaggaag atgttttctc tctctgggat gaactctcac cggaagagcg agatctcctc	180
ctcagagata tcgagaattt ggatcttcca aggatagatc ggatcatcag atgctcactt	240
cattcacaag ggttgccagt ggcggcaata gaaccggtgc cggagaattg tgtgtcaacg	300
gtggaggaaa gaactaagga agacagagaa aaatggtgga aaatgggatt aaaagctatc	360
tacgaaggca aattgggtgt ggtgctttta tctggtggac aggaacaag acttggaagt	420
tcagatccaa aagggtgtta taatatcgga ctgccatctg ggaaatcact ttttcagatt	480

047-E2F-PCT.ST25.txt

caagctgaga ggatcttatg tgtccaaagg cttgcttctc aggcaatgag tgaggcaagt 540  
ccaactcgcc cagttacaat acagtggat ataatgacca gtccatttac tcatgaacca 600  
acacaaaaat tcttcaagag tcacaagtat tttggccttg aaccagatca agtcaccttt 660  
tttcaacaag gaactctgcc ttgcatttca aaggatggca agtttatcat ggagacacct 720  
ttcagcctat ccaaggcgcc ggatgggaac gggggagttt atacagcttt aaaatcttca 780  
aggttattag aagatatggc ttcgaggggg attaaatatg tggattgcta tgggtgttgac 840  
aatgttctgg ttcgagtagc tgaccctact tttctgggat acttcatcga caaaagtgc 900  
gcttcagctg caaaagtagt gcgcaaggca tatccacagg aaaaagttgg agtatttgta 960  
aggaggggaa aaggtgggcc tttgactgta gttgagtaca cagagcttga ccagtctatg 1020  
gcttctgcaa ctaatcaaca aacaggacgt cttcaatatt gctggagtaa cgtgtgctta 1080  
cacatgttca ctctggattt ccttaaccaa gttgcgaatg ggctggaaaa agacagcggt 1140  
taccatttgg cggagaagaa gataccgtct ataaatggcg acatagtggg actaaaacta 1200  
gaacagttca tattcgattg ctttccttat gctccttcga ctgcactttt tgaggtgttg 1260  
agggaggaag agtttgcacc ggtgaagaac gcaaacgggt cgaattacga cacaccggaa 1320  
agcgcaagac tgttggttct acgactgcat acacgttggg tcatagcagc tgggtggattt 1380  
ctaacacatt ccgttccttt atatgcgact ggtgtggaag tgtcaccatt gtgctcgta 1440  
gctggagaaa atctagaagc gatttgtcgg ggaagaacct ttcacgcacc atgtgaaatc 1500  
tccctctaa 1509

<210> 2458

<211> 502

<212> PRT

<213> Arabidopsis thaliana

<400> 2458

Met Lys Glu Pro Thr Thr Glu Ile Glu Ile Glu Thr Ser Ala Val Ala  
1 5 10 15

Thr Ile Leu Pro Pro Pro Leu Pro Pro Thr Ala Ser Pro His Gln Ala  
20 25 30

Leu Val Glu Arg Leu Lys Asp Tyr Gly Gln Glu Asp Val Phe Ser Leu  
35 40 45

Trp Asp Glu Leu Ser Pro Glu Glu Arg Asp Leu Leu Leu Arg Asp Ile  
Page 3485

50

55

Glu Asn Leu Asp Leu Pro Arg Ile Asp Arg Ile Ile Arg Cys Ser Leu  
65 70 75 80

His Ser Gln Gly Leu Pro Val Ala Ala Ile Glu Pro Val Pro Glu Asn  
85 90 95

Cys Val Ser Thr Val Glu Glu Arg Thr Lys Glu Asp Arg Glu Lys Trp  
100 105 110

Trp Lys Met Gly Leu Lys Ala Ile Tyr Glu Gly Lys Leu Gly Val Val  
115 120 125

Leu Leu Ser Gly Gly Gln Gly Thr Arg Leu Gly Ser Ser Asp Pro Lys  
130 135 140

Gly Cys Tyr Asn Ile Gly Leu Pro Ser Gly Lys Ser Leu Phe Gln Ile  
145 150 155 160

Gln Ala Glu Arg Ile Leu Cys Val Gln Arg Leu Ala Ser Gln Ala Met  
165 170 175

Ser Glu Ala Ser Pro Thr Arg Pro Val Thr Ile Gln Trp Tyr Ile Met  
180 185 190

Thr Ser Pro Phe Thr His Glu Pro Thr Gln Lys Phe Phe Lys Ser His  
195 200 205

Lys Tyr Phe Gly Leu Glu Pro Asp Gln Val Thr Phe Phe Gln Gln Gly  
210 215 220

Thr Leu Pro Cys Ile Ser Lys Asp Gly Lys Phe Ile Met Glu Thr Pro  
225 230 235 240

Phe Ser Leu Ser Lys Ala Pro Asp Gly Asn Gly Gly Val Tyr Thr Ala  
245 250 255

Leu Lys Ser Ser Arg Leu Leu Glu Asp Met Ala Ser Arg Gly Ile Lys  
260 265 270

Tyr Val Asp Cys Tyr Gly Val Asp Asn Val Leu Val Arg Val Ala Asp  
275 280 285

Pro Thr Phe Leu Gly Tyr Phe Ile Asp Lys Ser Ala Ala Ser Ala Ala  
290 295 300

047-E2F-PCT.ST25.txt

Lys Val Val Arg Lys Ala Tyr Pro Gln Glu Lys Val Gly Val Phe Val  
305 310 315 320

Arg Arg Gly Lys Gly Gly Pro Leu Thr Val Val Glu Tyr Thr Glu Leu  
325 330 335

Asp Gln Ser Met Ala Ser Ala Thr Asn Gln Gln Thr Gly Arg Leu Gln  
340 345 350

Tyr Cys Trp Ser Asn Val Cys Leu His Met Phe Thr Leu Asp Phe Leu  
355 360 365

Asn Gln Val Ala Asn Gly Leu Glu Lys Asp Ser Val Tyr His Leu Ala  
370 375 380

Glu Lys Lys Ile Pro Ser Ile Asn Gly Asp Ile Val Gly Leu Lys Leu  
385 390 395 400

Glu Gln Phe Ile Phe Asp Cys Phe Pro Tyr Ala Pro Ser Thr Ala Leu  
405 410 415

Phe Glu Val Leu Arg Glu Glu Glu Phe Ala Pro Val Lys Asn Ala Asn  
420 425 430

Gly Ser Asn Tyr Asp Thr Pro Glu Ser Ala Arg Leu Leu Val Leu Arg  
435 440 445

Leu His Thr Arg Trp Val Ile Ala Ala Gly Gly Phe Leu Thr His Ser  
450 455 460

Val Pro Leu Tyr Ala Thr Gly Val Glu Val Ser Pro Leu Cys Ser Tyr  
465 470 475 480

Ala Gly Glu Asn Leu Glu Ala Ile Cys Arg Gly Arg Thr Phe His Ala  
485 490 495

Pro Cys Glu Ile Ser Leu  
500

<210> 2459

<211> 327

<212> DNA

<213> Arabidopsis thaliana

<400> 2459

047-E2F-PCT.ST25.txt

atggcaactt cgaagcttca agctcttttg aatcatccag ctggacctaa gacaattcat 60  
 ttttgggcgc cgacgttcaa gtgggggtata agcattgcc aatattgcaga ctttcaaaaa 120  
 cctccagaga cactttcata ccctcaacaa attgtgatca cagggtactgg acttggtttgg 180  
 tcacgttaca gcactgtaat tactccgaaa aactggaatc tctttagcgt gagtcttggt 240  
 atggctgtga cagggatata ccaacttact cgtaaaataa agcacgatta tgtatatgaa 300  
 gcaaattcta ttgttgcaaa agaatga 327

<210> 2460

<211> 108

<212> PRT

<213> Arabidopsis thaliana

<400> 2460

Met Ala Thr Ser Lys Leu Gln Ala Leu Trp Asn His Pro Ala Gly Pro  
 1 5 10 15

Lys Thr Ile His Phe Trp Ala Pro Thr Phe Lys Trp Gly Ile Ser Ile  
 20 25 30

Ala Asn Ile Ala Asp Phe Gln Lys Pro Pro Glu Thr Leu Ser Tyr Pro  
 35 40 45

Gln Gln Ile Val Ile Thr Gly Thr Gly Leu Val Trp Ser Arg Tyr Ser  
 50 55 60

Thr Val Ile Thr Pro Lys Asn Trp Asn Leu Phe Ser Val Ser Leu Gly  
 65 70 75 80

Met Ala Val Thr Gly Ile Tyr Gln Leu Thr Arg Lys Ile Lys His Asp  
 85 90 95

Tyr Val Tyr Glu Ala Asn Ser Ile Val Ala Lys Glu  
 100 105

<210> 2461

<211> 954

<212> DNA

<213> Arabidopsis thaliana

047-E2F-PCT.ST25.txt

<400> 2461  
atggcgactc ttaaggtttc tgattctggt cctgctcctt ctgatgatgc tgagcaattg 60  
agaaccgctt ttgaaggatg gggtagaac gaggacttga tcatatcaat cttggctcac 120  
agaagtgctg aacagaggaa agtcatcagg caagcatacc acgaaaccta cggcgaagac 180  
cttctcaaga ctcttgacaa ggagctctct aacgatttcg agagagctat cttgttgtgg 240  
actcttgaac ccggtgagcg tgatgcttta ttggctaatt aagctacaaa aagatggact 300  
tcaagcaacc aagttcttat ggaagttgct tgcacaagga catcaacgca gctgcttcac 360  
gctaggcaag cttaccatgc tcgctacaag aagtctcttg aagaggacgt tgctcaccac 420  
actaccggtg acttcagaaa gcttttggtt tctcttggtt cctcatacag gtacgaagga 480  
gatgaagtga acatgacatt ggctaagcaa gaagctaagc tgggtccatga gaaaatcaag 540  
gacaagcact acaatgatga ggatgttatt agaattctgt ccacaagaag caaagctcag 600  
atcaatgcta cttttaaccg ttaccaagat gatcatggcg aggaaattct caagagtctt 660  
gaggaaggag atgatgatga caagttcctt gcacttttga ggtcaaccat tcagtgtttg 720  
acaagaccag agctttactt tgtcgatggt cttcgttcag caatcaacaa aactggaact 780  
gatgaaggag cactcactag aattgtgacc acaagagctg agattgactt gaaggtcatt 840  
ggagaggagt accagcgcag gaacagcatt cctttggaga aagctattac caaagacact 900  
cgtggagatt acgagaagat gctcgtcgca cttctcggtg aagatgatgc ttaa 954

<210> 2462

<211> 317

<212> PRT

<213> Arabidopsis thaliana

<400> 2462

Met Ala Thr Leu Lys Val Ser Asp Ser Val Pro Ala Pro Ser Asp Asp  
1 5 10 15

Ala Glu Gln Leu Arg Thr Ala Phe Glu Gly Trp Gly Thr Asn Glu Asp  
20 25 30

Leu Ile Ile Ser Ile Leu Ala His Arg Ser Ala Glu Gln Arg Lys Val  
35 40 45

Ile Arg Gln Ala Tyr His Glu Thr Tyr Gly Glu Asp Leu Leu Lys Thr  
50 55 60

Leu Asp Lys Glu Leu Ser Asn Asp Phe Glu Arg Ala Ile Leu Leu Trp  
Page 3489

65					70											80
Thr	Leu	Glu	Pro	Gly 85	Glu	Arg	Asp	Ala	Leu 90	Leu	Ala	Asn	Glu	Ala 95	Thr	
Lys	Arg	Trp	Thr 100	Ser	Ser	Asn	Gln	Val 105	Leu	Met	Glu	Val	Ala 110	Cys	Thr	
Arg	Thr	Ser 115	Thr	Gln	Leu	Leu	His 120	Ala	Arg	Gln	Ala	Tyr 125	His	Ala	Arg	
Tyr	Lys 130	Lys	Ser	Leu	Glu	Glu 135	Asp	Val	Ala	His	His 140	Thr	Thr	Gly	Asp	
Phe 145	Arg	Lys	Leu	Leu	Val 150	Ser	Leu	Val	Thr	Ser 155	Tyr	Arg	Tyr	Glu	Gly 160	
Asp	Glu	Val	Asn	Met 165	Thr	Leu	Ala	Lys	Gln 170	Glu	Ala	Lys	Leu	Val	His 175	
Glu	Lys	Ile	Lys 180	Asp	Lys	His	Tyr	Asn 185	Asp	Glu	Asp	Val	Ile 190	Arg	Ile	
Leu	Ser	Thr 195	Arg	Ser	Lys	Ala	Gln 200	Ile	Asn	Ala	Thr	Phe 205	Asn	Arg	Tyr	
Gln	Asp 210	Asp	His	Gly	Glu	Glu 215	Ile	Leu	Lys	Ser	Leu 220	Glu	Glu	Gly	Asp	
Asp 225	Asp	Asp	Lys	Phe	Leu 230	Ala	Leu	Leu	Arg	Ser 235	Thr	Ile	Gln	Cys	Leu 240	
Thr	Arg	Pro	Glu	Leu 245	Tyr	Phe	Val	Asp	Val 250	Leu	Arg	Ser	Ala	Ile 255	Asn	
Lys	Thr	Gly	Thr 260	Asp	Glu	Gly	Ala	Leu 265	Thr	Arg	Ile	Val	Thr 270	Thr	Arg	
Ala	Glu	Ile 275	Asp	Leu	Lys	Val	Ile 280	Gly	Glu	Glu	Tyr	Gln 285	Arg	Arg	Asn	
Ser	Ile 290	Pro	Leu	Glu	Lys	Ala 295	Ile	Thr	Lys	Asp	Thr 300	Arg	Gly	Asp	Tyr	
Glu 305	Lys	Met	Leu	Val	Ala 310	Leu	Leu	Gly	Glu	Asp 315	Asp	Ala				



&lt;210&gt; 2463

&lt;211&gt; 606

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2463

```

atgagttatt tgggagtcgg agttagtccc ggaaacgtct ccggaagtac taccaaaatg      60
aagctgattg atcggaagat gagagtcacg gagttgattc tgaggtgttt ggtttgtgtc      120
cttgctctcg tcgctgcgat tctcattgct acagatgttc aagtgagaga gattttcatg      180
attcagaaga aagccaaatt caccgacatg aaggcgcttg tgcttttggt ggtcgtcaat      240
ggcatagccg cgggttattc tttggttcag gcggttcggt gcgtggtggg tttgatgaaa      300
ggaagagttt tgttttagtaa gcctctggct tgggccatct tcttcggcga tcaggcagta      360
gcatacttgt gtgtggcggg gggtgcagcc gcggcgagct ctgcggcctt tgcaaagttg      420
ggtgagccag agcttcaatg gatgaaaatt tgtaatatgt atgggaagtt ttgtaaccaa      480
gtgggtgaag gaattgagag cgctttgttt gcttgcattg gaatggtttt gatctcttgc      540
atctcggctt tcggtgtctt tcgtttgtac ggcggaagca aatctaggcc aagctcacgg      600
tggtga                                           606

```

&lt;210&gt; 2464

&lt;211&gt; 201

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2464

```

Met Ser Tyr Leu Gly Val Gly Val Ser Pro Gly Asn Val Ser Gly Ser
1          5          10         15

Thr Thr Lys Met Lys Leu Ile Asp Arg Lys Val Arg Val Thr Glu Leu
20        25        30

Ile Leu Arg Cys Leu Val Cys Val Leu Ala Leu Val Ala Ala Ile Leu
35        40        45

Ile Ala Thr Asp Val Gln Val Arg Glu Ile Phe Met Ile Gln Lys Lys
50        55        60

```

```

Ala Lys Phe Thr Asp Met Lys Ala Leu Val Leu Leu Val Val Val Asn

```

65					70					75					80					
Gly	Ile	Ala	Ala	Gly <sub>85</sub>	Tyr	Ser	Leu	Val	Gln <sub>90</sub>	Ala	Val	Arg	Cys	Val <sub>95</sub>	Val					
Gly	Leu	Met	Lys <sub>100</sub>	Gly	Arg	Val	Leu	Phe <sub>105</sub>	Ser	Lys	Pro	Leu	Ala <sub>110</sub>	Trp	Ala					
Ile	Phe	Phe <sub>115</sub>	Gly	Asp	Gln	Ala	Val <sub>120</sub>	Ala	Tyr	Leu	Cys	Val <sub>125</sub>	Ala	Gly	Val					
Ala	Ala <sub>130</sub>	Ala	Ala	Gln	Ser	Ala <sub>135</sub>	Ala	Phe	Ala	Lys	Leu <sub>140</sub>	Gly	Glu	Pro	Glu					
Leu <sub>145</sub>	Gln	Trp	Met	Lys	Ile <sub>150</sub>	Cys	Asn	Met	Tyr	Gly <sub>155</sub>	Lys	Phe	Cys	Asn	Gln <sub>160</sub>					
Val	Gly	Glu	Gly	Ile <sub>165</sub>	Ala	Ser	Ala	Leu	Phe <sub>170</sub>	Ala	Cys	Ile	Gly	Met <sub>175</sub>	Val					
Leu	Ile	Ser	Cys <sub>180</sub>	Ile	Ser	Ala	Phe	Gly <sub>185</sub>	Val	Phe	Arg	Leu	Tyr <sub>190</sub>	Gly	Gly					
Ser	Lys	Ser <sub>195</sub>	Arg	Pro	Ser	Ser	Arg <sub>200</sub>	Trp												

<210>	2465
<211>	1719
<212>	DNA
<213>	<i>Arabidopsis thaliana</i>

<400>	2465						
atgggaaagc	ctgcaagggtg	gttaaaaagt	gtactacttg	gaaagaaacc	atctaaatct		60
agtggttcta	aagataagga	gagaattgtg	aatggaaaag	aagtagtggt	tatatcaaag		120
attgaagaat	ccgatgttgt	ttcggatctt	tcatcaattg	gaaatgcagc	agtctatacc		180
agtggatttg	tagagacgca	gaatctaaaa	catgaagatg	tttcggacga	cgagatacaa		240
gtttctgagg	tccaaccaac	agattctcaa	gatgttgctt	ctgttcctga	tgattcgcta		300
tccgaatcag	agaaaattca	acaagagatc	gcagcagtta	ccgtgcaggc	tgcgtataga		360
ggatacttgg	cacgacgtgc	tttcaagata	ttaaagggtta	taataaggct	acaagcactt		420
atccgtggtc	acatggttag	aaggcaagct	gtttcgactc	tgtgctgtgt	tatgggaatt		480
gtcagattgc	aagcacttgc	tcgtggggaga	gagatcagac	attcagacat	tggagttgaa		540

047-E2F-PCT.ST25.txt

```

gttcagagga aatgtcattt gcatcatcag ccttttagaga ataaagccaa ctcggttggt 600
gatacacatt cttacttggg aatcaataag ctaacaggaa atgcttttgc tcagaagctt 660
ctagcttcat cgccaaacgt gctgcctttg tccctcgaca atgattcttc caattcaatc 720
tggttagaga actggtcagc atcttgcttc tggaaaccag ttcctcagcc aaagaaagca 780
tactcagaa aatctcagaa gaagtttgcc agtaatcctc agatagtcga ggctgagttt 840
gcgagaccaa agaagagtgt tcgcaaagtc ccttcttcaa atctcgacaa ttcctcggtg 900
gcacaaacat catctgagct tgagaaaccc aaacgcagct tccgcaaggt ttcaacaagc 960
caatctgtag aaccactacc gtctatggac aatcctcaag ttgatctaga gaaagtgaaa 1020
cgtggcttga gaaaagtaca taatcccgtg gttgagaact ctatccaacc tcaactgggt 1080
ccacagattg cagttgaaaa gccaaatggt agtttagaag aatctgtgaa tgcctttgat 1140
gaagagaaag aagatgaagt ggctgagaca gtggtgcaac aacctgaaga gttgatacaa 1200
actcatacac cattggggac caatgaatct cttgattcca cattgggtcaa ccaaatcgaa 1260
gagagtgaag aaaatgtaat ggccgaggaa aaggaggatg taaaagaaga gaggactccc 1320
aaacaaaacc ataaggagaa ttcagctggg aaggagaatc agaaatccgg gaaaaaggct 1380
tcttcggtta ctgctactca aaccgccgag tttcaagaga gtggtaatgg taatcagact 1440
agtagcccg gaataccgag ctatatgcag gcgactaaat ccgctaaagc aaagctgagg 1500
ctacaaggct cttcttcacc taggcaatta gggacaactg agaaagccag tagacgttac 1560
tctctaccat cttcaggtaa tagtgcaaaa atcacttctc attctcctaa aacaagagtc 1620
tcaaactcga gtggcaaaag cggaacaag acagagaaaa ctcttctttc gtcccagaaa 1680
ggaaacggta aggcaactcc ggtagagtgg aagagatga 1719

```

<210> 2466

<211> 572

<212> PRT

<213> Arabidopsis thaliana

<400> 2466

Met Gly Lys Pro Ala Arg Trp Leu Lys Ser Val Leu Leu Gly Lys Lys  
1 5 10 15

Pro Ser Lys Ser Ser Gly Ser Lys Asp Lys Glu Arg Ile Val Asn Gly  
20 25 30

Lys Glu Val Val Val Ile Ser Lys Ile Glu Glu Ser Asp Val Val Ser  
Page 3493

35

40

45

Asp Leu Ser Ser Ile Gly Asn Ala Ala Val Tyr Thr Ser Gly Ile Val  
 50 55 60  
 Glu Thr Gln Asn Leu Lys His Glu Asp Val Ser Asp Asp Glu Ile Gln  
 65 70 75 80  
 Val Ser Glu Val Gln Pro Thr Asp Ser Gln Asp Val Ala Ser Val Pro  
 85 90 95  
 Asp Asp Ser Leu Ser Glu Ser Glu Lys Ile Gln Gln Glu Ile Ala Ala  
 100 105 110  
 Val Thr Val Gln Ala Ala Tyr Arg Gly Tyr Leu Ala Arg Arg Ala Phe  
 115 120 125  
 Lys Ile Leu Lys Gly Ile Ile Arg Leu Gln Ala Leu Ile Arg Gly His  
 130 135 140  
 Met Val Arg Arg Gln Ala Val Ser Thr Leu Cys Cys Val Met Gly Ile  
 145 150 155 160  
 Val Arg Leu Gln Ala Leu Ala Arg Gly Arg Glu Ile Arg His Ser Asp  
 165 170 175  
 Ile Gly Val Glu Val Gln Arg Lys Cys His Leu His His Gln Pro Leu  
 180 185 190  
 Glu Asn Lys Ala Asn Ser Val Val Asp Thr His Ser Tyr Leu Gly Ile  
 195 200 205  
 Asn Lys Leu Thr Gly Asn Ala Phe Ala Gln Lys Leu Leu Ala Ser Ser  
 210 215 220  
 Pro Asn Val Leu Pro Leu Ser Leu Asp Asn Asp Ser Ser Asn Ser Ile  
 225 230 235 240  
 Trp Leu Glu Asn Trp Ser Ala Ser Cys Phe Trp Lys Pro Val Pro Gln  
 245 250 255  
 Pro Lys Lys Ala Ser Leu Arg Lys Ser Gln Lys Lys Phe Ala Ser Asn  
 260 265 270  
 Pro Gln Ile Val Glu Ala Glu Phe Ala Arg Pro Lys Lys Ser Val Arg  
 275 280 285

047-E2F-PCT.ST25.txt

Lys Val Pro Ser Ser Asn Leu Asp Asn Ser Ser Val Ala Gln Thr Ser  
290 295 300

Ser Glu Leu Glu Lys Pro Lys Arg Ser Phe Arg Lys Val Ser Thr Ser  
305 310 315 320

Gln Ser Val Glu Pro Leu Pro Ser Met Asp Asn Pro Gln Val Asp Leu  
325 330 335

Glu Lys Val Lys Arg Gly Leu Arg Lys Val His Asn Pro Val Val Glu  
340 345 350

Asn Ser Ile Gln Pro Gln Leu Val Pro Gln Ile Ala Val Glu Lys Pro  
355 360 365

Asn Gly Ser Leu Glu Glu Ser Val Asn Ala Phe Asp Glu Glu Lys Glu  
370 375 380

Asp Glu Val Ala Glu Thr Val Val Gln Gln Pro Glu Glu Leu Ile Gln  
385 390 395 400

Thr His Thr Pro Leu Gly Thr Asn Glu Ser Leu Asp Ser Thr Leu Val  
405 410 415

Asn Gln Ile Glu Glu Ser Glu Glu Asn Val Met Ala Glu Glu Lys Glu  
420 425 430

Asp Val Lys Glu Glu Arg Thr Pro Lys Gln Asn His Lys Glu Asn Ser  
435 440 445

Ala Gly Lys Glu Asn Gln Lys Ser Gly Lys Lys Ala Ser Ser Val Thr  
450 455 460

Ala Thr Gln Thr Ala Glu Phe Gln Glu Ser Gly Asn Gly Asn Gln Thr  
465 470 475 480

Ser Ser Pro Gly Ile Pro Ser Tyr Met Gln Ala Thr Lys Ser Ala Lys  
485 490 495

Ala Lys Leu Arg Leu Gln Gly Ser Ser Ser Pro Arg Gln Leu Gly Thr  
500 505 510

Thr Glu Lys Ala Ser Arg Arg Tyr Ser Leu Pro Ser Ser Gly Asn Ser  
515 520 525

Ala Lys Ile Thr Ser His Ser Pro Lys Thr Arg Val Ser Asn Ser Ser  
530 535 540

047-E2F-PCT.ST25.txt

Gly Lys Ser Gly Asn Lys Thr Glu Lys Thr Leu Leu Ser Ser Arg Glu  
545 550 555 560

Gly Asn Gly Lys Ala Thr Pro Val Glu Trp Lys Arg  
565 570

<210> 2467

<211> 1140

<212> DNA

<213> Arabidopsis thaliana

<400> 2467

atggaatcag aattccagca acatcacttc cttctccacg atcatcaaca ccagagacca	60
agaaactcag gattgattcg ttaccaatca gcaccaagtt cgtacttttc gagtttcggt	120
gaatcaatcg aagagttttt agatcgaccc acaagtcctg aaactgagcg aatcttatct	180
ggctttttac aaaccaccga cacaagcgac aacgttgata gtttccttca ccatactttt	240
aacagtgatg gaactgagaa gaaacctccg gaagttaaaa cagaggacga agatgctgaa	300
attccggtga ctgcgacggc gacggcgatg gaggttggtt tttccggtga tgggtgaaatc	360
tcagtgaatc ctgaagtatc gattgggtat gtggcttcgg tttcgaggaa taagagacca	420
agagagaaag atgatcggac tccggtgaat aatctagctc gtcataatag ttcaccggcc	480
ggattatttt catccattga tggtgaaaca gcttatgcag ctgtaatgaa aagtatggga	540
ggttttggag gaagtaatgt gatgagtaca agcaatactg aagcttcgtc tcttactcct	600
agaagcaagt tacttcctcc tacttctaga gcgatgagtc cgatctctga ggttgatggt	660
aaaccgggtt tctcgtctag attgcctcct cggacgcttt ccggtgggtt taatcgttct	720
tttgggaatg aagggtctgc ttcttccaag cttacagctc ttgctaggac ccaatctgga	780
ggtctagatc aatacaaaac caaggatgag gattcagcaa gtagacgtcc tcctttggca	840
catcacatga gtttgcccaa gtctttatca gatattgaac agttactgtc agattctatc	900
ccatgtaaga tcagagccaa gcgggggttg gcaactcatc ctcgaagcat agccgagagg	960
gtgagaagaa ccaagatcag tgaaagaatg aggaagctgc aagaccttgt tccaaacatg	1020
gacacgcaaa caaacacagc agacatgttg gatcttgctg ttcaatacat caaggacctg	1080
caagaacaag tgaaggcgct cgaagagagt cgggcaagat gtagatgctc tagtgcgtga	1140

<210> 2468

<211> 379

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2468

Met Glu Ser Glu Phe Gln Gln His His Phe Leu Leu His Asp His Gln  
 1 5 10 15

His Gln Arg Pro Arg Asn Ser Gly Leu Ile Arg Tyr Gln Ser Ala Pro  
 20 25 30

Ser Ser Tyr Phe Ser Ser Phe Gly Glu Ser Ile Glu Glu Phe Leu Asp  
 35 40 45

Arg Pro Thr Ser Pro Glu Thr Glu Arg Ile Leu Ser Gly Phe Leu Gln  
 50 55 60

Thr Thr Asp Thr Ser Asp Asn Val Asp Ser Phe Leu His His Thr Phe  
 65 70 75 80

Asn Ser Asp Gly Thr Glu Lys Lys Pro Pro Glu Val Lys Thr Glu Asp  
 85 90 95

Glu Asp Ala Glu Ile Pro Val Thr Ala Thr Ala Thr Ala Met Glu Val  
 100 105 110

Val Val Ser Gly Asp Gly Glu Ile Ser Val Asn Pro Glu Val Ser Ile  
 115 120 125

Gly Tyr Val Ala Ser Val Ser Arg Asn Lys Arg Pro Arg Glu Lys Asp  
 130 135 140

Asp Arg Thr Pro Val Asn Asn Leu Ala Arg His Asn Ser Ser Pro Ala  
 145 150 155 160

Gly Leu Phe Ser Ser Ile Asp Val Glu Thr Ala Tyr Ala Ala Val Met  
 165 170 175

Lys Ser Met Gly Gly Phe Gly Gly Ser Asn Val Met Ser Thr Ser Asn  
 180 185 190

Thr Glu Ala Ser Ser Leu Thr Pro Arg Ser Lys Leu Leu Pro Pro Thr  
 195 200 205

Ser Arg Ala Met Ser Pro Ile Ser Glu Val Asp Val Lys Pro Gly Phe  
 210 215 220

047-E2F-PCT.ST25.txt

Ser Ser Arg Leu Pro Pro Arg Thr Leu Ser Gly Gly Phe Asn Arg Ser  
 225 230 235 240

Phe Gly Asn Glu Gly Ser Ala Ser Ser Lys Leu Thr Ala Leu Ala Arg  
 245 250 255

Thr Gln Ser Gly Gly Leu Asp Gln Tyr Lys Thr Lys Asp Glu Asp Ser  
 260 265 270

Ala Ser Arg Arg Pro Pro Leu Ala His His Met Ser Leu Pro Lys Ser  
 275 280 285

Leu Ser Asp Ile Glu Gln Leu Leu Ser Asp Ser Ile Pro Cys Lys Ile  
 290 295 300

Arg Ala Lys Arg Gly Cys Ala Thr His Pro Arg Ser Ile Ala Glu Arg  
 305 310 315 320

Val Arg Arg Thr Lys Ile Ser Glu Arg Met Arg Lys Leu Gln Asp Leu  
 325 330 335

Val Pro Asn Met Asp Thr Gln Thr Asn Thr Ala Asp Met Leu Asp Leu  
 340 345 350

Ala Val Gln Tyr Ile Lys Asp Leu Gln Glu Gln Val Lys Ala Leu Glu  
 355 360 365

Glu Ser Arg Ala Arg Cys Arg Cys Ser Ser Ala  
 370 375

<210> 2469

<211> 1638

<212> DNA

<213> Arabidopsis thaliana

<400> 2469

atgttttaaac cccaacatat gtatgacagg gaatttggtta ccggcaacgg ctacagcaac	60
gggaacggct acaccaatgg aaacggccac accaacggaa acggcaatta caacggcaat	120
ggccacgtta atggtaacgg aaaagctaac ggagccaagg tggtaaagat gaaaccaatg	180
gacagtgagt tgctgagaga gcaaggtcac ataatggttg attttattgc tgattattac	240
aaaaaccttc aagactcgcc tcaagatttc cctgttctgt cccaagttca gcctggttat	300
ctccgtgaca tgttgctga ttcagcacct gaacgacctg aatcgttaaa agaacttctc	360



047-E2F-PCT.ST25.txt

gacgatgttt cgaagaagat aatgccgggg ataactcatt ggcaaagccc gagttacttt 420  
gcatactatg catcaagcac gagtgtggct ggattcttag gagagatgct taacgccggc 480  
ctgagcgtcg tcggttttac ctggctcact tctcctgccg ctactgagct cgaaatcatc 540  
gttcttgatt ggcttgctaa attgctacaa ctccccgacc attttctctc cacaggaaat 600  
ggaggaggag taatccaagg gacaggatgt gaagcagtgc ttgtggtagt attagctgct 660  
agagacagaa ttctgaagaa agttggcaaa acattacttc ctcaacttgt tgtctatggc 720  
tctgaccaa cccattctag tttccgaaaa gcttgtctga ttggtgggat acatgaagaa 780  
aacattaggc tgctcaaaac tgattcttcc acaaactatg gaatgcctcc agaatacatt 840  
gaggaagcta tttctcatga tctcgctaag ggttttatcc ctttcttcat ttgtgccact 900  
gttggcacia cgtcttcagc agcggttgat cctttggtcc cattggggaa catcgcaaag 960  
aaatatggga tatggttgca tgtggatgca gcttatgcag ggaatgcatg tatatgtcca 1020  
gaatatcgaa aatttattga cgggattgaa aacgcagact ctttaacat gaatgctcat 1080  
aaatggttat ttgctaata aacttgttca cctctttggg ttaaggatcg atactctctc 1140  
attgatgctc tcaaaacaaa tcccagagtat ctagaattca aggtttccaa aaaagatacg 1200  
gtcgtaaatt ataaagattg gcaaatttct ctctctcgga gattcagatc actgaagtta 1260  
tggtatggtt tacggctcta tggttccgag aacttaagaa actttataag agaccatgtc 1320  
aatctcgcta agcattttga agattatgta gctcaagatc caagttttga ggttgtcact 1380  
actcggtact tttcactcgt ttgctttcgc cttgcgccag ttgacggcga tgaagaccaa 1440  
tgtaacgaac gtaaccgtga actgcttgcg gctgttaact ccactggcaa gatattcatc 1500  
tctcacacgg ctctatctgg aaaattcgtt ttacgatttg ctgttggtgc accgttaacg 1560  
gaagagaagc atgtcactga agcatggcag attatacaga aacatgcctc caaatttaca 1620  
cgcaacgacc attattaa 1638

<210> 2470

<211> 545

<212> PRT

<213> Arabidopsis thaliana

<400> 2470

Met Phe Lys Pro Gln His Met Tyr Asp Arg Glu Phe Gly Thr Gly Asn  
1 5 10 15

Gly Tyr Ser Asn Gly Asn Gly Tyr Thr Asn Gly Asn Gly His Thr Asn  
Page 3499

Gly Asn Gly Asn Tyr Asn Gly Asn Gly His Val Asn Gly Asn Gly Lys  
 35 40 45  
 Ala Asn Gly Ala Lys Val Val Lys Met Lys Pro Met Asp Ser Glu Leu  
 50 55 60  
 Leu Arg Glu Gln Gly His Ile Met Val Asp Phe Ile Ala Asp Tyr Tyr  
 65 70 75 80  
 Lys Asn Leu Gln Asp Ser Pro Gln Asp Phe Pro Val Leu Ser Gln Val  
 85 90 95  
 Gln Pro Gly Tyr Leu Arg Asp Met Leu Pro Asp Ser Ala Pro Glu Arg  
 100 105 110  
 Pro Glu Ser Leu Lys Glu Leu Leu Asp Asp Val Ser Lys Lys Ile Met  
 115 120 125  
 Pro Gly Ile Thr His Trp Gln Ser Pro Ser Tyr Phe Ala Tyr Tyr Ala  
 130 135 140  
 Ser Ser Thr Ser Val Ala Gly Phe Leu Gly Glu Met Leu Asn Ala Gly  
 145 150 155 160  
 Leu Ser Val Val Gly Phe Thr Trp Leu Thr Ser Pro Ala Ala Thr Glu  
 165 170 175  
 Leu Glu Ile Ile Val Leu Asp Trp Leu Ala Lys Leu Leu Gln Leu Pro  
 180 185 190  
 Asp His Phe Leu Ser Thr Gly Asn Gly Gly Gly Val Ile Gln Gly Thr  
 195 200 205  
 Gly Cys Glu Ala Val Leu Val Val Val Leu Ala Ala Arg Asp Arg Ile  
 210 215 220  
 Leu Lys Lys Val Gly Lys Thr Leu Leu Pro Gln Leu Val Val Tyr Gly  
 225 230 235 240  
 Ser Asp Gln Thr His Ser Ser Phe Arg Lys Ala Cys Leu Ile Gly Gly  
 245 250 255  
 Ile His Glu Glu Asn Ile Arg Leu Leu Lys Thr Asp Ser Ser Thr Asn  
 260 265 270

Tyr Gly Met Pro Pro Glu Ser Leu Glu Glu Ala Ile Ser His Asp Leu  
 275 280 285  
 Ala Lys Gly Phe Ile Pro Phe Phe Ile Cys Ala Thr Val Gly Thr Thr  
 290 295 300  
 Ser Ser Ala Ala Val Asp Pro Leu Val Pro Leu Gly Asn Ile Ala Lys  
 305 310 315 320  
 Lys Tyr Gly Ile Trp Leu His Val Asp Ala Ala Tyr Ala Gly Asn Ala  
 325 330 335  
 Cys Ile Cys Pro Glu Tyr Arg Lys Phe Ile Asp Gly Ile Glu Asn Ala  
 340 345 350  
 Asp Ser Phe Asn Met Asn Ala His Lys Trp Leu Phe Ala Asn Gln Thr  
 355 360 365  
 Cys Ser Pro Leu Trp Val Lys Asp Arg Tyr Ser Leu Ile Asp Ala Leu  
 370 375 380  
 Lys Thr Asn Pro Glu Tyr Leu Glu Phe Lys Val Ser Lys Lys Asp Thr  
 385 390 395 400  
 Val Val Asn Tyr Lys Asp Trp Gln Ile Ser Leu Ser Arg Arg Phe Arg  
 405 410 415  
 Ser Leu Lys Leu Trp Met Val Leu Arg Leu Tyr Gly Ser Glu Asn Leu  
 420 425 430  
 Arg Asn Phe Ile Arg Asp His Val Asn Leu Ala Lys His Phe Glu Asp  
 435 440 445  
 Tyr Val Ala Gln Asp Pro Ser Phe Glu Val Val Thr Thr Arg Tyr Phe  
 450 455 460  
 Ser Leu Val Cys Phe Arg Leu Ala Pro Val Asp Gly Asp Glu Asp Gln  
 465 470 475 480  
 Cys Asn Glu Arg Asn Arg Glu Leu Leu Ala Ala Val Asn Ser Thr Gly  
 485 490 495  
 Lys Ile Phe Ile Ser His Thr Ala Leu Ser Gly Lys Phe Val Leu Arg  
 500 505 510  
 Phe Ala Val Gly Ala Pro Leu Thr Glu Glu Lys His Val Thr Glu Ala  
 515 520 525

Trp Gln Ile Ile Gln Lys His Ala Ser Lys Phe Thr Arg Asn Asp His  
 530 535 540

Tyr  
 545

<210> 2471

<211> 555

<212> DNA

<213> Arabidopsis thaliana

<400> 2471  
 atggcgaaat ctccggtgga agtgaatttg attcctatcg aagctactcc ggagaacttc 60  
 gcagagtatg gtcaagtcac tgaagcctct cgtgatggtg ctggtttcgg tccccacgac 120  
 gctcaactag atctctctag aggaacccca cggctgaaag aaacaccctt aggggtttttc 180  
 aagatcacac atcacgcaaa ggtgacacag tgtctaggat caataggagg tgatgtttgg 240  
 tatatgggag tggctaagcc gtctcttatt gaagatgatg acgatgatgg aaggagcgta 300  
 gatacagtaa aatcaaagtc tggtcactta tacattccac ctgaggtgga agagattcgc 360  
 gtcttcaggt tctcgggacc aaagtttgtg aaactgcacc gtggtacatg gcatgctgga 420  
 cccttgttta gtggcagctc cttcatggat ttctacaact tagagctcag caacacaaat 480  
 gtggtggatc acacgtcaca tgatttcacc aagaataatg gagtcagctt cggatttgac 540  
 acattgtctt cctag 555

<210> 2472

<211> 184

<212> PRT

<213> Arabidopsis thaliana

<400> 2472

Met Ala Lys Ser Pro Val Glu Val Asn Leu Ile Pro Ile Glu Ala Thr  
 1 5 10 15

Pro Glu Asn Phe Ala Glu Tyr Gly Gln Val Ile Glu Ala Ser Arg Asp  
 20 25 30

Gly Ala Gly Phe Gly Pro His Asp Ala Gln Leu Asp Leu Ser Arg Gly  
 35 40 45

047-E2F-PCT.ST25.txt

Thr Pro Arg Leu Lys Glu Thr Pro Leu Gly Phe Phe Lys Ile Thr His  
50 55 60

His Ala Lys Val Thr Gln Cys Leu Gly Ser Ile Gly Gly Asp Val Trp  
65 70 75 80

Tyr Met Gly Val Ala Lys Pro Ser Leu Ile Glu Asp Asp Asp Asp Asp  
85 90 95

Gly Arg Ser Val Asp Thr Val Lys Ser Lys Ser Gly His Leu Tyr Ile  
100 105 110

Pro Pro Glu Val Glu Glu Ile Arg Val Phe Arg Phe Ser Gly Pro Lys  
115 120 125

Phe Val Lys Leu His Arg Gly Thr Trp His Ala Gly Pro Leu Phe Ser  
130 135 140

Gly Ser Ser Phe Met Asp Phe Tyr Asn Leu Glu Leu Ser Asn Thr Asn  
145 150 155 160

Val Val Asp His Thr Ser His Asp Phe Thr Lys Asn Asn Gly Val Ser  
165 170 175

Phe Gly Phe Asp Thr Leu Ser Ser  
180

<210> 2473

<211> 855

<212> DNA

<213> Arabidopsis thaliana

<400> 2473

atggggaaga taatggaatg ggcagcaaga tctgatcatt tgggaggaat tccaaggaat	60
actgtgataa tggctgttag tgcatttgca aaagcagtag caaatctttg caataaaagc	120
tcagttcaca atgcagatac tcttatgaat cttgtccagt caagaccacc tgggtgttcct	180
ctcatcactg ttagtaatca catgtcgact ttggatgatc cagtaatgtg gggggcattt	240
aagggctctcc tttccttaga tccagaattg gctcggtggg ttcttgctgc agaggatata	300
tgtttcagga accctatatt ctcctacatt ttccgcactg gaaaatgtat acctataact	360
agaggtggtg gaatctacca agaaaacatg aatgaagctc tccagcgatt aaaagatgga	420

047-E2F-PCT.ST25.txt

tcttggctgc ataccttccc agaggggaaag gtgtttcaag atgatgttcc tataagacga	480
cttaaattggg gaactgcaag cctcatcgcc cgttccccag ttaccccaat cgttttgcca	540
ataattcacc gtggttttga ggagatgatg cgggagaact acaataatgg acgaagacca	600
ctggtaccgt tgccgaacaa acaccttaaa gttgtggttg gtgaaccaat tgagtttgat	660
gttccaatga tggttgagac tgctgtcttg gactcccgcc atgtaacccc tcctcttcaa	720
gaagtgaaat ggcctgtcct cacttctgct ggccaagtgc tagacgaaac tgctcagaga	780
cacctctaca tagctctgtc cgagaagatt caatcctcct tggaacatt gagactctta	840
gccaaagcggg tgtga	855

<210> 2474

<211> 284

<212> PRT

<213> Arabidopsis thaliana

<400> 2474

Met Gly Lys Ile	Met Glu Trp Ala Ala	Arg Ser Asp His Leu Gly Gly
1	5	10 15
Ile Pro Arg Asn Thr Val Ile Met	Ala Val Ser Ala Phe Ala Lys Ala	
	20 25	30
Val Ala Asn Leu Cys Asn Lys Ser Ser Val His Asn Ala Asp Thr Leu		
	35 40	45
Met Asn Leu Val Gln Ser Arg Pro Pro Gly Val Pro Leu Ile Thr Val		
	50 55	60
Ser Asn His Met Ser Thr Leu Asp Asp Pro Val Met Trp Gly Ala Phe		
65	70 75	80
Lys Gly Leu Leu Ser Leu Asp Pro Glu Leu Ala Arg Trp Val Leu Ala		
	85 90	95
Ala Glu Asp Ile Cys Phe Arg Asn Pro Ile Phe Ser Tyr Ile Phe Arg		
	100 105	110
Thr Gly Lys Cys Ile Pro Ile Thr Arg Gly Gly Gly Ile Tyr Gln Glu		
	115 120	125
Asn Met Asn Glu Ala Leu Gln Arg Leu Lys Asp Gly Ser Trp Leu His		
130	135 140	

047-E2F-PCT.ST25.txt

Thr Phe Pro Glu Gly Lys Val Phe Gln Asp Asp Val Pro Ile Arg Arg  
145 150 155 160

Leu Lys Trp Gly Thr Ala Ser Leu Ile Ala Arg Ser Pro Val Thr Pro  
165 170 175

Ile Val Leu Pro Ile Ile His Arg Gly Phe Glu Glu Met Met Pro Glu  
180 185 190

Asn Tyr Asn Asn Gly Arg Arg Pro Leu Val Pro Leu Pro Asn Lys His  
195 200 205

Leu Lys Val Val Val Gly Glu Pro Ile Glu Phe Asp Val Pro Met Met  
210 215 220

Val Glu Thr Ala Val Leu Asp Ser Arg His Val Thr Pro Pro Leu Gln  
225 230 235 240

Glu Val Lys Trp Pro Val Leu Thr Ser Ala Gly Gln Val Leu Asp Glu  
245 250 255

Thr Ala Gln Arg His Leu Tyr Ile Ala Leu Ser Glu Lys Ile Gln Ser  
260 265 270

Ser Leu Glu Thr Leu Arg Leu Leu Ala Lys Arg Leu  
275 280

<210> 2475

<211> 711

<212> DNA

<213> Arabidopsis thaliana

<400> 2475

atggcgggaa gagcgatttt ctctgtatct tgttcatcta ctcttcctt gtgtatccct	60
tattcaactg cttcgttttc atcgatgaat cgactggcgc tccccgccgt ccggattttct	120
ccccgaacca acagatttcc caggattcac tgctctatgt ctgctaacga catcaaagcg	180
ggaaccaata tcgaagtcga tgggtgctcct tggcgtgttc ttgagtttct tcatgttaaa	240
ccaggaaaag gtgcggcatt tgtgagaact aagatcagga actatgtgaa tggtagcaca	300
gtcgagagaa ctttcgtgc tggaatttct gttgaggaag ctaatatata taaagaaacc	360
aaacaattca catacaaaga tgggtctcag tttgttttca tggatttgac cacatacgaa	420

047-E2F-PCT.ST25.txt

gaaacacgtc ttaacgaatc tgatatgggt gagaagacga aatggttgaa agaaggaatg 480  
gattgcattt tgctctattg gaaagacaag gttatcgatt tcgatctacc gattacagtt 540  
aagctaaaag tggttgacgt tgatcctggc cttcgcggtg atactgtgca aggtggatca 600  
aaaccggcga caatggaaac gggtgcaata gttgctgtac cactctttat taacgtcggt 660  
gaagagatat ttgtggacac aagaactggt gcatacatga accgagcgtg a 711

<210> 2476

<211> 236

<212> PRT

<213> Arabidopsis thaliana

<400> 2476

Met Ala Gly Arg Ala Ile Phe Ser Val Ser Cys Ser Ser Thr Pro Ser  
1 5 10 15

Leu Cys Ile Pro Tyr Ser Thr Ala Ser Phe Ser Ser Met Asn Arg Leu  
20 25 30

Ala Leu Pro Ala Val Arg Ile Ser Pro Arg Thr Asn Arg Phe Pro Arg  
35 40 45

Ile His Cys Ser Met Ser Ala Asn Asp Ile Lys Ala Gly Thr Asn Ile  
50 55 60

Glu Val Asp Gly Ala Pro Trp Arg Val Leu Glu Phe Leu His Val Lys  
65 70 75 80

Pro Gly Lys Gly Ala Ala Phe Val Arg Thr Lys Ile Arg Asn Tyr Val  
85 90 95

Asn Gly Ser Thr Val Glu Arg Thr Phe Arg Ala Gly Ile Ser Val Glu  
100 105 110

Glu Ala Asn Ile Tyr Lys Glu Thr Lys Gln Phe Thr Tyr Lys Asp Gly  
115 120 125

Ser Gln Phe Val Phe Met Asp Leu Thr Thr Tyr Glu Glu Thr Arg Leu  
130 135 140

Asn Glu Ser Asp Met Gly Glu Lys Thr Lys Trp Leu Lys Glu Gly Met  
145 150 155 160



Asp Cys Ile Leu Leu Tyr Trp Lys Asp Lys Val Ile Asp Phe Asp Leu  
 165 170 175

Pro Ile Thr Val Lys Leu Lys Val Val Asp Val Asp Pro Gly Leu Arg  
 180 185 190

Gly Asp Thr Val Gln Gly Gly Ser Lys Pro Ala Thr Met Glu Thr Gly  
 195 200 205

Ala Ile Val Ala Val Pro Leu Phe Ile Asn Val Gly Glu Glu Ile Phe  
 210 215 220

Val Asp Thr Arg Thr Gly Ala Tyr Met Asn Arg Ala  
 225 230 235

<210> 2477

<211> 735

<212> DNA

<213> Arabidopsis thaliana

<400> 2477

atggcgacga ctagttagt gaccggacta aaagtgggtat taccggttat gttctgtctg	60
atgctagcga ctcttgtcta caccatcatc accgatggcc ttcctttacc tgatcgtaa	120
gatgtcttca caccatgggtt cgttacgaca attttggatt tctacattaa tcttgtacct	180
atagcggttt ggatttgtta taaggagtct acatgggtctg gttcaatact ttggaccatt	240
ttgctcatca tttttggcag cctcacgaca tgtgtgtatc tgtttctgca acttctcaag	300
ctgacaaatc aagaagcttc agaagatcct atgtactatt tgttacttcg agattcaatc	360
aaggatggag ttggtctgag agacaagaat tcacttggtg tcaactgcaag atttgtgttt	420
ggtgccttag gatgtgtgat gctaggagct ttgggtttaca cttgcttcac ttatggttct	480
cctttccaca tggagcttct ataccgtgg atggtggttt tattgggttaa cttctacatt	540
gatgttgctg tcttatcagt ttgggttgct tataaagaat ctagtttgat cattggaatt	600
ctatgggttg ctctattgat aggtcttggc agcgttggca cgagcgcagt cattgtcgtg	660
cagctattcc gtctgtctcc tctcgacctg ctctacctg ttctagttaa caacagcaat	720
cggaagcaaa gttaa	735

<210> 2478

<211> 244

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2478

Met Ala Thr Thr Ser Leu Val Thr Gly Leu Lys Val Val Leu Pro Val  
 1 5 10 15

Met Phe Cys Leu Met Leu Ala Thr Leu Val Tyr Thr Ile Ile Thr Asp  
 20 25 30

Gly Leu Pro Leu Pro Asp Arg Gln Asp Val Phe Thr Pro Trp Phe Val  
 35 40 45

Thr Thr Ile Leu Asp Phe Tyr Ile Asn Leu Val Pro Ile Ala Val Trp  
 50 55 60

Ile Val Tyr Lys Glu Ser Thr Trp Ser Gly Ser Ile Leu Trp Thr Ile  
 65 70 75 80

Leu Leu Ile Ile Phe Gly Ser Leu Thr Thr Cys Val Tyr Leu Phe Leu  
 85 90 95

Gln Leu Leu Lys Leu Thr Asn Gln Glu Ala Ser Glu Asp Pro Met Tyr  
 100 105 110

Tyr Leu Leu Leu Arg Asp Ser Ile Lys Asp Gly Val Gly Leu Arg Asp  
 115 120 125

Lys Asn Ser Leu Val Val Thr Ala Arg Phe Val Phe Gly Ala Leu Gly  
 130 135 140

Cys Val Met Leu Gly Ala Leu Val Tyr Thr Cys Phe Thr Tyr Gly Ser  
 145 150 155 160

Pro Phe His Met Glu Leu Leu Tyr Pro Trp Met Val Val Leu Leu Val  
 165 170 175

Asn Phe Tyr Ile Asp Val Ala Val Leu Ser Val Trp Val Val Tyr Lys  
 180 185 190

Glu Ser Ser Leu Ile Ile Gly Ile Leu Trp Val Ala Leu Leu Ile Gly  
 195 200 205

Leu Gly Ser Val Gly Thr Ser Ala Val Ile Val Val Gln Leu Phe Arg  
 210 215 220

Leu Ser Pro Leu Asp Pro Leu Tyr Leu Val Leu Val Asn Asn Ser Asn  
 225 230 235 240

Arg Lys Gln Ser

<210> 2479

<211> 210

<212> DNA

<213> Arabidopsis thaliana

<400> 2479

atggtggaga agtcaggagg agaagtcaat ttcccaaat tggagaaacc aacaggcaag 60  
 aaacagacag cgacggttgt tgtgggagtg ttggcggtgg gatggctggc gatagagctc 120  
 gtgtttaagc cattgttcaa gaagctgagc tcctccaagg acaaattccga ttccgacgat 180  
 gccaccgtcc ctccccgtc gggcgctga 210

<210> 2480

<211> 69

<212> PRT

<213> Arabidopsis thaliana

<400> 2480

Met Val Glu Lys Ser Gly Gly Glu Val Asn Phe Pro Lys Leu Glu Lys  
 1 5 10 15

Pro Thr Gly Lys Lys Gln Thr Ala Thr Val Val Val Gly Val Leu Ala  
 20 25 30

Val Gly Trp Leu Ala Ile Glu Leu Val Phe Lys Pro Leu Phe Lys Lys  
 35 40 45

Leu Ser Ser Ser Lys Asp Lys Ser Asp Ser Asp Asp Ala Thr Val Pro  
 50 55 60

Pro Pro Ser Gly Ala  
 65

<210> 2481

<211> 657

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2481

```

atggcggcaa aatcctacct cgttatcccg acggtaaaact ccgttacaac ggtgggcaca    60
ctcgcgtcct cgccgttcct cgctccgtct ctttttccgg ttagtttcac gctctcgatc    120
tcattgtcaa ttttgaattt cacaaaaaaaa aaaacgaaat cggttttgtg gaaagagaaa    180
ttaagggcac acgtgtggtg cgttttaaca gagttagcgt cgaagatggc ggagatgtgc    240
ggcggcgctc gcggatctat aaccgtaacg atccgatgtc agcttccgac ggaagatctc    300
gacgcgctcg tttcaattac ttccgatgaa gatctagtga atctaatacga agagtacgat    360
ctcgtttcct cttcatctcc gatgaaaatc agagtcttct taaatccacc aaaatccgcc    420
gccgatcta aaaaatctcc tcctccgtta gcgttaccgt catcaaccac cacgtcatca    480
tcttccacaa cttcctctac ttcataagt cctagatctc cgtctctatc aaaaccaccg    540
ctacctcgt ctccaccgag aataacgacg gttacgaaga atccgtgtta tggttgttat    600
gttcaccgta attccagaaa tatctacctt gttcacaacg gcaatcactg gcaataa    657

```

&lt;210&gt; 2482

&lt;211&gt; 218

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2482

```

Met Ala Ala Lys Ser Tyr Leu Val Ile Pro Thr Val Asn Ser Val Thr
1          5          10          15

Thr Val Val Thr Leu Ala Ser Ser Pro Phe Leu Ala Pro Ser His Phe
          20          25          30

Pro Val Ser Phe Thr Leu Ser Ile Ser Leu Ser Ile Leu Asn Phe Thr
          35          40          45

Lys Lys Lys Thr Lys Ser Val Leu Trp Lys Glu Lys Leu Arg Pro His
50          55          60

Val Trp Cys Val Leu Thr Glu Leu Ala Ser Lys Met Ala Glu Met Cys
65          70          75          80

```

Gly Gly Val Gly Gly Ser Ile Thr Val Thr Ile Arg Cys Gln Leu Pro  
 85 90 95  
 Thr Glu Asp Leu Asp Ala Leu Val Ser Ile Thr Ser Asp Glu Asp Leu  
 100 105 110  
 Val Asn Leu Ile Glu Glu Tyr Asp Leu Val Ser Ser Ser Ser Pro Met  
 115 120 125  
 Lys Ile Arg Val Phe Leu Asn Pro Pro Lys Ser Ala Ala Gly Ser Lys  
 130 135 140  
 Lys Ser Pro Pro Pro Leu Ala Leu Pro Ser Ser Thr Thr Thr Ser Ser  
 145 150 155 160  
 Ser Ser Thr Thr Ser Ser Thr Ser Ser Ser Pro Arg Ser Pro Ser Leu  
 165 170 175  
 Ser Lys Pro Pro Leu Pro Pro Ser Pro Pro Arg Ile Thr Thr Val Thr  
 180 185 190  
 Lys Asn Pro Cys Tyr Gly Cys Tyr Val His Arg Asn Ser Arg Asn Ile  
 195 200 205  
 Tyr Leu Val His Asn Gly Asn His Trp Gln  
 210 215

&lt;210&gt; 2483

&lt;211&gt; 1098

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2483

atggcttttaa cattgtcaac cacaaagacc ttactaaca taaactgctc aaacaatact 60  
 tccaacataa ccacctttta gctcttcaag cttcctcttt tctggccatg gcaaaaggctc 120  
 aaaatgggtc ctttaagtgt ttctcctatg ggttttggga catgggcttg gggtaatcag 180  
 cttcttttggg gttatcagac ttccatggat gatcagcttc aacaagcttt tgaattggct 240  
 ttggaaaatg gaatcaattt gtttgatact gctgattctt atggcactgg taggcttaat 300  
 ggccaaagtg agagactttt ggggaaattc attaaagaat ctcaaggact taaagggaaa 360  
 caaatgaag tagtggtagc tacaaagttt gcagcttatc catggagggtt aacttcagga 420  
 cagtttgtga atgcctgcag agcttcttta gaccggcttc agatagacca gctcgggatt 480

047-E2F-PCT.ST25.txt

ggacagcttc actggtcaac tgcaagctac ggcctctac aagagcttgt tctttgggat 540  
 ggtctagtgc aaatgtacga aaagggttta gttagagccg ttggagttag taactatgga 600  
 cctcaacagc ttgtgaagat tcatgattac cttaaaactc gaggggttcc tttatgttct 660  
 gcccaagtgc aattctcatt gctaagcatg ggaaaagagc aactagagat caagagtata 720  
 tgcgacgagc tcgggattcg tttaatctct tatagtcctc ttgggctagg aatgctaact 780  
 gggaaataact cctcttcaaa acttcccact ggtccacgat cattgctgtt ccgacaaatt 840  
 cttcctggat tagaacctct tcttttagca ctgagcgaga ttgcaaagaa acgaggaaag 900  
 actatgcctc aggttgcaat aaactggtgc atatgcaaag ggacagtacc gataccggga 960  
 atcaagtcgg taagacatgt tgaagataat ttgggtgctc tgggatggaa acttacaaat 1020  
 gatgaacagc ttcagttaga atatgcagct aaagaatcac caaagtcaat gattcagaat 1080  
 atttttcaga caagatga 1098

<210> 2484

<211> 365

<212> PRT

<213> Arabidopsis thaliana

<400> 2484

Met Ala Leu Thr Leu Ser Thr Thr Lys Thr Phe Thr Asn Ile Asn Cys  
 1 5 10 15  
 Ser Asn Asn Thr Ser Asn Ile Thr Thr Phe Lys Pro Leu Lys Leu Pro  
 20 25 30  
 Leu Phe Trp Pro Trp Gln Lys Val Lys Met Gly Pro Leu Ser Val Ser  
 35 40 45  
 Pro Met Gly Phe Gly Thr Trp Ala Trp Gly Asn Gln Leu Leu Trp Gly  
 50 55 60  
 Tyr Gln Thr Ser Met Asp Asp Gln Leu Gln Gln Ala Phe Glu Leu Ala  
 65 70 75 80  
 Leu Glu Asn Gly Ile Asn Leu Phe Asp Thr Ala Asp Ser Tyr Gly Thr  
 85 90 95  
 Gly Arg Leu Asn Gly Gln Ser Glu Arg Leu Leu Gly Lys Phe Ile Lys  
 100 105 110

Glu Ser Gln Gly Leu Lys Gly Lys Gln Asn Glu Val Val Val Ala Thr  
 115 120 125  
 Lys Phe Ala Ala Tyr Pro Trp Arg Leu Thr Ser Gly Gln Phe Val Asn  
 130 135 140  
 Ala Cys Arg Ala Ser Leu Asp Arg Leu Gln Ile Asp Gln Leu Gly Ile  
 145 150 155 160  
 Gly Gln Leu His Trp Ser Thr Ala Ser Tyr Ala Pro Leu Gln Glu Leu  
 165 170 175  
 Val Leu Trp Asp Gly Leu Val Gln Met Tyr Glu Lys Gly Leu Val Arg  
 180 185 190  
 Ala Val Gly Val Ser Asn Tyr Gly Pro Gln Gln Leu Val Lys Ile His  
 195 200 205  
 Asp Tyr Leu Lys Thr Arg Gly Val Pro Leu Cys Ser Ala Gln Val Gln  
 210 215 220  
 Phe Ser Leu Leu Ser Met Gly Lys Glu Gln Leu Glu Ile Lys Ser Ile  
 225 230 235 240  
 Cys Asp Glu Leu Gly Ile Arg Leu Ile Ser Tyr Ser Pro Leu Gly Leu  
 245 250 255  
 Gly Met Leu Thr Gly Lys Tyr Ser Ser Ser Lys Leu Pro Thr Gly Pro  
 260 265 270  
 Arg Ser Leu Leu Phe Arg Gln Ile Leu Pro Gly Leu Glu Pro Leu Leu  
 275 280 285  
 Leu Ala Leu Ser Glu Ile Ala Lys Lys Arg Gly Lys Thr Met Pro Gln  
 290 295 300  
 Val Ala Ile Asn Trp Cys Ile Cys Lys Gly Thr Val Pro Ile Pro Gly  
 305 310 315 320  
 Ile Lys Ser Val Arg His Val Glu Asp Asn Leu Gly Ala Leu Gly Trp  
 325 330 335  
 Lys Leu Thr Asn Asp Glu Gln Leu Gln Leu Glu Tyr Ala Ala Lys Glu  
 340 345 350  
 Ser Pro Lys Ser Met Ile Gln Asn Ile Phe Gln Thr Arg  
 355 360 365

&lt;210&gt; 2485

&lt;211&gt; 498

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2485

```

atggcactaa gaatgtgggc ttcttctaca gcaaacgctc tcaagctttc ttcttctggt      60
tccaagtctc atctctctcc tttctccttc tctagatgct tctccacagt tttggagggt      120
ttgaagtatg caaattcaca tgagtgggtt aaacatgaag gctctgttgc caccattggc      180
atcactgccc atgctcagga ccatttaggt gaagtgggtg ttgttgaact gccagaggac      240
aatacttcag tgagcaaaga gaaaagcttt ggagcagtgg agagtgtgaa ggcaacaagt      300
gagatcttat caccaatctc aggtgaaatc attgagggtta acaagaagct cacagaatca      360
cctggcttga tcaactcaag cccctatgaa gatgggttga tgatcaaagt gaaaccaagt      420
agccccgcgg agttggaatc tttgatgggt ccaaaggaat acaccaagtt ctgcgaggag      480
gaagatgctg ctactag                                     498

```

&lt;210&gt; 2486

&lt;211&gt; 165

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2486

```

Met Ala Leu Arg Met Trp Ala Ser Ser Thr Ala Asn Ala Leu Lys Leu
 1          5          10          15

Ser Ser Ser Val Ser Lys Ser His Leu Ser Pro Phe Ser Phe Ser Arg
 20          25          30

Cys Phe Ser Thr Val Leu Glu Gly Leu Lys Tyr Ala Asn Ser His Glu
 35          40          45

Trp Val Lys His Glu Gly Ser Val Ala Thr Ile Gly Ile Thr Ala His
 50          55          60

Ala Gln Asp His Leu Gly Glu Val Val Phe Val Glu Leu Pro Glu Asp
 65          70          75          80

```



Asn Thr Ser Val Ser Lys Glu Lys Ser Phe Gly Ala Val Glu Ser Val  
85 90 95

Lys Ala Thr Ser Glu Ile Leu Ser Pro Ile Ser Gly Glu Ile Ile Glu  
100 105 110

Val Asn Lys Lys Leu Thr Glu Ser Pro Gly Leu Ile Asn Ser Ser Pro  
115 120 125

Tyr Glu Asp Gly Trp Met Ile Lys Val Lys Pro Ser Ser Pro Ala Glu  
130 135 140

Leu Glu Ser Leu Met Gly Pro Lys Glu Tyr Thr Lys Phe Cys Glu Glu  
145 150 155 160

Glu Asp Ala Ala His  
165

<210> 2487

<211> 357

<212> DNA

<213> Arabidopsis thaliana

<400> 2487

atggccgcag aaggagaagt tatcgcttgc cacaccgttg aagattggac cgagaagctc	60
aaagccgccca acgaatccaa gaaactgatt gtgatagact tcaactgcaac atggtgcca	120
ccttgccgtt tcattgcacc cgtctttgct gacttagcca agaagcacct cgacgtagtc	180
ttcttcaagg tcgatgttga cgaattgaac actgttgctg aggagtttaa agttcaggca	240
atgccaacgt ttatcttcat gaaagaagga gagatcaagg agactgtggt tgggtgctgct	300
aaagaagaaa tcattgccaa tctcgagaag cacaagacag ttgttgctgc tgcttga	357

<210> 2488

<211> 118

<212> PRT

<213> Arabidopsis thaliana

<400> 2488

Met Ala Ala Glu Gly Glu Val Ile Ala Cys His Thr Val Glu Asp Trp  
1 5 10 15

047-E2F-PCT.ST25.txt

Thr Glu Lys Leu Lys Ala Ala Asn Glu Ser Lys Lys Leu Ile Val Ile  
20 25 30

Asp Phe Thr Ala Thr Trp Cys Pro Pro Cys Arg Phe Ile Ala Pro Val  
35 40 45

Phe Ala Asp Leu Ala Lys Lys His Leu Asp Val Val Phe Phe Lys Val  
50 55 60

Asp Val Asp Glu Leu Asn Thr Val Ala Glu Glu Phe Lys Val Gln Ala  
65 70 75 80

Met Pro Thr Phe Ile Phe Met Lys Glu Gly Glu Ile Lys Glu Thr Val  
85 90 95

Val Gly Ala Ala Lys Glu Glu Ile Ile Ala Asn Leu Glu Lys His Lys  
100 105 110

Thr Val Val Ala Ala Ala  
115

<210> 2489

<211> 1056

<212> DNA

<213> Arabidopsis thaliana

<400> 2489  
atggctacat caggacgctc ccacggctct accacggcgg ctttagcctt tacactcgcc 60  
gtagtatctg tatccgctgc cttctcgctg tatagatggc gaagacgaga agaagatttg 120  
gagaatagga tcaaggaatt tgagaagtct ttgggatcta ctttgaaaa aagtgcttct 180  
gagagaaaag gtcgagtcaa agctcagcag gctttacggg aggcgttagc acagactgag 240  
tcacatgatt tacacagcac aatatacccg atgcgacctt ttggcactat ccagtcttgc 300  
ttctctacta ggaacgggac accgaggcag ccattgcttg tttctcttgc gagggcatgt 360  
ttgatctttg atccggcctt gggttcctct gcgtctcttg agggctcttga agagtattct 420  
cattgctgga tactctatgt gtttcatctc aatactgata tcgagaagct atggagaaaa 480  
ccatctcagt cgaagctcaa ggcaaagggt agagtgccac ggctaaatgg ggaacggaag 540  
ggagtctttg ctacgcggtc ccctcatcga ccttgctcca ttggcctcac cgttgctaag 600  
gtggaggaaa tccaaaagga taaggttctc ctctctggtg tcgatctggt ggatgggact 660  
ccggtgctcg acatcaaacc atatttacca tactcggaca gtattcaagg agcctcagtg 720

047-E2F-PCT.ST25.txt

ccaaactggg taaaggagga ctgctcattg gctgtggctt ctgtgacttt ctcagataacc 780  
 ttctcttcat ccatcaccag ctgctggaaa ctgatagaaa agaagtctct atatagttca 840  
 gcagatgagt ttaggagctt gatcacgcag gtcctgtcat gggacatacg atcaatgtcg 900  
 caacggaaca agccacaaga tacattggat gaggaaattg tttatcactt ggttctggag 960  
 ggactagacg tgtctttacat gatagataat gaaagtaata ttctcgttca ggatgtttct 1020  
 cttcccaaaa acctgcaaga tgttgcagga agctga 1056

<210> 2490

<211> 351

<212> PRT

<213> Arabidopsis thaliana

<400> 2490

Met Ala Thr Ser Gly Arg Ser His Gly Ser Thr Thr Ala Ala Leu Ala  
 1 5 10 15

Phe Thr Leu Ala Val Val Ser Val Ser Ala Ala Phe Ser Leu Tyr Arg  
 20 25 30

Trp Arg Arg Arg Glu Glu Asp Leu Glu Asn Arg Ile Lys Glu Phe Glu  
 35 40 45

Lys Ser Leu Gly Ser Thr Leu Glu Lys Ser Ala Ser Glu Arg Lys Gly  
 50 55 60

Arg Val Lys Ala Gln Gln Ala Leu Arg Glu Ala Leu Ala Gln Thr Glu  
 65 70 75 80

Ser His Asp Leu His Ser Thr Ile Tyr Pro Met Arg Pro Ile Gly Thr  
 85 90 95

Ile Gln Ser Cys Phe Ser Thr Arg Asn Gly Thr Pro Arg Gln Pro Leu  
 100 105 110

Leu Val Ser Leu Ala Arg Ala Cys Leu Ile Phe Asp Pro Ala Leu Val  
 115 120 125

Pro Pro Ala Ser Leu Glu Gly Leu Glu Glu Tyr Ser His Cys Trp Ile  
 130 135 140

Leu Tyr Val Phe His Leu Asn Thr Asp Ile Glu Lys Leu Trp Arg Lys  
 Page 3517

145                      150                      155                      160  
 Pro Ser Gln Ser Lys<sub>165</sub> Leu Lys Ala Lys Val<sub>170</sub> Arg Val Pro Arg Leu Asn<sub>175</sub>  
 Gly Glu Arg Lys<sub>180</sub> Gly Val Phe Ala Thr<sub>185</sub> Arg Ser Pro His Arg<sub>190</sub> Pro Cys  
 Pro Ile Gly<sub>195</sub> Leu Thr Val Ala Lys<sub>200</sub> Val Glu Glu Ile Gln<sub>205</sub> Lys Asp Lys  
 Val Leu<sub>210</sub> Leu Ser Gly Val Asp<sub>215</sub> Leu Val Asp Gly Thr<sub>220</sub> Pro Val Leu Asp  
 Ile Lys<sub>225</sub> Pro Tyr Leu Pro<sub>230</sub> Tyr Ser Asp Ser Ile<sub>235</sub> Gln Gly Ala Ser Val<sub>240</sub>  
 Pro Asn Trp Val Lys<sub>245</sub> Glu Asp Cys Ser Leu<sub>250</sub> Ala Val Ala Ser Val<sub>255</sub> Thr  
 Phe Ser Asp Thr<sub>260</sub> Phe Ser Ser Ser Ile<sub>265</sub> Thr Ser Cys Trp Lys<sub>270</sub> Leu Ile  
 Glu Lys Lys<sub>275</sub> Ser Leu Tyr Ser Ser<sub>280</sub> Ala Asp Glu Phe Arg<sub>285</sub> Ser Leu Ile  
 Thr Gln<sub>290</sub> Val Leu Ser Trp Asp<sub>295</sub> Ile Arg Ser Met Ser<sub>300</sub> Gln Arg Asn Lys  
 Pro Gln Asp Thr Leu Asp<sub>310</sub> Glu Glu Ile Val Tyr<sub>315</sub> His Leu Val Leu Glu<sub>320</sub>  
 Gly Leu Asp Val Ser<sub>325</sub> Tyr Met Ile Asp Asn<sub>330</sub> Glu Ser Asn Ile Leu Val<sub>335</sub>  
 Gln Asp Val Ser<sub>340</sub> Leu Pro Lys Asn Leu<sub>345</sub> Gln Asp Val Ala Gly<sub>350</sub> Ser

<210> 2491

<211> 1539

<212> DNA

<213> Arabidopsis thaliana

<400> 2491  
 atgaacggat gtgaggctga ccacaaagca ccacttggca cggtagaaac aaggactcta  
 Page 3518

047-E2F-PCT.ST25.txt

tcaacggtgc catctccggc agccgcgacg gagaggctga taaccgccgt ctctgacctc	120
aaatctcaac cgcctccatt ctctccggc attgtccgat tacagggtacc aattgagcag	180
aaaattggag caatcgattg gcttcatgca cagaacgaaa ttcttcctcg cagtttcttt	240
tcccgtcgta gcgattctgg ccgtccagat cttcttcaag acttctcaag tgacaatgga	300
tcatctgata ataatccagt tagtgctgct ggaatcgggt ctgctgtctt tttccgcgat	360
ctcgacccgt tttctcatga tgactggaga tcaatccgaa gggtcttgct ttcaaagtct	420
cctctgattc gtgcctatgg aggtcttcga tttgatccta cagggaagat cgctgtggaa	480
tgggaacatt ttggctcggt ttactttaca gtgccccagg tcgagtttga tgagtttgga	540
ggaagctcaa tgctggctgc aactgttgct tgggacaatg agctctcatg gacgcttgaa	600
aatgctattg aagcacttca ggaaactatg cttcagggtt cttctgttat aatgagatta	660
cggcgagaat ctttaggagt tattgttggt agcaagaacc atgttccaag tgaaggagcc	720
tattaccctg ctgtgaataa tgctctagag attatcaagg acaaacattc acccctaagc	780
aaggttgctc ttgcacgcag tagcagaatc attacggata ccgacattga tcctatcgct	840
tggtttagcac gggtgcagtg tgaaggacaa gacgcgtacc aattctgtct tcaaccaccc	900
ggtgcaccag cattcatagg gaacacgcct gagagactct tccacagaaa acatctaggt	960
gtctgcagtg aggtcttggt tgcaacaagg cctagagggt attcaaagg tctgtgaaatg	1020
gagatagagc gcgacttact aaccagtccc aaagacgatc ttgagttttc tattgtccga	1080
gagaatataa gagaaaaact taaaaccata tgtgacaggg tagtagttaa accccataaa	1140
tcagtgagaa agcttgcaag agtacagcat ctatattctc aattggcagg acagctaaaa	1200
agagaagatg atgagtttaa catcttaact gctttgcata cgacgccagc tgtttgcgga	1260
tgtccagtag aagaagctag gcttttgatt aaacaaattg agtcatttga tagaggaatg	1320
tatgctggac ctattgggtt ctttggtggt ggggagagtg aattttctgt aggcatacga	1380
tctgctttag tcgaaaaggg tcttgagca ttgatctatg caggaaacagg aatcgtttca	1440
ggaagcaatc cttcctcgga gtggaacgag cttgagctta agatctctca gttcactaag	1500
tcacttgaac atgagtcagc tttgcaacca atcaactaa	1539

<210> 2492

<211> 512

<212> PRT

<213> Arabidopsis thaliana

<400> 2492

047-E2F-PCT.ST25.txt

Met Asn Gly Cys Glu Ala Asp His Lys Ala Pro Leu Gly Thr Val Glu  
1 5 10 15  
Thr Arg Thr Leu Ser Thr Val Pro Ser Pro Ala Ala Ala Thr Glu Arg  
20 25 30  
Leu Ile Thr Ala Val Ser Asp Leu Lys Ser Gln Pro Pro Pro Phe Ser  
35 40 45  
Ser Gly Ile Val Arg Leu Gln Val Pro Ile Glu Gln Lys Ile Gly Ala  
50 55 60  
Ile Asp Trp Leu His Ala Gln Asn Glu Ile Leu Pro Arg Ser Phe Phe  
65 70 75 80  
Ser Arg Arg Ser Asp Ser Gly Arg Pro Asp Leu Leu Gln Asp Phe Ser  
85 90 95  
Ser Asp Asn Gly Ser Ser Asp His Asn Pro Val Ser Val Ala Gly Ile  
100 105 110  
Gly Ser Ala Val Phe Phe Arg Asp Leu Asp Pro Phe Ser His Asp Asp  
115 120 125  
Trp Arg Ser Ile Arg Arg Phe Leu Ser Ser Lys Ser Pro Leu Ile Arg  
130 135 140  
Ala Tyr Gly Gly Leu Arg Phe Asp Pro Thr Gly Lys Ile Ala Val Glu  
145 150 155 160  
Trp Glu His Phe Gly Ser Phe Tyr Phe Thr Val Pro Gln Val Glu Phe  
165 170 175  
Asp Glu Phe Gly Gly Ser Ser Met Leu Ala Ala Thr Val Ala Trp Asp  
180 185 190  
Asn Glu Leu Ser Trp Thr Leu Glu Asn Ala Ile Glu Ala Leu Gln Glu  
195 200 205  
Thr Met Leu Gln Val Ser Ser Val Ile Met Arg Leu Arg Arg Glu Ser  
210 215 220  
Leu Gly Val Ile Val Val Ser Lys Asn His Val Pro Ser Glu Gly Ala  
225 230 235 240  
Tyr Tyr Pro Ala Val Asn Asn Ala Leu Glu Ile Ile Lys Asp Lys His  
245 250 255

047-E2F-PCT.ST25.txt

Ser Pro Leu Ser Lys Val Val Leu Ala Arg Ser Ser Arg Ile Ile Thr  
260 265 270

Asp Thr Asp Ile Asp Pro Ile Ala Trp Leu Ala Arg Leu Gln Cys Glu  
275 280 285

Gly Gln Asp Ala Tyr Gln Phe Cys Leu Gln Pro Pro Gly Ala Pro Ala  
290 295 300

Phe Ile Gly Asn Thr Pro Glu Arg Leu Phe His Arg Lys His Leu Gly  
305 310 315 320

Val Cys Ser Glu Ala Leu Ala Ala Thr Arg Pro Arg Gly Asp Ser Lys  
325 330 335

Val Arg Glu Met Glu Ile Glu Arg Asp Leu Leu Thr Ser Pro Lys Asp  
340 345 350

Asp Leu Glu Phe Ser Ile Val Arg Glu Asn Ile Arg Glu Lys Leu Lys  
355 360 365

Thr Ile Cys Asp Arg Val Val Val Lys Pro His Lys Ser Val Arg Lys  
370 375 380

Leu Ala Arg Val Gln His Leu Tyr Ser Gln Leu Ala Gly Gln Leu Lys  
385 390 395 400

Arg Glu Asp Asp Glu Phe Asn Ile Leu Thr Ala Leu His Pro Thr Pro  
405 410 415

Ala Val Cys Gly Cys Pro Val Glu Glu Ala Arg Leu Leu Ile Lys Gln  
420 425 430

Ile Glu Ser Phe Asp Arg Gly Met Tyr Ala Gly Pro Ile Gly Phe Phe  
435 440 445

Gly Gly Gly Glu Ser Glu Phe Ser Val Gly Ile Arg Ser Ala Leu Val  
450 455 460

Glu Lys Gly Leu Gly Ala Leu Ile Tyr Ala Gly Thr Gly Ile Val Ser  
465 470 475 480

Gly Ser Asn Pro Ser Ser Glu Trp Asn Glu Leu Glu Leu Lys Ile Ser  
485 490 495

Gln Phe Thr Lys Ser Leu Glu His Glu Ser Ala Leu Gln Pro Ile Asn

500

047-E2F-PCT.ST25.txt

505

510

&lt;210&gt; 2493

&lt;211&gt; 798

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2493

```

atgaaaatcc tctcactttc acttctcttg ctcttggccg ctacggtctc ggcattccgtt    60
ccagggctca tcgaactcgt cgattcgaaa accatctttg ggaacgtagc cgaactctta    120
gagaaagaga aactttccat caactacgcc aactgcagaa gctggcacct tgggtgttgag    180
acctctaaca tcatagactt cgacacggtg cccgcaaatt gcaaagacta tgttgaagac    240
tacttgatca cttccaaaca gtaccaatac gactccaaaa ccgtgtgcaa agaggcttat    300
ttctatgcca aaggacttgc cctaaagaac gacaccgtca atgtttggat ctttgacctt    360
gatgataccc tcctctctag tattccctac tacgcaaaat atggatacgg aacagagaag    420
accgacccgg gggcgtactg gttgtgggta gggaccggag catcaacccc tggactcccc    480
gaggccttgc atctttacca aaacatcata gagctcggga ttgaacccat catactcagt    540
gaccgttgga agttgtggaa gaatgtcact ctcgacaatc tcgaagctgc tggcgtgacc    600
tactggaagc atctcatatt gaagcctaat ggttcgaact tgaggcaagt ggtgtacaag    660
tcaaagggtga ggaagagtct cgtgaagaaa ggatacaaca tcgttggcaa tatcggagat    720
caatgggctg atttggttga ggatacccct gggagggttt ttaagctccc aaatccactc    780
tactacgtac cttcttaa                                     798

```

&lt;210&gt; 2494

&lt;211&gt; 265

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2494

```

Met Lys Ile Leu Ser Leu Ser Leu Leu Leu Leu Ala Ala Thr Val
1           5           10           15

```

```

Ser Ala Ser Val Pro Gly Leu Ile Glu Leu Val Asp Ser Lys Thr Ile
          20           25           30

```



Phe Gly Asn Val Ala Glu Leu Leu Glu Lys Glu Lys Leu Ser Ile Asn  
 35 40 45  
 Tyr Ala Asn Cys Arg Ser Trp His Leu Gly Val Glu Thr Ser Asn Ile  
 50 55 60  
 Ile Asp Phe Asp Thr Val Pro Ala Asn Cys Lys Asp Tyr Val Glu Asp  
 65 70 75 80  
 Tyr Leu Ile Thr Ser Lys Gln Tyr Gln Tyr Asp Ser Lys Thr Val Cys  
 85 90 95  
 Lys Glu Ala Tyr Phe Tyr Ala Lys Gly Leu Ala Leu Lys Asn Asp Thr  
 100 105 110  
 Val Asn Val Trp Ile Phe Asp Leu Asp Asp Thr Leu Leu Ser Ser Ile  
 115 120 125  
 Pro Tyr Tyr Ala Lys Tyr Gly Tyr Gly Thr Glu Lys Thr Asp Pro Gly  
 130 135 140  
 Ala Tyr Trp Leu Trp Leu Gly Thr Gly Ala Ser Thr Pro Gly Leu Pro  
 145 150 155 160  
 Glu Ala Leu His Leu Tyr Gln Asn Ile Ile Glu Leu Gly Ile Glu Pro  
 165 170 175  
 Ile Ile Leu Ser Asp Arg Trp Lys Leu Trp Lys Asn Val Thr Leu Asp  
 180 185 190  
 Asn Leu Glu Ala Ala Gly Val Thr Tyr Trp Lys His Leu Ile Leu Lys  
 195 200 205  
 Pro Asn Gly Ser Asn Leu Arg Gln Val Val Tyr Lys Ser Lys Val Arg  
 210 215 220  
 Lys Ser Leu Val Lys Lys Gly Tyr Asn Ile Val Gly Asn Ile Gly Asp  
 225 230 235 240  
 Gln Trp Ala Asp Leu Val Glu Asp Thr Pro Gly Arg Val Phe Lys Leu  
 245 250 255  
 Pro Asn Pro Leu Tyr Tyr Val Pro Ser  
 260 265

&lt;210&gt; 2495

&lt;211&gt; 678

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2495

```

atggcgatga gctttcatcg tcttcctcag gcattgcata tgatacccag aaaccctacg      60
caatcatcga agaatttagg gttttcttcg tttctatcgt gtgcaccatc gatggattct      120
cgtatatcag tttctaggct ttctctgaat catcccggct cgaaatttgg gttctcactc      180
gatactaggg tgagaaatga gtttatcggt agagcagaag aaggtaacac agaagctgaa      240
tctgaagaat ttgttgctga aatcgctgat acggaaggaa atgtagagga agtggtcgaa      300
gctaaaccta caagaaaacc taggatcaag ctcggagatg tcatggggat actgaaccag      360
aaagcaattg aggtagcaga gaaagtgaga cctgttccag aaatcaggac aggagatatt      420
gtagaaatca aattggaagt tcctgagaac aaacgtaggc tatctatcta caaaggcata      480
gtgatgtcga gacaaaatgc aggcatacac actaccattc gtattcggag aattattgcg      540
ggtatcggtg ttgaaattgt gtttcccata tactctccca acatcaaaga gataaaagtg      600
gtgagtcaca ggaaagtaag aagagcaagg ctttactatc tgagggacaa gcttcctcgt      660
ctgtccactt tcaagtga                                     678

```

&lt;210&gt; 2496

&lt;211&gt; 225

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2496

```

Met Ala Met Ser Phe His Arg Leu Pro Gln Ala Leu His Met Ile Pro
1      5      10      15
Arg Asn Pro Thr Gln Ser Ser Lys Asn Leu Gly Phe Ser Ser Phe Leu
20     25     30
Ser Cys Ala Pro Ser Met Asp Ser Arg Ile Ser Val Ser Arg Leu Ser
35     40     45
Leu Asn His Pro Gly Ser Lys Phe Gly Phe Ser Leu Asp Thr Arg Val
50     55     60
Arg Asn Glu Phe Ile Val Arg Ala Glu Glu Gly Asn Thr Glu Ala Glu
65     70     75     80

```

Ser Glu Glu Phe Val Ala Glu Ile Ala Asp Thr Glu Gly Asn Val Glu  
85 90  
Glu Val Val Glu Ala Lys Pro Thr Arg Lys Pro Arg Ile Lys Leu Gly  
100 105 110  
Asp Val Met Gly Ile Leu Asn Gln Lys Ala Ile Glu Val Ala Glu Lys  
115 120 125  
Val Arg Pro Val Pro Glu Ile Arg Thr Gly Asp Ile Val Glu Ile Lys  
130 135 140  
Leu Glu Val Pro Glu Asn Lys Arg Arg Leu Ser Ile Tyr Lys Gly Ile  
145 150 155 160  
Val Met Ser Arg Gln Asn Ala Gly Ile His Thr Thr Ile Arg Ile Arg  
165 170 175  
Arg Ile Ile Ala Gly Ile Gly Val Glu Ile Val Phe Pro Ile Tyr Ser  
180 185 190  
Pro Asn Ile Lys Glu Ile Lys Val Val Ser His Arg Lys Val Arg Arg  
195 200 205  
Ala Arg Leu Tyr Tyr Leu Arg Asp Lys Leu Pro Arg Leu Ser Thr Phe  
210 215 220  
Lys  
225

<210> 2497

<211> 849

<212> DNA

<213> Arabidopsis thaliana

<400> 2497

atggcggaga aaaatgcgag cgcggtggac ggtgcaatta gggttagtgg aatgcagttt	60
tcttacgatg ttcaagatcc tattttcttc gattttaatc tcgatcttcc cgctggatct	120
cgttgcctct tggttggtgc caatggatct gggaaaacta cgttattgaa gattcttgct	180
ggaaaacata tggttggagg aaagaatggt gtacaagtgc ttgatcgctc agcatttcat	240
gatacagagc ttgtttgtag tggtgatttg tcttacctag gaggatcatg gagtaaaact	300

047-E2F-PCT.ST25.txt

gctggttctg ctggtgatat tccactccaa ggagacttct cagcagaaca tatgatattt 360  
 ggagttgaag ggattgatcc ttccagaaga gagaagttga ttgatcttct tgatatcaat 420  
 cttcaatggc gtatgcataa ggtttctgat gggcagagac gtcgagtga aatatgtatg 480  
 ggtctattac atccgttcaa ggtattacta ctggatgaag ttactgttga cctcgacgtt 540  
 gttgctagga tggatttggt ggagttcttt aaagaagaat gtgaacagag aggagctaca 600  
 attgtatatg caactcatat ttccgacggg ctcgagacat gggctagtca ttggccttac 660  
 attaatggag gagagctgaa actctcggcc aagtttagatg agatcaagga tctcaaaacc 720  
 tcaccaaadc tgctatctgt tgttgaagct tggctccggt ctgaaaccaa agttgagaaa 780  
 aagacgaaga agaaacctgt tgttacctct ccatttatgt cgtctagaca aatggcatat 840  
 taccgatga 849

<210> 2498

<211> 282

<212> PRT

<213> Arabidopsis thaliana

<400> 2498

Met Ala Glu Lys Asn Ala Ser Ala Val Asp Gly Ala Ile Arg Val Ser  
 1 5 10 15

Gly Met Gln Phe Ser Tyr Asp Val Gln Asp Pro Ile Phe Phe Asp Phe  
 20 25 30

Asn Leu Asp Leu Pro Ala Gly Ser Arg Cys Leu Leu Val Gly Ala Asn  
 35 40 45

Gly Ser Gly Lys Thr Thr Leu Leu Lys Ile Leu Ala Gly Lys His Met  
 50 55 60

Val Gly Gly Lys Asn Val Val Gln Val Leu Asp Arg Ser Ala Phe His  
 65 70 75 80

Asp Thr Glu Leu Val Cys Ser Gly Asp Leu Ser Tyr Leu Gly Gly Ser  
 85 90 95

Trp Ser Lys Thr Ala Gly Ser Ala Gly Asp Ile Pro Leu Gln Gly Asp  
 100 105 110

Phe Ser Ala Glu His Met Ile Phe Gly Val Glu Gly Ile Asp Pro Phe  
 115 120 125

047-E2F-PCT.ST25.txt

Arg Arg Glu Lys Leu Ile Asp Leu Leu Asp Ile Asn Leu Gln Trp Arg  
130 135 140

Met His Lys Val Ser Asp Gly Gln Arg Arg Arg Val Gln Ile Cys Met  
145 150 155 160

Gly Leu Leu His Pro Phe Lys Val Leu Leu Leu Asp Glu Val Thr Val  
165 170 175

Asp Leu Asp Val Val Ala Arg Met Asp Leu Leu Glu Phe Phe Lys Glu  
180 185 190

Glu Cys Glu Gln Arg Gly Ala Thr Ile Val Tyr Ala Thr His Ile Phe  
195 200 205

Asp Gly Leu Glu Thr Trp Ala Ser His Leu Ala Tyr Ile Asn Gly Gly  
210 215 220

Glu Leu Lys Leu Ser Ala Lys Leu Asp Glu Ile Lys Asp Leu Lys Thr  
225 230 235 240

Ser Pro Asn Leu Leu Ser Val Val Glu Ala Trp Leu Arg Ser Glu Thr  
245 250 255

Lys Val Glu Lys Lys Thr Lys Lys Lys Pro Val Val Thr Ser Pro Phe  
260 265 270

Met Ser Ser Arg Gln Met Ala Tyr Tyr Arg  
275 280

<210> 2499

<211> 483

<212> DNA

<213> Arabidopsis thaliana

<400> 2499

atggccacaa gcgcatcagc tttgctctca ccaaccacat tctccactgc aatctcccac	60
aaaaacccta actccatctc attccatggc cttcgtcccc tccgtctagg tggctcctcc	120
tccgccctac ccaaactatc aaccaccggg agaaaatcct cctccgctgt cgtgagagct	180
gagctaagcc cttccatcgt cataagtctc agcacaggtc tctccctctt cctcggccgt	240
ttcgtcttct tcaacttcca gagagagaac gtagcaaaac agggcttacc ggagcagaac	300

ggaaaaaccc atttcgaagc tggagatgat cgtgctaagg agtacgtcag tctcttgaaa 360  
 tcgaacgata caattggatt caacattgtt gatgttcttg cttgggggttc tattggacac 420  
 atcgttgctt actacatctt ggctacttcc agcaatggat acgaccaag cttctttgga 480  
 tga 483

<210> 2500

<211> 160

<212> PRT

<213> *Arabidopsis thaliana*

<400> 2500

Met Ala Thr Ser Ala Ser Ala Leu Leu Ser Pro Thr Thr Phe Ser Thr  
 1 5 10 15  
 Ala Ile Ser His Lys Asn Pro Asn Ser Ile Ser Phe His Gly Leu Arg  
 20 25 30  
 Pro Leu Arg Leu Gly Gly Ser Ser Ala Leu Pro Lys Leu Ser Thr  
 35 40 45  
 Thr Gly Arg Lys Ser Ser Ser Ala Val Val Arg Ala Glu Leu Ser Pro  
 50 55 60  
 Ser Ile Val Ile Ser Leu Ser Thr Gly Leu Ser Leu Phe Leu Gly Arg  
 65 70 75 80  
 Phe Val Phe Phe Asn Phe Gln Arg Glu Asn Val Ala Lys Gln Gly Leu  
 85 90 95  
 Pro Glu Gln Asn Gly Lys Thr His Phe Glu Ala Gly Asp Asp Arg Ala  
 100 105 110  
 Lys Glu Tyr Val Ser Leu Leu Lys Ser Asn Asp Pro Ile Gly Phe Asn  
 115 120 125  
 Ile Val Asp Val Leu Ala Trp Gly Ser Ile Gly His Ile Val Ala Tyr  
 130 135 140  
 Tyr Ile Leu Ala Thr Ser Ser Asn Gly Tyr Asp Pro Ser Phe Phe Gly  
 145 150 155 160

<210> 2501

&lt;211&gt; 750

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2501

```

atggctaata cctctcttcc tctcgccgcc tccttcctcc tcctcatctc cttctcctcc    60
gccgtagaca cttcccgtct cttcctcacc gtcgtcaaca actgtccctt cactgtctgg    120
ccagccattc aaccaaacgc cggccacccc gtcctagaga aaggtggcct cgctctccca    180
actttcactc accgctcctt caacgttcca accacacact ggtccggtcg catctggggc    240
agaacctggt gtgcccacta caacggaaaa ttctcctgcc tcaccggaga ctgcggaaac    300
cgcttggaat gcaacggtct cggcggggca ccaccagctt ctctagctca gttcgacctc    360
caccacggtg gtcaccacga cttctcctct tacggtgtct ctctcgttga cggttacaat    420
gttccgatga ccgtgactcc tcacgaaggc catggtgtct gtcctgtcgt tggttgtcgt    480
gaagatctaa taaaaacgtg tccggctcat cttcaggtcc ggtcacacag tggacacgtg    540
gtggcttgta agagtgggtg tgaggctttc catacagacg agctgtgttg tcgtgggtcat    600
tacaatagcc ctaacacgtg taaagcttcg agccattcgc tgttctttaa gcatgcgtgt    660
ccttcgagtt tcacttttgc tcatgatagt ccttcgctta tgcattgact tgcttctcct    720
agagagctca aagtcattct ctgccactaa                                750

```

&lt;210&gt; 2502

&lt;211&gt; 249

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2502

```

Met Ala Lys Thr Ser Leu Pro Leu Ala Ala Ser Phe Leu Leu Leu Ile
1          5          10          15

Ser Phe Ser Ser Ala Val Asp Thr Ser Arg Leu Phe Leu Thr Val Val
20          25          30

Asn Asn Cys Pro Phe Thr Val Trp Pro Ala Ile Gln Pro Asn Ala Gly
35          40          45

His Pro Val Leu Glu Lys Gly Gly Phe Ala Leu Pro Thr Phe Thr His
50          55          60

```

047-E2F-PCT.ST25.txt

Arg Ser Phe Asn Val Pro Thr Thr His Trp Ser Gly Arg Ile Trp Ala  
65 70 75 80

Arg Thr Trp Cys Ala His Tyr Asn Gly Lys Phe Ser Cys Leu Thr Gly  
85 90 95

Asp Cys Gly Asn Arg Leu Glu Cys Asn Gly Leu Gly Gly Ala Pro Pro  
100 105 110

Ala Ser Leu Ala Gln Phe Asp Leu His His Gly Gly His His Asp Phe  
115 120 125

Ser Ser Tyr Gly Val Ser Leu Val Asp Gly Tyr Asn Val Pro Met Thr  
130 135 140

Val Thr Pro His Glu Gly His Gly Val Cys Pro Val Val Gly Cys Arg  
145 150 155 160

Glu Asp Leu Ile Lys Thr Cys Pro Ala His Leu Gln Val Arg Ser His  
165 170 175

Ser Gly His Val Val Ala Cys Lys Ser Gly Cys Glu Ala Phe His Thr  
180 185 190

Asp Glu Leu Cys Cys Arg Gly His Tyr Asn Ser Pro Asn Thr Cys Lys  
195 200 205

Ala Ser Ser His Ser Leu Phe Phe Lys His Ala Cys Pro Ser Ser Phe  
210 215 220

Thr Phe Ala His Asp Ser Pro Ser Leu Met His Asp Cys Ala Ser Pro  
225 230 235 240

Arg Glu Leu Lys Val Ile Phe Cys His  
245

<210> 2503

<211> 990

<212> DNA

<213> Arabidopsis thaliana

<400> 2503

atggagaatc acacgaccat gaaagtttca tctcttaatt gtatcgatct agccaacgac 60

gatcttaatc attctgttgt ttccctcaaa caggcatggt tggattgtgg atttttctat 120



047-E2F-PCT.ST25.txt

```

gtgatcaatc atgggataag cgaagagttc atggacgatg ttttcgagca gagcaagaag 180
ctttttgctc ttcctttaga agaaaagatg aaagtgttga gaaacgaaaa gcatcgaggc 240
tatacacctg ttcttgatga acttttagat cccaagaatc aaatcaatgg ggatcacaaa 300
gaggggttatt acattggaat tgaagttcct aaagatgatc ctcattggga taagccattc 360
tatggtccta acccttggcc tgatgctgat gttttacctg gttggcgaga aacaatggag 420
aaatatcatc aagaagcatt gagggtttct atggctattg caagactttt ggcgttagca 480
cttgacttgg atgtgggata ctttgatagg acggagatgc ttggaaaacc tattgcaact 540
atgcgactgt tgcggtatca agggatttct gatccttcga aaggaatata tgcattgtgga 600
gcacattctg acttcggaat gatgactctg ttagccactg atggtgtaat gggactccag 660
atatgcaaag ataagaacgc gatgccgcag aagtgggaat atgtaccgcc gattaaagga 720
gcatatatag tgaatcttgg cgatatgctg gaacgttggg gcaatggctt ttttaaattc 780
acgttgcacg gggttcttgg aaacggctcag gaacgatatt ctattccatt ctttgtggaa 840
ccaaatcatg actgtctcgt ggagtgtctc ccaacctgca agtcggaaag cgagcttcct 900
aaatatccac cgatcaaattg ttcgacatac ctcaccagc gttacgagga aacacatgcg 960
aatttaagca tctaccacca acaaacatga 990

```

<210> 2504

<211> 329

<212> PRT

<213> Arabidopsis thaliana

<400> 2504

```

Met Glu Asn His Thr Thr Met Lys Val Ser Ser Leu Asn Cys Ile Asp
1          5          10          15

```

```

Leu Ala Asn Asp Asp Leu Asn His Ser Val Val Ser Leu Lys Gln Ala
          20          25          30

```

```

Cys Leu Asp Cys Gly Phe Phe Tyr Val Ile Asn His Gly Ile Ser Glu
          35          40          45

```

```

Glu Phe Met Asp Asp Val Phe Glu Gln Ser Lys Lys Leu Phe Ala Leu
          50          55          60

```

```

Pro Leu Glu Glu Lys Met Lys Val Leu Arg Asn Glu Lys His Arg Gly
65          70          75          80

```

047-E2F-PCT.ST25.txt

Tyr Thr Pro Val Leu Asp Glu Leu Leu Asp Pro Lys Asn Gln Ile Asn  
 85 90 95  
 Gly Asp His Lys Glu Gly Tyr Tyr Ile Gly Ile Glu Val Pro Lys Asp  
 100 105 110  
 Asp Pro His Trp Asp Lys Pro Phe Tyr Gly Pro Asn Pro Trp Pro Asp  
 115 120 125  
 Ala Asp Val Leu Pro Gly Trp Arg Glu Thr Met Glu Lys Tyr His Gln  
 130 135 140  
 Glu Ala Leu Arg Val Ser Met Ala Ile Ala Arg Leu Leu Ala Leu Ala  
 145 150 155 160  
 Leu Asp Leu Asp Val Gly Tyr Phe Asp Arg Thr Glu Met Leu Gly Lys  
 165 170 175  
 Pro Ile Ala Thr Met Arg Leu Leu Arg Tyr Gln Gly Ile Ser Asp Pro  
 180 185 190  
 Ser Lys Gly Ile Tyr Ala Cys Gly Ala His Ser Asp Phe Gly Met Met  
 195 200 205  
 Thr Leu Leu Ala Thr Asp Gly Val Met Gly Leu Gln Ile Cys Lys Asp  
 210 215 220  
 Lys Asn Ala Met Pro Gln Lys Trp Glu Tyr Val Pro Pro Ile Lys Gly  
 225 230 235 240  
 Ala Phe Ile Val Asn Leu Gly Asp Met Leu Glu Arg Trp Ser Asn Gly  
 245 250 255  
 Phe Phe Lys Ser Thr Leu His Arg Val Leu Gly Asn Gly Gln Glu Arg  
 260 265 270  
 Tyr Ser Ile Pro Phe Phe Val Glu Pro Asn His Asp Cys Leu Val Glu  
 275 280 285  
 Cys Leu Pro Thr Cys Lys Ser Glu Ser Glu Leu Pro Lys Tyr Pro Pro  
 290 295 300  
 Ile Lys Cys Ser Thr Tyr Leu Thr Gln Arg Tyr Glu Glu Thr His Ala  
 305 310 315 320  
 Asn Leu Ser Ile Tyr His Gln Gln Thr  
 325

&lt;210&gt; 2505

&lt;211&gt; 714

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2505

```

atggagacta agttctgtta ctacaacaac tacaacgtaa accaacctcg ccatttttgt      60
aaagcttgtc agagatattg gacctcaggt gggaccatga gaagtgttcc aatcggagca    120
ggacggcgca agaacaagaa caactcacca acttcacatt accaccatgt gactatctcc    180
gaaacaaatg gtccggtcct tagtttcagc ctcggagatg atcaaaaggt ctcgagtaat    240
aggtttggtta atcaaaagct agttgctagg atagagaaca atgacgagcg ctctaataac    300
aacacttcga acggtttgaa ttgttttccg ggagtttcgt ggccgtacac gtggaatcct    360
gcgttttacc cggttttacc ttattggagc atgccagtgt tgtcttctcc ggtaagttca    420
agtcctactt ctactcttgg taagcattcg agagacgaag acgagacggg gaagcaaaaa    480
cagaggaatg gatctgtatt ggttccaaag actttgagaa ttgatgatcc taatgaagct    540
gcaaagagtt cgatatggac aacacttggg atcaagaacg aagttatggt caatgggttt    600
ggttcgaaga aagagggttaa gctcagtaac aaagaagaaa cagagacctc acttgttctt    660
tgtgcaaacc ctgctgcgtt atcaagatca atcaatttcc atgagcagat gtga      714

```

&lt;210&gt; 2506

&lt;211&gt; 237

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2506

```

Met Glu Thr Lys Phe Cys Tyr Tyr Asn Asn Tyr Asn Val Asn Gln Pro
1           5           10           15

```

```

Arg His Phe Cys Lys Ala Cys Gln Arg Tyr Trp Thr Ser Gly Gly Thr
          20           25           30

```

```

Met Arg Ser Val Pro Ile Gly Ala Gly Arg Arg Lys Asn Lys Asn Asn
          35           40           45

```

```

Ser Pro Thr Ser His Tyr His His Val Thr Ile Ser Glu Thr Asn Gly

```

50

55

Pro Val Leu Ser Phe Ser Leu Gly Asp Asp Gln Lys Val Ser Ser Asn  
65 70 75 80  
Arg Phe Gly Asn Gln Lys Leu Val Ala Arg Ile Glu Asn Asn Asp Glu  
85 90 95  
Arg Ser Asn Asn Asn Thr Ser Asn Gly Leu Asn Cys Phe Pro Gly Val  
100 105 110  
Ser Trp Pro Tyr Thr Trp Asn Pro Ala Phe Tyr Pro Val Tyr Pro Tyr  
115 120 125  
Trp Ser Met Pro Val Leu Ser Ser Pro Val Ser Ser Ser Pro Thr Ser  
130 135 140  
Thr Leu Gly Lys His Ser Arg Asp Glu Asp Glu Thr Val Lys Gln Lys  
145 150 155 160  
Gln Arg Asn Gly Ser Val Leu Val Pro Lys Thr Leu Arg Ile Asp Asp  
165 170 175  
Pro Asn Glu Ala Ala Lys Ser Ser Ile Trp Thr Thr Leu Gly Ile Lys  
180 185 190  
Asn Glu Val Met Phe Asn Gly Phe Gly Ser Lys Lys Glu Val Lys Leu  
195 200 205  
Ser Asn Lys Glu Glu Thr Glu Thr Ser Leu Val Leu Cys Ala Asn Pro  
210 215 220  
Ala Ala Leu Ser Arg Ser Ile Asn Phe His Glu Gln Met  
225 230 235

<210> 2507

<211> 462

<212> DNA

<213> Arabidopsis thaliana

<400> 2507

atgaacactt ccccaaaaat ggaaatggaa atgaaaatgg aaacgaaggc ggctcctgaa 60  
gctggtatga tcaaaaagtc caacgaggag tggcgtacgg ttctatctcc tgaacagttt 120  
aagattctta gagagaaatc tattgaaaag agagggtcag gagaatatgt gaagttgttc 180

047-E2F-PCT.ST25.txt

gaggaaggaa tctactgttg tgttggttgt ggaaatccgg tttataaatc aaccactaaa 240  
 ttcgattccg gttgcggttg gccggctttt tttgatgcta ttcctggcgc cattaaccga 300  
 accgaggaga gagctggatt aagatatgag ataacttgca caaaatgtga tggacatcta 360  
 ggtcatgtct taaaaaatga aggtttttcca acaccaactg acgaacgcca ttgcgtcaac 420  
 agcgttgctc tcaagttctc ttccgctatc acatctcagt ga 462

<210> 2508

<211> 153

<212> PRT

<213> Arabidopsis thaliana

<400> 2508

Met Asn Thr Ser Pro Lys Met Glu Met Glu Met Lys Met Glu Thr Lys  
 1 5 10 15

Ala Ala Pro Glu Ala Gly Met Ile Lys Lys Ser Asn Glu Glu Trp Arg  
 20 25 30

Thr Val Leu Ser Pro Glu Gln Phe Lys Ile Leu Arg Glu Lys Ser Ile  
 35 40 45

Glu Lys Arg Gly Ser Gly Glu Tyr Val Lys Leu Phe Glu Glu Gly Ile  
 50 55 60

Tyr Cys Cys Val Gly Cys Gly Asn Pro Val Tyr Lys Ser Thr Thr Lys  
 65 70 75 80

Phe Asp Ser Gly Cys Gly Trp Pro Ala Phe Phe Asp Ala Ile Pro Gly  
 85 90 95

Ala Ile Asn Arg Thr Glu Glu Arg Ala Gly Leu Arg Tyr Glu Ile Thr  
 100 105 110

Cys Thr Lys Cys Asp Gly His Leu Gly His Val Leu Lys Asn Glu Gly  
 115 120 125

Phe Pro Thr Pro Thr Asp Glu Arg His Cys Val Asn Ser Val Ala Leu  
 130 135 140

Lys Phe Ser Ser Ala Ile Thr Ser Gln  
 145 150

&lt;210&gt; 2509

&lt;211&gt; 882

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2509

```

atggtggtgt cactcttctc ttccagaaat gttttctata cgttaagctt atgcttattt    60
gcagcattat accagccggt tatgagtaga ccggctaagt ttgaagatga ctttaggatc    120
gcatggtccg atactcatat cactcaaatt gacggaggca gagccattca gctcaaattg    180
gaccctagct caggatgtgg atttgcttcg aagaagcaat acttgttcgg ccgtgtgagc    240
atgaaaatca aactgatccc cggtgattct gccgggactg tctactgcctt ctacatgaat    300
tcagataccg attcggtacg agacgagctt gattttgagt tcttaggaaa tcgaagtgga    360
caaccttaca cagtgc aaac caatgtgttt gctcatggta aaggcgatag agagcaaaga    420
gttaaccttt ggttcgaccc ttctcgtgat ttccacgaat atgccatctc atggaaccat    480
ctccgtattg tcttctacgt agacaatgtg cccatcaggg tttaacaaga caatgaggca    540
aggaaagtac cataccaag attccaacca atgggtgtat attccacgtt atgggaagcc    600
gatgattggg cgacacgtgg aggaatagag aaaatcaatt ggtcgagagc gccattttat    660
gcttattaca aagattttga tatagaagga tgtccggttc caggacccgc agattgtccc    720
gctaattcga agaattggtg ggaaggcagt gcgtaccacc agttgagtcc ggtggaagct    780
cgaagttata gatgggtccg agtgaaccat atggtctacg attattgcac tgacaaatct    840
cgttttcctg ttccacctcc agaatgctcg gctggaatct ga                        882

```

&lt;210&gt; 2510

&lt;211&gt; 293

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2510

```

Met Val Val Ser Leu Phe Ser Ser Arg Asn Val Phe Tyr Thr Leu Ser
1           5           10           15

```

```

Leu Cys Leu Phe Ala Ala Leu Tyr Gln Pro Val Met Ser Arg Pro Ala
          20           25           30

```

Lys Phe Glu Asp Asp Phe Arg Ile Ala Trp Ser Asp Thr His Ile Thr  
 35 40 45  
 Gln Ile Asp Gly Gly Arg Ala Ile Gln Leu Lys Leu Asp Pro Ser Ser  
 50 55 60  
 Gly Cys Gly Phe Ala Ser Lys Lys Gln Tyr Leu Phe Gly Arg Val Ser  
 65 70 75 80  
 Met Lys Ile Lys Leu Ile Pro Gly Asp Ser Ala Gly Thr Val Thr Ala  
 85 90 95  
 Phe Tyr Met Asn Ser Asp Thr Asp Ser Val Arg Asp Glu Leu Asp Phe  
 100 105 110  
 Glu Phe Leu Gly Asn Arg Ser Gly Gln Pro Tyr Thr Val Gln Thr Asn  
 115 120 125  
 Val Phe Ala His Gly Lys Gly Asp Arg Glu Gln Arg Val Asn Leu Trp  
 130 135 140  
 Phe Asp Pro Ser Arg Asp Phe His Glu Tyr Ala Ile Ser Trp Asn His  
 145 150 155 160  
 Leu Arg Ile Val Phe Tyr Val Asp Asn Val Pro Ile Arg Val Tyr Lys  
 165 170 175  
 Asn Asn Glu Ala Arg Lys Val Pro Tyr Pro Arg Phe Gln Pro Met Gly  
 180 185 190  
 Val Tyr Ser Thr Leu Trp Glu Ala Asp Asp Trp Ala Thr Arg Gly Gly  
 195 200 205  
 Ile Glu Lys Ile Asn Trp Ser Arg Ala Pro Phe Tyr Ala Tyr Tyr Lys  
 210 215 220  
 Asp Phe Asp Ile Glu Gly Cys Pro Val Pro Gly Pro Ala Asp Cys Pro  
 225 230 235 240  
 Ala Asn Ser Lys Asn Trp Trp Glu Gly Ser Ala Tyr His Gln Leu Ser  
 245 250 255  
 Pro Val Glu Ala Arg Ser Tyr Arg Trp Val Arg Val Asn His Met Val  
 260 265 270  
 Tyr Asp Tyr Cys Thr Asp Lys Ser Arg Phe Pro Val Pro Pro Glu  
 275 280 285

Cys Ser Ala Gly Ile  
290

<210> 2511

<211> 1329

<212> DNA

<213> *Arabidopsis thaliana*

<400> 2511

```

atgttgaaaa tcaaaagagt tccgaccgtt gtttcgaact accagaagga cgatggagcg      60
gaggatcccg tcggctgttg acggaattgc ctcggcgctt gttgccttaa cggggctagg      120
cttccattgt atgcatgtaa gaatctggta aaatccggag agaagcttgt aatcagtcac      180
gaggctatag agcctcctgt agcttttctc gagtcccttg ttctcggaga gtgggaggat      240
aggttccaaa gaggactttt tcgctatgat gtcactgcct gcgaaaccaa agttatcccg      300
gggaagtatg gtttcgttgc tcagcttaac gagggtcgtc acttgaagaa gaggccaact      360
gagttccgtg tagataaggt gttgcagtct tttgatggca gcaaattcaa cttcactaaa      420
gttggccaag aagagttgct cttccagttt gaagctggtg aagatgccca agttcagttc      480
ttcccttgca tgcctattga ccctgagaat tctcccagtg ttgttgccat caatgttagt      540
ccgatagagt atggccatgt gctgctgatt cctcgtgttc ttgactgctt gcctcaaagg      600
atcgatcaca aaagcctttt gcttgcagtt cacatggctg ctgaggctgc taatccatac      660
ttcagactcg gttacaacag cttgggtgct tttgccacta tcaatcatct ccactttcag      720
gcttattact tggccatgcc tttcccactg gagaaagctc ctaccaagaa gataactacc      780
actgttagtg gtgtcaaaat ctcagagctt ctaagttacc ctgtgagaag tcttctcttt      840
gaaggtggaa gctctatgca agaactatct gatactgttt cagactgctg tgtttgcctt      900
caaaacaaca acattccttt caacattctc atctctgatt gtggaaggca gatcttctta      960
atgccacagt gttacgcaga gaaacaggct ctaggtgaag tgagcccgga ggtattggaa     1020
acacaagtga acccagccgt gtgggagata agtggtcaca tggtagtgaa gaggaaagag     1080
gattacgaag gtgcttcaga ggataacgcg tggaggctcc ttgcggaagc ttctctgtcg     1140
gaggaaaggt ttaaggaggt tactgctctc gcctttgaag ccatagggtg tagtaaccaa     1200
gaggaggatc ttgaaggaac catagtccat cagcaaaact ctagtggcaa tgttaaccag     1260
aaaagcaaca gaacccatgg aggtccgatc acaaattggga cggccgccga gtgccttgct     1320
cttcagtga                                     1329

```



&lt;210&gt; 2512

&lt;211&gt; 442

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2512

Met Leu Lys Ile Lys Arg Val Pro Thr Val Val Ser Asn Tyr Gln Lys  
 1 5 10 15

Asp Asp Gly Ala Glu Asp Pro Val Gly Cys Gly Arg Asn Cys Leu Gly  
 20 25 30

Ala Cys Cys Leu Asn Gly Ala Arg Leu Pro Leu Tyr Ala Cys Lys Asn  
 35 40 45

Leu Val Lys Ser Gly Glu Lys Leu Val Ile Ser His Glu Ala Ile Glu  
 50 55 60

Pro Pro Val Ala Phe Leu Glu Ser Leu Val Leu Gly Glu Trp Glu Asp  
 65 70 75 80

Arg Phe Gln Arg Gly Leu Phe Arg Tyr Asp Val Thr Ala Cys Glu Thr  
 85 90 95

Lys Val Ile Pro Gly Lys Tyr Gly Phe Val Ala Gln Leu Asn Glu Gly  
 100 105 110

Arg His Leu Lys Lys Arg Pro Thr Glu Phe Arg Val Asp Lys Val Leu  
 115 120 125

Gln Ser Phe Asp Gly Ser Lys Phe Asn Phe Thr Lys Val Gly Gln Glu  
 130 135 140

Glu Leu Leu Phe Gln Phe Glu Ala Gly Glu Asp Ala Gln Val Gln Phe  
 145 150 155 160

Phe Pro Cys Met Pro Ile Asp Pro Glu Asn Ser Pro Ser Val Val Ala  
 165 170 175

Ile Asn Val Ser Pro Ile Glu Tyr Gly His Val Leu Leu Ile Pro Arg  
 180 185 190

Val Leu Asp Cys Leu Pro Gln Arg Ile Asp His Lys Ser Leu Leu Leu  
 195 200 205

047-E2F-PCT.ST25.txt

Ala Val His Met Ala Ala Glu Ala Ala Asn Pro Tyr Phe Arg Leu Gly  
210 215 220

Tyr Asn Ser Leu Gly Ala Phe Ala Thr Ile Asn His Leu His Phe Gln  
225 230 235 240

Ala Tyr Tyr Leu Ala Met Pro Phe Pro Leu Glu Lys Ala Pro Thr Lys  
245 250 255

Lys Ile Thr Thr Thr Val Ser Gly Val Lys Ile Ser Glu Leu Leu Ser  
260 265 270

Tyr Pro Val Arg Ser Leu Leu Phe Glu Gly Gly Ser Ser Met Gln Glu  
275 280 285

Leu Ser Asp Thr Val Ser Asp Cys Cys Val Cys Leu Gln Asn Asn Asn  
290 295 300

Ile Pro Phe Asn Ile Leu Ile Ser Asp Cys Gly Arg Gln Ile Phe Leu  
305 310 315 320

Met Pro Gln Cys Tyr Ala Glu Lys Gln Ala Leu Gly Glu Val Ser Pro  
325 330 335

Glu Val Leu Glu Thr Gln Val Asn Pro Ala Val Trp Glu Ile Ser Gly  
340 345 350

His Met Val Leu Lys Arg Lys Glu Asp Tyr Glu Gly Ala Ser Glu Asp  
355 360 365

Asn Ala Trp Arg Leu Leu Ala Glu Ala Ser Leu Ser Glu Glu Arg Phe  
370 375 380

Lys Glu Val Thr Ala Leu Ala Phe Glu Ala Ile Gly Cys Ser Asn Gln  
385 390 395 400

Glu Glu Asp Leu Glu Gly Thr Ile Val His Gln Gln Asn Ser Ser Gly  
405 410 415

Asn Val Asn Gln Lys Ser Asn Arg Thr His Gly Gly Pro Ile Thr Asn  
420 425 430

Gly Thr Ala Ala Glu Cys Leu Val Leu Gln  
435 440

<210> 2513

&lt;211&gt; 1137

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2513

```

atggagaaag gtagcagtga tgattatgac tacagtgata gtttcattaa cgacgacgat    60
ccagctgtcc gtggttcaca cgtgtctagt actgatgatg atgaaatata tattaaggag    120
atgacagcta aaacaaaaga gaagaaaaaa aatggaaaag gtagaagact aaggaagaag    180
tttcaagttt ctgattcaga ttctgatgaa acttcggcta gagctgatga atctagcaat    240
gaggattctg tagaagtact taacaatggt aatgagccca agatcgcgaa ggtccattct    300
tcagagagtc ctctgccttc aagggttacg aggtcgaagg caagaaaatc gactttggaa    360
agtggtgagc ctgccaagtg tgagaagaca tttgaagcaa aaattaatac tcacaagact    420
ctggataata gggaggataa accattggat gatgctaaac tgtctcccgt ccagaaagac    480
tgtgaaattc tttcgaagaa aaaaagaaac aaggaaaggt ctaagagttc agctataatt    540
attgactcag atgacggaga ggggaaaaat atgcctgaaa gtcttcagaa tgagaatcca    600
gtttctgaca aggggatcaa atcatcaagt gatgtattac tttctcagaa tggatgatgca    660
actctatcaa agaaaaagaa gaaaagggat aggagagagg aaactacaga tgtcccggaa    720
tgtccagaga agaagaaaca agctatcgac aagaacatcg agaaagaagc tggactaag    780
aaaccactag aaacgaggac tttatcaaat ggagtgatca ttgaagatat tgaaaaagga    840
aagttagatg gaaaatcagc tgttaaaggg aaaaagggtc gtatactcta tactgggaag    900
ttgaaagaca cggggaactt gtttgattca aacttgggag aagatccact aagattccgc    960
ttaggtggag aaaatgtcat agaagggtctc agcattgggtg ttgaaggaat gcgagttggt   1020
gataagagaa gactcataat accgccagcc ctcgggtact caaaaagggg attgaaggaa   1080
aagggtgccta agagtgcgtg gcttgtctat gaagtggagg ctgtaaaaat cagataa    1137

```

&lt;210&gt; 2514

&lt;211&gt; 378

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2514

```

Met Glu Lys Gly Ser Ser Asp Asp Tyr Asp Tyr Ser Asp Ser Phe Ile
1          5          10          15

```

047-E2F-PCT.ST25.txt

Asn Asp Asp Asp Pro Ala Val Arg Gly Ser His Val Ser Ser Thr Asp  
 20 25 30  
 Asp Asp Glu Ile Ser Ile Lys Glu Met Thr Ala Lys Thr Lys Glu Lys  
 35 40 45  
 Lys Lys Asn Gly Lys Gly Arg Arg Leu Arg Lys Lys Phe Gln Val Ser  
 50 55 60  
 Asp Ser Asp Ser Asp Glu Thr Ser Ala Arg Ala Asp Glu Ser Ser Asn  
 65 70 75 80  
 Glu Asp Ser Val Glu Val Leu Asn Asn Gly Asn Glu Pro Lys Ile Ala  
 85 90 95  
 Lys Val His Ser Ser Glu Ser Pro Leu Pro Ser Arg Val Thr Arg Ser  
 100 105 110  
 Lys Ala Arg Lys Ser Thr Leu Glu Ser Gly Glu Pro Ala Lys Cys Glu  
 115 120 125  
 Lys Thr Phe Glu Ala Lys Ile Asn Thr His Lys Thr Leu Asp Asn Arg  
 130 135 140  
 Glu Asp Lys Pro Leu Asp Asp Ala Lys Leu Ser Pro Val Gln Lys Asp  
 145 150 155 160  
 Cys Glu Ile Leu Ser Lys Lys Lys Arg Asn Lys Glu Arg Ser Lys Ser  
 165 170 175  
 Ser Ala Ile Ile Ile Asp Ser Asp Asp Gly Glu Gly Lys Asn Met Pro  
 180 185 190  
 Glu Ser Leu Gln Asn Glu Asn Pro Val Ser Asp Lys Gly Ile Lys Ser  
 195 200 205  
 Ser Ser Asp Val Leu Leu Ser Gln Asn Gly Asp Ala Thr Leu Ser Lys  
 210 215 220  
 Lys Lys Lys Lys Arg Asp Arg Arg Glu Glu Thr Thr Asp Val Pro Glu  
 225 230 235 240  
 Cys Pro Glu Lys Lys Lys Gln Ala Ile Asp Lys Asn Ile Glu Lys Glu  
 245 250 255  
 Ala Gly Thr Lys Lys Pro Leu Glu Thr Arg Thr Leu Ser Asn Gly Val  
 260 265 270

047-E2F-PCT.ST25.txt

Ile Ile Glu Asp Ile Glu Lys Gly Lys Leu Asp Gly Lys Ser Ala Val  
275 280 285

Lys Gly Lys Lys Val Ser Ile Leu Tyr Thr Gly Lys Leu Lys Asp Thr  
290 295 300

Gly Asn Leu Phe Asp Ser Asn Leu Gly Glu Asp Pro Leu Arg Phe Arg  
305 310 315 320

Leu Gly Gly Glu Asn Val Ile Glu Gly Leu Ser Ile Gly Val Glu Gly  
325 330 335

Met Arg Val Gly Asp Lys Arg Arg Leu Ile Ile Pro Pro Ala Leu Gly  
340 345 350

Tyr Ser Lys Arg Gly Leu Lys Glu Lys Val Pro Lys Ser Ala Trp Leu  
355 360 365

Val Tyr Glu Val Glu Ala Val Lys Ile Arg  
370 375

<210> 2515

<211> 792

<212> DNA

<213> Arabidopsis thaliana

<400> 2515  
atgagtgagg aggagaggaa gcaacacgtc gttctagtagc atggtgcttg ccatggcgcc 60  
tggtgctggt acaagggttaa gccgcagctc gaggtcttctg gccaccgcgt aaccgccgta 120  
gatctagctg cctccggtat agacatgacc aggtcaatca cagatatatc cacatgcgaa 180  
caatactcag agccattgat gcagctaattg acctcactac cagatgatga gaaggttgtg 240  
cttggttggtc atagcttagg aggtttgagt ttagctatgg ccatggatat gtttccgacc 300  
aaaatctctg tttctgtctt tgtgactgct atgatgccag acaccaaaca ctcaccatcc 360  
ttcgtatggg ataagctaag aaaagaaact tcacgagagg aatgggttaga caccgtgttt 420  
acgagcgaga aacctgattt tcctagcgag ttttgattt ttggaccaga attcatggcc 480  
aagaacttgt atcagttgtc tccagtccaa gatcttgaat tggcgaaaat gttggtgagg 540  
gcaaaccat tgattaagaa agatatggca gagagaagaa gcttcagtga ggaaggatac 600  
ggatccgtta cacgtatatt tattgtatgc ggaaaggatc ttgtgtcacc cgaagattac 660

cagcgatcga tgatcagcaa ctttcccca aaagaagtaa tggagatcaa agacgcagat 720  
 catatgccaa tgttctccaa gcctcaacaa ctatgtgctc ttctcttgga gattgcaaat 780  
 aaatatgcct aa 792

<210> 2516

<211> 263

<212> PRT

<213> Arabidopsis thaliana

<400> 2516

Met Ser Glu Glu Glu Arg Lys Gln His Val Val Leu Val His Gly Ala  
 1 5 10 15

Cys His Gly Ala Trp Cys Trp Tyr Lys Val Lys Pro Gln Leu Glu Ala  
 20 25 30

Ser Gly His Arg Val Thr Ala Val Asp Leu Ala Ala Ser Gly Ile Asp  
 35 40 45

Met Thr Arg Ser Ile Thr Asp Ile Ser Thr Cys Glu Gln Tyr Ser Glu  
 50 55 60

Pro Leu Met Gln Leu Met Thr Ser Leu Pro Asp Asp Glu Lys Val Val  
 65 70 75 80

Leu Val Gly His Ser Leu Gly Gly Leu Ser Leu Ala Met Ala Met Asp  
 85 90 95

Met Phe Pro Thr Lys Ile Ser Val Ser Val Phe Val Thr Ala Met Met  
 100 105 110

Pro Asp Thr Lys His Ser Pro Ser Phe Val Trp Asp Lys Leu Arg Lys  
 115 120 125

Glu Thr Ser Arg Glu Glu Trp Leu Asp Thr Val Phe Thr Ser Glu Lys  
 130 135 140

Pro Asp Phe Pro Ser Glu Phe Trp Ile Phe Gly Pro Glu Phe Met Ala  
 145 150 155 160

Lys Asn Leu Tyr Gln Leu Ser Pro Val Gln Asp Leu Glu Leu Ala Lys  
 165 170 175

Met Leu Val Arg Ala Asn Pro Leu Ile Lys Lys Asp Met Ala Glu Arg  
 180 185 190

Arg Ser Phe Ser Glu Glu Gly Tyr Gly Ser Val Thr Arg Ile Phe Ile  
 195 200 205

Val Cys Gly Lys Asp Leu Val Ser Pro Glu Asp Tyr Gln Arg Ser Met  
 210 215 220

Ile Ser Asn Phe Pro Pro Lys Glu Val Met Glu Ile Lys Asp Ala Asp  
 225 230 235 240

His Met Pro Met Phe Ser Lys Pro Gln Gln Leu Cys Ala Leu Leu Leu  
 245 250 255

Glu Ile Ala Asn Lys Tyr Ala  
 260

<210> 2517

<211> 588

<212> DNA

<213> Arabidopsis thaliana

<400> 2517  
 atgaacaaaa cccgccttcg tgctctctcc ccaccttcg gtatgcaaca ccgtaagaga 60  
 tgtcgattga gaggtcgaaa ctacgtaagg ccagaagtta aacaacgcaa cttctcaaaa 120  
 gatgaagacg atctcatcct caagcttcct gcaattcttg gcaatagatg gtcattgata 180  
 gcgggaagat tgccaggacg aaccgacaac gaagtttaga tccattggga aacttaccta 240  
 aaaaggaagc tcgtaaaaat gggaatcgac ccaaccaatc atcgtctcca ccatcacacc 300  
 aactacattt ctagacgtca cctccattct tcacataagg aacatgaaac caagattatt 360  
 agtgatcaat cttcttcggt atccgaatca tgtggtgtaa caattttgcc cattccaagt 420  
 accaattgct cggaggatag tactagtacc ggacgaagtc atttgcctga cctaaacatt 480  
 ggtctcatcc cggccgtgac ttcttttgcca gctctttgcc ttcaggactc tagcgaatcc 540  
 tctaccaatg gttcaacagg tcaagaaacg cttcttctat tccgatga 588

<210> 2518

<211> 195

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 2518

Met Asn Lys Thr Arg Leu Arg Ala Leu Ser Pro Pro Ser Gly Met Gln  
 1 5 10 15

His Arg Lys Arg Cys Arg Leu Arg Gly Arg Asn Tyr Val Arg Pro Glu  
 20 25 30

Val Lys Gln Arg Asn Phe Ser Lys Asp Glu Asp Asp Leu Ile Leu Lys  
 35 40 45

Leu His Ala Leu Leu Gly Asn Arg Trp Ser Leu Ile Ala Gly Arg Leu  
 50 55 60

Pro Gly Arg Thr Asp Asn Glu Val Arg Ile His Trp Glu Thr Tyr Leu  
 65 70 75 80

Lys Arg Lys Leu Val Lys Met Gly Ile Asp Pro Thr Asn His Arg Leu  
 85 90 95

His His His Thr Asn Tyr Ile Ser Arg Arg His Leu His Ser Ser His  
 100 105 110

Lys Glu His Glu Thr Lys Ile Ile Ser Asp Gln Ser Ser Ser Val Ser  
 115 120 125

Glu Ser Cys Gly Val Thr Ile Leu Pro Ile Pro Ser Thr Asn Cys Ser  
 130 135 140

Glu Asp Ser Thr Ser Thr Gly Arg Ser His Leu Pro Asp Leu Asn Ile  
 145 150 155 160

Gly Leu Ile Pro Ala Val Thr Ser Leu Pro Ala Leu Cys Leu Gln Asp  
 165 170 175

Ser Ser Glu Ser Ser Thr Asn Gly Ser Thr Gly Gln Glu Thr Leu Leu  
 180 185 190

Leu Phe Arg  
 195

&lt;210&gt; 2519

&lt;211&gt; 858

&lt;212&gt; DNA



<213> *Arabidopsis thaliana*

&lt;400&gt; 2519

```

atggccgccg ttagtagttc gtcggagacc ggagactgcg gcgttacggg aaagagagat    60
gagatcatgt tgttcggagt tagagtcgtg gttgatccga tgagaaagtg tgtgagtttg    120
aacaatctct ctgattatga aaagtcttct ccggaggatg agatccctaa gatagtcacc    180
gccggagctg gagatggtga agataagaac gaaacggatg cgacggtgat tgtcgctgac    240
ggttacgcct ccgccaatga cgctgtccag atttcgtctt cttccggcgg gaggaaacga    300
ggggttccat ggacagagaa cgagcataag aggttcttga ttgggttgca gaaagtagga    360
aaaggagatt ggaaaggaat atcaagaaac tttgtgaaga gtaggactcc tactcaagta    420
gctagtcatg ctcagaaata cttcctccga cgaaccaacc tcaaccgtcg ccgaagaaga    480
tctagccttt ttgatatcac tactgagacg gttacagaaa tggccatgga gcaagatcct    540
actcaggaga actcaccact acctgaaacc aacatcagct ctggacagca agcgatgcaa    600
gtttttactg acgtgccgac aaaaactgag aatgcaccag agacatttca tctcaacgat    660
ccatatctgg ttccagtaac cttccaagca aagccaacat tcaatctaaa cacagatgct    720
gctccacttt ctctcaacct ttgtctggca tcctcattta atcttaacga gcaacccaac    780
tcaagacact cggctttcac gatgatgcca agcttcagcg atggagatag caatagcagc    840
atcatcagag ttgcttag                                     858

```

&lt;210&gt; 2520

&lt;211&gt; 285

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2520

```

Met Ala Ala Val Ser Ser Ser Ser Glu Thr Gly Asp Cys Gly Val Thr
1           5           10          15
Gly Lys Arg Asp Glu Ile Met Leu Phe Gly Val Arg Val Val Val Asp
20          25          30
Pro Met Arg Lys Cys Val Ser Leu Asn Asn Leu Ser Asp Tyr Glu Lys
35          40          45
Ser Ser Pro Glu Asp Glu Ile Pro Lys Ile Val Thr Ala Gly Ala Gly
50          55          60

```

047-E2F-PCT.ST25.txt

Asp Gly Glu Asp Lys Asn Glu Thr Asp Ala Thr Val Ile Val Ala Asp  
 65 70 75 80  
 Gly Tyr Ala Ser Ala Asn Asp Ala Val Gln Ile Ser Ser Ser Ser Gly  
 85 90 95  
 Gly Arg Lys Arg Gly Val Pro Trp Thr Glu Asn Glu His Lys Arg Phe  
 100 105 110  
 Leu Ile Gly Leu Gln Lys Val Gly Lys Gly Asp Trp Lys Gly Ile Ser  
 115 120 125  
 Arg Asn Phe Val Lys Ser Arg Thr Pro Thr Gln Val Ala Ser His Ala  
 130 135 140  
 Gln Lys Tyr Phe Leu Arg Arg Thr Asn Leu Asn Arg Arg Arg Arg Arg  
 145 150 155 160  
 Ser Ser Leu Phe Asp Ile Thr Thr Glu Thr Val Thr Glu Met Ala Met  
 165 170 175  
 Glu Gln Asp Pro Thr Gln Glu Asn Ser Pro Leu Pro Glu Thr Asn Ile  
 180 185 190  
 Ser Ser Gly Gln Gln Ala Met Gln Val Phe Thr Asp Val Pro Thr Lys  
 195 200 205  
 Thr Glu Asn Ala Pro Glu Thr Phe His Leu Asn Asp Pro Tyr Leu Val  
 210 215 220  
 Pro Val Thr Phe Gln Ala Lys Pro Thr Phe Asn Leu Asn Thr Asp Ala  
 225 230 235 240  
 Ala Pro Leu Ser Leu Asn Leu Cys Leu Ala Ser Ser Phe Asn Leu Asn  
 245 250 255  
 Glu Gln Pro Asn Ser Arg His Ser Ala Phe Thr Met Met Pro Ser Phe  
 260 265 270  
 Ser Asp Gly Asp Ser Asn Ser Ser Ile Ile Arg Val Ala  
 275 280 285

<210> 2521

<211> 900

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2521

```

atgggtaact ctttgatctc tcttctctca atcttccact tgctggtggt atggggatcc    60
tcagtgaatg cctattggcc accatcacct gggtattggc caagctccaa ggttggttcc    120
ctcaacttct acaaagggtt taggaatctt tggggctctc agcatcagag aatggacca    180
aatgccctca ccatctggct tgatagaacc tcaggaagtg gattcaagtc agtgaagcca    240
ttcagatcag gctactttgg agcaaaccatc aaactccaac ctggctacac tgctggagtc    300
atcacatctc tctatctatc aaataatgag gcacatccag ggttccatga tgaggtagac    360
atagaatfff tggggacaac atttgggaag ccttacacac ttcagacaaa tgtgtatatt    420
agaggaagtg gtgatgggaa aatcattggc cgtgagatga agtttcgctt gtggtttgat    480
ccaactaaag attttcacca ttatgctatt ctttggagcc ctagagaaat catatfffft    540
gtggatgata ttcccataag aagataccca aagaagagtg cgtctacatt tcctttaaga    600
ccaatgtggc tttatggttc catatgggat gcttcttctt gggcaacgga agacggtaaa    660
tacaaagccg actataaata tcaacctttc actgctaaat acaccaatff taaagcgctc    720
ggctgcaccg cctactcgtc agctcggtgc tatccgttgt cggcttcgcc ataccgttct    780
ggcggattaa cccgacaaca acaccaagcc atgagatggg ttcaaacaca tagtatggta    840
tacaattatt gcaaagatta taagcgagac cattctttta cgccggaatg ttggcgttag    900

```

&lt;210&gt; 2522

&lt;211&gt; 299

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2522

```

Met Gly Asn Ser Leu Ile Ser Leu Leu Ser Ile Phe His Leu Leu Val
1           5           10          15

Leu Trp Gly Ser Ser Val Asn Ala Tyr Trp Pro Pro Ser Pro Gly Tyr
20          25          30

Trp Pro Ser Ser Lys Val Gly Ser Leu Asn Phe Tyr Lys Gly Phe Arg
35          40          45

Asn Leu Trp Gly Pro Gln His Gln Arg Met Asp Gln Asn Ala Leu Thr
50          55          60

```

047-E2F-PCT.ST25.txt

Ile Trp Leu Asp Arg Thr Ser Gly Ser Gly Phe Lys Ser Val Lys Pro  
65 70 75 80

Phe Arg Ser Gly Tyr Phe Gly Ala Asn Ile Lys Leu Gln Pro Gly Tyr  
85 90 95

Thr Ala Gly Val Ile Thr Ser Leu Tyr Leu Ser Asn Asn Glu Ala His  
100 105 110

Pro Gly Phe His Asp Glu Val Asp Ile Glu Phe Leu Gly Thr Thr Phe  
115 120 125

Gly Lys Pro Tyr Thr Leu Gln Thr Asn Val Tyr Ile Arg Gly Ser Gly  
130 135 140

Asp Gly Lys Ile Ile Gly Arg Glu Met Lys Phe Arg Leu Trp Phe Asp  
145 150 155 160

Pro Thr Lys Asp Phe His His Tyr Ala Ile Leu Trp Ser Pro Arg Glu  
165 170 175

Ile Ile Phe Leu Val Asp Asp Ile Pro Ile Arg Arg Tyr Pro Lys Lys  
180 185 190

Ser Ala Ser Thr Phe Pro Leu Arg Pro Met Trp Leu Tyr Gly Ser Ile  
195 200 205

Trp Asp Ala Ser Ser Trp Ala Thr Glu Asp Gly Lys Tyr Lys Ala Asp  
210 215 220

Tyr Lys Tyr Gln Pro Phe Thr Ala Lys Tyr Thr Asn Phe Lys Ala Leu  
225 230 235 240

Gly Cys Thr Ala Tyr Ser Ser Ala Arg Cys Tyr Pro Leu Ser Ala Ser  
245 250 255

Pro Tyr Arg Ser Gly Gly Leu Thr Arg Gln Gln His Gln Ala Met Arg  
260 265 270

Trp Val Gln Thr His Ser Met Val Tyr Asn Tyr Cys Lys Asp Tyr Lys  
275 280 285

Arg Asp His Ser Leu Thr Pro Glu Cys Trp Arg  
290 295

<210> 2523

&lt;211&gt; 1236

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2523

```

atgtctctcc ttctccctac gaattttacaa caataccctt cttcttcctc cttcccatct    60
tcaacaccta tcctatctcc gcctccttcc accgctttct ccgtcatcgt acctcgtcgg    120
agatgtctca gattggttac ttcttgtgtc tccaccgttc aaagctccgt cgcaacaaac    180
ggttcctctc cagctcctgc tccggccgct gttgtcgttg agcgtgacca gattcgtctt    240
ggtcttccta gtaaaggacg tatggctgct gatgcaatcg atcttctcaa ggactgtcaa    300
ctgtttgtta aacaagtcaa tcctaggcaa tatgttgac agattcccca gttaccaaac    360
actgaagtct ggtttcaacg gccaaaagat attgtcagaa agttactctc aggagatttg    420
gatctaggta tcgttgggtc tgacacactt agtgaatatg gtcaggaaaa tgaagatctt    480
atcattgtcc atgaagctct caactttgga gactgtcacc tgtctattgc gattccaaac    540
tatgggatat ttgagaatat aaattctctg aaggagctag cgcaaatgcc ccaatggagt    600
gaagagagac ccttacgctt agctactggc ttcacttatc tcggcccca atttatgaaa    660
gaaaatggca taaagcatgt ggtgttttca actgcagacg gagcactgga ggcagctcca    720
gcgatgggga tagctgatgc ctttttggat cttgtgagta gtggtataac actcaaagag    780
aacaacttga aagaaattga aggaggtgtt gtgctgga aa gccaggcggc acttgtggca    840
agtagaagag cattaaacga gagaaaagg gcactaaaca cagtacacga gattcttgag    900
agattggagg cccatctaaa ggcggatggc caattcactg ttgttgcaaa catgagagga    960
aatagtgtc aggaagtggc tgagcgtgtg ctgagccaac catcattgtc aggattgcag   1020
ggaccgacaa taagcccagt gtactgtaca caaatggaa aagtatcggg tgactactat   1080
gccatcgtga tttgtgtacc aaaaaaggcc ctatacgact ctgtgaagca acttagagcg   1140
gccggaggca gtgggggtatt agtttcacct ttgacctaca tttttgatga ggatactcca   1200
agatgggggtc agctcctgag aaacctcggg atttaa                               1236

```

&lt;210&gt; 2524

&lt;211&gt; 411

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2524

## 047-E2F-PCT.ST25.txt

Met Ser Leu Leu Leu Pro Thr Asn Leu Gln Gln Tyr Pro Ser Ser Ser  
 1 5 10 15  
 Ser Phe Pro Ser Ser Thr Pro Ile Leu Ser Pro Pro Pro Ser Thr Ala  
 20 25 30  
 Phe Ser Val Ile Val Pro Arg Arg Arg Cys Leu Arg Leu Val Thr Ser  
 35 40 45  
 Cys Val Ser Thr Val Gln Ser Ser Val Ala Thr Asn Gly Ser Ser Pro  
 50 55 60  
 Ala Pro Ala Pro Ala Ala Val Val Val Glu Arg Asp Gln Ile Arg Leu  
 65 70 75 80  
 Gly Leu Pro Ser Lys Gly Arg Met Ala Ala Asp Ala Ile Asp Leu Leu  
 85 90 95  
 Lys Asp Cys Gln Leu Phe Val Lys Gln Val Asn Pro Arg Gln Tyr Val  
 100 105 110  
 Ala Gln Ile Pro Gln Leu Pro Asn Thr Glu Val Trp Phe Gln Arg Pro  
 115 120 125  
 Lys Asp Ile Val Arg Lys Leu Leu Ser Gly Asp Leu Asp Leu Gly Ile  
 130 135 140  
 Val Gly Leu Asp Thr Leu Ser Glu Tyr Gly Gln Glu Asn Glu Asp Leu  
 145 150 155 160  
 Ile Ile Val His Glu Ala Leu Asn Phe Gly Asp Cys His Leu Ser Ile  
 165 170 175  
 Ala Ile Pro Asn Tyr Gly Ile Phe Glu Asn Ile Asn Ser Leu Lys Glu  
 180 185 190  
 Leu Ala Gln Met Pro Gln Trp Ser Glu Glu Arg Pro Leu Arg Leu Ala  
 195 200 205  
 Thr Gly Phe Thr Tyr Leu Gly Pro Lys Phe Met Lys Glu Asn Gly Ile  
 210 215 220  
 Lys His Val Val Phe Ser Thr Ala Asp Gly Ala Leu Glu Ala Ala Pro  
 225 230 235 240  
 Ala Met Gly Ile Ala Asp Ala Ile Leu Asp Leu Val Ser Ser Gly Ile  
 245 250 255

047-E2F-PCT.ST25.txt

Thr Leu Lys Glu Asn Asn Leu Lys Glu Ile Glu Gly Gly Val Val Leu  
260 265 270

Glu Ser Gln Ala Ala Leu Val Ala Ser Arg Arg Ala Leu Asn Glu Arg  
275 280 285

Lys Gly Ala Leu Asn Thr Val His Glu Ile Leu Glu Arg Leu Glu Ala  
290 295 300

His Leu Lys Ala Asp Gly Gln Phe Thr Val Val Ala Asn Met Arg Gly  
305 310 315 320

Asn Ser Ala Gln Glu Val Ala Glu Arg Val Leu Ser Gln Pro Ser Leu  
325 330 335

Ser Gly Leu Gln Gly Pro Thr Ile Ser Pro Val Tyr Cys Thr Gln Asn  
340 345 350

Gly Lys Val Ser Val Asp Tyr Tyr Ala Ile Val Ile Cys Val Pro Lys  
355 360 365

Lys Ala Leu Tyr Asp Ser Val Lys Gln Leu Arg Ala Ala Gly Gly Ser  
370 375 380

Gly Val Leu Val Ser Pro Leu Thr Tyr Ile Phe Asp Glu Asp Thr Pro  
385 390 395 400

Arg Trp Gly Gln Leu Leu Arg Asn Leu Gly Ile  
405 410

<210> 2525

<211> 552

<212> DNA

<213> Arabidopsis thaliana

<400> 2525  
atgggaatgt cgaaatcgaa aggcaacaca cacaacatct tccttctctg caactacatc 60  
ctcttaggct cagcctcaag ttgcatcttc ctcaaatct ccctccgtct cttcccatct 120  
ctctccggtc tctcccttat cttcctctac actctcaciaa tcgcaaccgc ggtatccggc 180  
tgctcgatct tcgcctcttc cacatccgcc accgcgagcg atagattata cggttcacac 240  
atggtagcca cagtcctcac ggccattttc caaggcgctg tctctgttct gatattcacg 300

agaacagggg atttccttag gttcttgaaa tcttatgttc gggaagaaga cggtgaagtg 360  
 atacttaaac tctctggtgg tttgtgtgta ttgatgtttt gcttagagtg gattgttctt 420  
 gtgttagcgt ttttgttgaa gtatagtgat tatttggtatg agagtgttgt agatgatgat 480  
 gattttaagg tgaggaggca agaagaagat ctcaaggatt ggccttctta cccatttcaa 540  
 ctcaagattt aa 552

<210> 2526

<211> 183

<212> PRT

<213> Arabidopsis thaliana

<400> 2526

Met Gly Met Ser Lys Ser Lys Gly Asn Thr His Asn Ile Phe Leu Leu  
 1 5 10 15

Cys Asn Tyr Ile Leu Leu Gly Ser Ala Ser Ser Cys Ile Phe Leu Thr  
 20 25 30

Ile Ser Leu Arg Leu Phe Pro Ser Leu Ser Gly Leu Ser Leu Ile Phe  
 35 40 45

Leu Tyr Thr Leu Thr Ile Ala Thr Ala Val Ser Gly Cys Ser Ile Phe  
 50 55 60

Ala Ser Ser Thr Ser Ala Thr Ala Ser Asp Arg Leu Tyr Gly Ser His  
 65 70 75 80

Met Val Ala Thr Val Leu Thr Ala Ile Phe Gln Gly Ala Val Ser Val  
 85 90 95

Leu Ile Phe Thr Arg Thr Gly Asp Phe Leu Arg Phe Leu Lys Ser Tyr  
 100 105 110

Val Arg Glu Glu Asp Gly Glu Val Ile Leu Lys Leu Ser Gly Gly Leu  
 115 120 125

Cys Val Leu Met Phe Cys Leu Glu Trp Ile Val Leu Val Leu Ala Phe  
 130 135 140

Leu Leu Lys Tyr Ser Asp Tyr Leu Asp Glu Ser Val Val Asp Asp Asp  
 145 150 155 160



Asp Phe Lys Val Arg Arg Gln Glu Glu Asp Leu Lys Asp Trp Pro Ser  
 165 170 175

Tyr Pro Phe Gln Leu Lys Ile  
 180

<210> 2527

<211> 753

<212> DNA

<213> Arabidopsis thaliana

<400> 2527

atggtggagc aaaagagata cgctctgttt ctagcgactt tggactcaga gttcgtgaag	60
aaaacttacg gaggatacca caacgtgttc gtgacgacgt tcggagacga aggagagcat	120
tgggactcct ttagagtcgt cagcggagag tttcctgacg agaaagatct ggagaaatac	180
gatggcttcg ttatcagcgg aagctctcac gatgcctttg agaatgatga ttggatcctt	240
aagctctgtg atattgtcaa gaaaattgat gagatgaaga agaaaattct tggcatctgc	300
tttggtcatc agatcatagc cagggtaagg ggaggaacag tcggaagagc aaagaaggga	360
ccagaactta aacttgaga cataaccatc gtcaaggatg cgattacgcc tggaagttag	420
ttcggaacg agattcctga tagcatagcg atcatcaa atgtaccagga cgaagtgttg	480
gtgctgcccg aaactgctaa agtgcttgcg tattccaaga actacgaggt ggagatgtat	540
tcgattgagg atcatttggt ctgtatccaa ggacatcctg agtataacaa agagattctc	600
ttcgagattg ttgatcgtgt tcttgctcta ggctacgtca agcaagaatt tgctgatgcg	660
gctaaggcaa cgatggagaa taggggagca gacaggaagc tttgggagac gatttgcaag	720
aacttcctca aaggcagagt tccaactaac tag	753

<210> 2528

<211> 250

<212> PRT

<213> Arabidopsis thaliana

<400> 2528

Met Val Glu Gln Lys Arg Tyr Ala Leu Phe Leu Ala Thr Leu Asp Ser  
 1 5 10 15

Glu Phe Val Lys Lys Thr Tyr Gly Gly Tyr His Asn Val Phe Val Thr  
 Page 3555

Thr Phe Gly Asp Glu Gly Glu His Trp Asp Ser Phe Arg Val Val Ser  
 35 40 45  
 Gly Glu Phe Pro Asp Glu Lys Asp Leu Glu Lys Tyr Asp Gly Phe Val  
 50 55 60  
 Ile Ser Gly Ser Ser His Asp Ala Phe Glu Asn Asp Asp Trp Ile Leu  
 65 70 75 80  
 Lys Leu Cys Asp Ile Val Lys Lys Ile Asp Glu Met Lys Lys Lys Ile  
 85 90 95  
 Leu Gly Ile Cys Phe Gly His Gln Ile Ile Ala Arg Val Arg Gly Gly  
 100 105 110  
 Thr Val Gly Arg Ala Lys Lys Gly Pro Glu Leu Lys Leu Gly Asp Ile  
 115 120 125  
 Thr Ile Val Lys Asp Ala Ile Thr Pro Gly Ser Tyr Phe Gly Asn Glu  
 130 135 140  
 Ile Pro Asp Ser Ile Ala Ile Ile Lys Cys His Gln Asp Glu Val Leu  
 145 150 155 160  
 Val Leu Pro Glu Thr Ala Lys Val Leu Ala Tyr Ser Lys Asn Tyr Glu  
 165 170 175  
 Val Glu Met Tyr Ser Ile Glu Asp His Leu Phe Cys Ile Gln Gly His  
 180 185 190  
 Pro Glu Tyr Asn Lys Glu Ile Leu Phe Glu Ile Val Asp Arg Val Leu  
 195 200 205  
 Ala Leu Gly Tyr Val Lys Gln Glu Phe Ala Asp Ala Ala Lys Ala Thr  
 210 215 220  
 Met Glu Asn Arg Gly Ala Asp Arg Lys Leu Trp Glu Thr Ile Cys Lys  
 225 230 235 240  
 Asn Phe Leu Lys Gly Arg Val Pro Thr Asn  
 245 250

&lt;210&gt; 2529

&lt;211&gt; 1074

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2529

```

atgggaaagg ttcttgagaa ggagggcgttt ggattggctg cgaaagacga atcgggaatt    60
ctttcgcctt tcagtttctc tagaagggcg acgggtgaaa aggatgtgag gttcaaagtc    120
ttgtttctgtg gaatttgcca cactgatctg agtatggcca aaaacgaatg ggggttaact    180
acttatacctc ttgtccctgg gcatgagatt gtgggcgtgg tgactgaagt tggagccaaa    240
gtgaaaaaat tcaacgctgg agacaaagtc ggagttggct atatggccgg ctctgtgcagg    300
tcatgtgaca gctgcaatga tggcgacgag aactactgtc caaagatgat cttaacgtcc    360
ggagccaaaa actttgacga taccatgacc catggtggat actccgacca catggtgtgt    420
gctgaggatt tcatcatccg tattcctgac aatctcccat tagacggtgc cgcaccacta    480
ctctgcgccg gggtcacggt ctactcccc atgaagtatc acgggctcga caagcccggg    540
atgcacatcg gtgtggtggg actaggcggg ttgggccatg tagcagtga atttgctaag    600
gctatgggta ctaaagttac ggttattagt acttcggagc gtaagagaga cgaggccggt    660
actcggcttg gtgcggatgc cttcttggtg agccgtgacc cgaaacaaat gaaggatgca    720
atggggacta tggatggtat cattgatacc gtatctgcga cccatccact tcttccgctg    780
cttggtttgc ttaaaaataa gggaaaactt gttatggttg gtgcaccagc agaaccgctc    840
gagcttcctg tttttcctct catctttggg cggaagatgg tggtaggtag tatggtagga    900
ggtataaagg agacgcaaga gatggtggat ttggctggaa aacacaacat cacggcggat    960
attgagctca tctctgcgga ttatgtcaac accgccatgg aacggcttgc aaaggctgac   1020
gttaagtacc gatttgtgat tgatgttgcc aacacgatga agccaactcc ttaa           1074

```

&lt;210&gt; 2530

&lt;211&gt; 357

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2530

```

Met Gly Lys Val Leu Glu Lys Glu Ala Phe Gly Leu Ala Ala Lys Asp
1           5           10          15

```

```

Glu Ser Gly Ile Leu Ser Pro Phe Ser Phe Ser Arg Arg Ala Thr Gly
          20          25          30

```

047-E2F-PCT.ST25.txt

Glu Lys Asp Val Arg Phe Lys Val Leu Phe Cys Gly Ile Cys His Thr  
 35 40 45  
 Asp Leu Ser Met Ala Lys Asn Glu Trp Gly Leu Thr Thr Tyr Pro Leu  
 50 55 60  
 Val Pro Gly His Glu Ile Val Gly Val Val Thr Glu Val Gly Ala Lys  
 65 70 75 80  
 Val Lys Lys Phe Asn Ala Gly Asp Lys Val Gly Val Gly Tyr Met Ala  
 85 90 95  
 Gly Ser Cys Arg Ser Cys Asp Ser Cys Asn Asp Gly Asp Glu Asn Tyr  
 100 105 110  
 Cys Pro Lys Met Ile Leu Thr Ser Gly Ala Lys Asn Phe Asp Asp Thr  
 115 120 125  
 Met Thr His Gly Gly Tyr Ser Asp His Met Val Cys Ala Glu Asp Phe  
 130 135 140  
 Ile Ile Arg Ile Pro Asp Asn Leu Pro Leu Asp Gly Ala Ala Pro Leu  
 145 150 155 160  
 Leu Cys Ala Gly Val Thr Val Tyr Ser Pro Met Lys Tyr His Gly Leu  
 165 170 175  
 Asp Lys Pro Gly Met His Ile Gly Val Val Gly Leu Gly Gly Leu Gly  
 180 185 190  
 His Val Ala Val Lys Phe Ala Lys Ala Met Gly Thr Lys Val Thr Val  
 195 200 205  
 Ile Ser Thr Ser Glu Arg Lys Arg Asp Glu Ala Val Thr Arg Leu Gly  
 210 215 220  
 Ala Asp Ala Phe Leu Val Ser Arg Asp Pro Lys Gln Met Lys Asp Ala  
 225 230 235 240  
 Met Gly Thr Met Asp Gly Ile Ile Asp Thr Val Ser Ala Thr His Pro  
 245 250 255  
 Leu Leu Pro Leu Leu Gly Leu Leu Lys Asn Lys Gly Lys Leu Val Met  
 260 265 270  
 Val Gly Ala Pro Ala Glu Pro Leu Glu Leu Pro Val Phe Pro Leu Ile  
 275 280 285

Phe Gly Arg Lys Met Val Val Gly Ser Met Val Gly Gly Ile Lys Glu  
 290 295 300

Thr Gln Glu Met Val Asp Leu Ala Gly Lys His Asn Ile Thr Ala Asp  
 305 310 315 320

Ile Glu Leu Ile Ser Ala Asp Tyr Val Asn Thr Ala Met Glu Arg Leu  
 325 330 335

Ala Lys Ala Asp Val Lys Tyr Arg Phe Val Ile Asp Val Ala Asn Thr  
 340 345 350

Met Lys Pro Thr Pro  
 355

<210> 2531

<211> 999

<212> DNA

<213> Arabidopsis thaliana

<400> 2531

atggaagcag aagaagggtca tcagcgtgac cgcctctgcg actattgcga ctctccgtg	60
gctcttgtct actgcaaagc tgactccgcc aagctctgcc tcgcctgcga caagcaagtc	120
cacgtcgcca accaactctt cgccaaacac ttcaggtcac ttctctgcga ctctgcaac	180
gaatctccct cttccctttt ctgcgagact gaaagggtctg ttctttgccga gaactgcgac	240
tggcaacacc acaccgcctc ttctccctt catagccgca gaccctttga aggatttacc	300
ggctgtccct ccgtgcctga gttgctggcc atcgttggcc tcgatgacct cactctcgat	360
tccggattgc tttgggagtc acctgagatc gttagcctca acgaccttat tgtttcgggc	420
gggtcgggta ctcataactt ccgggccacg gatgttcctc ctctgcctaa gaatcgtcac	480
gccacctgcg ggaaatacaa agatgagatg atccgacagc tccgtggact atccagatct	540
gagcctgggt gtctgaaatt tgaaacccca gatgctgaga tcgatgccgg gttccaattc	600
ctagcgccgg atttgttttc tacatgcgag ctggagagtg gactgaaatg gttcgatcag	660
caagatcatg aggactttcc atattgctct ctgctaaaga acttgtcgga gtcagatgag	720
aaacctgaga atgtagaccg agagtcatcg gtgatggttc ccgtttccgg ctgcttaaac	780
cgatgtgagg aagagactgt gatggttccg gttatcacta gtacaaggtc gatgacacat	840
gagatcaaca gtcttgagag gaactctgct ctctctcgct acaaagaaaa gaagaagtct	900

cgaaggtacg agaaacacat caggtatgaa tcacgcaagg ttcgtgcaga aagcaggaca 960  
 agaatcaggg gacgtttcgc caaggcagca gatccatga 999

<210> 2532

<211> 332

<212> PRT

<213> Arabidopsis thaliana

<400> 2532

Met Glu Ala Glu Glu Gly His Gln Arg Asp Arg Leu Cys Asp Tyr Cys  
 1 5 10 15

Asp Ser Ser Val Ala Leu Val Tyr Cys Lys Ala Asp Ser Ala Lys Leu  
 20 25 30

Cys Leu Ala Cys Asp Lys Gln Val His Val Ala Asn Gln Leu Phe Ala  
 35 40 45

Lys His Phe Arg Ser Leu Leu Cys Asp Ser Cys Asn Glu Ser Pro Ser  
 50 55 60

Ser Leu Phe Cys Glu Thr Glu Arg Ser Val Leu Cys Gln Asn Cys Asp  
 65 70 75 80

Trp Gln His His Thr Ala Ser Ser Ser Leu His Ser Arg Arg Pro Phe  
 85 90 95

Glu Gly Phe Thr Gly Cys Pro Ser Val Pro Glu Leu Leu Ala Ile Val  
 100 105 110

Gly Leu Asp Asp Leu Thr Leu Asp Ser Gly Leu Leu Trp Glu Ser Pro  
 115 120 125

Glu Ile Val Ser Leu Asn Asp Leu Ile Val Ser Gly Gly Ser Gly Thr  
 130 135 140

His Asn Phe Arg Ala Thr Asp Val Pro Pro Leu Pro Lys Asn Arg His  
 145 150 155 160

Ala Thr Cys Gly Lys Tyr Lys Asp Glu Met Ile Arg Gln Leu Arg Gly  
 165 170 175

Leu Ser Arg Ser Glu Pro Gly Cys Leu Lys Phe Glu Thr Pro Asp Ala  
 180 185 190

047-E2F-PCT.ST25.txt

Glu Ile Asp Ala Gly Phe Gln Phe Leu Ala Pro Asp Leu Phe Ser Thr  
195 200 205

Cys Glu Leu Glu Ser Gly Leu Lys Trp Phe Asp Gln Gln Asp His Glu  
210 215 220

Asp Phe Pro Tyr Cys Ser Leu Leu Lys Asn Leu Ser Glu Ser Asp Glu  
225 230 235 240

Lys Pro Glu Asn Val Asp Arg Glu Ser Ser Val Met Val Pro Val Ser  
245 250 255

Gly Cys Leu Asn Arg Cys Glu Glu Glu Thr Val Met Val Pro Val Ile  
260 265 270

Thr Ser Thr Arg Ser Met Thr His Glu Ile Asn Ser Leu Glu Arg Asn  
275 280 285

Ser Ala Leu Ser Arg Tyr Lys Glu Lys Lys Lys Ser Arg Arg Tyr Glu  
290 295 300

Lys His Ile Arg Tyr Glu Ser Arg Lys Val Arg Ala Glu Ser Arg Thr  
305 310 315 320

Arg Ile Arg Gly Arg Phe Ala Lys Ala Ala Asp Pro  
325 330

<210> 2533

<211> 582

<212> DNA

<213> Arabidopsis thaliana

<400> 2533

atgaactcaa ctcaacagtt agattccgac ttacgattct tcagaataact ggagacaaat	60
cggtttatca atctccctga ttcgagattg acacaaacct tagaaattcc ggcggcggct	120
cctccttctt tgtggcttaa tcaaagagtt ttaagtcgac ggcgagcgga gatagttctc	180
tcagatggag gttcgttggt agatctacaa tggggaacta tgactctcga cgacggcagc	240
agatctggtg gatttcttcg tcagtctctt cgcggaggta cctctcctcc gatgaacctc	300
cttggtagtg gtggctcagt gttaagaagg tacagaggta ggcggatcgt ggttttcgag	360
cttggttggtg aagatcctat cgatcccggg cagatttaca tgattcaagg cgtattagct	420

atgctgccgt caacgactcc tgatggagaa ttaatgagaa atgggggaga aaagaaaacc 480  
 atttgattg tagaagaaga aggaaagctc tccaataaag cctcgacttc aagaaatttt 540  
 tgtctcagcc cggttgatcc ggttgagtat cagtcggatt ag 582

<210> 2534

<211> 193

<212> PRT

<213> Arabidopsis thaliana

<400> 2534

Met Asn Ser Thr Gln Gln Leu Asp Ser Asp Leu Arg Phe Phe Arg Ile  
 1 5 10 15  
 Leu Glu Thr Asn Arg Phe Ile Asn Leu Pro Asp Ser Arg Leu Thr Gln  
 20 25 30  
 Thr Leu Glu Ile Pro Ala Ala Ala Pro Pro Ser Leu Trp Leu Asn Gln  
 35 40 45  
 Arg Val Leu Ser Arg Arg Arg Ala Glu Ile Val Leu Ser Asp Gly Gly  
 50 55 60  
 Ser Leu Val Asp Leu Gln Trp Gly Thr Met Thr Leu Asp Asp Gly Ser  
 65 70 75 80  
 Arg Ser Gly Gly Phe Leu Arg Gln Ser Leu Arg Gly Gly Thr Ser Pro  
 85 90 95  
 Pro Met Asn Leu Leu Gly Ser Gly Gly Ser Val Leu Arg Arg Tyr Arg  
 100 105 110  
 Gly Arg Arg Ile Val Val Phe Glu Leu Gly Cys Glu Asp Pro Ile Asp  
 115 120 125  
 Pro Gly Gln Ile Tyr Met Ile Gln Gly Val Leu Ala Met Leu Pro Ser  
 130 135 140  
 Thr Thr Pro Asp Gly Glu Leu Met Arg Asn Gly Gly Glu Lys Lys Thr  
 145 150 155 160  
 Ile Trp Ile Val Glu Glu Glu Gly Lys Leu Ser Asn Lys Ala Ser Thr  
 165 170 175



047-E2F-PCT.ST25.txt  
 Ser Arg Asn Phe Cys Leu Ser Pro Val Asp Pro Val Glu Tyr Gln Ser  
 180 185 190

Asp

<210> 2535

<211> 852

<212> DNA

<213> Arabidopsis thaliana

<400> 2535

atggcaggca gtaatattct ccataagatt aagttgaagg ctgggttctg tggatctgct	60
cctgacatgg gaagaggcaa aagcaagatg tggaagaaca tcaccacagg ttttcaactgt	120
gtgaagggca agtccagcca tccgatggag gactatgtag tgtctgaatt caagaaactt	180
gaaggtcatg aattgggttt gtttgctatc tttgatggtc acttggggca tgatgtggct	240
aaatacttgc agactaatct ctttgacaac attcttaaag agaaggattt ttggactgac	300
acagagaatg ctataaggaa tgcctacaga tcaacagatg ccgtgatatt gcagcagtcc	360
cttaagcttg gtaaaggcgg atcaacagct gtaacgggaa ttctaattga tggtaaaaag	420
ctagttgttg ctaatgttgg agactccaga gcagtgatgt ctaagaatgg tgttgcgcat	480
cagctatctg tcgatcatga accaagcaag gagaaaaaag aaatagagag ccgaggtggc	540
tttgtgtcaa atattccagg ggatgttcca cgagtggatg gacagttagc ggttgcaaga	600
gcatttggag ataagagctt aaagttacat ctgagctcag aaccggacat aacacaccag	660
acaattgatg atcacactga attcatcctt ttcgcaagcg atgggtatttg gaaagtatta	720
tcaaaccaag aagcggttga tgctatcaag agtatcaaag atcctcatgc agctgcaaag	780
cacttgatag aggaagctat atctaggaag agcaaagatg acatctcatg tatcgttgta	840
aagttccact aa	852

<210> 2536

<211> 283

<212> PRT

<213> Arabidopsis thaliana

<400> 2536

Met Ala Gly Ser Asn Ile Leu His Lys Ile Lys Leu Lys Ala Gly Phe  
 Page 3563

1 5 15  
Cys Gly Ser Ala Pro Asp Met Gly Arg Gly Lys Ser Lys Met Trp Lys  
20 25 30  
Asn Ile Thr His Gly Phe His Cys Val Lys Gly Lys Ser Ser His Pro  
35 40 45  
Met Glu Asp Tyr Val Val Ser Glu Phe Lys Lys Leu Glu Gly His Glu  
50 55 60  
Leu Gly Leu Phe Ala Ile Phe Asp Gly His Leu Gly His Asp Val Ala  
65 70 75 80  
Lys Tyr Leu Gln Thr Asn Leu Phe Asp Asn Ile Leu Lys Glu Lys Asp  
85 90 95  
Phe Trp Thr Asp Thr Glu Asn Ala Ile Arg Asn Ala Tyr Arg Ser Thr  
100 105 110  
Asp Ala Val Ile Leu Gln Gln Ser Leu Lys Leu Gly Lys Gly Gly Ser  
115 120 125  
Thr Ala Val Thr Gly Ile Leu Ile Asp Gly Lys Lys Leu Val Val Ala  
130 135 140  
Asn Val Gly Asp Ser Arg Ala Val Met Ser Lys Asn Gly Val Ala His  
145 150 155 160  
Gln Leu Ser Val Asp His Glu Pro Ser Lys Glu Lys Lys Glu Ile Glu  
165 170 175  
Ser Arg Gly Gly Phe Val Ser Asn Ile Pro Gly Asp Val Pro Arg Val  
180 185 190  
Asp Gly Gln Leu Ala Val Ala Arg Ala Phe Gly Asp Lys Ser Leu Lys  
195 200 205  
Leu His Leu Ser Ser Glu Pro Asp Ile Thr His Gln Thr Ile Asp Asp  
210 215 220  
His Thr Glu Phe Ile Leu Phe Ala Ser Asp Gly Ile Trp Lys Val Leu  
225 230 235 240  
Ser Asn Gln Glu Ala Val Asp Ala Ile Lys Ser Ile Lys Asp Pro His  
245 250 255

047-E2F-PCT.ST25.txt  
Ala Ala Ala Lys His Leu Ile Glu Glu Ala Ile Ser Arg Lys Ser Lys  
260 265 270

Asp Asp Ile Ser Cys Ile Val Val Lys Phe His  
275 280

<210> 2537

<211> 492

<212> DNA

<213> Arabidopsis thaliana

<400> 2537  
atggcgacgg gaaagagtta ctacgctagg cctagctatc gattttctcg caccgatcag 60  
ccgtcttact tcaccgcttc cgattcaggt ctcgaattcg acgaatccga tctcttcaat 120  
ccaatccact ccgattcacc agatttttgc cgtaaaatct cttcatcagt cagatccggt 180  
aaaaaatcgt cgaatcgctc ctccgccgct tcctccgccg cagcagcgtc gtcgcttcct 240  
gttaacgtgc cggactgggc caagattctc cgcgagagaat accgcgataa ccgacggaga 300  
agcatcgagg ataacgacga cgatgacgat gataacgaag acggtggcga ttggttaccg 360  
ccgcatgagt ttctggcgaa gacgagaatg gcttcgttct cggttcatga aggagtaggg 420  
aggacattga aaggaagaga tctgagtagg gttcgaaatg caatttttga aaaatttggg 480  
ttccaagatt aa 492

<210> 2538

<211> 163

<212> PRT

<213> Arabidopsis thaliana

<400> 2538

Met Ala Thr Gly Lys Ser Tyr Tyr Ala Arg Pro Ser Tyr Arg Phe Leu  
1 5 10 15

Gly Thr Asp Gln Pro Ser Tyr Phe Thr Ala Ser Asp Ser Gly Leu Glu  
20 25 30

Phe Asp Glu Ser Asp Leu Phe Asn Pro Ile His Ser Asp Ser Pro Asp  
35 40 45

Phe Cys Arg Lys Ile Ser Ser Ser Val Arg Ser Gly Lys Lys Ser Ser  
Page 3565

50

55

Asn Arg Pro Ser Ala Ala Ser Ser Ala Ala Ala Ala Ser Ser Leu Pro  
65 70 75 80

Val Asn Val Pro Asp Trp Ser Lys Ile Leu Arg Gly Glu Tyr Arg Asp  
85 90 95

Asn Arg Arg Arg Ser Ile Glu Asp Asn Asp Asp Asp Asp Asp Asp Asn  
100 105 110

Glu Asp Gly Gly Asp Trp Leu Pro Pro His Glu Phe Leu Ala Lys Thr  
115 120 125

Arg Met Ala Ser Phe Ser Val His Glu Gly Val Gly Arg Thr Leu Lys  
130 135 140

Gly Arg Asp Leu Ser Arg Val Arg Asn Ala Ile Phe Glu Lys Phe Gly  
145 150 155 160

Phe Gln Asp

<210> 2539

<211> 1029

<212> DNA

<213> Arabidopsis thaliana

<400> 2539

atggcggatc tgaaatcaac cttcctcgac gtttactctg ttctcaagtc tgatctgctt	60
caagatcctt cctttgaatt caccacgaa tctcgtcaat ggcttgaacg gatgcttgac	120
tacaatgtac gcggagggaa gctaaatcgt ggtctctctg tggttgatag ctacaagctg	180
ttgaagcaag gtcaagactt gacggagaaa gagactttcc tctcatgtgc tcttggttgg	240
tgcatatgaat ggcttcaagc ttatttcctt gtgcttgatg acatcatgga caactctgtc	300
acacgccgtg gccagccttg ttggtttaga aagccaaagg ttggtatgat tgccattaac	360
gatgggattc tacttcgcaa tcatatccac aggattctca aaaagcactt cagggaaatg	420
ccttactatg ttgacctcgt tgatttgttt aacgaggtag agtttcaaac agcttgcggc	480
cagatgattg atttgatcac cacctttgat ggagaaaaag atttgtctaa gtactccttg	540
caaatccatc ggcgtattgt tgagtacaaa acagcttatt actcatttta tcttcctggt	600
gcttgcgcat tgctcatggc gggagaaaaat ttggaaaacc atactgatgt gaagactggt	660

047-E2F-PCT.ST25.txt

cttgttgaca tgggaattta ctttcaagta caggatgatt atctggactg ttttgctgat 720  
 cctgagacac ttggcaagat agggacagac atagaagatt tcaaagctc ctggttggta 780  
 gttaaggcat tggaacgctg cagtgaagaa caaactaaga tactatacga gaactatggt 840  
 aaagccgaac catcaaacgt tgctaaggtg aaagctctct acaaagagct tgatctcgag 900  
 ggagcgttca tggaatatga gaaggaaagc tatgagaagc tgacaaagtt gatcgaagct 960  
 caccagagta aagcaattca agcagtgcata aaatctttct tggctaagat ctacaagagg 1020  
 cagaagtag 1029

<210> 2540

<211> 342

<212> PRT

<213> Arabidopsis thaliana

<400> 2540

Met Ala Asp Leu Lys Ser Thr Phe Leu Asp Val Tyr Ser Val Leu Lys  
 1 5 10 15

Ser Asp Leu Leu Gln Asp Pro Ser Phe Glu Phe Thr His Glu Ser Arg  
 20 25 30

Gln Trp Leu Glu Arg Met Leu Asp Tyr Asn Val Arg Gly Gly Lys Leu  
 35 40 45

Asn Arg Gly Leu Ser Val Val Asp Ser Tyr Lys Leu Leu Lys Gln Gly  
 50 55 60

Gln Asp Leu Thr Glu Lys Glu Thr Phe Leu Ser Cys Ala Leu Gly Trp  
 65 70 75 80

Cys Ile Glu Trp Leu Gln Ala Tyr Phe Leu Val Leu Asp Asp Ile Met  
 85 90 95

Asp Asn Ser Val Thr Arg Arg Gly Gln Pro Cys Trp Phe Arg Lys Pro  
 100 105 110

Lys Val Gly Met Ile Ala Ile Asn Asp Gly Ile Leu Leu Arg Asn His  
 115 120 125

Ile His Arg Ile Leu Lys Lys His Phe Arg Glu Met Pro Tyr Tyr Val  
 130 135 140

047-E2F-PCT.ST25.txt

Asp Leu Val Asp Leu Phe Asn Glu Val Glu Phe Gln Thr Ala Cys Gly  
 145 150 155 160  
 Gln Met Ile Asp Leu Ile Thr Thr Phe Asp Gly Glu Lys Asp Leu Ser  
 165 170 175  
 Lys Tyr Ser Leu Gln Ile His Arg Arg Ile Val Glu Tyr Lys Thr Ala  
 180 185 190  
 Tyr Tyr Ser Phe Tyr Leu Pro Val Ala Cys Ala Leu Leu Met Ala Gly  
 195 200 205  
 Glu Asn Leu Glu Asn His Thr Asp Val Lys Thr Val Leu Val Asp Met  
 210 215 220  
 Gly Ile Tyr Phe Gln Val Gln Asp Asp Tyr Leu Asp Cys Phe Ala Asp  
 225 230 235 240  
 Pro Glu Thr Leu Gly Lys Ile Gly Thr Asp Ile Glu Asp Phe Lys Cys  
 245 250 255  
 Ser Trp Leu Val Val Lys Ala Leu Glu Arg Cys Ser Glu Glu Gln Thr  
 260 265 270  
 Lys Ile Leu Tyr Glu Asn Tyr Gly Lys Ala Glu Pro Ser Asn Val Ala  
 275 280 285  
 Lys Val Lys Ala Leu Tyr Lys Glu Leu Asp Leu Glu Gly Ala Phe Met  
 290 295 300  
 Glu Tyr Glu Lys Glu Ser Tyr Glu Lys Leu Thr Lys Leu Ile Glu Ala  
 305 310 315 320  
 His Gln Ser Lys Ala Ile Gln Ala Val Leu Lys Ser Phe Leu Ala Lys  
 325 330 335  
 Ile Tyr Lys Arg Gln Lys  
 340

<210> 2541

<211> 639

<212> DNA

<213> Arabidopsis thaliana

047-E2F-PCT.ST25.txt

<400> 2541  
atgagtgaag aaactaaaga taaccagagg ctgcagcgac cagctcctcg tcttaacgag 60  
aggattctct catccttgtc aagaagatcc gtagctgctc atccatggca tgatcttgag 120  
attggacctg gagctccaca gattttcaat gtgggttgtt agatcactaa aggaagcaag 180  
gtcaaatacg agcttgacaa aaagacagga ctcacaaagg ttgatcgtat tctctactca 240  
tcagtttgtt accctcacia ctatggtttt gttcctcgca catttgtgtga agacaatgac 300  
cccattgatg tcttagtcat catgcaggaa cctgtgcttc cgggttgttt tctgcgtgcc 360  
agagccattg gattaatgcc tatgattgac caggggtgaaa aagatgacaa gatcattgca 420  
gtgtgtgttg atgacatga atataagcac tacactgaca tcaaagaact tcctcctcac 480  
cgtctctctg aaatccgtcg tttcttcgaa gactacaaga aaaacgagaa caaggaagtt 540  
gcagtgaatg attttctgcc atctgagtct gcgggttgaag ctatccagta ctcaatggac 600  
ctctatgctg aatacattct ccacaccctg aggcgttga 639

<210> 2542

<211> 212

<212> PRT

<213> Arabidopsis thaliana

<400> 2542

Met	Ser	Glu	Glu	Thr	Lys	Asp	Asn	Gln	Arg	Leu	Gln	Arg	Pro	Ala	Pro
1				5					10					15	
Arg	Leu	Asn	Glu	Arg	Ile	Leu	Ser	Ser	Leu	Ser	Arg	Arg	Ser	Val	Ala
			20					25					30		
Ala	His	Pro	Trp	His	Asp	Leu	Glu	Ile	Gly	Pro	Gly	Ala	Pro	Gln	Ile
		35					40					45			
Phe	Asn	Val	Val	Val	Glu	Ile	Thr	Lys	Gly	Ser	Lys	Val	Lys	Tyr	Glu
	50					55					60				
Leu	Asp	Lys	Lys	Thr	Gly	Leu	Ile	Lys	Val	Asp	Arg	Ile	Leu	Tyr	Ser
65					70					75				80	
Ser	Val	Val	Tyr	Pro	His	Asn	Tyr	Gly	Phe	Val	Pro	Arg	Thr	Leu	Cys
				85					90					95	
Glu	Asp	Asn	Asp	Pro	Ile	Asp	Val	Leu	Val	Ile	Met	Gln	Glu	Pro	Val
			100					105					110		

047-E2F-PCT.ST25.txt

Leu Pro Gly Cys Phe Leu Arg Ala Arg Ala Ile Gly Leu Met Pro Met  
115 120 125

Ile Asp Gln Gly Glu Lys Asp Asp Lys Ile Ile Ala Val Cys Val Asp  
130 135 140

Asp Pro Glu Tyr Lys His Tyr Thr Asp Ile Lys Glu Leu Pro Pro His  
145 150 155 160

Arg Leu Ser Glu Ile Arg Arg Phe Phe Glu Asp Tyr Lys Lys Asn Glu  
165 170 175

Asn Lys Glu Val Ala Val Asn Asp Phe Leu Pro Ser Glu Ser Ala Val  
180 185 190

Glu Ala Ile Gln Tyr Ser Met Asp Leu Tyr Ala Glu Tyr Ile Leu His  
195 200 205

Thr Leu Arg Arg  
210

<210> 2543

<211> 1308

<212> DNA

<213> Arabidopsis thaliana

<400> 2543  
atggttgata tggattggaa gaggaagatg gtatcatcag atttaccaa ctcacctaag 60  
ctttcttcaa agcttcacgt aactattcca tcaccgttca aaatcgtccc tgtttcatct 120  
ccgatctcat gttcagcacc tgctctttgc tctgcttacg agctttacct tcgtctccct 180  
gagctaagaa agctctggtc atctcgtgat tttcctcaat ggacatcaga gccgattctc 240  
aaaccagctc ttcaagcttt ggagatcagt ttcagattag ttttcgccgt ttgttctgat 300  
actagaccgt acatcaacca ccgtgaatgg aaccggaggc tagattctct catcacgaag 360  
cagatccagc ttgtagcagc gatctgcgaa gatgaagaag aagaaggat atcagcggag 420  
gctccggtcg gcggtggacg gagttcgttg agtttgttac cgcagctagc tacgtggagg 480  
agatcagagg ctttggggaa gaagatctta tatacgatcg ataacgagat gagtcggtgt 540  
aagtacacgc tcggactcgg tgaacaaaac atcgccggaa aaccaaattc ccggtacgat 600  
gcgatttgcc gaccaaacga gatctatagc ctcaaggata atccatacgc agatcatatc 660  
gataatcacg agaatcaaac tctctatatc attcaccaga tcctcgaatc gtggatctac 720



047-E2F-PCT.ST25.txt

gcacatctggaa atctttctgaa tcgaatcgtc tcaagtatcg aagaagagaa attcggaaaa 780  
gcttcaaacg atgtttactt gctggagaag atctggaaaa ttttagcgga gattgaagat 840  
cttcataatgt tgatggatcc ggaagatttt ttgaaattga agaaacagtt acagatcaaa 900  
tcgacgggta aaaacgatgc gttttgtttc agatctaaag gattagtgga gatgatgaag 960  
atgtcgaaag atctgagaca gaaagtaccg gcggtcttgg cggttgaggt agatccaacc 1020  
ggaggaccaa gattacaaga ggcggcgatg aagctttacg cgaggaagac agagtgcgat 1080  
aagattcatt tgcttcaggg gatgcaagcg gtggaagcgg cggcgaagag tttcttcttt 1140  
gggtataggc agttagtggc ggctatgatg ggaagtgcgg agatgaacgc gacggcgagt 1200  
caagagtcgt gtgactcact gagtcagata tttatggagc cgacgtattt cccgagcctt 1260  
gacgcggcaa agacgtttct gggagagttt tggagtcatt tgggatga 1308

<210> 2544

<211> 435

<212> PRT

<213> Arabidopsis thaliana

<400> 2544

Met Val Asp Met Asp Trp Lys Arg Lys Met Val Ser Ser Asp Leu Pro  
1 5 10 15

Asn Ser Pro Lys Leu Ser Ser Lys Leu His Val Thr Ile Pro Ser Pro  
20 25 30

Phe Lys Ile Val Pro Val Ser Ser Pro Ile Ser Cys Ser Ala Pro Ala  
35 40 45

Leu Cys Ser Ala Tyr Glu Leu Tyr Leu Arg Leu Pro Glu Leu Arg Lys  
50 55 60

Leu Trp Ser Ser Arg Asp Phe Pro Gln Trp Thr Ser Glu Pro Ile Leu  
65 70 75 80

Lys Pro Ala Leu Gln Ala Leu Glu Ile Ser Phe Arg Leu Val Phe Ala  
85 90 95

Val Cys Ser Asp Thr Arg Pro Tyr Ile Asn His Arg Glu Trp Asn Arg  
100 105 110

Arg Leu Asp Ser Leu Ile Thr Lys Gln Ile Gln Leu Val Ala Ala Ile  
Page 3571

115

120

125

Cys Glu Asp Glu Glu Glu Glu Gly Ile Ser Ala Glu Ala Pro Val Gly  
 130 135 140  
 Gly Gly Arg Ser Ser Leu Ser Leu Leu Pro Gln Leu Ala Thr Trp Arg  
 145 150 155 160  
 Arg Ser Glu Ala Leu Gly Lys Lys Ile Leu Tyr Thr Ile Asp Asn Glu  
 165 170 175  
 Met Ser Arg Cys Lys Tyr Thr Leu Gly Leu Gly Glu Gln Asn Ile Ala  
 180 185 190  
 Gly Lys Pro Asn Leu Arg Tyr Asp Ala Ile Cys Arg Pro Asn Glu Ile  
 195 200 205  
 Tyr Ser Leu Lys Asp Asn Pro Tyr Ala Asp His Ile Asp Asn His Glu  
 210 215 220  
 Asn Gln Thr Leu Tyr Ile Ile His Gln Ile Leu Glu Ser Trp Ile Tyr  
 225 230 235 240  
 Ala Ser Gly Asn Leu Leu Asn Arg Ile Val Ser Ser Ile Glu Glu Glu  
 245 250 255  
 Lys Phe Gly Lys Ala Ser Asn Asp Val Tyr Leu Leu Glu Lys Ile Trp  
 260 265 270  
 Lys Ile Leu Ala Glu Ile Glu Asp Leu His Met Leu Met Asp Pro Glu  
 275 280 285  
 Asp Phe Leu Lys Leu Lys Lys Gln Leu Gln Ile Lys Ser Thr Gly Lys  
 290 295 300  
 Asn Asp Ala Phe Cys Phe Arg Ser Lys Gly Leu Val Glu Met Met Lys  
 305 310 315 320  
 Met Ser Lys Asp Leu Arg Gln Lys Val Pro Ala Val Leu Ala Val Glu  
 325 330 335  
 Val Asp Pro Thr Gly Gly Pro Arg Leu Gln Glu Ala Ala Met Lys Leu  
 340 345 350  
 Tyr Ala Arg Lys Thr Glu Cys Asp Lys Ile His Leu Leu Gln Gly Met  
 355 360 365

Gln Ala Val Glu Ala Ala Ala Lys Ser Phe Phe Phe Gly Tyr Arg Gln  
 370 375 380

Leu Val Ala Ala Met Met Gly Ser Ala Glu Met Asn Ala Thr Ala Ser  
 385 390 395 400

Gln Glu Ser Cys Asp Ser Leu Ser Gln Ile Phe Met Glu Pro Thr Tyr  
 405 410 415

Phe Pro Ser Leu Asp Ala Ala Lys Thr Phe Leu Gly Glu Phe Trp Ser  
 420 425 430

His Leu Gly  
 435

<210> 2545

<211> 531

<212> DNA

<213> Arabidopsis thaliana

<400> 2545

atggagacgg aagcggcggg gacagcgacg gttacggcgg cgacgatggg gattgggacg	60
aggaagagag atctgaaacc gtataaagga atacgaatga ggaaatgggg gaaatgggtg	120
gcggagatac gggaaccgaa taagagatca aggatctggt taggttctta tgcgacgcct	180
gaagcggcgg cgagagctta cgacactgct gttttttacc tccgtggtcc ttcagcgagg	240
cttaattttc cggagctttt ggctggactt actgtttcta acggcggagg aagaggtggt	300
gatttatcgg cggcgtatat taggagaaaa gcggcggagg ttggtgctca ggttgatgcg	360
cttgagcgga cgggtggtgt gaataccggc ggcgagaatc gcggtgatta cgagaagatt	420
gagaattgtc gtaagagcgg taacgggtca ttggaacggg tcgatttgaa taaattaccc	480
gacccgaaaa attcggatgg tgatgatgac gaatgtgtga aaagaagata g	531

<210> 2546

<211> 176

<212> PRT

<213> Arabidopsis thaliana

<400> 2546

Met Glu Thr Glu Ala Ala Val Thr Ala Thr Val Thr Ala Ala Thr Met  
 Page 3573

```
<210> 2547
<211> 816
<212> DNA
<213> Arabidopsis thaliana
```

Page 3574

047-E2F-PCT.ST25.txt

cacgggttcc ctttcgtgtg tgtttccatt ggacttacga ttggaaaagt ccctgttggt 360  
 ggagttgttt ataatcctat tatggaagag ctattcaccg gtgtccaagg gaaaggagca 420  
 ttcttgaatg gaaagcgaat caaagtgtca gctcaaagcg aacttttaac cgctttgctc 480  
 gtgacagagg cgggtactaa acgagataaa gctacattag acgatacaac caacagaatc 540  
 aacagtttgc taaccaaggt caggtccctt aggatgagtg gttcgtgtgc actggacctc 600  
 tgtggcgttg cgtgtggaag ggttgatatc ttctacgagc tcggtttcgg tgggtccatgg 660  
 gacattgcag caggaattgt tatcgtgaaa gaagctggtg gactcatctt tgatccatcc 720  
 ggtaaagatt tggacataac atcgagagg atcgcggtt caaacgcttc tctcaaggag 780  
 ttattcgctg aggcgttgcg gcttacaggg gcatga 816

<210> 2548

<211> 271

<212> PRT

<213> Arabidopsis thaliana

<400> 2548

Met Ala Asp Asn Asp Ser Leu Asp Gln Phe Leu Ala Ala Ala Ile Asp  
 1 5 10 15

Ala Ala Lys Lys Ala Gly Gln Ile Ile Arg Lys Gly Phe Tyr Glu Thr  
 20 25 30

Lys His Val Glu His Lys Gly Gln Val Asp Leu Val Thr Glu Thr Asp  
 35 40 45

Lys Gly Cys Glu Glu Leu Val Phe Asn His Leu Lys Gln Leu Phe Pro  
 50 55 60

Asn His Lys Phe Ile Gly Glu Glu Thr Thr Ala Ala Phe Gly Val Thr  
 65 70 75 80

Glu Leu Thr Asp Glu Pro Thr Trp Ile Val Asp Pro Leu Asp Gly Thr  
 85 90 95

Thr Asn Phe Val His Gly Phe Pro Phe Val Cys Val Ser Ile Gly Leu  
 100 105 110

Thr Ile Gly Lys Val Pro Val Val Gly Val Val Tyr Asn Pro Ile Met  
 115 120 125

047-E2F-PCT.ST25.txt

Glu Glu Leu Phe Thr Gly Val Gln Gly Lys Gly Ala Phe Leu Asn Gly  
130 135 140  
Lys Arg Ile Lys Val Ser Ala Gln Ser Glu Leu Leu Thr Ala Leu Leu  
145 150 155 160  
Val Thr Glu Ala Gly Thr Lys Arg Asp Lys Ala Thr Leu Asp Asp Thr  
165 170 175  
Thr Asn Arg Ile Asn Ser Leu Leu Thr Lys Val Arg Ser Leu Arg Met  
180 185 190  
Ser Gly Ser Cys Ala Leu Asp Leu Cys Gly Val Ala Cys Gly Arg Val  
195 200 205  
Asp Ile Phe Tyr Glu Leu Gly Phe Gly Gly Pro Trp Asp Ile Ala Ala  
210 215 220  
Gly Ile Val Ile Val Lys Glu Ala Gly Gly Leu Ile Phe Asp Pro Ser  
225 230 235 240  
Gly Lys Asp Leu Asp Ile Thr Ser Gln Arg Ile Ala Ala Ser Asn Ala  
245 250 255  
Ser Leu Lys Glu Leu Phe Ala Glu Ala Leu Arg Leu Thr Gly Ala  
260 265 270

<210> 2549

<211> 2649

<212> DNA

<213> Arabidopsis thaliana

<400> 2549

atggctgcgt ggtcaccatc agttgggata ggatcttggt gtctcaataa tggcatcact	60
agaacatgga agtttccttc tgcaaggctt ttacttggt ggaagaacaa gattaaactt	120
ggatccgaga cactaatgtt tacacgaaaa cgtttcatgg gtgatttggt tacaagcgcg	180
ttgcaaagtt atcagtttag taagatatgt gcttcaaaga cttccatcga gctgagagag	240
gcattgtcta gtagaagagc tgaggctgat gacctgaaga aggtaacatc atattcattc	300
aggacaaaag caggtgctct gggttaaagtc aaagttgaaa agaagagaga aaagtacagc	360
atgttggttt atgtctcatc ttggaactt agtggtgatg acaagagtag gctggtgatg	420
gtttggggtg tctacaggtc tgattcttcg tgttttttgc ctctggattt cgaaaactct	480

## 047-E2F-PCT.ST25.txt

tcccaagact	cacaaaccca	cacaacagaa	actacatttg	tgaaaagctc	cttgtctgag	540
ttaatgctag	ggctagaatt	tgatgggaaa	gaatctcctt	tctacttatc	atttcacctg	600
aagttagtgt	caggtagaga	tccggacggt	caagaaatgc	tgactcacag	ggacactgac	660
ttctgtatcc	cggttggttt	tactgctggt	catccattgc	cgctaggcct	ttcttccggg	720
ccagatgatg	attcttgga	tttttcgttc	ttttcaagaa	gctcaacgaa	cgtgggttta	780
tgcttgtag	atgatagcac	aacagataaa	cctgcttttag	aacttgatct	tgatccttat	840
gtcaaccgaa	caggtgatgt	ttggcatgct	tcagttgaca	atacatggga	ttttgtgaga	900
tatggctacc	gttgcaagga	gacagctcac	tctaaagaag	atgtcgatgt	tgaaggtag	960
ccaattgtct	tggatccata	tgccacagtc	gttggtaaat	ctgtctctca	gaaatatctt	1020
ggaagtttat	ctaagagtcc	ttcttttgat	tggggagaag	atgtgtctcc	gaacatacct	1080
ctggagaaac	ttcttgttta	ccggttgaat	gtgaaggggt	ttacacaaca	cagatccagc	1140
aagttgccta	gtaacgtagc	agggacattt	tctggtgtag	ctgagaaagt	tagccatttg	1200
aaaacccttg	gaaccaacgc	tgttcttttg	gagccaatat	tctcattctc	cgagcaaaaa	1260
ggtccttatt	ttccatttca	tttcttttca	ccaatggaca	tatatggacc	ttccaatagc	1320
cttgaatccg	cagttaactc	aatgaaagtg	atggtgaaga	aattgcacag	tgagggaata	1380
gaggtacttt	tggaagtagt	ttttacacat	actgctgatt	ctggagctct	tcgtggaatt	1440
gatgacagtt	cctattacta	caaggggaaga	gccaatgatc	tagattctaa	aagttacttg	1500
aactgtaact	atcctgttgt	tcagcagttg	gtattggaga	gcttgcgtta	ttgggtaacc	1560
gagtttcatg	tagatggatt	ttgttttata	aatgcttcat	ctctcttgag	aggcgttcac	1620
ggtgaacagc	tctctcgtcc	tcctttgggt	gaagcaatag	cttttgatcc	acttcttgcg	1680
gagaccaaac	taatagctga	ttgctgggat	ccacttgaaa	tgatgccaaa	agaagtacgg	1740
ttcccacatt	ggaagcgatg	ggcagaactc	aacacaagat	attgtcgaaa	tgtaagaaat	1800
tttttaaggg	gaagaggcgt	tcttagtgat	ctggctacaa	gaatttgtag	aagtggtagc	1860
gtattttaccg	atggaagagg	tccggccttc	tccttcaact	acatttcaag	aaactcagga	1920
ctctcgcttg	ttgacatagt	cagtttcagt	ggccctgagc	tagcttcaga	gctaagttgg	1980
aattgtgggg	aagaaggagc	aacgaataaa	tcagctgttc	ttcaaagaag	gctaaaacaa	2040
atccgcaatt	tcttgtttat	acagtacata	tcacttgag	ttccagtgct	taatatggga	2100
gatgaatgtg	gaatctcgac	aaggggctcg	cctttgttgg	aatcacggaa	accttttgat	2160
tggaacttgc	tagcttcggc	tttcggtaca	cagatcacgc	aatttatctc	cttcatgact	2220
tcagtaagag	caagaagaag	tgatgtgttt	caaaggagag	actttttgaa	acctgaaaat	2280
attgtttggt	atgcaaata	ccaaacaact	ccaaagtggg	aagatcctgc	ttctaagttt	2340

ttggcattgg agatcaaadc agagtcagag gaagaggaaa ctgcgtcatt ggctgagcca 2400  
 aatgagccaa agagcaatga tctgttcadc ggattcaatg cgagtgatca tcctgagagt 2460  
 gtagtcttac cttcacttcc cgatggaagc aaatggagaa gattgggtcga cacagctctt 2520  
 cctttcccg ggtttttctc tgtcgaagga gaaaccgttg tagcagaaga accgttgcag 2580  
 caactggttg tgtatgagat gaagccgtac agttgtaccc tttttgaaac catcaatact 2640  
 accgcttag 2649

<210> 2550

<211> 882

<212> PRT

<213> *Arabidopsis thaliana*

<400> 2550

Met Ala Ala Trp Ser Pro Ser Val Gly Ile Gly Ser Cys Cys Leu Asn  
1 5 10 15

Asn Gly Ile Thr Arg Thr Trp Lys Phe Pro Ser Ala Arg Leu Phe Thr  
20 25 30

Gly Arg Lys Asn Lys Ile Lys Leu Gly Ser Glu Thr Leu Met Phe Thr  
35 40 45

Arg Lys Arg Phe Met Gly Asp Leu Val Thr Ser Ala Leu Gln Ser Tyr  
50 55 60

Gln Phe Ser Lys Ile Cys Ala Ser Lys Thr Ser Ile Glu Leu Arg Glu  
65 70 75 80

Ala Leu Ser Ser Arg Arg Ala Glu Ala Asp Asp Leu Lys Lys Val Thr  
85 90 95

Ser Tyr Ser Phe Arg Thr Lys Ala Gly Ala Leu Val Lys Val Lys Val  
100 105 110

Glu Lys Lys Arg Glu Lys Tyr Ser Ile Leu Val Tyr Val Ser Ser Leu  
115 120 125

Glu Leu Ser Gly Asp Asp Lys Ser Arg Leu Val Met Val Trp Gly Val  
130 135 140

Tyr Arg Ser Asp Ser Ser Cys Phe Leu Pro Leu Asp Phe Glu Asn Ser  
145 150 155 160



047-E2F-PCT.ST25.txt

Ser Gln Asp Ser Gln Thr His Thr Thr Glu Thr Thr Phe Val Lys Ser  
165 170 175

Ser Leu Ser Glu Leu Met Leu Gly Leu Glu Phe Asp Gly Lys Glu Ser  
180 185 190

Pro Phe Tyr Leu Ser Phe His Leu Lys Leu Val Ser Gly Arg Asp Pro  
195 200 205

Asp Gly Gln Glu Met Leu Thr His Arg Asp Thr Asp Phe Cys Ile Pro  
210 215 220

Val Gly Phe Thr Ala Gly His Pro Leu Pro Leu Gly Leu Ser Ser Gly  
225 230 235 240

Pro Asp Asp Asp Ser Trp Asn Phe Ser Phe Phe Ser Arg Ser Ser Thr  
245 250 255

Asn Val Val Leu Cys Leu Tyr Asp Asp Ser Thr Thr Asp Lys Pro Ala  
260 265 270

Leu Glu Leu Asp Leu Asp Pro Tyr Val Asn Arg Thr Gly Asp Val Trp  
275 280 285

His Ala Ser Val Asp Asn Thr Trp Asp Phe Val Arg Tyr Gly Tyr Arg  
290 295 300

Cys Lys Glu Thr Ala His Ser Lys Glu Asp Val Asp Val Glu Gly Glu  
305 310 315 320

Pro Ile Val Leu Asp Pro Tyr Ala Thr Val Val Gly Lys Ser Val Ser  
325 330 335

Gln Lys Tyr Leu Gly Ser Leu Ser Lys Ser Pro Ser Phe Asp Trp Gly  
340 345 350

Glu Asp Val Ser Pro Asn Ile Pro Leu Glu Lys Leu Leu Val Tyr Arg  
355 360 365

Leu Asn Val Lys Gly Phe Thr Gln His Arg Ser Ser Lys Leu Pro Ser  
370 375 380

Asn Val Ala Gly Thr Phe Ser Gly Val Ala Glu Lys Val Ser His Leu  
385 390 395 400

Lys Thr Leu Gly Thr Asn Ala Val Leu Leu Glu Pro Ile Phe Ser Phe  
Page 3579

Ser Glu Gln Lys Gly Pro Tyr Phe Pro Phe His Phe Phe Ser Pro Met  
420 425 430

Asp Ile Tyr Gly Pro Ser Asn Ser Leu Glu Ser Ala Val Asn Ser Met  
435 440 445

Lys Val Met Val Lys Lys Leu His Ser Glu Gly Ile Glu Val Leu Leu  
450 455 460

Glu Val Val Phe Thr His Thr Ala Asp Ser Gly Ala Leu Arg Gly Ile  
465 470 475 480

Asp Asp Ser Ser Tyr Tyr Tyr Lys Gly Arg Ala Asn Asp Leu Asp Ser  
485 490 495

Lys Ser Tyr Leu Asn Cys Asn Tyr Pro Val Val Gln Gln Leu Val Leu  
500 505 510

Glu Ser Leu Arg Tyr Trp Val Thr Glu Phe His Val Asp Gly Phe Cys  
515 520 525

Phe Ile Asn Ala Ser Ser Leu Leu Arg Gly Val His Gly Glu Gln Leu  
530 535 540

Ser Arg Pro Pro Leu Val Glu Ala Ile Ala Phe Asp Pro Leu Leu Ala  
545 550 555 560

Glu Thr Lys Leu Ile Ala Asp Cys Trp Asp Pro Leu Glu Met Met Pro  
565 570 575

Lys Glu Val Arg Phe Pro His Trp Lys Arg Trp Ala Glu Leu Asn Thr  
580 585 590

Arg Tyr Cys Arg Asn Val Arg Asn Phe Leu Arg Gly Arg Gly Val Leu  
595 600 605

Ser Asp Leu Ala Thr Arg Ile Cys Gly Ser Gly Asp Val Phe Thr Asp  
610 615 620

Gly Arg Gly Pro Ala Phe Ser Phe Asn Tyr Ile Ser Arg Asn Ser Gly  
625 630 635 640

Leu Ser Leu Val Asp Ile Val Ser Phe Ser Gly Pro Glu Leu Ala Ser  
645 650 655

Glu Leu Ser Trp Asn Cys Gly Glu Glu Gly Ala Thr Asn Lys Ser Ala  
 660 665 670  
 Val Leu Gln Arg Arg Leu Lys Gln Ile Arg Asn Phe Leu Phe Ile Gln  
 675 680 685  
 Tyr Ile Ser Leu Gly Val Pro Val Leu Asn Met Gly Asp Glu Cys Gly  
 690 695 700  
 Ile Ser Thr Arg Gly Ser Pro Leu Leu Glu Ser Arg Lys Pro Phe Asp  
 705 710 715 720  
 Trp Asn Leu Leu Ala Ser Ala Phe Gly Thr Gln Ile Thr Gln Phe Ile  
 725 730 735  
 Ser Phe Met Thr Ser Val Arg Ala Arg Arg Ser Asp Val Phe Gln Arg  
 740 745 750  
 Arg Asp Phe Leu Lys Pro Glu Asn Ile Val Trp Tyr Ala Asn Asp Gln  
 755 760 765  
 Thr Thr Pro Lys Trp Glu Asp Pro Ala Ser Lys Phe Leu Ala Leu Glu  
 770 775 780  
 Ile Lys Ser Glu Ser Glu Glu Glu Glu Thr Ala Ser Leu Ala Glu Pro  
 785 790 795 800  
 Asn Glu Pro Lys Ser Asn Asp Leu Phe Ile Gly Phe Asn Ala Ser Asp  
 805 810 815  
 His Pro Glu Ser Val Val Leu Pro Ser Leu Pro Asp Gly Ser Lys Trp  
 820 825 830  
 Arg Arg Leu Val Asp Thr Ala Leu Pro Phe Pro Gly Phe Phe Ser Val  
 835 840 845  
 Glu Gly Glu Thr Val Val Ala Glu Glu Pro Leu Gln Gln Leu Val Val  
 850 855 860  
 Tyr Glu Met Lys Pro Tyr Ser Cys Thr Leu Phe Glu Thr Ile Asn Thr  
 865 870 875 880  
 Thr Ala

&lt;210&gt; 2551

&lt;211&gt; 1605

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2551

```

atggcaaggg aacaattaca agtgttgaat gcacttgacg tggccaagac gcaatggtac      60
catttcacgg cgatcataat cgccggaatg ggattcttca ctgatgctta cgatctcttt      120
tgcattctctc tcgtaacgaa gtcctcgggt cgtattttatt accacgtgga aggcgcacaa      180
aagcctggga ctctccctcc caacgtcgca gccgccgtca atggcgttgc cttctgtggg      240
actctcgccg gtcagctctt tttcggtggt cttggtgata agctcgggag gaagaaagtt      300
tacggtatga cgttgatggt catggtcctt tgttcaatag cctctggtct ctctttcgga      360
catgagccaa aagctgtgat ggccacgctc tgtttttttc ggttttggtt tggatttggc      420
atcggtggtg actacccttt atccgcaacc atcatgtctg aatatgcaaa caagaagact      480
cgcgaggacct ttgtctctgc ggtttttggt atgcaagggg tcggaatcat ggctgggtgg      540
atcttcgcta ttataatttc ctctgctttt gaagctaagt ttccatcccc ggcctatgcg      600
gatgatgcct tgggatccac gattcctcaa gctgatttgg tatggcggat aatcctgatg      660
gctggtgcta tccctgcggc tatgacgtat tactcaaggt cgaagatgcc tgagaccgca      720
aggtacacgg ctttggttgc taaggacgca aagcaggcag cttcggacat gtctaaggtt      780
ctgcaagtgg agatagagcc agaacaacag aaattggaag agatctcaaa ggagaagtcc      840
aaggcctttg gattgttctc aaaggaattc atgagtcgcc atgggcttca tttgctaggc      900
actacatcga catggttcct tctcgacatt gctttctaca gtcaaaacct tttccaaaag      960
gatattttca gcgcgatcgg atggattcct cccgcgcaaa gcatgaacgc aattcaagag     1020
gttttcaaga ttgcccgctc gcaaacgcta atcgccctgt gtagcacggg acctgggttac     1080
tggttcacag ttgcgttcat cgacgtcatt ggaagatttg cgattcagat gatgggtttc     1140
tttttcatga cggctctttat gtttgctctg gctattcctt acaaccactg gactcacaag     1200
gagaaccgaa tcggatttgt tatcatgtac tcgttaacat tctttttcgc caactttgga     1260
cccaatgcta caaccttcgt tgtgccggcc gaaatcttcc cagccagggt cagatcaacc     1320
tgccacggta tctctgcagc atcaggaaaa ttaggagcaa tggttggtgc gttcgggttc     1380
ttgtacttgg ctcaagaacc agacaaggac aagaccgacg caggataccc tccagggatt     1440
ggggtcagga actcgcttat tgtgttgggt gtagttaact tcttaggtat cctcttcact     1500
ttcttggtac ctgaatctaa aggtaagtca ctcgaggaaa tgtccggtga aaatgaagac     1560
aatgagaata gcaacaatga tagtagaacg gtcccaatag tttag                          1605

```

&lt;210&gt; 2552

&lt;211&gt; 534

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2552

Met Ala Arg Glu Gln Leu Gln Val Leu Asn Ala Leu Asp Val Ala Lys  
 1 5 10 15

Thr Gln Trp Tyr His Phe Thr Ala Ile Ile Ile Ala Gly Met Gly Phe  
 20 25 30

Phe Thr Asp Ala Tyr Asp Leu Phe Cys Ile Ser Leu Val Thr Lys Leu  
 35 40 45

Leu Gly Arg Ile Tyr Tyr His Val Glu Gly Ala Gln Lys Pro Gly Thr  
 50 55 60

Leu Pro Pro Asn Val Ala Ala Ala Val Asn Gly Val Ala Phe Cys Gly  
 65 70 75 80

Thr Leu Ala Gly Gln Leu Phe Phe Gly Trp Leu Gly Asp Lys Leu Gly  
 85 90 95

Arg Lys Lys Val Tyr Gly Met Thr Leu Met Val Met Val Leu Cys Ser  
 100 105 110

Ile Ala Ser Gly Leu Ser Phe Gly His Glu Pro Lys Ala Val Met Ala  
 115 120 125

Thr Leu Cys Phe Phe Arg Phe Trp Leu Gly Phe Gly Ile Gly Gly Asp  
 130 135 140

Tyr Pro Leu Ser Ala Thr Ile Met Ser Glu Tyr Ala Asn Lys Lys Thr  
 145 150 155 160

Arg Gly Ala Phe Val Ser Ala Val Phe Ala Met Gln Gly Phe Gly Ile  
 165 170 175

Met Ala Gly Gly Ile Phe Ala Ile Ile Ile Ser Ser Ala Phe Glu Ala  
 180 185 190

Lys Phe Pro Ser Pro Ala Tyr Ala Asp Asp Ala Leu Gly Ser Thr Ile  
 195 200 205

047-E2F-PCT.ST25.txt

Pro Gln Ala Asp Leu Val Trp Arg Ile Ile Leu Met Ala Gly Ala Ile  
210 215 220

Pro Ala Ala Met Thr Tyr Tyr Ser Arg Ser Lys Met Pro Glu Thr Ala  
225 230 235 240

Arg Tyr Thr Ala Leu Val Ala Lys Asp Ala Lys Gln Ala Ala Ser Asp  
245 250 255

Met Ser Lys Val Leu Gln Val Glu Ile Glu Pro Glu Gln Gln Lys Leu  
260 265 270

Glu Glu Ile Ser Lys Glu Lys Ser Lys Ala Phe Gly Leu Phe Ser Lys  
275 280 285

Glu Phe Met Ser Arg His Gly Leu His Leu Leu Gly Thr Thr Ser Thr  
290 295 300

Trp Phe Leu Leu Asp Ile Ala Phe Tyr Ser Gln Asn Leu Phe Gln Lys  
305 310 315 320

Asp Ile Phe Ser Ala Ile Gly Trp Ile Pro Pro Ala Gln Ser Met Asn  
325 330 335

Ala Ile Gln Glu Val Phe Lys Ile Ala Arg Ala Gln Thr Leu Ile Ala  
340 345 350

Leu Cys Ser Thr Val Pro Gly Tyr Trp Phe Thr Val Ala Phe Ile Asp  
355 360 365

Val Ile Gly Arg Phe Ala Ile Gln Met Met Gly Phe Phe Phe Met Thr  
370 375 380

Val Phe Met Phe Ala Leu Ala Ile Pro Tyr Asn His Trp Thr His Lys  
385 390 395 400

Glu Asn Arg Ile Gly Phe Val Ile Met Tyr Ser Leu Thr Phe Phe Phe  
405 410 415

Ala Asn Phe Gly Pro Asn Ala Thr Thr Phe Val Val Pro Ala Glu Ile  
420 425 430

Phe Pro Ala Arg Phe Arg Ser Thr Cys His Gly Ile Ser Ala Ala Ser  
435 440 445

Gly Lys Leu Gly Ala Met Val Gly Ala Phe Gly Phe Leu Tyr Leu Ala  
450 455 460

047-E2F-PCT.ST25.txt

Gln Asn Pro Asp Lys Asp Lys Thr Asp Ala Gly Tyr Pro Pro Gly Ile  
465 470 475 480

Gly Val Arg Asn Ser Leu Ile Val Leu Gly Val Val Asn Phe Leu Gly  
485 490 495

Ile Leu Phe Thr Phe Leu Val Pro Glu Ser Lys Gly Lys Ser Leu Glu  
500 505 510

Glu Met Ser Gly Glu Asn Glu Asp Asn Glu Asn Ser Asn Asn Asp Ser  
515 520 525

Arg Thr Val Pro Ile Val  
530

<210> 2553

<211> 555

<212> DNA

<213> Arabidopsis thaliana

<400> 2553

atggcaaacc aaatctacat aatctccttg atcttcttgt ctgtgttact ttatcaatcc	60
actaccgtct tatctttccg acaaccattc aacctagcga aaccatgcaa gcgtttcgtc	120
ttctacctcc ataatgttgc ctacgacggt gataacacgg ataatgctac atcagcagca	180
attgttaacc ctttaggtct aggagacttc agttttggga agtttgtgat catggacaac	240
cctgtgacaa tggaccagaa catgctctcg gaacaggtgg ctcgtgttca aggcttcttc	300
ttctatcacg gtaagacgaa atacgacact tggctctctt ggtcagtagt attcaattca	360
acacaacaca agggggcatt gaacataatg ggtgaaaacg cgtttatgga gccgacaaga	420
gacctaccgg tcgttggtgg gactggtgat ttcgtcatga ctcgtgggat cgctacgttc	480
atgactgatc tcgttgaagg cagtaagtat ttccgtgtca aaatggatat taaactctat	540
gaatgttact attag	555

<210> 2554

<211> 184

<212> PRT

<213> Arabidopsis thaliana

<400> 2554

Met Ala Asn Gln Ile Tyr Ile Ile Ser Leu Ile Phe Leu Ser Val Leu  
 1 5 10 15  
 Leu Tyr Gln Ser Thr Thr Val Leu Ser Phe Arg Gln Pro Phe Asn Leu  
 20 25 30  
 Ala Lys Pro Cys Lys Arg Phe Val Phe Tyr Leu His Asn Val Ala Tyr  
 35 40 45  
 Asp Gly Asp Asn Thr Asp Asn Ala Thr Ser Ala Ala Ile Val Asn Pro  
 50 55 60  
 Leu Gly Leu Gly Asp Phe Ser Phe Gly Lys Phe Val Ile Met Asp Asn  
 65 70 75 80  
 Pro Val Thr Met Asp Gln Asn Met Leu Ser Glu Gln Val Ala Arg Val  
 85 90 95  
 Gln Gly Phe Phe Phe Tyr His Gly Lys Thr Lys Tyr Asp Thr Trp Leu  
 100 105 110  
 Ser Trp Ser Val Val Phe Asn Ser Thr Gln His Lys Gly Ala Leu Asn  
 115 120 125  
 Ile Met Gly Glu Asn Ala Phe Met Glu Pro Thr Arg Asp Leu Pro Val  
 130 135 140  
 Val Gly Gly Thr Gly Asp Phe Val Met Thr Arg Gly Ile Ala Thr Phe  
 145 150 155 160  
 Met Thr Asp Leu Val Glu Gly Ser Lys Tyr Phe Arg Val Lys Met Asp  
 165 170 175  
 Ile Lys Leu Tyr Glu Cys Tyr Tyr  
 180

<210> 2555

<211> 990

<212> DNA

<213> Arabidopsis thaliana

<400> 2555

atggaagctc ctccaccttc aagcgatcca tacaagttcc tcaacattac acttaactca  
 Page 3586



047-E2F-PCT.ST25.txt

```

gatggatctc tcaccagaca ccgtgatttc cccaaactgc ccccaacaga gcaatccaaa 120
gacataccat taaaccaaac caacaatacc ttcattccgaa tcttcaagcc acggaatatt 180
ccgccggaat ccaaacttcc gatcctcgtt tactttcacg gcggtggatt tatcctctac 240
agcgccgctt cagctccttt ccatgaatct tgcacaaaaa tggctgatcg tcttcaaact 300
ataatcctct ccgtcgaata ccgtctagct cccgaacacc gtctcccggc ggcgtacgaa 360
gacgccgtcg aagctatctt atggctccgt gatcaagctc gtggggccaat caacggtggt 420
gattgcgaca cgtgggttaa agacggtgtc gattttctcga aatgctacgt catgggttca 480
agctctggag gaaatattgt ctacaacgtg gcgttgctg tagttgacac agatctttct 540
cctgttaaga tccaagggct gataatgaac caagctttct tcggtggcgt tgagccgtcg 600
gattctgagt cacggcttaa agacgataag atctgtccgt taccagctac tcacttgttg 660
tggtcacttt gtttaccgga cgggtgtagat cgtgaccacg tgtacagtaa tccaattaag 720
agcagtgggc ctcaggaaaa agataagatg ggacgttttc cgtcgactct tatcaacggt 780
tacggtgggg atcctttagt ggatcgtcag agacacgtgg cggagatgtt aaagggacgt 840
ggagttcacg tggagacgag gtttgataaa gatgggtttc atgcttgtga gttgtttgat 900
gggaacaaag ctaaggccct gtacgaaacc gttgaggcct ttatgaagag ttgttcatca 960
actggcccat cgtccaactc caacatgtag 990

```

<210> 2556

<211> 329

<212> PRT

<213> Arabidopsis thaliana

<400> 2556

Met Glu Ala Pro Pro Pro Ser Ser Asp Pro Tyr Lys Phe Leu Asn Ile  
1 5 10 15

Thr Leu Asn Ser Asp Gly Ser Leu Thr Arg His Arg Asp Phe Pro Lys  
20 25 30

Leu Pro Pro Thr Glu Gln Ser Lys Asp Ile Pro Leu Asn Gln Thr Asn  
35 40 45

Asn Thr Phe Ile Arg Ile Phe Lys Pro Arg Asn Ile Pro Pro Glu Ser  
50 55 60

Lys Leu Pro Ile Leu Val Tyr Phe His Gly Gly Gly Phe Ile Leu Tyr  
Page 3587

65		70		75		80									
Ser	Ala	Ala	Ser	Ala <sub>85</sub>	Pro	Phe	His	Glu	Ser <sub>90</sub>	Cys	Thr	Lys	Met	Ala <sub>95</sub>	Asp
Arg	Leu	Gln	Thr <sub>100</sub>	Ile	Ile	Leu	Ser	Val <sub>105</sub>	Glu	Tyr	Arg	Leu	Ala <sub>110</sub>	Pro	Glu
His	Arg	Leu <sub>115</sub>	Pro	Ala	Ala	Tyr	Glu <sub>120</sub>	Asp	Ala	Val	Glu	Ala <sub>125</sub>	Ile	Leu	Trp
Leu	Arg <sub>130</sub>	Asp	Gln	Ala	Arg	Gly <sub>135</sub>	Pro	Ile	Asn	Gly	Gly <sub>140</sub>	Asp	Cys	Asp	Thr
Trp <sub>145</sub>	Leu	Lys	Asp	Gly	Val <sub>150</sub>	Asp	Phe	Ser	Lys	Cys <sub>155</sub>	Tyr	Val	Met	Gly	Ser <sub>160</sub>
Ser	Ser	Gly	Gly	Asn <sub>165</sub>	Ile	Val	Tyr	Asn	Val <sub>170</sub>	Ala	Leu	Arg	Val	Val <sub>175</sub>	Asp
Thr	Asp	Leu	Ser <sub>180</sub>	Pro	Val	Lys	Ile	Gln <sub>185</sub>	Gly	Leu	Ile	Met	Asn <sub>190</sub>	Gln	Ala
Phe	Phe	Gly <sub>195</sub>	Gly	Val	Glu	Pro	Ser <sub>200</sub>	Asp	Ser	Glu	Ser	Arg <sub>205</sub>	Leu	Lys	Asp
Asp	Lys <sub>210</sub>	Ile	Cys	Pro	Leu	Pro <sub>215</sub>	Ala	Thr	His	Leu	Leu <sub>220</sub>	Trp	Ser	Leu	Cys
Leu <sub>225</sub>	Pro	Asp	Gly	Val	Asp <sub>230</sub>	Arg	Asp	His	Val	Tyr <sub>235</sub>	Ser	Asn	Pro	Ile	Lys <sub>240</sub>
Ser	Ser	Gly	Pro	Gln <sub>245</sub>	Glu	Lys	Asp	Lys	Met <sub>250</sub>	Gly	Arg	Phe	Pro	Ser <sub>255</sub>	Thr
Leu	Ile	Asn	Gly <sub>260</sub>	Tyr	Gly	Gly	Asp	Pro <sub>265</sub>	Leu	Val	Asp	Arg	Gln <sub>270</sub>	Arg	His
Val	Ala	Glu <sub>275</sub>	Met	Leu	Lys	Gly	Arg <sub>280</sub>	Gly	Val	His	Val	Glu <sub>285</sub>	Thr	Arg	Phe
Asp	Lys <sub>290</sub>	Asp	Gly	Phe	His	Ala <sub>295</sub>	Cys	Glu	Leu	Phe	Asp <sub>300</sub>	Gly	Asn	Lys	Ala
Lys <sub>305</sub>	Ala	Leu	Tyr	Glu	Thr <sub>310</sub>	Val	Glu	Ala	Phe	Met <sub>315</sub>	Lys	Ser	Cys	Ser	Ser <sub>320</sub>

Thr Gly Pro Ser Ser Asn Ser Asn Met  
325

<210> 2557

<211> 942

<212> DNA

<213> *Arabidopsis thaliana*

<400> 2557

```

atgatgaagg gtgccaagtt ttcattctctt cttgtgcttt tctttatttt tccgatcgca      60
tttgctcaac tgagagtcgg gttttatagt caatcatgcc ctcaagccga gactatcgta      120
cgcaatctgg tgcgccaaacg gtttggtggt accccaaccg ttaccgccgc tttgctccgt      180
atgcattttcc acgactgttt cgtaaagggc tgtgacgctt ctctcctcat tgattcaacc      240
aattccgaga aaactgctgg accaaacgga agcgtcaggg aatttgacct gatagaccgg      300
atcaaggctc agctagaagc tgcattgccct tccacagtct catgtgctga catcgtcaca      360
ttggccacac gtgactcggg ggccttagcc ggaggcccaa gctacagcat cccacaggga      420
aggcgtgacg gtaggggtctc aaacaatctt gatgtaacct taccgggtcc aacgatctcc      480
gtctctggag ccgtgagttt attcacgaac aaagggatga acacgttcga tgcagtagct      540
cttttggggtg cacacactgt tgggtcaagga aattgtgggtc tctttagtga cagaatcact      600
agcttccaag gaactggacg accggacccg tccatggacc ccgctttggt taccagccta      660
aggaacacat gcagaaatag cgcgacggcg gcactagacc agtcgagtcc attgagattc      720
gacaaccagt tcttcaagca aatccgtaaa aggagaggag tgttgcaagt tgaccaacgc      780
ctcgcatccg acccacagac tcgtgggatt gtggctcggg atgctaataa caacgccttc      840
ttcaagcgtc agttcgttag agcaatggtg aagatgggag cagttgatgt gcttactggt      900
cgtaacgggtg agatcagaag gaactgcagg agattcaact aa                        942

```

<210> 2558

<211> 313

<212> PRT

<213> *Arabidopsis thaliana*

<400> 2558

Met Met Lys Gly Ala Lys Phe Ser Ser Leu Leu Val Leu Phe Phe Ile  
1 5 10 15

047-E2F-PCT.ST25.txt

Phe Pro Ile Ala Phe Ala Gln Leu Arg Val Gly Phe Tyr Ser Gln Ser  
 20 25 30  
 Cys Pro Gln Ala Glu Thr Ile Val Arg Asn Leu Val Arg Gln Arg Phe  
 35 40 45  
 Gly Val Thr Pro Thr Val Thr Ala Ala Leu Leu Arg Met His Phe His  
 50 55 60  
 Asp Cys Phe Val Lys Gly Cys Asp Ala Ser Leu Leu Ile Asp Ser Thr  
 65 70 75 80  
 Asn Ser Glu Lys Thr Ala Gly Pro Asn Gly Ser Val Arg Glu Phe Asp  
 85 90 95  
 Leu Ile Asp Arg Ile Lys Ala Gln Leu Glu Ala Ala Cys Pro Ser Thr  
 100 105 110  
 Val Ser Cys Ala Asp Ile Val Thr Leu Ala Thr Arg Asp Ser Val Ala  
 115 120 125  
 Leu Ala Gly Gly Pro Ser Tyr Ser Ile Pro Thr Gly Arg Arg Asp Gly  
 130 135 140  
 Arg Val Ser Asn Asn Leu Asp Val Thr Leu Pro Gly Pro Thr Ile Ser  
 145 150 155 160  
 Val Ser Gly Ala Val Ser Leu Phe Thr Asn Lys Gly Met Asn Thr Phe  
 165 170 175  
 Asp Ala Val Ala Leu Leu Gly Ala His Thr Val Gly Gln Gly Asn Cys  
 180 185 190  
 Gly Leu Phe Ser Asp Arg Ile Thr Ser Phe Gln Gly Thr Gly Arg Pro  
 195 200 205  
 Asp Pro Ser Met Asp Pro Ala Leu Val Thr Ser Leu Arg Asn Thr Cys  
 210 215 220  
 Arg Asn Ser Ala Thr Ala Ala Leu Asp Gln Ser Ser Pro Leu Arg Phe  
 225 230 235 240  
 Asp Asn Gln Phe Phe Lys Gln Ile Arg Lys Arg Arg Gly Val Leu Gln  
 245 250 255  
 Val Asp Gln Arg Leu Ala Ser Asp Pro Gln Thr Arg Gly Ile Val Ala  
 260 265 270

Arg Tyr Ala Asn Asn Asn Ala Phe Phe Lys Arg Gln Phe Val Arg Ala  
275 280 285

Met Val Lys Met Gly Ala Val Asp Val Leu Thr Gly Arg Asn Gly Glu  
290 295 300

Ile Arg Arg Asn Cys Arg Arg Phe Asn  
305 310

<210> 2559

<211> 522

<212> DNA

<213> Arabidopsis thaliana

<400> 2559  
atggctgaaa catctgatgt atcgccattg aagcggttaca gagaacaaga aaccctagtc 60  
gaggaagaaa cgaacaaacg acaaaagcca acttcgtcat catcctctgc ctcttacaac 120  
caaattctct gtctttctcaa cgattcagac gaacaaaacc aacacaacaa tgacctact 180  
tccttcataa acgctcttca gcaagaaata tcatcggtatg accaatacgc cgtcgtttca 240  
gaaacctcca acgtcgaaga ctcgttttct tcatgtgttt cctcaaagga agaagaagtg 300  
gaagatgaca gcaaggagaa agtgatgcag catcttttgg aagcttccga tgacgaactt 360  
gggatcccta acacagattt tggcgagagt aattatgaaa aggctaataga cggttacgtt 420  
tatggagata gtttggttaga tgggtttggt gatgcgtttt gggagcttga agacgaagct 480  
gctaattatt acacgttgct gcagtctgag ctgttcatgt ag 522

<210> 2560

<211> 173

<212> PRT

<213> Arabidopsis thaliana

<400> 2560

Met Ala Glu Thr Ser Asp Val Ser Pro Leu Lys Arg Tyr Arg Glu Gln  
1 5 10 15

Glu Thr Leu Val Glu Glu Glu Thr Asn Lys Arg Gln Lys Pro Thr Ser  
20 25 30

047-E2F-PCT.ST25.txt

Ser Ser Ser Ser Ala Ser Tyr Asn Gln Ile Leu Cys Leu Leu Asn Asp  
35 40 45

Ser Asp Glu Gln Asn Gln His Asn Asn Asp Leu Thr Ser Phe Ile Asn  
50 55 60

Ala Leu Gln Gln Glu Ile Ser Ser Asp Asp Gln Tyr Ala Val Val Ser  
65 70 75 80

Glu Thr Ser Asn Val Glu Asp Ser Phe Ser Ser Cys Val Ser Ser Lys  
85 90 95

Glu Glu Glu Val Glu Asp Asp Ser Lys Glu Lys Val Met Gln His Leu  
100 105 110

Leu Glu Ala Ser Asp Asp Glu Leu Gly Ile Pro Asn Thr Asp Phe Gly  
115 120 125

Glu Ser Asn Tyr Glu Lys Ala Asn Asp Gly Tyr Val Tyr Gly Asp Ser  
130 135 140

Leu Leu Asp Gly Phe Gly Asp Ala Phe Trp Glu Leu Glu Asp Glu Ala  
145 150 155 160

Ala Asn Tyr Tyr Thr Leu Leu Gln Ser Glu Leu Phe Met  
165 170

<210> 2561

<211> 939

<212> DNA

<213> Arabidopsis thaliana

<400> 2561  
atgtccgcta atttcatcc tcctaattcc aaaaacgtcc tctgtaatgc agccgccggt 60  
gccgccgccg gggttgttgc ggctacgttt gtgtgtcctc ttgatgttat aaaaacgagg 120  
tttcaggttc atgggctgcc taagctcggt gatgcaaaca tcaaaggtag tctaattggt 180  
ggcagtcttg agcagatctt caagagagaa gggatgcgtg gcttataccg cggctctttcc 240  
cctactgtca tggctcttct ctccaattgg gccatttatt ttacaatgta tgaccagctc 300  
aagagctttc tttgttcaaa tgatcacaaa ctgagcgttg gagctaacgt attggctgct 360  
tcgggagctg gagctgcaac taccattgcc acaaatcctc tttgggtcgt caagactaga 420  
cttcagacac aaggaatgag agtgggtata gtgccataca aaagcacatt ttctgcttta 480

047-E2F-PCT.ST25.txt

aggagaatag cttatgagga ggggaattcgc ggattgtaca gtggtcttgt ccctgcacta 540  
gctggtatca gtcattgttgc cattcagttt cccacatatg agatgatcaa agtgtacttg 600  
gccaaagaaag gtgataaatc agtcgataac ctcaatgctc gtgatgtagc agttgcctct 660  
tcgattgcaa agatatttgc atccacatta acttaccgcg acgaggtagt acgagctagg 720  
cttcaagagc aagggcacca cagtgagaaa cgttactcag gagtaagaga ttgcatcaag 780  
aaagtgtttg agaaagatgg gttccctggt ttttacagag gctgcgccac gaatctactg 840  
agaacaactc ctgcagcagt tataactttc actagcttcg aaatggtgca tcgtttcctc 900  
gtcactcata taccttctga gcaaagctct atactttaa 939

<210> 2562

<211> 312

<212> PRT

<213> Arabidopsis thaliana

<400> 2562

Met Ser Ala Asn Ser His Pro Pro Asn Ser Lys Asn Val Leu Cys Asn  
1 5 10 15

Ala Ala Ala Gly Ala Ala Ala Gly Val Val Ala Ala Thr Phe Val Cys  
20 25 30

Pro Leu Asp Val Ile Lys Thr Arg Phe Gln Val His Gly Leu Pro Lys  
35 40 45

Leu Gly Asp Ala Asn Ile Lys Gly Ser Leu Ile Val Gly Ser Leu Glu  
50 55 60

Gln Ile Phe Lys Arg Glu Gly Met Arg Gly Leu Tyr Arg Gly Leu Ser  
65 70 75 80

Pro Thr Val Met Ala Leu Leu Ser Asn Trp Ala Ile Tyr Phe Thr Met  
85 90 95

Tyr Asp Gln Leu Lys Ser Phe Leu Cys Ser Asn Asp His Lys Leu Ser  
100 105 110

Val Gly Ala Asn Val Leu Ala Ala Ser Gly Ala Gly Ala Ala Thr Thr  
115 120 125

Ile Ala Thr Asn Pro Leu Trp Val Val Lys Thr Arg Leu Gln Thr Gln  
Page 3593

130

135

Gly Met Arg Val Gly Ile Val Pro Tyr Lys Ser Thr Phe Ser Ala Leu  
145 150 155 160

Arg Arg Ile Ala Tyr Glu Glu Gly Ile Arg Gly Leu Tyr Ser Gly Leu  
165 170 175

Val Pro Ala Leu Ala Gly Ile Ser His Val Ala Ile Gln Phe Pro Thr  
180 185 190

Tyr Glu Met Ile Lys Val Tyr Leu Ala Lys Lys Gly Asp Lys Ser Val  
195 200 205

Asp Asn Leu Asn Ala Arg Asp Val Ala Val Ala Ser Ser Ile Ala Lys  
210 215 220

Ile Phe Ala Ser Thr Leu Thr Tyr Pro His Glu Val Val Arg Ala Arg  
225 230 235 240

Leu Gln Glu Gln Gly His His Ser Glu Lys Arg Tyr Ser Gly Val Arg  
245 250 255

Asp Cys Ile Lys Lys Val Phe Glu Lys Asp Gly Phe Pro Gly Phe Tyr  
260 265 270

Arg Gly Cys Ala Thr Asn Leu Leu Arg Thr Thr Pro Ala Ala Val Ile  
275 280 285

Thr Phe Thr Ser Phe Glu Met Val His Arg Phe Leu Val Thr His Ile  
290 295 300

Pro Ser Glu Gln Ser Ser Ile Leu  
305 310

<210> 2563

<211> 420

<212> DNA

<213> Arabidopsis thaliana

<400> 2563

atggctaag cagcatcagg aatggcagtc catgatgact gcaagctgaa atttatggaa 60

ttgaagacga aaaggacaca ccgtttcatc atttacaaga ttgaggagct gcagaaacaa 120

gtgattgttg agaaaatcgg tgaaccgggt caaacccatg aggaccttgc tgcaagtctt 180



047-E2F-PCT.ST25.txt

ccagctgatg aatgccgcta tgccattttc gatttttgatt ttgtcagttc tgaggggtgct 240  
ccaaggagca ggattttttt cgtggcatgg tctccggaca cagcaagagt gagaagcaag 300  
atgatctatg cgagctccaa ggacaggttc aagagagaac tagacggaat tcagggtcgag 360  
cttcaggcaa ccgatccaac cgagatggat cttgatgttt tcaaaagccg agccaattga 420

<210> 2564

<211> 139

<212> PRT

<213> Arabidopsis thaliana

<400> 2564

Met Ala Asn Ala Ala Ser Gly Met Ala Val His Asp Asp Cys Lys Leu  
1 5 10 15  
Lys Phe Met Glu Leu Lys Thr Lys Arg Thr His Arg Phe Ile Ile Tyr  
20 25 30  
Lys Ile Glu Glu Leu Gln Lys Gln Val Ile Val Glu Lys Ile Gly Glu  
35 40 45  
Pro Gly Gln Thr His Glu Asp Leu Ala Ala Ser Leu Pro Ala Asp Glu  
50 55 60  
Cys Arg Tyr Ala Ile Phe Asp Phe Asp Phe Val Ser Ser Glu Gly Val  
65 70 75 80  
Pro Arg Ser Arg Ile Phe Phe Val Ala Trp Ser Pro Asp Thr Ala Arg  
85 90 95  
Val Arg Ser Lys Met Ile Tyr Ala Ser Ser Lys Asp Arg Phe Lys Arg  
100 105 110  
Glu Leu Asp Gly Ile Gln Val Glu Leu Gln Ala Thr Asp Pro Thr Glu  
115 120 125  
Met Asp Leu Asp Val Phe Lys Ser Arg Ala Asn  
130 135

<210> 2565

<211> 2286

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2565

```

atggcggagt ttggagagct tgaagctcaa gatggagtaa gaatgccatg gaacatcatc   60
cccgtcgcaa cgaaaaagga acaatcaatc gattccgaag ttccagtttc cgccatttac   120
acacctctga aacctcttag atctcaatcc cttctccttc cttactctcc tctccgttgc   180
cggacttgct gctccgttct aaacccttac tccgtcgtag atttctccgc ttgtaattgg   240
ggttgctcct tctgcttcaa tcggaatcct tccccgctaa attactcttc agtcgccgat   300
aacaatctcc cgccggagct ttttcctcat tccacaactg ttgagtatct ctgtgattcc   360
ttctcttctc cttctcctcc tgttttcctc ttcgttggtg atacttgttt gatctctgaa   420
gaactcgatt tcctcaaatc atctctcttc caagctcttg atcttcttcc tgatacctcc   480
atccttggtc tcattacggt tgattcggtt gttcgtggtt acgagcttgg attcccacac   540
tgtaccaaat cttacttctt ccatggaaac aaagactgta ctaaagatca gcttttggat   600
cagctgagtt tcttcgtcaa gaatcctaaa cttctctcag gtgtcattgc tgggtgctaga   660
gatggtctct cttccgacga cattgctcgg tttctgttac ctgcctctga ttgccacttt   720
actcttcact ctgttcttga ggagctggga aacagtcctt ggcccgttgc agctgatcac   780
cgtcctgcga gatgcactgg tgttgctctc cgtatcgctg ctagtctctt aggagcttgc   840
tttcctggct ctgctgctag aatcatggct tttattgggt gaccttcac tcaaggccct   900
ggagctattg tttctcggga gctttcggat cctattcgtt ctcataagga tattgataaa   960
gattctgcta tgtattacca caaagctggt gaattctatg agatgcttgc gaaacaactt  1020
gttcatcaag gtcattgttct tgatgttttt gctagtctctg ttgatcaggt aggcattgct  1080
gagctcaaag ttgcagttga gcagactggt ggatttgctg tgcttgctga aagttttggc  1140
cactcagtat ttagagattc tctcaaacgc gtgtgtcagt cagggtgaaaa tgatctaggc  1200
ttgtcctcat gtggtatatt tgaaattaac tgctcaaagg atatcaaagt tcagggaatt  1260
attggccctt gcgcatctct cgaaaagaaa ggaccgttgt gctctgacac tgccatcggc  1320
cagggacaca caagcgcatt gaagatgtgt ggcctcgaca acaacacttc catatgtttg  1380
gtttttgaaa ttgctaaaat agatacagct gatgttggtt tgcagtcgca gagcaatcag  1440
ttttactttc aatttttgac atactatcag cactcaaatt gtcaaacaag actccgggta  1500
acaactcttt ctagaagatg ggtaatggga actgaaagct tacaggagtt gagcaatggt  1560
tttgaccaag aagcagctgc tgtagtaatg gcacgactta tttcctccaa aatggagact  1620
cagcctgagt ttaatcccca aaggtgggtc gataaagcgt tgataaatct atgcacctgg  1680
tttggagatt accagaaagg caatccttct tccttttagct tatcttctca gttatcaatt  1740

```

047-E2F-PCT.ST25.txt

```

ttcccgagcgt ttgtgtttca cttgcgccga tctcagtttg tccaggtctt taacaacagc 1800
ccagacgaga cagcatatct tcgaatgata ttgtacagag agaacgtttc taattcagtc 1860
gtgatgattc aaccttcact gatttctttc tcattccatt caccgccaga gccaatctct 1920
cttgatgtag catccattgc agctgacaga atcttactgt tggattcata cttcaccctt 1980
gtaatatctc acggctctac aatcgctcaa tggcgaaaag ctggatacca taatcaacct 2040
gaacaccagg catttgaggc tctgttgcag tcacctcgtg actacgcaga cacaatcatg 2100
agtgaaaggt ttccactcc gcgtcttggt atatgcgac agtatggttc acaggctcgt 2160
tttcttctag caaaactgaa tccttgtgat ggagatgctc atttttccgg ccaaagtaat 2220
gttttcacgg atgatgttag cttgtctgta tttcttgatc atcttagacg actcattggt 2280
cattga 2286

```

<210> 2566

<211> 761

<212> PRT

<213> Arabidopsis thaliana

<400> 2566

```

Met Ala Glu Phe Gly Glu Leu Glu Ala Gln Asp Gly Val Arg Met Pro
1          5          10          15

```

```

Trp Asn Ile Ile Pro Val Ala Thr Lys Lys Glu Gln Ser Ile Asp Ser
20          25          30

```

```

Glu Val Pro Val Ser Ala Ile Tyr Thr Pro Leu Lys Pro Leu Arg Ser
35          40          45

```

```

Gln Ser Leu Leu Leu Pro Tyr Ser Pro Leu Arg Cys Arg Thr Cys Arg
50          55          60

```

```

Ser Val Leu Asn Pro Tyr Ser Val Val Asp Phe Ser Ala Cys Asn Trp
65          70          75          80

```

```

Gly Cys Pro Phe Cys Phe Asn Arg Asn Pro Phe Pro Leu Asn Tyr Ser
85          90          95

```

```

Ser Val Ala Asp Asn Asn Leu Pro Pro Glu Leu Phe Pro His Ser Thr
100         105         110

```

```

Thr Val Glu Tyr Leu Cys Asp Ser Phe Ser Ser Pro Ser Pro Pro Val
Page 3597

```

115

120

125

Phe Leu Phe Val Val Asp Thr Cys Leu Ile Ser Glu Glu Leu Asp Phe  
 130 135 140  
 Leu Lys Ser Ser Leu Phe Gln Ala Leu Asp Leu Leu Pro Asp Thr Ser  
 145 150 155 160  
 Ile Leu Gly Leu Ile Thr Phe Asp Ser Leu Val Arg Val Tyr Glu Leu  
 165 170 175  
 Gly Phe Pro His Cys Thr Lys Ser Tyr Phe Phe His Gly Asn Lys Asp  
 180 185 190  
 Cys Thr Lys Asp Gln Leu Leu Asp Gln Leu Ser Phe Phe Val Lys Asn  
 195 200 205  
 Pro Lys Pro Ser Ser Gly Val Ile Ala Gly Ala Arg Asp Gly Leu Ser  
 210 215 220  
 Ser Asp Asp Ile Ala Arg Phe Leu Leu Pro Ala Ser Asp Cys His Phe  
 225 230 235 240  
 Thr Leu His Ser Val Leu Glu Glu Leu Gly Asn Ser Pro Trp Pro Val  
 245 250 255  
 Ala Ala Asp His Arg Pro Ala Arg Cys Thr Gly Val Ala Leu Arg Ile  
 260 265 270  
 Ala Ala Ser Leu Leu Gly Ala Cys Phe Pro Gly Ser Ala Ala Arg Ile  
 275 280 285  
 Met Ala Phe Ile Gly Gly Pro Ser Thr Gln Gly Pro Gly Ala Ile Val  
 290 295 300  
 Ser Arg Glu Leu Ser Asp Pro Ile Arg Ser His Lys Asp Ile Asp Lys  
 305 310 315 320  
 Asp Ser Ala Met Tyr Tyr His Lys Ala Val Glu Phe Tyr Glu Met Leu  
 325 330 335  
 Ala Lys Gln Leu Val His Gln Gly His Val Leu Asp Val Phe Ala Ser  
 340 345 350  
 Ser Val Asp Gln Val Gly Ile Ala Glu Leu Lys Val Ala Val Glu Gln  
 355 360 365

Thr Gly Gly Phe Val Val Leu Ala Glu Ser Phe Gly His Ser Val Phe  
 370 375 380  
 Arg Asp Ser Leu Lys Arg Val Cys Gln Ser Gly Glu Asn Asp Leu Gly  
 385 390 395 400  
 Leu Ser Ser Cys Gly Ile Phe Glu Ile Asn Cys Ser Lys Asp Ile Lys  
 405 410 415  
 Val Gln Gly Ile Ile Gly Pro Cys Ala Ser Leu Glu Lys Lys Gly Pro  
 420 425 430  
 Leu Cys Ser Asp Thr Ala Ile Gly Gln Gly His Thr Ser Ala Trp Lys  
 435 440 445  
 Met Cys Gly Leu Asp Asn Asn Thr Ser Ile Cys Leu Val Phe Glu Ile  
 450 455 460  
 Ala Lys Ile Asp Thr Ala Asp Val Val Leu Gln Ser Gln Ser Asn Gln  
 465 470 475 480  
 Phe Tyr Phe Gln Phe Leu Thr Tyr Tyr Gln His Ser Asn Gly Gln Thr  
 485 490 495  
 Arg Leu Arg Val Thr Thr Leu Ser Arg Arg Trp Val Met Gly Thr Glu  
 500 505 510  
 Ser Leu Gln Glu Leu Ser Asn Gly Phe Asp Gln Glu Ala Ala Ala Val  
 515 520 525  
 Val Met Ala Arg Leu Ile Ser Ser Lys Met Glu Thr Gln Pro Glu Phe  
 530 535 540  
 Asn Pro Gln Arg Trp Val Asp Lys Ala Leu Ile Asn Leu Cys Thr Trp  
 545 550 555 560  
 Phe Gly Asp Tyr Gln Lys Gly Asn Pro Ser Ser Phe Ser Leu Ser Ser  
 565 570 575  
 Gln Leu Ser Ile Phe Pro Gln Phe Val Phe His Leu Arg Arg Ser Gln  
 580 585 590  
 Phe Val Gln Val Phe Asn Asn Ser Pro Asp Glu Thr Ala Tyr Phe Arg  
 595 600 605  
 Met Ile Leu Tyr Arg Glu Asn Val Ser Asn Ser Val Val Met Ile Gln  
 610 615 620

047-E2F-PCT.ST25.txt

Pro Ser Leu Ile Ser Phe Ser Phe His Ser Pro Pro Glu Pro Ile Leu  
625 630 635 640

Leu Asp Val Ala Ser Ile Ala Ala Asp Arg Ile Leu Leu Leu Asp Ser  
645 650 655

Tyr Phe Thr Leu Val Ile Phe His Gly Ser Thr Ile Ala Gln Trp Arg  
660 665 670

Lys Ala Gly Tyr His Asn Gln Pro Glu His Gln Ala Phe Gly His Leu  
675 680 685

Leu Gln Ser Pro Arg Asp Tyr Ala Asp Thr Ile Met Ser Glu Arg Phe  
690 695 700

Pro Thr Pro Arg Leu Val Ile Cys Asp Gln Tyr Gly Ser Gln Ala Arg  
705 710 715 720

Phe Leu Leu Ala Lys Leu Asn Pro Cys Asp Gly Asp Ala His Phe Ser  
725 730 735

Gly Gln Ser Asn Val Phe Thr Asp Asp Val Ser Leu Ser Val Phe Leu  
740 745 750

Asp His Leu Arg Arg Leu Ile Val His  
755 760

<210> 2567

<211> 429

<212> DNA

<213> Arabidopsis thaliana

<400> 2567  
atgggagtag tactgacga tggatcaacg gtacgatctt ttgtagacga cgaagagcaa 60  
ttcaaaaaaaaa gcgtcgacga gaggttcgca gctctggatc tgaacaaaga cggcgtttta 120  
tcgcatcgga agctacgaaa agcgtttgaa tcgatgaggc tacttgaatc gcactttggc 180  
gttgatgtgg tgactcctca ggacgagctg acgaacctct acgattcgat cttcgagaaa 240  
ttcgatacgg atcaaagcgg ttctgtggat ctggaggagt ttagatcgga gatgaagaag 300  
atcgtgcttg cgattgctga tgggcttgga tcttgtccga ttacgatggt gttgatgat 360  
gatgatgata atttcttgaa aaaagctgcg gatttggaag cttccaagct tgagaaagct 420  
tcttcgtaa 429

&lt;210&gt; 2568

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2568

Met Gly Val Val Leu Ile Asp Gly Ser Thr Val Arg Ser Phe Val Asp  
1 5 10 15

Asp Glu Glu Gln Phe Lys Lys Ser Val Asp Glu Arg Phe Ala Ala Leu  
20 25 30

Asp Leu Asn Lys Asp Gly Val Leu Ser Arg Ser Glu Leu Arg Lys Ala  
35 40 45

Phe Glu Ser Met Arg Leu Leu Glu Ser His Phe Gly Val Asp Val Val  
50 55 60

Thr Pro Gln Asp Glu Leu Thr Asn Leu Tyr Asp Ser Ile Phe Glu Lys  
65 70 75 80

Phe Asp Thr Asp Gln Ser Gly Ser Val Asp Leu Glu Glu Phe Arg Ser  
85 90 95

Glu Met Lys Lys Ile Val Leu Ala Ile Ala Asp Gly Leu Gly Ser Cys  
100 105 110

Pro Ile Thr Met Val Leu Asp Asp Asp Asp Asn Phe Leu Lys Lys  
115 120 125

Ala Ala Asp Leu Glu Ala Ser Lys Leu Glu Lys Ala Ser Ser  
130 135 140

&lt;210&gt; 2569

&lt;211&gt; 885

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2569

atgatggacc taacgaaact gaagcctcca cagatcactt tttattgctc ggcgttttcc 60

047-E2F-PCT.ST25.txt

```

gtcttgctca cacttcattt cacgatacag cttgtatcgc agcatctctt ccactggaag 120
aaccctaagg aacaaaaggc tatactcatc attgtgctta tggctcctat ctacgccgtt 180
gtttccttta ttggtttgtt agaagtcaaa ggaagtgaag ccttcttcct ctttcttgaa 240
tccatcaaag aatgctacga agctcttgtc attgccaaat tcttggcatt gatgtatagt 300
tatctaaaca tatctatgag caaaaacatt ttgcctgatg gaatcaaagg aagagagatt 360
caccattctt tcccaatgac tctttttcag cctcatgtag tccgtttgga tcgtcacact 420
cttaaacttt tgaaatactg gacatggcaa tttgtggtca ttcgaccctg gtgctccact 480
ttgatgatag ctttacagct catcgggttt tatccttcat gggtgagctg gacattcact 540
atcattgtca atttctcggg tctcttggcc ttgtattctc ttgtgatatt ctacatgtg 600
tttgctaagg agcttgctcc tcataatcca ctgcaaagt tcctctgcat caaaggaatt 660
gtcttctttg tcttttgga gggaaatagca ctagacatac tgggtggcaat gggattcata 720
aaatctcacc atttctgggt ggaggtagaa caaatccaag aagcaattca gaatgtgttg 780
gtatgtcttg agatggttat cttcgtgctg gttcagaaac acgcttatca tgctggtcct 840
tatagcggcg agaccaagaa gaaactcgat aaaaagaccg aatga 885

```

<210> 2570

<211> 294

<212> PRT

<213> Arabidopsis thaliana

<400> 2570

Met Met Asp Leu Thr Lys Leu Lys Pro Pro Gln Ile Thr Phe Tyr Cys  
1 5 10 15

Ser Ala Phe Ser Val Leu Leu Thr Leu His Phe Thr Ile Gln Leu Val  
20 25 30

Ser Gln His Leu Phe His Trp Lys Asn Pro Lys Glu Gln Lys Ala Ile  
35 40 45

Leu Ile Ile Val Leu Met Ala Pro Ile Tyr Ala Val Val Ser Phe Ile  
50 55 60

Gly Leu Leu Glu Val Lys Gly Ser Glu Thr Phe Phe Leu Phe Leu Glu  
65 70 75 80

Ser Ile Lys Glu Cys Tyr Glu Ala Leu Val Ile Ala Lys Phe Leu Ala  
85 90 95



047-E2F-PCT.ST25.txt

Leu Met Tyr Ser Tyr Leu Asn Ile Ser Met Ser Lys Asn Ile Leu Pro  
100 105 110

Asp Gly Ile Lys Gly Arg Glu Ile His His Ser Phe Pro Met Thr Leu  
115 120 125

Phe Gln Pro His Val Val Arg Leu Asp Arg His Thr Leu Lys Leu Leu  
130 135 140

Lys Tyr Trp Thr Trp Gln Phe Val Val Ile Arg Pro Val Cys Ser Thr  
145 150 155 160

Leu Met Ile Ala Leu Gln Leu Ile Gly Phe Tyr Pro Ser Trp Leu Ser  
165 170 175

Trp Thr Phe Thr Ile Ile Val Asn Phe Ser Val Ser Leu Ala Leu Tyr  
180 185 190

Ser Leu Val Ile Phe Tyr His Val Phe Ala Lys Glu Leu Ala Pro His  
195 200 205

Asn Pro Leu Ala Lys Phe Leu Cys Ile Lys Gly Ile Val Phe Phe Val  
210 215 220

Phe Trp Gln Gly Ile Ala Leu Asp Ile Leu Val Ala Met Gly Phe Ile  
225 230 235 240

Lys Ser His His Phe Trp Leu Glu Val Glu Gln Ile Gln Glu Ala Ile  
245 250 255

Gln Asn Val Leu Val Cys Leu Glu Met Val Ile Phe Ala Ala Val Gln  
260 265 270

Lys His Ala Tyr His Ala Gly Pro Tyr Ser Gly Glu Thr Lys Lys Lys  
275 280 285

Leu Asp Lys Lys Thr Glu  
290

<210> 2571

<211> 303

<212> DNA

<213> Arabidopsis thaliana

047-E2F-PCT.ST25.txt

<400> 2571  
 atggaattca cgcgagagca gctaagccaa tacaacggca cgcacgaatc aaagccgatac 60  
 tacgtcgcaa tcaaaggccg tgtgttcgat gtcaccaccg gaaaatcctt ctacggctcc 120  
 ggaggcgatt actcgatggt cgccggaaaa gacgcgagca gagctttggg taagatgagt 180  
 aagaacgaag aagatgtgtc tccttctctt gaagggtctca ctgagaaaga gatcaatact 240  
 cttaatgatt gggagaccaa atttgaagct aagtatcctg tcgttggccg tgttgtctct 300  
 tag 303

<210> 2572

<211> 100

<212> PRT

<213> Arabidopsis thaliana

<400> 2572

Met Glu Phe Thr Ala Glu Gln Leu Ser Gln Tyr Asn Gly Thr Asp Glu  
 1 5 10 15  
 Ser Lys Pro Ile Tyr Val Ala Ile Lys Gly Arg Val Phe Asp Val Thr  
 20 25 30  
 Thr Gly Lys Ser Phe Tyr Gly Ser Gly Gly Asp Tyr Ser Met Phe Ala  
 35 40 45  
 Gly Lys Asp Ala Ser Arg Ala Leu Gly Lys Met Ser Lys Asn Glu Glu  
 50 55 60  
 Asp Val Ser Pro Ser Leu Glu Gly Leu Thr Glu Lys Glu Ile Asn Thr  
 65 70 75 80  
 Leu Asn Asp Trp Glu Thr Lys Phe Glu Ala Lys Tyr Pro Val Val Gly  
 85 90 95  
 Arg Val Val Ser  
 100

<210> 2573

<211> 372

<212> DNA

<213> Arabidopsis thaliana

<400> 2573  
 atggctggtc ttatgaagtt aggatgcttg gtctttgtct tcgtgattgc ggccggtcca 60  
 atcacagcaa aggcggctct gagctgtggc gaagttaaca gcaatttgaa accgtgcact 120  
 ggctacttga ccaatggtgg tatcactagc ccaggccac agtgctgcaa tgggtgtaga 180  
 aagcttaacg gcatggctct tacaacccta gaccgtcggc aagcatgtcg ttgcattaaa 240  
 aatgccgcta gaaacgtcgg ccctgggtctc aacgctgacc gtgctgctgg gattcctagg 300  
 agatgcggaa tcaaaatacc ttacagtacc caaatcaggt tcaacaccaa gtgcaacacg 360  
 tacatatgtt aa 372

<210> 2574  
 <211> 123  
 <212> PRT  
 <213> Arabidopsis thaliana

<400> 2574  
 Met Ala Gly Leu Met Lys Leu Gly Cys Leu Val Phe Val Phe Val Ile  
 1 5 10 15  
 Ala Ala Gly Pro Ile Thr Ala Lys Ala Ala Leu Ser Cys Gly Glu Val  
 20 25 30  
 Asn Ser Asn Leu Lys Pro Cys Thr Gly Tyr Leu Thr Asn Gly Gly Ile  
 35 40 45  
 Thr Ser Pro Gly Pro Gln Cys Cys Asn Gly Val Arg Lys Leu Asn Gly  
 50 55 60  
 Met Val Leu Thr Thr Leu Asp Arg Arg Gln Ala Cys Arg Cys Ile Lys  
 65 70 75 80  
 Asn Ala Ala Arg Asn Val Gly Pro Gly Leu Asn Ala Asp Arg Ala Ala  
 85 90 95  
 Gly Ile Pro Arg Arg Cys Gly Ile Lys Ile Pro Tyr Ser Thr Gln Ile  
 100 105 110  
 Arg Phe Asn Thr Lys Cys Asn Thr Tyr Ile Cys  
 115 120

<210> 2575

&lt;211&gt; 864

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2575

```

atggcttcat ctgcatttgc gtttccttct tacataataa ccaaaggagc ctcaacagat    60
tctttcaaata caacttctct gtcttcttct cgatcttttg ttacagattt ccatcttttg   120
ttctccagac ccatctcttc cggtcctaaa taccaatctg ccaagtccgc taaaccggaa   180
tctccagtcg ccataaactg cttaaccgat gccaaacagg tttgtgcagt tgggaggagg   240
aagagcatga tgatgggctt gctcatgtct ggtttaatag tttcacaagc caatcttcca   300
acagcatttg cttcaactcc agtgtttaga gaatacatag atacatttga tggatactcc   360
ttcaagtacc ctcaaaattg gatccaagtc cgaggagctg gtgctgatat attctttaga   420
gacctgttg tcctcgacga gaacctttca gtcgagtttt cttcgcttcc ttcctcaaata   480
tacacgtcac ttgaagactt gggatcccct gaagaagtag gaaagagagt acttagacag   540
tacttgactg agtttatgtc cactagactc ggggttaagc gccaggccaa cattctaagc   600
acttcctcta gagttgcaga tgatggtaaa ctctactacc aagttgaggt gaacataaag   660
tcatacgcaa acaacaacga gctagctgtg atgccacaag atcgagtggc tcgtttggaa   720
tggaaccggc gctaccttgc agttctagga gttgagaacg atagactcta ttcaattaga   780
ctccaaacac ccgagaaagt tttcctggaa gaagaaaaag atctaagaag agtcatggat   840
tcgttttaggg tcgagaagat ttag                                     864

```

&lt;210&gt; 2576

&lt;211&gt; 287

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2576

```

Met Ala Ser Ser Ala Phe Ala Phe Pro Ser Tyr Ile Ile Thr Lys Gly
1           5           10          15

Ala Ser Thr Asp Ser Phe Lys Ser Thr Ser Leu Ser Ser Ser Arg Ser
          20          25          30

Leu Val Thr Asp Phe His Leu Leu Phe Ser Arg Pro Ile Ser Ser Gly
          35          40          45

```

047-E2F-PCT.ST25.txt

Pro Lys Tyr Gln Ser Ala Lys Ser Ala Lys Pro Glu Ser Pro Val Ala  
50 55 60

Ile Asn Cys Leu Thr Asp Ala Lys Gln Val Cys Ala Val Gly Arg Arg  
65 70 75 80

Lys Ser Met Met Met Gly Leu Leu Met Ser Gly Leu Ile Val Ser Gln  
85 90 95

Ala Asn Leu Pro Thr Ala Phe Ala Ser Thr Pro Val Phe Arg Glu Tyr  
100 105 110

Ile Asp Thr Phe Asp Gly Tyr Ser Phe Lys Tyr Pro Gln Asn Trp Ile  
115 120 125

Gln Val Arg Gly Ala Gly Ala Asp Ile Phe Phe Arg Asp Pro Val Val  
130 135 140

Leu Asp Glu Asn Leu Ser Val Glu Phe Ser Ser Pro Ser Ser Ser Asn  
145 150 155 160

Tyr Thr Ser Leu Glu Asp Leu Gly Ser Pro Glu Glu Val Gly Lys Arg  
165 170 175

Val Leu Arg Gln Tyr Leu Thr Glu Phe Met Ser Thr Arg Leu Gly Val  
180 185 190

Lys Arg Gln Ala Asn Ile Leu Ser Thr Ser Ser Arg Val Ala Asp Asp  
195 200 205

Gly Lys Leu Tyr Tyr Gln Val Glu Val Asn Ile Lys Ser Tyr Ala Asn  
210 215 220

Asn Asn Glu Leu Ala Val Met Pro Gln Asp Arg Val Ala Arg Leu Glu  
225 230 235 240

Trp Asn Arg Arg Tyr Leu Ala Val Leu Gly Val Glu Asn Asp Arg Leu  
245 250 255

Tyr Ser Ile Arg Leu Gln Thr Pro Glu Lys Val Phe Leu Glu Glu Glu  
260 265 270

Lys Asp Leu Arg Arg Val Met Asp Ser Phe Arg Val Glu Lys Ile  
275 280 285

<210> 2577

&lt;211&gt; 2820

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2577

```

atgggggtttg ttgttgctgc ttccattgca gcagttactg ttaagcggct caacgttaaa      60
ccctccaaac caagcaaacc atcagataat ggcgaaggag gcgacaaaga acagtctgtg      120
gatcccgact acaatctcaa tgacaagaat aaagagagga aatatgaagt cgagatggct      180
tataacgatg gtgagctcga acggttaaag caattagtta aggagctaga agaaagagaa      240
gtgaaacttg aaggtgaatt actcgagtat tatggactta aagagcaaga atcagatatc      300
gttgagttac aaagacagct caagatcaag actgttgaga ttgatatgtt aaacatcact      360
attaattctc tgcaagctga gagaaaaaag cttcaagaag agctctcaca aaacgggtatt      420
gtaagaaagg agcttgaagt ggcgagaaac aagatcaagg agttgcagag gcaaattcaa      480
ctcgatgcta accagacgaa aggacagtta ctgttgctta agcagcatgt atcaagtctt      540
caaatgaaag aagaagaagc tatgaataaa gatactgaag ttgagaggaa gcttaaagct      600
gtacaggatt tggaagtgca agttatggaa ctcaagagaa aaaatagaga gcttcaacat      660
gagaagagag agttatccat taaactcgat tcagcgggaag caagaattgc aactctttca      720
aacatgactg agagcgataa agtggcgaaa gttagagaag aggttaacaa tttgaagcat      780
aacaatgagg atttgttaaa gcaagtggaa gggcttcaaa tgaatagggt tagtgaagtt      840
gaggaattgg tttatctacg ttgggtcaat gcatgtttac ggtatgagtt aagaaactac      900
cagacaccag ctggtaaaat ctgagctcgt gacttaagca agaacctaaag cccaagtcc      960
caagcaaaag caaaacggtt aatgttagag tatgctgggt cagagcgtgg ccaaggagat     1020
accgacttag aaagcaacta ttctcaacct tcatctccgg gaagcgatga tttcgataat     1080
gcttcaatgg atagttccac aagtaggttt agtagtttta gcaagaagcc aggattgatt     1140
cagaaactta agaaatgggg caaaagcaag gatgattcaa gcgttcaatc atcgccttca     1200
agatcatttt acggaggatc accgggaaga cttagctcga gtatgaataa acagagaggt     1260
cctttagaat ctttgatgat tagaaacgct ggtgaatccg tagccataac aacatttggt     1320
caagtggatc aagaatctcc tggtaccctt gaaacaccga atcttccaag aatcagaaca     1380
caacaacaag cttcttctcc gggtgagggt ttgaattccg ttgcagcatc gttccacgtg     1440
atgtctaaat cggttgacaa tgttttggat gagaagtatc ctgcgtacaa agacaggcat     1500
aagttggcag ttgaaagaga gaagcacatt aagcataaag cagatcaagc aagagcagag     1560
agatttggcg gtaatgtggc tttagcctcct aaacttgctc aactaaagga gaaaagggtt     1620

```

047-E2F-PCT.ST25.txt

gttgttccct ctgtgatcac agccacaggt gatcagtcta acgagtcaaa tgaatctaac 1680  
 gaaggtaaag ccagcgaaaa cgctgcaacc gtaacaaaaa tgaagcttgt agacattgag 1740  
 aaacgacctc ctagagtacc tcgcccgcct ccaagatcag ctggaggtgg taaaagtact 1800  
 aacttgccct cagcaagacc tcctttacct ggtggtggtc caccaccacc tcctccacca 1860  
 cctggcggtg gaccgcctcc tccacctggc ggtggaccac ctccaccacc acctcctcct 1920  
 ggagcacttg gaagaggagc gggaggcggg aacaaagttc accgagctcc tgagcttggt 1980  
 gagttttatc aatcattgat gaaacgtgaa tcgaagaaag aaggtgcacc ttctttgatc 2040  
 tcttcaggaa ctggtaatc ttcagcagct aggaacaata tgattgggga aatcgagaac 2100  
 cgatcaacat tcctcttagc agtaaaagcg gatgtggaga cacaagggga ctttgtacag 2160  
 tcgttagcaa ctgaagtccg agcttcttct ttcaccgaca tagaagatct cttggcgttc 2220  
 gttagctggc tagatgaaga gctctccttc ttggttgatg aaagggcagt tcttaaacac 2280  
 tttgactggc cagaaggtaa agctgatgag ctacgagaag cagcttttga atatcaagat 2340  
 cttatgaaac tggagaagca agttacgtcc tttgttgatg atcctaatact ctcttgtaaa 2400  
 cctgctttga agaagatgta caagttgcta gagaagggtg aacaaagtgt atacgcgctt 2460  
 ttacgtacga gagacatggc gatttcacga tataaagaat tcgggattcc agttgattgg 2520  
 ttatctgata ctggcgctcg aggaaagatc aagctttcgt cagtccagct cggaagaag 2580  
 tacatgaaac gagtagctta tgagctagat tcagtgagcg gatccgataa agatccgaac 2640  
 agagagttct tgcttctcca aggtgttcgt ttcgcgttta gagtccatca gtttgctgga 2700  
 gggtttgatg cagagagcat gaaagcattt gaggaactta gaagcagagc caaaactgaa 2760  
 agtggagaca ataataataa taataataat aatagcaatg aagaagaatc tgtaaaactga 2820

<210> 2578

<211> 939

<212> PRT

<213> Arabidopsis thaliana

<400> 2578

Met Gly Phe Val Val Ala Ala Ser Ile Ala Ala Val Thr Val Lys Arg  
 1 5 10 15

Leu Asn Val Lys Pro Ser Lys Pro Ser Lys Pro Ser Asp Asn Gly Glu  
 20 25 30

Gly Gly Asp Lys Glu Gln Ser Val Asp Pro Asp Tyr Asn Leu Asn Asp  
 Page 3609

35

40

45

Lys Asn Lys Glu Arg Lys Tyr Glu Val Glu Met Ala Tyr Asn Asp Gly  
 50 55 60  
 Glu Leu Glu Arg Leu Lys Gln Leu Val Lys Glu Leu Glu Glu Arg Glu  
 65 70 75 80  
 Val Lys Leu Glu Gly Glu Leu Leu Glu Tyr Tyr Gly Leu Lys Glu Gln  
 85 90 95  
 Glu Ser Asp Ile Val Glu Leu Gln Arg Gln Leu Lys Ile Lys Thr Val  
 100 105 110  
 Glu Ile Asp Met Leu Asn Ile Thr Ile Asn Ser Leu Gln Ala Glu Arg  
 115 120 125  
 Lys Lys Leu Gln Glu Glu Leu Ser Gln Asn Gly Ile Val Arg Lys Glu  
 130 135 140  
 Leu Glu Val Ala Arg Asn Lys Ile Lys Glu Leu Gln Arg Gln Ile Gln  
 145 150 155 160  
 Leu Asp Ala Asn Gln Thr Lys Gly Gln Leu Leu Leu Lys Gln His  
 165 170 175  
 Val Ser Ser Leu Gln Met Lys Glu Glu Glu Ala Met Asn Lys Asp Thr  
 180 185 190  
 Glu Val Glu Arg Lys Leu Lys Ala Val Gln Asp Leu Glu Val Gln Val  
 195 200 205  
 Met Glu Leu Lys Arg Lys Asn Arg Glu Leu Gln His Glu Lys Arg Glu  
 210 215 220  
 Leu Ser Ile Lys Leu Asp Ser Ala Glu Ala Arg Ile Ala Thr Leu Ser  
 225 230 235 240  
 Asn Met Thr Glu Ser Asp Lys Val Ala Lys Val Arg Glu Glu Val Asn  
 245 250 255  
 Asn Leu Lys His Asn Asn Glu Asp Leu Leu Lys Gln Val Glu Gly Leu  
 260 265 270  
 Gln Met Asn Arg Phe Ser Glu Val Glu Glu Leu Val Tyr Leu Arg Trp  
 275 280 285



047-E2F-PCT.ST25.txt

Val Asn Ala Cys Leu Arg Tyr Glu Leu Arg Asn Tyr Gln Thr Pro Ala  
290 295 300

Gly Lys Ile Ser Ala Arg Asp Leu Ser Lys Asn Leu Ser Pro Lys Ser  
305 310 315 320

Gln Ala Lys Ala Lys Arg Leu Met Leu Glu Tyr Ala Gly Ser Glu Arg  
325 330 335

Gly Gln Gly Asp Thr Asp Leu Glu Ser Asn Tyr Ser Gln Pro Ser Ser  
340 345 350

Pro Gly Ser Asp Asp Phe Asp Asn Ala Ser Met Asp Ser Ser Thr Ser  
355 360 365

Arg Phe Ser Ser Phe Ser Lys Lys Pro Gly Leu Ile Gln Lys Leu Lys  
370 375 380

Lys Trp Gly Lys Ser Lys Asp Asp Ser Ser Val Gln Ser Ser Pro Ser  
385 390 395 400

Arg Ser Phe Tyr Gly Gly Ser Pro Gly Arg Leu Ser Ser Ser Met Asn  
405 410 415

Lys Gln Arg Gly Pro Leu Glu Ser Leu Met Ile Arg Asn Ala Gly Glu  
420 425 430

Ser Val Ala Ile Thr Thr Phe Gly Gln Val Asp Gln Glu Ser Pro Gly  
435 440 445

Thr Pro Glu Thr Pro Asn Leu Pro Arg Ile Arg Thr Gln Gln Gln Ala  
450 455 460

Ser Ser Pro Gly Glu Gly Leu Asn Ser Val Ala Ala Ser Phe His Val  
465 470 475 480

Met Ser Lys Ser Val Asp Asn Val Leu Asp Glu Lys Tyr Pro Ala Tyr  
485 490 495

Lys Asp Arg His Lys Leu Ala Val Glu Arg Glu Lys His Ile Lys His  
500 505 510

Lys Ala Asp Gln Ala Arg Ala Glu Arg Phe Gly Gly Asn Val Ala Leu  
515 520 525

Pro Pro Lys Leu Ala Gln Leu Lys Glu Lys Arg Val Val Val Pro Ser  
530 535 540

## 047-E2F-PCT.ST25.txt

Val Ile Thr Ala Thr Gly Asp Gln Ser Asn Glu Ser Asn Glu Ser Asn  
 545 550 555 560  
 Glu Gly Lys Ala Ser Glu Asn Ala Ala Thr Val Thr Lys Met Lys Leu  
 565 570 575  
 Val Asp Ile Glu Lys Arg Pro Pro Arg Val Pro Arg Pro Pro Pro Arg  
 580 585 590  
 Ser Ala Gly Gly Gly Lys Ser Thr Asn Leu Pro Ser Ala Arg Pro Pro  
 595 600 605  
 Leu Pro Gly Gly Gly Pro Pro Pro Pro Pro Pro Pro Gly Gly Gly  
 610 615 620  
 Pro Pro Pro Pro Pro Gly Gly Gly Pro Pro Pro Pro Pro Pro Pro Pro  
 625 630 635 640  
 Gly Ala Leu Gly Arg Gly Ala Gly Gly Gly Asn Lys Val His Arg Ala  
 645 650 655  
 Pro Glu Leu Val Glu Phe Tyr Gln Ser Leu Met Lys Arg Glu Ser Lys  
 660 665 670  
 Lys Glu Gly Ala Pro Ser Leu Ile Ser Ser Gly Thr Gly Asn Ser Ser  
 675 680 685  
 Ala Ala Arg Asn Asn Met Ile Gly Glu Ile Glu Asn Arg Ser Thr Phe  
 690 695 700  
 Leu Leu Ala Val Lys Ala Asp Val Glu Thr Gln Gly Asp Phe Val Gln  
 705 710 715 720  
 Ser Leu Ala Thr Glu Val Arg Ala Ser Ser Phe Thr Asp Ile Glu Asp  
 725 730 735  
 Leu Leu Ala Phe Val Ser Trp Leu Asp Glu Glu Leu Ser Phe Leu Val  
 740 745 750  
 Asp Glu Arg Ala Val Leu Lys His Phe Asp Trp Pro Glu Gly Lys Ala  
 755 760 765  
 Asp Ala Leu Arg Glu Ala Ala Phe Glu Tyr Gln Asp Leu Met Lys Leu  
 770 775 780  
 Glu Lys Gln Val Thr Ser Phe Val Asp Asp Pro Asn Leu Ser Cys Glu  
 785 790 795 800

047-E2F-PCT.ST25.txt

Pro Ala Leu Lys Lys Met Tyr Lys Leu Leu Glu Lys Val Glu Gln Ser  
805 810 815

Val Tyr Ala Leu Leu Arg Thr Arg Asp Met Ala Ile Ser Arg Tyr Lys  
820 825 830

Glu Phe Gly Ile Pro Val Asp Trp Leu Ser Asp Thr Gly Val Val Gly  
835 840 845

Lys Ile Lys Leu Ser Ser Val Gln Leu Ala Lys Lys Tyr Met Lys Arg  
850 855 860

Val Ala Tyr Glu Leu Asp Ser Val Ser Gly Ser Asp Lys Asp Pro Asn  
865 870 875 880

Arg Glu Phe Leu Leu Leu Gln Gly Val Arg Phe Ala Phe Arg Val His  
885 890 895

Gln Phe Ala Gly Gly Phe Asp Ala Glu Ser Met Lys Ala Phe Glu Glu  
900 905 910

Leu Arg Ser Arg Ala Lys Thr Glu Ser Gly Asp Asn Asn Asn Asn Asn  
915 920 925

Asn Asn Asn Ser Asn Glu Glu Glu Ser Val Asn  
930 935

<210> 2579

<211> 402

<212> DNA

<213> Arabidopsis thaliana

<400> 2579

atggcggaaa aagctgtcac tatcaggacc agaaacttca tgaccaacag gcttctcgcc	60
agaaagcaat tcgttattga tgttcttcat cctggaagag ccaatgtttc aaaggctgag	120
cttaaggaga aattggcgag gatgtatgag gttaaggacc caaatgctat cttctgtttc	180
aagttcagaa ctcacttttg aggtggtaaa tcttctggat atggtttgat ctatgatact	240
gtcgagaacg ctaagaagtt tgagcctaag tacagactta tcaggaatgg acttgacacc	300
aagattgaga aatcaaggaa acagatcaag gagaggaaga acagggcgaa gaagatccgt	360
ggtgttaaga agaccaaggc tggtgatacc aagaagaagt aa	402

&lt;210&gt; 2580

&lt;211&gt; 133

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2580

Met Ala Glu Lys Ala Val Thr Ile Arg Thr Arg Asn Phe Met Thr Asn  
 1 5 10 15

Arg Leu Leu Ala Arg Lys Gln Phe Val Ile Asp Val Leu His Pro Gly  
 20 25 30

Arg Ala Asn Val Ser Lys Ala Glu Leu Lys Glu Lys Leu Ala Arg Met  
 35 40 45

Tyr Glu Val Lys Asp Pro Asn Ala Ile Phe Cys Phe Lys Phe Arg Thr  
 50 55 60

His Phe Gly Gly Gly Lys Ser Ser Gly Tyr Gly Leu Ile Tyr Asp Thr  
 65 70 75 80

Val Glu Asn Ala Lys Lys Phe Glu Pro Lys Tyr Arg Leu Ile Arg Asn  
 85 90 95

Gly Leu Asp Thr Lys Ile Glu Lys Ser Arg Lys Gln Ile Lys Glu Arg  
 100 105 110

Lys Asn Arg Ala Lys Lys Ile Arg Gly Val Lys Lys Thr Lys Ala Gly  
 115 120 125

Asp Thr Lys Lys Lys  
 130

&lt;210&gt; 2581

&lt;211&gt; 297

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2581

atggctatca gaatttctcg agtgctgcaa tcatcaaagc aacttctaaa atcgttgtca 60

cactcatcaa acaatgtcgc tatttctaaa ggacaccttg cggtttacgt aggagagatg 120

047-E2F-PCT.ST25.txt

atgcagaaga ggagattcgt ggttccagtg acataacttaa gtcacccttg ttttcaaaag 180  
 cttctaagaa aagcagaaga agagtttggg ttgatcacc caatgggtgg cctcactatt 240  
 ccctgcactg aacaaatctt catcgatctc gcctctcgcc ttagcacttc atcgtga 297

<210> 2582

<211> 98

<212> PRT

<213> Arabidopsis thaliana

<400> 2582

Met Ala Ile Arg Ile Ser Arg Val Leu Gln Ser Ser Lys Gln Leu Leu  
 1 5 10 15

Lys Ser Leu Ser His Ser Ser Asn Asn Val Ala Ile Pro Lys Gly His  
 20 25 30

Leu Ala Val Tyr Val Gly Glu Met Met Gln Lys Arg Arg Phe Val Val  
 35 40 45

Pro Val Thr Tyr Leu Ser His Pro Cys Phe Gln Lys Leu Leu Arg Lys  
 50 55 60

Ala Glu Glu Glu Phe Gly Phe Asp His Pro Met Gly Gly Leu Thr Ile  
 65 70 75 80

Pro Cys Thr Glu Gln Ile Phe Ile Asp Leu Ala Ser Arg Leu Ser Thr  
 85 90 95

Ser Ser

<210> 2583

<211> 1008

<212> DNA

<213> Arabidopsis thaliana

<400> 2583

atgacgtctg acggagcaac gtcgacgtca gctgcagctg cagcagcagc gatggcgacg 60

aggaggaaac cgtcgtggag agagagggag aacaatcgga gaagagagcg gcggagaaga 120

047-E2F-PCT.ST25.txt

gctgttgccg cgaagattta tactgggtctt agagctcaag gtaactacaa tcttccaaaa 180  
cattgtgaca acaatgaggt tcttaaggct ctttgttctg aagctgggtg gggtgttgaa 240  
gaagacggaa ctacttatcg caagggacac aagcctctac ctggtgacat ggctggatca 300  
tcttctcgag caactcctta ctcttcccat aaccaaagtc ctctttcttc cacttttgat 360  
agccccatct tatcttacca agtcagtcct tcctcttctt cattcccgag tccttctcga 420  
gttggtgata cacacaatat ctccacaatc ttccctttcc tcaggaatgg tggatttcct 480  
tcatacgcttc ctccacttag aatctcaaac agtgctcctg tcaactccacc agtgatcatcc 540  
ccaacttcta gaaaccccaa accattgcct acttggggaat cttttaccaa acaatccatg 600  
tccatggctg ctaaacagtc aatgacttct ttgaactacc cgttttatgc ggtgtctgca 660  
cctgccagtc ctactcatca tcgccagttc catgctccgg ctactatacc tgaatgtgat 720  
gagtctgact cttccactgt tgattctggg cattggataa gctttcaaaa gtttgcacaa 780  
caacagccat tctctgcctc tatggtgcca acctgccta ccttcaatct cgtgaaacct 840  
gcaccacagc aattgtctcc aaacacagca gcaatccaag agattgggtca aagctccgag 900  
tttaagtttg agaacagcca agttaagcca tgggaagggg agaggatcca tgatgtggct 960  
atggaggatc tagagctcac gcttggaat ggtaaagctc atagttga 1008

<210> 2584

<211> 335

<212> PRT

<213> Arabidopsis thaliana

<400> 2584

Met Thr Ser Asp Gly Ala Thr Ser Thr Ser Ala Ala Ala Ala Ala Ala  
1 5 10 15

Ala Met Ala Thr Arg Arg Lys Pro Ser Trp Arg Glu Arg Glu Asn Asn  
20 25 30

Arg Arg Arg Glu Arg Arg Arg Arg Ala Val Ala Ala Lys Ile Tyr Thr  
35 40 45

Gly Leu Arg Ala Gln Gly Asn Tyr Asn Leu Pro Lys His Cys Asp Asn  
50 55 60

Asn Glu Val Leu Lys Ala Leu Cys Ser Glu Ala Gly Trp Val Val Glu  
65 70 75 80

Glu Asp Gly Thr Thr Tyr Arg Lys Gly His Lys Pro Leu Pro Gly Asp  
 85 90 95  
 Met Ala Gly Ser Ser Ser Arg Ala Thr Pro Tyr Ser Ser His Asn Gln  
 100 105 110  
 Ser Pro Leu Ser Ser Thr Phe Asp Ser Pro Ile Leu Ser Tyr Gln Val  
 115 120 125  
 Ser Pro Ser Ser Ser Ser Phe Pro Ser Pro Ser Arg Val Gly Asp Pro  
 130 135 140  
 His Asn Ile Ser Thr Ile Phe Pro Phe Leu Arg Asn Gly Gly Ile Pro  
 145 150 155 160  
 Ser Ser Leu Pro Pro Leu Arg Ile Ser Asn Ser Ala Pro Val Thr Pro  
 165 170 175  
 Pro Val Ser Ser Pro Thr Ser Arg Asn Pro Lys Pro Leu Pro Thr Trp  
 180 185 190  
 Glu Ser Phe Thr Lys Gln Ser Met Ser Met Ala Ala Lys Gln Ser Met  
 195 200 205  
 Thr Ser Leu Asn Tyr Pro Phe Tyr Ala Val Ser Ala Pro Ala Ser Pro  
 210 215 220  
 Thr His His Arg Gln Phe His Ala Pro Ala Thr Ile Pro Glu Cys Asp  
 225 230 235 240  
 Glu Ser Asp Ser Ser Thr Val Asp Ser Gly His Trp Ile Ser Phe Gln  
 245 250 255  
 Lys Phe Ala Gln Gln Gln Pro Phe Ser Ala Ser Met Val Pro Thr Ser  
 260 265 270  
 Pro Thr Phe Asn Leu Val Lys Pro Ala Pro Gln Gln Leu Ser Pro Asn  
 275 280 285  
 Thr Ala Ala Ile Gln Glu Ile Gly Gln Ser Ser Glu Phe Lys Phe Glu  
 290 295 300  
 Asn Ser Gln Val Lys Pro Trp Glu Gly Glu Arg Ile His Asp Val Ala  
 305 310 315 320  
 Met Glu Asp Leu Glu Leu Thr Leu Gly Asn Gly Lys Ala His Ser  
 325 330 335

&lt;210&gt; 2585

&lt;211&gt; 615

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2585

```

atgtcaagtc ttcttaatat atctcactgt agctatcatg gatactcagg actcactagt      60
aggggaggca taaacactgt tgaaaaccat agatgggtct ggcacaacaa cggagtcagg    120
ttgtcgtttc caagagccga gtcttctata aacatcacta tgggttgtag gcttcagcgt    180
gggatagcaa aaagcttaag tcaggaaaac ctagtggagt tatctgatga aaatgatgat    240
ctatgtcctg tggagtgtgt cactgagttc aagacagatg atgaattgct tagcgttctt    300
gaaaagtcga aagaaactaa ttctttgggt gtggttgatt tttatcgcac tgcattgtggg    360
agttgtaaat acatagagca gggcttctca aaactgtgca agcaatctgg tgaccaagaa    420
gctcctgtta tcttccttaa gcataatgtg gtagatgaat atgatgaaca atctgaagtc    480
gcagaaaggc tccgtatcaa ggcggttcct ctcttccact tctacaaaaa cggagttctc    540
ttagaatcat ttgcaactag agacaaggag aggatcgacg cagctattct caaatataca    600
tcctcggaat cttga                                           615

```

&lt;210&gt; 2586

&lt;211&gt; 204

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2586

```

Met Ser Ser Leu Leu Asn Ile Ser His Cys Ser Tyr His Gly Tyr Ser
 1          5          10          15
Gly Leu Thr Ser Arg Gly Gly Ile Asn Thr Val Glu Asn His Arg Trp
          20          25          30
Val Trp His Asn Asn Gly Val Arg Leu Ser Phe Pro Arg Ala Glu Ser
          35          40          45
Ser Ile Asn Ile Thr Met Gly Cys Thr Leu Gln Arg Gly Ile Ala Lys
 50          55          60

```



047-E2F-PCT.ST25.txt

Ser Leu Ser Gln Glu Asn Leu Val Glu Leu Ser Asp Glu Asn Asp Asp  
65 70 75 80

Leu Cys Pro Val Glu Cys Val Thr Glu Phe Lys Thr Asp Asp Glu Leu  
85 90 95

Leu Ser Val Leu Glu Lys Ser Lys Glu Thr Asn Ser Leu Val Val Val  
100 105 110

Asp Phe Tyr Arg Thr Ala Cys Gly Ser Cys Lys Tyr Ile Glu Gln Gly  
115 120 125

Phe Ser Lys Leu Cys Lys Gln Ser Gly Asp Gln Glu Ala Pro Val Ile  
130 135 140

Phe Leu Lys His Asn Val Val Asp Glu Tyr Asp Glu Gln Ser Glu Val  
145 150 155 160

Ala Glu Arg Leu Arg Ile Lys Ala Val Pro Leu Phe His Phe Tyr Lys  
165 170 175

Asn Gly Val Leu Leu Glu Ser Phe Ala Thr Arg Asp Lys Glu Arg Ile  
180 185 190

Asp Ala Ala Ile Leu Lys Tyr Thr Ser Ser Glu Ser  
195 200

<210> 2587

<211> 597

<212> DNA

<213> Arabidopsis thaliana

<400> 2587

atggcgatgg caacatcgat gagtttgaat ctaattgggg cattcaaagg cttgtctctt	60
tcttcgactt cgtcttttct tagaggcgat ttgagttttt cccccaaaac ctctttcacg	120
gtgactcttc ctctggaaaa tcttcaagct ccgattccgt tgacaattga atcggcccat	180
aagaaaggag ctggtagcac caagaacggt cgtgattctc ctgggcaacg actcggcgtc	240
aagatctacg gtgaccaagt tgctaaacct ggtgctatca ttgttcgtca acgtggcact	300
aagttccatg ctgggaaaaa tgttgggatt ggtaaagatc ataccatctt ctctttaatc	360
gatggattag tcaagttcga gaagtttggc cctgacagga agaagataag tgtgtatcca	420
agagaaattg taccagagaa tcccaatagc tacagagcaa gaaagagaga aaacttcaga	480

ttgcaaaggg agaagaagaa ggcgagacgc gagaattact cgtacacact tcctacacca 540  
 gaacttggttc ttgcatctgc ctcagtcgat gatgctgaag ccaatccgga gtgctag 597

<210> 2588

<211> 198

<212> PRT

<213> Arabidopsis thaliana

<400> 2588

Met Ala Met Ala Thr Ser Met Ser Leu Asn Leu Ile Gly Ala Phe Lys  
 1 5 10 15

Gly Leu Ser Leu Ser Ser Thr Ser Ser Phe Leu Arg Gly Asp Leu Ser  
 20 25 30

Phe Ser Pro Lys Thr Ser Phe Thr Val Thr Leu Pro Leu Glu Asn Leu  
 35 40 45

Gln Ala Pro Ile Pro Leu Thr Ile Glu Ser Ala His Lys Lys Gly Ala  
 50 55 60

Gly Ser Thr Lys Asn Gly Arg Asp Ser Pro Gly Gln Arg Leu Gly Val  
 65 70 75 80

Lys Ile Tyr Gly Asp Gln Val Ala Lys Pro Gly Ala Ile Ile Val Arg  
 85 90 95

Gln Arg Gly Thr Lys Phe His Ala Gly Lys Asn Val Gly Ile Gly Lys  
 100 105 110

Asp His Thr Ile Phe Ser Leu Ile Asp Gly Leu Val Lys Phe Glu Lys  
 115 120 125

Phe Gly Pro Asp Arg Lys Lys Ile Ser Val Tyr Pro Arg Glu Ile Val  
 130 135 140

Pro Glu Asn Pro Asn Ser Tyr Arg Ala Arg Lys Arg Glu Asn Phe Arg  
 145 150 155 160

Leu Gln Arg Glu Lys Lys Lys Ala Arg Arg Glu Asn Tyr Ser Tyr Thr  
 165 170 175

Leu Pro Thr Pro Glu Leu Val Leu Ala Ser Ala Ser Val Asp Asp Ala  
 180 185 190

Glu Ala Asn Pro Glu Cys  
195

<210> 2589

<211> 198

<212> DNA

<213> Arabidopsis thaliana

<400> 2589  
atgccggtca tggagaaatt gaggatgttc gtggcgcagg aaccagttgt ggctgcttct 60  
tgcttaatcg gcggtgttgg actatTTTTg cctgcggttg tgaggcctat tctagactct 120  
ctcgaggctt ccaaacaagt taaagctcct ccacttaccg atgtgattgc tgggtgcaca 180  
gggaagaaac agagttaa 198

<210> 2590

<211> 65

<212> PRT

<213> Arabidopsis thaliana

<400> 2590

Met Pro Val Met Glu Lys Leu Arg Met Phe Val Ala Gln Glu Pro Val  
1 5 10 15

Val Ala Ala Ser Cys Leu Ile Gly Gly Val Gly Leu Phe Leu Pro Ala  
20 25 30

Val Val Arg Pro Ile Leu Asp Ser Leu Glu Ala Ser Lys Gln Val Lys  
35 40 45

Ala Pro Pro Leu Thr Asp Val Ile Ala Gly Val Thr Gly Lys Lys Gln  
50 55 60

Ser  
65

<210> 2591

<211> 1398

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2591

```

atggcttcca tgtccaccgt cttcccca aa ccaacctctt tcatctctca acctctaaca      60
aaatctcaca aatccgattc cgtaaccaca tccatttcat tcccttcgaa ttcgaaaact      120
cgtagcttaa gaaccatctc tgtacgagct ggcttaatcg agccagatgg tgggaaactt      180
gtggatcttg ttgtaccgga accgagacgg cgagagaaga aacacgaagc ggcggatttg      240
ccgagagtga gattgacggc gattgatttg caatggatgc atgtgttgag tgaaggttgg      300
gctagtcctc ttcgtgggtt tatgagggaa tctgagttcc tccaaactct tcatttcaat      360
ttgttgaatc tcgatgatgg gtctgttggt aatatgtctg tgcctattgt tcttgcgatt      420
gatgatcaac aaaaagccct aatcggtgaa tctaaacgtg tctcccttgt tgattctgat      480
gataatccaa tcgctattct caatgatatt gagatttata aacatccgaa agaagagcga      540
atagcgagaa cttgggggtac gactgcaccg ggtttgcctt atgtagaaga ggcgataacc      600
aatgctggag actggctcat tgggggtgat cttgagggtt tggaacctgt taagtacaat      660
gatgggcttg atcgtttcag gctttccccg tttgaactgc gtaaggagct agagaaacgt      720
gggtgcggatg cggctcttgc gtttcagctt aggaaccagc ttcataatgg acatgctctt      780
cttatgactg atactcgtag gagacttctt gagatgggtt ataaaaacc tatccttttg      840
cttcatccat tgggaggggt taaaaagct gatgatgttc ctctaagctg gcgaatgaaa      900
cagcacgaga aggtgctaga ggatggtgtt cttgatccag agactactgt ggtttccata      960
ttcccatctc caatgctcta tgctggtcca accgaagtcc aatggcacgc aaaggctagg     1020
atcaatgctg gtgctaactt ctacattgtc ggtagggatc cggctggaat gggctatccc     1080
gtggagaaac gtgatctgta cgatgctgat cacgggaaga aagttctaag catggctcct     1140
ggactcgaac gactcaacat tcttcctttc agggttgctg cgtacgataa gacacaagga     1200
aagatggctt tctttgatcc ctcaagggtc caggacttct tgttcatttc tggcactaag     1260
atgagagcat tggcaaagaa cagagagaac ccaccagatg gatttatgtg ccctggaggc     1320
tggaaggtcc ttgtggatta ctacgacagt ttgacactaa ccggaacac caaacttccg     1380
gaaaagattc cggtttaa                                     1398

```

&lt;210&gt; 2592

&lt;211&gt; 465

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2592

```

Met Ala Ser Met Ser Thr Val Phe Pro Lys Pro Thr Ser Phe Ile Ser
1      5      10     15

Gln Pro Leu Thr Lys Ser His Lys Ser Asp Ser Val Thr Thr Ser Ile
20     25     30

Ser Phe Pro Ser Asn Ser Lys Thr Arg Ser Leu Arg Thr Ile Ser Val
35     40     45

Arg Ala Gly Leu Ile Glu Pro Asp Gly Gly Lys Leu Val Asp Leu Val
50     55     60

Val Pro Glu Pro Arg Arg Arg Glu Lys Lys His Glu Ala Ala Asp Leu
65     70     75     80

Pro Arg Val Arg Leu Thr Ala Ile Asp Leu Gln Trp Met His Val Leu
85     90     95

Ser Glu Gly Trp Ala Ser Pro Leu Arg Gly Phe Met Arg Glu Ser Glu
100    105    110

Phe Leu Gln Thr Leu His Phe Asn Leu Leu Asn Leu Asp Asp Gly Ser
115    120    125

Val Val Asn Met Ser Val Pro Ile Val Leu Ala Ile Asp Asp Gln Gln
130    135    140

Lys Ala Leu Ile Gly Glu Ser Lys Arg Val Ser Leu Val Asp Ser Asp
145    150    155    160

Asp Asn Pro Ile Ala Ile Leu Asn Asp Ile Glu Ile Tyr Lys His Pro
165    170    175

Lys Glu Glu Arg Ile Ala Arg Thr Trp Gly Thr Thr Ala Pro Gly Leu
180    185    190

Pro Tyr Val Glu Glu Ala Ile Thr Asn Ala Gly Asp Trp Leu Ile Gly
195    200    205

Gly Asp Leu Glu Val Leu Glu Pro Val Lys Tyr Asn Asp Gly Leu Asp
210    215    220

Arg Phe Arg Leu Ser Pro Phe Glu Leu Arg Lys Glu Leu Glu Lys Arg
225    230    235    240

```

047-E2F-PCT.ST25.txt

Gly Ala Asp Ala Val Phe Ala Phe Gln Leu Arg Asn Pro Val His Asn  
245 250 255

Gly His Ala Leu Leu Met Thr Asp Thr Arg Arg Arg Leu Leu Glu Met  
260 265 270

Gly Tyr Lys Asn Pro Ile Leu Leu Leu His Pro Leu Gly Gly Phe Thr  
275 280 285

Lys Ala Asp Asp Val Pro Leu Ser Trp Arg Met Lys Gln His Glu Lys  
290 295 300

Val Leu Glu Asp Gly Val Leu Asp Pro Glu Thr Thr Val Val Ser Ile  
305 310 315 320

Phe Pro Ser Pro Met Leu Tyr Ala Gly Pro Thr Glu Val Gln Trp His  
325 330 335

Ala Lys Ala Arg Ile Asn Ala Gly Ala Asn Phe Tyr Ile Val Gly Arg  
340 345 350

Asp Pro Ala Gly Met Gly His Pro Val Glu Lys Arg Asp Leu Tyr Asp  
355 360 365

Ala Asp His Gly Lys Lys Val Leu Ser Met Ala Pro Gly Leu Glu Arg  
370 375 380

Leu Asn Ile Leu Pro Phe Arg Val Ala Ala Tyr Asp Lys Thr Gln Gly  
385 390 395 400

Lys Met Ala Phe Phe Asp Pro Ser Arg Ala Gln Asp Phe Leu Phe Ile  
405 410 415

Ser Gly Thr Lys Met Arg Ala Leu Ala Lys Asn Arg Glu Asn Pro Pro  
420 425 430

Asp Gly Phe Met Cys Pro Gly Gly Trp Lys Val Leu Val Asp Tyr Tyr  
435 440 445

Asp Ser Leu Thr Leu Thr Gly Asn Thr Lys Leu Pro Glu Lys Ile Pro  
450 455 460

Val  
465

<210> 2593

&lt;211&gt; 1926

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2593

```

atggaaggaa cttgttttct ccgtggacaa cctctcacia caataccctc tcttcccagc   60
agaaaagggg ttctttctcca aagatggaag accaatcgga ttgtcagggt ttcagggtttt  120
aagaatcact cggtttcttg aaagtcgagg tctttcgatc ttagcctcag agcttcagggt  180
cccattagag caagctctgt agtaacagaa gcaagcccta ccaacttaaa ttccaaagaa  240
gaagaccttg tctttgtagc cgggtgctact ggtaaagttg gttctagaac tgtgagagag  300
ctactgaagc tgggatttcg ggtagagct ggagttcgaa gtgctcagag agcaggaagt  360
cttgtgcaaa gtgttaagga aatgaagctc cagaacacag atgaaggaac tcaacctgta  420
gaaaagcttg aaattgtgga gtgtgacttg gagaagaaag attcaatata gcccgcatgtg  480
ggaaatgcat cggtgattat atgctgtatt ggtgctagcg agaaagagat ctccgatatt  540
accggtcctt acaggatcga ttacctagcc accaaaaacc ttgttgatgc tgcaacatca  600
gcaaaagtta ataacttcat tttggtgaca tccttgggga caaataaatt tggattttccc  660
gctgcgattc tcaacctatt ctggggagtt ctttgctgga agagaaaagc tgaagaagca  720
ttgattgaaa gcggtcttaa ttacgcaata gttagacctg gaggaatgga gagaccgact  780
gatgcataca aagaaactca taatctcact cttgctctag acgatacatt gtttggtggt  840
caggtctcaa atctccagggt tgcagagttg cttgcttgca tggcaaagaa tcctcaactt  900
tctttctcta agattgtgga agtgggttgc gaaacaactg caccattaac tccaattgaa  960
aagcttcttg aaaagattcc ttccaaacgg ccttatgtcc ctccaccgaa ggcattcagtt 1020
gcaaccaaag aggtcaaacc agtccctact aagcctgtca ctcaagaacc aacagctcct 1080
aaagaggatg aagcacctcc aaaagaaaaa aatgtgaaac ctaggccgct gtctccttat 1140
gcctcctacg aagacttgaa acctccaaca tctcctattc caaattcgac cacatcggtc 1200
agtccctgcca aatctaagga ggtagatgcc actcagggtc ctgttgaggc caatgtagtg 1260
ccagtgccag atagtacctc aaatgtccca gtagtagaag taaagcaagt tgaggaaaag 1320
aaagagaggc ctctttcccc ttatgcccgc tatgagaacc taaaaccacc ctcatcgccc 1380
tctcctacag cttcgagtac cagaaagagt gattctttgt cgcctggtcc aaccgattct 1440
gatactgata aaagctcaac agttgcaaaa actgtcactg agacggcagt tgcaacaagt 1500
gtcactgaga cctcagttgc aacaagtgt cctgagacag cagttgcaac gagtgtcact 1560
gagacagcag caccagccac atcaaaaatg aggcctcttt ctcttatgc aatttacgca 1620

```

gacctgaaac caccaacctc accaactcct gcatcaacag gtcccaagga agcagcatct 1680  
 gtagaagaca actcagagtt acctggaggc aataatgatg tgctgaaaac agttgatgga 1740  
 aatctgaaca caattccacc ttctacaccg gaagcagtac ctgttgtagg cagtgcgata 1800  
 gacacttccc ttgcttcagg agacaatata gctcagccaa agccaaggcc tttatcacct 1860  
 tacacaatgt acgcggacat gaagcctcca acatcaccac ttccatctcc agtcaccaat 1920  
 cattag 1926

<210> 2594

<211> 641

<212> PRT

<213> Arabidopsis thaliana

<400> 2594

Met Glu Gly Thr Cys Phe Leu Arg Gly Gln Pro Leu Thr Thr Ile Pro  
1 5 10 15

Ser Leu Pro Ser Arg Lys Gly Phe Leu Leu Gln Arg Trp Lys Thr Asn  
20 25 30

Arg Ile Val Arg Phe Ser Gly Phe Lys Asn His Ser Val Ser Gly Lys  
35 40 45

Ser Arg Ser Phe Asp Leu Ser Leu Arg Ala Ser Gly Pro Ile Arg Ala  
50 55 60

Ser Ser Val Val Thr Glu Ala Ser Pro Thr Asn Leu Asn Ser Lys Glu  
65 70 75 80

Glu Asp Leu Val Phe Val Ala Gly Ala Thr Gly Lys Val Gly Ser Arg  
85 90 95

Thr Val Arg Glu Leu Leu Lys Leu Gly Phe Arg Val Arg Ala Gly Val  
100 105 110

Arg Ser Ala Gln Arg Ala Gly Ser Leu Val Gln Ser Val Lys Glu Met  
115 120 125

Lys Leu Gln Asn Thr Asp Glu Gly Thr Gln Pro Val Glu Lys Leu Glu  
130 135 140

Ile Val Glu Cys Asp Leu Glu Lys Lys Asp Ser Ile Gln Pro Ala Leu  
145 150 155 160



047-E2F-PCT.ST25.txt

Gly Asn Ala Ser Val Ile Ile Cys Cys Ile Gly Ala Ser Glu Lys Glu  
 165 170 175  
 Ile Ser Asp Ile Thr Gly Pro Tyr Arg Ile Asp Tyr Leu Ala Thr Lys  
 180 185 190  
 Asn Leu Val Asp Ala Ala Thr Ser Ala Lys Val Asn Asn Phe Ile Leu  
 195 200 205  
 Val Thr Ser Leu Gly Thr Asn Lys Phe Gly Phe Pro Ala Ala Ile Leu  
 210 215 220  
 Asn Leu Phe Trp Gly Val Leu Cys Trp Lys Arg Lys Ala Glu Glu Ala  
 225 230 235 240  
 Leu Ile Glu Ser Gly Leu Asn Tyr Ala Ile Val Arg Pro Gly Gly Met  
 245 250 255  
 Glu Arg Pro Thr Asp Ala Tyr Lys Glu Thr His Asn Leu Thr Leu Ala  
 260 265 270  
 Leu Asp Asp Thr Leu Phe Gly Gly Gln Val Ser Asn Leu Gln Val Ala  
 275 280 285  
 Glu Leu Leu Ala Cys Met Ala Lys Asn Pro Gln Leu Ser Phe Ser Lys  
 290 295 300  
 Ile Val Glu Val Val Ala Glu Thr Thr Ala Pro Leu Thr Pro Ile Glu  
 305 310 315 320  
 Lys Leu Leu Glu Lys Ile Pro Ser Lys Arg Pro Tyr Val Pro Pro Pro  
 325 330 335  
 Lys Ala Ser Val Ala Thr Lys Glu Val Lys Pro Val Pro Thr Lys Pro  
 340 345 350  
 Val Thr Gln Glu Pro Thr Ala Pro Lys Glu Asp Glu Ala Pro Pro Lys  
 355 360 365  
 Glu Lys Asn Val Lys Pro Arg Pro Leu Ser Pro Tyr Ala Ser Tyr Glu  
 370 375 380  
 Asp Leu Lys Pro Pro Thr Ser Pro Ile Pro Asn Ser Thr Thr Ser Val  
 385 390 395 400  
 Ser Pro Ala Lys Ser Lys Glu Val Asp Ala Thr Gln Val Pro Val Glu  
 Page 3627

405

415

Ala Asn Val Val Pro Val Pro Asp Ser Thr Ser Asn Val Pro Val Val  
420 425 430

Glu Val Lys Gln Val Glu Glu Lys Lys Glu Arg Pro Leu Ser Pro Tyr  
435 440 445

Ala Arg Tyr Glu Asn Leu Lys Pro Pro Ser Ser Pro Ser Pro Thr Ala  
450 455 460

Ser Ser Thr Arg Lys Ser Asp Ser Leu Ser Pro Gly Pro Thr Asp Ser  
465 470 475 480

Asp Thr Asp Lys Ser Ser Thr Val Ala Lys Thr Val Thr Glu Thr Ala  
485 490 495

Val Ala Thr Ser Val Thr Glu Thr Ser Val Ala Thr Ser Val Pro Glu  
500 505 510

Thr Ala Val Ala Thr Ser Val Thr Glu Thr Ala Ala Pro Ala Thr Ser  
515 520 525

Lys Met Arg Pro Leu Ser Pro Tyr Ala Ile Tyr Ala Asp Leu Lys Pro  
530 535 540

Pro Thr Ser Pro Thr Pro Ala Ser Thr Gly Pro Lys Glu Ala Ala Ser  
545 550 555 560

Val Glu Asp Asn Ser Glu Leu Pro Gly Gly Asn Asn Asp Val Leu Lys  
565 570 575

Thr Val Asp Gly Asn Leu Asn Thr Ile Pro Pro Ser Thr Pro Glu Ala  
580 585 590

Val Pro Val Val Ser Ser Ala Ile Asp Thr Ser Leu Ala Ser Gly Asp  
595 600 605

Asn Thr Ala Gln Pro Lys Pro Arg Pro Leu Ser Pro Tyr Thr Met Tyr  
610 615 620

Ala Asp Met Lys Pro Pro Thr Ser Pro Leu Pro Ser Pro Val Thr Asn  
625 630 635 640

His

&lt;210&gt; 2595

&lt;211&gt; 1989

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2595

atggtttata	acatgagtga	agcttttgta	gcgagtgatg	agggactgac	atatgtagaa	60
aatggagaag	atgtgttccc	tgttgaagct	gttgcagcag	atgtttctcc	tgttgaagct	120
gttgtaccag	atgtttcccc	cattgaatgc	ctttctgctg	agactttaac	cgataagacc	180
agtagcctta	tagactctgt	tgaatcgga	accaatgcga	ctgttaaaat	atctccggat	240
agttcagtct	cacttcctga	tgcgaaagct	agctttgatg	acttttcttc	tgggctcaag	300
cagtccttca	gctcttctact	tcctgatgcg	aaagctagcg	ttgatgactt	ttcttctggg	360
gtcaaggagt	ccttcagctc	ttcacttaac	caaggagaaa	atgctgtaaa	gaacactttg	420
gagtccttct	cctcgtctgt	gacatccatt	acaaagaatg	cttctgaagt	tgtagatagt	480
gcagttaaca	gagcgttttc	tacgctagac	caaacgggag	atgtagctgg	agacaagttt	540
tcgagttttt	ctactggctt	gaaggaagct	tcaaacagag	cagctgttat	tgccattgat	600
ctgctgaggc	aatcagttag	tcttgagag	agatctgtaa	caaatggagt	ttcttttggt	660
gtgtactctt	atggatcagc	aaaagaatta	cttcctccag	atgtaaagag	tgcccttaac	720
tcgtcagaag	atgttgctct	aaaagtattg	agtcccgtgg	gagctgtatt	gcagcaggta	780
tctgttgcca	ttggagggtt	ggagagaaat	atcggtttgg	atccagatga	cccaatcctt	840
cacctttttc	tcttcgtagg	caccacagga	accttttggg	ttctatatcg	ggtttgga	900
tatggtggat	atgctggaga	tttgtctccc	aagtcaactc	tggacctttt	aaaatcaaga	960
gacaagtcag	tgctcataga	tgtcaggcct	gaagccttga	gagagaaaga	tggaatacct	1020
gatctgcgga	gatcagctcg	atttcgatat	tctagcgtga	cactgcctga	ggttgggttt	1080
agcatcctca	ttgttggtga	ccacagcgaa	tatagaaact	ctacacatgt	aatctatgaa	1140
cacaacgagg	tttcagcaat	cagtgaaca	gaagttgacg	gtgatgtcaa	acggctactg	1200
aaagggtggaa	gtgaagtaga	tgatatcttg	acagcagtaa	tcatcaagaa	cttgaaaata	1260
gttcaggaca	ggccaagggt	tgttgttatg	gatgctgatg	gaactcgttc	aaagggtggg	1320
tatagatcat	gggtacagga	aggtcttcgt	gtgaaagagc	caaaacctga	gacaacactt	1380
accatcctca	acgaggaagc	tgaggcgatt	tttgaggaca	taaatccctc	tccattgcaa	1440
ctattttggag	ttgaatatct	catattctcc	acaacacaca	agctcctcac	atccacgttt	1500
tgactaaca	tgattgctct	atctctcgca	gagtgggaga	aaacactgca	actcatagct	1560

047-E2F-PCT.ST25.txt

gtcatcggcc ttagtctgtt tcaaacatta tgcagactat atacctacga ctttcttcat 1620  
atgatgactc cgaagacttc aaacaagacg tcaggtataa aagcgccatc attagaccct 1680  
ttttccatag caaaaactca gcgaaacctc tgttctgtct taacaaagat tgtttcatct 1740  
tcttcttcaa ggctgttgct tgcacctgtg aaactcggag ctcaggcttt ctcgtgggct 1800  
gcaggaaaac tagaaacaaa tgggtgttggc ctcccaactt cgccttcttc ttcagatggt 1860  
cgaagccggg ttttgcaagc tgctgctaag catgaatcga aaccctctga tgaaacttct 1920  
gaaagtctcc aagatgcatc atcgtcacca gaagaagctt tgaacaacgt tgatgtctcc 1980  
gaagcgtaa 1989

<210> 2596

<211> 662

<212> PRT

<213> Arabidopsis thaliana

<400> 2596

Met Val Tyr Asn Met Ser Glu Ala Phe Val Ala Ser Asp Glu Gly Leu  
1 5 10 15

Thr Tyr Val Glu Asn Gly Glu Asp Val Phe Pro Val Glu Ala Val Ala  
20 25 30

Ala Asp Val Ser Pro Val Glu Ala Val Val Pro Asp Val Ser Pro Ile  
35 40 45

Glu Cys Leu Ser Ala Glu Thr Leu Thr Asp Lys Thr Ser Ser Leu Ile  
50 55 60

Asp Ser Val Glu Ser Gly Thr Asn Ala Thr Val Lys Ile Ser Pro Asp  
65 70 75 80

Ser Ser Val Ser Leu Pro Asp Ala Lys Ala Ser Phe Asp Asp Phe Ser  
85 90 95

Ser Gly Leu Lys Gln Ser Phe Ser Ser Leu Pro Asp Ala Lys Ala  
100 105 110

Ser Val Asp Asp Phe Ser Ser Gly Val Lys Glu Ser Phe Ser Ser Ser  
115 120 125

Leu Asn Gln Gly Glu Asn Ala Val Lys Asn Thr Leu Glu Ser Phe Ser  
130 135 140

047-E2F-PCT.ST25.txt

Ser 145 Ser Val Thr Ser 150 Ile Thr Lys Asn Ala 155 Ser Glu Val Val Asp Ser 160  
 Ala Val Asn Arg Ala 165 Phe Ser Thr Leu Asp 170 Gln Thr Gly Asp Val 175 Ala  
 Gly Asp Lys Phe 180 Ser Ser Phe Ser Thr 185 Gly Leu Lys Glu Ala 190 Ser Asn  
 Arg Ala Ala 195 Val Ile Ala Ile Asp 200 Leu Leu Arg Gln Ser 205 Val Ser Leu  
 Gly Glu 210 Arg Ser Val Thr Asn 215 Gly Val Ser Phe Val 220 Val Tyr Ser Tyr  
 Gly 225 Ser Ala Lys Glu 230 Leu Leu Pro Pro Asp Val 235 Lys Ser Ala Leu Asn 240  
 Ser Ser Glu Asp Val 245 Ala Leu Lys Val Leu 250 Ser Pro Val Gly Ala 255 Val  
 Leu Gln Gln Val 260 Ser Val Ala Ile Gly 265 Gly Leu Glu Arg Asn 270 Ile Gly  
 Leu Asp Pro 275 Asp Asp Pro Ile Leu 280 His Leu Phe Leu Phe 285 Val Gly Thr  
 Thr Gly 290 Thr Phe Trp Val Leu 295 Tyr Arg Val Trp Thr 300 Tyr Gly Gly Tyr  
 Ala 305 Gly Asp Leu Ser 310 Pro Lys Ser Thr Leu 315 Asp Leu Leu Lys Ser Arg 320  
 Asp Lys Ser Val 325 Leu Ile Asp Val Arg Pro 330 Glu Ala Leu Arg Glu 335 Lys  
 Asp Gly Ile 340 Pro Asp Leu Arg Arg Ser 345 Ala Arg Phe Arg Tyr 350 Ser Ser  
 Val Thr 355 Leu Pro Glu Val Gly 360 Phe Ser Ile Leu Ile 365 Val Val Asp His  
 Ser 370 Glu Tyr Arg Asn Ser Thr 375 His Val Ile Tyr Glu 380 His Asn Glu Val  
 Ser Ala Ile Ser Ala Thr Glu Val Asp Gly Asp Val Lys Arg Leu Leu  
 Page 3631

385 390 400  
Lys Gly Gly Ser Glu Val Asp Asp Ile Leu Thr Ala Val Ile Ile Lys  
405 410 415  
Asn Leu Lys Ile Val Gln Asp Arg Ser Lys Val Val Val Met Asp Ala  
420 425 430  
Asp Gly Thr Arg Ser Lys Gly Gly Tyr Arg Ser Trp Val Gln Glu Gly  
435 440 445  
Leu Arg Val Lys Glu Pro Lys Pro Glu Thr Thr Leu Thr Ile Leu Asn  
450 455 460  
Glu Glu Ala Glu Ala Ile Phe Glu Asp Ile Asn Pro Ser Pro Leu Gln  
465 470 475 480  
Leu Phe Gly Val Glu Tyr Leu Ile Phe Ser Thr Thr His Lys Leu Leu  
485 490 495  
Thr Ser Thr Phe Cys Thr Asn Met Ile Ala Leu Ser Leu Ala Glu Trp  
500 505 510  
Glu Lys Thr Leu Gln Leu Ile Ala Val Ile Gly Leu Ser Leu Phe Gln  
515 520 525  
Thr Leu Cys Arg Leu Tyr Thr Tyr Asp Phe Leu His Met Met Thr Pro  
530 535 540  
Lys Thr Ser Asn Lys Thr Ser Gly Ile Lys Ala Pro Ser Leu Asp Pro  
545 550 555 560  
Phe Ser Ile Ala Lys Thr Gln Arg Asn Leu Cys Ser Val Leu Thr Lys  
565 570 575  
Ile Val Ser Ser Ser Ser Arg Leu Leu Leu Ala Pro Val Lys Leu  
580 585 590  
Gly Ala Gln Ala Phe Ser Trp Ala Ala Gly Lys Leu Glu Thr Asn Gly  
595 600 605  
Val Gly Leu Pro Thr Ser Pro Ser Ser Ser Asp Val Arg Ser Arg Val  
610 615 620  
Leu Gln Ala Ala Ala Lys His Glu Ser Lys Pro Ser Asp Glu Thr Ser  
625 630 635 640

Glu Ser Leu Gln Asp Ala Ser Ser Ser Pro Glu Glu Ala Leu Asn Asn  
 645 650 655

Val Asp Val Ser Glu Ala  
 660

<210> 2597

<211> 1506

<212> DNA

<213> Arabidopsis thaliana

<400> 2597

atgtttaact atgtgattat tcttccttta gctctcttcc tcttggttta caaattcttc	60
tttacatcta aaaagcagcg ttactatctc cctccctctc catcttactc tctcccaatc	120
ctcggccacc acctcctcat caaaccgccg gttcaccgtc tcttccaccg cctttccaat	180
atccatggcc caatcttcta cctccgactt gggtcccgcc gtgccgtcgt catatcttcc	240
tcctcgctgg caagagaatg cttcacaggc caaaacgatg tcattgtatc aaaccgccct	300
cgttttctaa cctccaaata cattgcttac aactacacaa ccatcgcaac aacatcttac	360
ggtgaccact ggcgtaacct ccgccgcatt tgctccctcg aaatcgtctc ctcaaaacgt	420
ctcgccaact ttctccacat ccgcaaagag gagatccagc gcatgctaac gagactctca	480
cgtgacgccc gtgtcggcaa agaggctcag ctcgagtcta tcttgtagca cctaacgttc	540
aacaatatcg tgaggatggt tacaggaag atatactacg gcgacgatgt cagcgacaaa	600
gaagaagcag agttgttcaa gaagcttttt actttcatca ccactaatag tggcgcgagg	660
catcctggag aatacttgcc cttcatgaag atattcggag ggagctttga gaaggagggtg	720
aaagctgcag caaaagtcac cgatgaaatg ttgcagcgtc tgcttgacga gtgcaagagt	780
gataaagacg gtaacactat ggttaatcac ttgctctctt tgcaacagga cgacctgag	840
tactacactg acatcattat caaaggctta atgctgggta taatggttgc ctcatcagag	900
acctccgctt tgacaataga gtgggcgatg gcgagtttgt tgaaccaccc aaaagttttg	960
gacaaagtaa aattagagat cgacgagata atcggaacag accgtttgat cgaagaatca	1020
gacatagcaa accttcctta cctccaaaac gtagtatccg agacactccg gctacatcca	1080
gcagcgccgg ttcttggtgcc aagatcaaca gcagaagaca tcaagatcgg aggatacgat	1140
gtgccacgtg acacaatggt aatgggtgaac gcgtgggcga tacatagaga tccagatctt	1200
tggaccgaac cggagagggt taaccctgag aggttcaacg gtggagaagg agaaaaagat	1260
gatgttcgta tgctgatagc gtttggaagc ggacggagaa tatgtcccgg tgttggaacta	1320

047-E2F-PCT.ST25.txt

gcgcacaaga ttgtgacatt agcgtttagga tcgttaattc aatgctttga ttggaaaaag 1380  
 gtgaacgaaa aagagattga tatgagtgag ggtccgggga tggctatgcg tatgatggtg 1440  
 ccgttacgag ccttgtgtaa gactcgaccc ataatgaata agctcccggc ctacacgaaa 1500  
 gtttag 1506

<210> 2598

<211> 501

<212> PRT

<213> Arabidopsis thaliana

<400> 2598

Met Phe Asn Tyr Val Ile Ile Leu Pro Leu Ala Leu Phe Leu Leu Ala  
 1 5 10 15

Tyr Lys Phe Phe Phe Thr Ser Lys Lys Gln Arg Tyr Tyr Leu Pro Pro  
 20 25 30

Ser Pro Ser Tyr Ser Leu Pro Ile Leu Gly His His Leu Leu Ile Lys  
 35 40 45

Pro Pro Val His Arg Leu Phe His Arg Leu Ser Asn Ile His Gly Pro  
 50 55 60

Ile Phe Tyr Leu Arg Leu Gly Ser Arg Arg Ala Val Val Ile Ser Ser  
 65 70 75 80

Ser Ser Leu Ala Arg Glu Cys Phe Thr Gly Gln Asn Asp Val Ile Val  
 85 90 95

Ser Asn Arg Pro Arg Phe Leu Thr Ser Lys Tyr Ile Ala Tyr Asn Tyr  
 100 105 110

Thr Thr Ile Ala Thr Thr Ser Tyr Gly Asp His Trp Arg Asn Leu Arg  
 115 120 125

Arg Ile Cys Ser Leu Glu Ile Val Ser Ser Lys Arg Leu Ala Asn Phe  
 130 135 140

Leu His Ile Arg Lys Glu Glu Ile Gln Arg Met Leu Thr Arg Leu Ser  
 145 150 155 160

Arg Asp Ala Arg Val Gly Lys Glu Val Glu Leu Glu Ser Ile Leu Tyr  
 165 170 175



047-E2F-PCT.ST25.txt

Asp Leu Thr Phe Asn Asn Ile Val Arg Met Val Thr Gly Lys Ile Tyr  
 180 185 190  
 Tyr Gly Asp Asp Val Ser Asp Lys Glu Glu Ala Glu Leu Phe Lys Lys  
 195 200 205  
 Leu Phe Thr Phe Ile Thr Thr Asn Ser Gly Ala Arg His Pro Gly Glu  
 210 215 220  
 Tyr Leu Pro Phe Met Lys Ile Phe Gly Gly Ser Phe Glu Lys Glu Val  
 225 230 235 240  
 Lys Ala Ala Ala Lys Val Ile Asp Glu Met Leu Gln Arg Leu Leu Asp  
 245 250 255  
 Glu Cys Lys Ser Asp Lys Asp Gly Asn Thr Met Val Asn His Leu Leu  
 260 265 270  
 Ser Leu Gln Gln Asp Asp Pro Glu Tyr Tyr Thr Asp Ile Ile Ile Lys  
 275 280 285  
 Gly Leu Met Leu Gly Ile Met Val Ala Ser Ser Glu Thr Ser Ala Leu  
 290 295 300  
 Thr Ile Glu Trp Ala Met Ala Ser Leu Leu Asn His Pro Lys Val Leu  
 305 310 315 320  
 Asp Lys Val Lys Leu Glu Ile Asp Glu Ile Ile Gly Gln Asp Arg Leu  
 325 330 335  
 Ile Glu Glu Ser Asp Ile Ala Asn Leu Pro Tyr Leu Gln Asn Val Val  
 340 345 350  
 Ser Glu Thr Leu Arg Leu His Pro Ala Ala Pro Val Leu Val Pro Arg  
 355 360 365  
 Ser Thr Ala Glu Asp Ile Lys Ile Gly Gly Tyr Asp Val Pro Arg Asp  
 370 375 380  
 Thr Met Val Met Val Asn Ala Trp Ala Ile His Arg Asp Pro Asp Leu  
 385 390 395 400  
 Trp Thr Glu Pro Glu Arg Phe Asn Pro Glu Arg Phe Asn Gly Gly Glu  
 405 410 415  
 Gly Glu Lys Asp Asp Val Arg Met Leu Ile Ala Phe Gly Ser Gly Arg  
 Page 3635

420

425

430

Arg Ile Cys Pro Gly Val Gly Leu Ala His Lys Ile Val Thr Leu Ala  
 435 440 445

Leu Gly Ser Leu Ile Gln Cys Phe Asp Trp Lys Lys Val Asn Glu Lys  
 450 455 460

Glu Ile Asp Met Ser Glu Gly Pro Gly Met Ala Met Arg Met Met Val  
 465 470 475 480

Pro Leu Arg Ala Leu Cys Lys Thr Arg Pro Ile Met Asn Lys Leu Pro  
 485 490 495

Ala Tyr Thr Lys Val  
 500

&lt;210&gt; 2599

&lt;211&gt; 1506

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2599

```

atgaattcag aatcgctaga aaatcttcac cgtccattaa tcgaatcatc gaagtcgttc      60
gtcgattatc gtctcgagac tgtgttaaca gatcgagagt taccgtatctt tcgccggatt    120
tatctagcga tgatgattga gatgaagttt ctctttcatc tggcggctcc ggcgatcttt    180
gtttacgtca tcaacaacgg catgtcaatt cttacacgta tcttcgctgg acacgtagga    240
agcttcgaac tcgccgccgc ttcacttgga aacagtggtt tcaacatggt cacctatgga    300
cttctgcttg gaatgggaag tgcagtgga acattatgtg gtcaagcaca tggagctcat    360
agatacgaaa tgcttgagat ttacctcaa agatcaacag ttgttctaata cctaacatgt    420
ctaccaatgt cattttctctt cctcttctca aatccgatcc tcacagcact tggagagcca    480
gagcaagtgg caacattggc ttcagtattc gtctacggta tgatcccggg gatcttcgct    540
tacgcagtca atttccttat ccagaagttt ctccaatcac aaagcatcgt cactccaagt    600
gcctacatat cagctgcaac gcttgtgata catctcatac tttcgtggat cgctgtgtat    660
cgtcttggtt acggtctttt ggctttgtct ttgatacata gcttctcgtg gtggatcatt    720
gttgtggctc agattgttta tattaatatg agtccgagat gtcgtcggac ttgggaaggt    780
tttagttgga aagcttttga aggtctttgg gattttttcc gattatcagc tgcttctgcc    840
gtcatgcttt gtcttgaatc ttggtactct cagattcttg ttttactcgc cggacttctc    900

```

047-E2F-PCT.ST25.txt

aagaaccctg agcttgcttt ggattctctt gctatctgca tgtcaatttc tgcaatctca 960  
 ttcatgggtct ccgttggatt caacgcagct gcaagtgtga gagtaagcaa cgagctagga 1020  
 gccggaaacc cgagagcagc cgcgttctcc acagtcgtga caacgggagt atcattctta 1080  
 ctatcggttt tcgaagccat cgtgggtctta tcgtggcgtc acgtcatcag ctatgcgttt 1140  
 actgatagtc cagcagtggc tgaggccgtt gcggatttat ctcccttttt agccatcaca 1200  
 attgtcctca atggaattca gcctgttttg tccggtgtgg ctgttggatg tggatggcaa 1260  
 gcatttgttg cgtacgtaaa cattggatgt tactacgttg tggggattcc agtgggattc 1320  
 gttcttggct tcacttatga tatgggagct aagggaatat ggactgggat gattggtggt 1380  
 actttaatgc aaacaataat cttagtatt gtcactttac gaactgattg ggacaaagag 1440  
 gttgagaaag cttcgagcag attggaccag tgggaagaga gccgtgagcc gcttttgaag 1500  
 caataa 1506

<210> 2600

<211> 501

<212> PRT

<213> Arabidopsis thaliana

<400> 2600

Met Asn Ser Glu Ser Leu Glu Asn Leu His Arg Pro Leu Ile Glu Ser  
 1 5 10 15

Ser Lys Ser Phe Val Asp Tyr Arg Leu Glu Thr Val Leu Thr Asp Arg  
 20 25 30

Glu Leu Pro Tyr Phe Arg Arg Ile Tyr Leu Ala Met Met Ile Glu Met  
 35 40 45

Lys Phe Leu Phe His Leu Ala Ala Pro Ala Ile Phe Val Tyr Val Ile  
 50 55 60

Asn Asn Gly Met Ser Ile Leu Thr Arg Ile Phe Ala Gly His Val Gly  
 65 70 75 80

Ser Phe Glu Leu Ala Ala Ala Ser Leu Gly Asn Ser Gly Phe Asn Met  
 85 90 95

Phe Thr Tyr Gly Leu Leu Leu Gly Met Gly Ser Ala Val Glu Thr Leu  
 100 105 110

047-E2F-PCT.ST25.txt

Cys Gly Gln Ala His Gly Ala His Arg Tyr Glu Met Leu Gly Val Tyr  
 115 120 125  
 Leu Gln Arg Ser Thr Val Val Leu Ile Leu Thr Cys Leu Pro Met Ser  
 130 135 140  
 Phe Leu Phe Leu Phe Ser Asn Pro Ile Leu Thr Ala Leu Gly Glu Pro  
 145 150 155 160  
 Glu Gln Val Ala Thr Leu Ala Ser Val Phe Val Tyr Gly Met Ile Pro  
 165 170 175  
 Val Ile Phe Ala Tyr Ala Val Asn Phe Pro Ile Gln Lys Phe Leu Gln  
 180 185 190  
 Ser Gln Ser Ile Val Thr Pro Ser Ala Tyr Ile Ser Ala Ala Thr Leu  
 195 200 205  
 Val Ile His Leu Ile Leu Ser Trp Ile Ala Val Tyr Arg Leu Gly Tyr  
 210 215 220  
 Gly Leu Leu Ala Leu Ser Leu Ile His Ser Phe Ser Trp Trp Ile Ile  
 225 230 235 240  
 Val Val Ala Gln Ile Val Tyr Ile Lys Met Ser Pro Arg Cys Arg Arg  
 245 250 255  
 Thr Trp Glu Gly Phe Ser Trp Lys Ala Phe Glu Gly Leu Trp Asp Phe  
 260 265 270  
 Phe Arg Leu Ser Ala Ala Ser Ala Val Met Leu Cys Leu Glu Ser Trp  
 275 280 285  
 Tyr Ser Gln Ile Leu Val Leu Leu Ala Gly Leu Leu Lys Asn Pro Glu  
 290 295 300  
 Leu Ala Leu Asp Ser Leu Ala Ile Cys Met Ser Ile Ser Ala Ile Ser  
 305 310 315 320  
 Phe Met Val Ser Val Gly Phe Asn Ala Ala Ala Ser Val Arg Val Ser  
 325 330 335  
 Asn Glu Leu Gly Ala Gly Asn Pro Arg Ala Ala Ala Phe Ser Thr Val  
 340 345 350  
 Val Thr Thr Gly Val Ser Phe Leu Leu Ser Val Phe Glu Ala Ile Val  
 355 360 365

047-E2F-PCT.ST25.txt

Val Leu Ser Trp Arg His Val Ile Ser Tyr Ala Phe Thr Asp Ser Pro  
 370 375 380

Ala Val Ala Glu Ala Val Ala Asp Leu Ser Pro Phe Leu Ala Ile Thr  
 385 390 395 400

Ile Val Leu Asn Gly Ile Gln Pro Val Leu Ser Gly Val Ala Val Gly  
 405 410 415

Cys Gly Trp Gln Ala Phe Val Ala Tyr Val Asn Ile Gly Cys Tyr Tyr  
 420 425 430

Val Val Gly Ile Pro Val Gly Phe Val Leu Gly Phe Thr Tyr Asp Met  
 435 440 445

Gly Ala Lys Gly Ile Trp Thr Gly Met Ile Gly Gly Thr Leu Met Gln  
 450 455 460

Thr Ile Ile Leu Val Ile Val Thr Leu Arg Thr Asp Trp Asp Lys Glu  
 465 470 475 480

Val Glu Lys Ala Ser Ser Arg Leu Asp Gln Trp Glu Glu Ser Arg Glu  
 485 490 495

Pro Leu Leu Lys Gln  
 500

<210> 2601

<211> 546

<212> DNA

<213> Arabidopsis thaliana

<400> 2601

atggcgacgg ttaatgggta cacaggggaat actccggcgg cgactacacc ggcagccacc	60
ggatcaaagc aatctgctcc tccgactaag accgtcgata gccactccgt tctaaaaagg	120
ctgcaatctg aactaatggg attgatgatg ggagctgatc cggggatatc tgcgtttcca	180
gaggaagaca acatattttg ctggaaagga acaattacag gaagcaaaga tactgtgttc	240
gaaggaactg agtacagact ctactcact ttctctaacg attatccttt taagtctccc	300
aaagttaagt ttgagacatg ctgcttcac cccaatgtgg atctctatgg caatatttgc	360
ttggacattc ttcaggataa atggtcatct gcttatgatg tgaggacgat attactctca	420

attcaaagcc ttctcggaga accgaacatc agctcaccat tgaacaatca agcggctcag 480  
 ctttggagca atcaagaaga gtacaggaag atggttgaga agctctacaa gcctttaaac 540  
 gcatga 546

<210> 2602

<211> 181

<212> PRT

<213> Arabidopsis thaliana

<400> 2602

Met Ala Thr Val Asn Gly Tyr Thr Gly Asn Thr Pro Ala Ala Thr Thr  
 1 5 10 15

Pro Ala Ala Thr Gly Ser Lys Gln Ser Ala Pro Pro Thr Lys Thr Val  
 20 25 30

Asp Ser His Ser Val Leu Lys Arg Leu Gln Ser Glu Leu Met Gly Leu  
 35 40 45

Met Met Gly Ala Asp Pro Gly Ile Ser Ala Phe Pro Glu Glu Asp Asn  
 50 55 60

Ile Phe Cys Trp Lys Gly Thr Ile Thr Gly Ser Lys Asp Thr Val Phe  
 65 70 75 80

Glu Gly Thr Glu Tyr Arg Leu Ser Leu Thr Phe Ser Asn Asp Tyr Pro  
 85 90 95

Phe Lys Ser Pro Lys Val Lys Phe Glu Thr Cys Cys Phe His Pro Asn  
 100 105 110

Val Asp Leu Tyr Gly Asn Ile Cys Leu Asp Ile Leu Gln Asp Lys Trp  
 115 120 125

Ser Ser Ala Tyr Asp Val Arg Thr Ile Leu Leu Ser Ile Gln Ser Leu  
 130 135 140

Leu Gly Glu Pro Asn Ile Ser Ser Pro Leu Asn Asn Gln Ala Ala Gln  
 145 150 155 160

Leu Trp Ser Asn Gln Glu Glu Tyr Arg Lys Met Val Glu Lys Leu Tyr  
 165 170 175

Lys Pro Leu Asn Ala  
180

<210> 2603

<211> 699

<212> DNA

<213> Arabidopsis thaliana

<400> 2603

```

atggcttcca ttagtagctt acacagatgg gcatctaatac aacactctcg tcttcctcga      60
atcacttcta tttctgaggc tgaccaatct cgaccatta accaagtcgt cgccttttcg      120
gttcctatat ccagaagaga cgcgagtatt attcttctca gctcgattcc attgacaagc      180
ttcttcgttc taacaccgag ctcttccgaa gctagagaga gacgtagcag aaaagttatc      240
cctctcgagg aatattccac tggccctgaa gggttgaaat tctatgacat tgaggaaggc      300
aaaggtccag tagcaacaga gggatcaact gctcaggtgc attttgattg ccgttacaga      360
agcatcactg caatttctac ccgagaatcc aagcttttag ctggaaaccg tagtattgct      420
cagccttacg agttcaaggt gggatctacg ccaggaaagg aaaggaagcg tgaattcggt      480
gataatccaa atgggttatt ctctgcacag gctgcaccaa aacctcctcc agcaatgtat      540
ttcattaccg aaggaatgaa agtcggaggc aagagaacgg tgattgttcc tcctgaagct      600
ggttatggtc agaaaggaat gaatgagata ccgcctggag ctacttttga gttaaacata      660
gagctgcttc gggtgactcc tccaccagaa gagaagtga      699

```

<210> 2604

<211> 232

<212> PRT

<213> Arabidopsis thaliana

<400> 2604

```

Met Ala Ser Ile Ser Ser Leu His Arg Trp Ala Ser Asn Gln His Ser
1           5           10          15

Arg Leu Pro Arg Ile Thr Ser Ile Ser Glu Ala Asp Gln Ser Arg Pro
          20          25          30

Ile Asn Gln Val Val Ala Phe Ser Val Pro Ile Ser Arg Arg Asp Ala
          35          40          45

```

047-E2F-PCT.ST25.txt

Ser Ile Ile Leu Leu Ser Ser Ile Pro Leu Thr Ser Phe Phe Val Leu  
50 55 60  
Thr Pro Ser Ser Ser Glu Ala Arg Glu Arg Arg Ser Arg Lys Val Ile  
65 70 75 80  
Pro Leu Glu Glu Tyr Ser Thr Gly Pro Glu Gly Leu Lys Phe Tyr Asp  
85 90 95  
Ile Glu Glu Gly Lys Gly Pro Val Ala Thr Glu Gly Ser Thr Ala Gln  
100 105 110  
Val His Phe Asp Cys Arg Tyr Arg Ser Ile Thr Ala Ile Ser Thr Arg  
115 120 125  
Glu Ser Lys Leu Leu Ala Gly Asn Arg Ser Ile Ala Gln Pro Tyr Glu  
130 135 140  
Phe Lys Val Gly Ser Thr Pro Gly Lys Glu Arg Lys Arg Glu Phe Val  
145 150 155 160  
Asp Asn Pro Asn Gly Leu Phe Ser Ala Gln Ala Ala Pro Lys Pro Pro  
165 170 175  
Pro Ala Met Tyr Phe Ile Thr Glu Gly Met Lys Val Gly Gly Lys Arg  
180 185 190  
Thr Val Ile Val Pro Pro Glu Ala Gly Tyr Gly Gln Lys Gly Met Asn  
195 200 205  
Glu Ile Pro Pro Gly Ala Thr Phe Glu Leu Asn Ile Glu Leu Leu Arg  
210 215 220  
Val Thr Pro Pro Pro Glu Glu Lys  
225 230

<210> 2605

<211> 1581

<212> DNA

<213> Arabidopsis thaliana

<400> 2605

atggacccat ggtcatggat atgtgagctt ccagaagatc ctgagttcag cgagtctgat 60

tcacacgcag tgtttcagct cgctggcgat ttgacacggt cgatcaaact tagagccgaa 120



## 047-E2F-PCT.ST25.txt

```

cggacttttg gttctgacca agaatctcac tctctcacct ttacagttgt agcagagggg 180
tttaacctcc ttaagtcgtc gaccatttgg gtctccaaca catgtccctt gtcgtcggag 240
aaaccgttcc tccctcttgt tctccagctt cttcaagaac taatcacccg tccccctacc 300
acacacgacg gcgcggtgcac aaagtttgaa caacttgaaa tcaaaccaag tccagttagc 360
tggggtcatgg actctcactc acctgaatcc ttctcatcag tctttaatct aatcctcctc 420
acacgcctct tctggttgtg tgtgtttgac gcgccaagcg aagtaggctc tttcttcttc 480
caacacttac taggtccaca cgtgaacgcg cttacatgtc aacatgcacc tgtcttacgg 540
acgtttctcg tctctctcgg tgtagacgcc gagctttgta ttgtacgagc tgcttcgtat 600
gccttatcca aatggatgat ctctaaagag ataggacttg ggaatcttgg tttgaaacag 660
ttcagtagca gcctcatgcc acgtcattcg ttggggtttt cgtatgccac agaagctcat 720
ggcttttgga tcttgaaagg ttatttccca atcttgtcaa tgaacgtcac aaataatagc 780
tctaacgagg ttcacaacaa gatcgtcaag tttccattcg tagagcctaa agaagctgtc 840
ctacgttacg ctttgctgca tcaacaagct gaaatactag tacagtttga atactccgtt 900
aagttctatg agaactacat aaaagtaaac gcacgtgtag acaacatacg catccacgtc 960
tcgaagctag ggtttcacaa aggaggagtt ggcgtggaga atcagatagc ggattgttac 1020
tccgaggaga ggtacttccc atcacgggta cgggtctggc tcgggccaga actcgggtcc 1080
agccacgtat cggggctaag tctaggaagg tcaacgaaga acgaggagag agatatcgag 1140
gtgactagag tgctaaaggg aaatttcgga aaaggtaaag tggctccgag agtcaaggca 1200
agagcaagaa tggcaacaaa gaggaagggt aaagattgga gaatagagca ggaaagcgaa 1260
ggaaacgctg ccgtttttga tgcggtgttg tacgatagag agagcgggtca agaagtgaca 1320
accgttaagc cgaagccaaa ccaagagggg ttaaagaatg tgtttacgaa gagtgggggg 1380
atggtgtttg gaagggatga gtatggagat gaagttgggt ggagagttgg gagagagatg 1440
gaaggaagtg tgttgaagtg gagactgggt ggcaaaatth ggctaactta ttggccaaac 1500
aagttgaaca ctttgtttta tgagactaga tgtgtagagt ggtgtgatga ggttgatttg 1560
ccgttgcttc ctacttctta g 1581

```

&lt;210&gt; 2606

&lt;211&gt; 526

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2606

047-E2F-PCT.ST25.txt

Met Asp Pro Trp Ser Trp Ile Cys Glu Leu Pro Glu Asp Pro Glu Phe  
1 5 10 15  
Ser Glu Ser Asp Ser His Ala Val Phe Gln Leu Ala Gly Asp Leu Thr  
20 25 30  
Arg Ser Ile Lys Leu Arg Ala Glu Arg Thr Leu Gly Ser Asp Gln Glu  
35 40 45  
Ser His Ser Leu Thr Phe Thr Val Val Ala Glu Gly Phe Asn Leu Leu  
50 55 60  
Lys Ser Ser Thr Ile Trp Val Ser Asn Thr Cys Pro Leu Ser Ser Glu  
65 70 75 80  
Lys Pro Phe Leu Pro Leu Val Leu Gln Leu Leu Gln Glu Leu Ile Thr  
85 90 95  
Arg Ser Pro Thr Thr His Asp Gly Ala Cys Thr Lys Phe Glu Gln Leu  
100 105 110  
Glu Ile Lys Pro Ser Pro Val Ser Trp Val Met Asp Ser His Ser Pro  
115 120 125  
Glu Ser Phe Ser Ser Val Phe Asn Leu Ile Leu Leu Thr Arg Leu Phe  
130 135 140  
Trp Leu Cys Val Phe Asp Ala Pro Ser Glu Val Gly Ser Phe Phe Phe  
145 150 155 160  
Gln His Leu Leu Gly Pro His Val Asn Ala Leu Thr Cys Gln His Ala  
165 170 175  
Pro Val Leu Arg Thr Phe Leu Val Ser Leu Gly Val Asp Ala Glu Leu  
180 185 190  
Cys Ile Val Arg Ala Ala Ser Tyr Ala Leu Ser Lys Trp Met Ile Ser  
195 200 205  
Lys Glu Ile Gly Leu Gly Asn Leu Gly Leu Lys Gln Phe Ser Ser Ser  
210 215 220  
Leu Met Pro Arg His Ser Leu Gly Phe Ser Tyr Ala Thr Glu Ala His  
225 230 235 240  
Gly Leu Trp Ile Leu Lys Gly Tyr Phe Pro Ile Leu Ser Met Asn Val  
245 250 255

047-E2F-PCT.ST25.txt

Thr Asn Asn Ser Ser Asn Glu Val His Asn Lys Ile Val Lys Phe Pro  
 260 265 270  
 Phe Val Glu Pro Lys Glu Ala Val Leu Arg Tyr Ala Leu Ser His Gln  
 275 280 285  
 Gln Ala Glu Ile Leu Val Gln Phe Glu Tyr Ser Val Lys Phe Tyr Glu  
 290 295 300  
 Asn Tyr Ile Lys Val Asn Ala Arg Val Asp Asn Ile Arg Ile His Val  
 305 310 315 320  
 Ser Lys Leu Gly Phe His Lys Gly Gly Val Gly Val Glu Asn Gln Ile  
 325 330 335  
 Ala Asp Cys Tyr Ser Glu Glu Arg Tyr Phe Pro Ser Arg Val Arg Val  
 340 345 350  
 Trp Leu Gly Pro Glu Leu Gly Ser Ser His Val Ser Gly Leu Ser Leu  
 355 360 365  
 Gly Arg Ser Thr Lys Asn Glu Glu Arg Asp Ile Glu Val Thr Arg Val  
 370 375 380  
 Leu Lys Gly Asn Phe Gly Lys Gly Lys Val Ala Pro Arg Val Lys Ala  
 385 390 395 400  
 Arg Ala Arg Met Ala Thr Lys Arg Lys Val Lys Asp Trp Arg Ile Glu  
 405 410 415  
 Gln Glu Ser Glu Gly Asn Ala Ala Val Phe Asp Ala Val Leu Tyr Asp  
 420 425 430  
 Arg Glu Ser Gly Gln Glu Val Thr Thr Val Lys Pro Lys Pro Asn Gln  
 435 440 445  
 Glu Gly Leu Lys Asn Val Phe Thr Lys Ser Gly Gly Met Val Phe Gly  
 450 455 460  
 Arg Asp Glu Tyr Gly Asp Glu Val Gly Trp Arg Val Gly Arg Glu Met  
 465 470 475 480  
 Glu Gly Ser Val Leu Lys Trp Arg Leu Gly Gly Lys Ile Trp Leu Thr  
 485 490 495  
 Tyr Trp Pro Asn Lys Leu Asn Thr Leu Phe Tyr Glu Thr Arg Cys Val  
 Page 3645

500

047-E2F-PCT.ST25.txt  
505

510

Glu Trp Cys Asp Glu Val Asp Leu Pro Leu Leu Pro Thr Ser  
515 520 525

&lt;210&gt; 2607

&lt;211&gt; 1008

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2607

```

atgtcttttag ctccgagcag ttatccatct ctgtattctt cgccttcact gccaagaacc      60
cagcaaacca agcaaaaccc tagtttgatc actcaatcca gtttcatttc cgccaaaagt      120
ctcttccttt cgagcaattc ggcttcttta tgcaataccc atgttgccaa acgccggaat      180
ttagctttga aggcgtcgga gacagagtct tcagctaaag ctgaagcagg aggagacgga      240
gaagaagaag agaagtatga aacatatgaa attgaagtgg agcagcctta tggtttgaaa      300
ttcaggaaag gaagagatgg tggcacttac attgatgcta tcttaccagg tggatcagct      360
gacaaaaccg gaaagttcac tgttggcgat agagttattg ccacaagtgc agtatttgga      420
acagagattt ggcctgcagc tgagtacggt aggacaatgt acacaattcg tcagagaatt      480
ggtcccttgc ttatgcaaat ggagaagaga aatggtaagg ctgaagatac tggtgagtta      540
acagagaagg agatcataag agctgagaga aatgccggat acattagcag tagattgaga      600
gagattcaga tgcaaaacta tttgaagaag aaagaacaga aagctcaacg ggagaaggat      660
cttcgtgaag ggctgcaatt ttccaagaat ggtaagtatg aggaagcatt ggagagggtt      720
gagtcggtgt taggttctaa accaacacca gaagaagcat cagttgcaag ttacaatggt      780
gcttgttgct actcaaagct taatcagggt caagctggtc tctcggctct ggaagaagca      840
ttgaagtcag gatatgaaga ttttaagaga atcagaagtg atccagatct ggaaactctc      900
aggaagtcga aggatttcga tccacttctg aagcaattcg acgaatcttt catcaatgag      960
agtgccatta acgcatcaa atccttgttt ggctttaaca agaaatag      1008

```

&lt;210&gt; 2608

&lt;211&gt; 335

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2608

```

Met Ser Leu Ala Pro Ser Ser Tyr Pro Ser Leu Tyr Ser Ser Pro Ser
1      5      10      15

Leu Pro Arg Thr Gln Gln Thr Lys Gln Asn Pro Ser Leu Ile Thr Gln
20      25      30

Ser Ser Phe Ile Ser Ala Lys Ser Leu Phe Leu Ser Ser Asn Ser Ala
35      40      45

Ser Leu Cys Asn Thr His Val Ala Lys Arg Arg Asn Leu Ala Leu Lys
50      55      60

Ala Ser Glu Thr Glu Ser Ser Ala Lys Ala Glu Ala Gly Gly Asp Gly
65      70      75      80

Glu Glu Glu Glu Lys Tyr Glu Thr Tyr Glu Ile Glu Val Glu Gln Pro
85      90      95

Tyr Gly Leu Lys Phe Arg Lys Gly Arg Asp Gly Gly Thr Tyr Ile Asp
100     105

Ala Ile Leu Pro Gly Gly Ser Ala Asp Lys Thr Gly Lys Phe Thr Val
115     120     125

Gly Asp Arg Val Ile Ala Thr Ser Ala Val Phe Gly Thr Glu Ile Trp
130     135     140

Pro Ala Ala Glu Tyr Gly Arg Thr Met Tyr Thr Ile Arg Gln Arg Ile
145     150     155     160

Gly Pro Leu Leu Met Gln Met Glu Lys Arg Asn Gly Lys Ala Glu Asp
165     170     175

Thr Gly Glu Leu Thr Glu Lys Glu Ile Ile Arg Ala Glu Arg Asn Ala
180     185     190

Gly Tyr Ile Ser Ser Arg Leu Arg Glu Ile Gln Met Gln Asn Tyr Leu
195     200     205

Lys Lys Lys Glu Gln Lys Ala Gln Arg Glu Lys Asp Leu Arg Glu Gly
210     215     220

Leu Gln Phe Ser Lys Asn Gly Lys Tyr Glu Glu Ala Leu Glu Arg Phe
225     230     235     240

Glu Ser Val Leu Gly Ser Lys Pro Thr Pro Glu Glu Ala Ser Val Ala

```

245

250

255

Ser Tyr Asn Val Ala Cys Cys Tyr Ser Lys Leu Asn Gln Val Gln Ala  
 260 265 270

Gly Leu Ser Ala Leu Glu Glu Ala Leu Lys Ser Gly Tyr Glu Asp Phe  
 275 280 285

Lys Arg Ile Arg Ser Asp Pro Asp Leu Glu Thr Leu Arg Lys Ser Lys  
 290 295 300

Asp Phe Asp Pro Leu Leu Lys Gln Phe Asp Glu Ser Phe Ile Asn Glu  
 305 310 315 320

Ser Ala Ile Asn Ala Ile Lys Ser Leu Phe Gly Phe Asn Lys Lys  
 325 330 335

&lt;210&gt; 2609

&lt;211&gt; 1383

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2609

```

atgaccaaac cctccgaccc aaccagagac tcccacgtgg cagttctcgc ttttcctttc   60
ggcactcatg cagctcctct cctcaccgtc acgcgccgcc tcgcctccgc ctctccttcc   120
accgtcttct ctttcttcaa caccgcacaa tccaactctt cgttattttc ctccggtgac   180
gaagcagatc gtccggcgaa catcagagta tacgatattg ccgacggtgt tccggaggga   240
tacgtgttta gcgggagacc acaggaggcg atcgagctgt ttcttcaagc tgcgccggag   300
aatttccgga gagaaatcgc gaaggcggag acggagggtt gtacggaagt gaaatgtttg   360
atgactgatg cgttcttctg gttcgcggct gatatggcga cggagataaa tgcgtcgtgg   420
attgcgtttt ggaccgccgg agcaaactca ctctctgctc atctctacac agatctcatc   480
agagaaacca tcggtgtcaa agaagtaggt gagcgtatgg aggagacaat aggggttatc   540
tcaggaatgg agaagatcag agtcaaagat acaccagaag gagttgtgtt tgggaattta   600
gactctgttt tctcaaagat gcttcatcaa atgggtcttg ctttgcctcg tgccactgct   660
gttttcatca attcttttga agatttggat cctacattga cgaataacct cagatcgaga   720
tttaaacgat atctgaacat cggtcctctc gggttattat cttctacatt gcaacaacta   780
gtgcaagatc ctcacggttg tttggcttgg atggagaaga gatcttctgg ttctgtggcg   840
tacattagct ttggtacggt catgacaccg cctcctggag agcttgcggc gatagcagaa   900

```

047-E2F-PCT.ST25.txt

```

gggttggaat cgagtaaagt gccgtttggt tggctcgctta aggagaagag cttgggttcag    960
ttacccaaaag ggttttttga taggacaaga gagcaaggga tagtggttcc atgggcaccg    1020
caagtggaac tgctgaaaca cgaagcaacg ggtgtgtttg tgacgcattg tggatggaac    1080
tcggtgtttg agagtgtatc ggggtggtgta ccgatgattt gcaggccatt ttttggggat    1140
cagagattga acggaagagc ggtggagggt gtgtgggaga ttggaatgac gattatcaat    1200
ggagtcttca cgaaagatgg gtttgagaag tgtttggata aagttttagt tcaagatgat    1260
ggtaagaaga tgaaatgtaa tgctaagaaa cttaaagaac tagcttacga agctgtctct    1320
tctaaaggaa ggtcctctga gaatttcaga ggattgtttg atgcagttgt aaacattatt    1380
tga                                                                    1383

```

<210> 2610

<211> 460

<212> PRT

<213> Arabidopsis thaliana

<400> 2610

```

Met Thr Lys Pro Ser Asp Pro Thr Arg Asp Ser His Val Ala Val Leu
1          5          10          15

```

```

Ala Phe Pro Phe Gly Thr His Ala Ala Pro Leu Leu Thr Val Thr Arg
          20          25          30

```

```

Arg Leu Ala Ser Ala Ser Pro Ser Thr Val Phe Ser Phe Phe Asn Thr
          35          40          45

```

```

Ala Gln Ser Asn Ser Ser Leu Phe Ser Ser Gly Asp Glu Ala Asp Arg
          50          55          60

```

```

Pro Ala Asn Ile Arg Val Tyr Asp Ile Ala Asp Gly Val Pro Glu Gly
65          70          75          80

```

```

Tyr Val Phe Ser Gly Arg Pro Gln Glu Ala Ile Glu Leu Phe Leu Gln
          85          90          95

```

```

Ala Ala Pro Glu Asn Phe Arg Arg Glu Ile Ala Lys Ala Glu Thr Glu
          100          105          110

```

```

Val Gly Thr Glu Val Lys Cys Leu Met Thr Asp Ala Phe Phe Trp Phe
          115          120          125

```

047-E2F-PCT.ST25.txt

Ala Ala Asp Met Ala Thr Glu Ile Asn Ala Ser Trp Ile Ala Phe Trp  
130 135 140

Thr Ala Gly Ala Asn Ser Leu Ser Ala His Leu Tyr Thr Asp Leu Ile  
145 150 155 160

Arg Glu Thr Ile Gly Val Lys Glu Val Gly Glu Arg Met Glu Glu Thr  
165 170 175

Ile Gly Val Ile Ser Gly Met Glu Lys Ile Arg Val Lys Asp Thr Pro  
180 185 190

Glu Gly Val Val Phe Gly Asn Leu Asp Ser Val Phe Ser Lys Met Leu  
195 200 205

His Gln Met Gly Leu Ala Leu Pro Arg Ala Thr Ala Val Phe Ile Asn  
210 215 220

Ser Phe Glu Asp Leu Asp Pro Thr Leu Thr Asn Asn Leu Arg Ser Arg  
225 230 235 240

Phe Lys Arg Tyr Leu Asn Ile Gly Pro Leu Gly Leu Leu Ser Ser Thr  
245 250 255

Leu Gln Gln Leu Val Gln Asp Pro His Gly Cys Leu Ala Trp Met Glu  
260 265 270

Lys Arg Ser Ser Gly Ser Val Ala Tyr Ile Ser Phe Gly Thr Val Met  
275 280 285

Thr Pro Pro Pro Gly Glu Leu Ala Ala Ile Ala Glu Gly Leu Glu Ser  
290 295 300

Ser Lys Val Pro Phe Val Trp Ser Leu Lys Glu Lys Ser Leu Val Gln  
305 310 315 320

Leu Pro Lys Gly Phe Leu Asp Arg Thr Arg Glu Gln Gly Ile Val Val  
325 330 335

Pro Trp Ala Pro Gln Val Glu Leu Leu Lys His Glu Ala Thr Gly Val  
340 345 350

Phe Val Thr His Cys Gly Trp Asn Ser Val Leu Glu Ser Val Ser Gly  
355 360 365

Gly Val Pro Met Ile Cys Arg Pro Phe Phe Gly Asp Gln Arg Leu Asn  
370 375 380



Gly Arg Ala Val Glu Val Val Trp Glu Ile Gly Met Thr Ile Ile Asn  
 385 390 395 400

Gly Val Phe Thr Lys Asp Gly Phe Glu Lys Cys Leu Asp Lys Val Leu  
 405 410 415

Val Gln Asp Asp Gly Lys Lys Met Lys Cys Asn Ala Lys Lys Leu Lys  
 420 425 430

Glu Leu Ala Tyr Glu Ala Val Ser Ser Lys Gly Arg Ser Ser Glu Asn  
 435 440 445

Phe Arg Gly Leu Leu Asp Ala Val Val Asn Ile Ile  
 450 455 460

<210> 2611

<211> 3942

<212> DNA

<213> Arabidopsis thaliana

<400> 2611

atgaagcatt tcatgatgcc aaggaacgct atcttgcgtg atatcggaga gtcacaatcg	60
ccaaacccta gcttgacgaa atcgaagtca caaaggaaga ttaaatcttc taaagagaat	120
gctccacctc cggatctgaa ctcgttgatt cctgatcata gatcttctcc ggcgaaattg	180
aaaagtccat tgcctccgcg tcctccgctg tctaatactc ttaaacggaa gctgattgcg	240
gaagctacgg cggataatgg agtagcgatt ggggtttcag actctggtgt caaggttata	300
gtaagaatga agcctccaag caaaggtgag gaagaggaga tgatagtaaa aaagatctcc	360
aacgacgcc tcactattaa tgaacagact ttcacattcg attcgattgc tgacccggag	420
tcaacacagg atgagatctt tcagcttggt ggagcccctc ttgttgagaa ctgtcttgct	480
ggatttaaca gttctgtttt tgcctatgga cagactggca gtgggaaaac gtataccatg	540
tggggtcctg caaatggatt gttggaagag caccttagtg gtgaccaaag aggtttgact	600
ccacgtgtct ttgaattgct cttcgcccggt ctcatgagg agcaagcaaa gcatgctgaa	660
aggcagctaa agtaccagtg ccgctgttcg tttctcgaga tatacaacga gcaaataaca	720
gatcttttgg atccgagcct aaaaaacctg atgattagag aagatgtcaa gtccggtggt	780
tatgttgaaa atctgactga ggaatacgtg aaaaacttga aggatttgtc aaagcttctg	840
gttaagggat tggcaaacag aaggactggt gcaacaagtg taaacgcaga aagttcaagg	900

tcgcactgtg	tattcacttg	tgttgtcgag	tcccactgca	agagtgttgc	agacggtcta	960
agcagcttca	aaacaagtag	aatcaatctt	gttgatctgg	ctggttcaga	aaggcaaaag	1020
ttaaccggtg	cagcaggcga	tcgtttgaag	gaagctggga	atataaatcg	atcacttttc	1080
caacttggga	atttgatcaa	cattctagca	gaaatttcac	aaacagggaa	gcaaaggcat	1140
ataccctaca	gagattccag	gttgacattt	ctattacaag	agtctctagg	agggaatgca	1200
aaattagcta	tggtttgtgc	agtttctccc	tcgcaaagtt	gtaggagtga	aaccttcagc	1260
accttgagat	ttgctcagcg	tgctaaggcg	atacagaata	aggcaattgt	caatgaagta	1320
atgcaagatg	atgtaaattt	cttgcgggaa	gtgatacgcc	agctgaggga	tgaactgcaa	1380
aggggtgaagg	atgataaagg	aaacaaccca	accaacccaa	atgcagctta	taccacttcc	1440
tggaatgcgc	gtagaagtct	gagtttgttt	agaagctttg	gcctgggtca	tccaaagtca	1500
ttaccaaagt	gagatgatga	tggtgatact	gagatggaaa	ttgatgagga	ggctgttgaa	1560
aggctttgtg	ctcaaattgg	cttgctctcca	cctgccgagg	acaacaatca	ggagatgagc	1620
agagtagaaa	aaataaattc	atcattacag	actgtggtcc	tgaaggatga	atcttacaat	1680
aactcccacc	ttaaatcatc	agaagctaca	gatgttaaca	tgaggatgac	gtgttgccaa	1740
actgagaaca	atgggtcaga	gactgataat	gcgttaactg	tggcagaaac	tatggatgat	1800
ggttctagt	tacagcctga	ttccataaca	aattctcttc	attcttgtat	tagcgacaca	1860
aaccagggaa	attcaccaag	caaggcggag	aacattccat	catgccaaga	cttggttata	1920
gaagctgatg	tttctgcaat	tgtatcagta	gctgatacat	caaataatac	agaacaggtc	1980
tcagtaaata	ctgtgtcgcc	ttgccttagc	gtcgctccag	taagtgtttc	tcctgtacta	2040
atacctccca	ctgagagcgc	ctctcctaag	attagaaata	gcaggaaaag	cttgagaaca	2100
acatcaatgt	ccaccgcata	acaaaaagat	attgagagag	ccaaccagtt	aactccagaa	2160
gttgtggaac	cgtcgccagc	tatgtccaca	gaggtgttaa	acctatatag	tgctttgtct	2220
acaaagaaaa	gtgaagcttt	tcctgtgcca	actaggcaat	tggcagctag	cctccacaga	2280
ggcatgaaac	ttcttgactc	atatcgccag	agtacagctc	ttagacgata	gacattcaga	2340
ttgtcctaca	aagctctaga	atgcaaacc	tcgaccgttt	taagtaaggc	tgatgtaggt	2400
gttcaaactt	atccccagc	tgatgaaata	gcggaagaca	actctaaaga	agtactgtgc	2460
agtagatgta	aatgcagggc	agaatgtgat	gcccagaaga	taagtacac	ttctaattct	2520
cagttggtac	ctattgacaa	ttcagaagg	tcagaaaagt	ctaatttcca	agttcctaaa	2580
gcagtggaaa	aggttctagc	agggccaatc	agaagagaaa	tggctatgga	agagttctgc	2640
actaagcaag	cctctgaaat	atcacagctt	aatcggctgg	tgcaacagta	caagcatgag	2700
agagagtgca	atgctatcat	aggacaaaca	agggaggaca	agattgttcg	ccttgaaagt	2760
ctcatggatg	gcgtgttatc	taaagatgat	tttctggatg	aagaatttgc	atcactcatg	2820

047-E2F-PCT.ST25.txt

catgagcata agcttctgaa ggacatgtat gagaaccacc ccgaagtatt gcagacgagg 2880  
attgagttga aacgagtgca agaagagctc gaaagtttca agaacttcta tgggtgacatg 2940  
ggagaaaggg aagtattatt agaagagatt cacgatttaa aggcacagct acaatgtttac 3000  
actgactctt ctcttacatc tgctcggaga agaggttcct tgcttaagct gacatacgct 3060  
tgtgatccta accaagctcc acaacttaat accattcctg agtcagtgga cgaggggtcct 3120  
gagaagacac tagaacagga aagacttcgt tggactgaag cagagagcaa ctggatctct 3180  
cttgctgagg aattaagaac tgagcttgat accaatagat tgctaattgga aaagcagaaa 3240  
cgtgaattgg atacagagaa aagatgtgct gaagagttga cagaagcaat gcaaattggca 3300  
atgcagggtc atgcacggat gattgaacaa tatgcagacc tggaagagaa gcatatccaa 3360  
ttgcttgcaa ggcataggag gattcgagaa ggaatagatg atgtcaaaaa agcagcagca 3420  
agagccggag tcaagggagc tgagtctaga ttcataaacg cacttgacgc agaaatttca 3480  
gctttgaagg tgcaaagaga gaaggaggta cgatacttca gggatgaaaa caagagtctc 3540  
cagtcacaac taagagatac tgctgaagct gttcaagcag caggagagtt acttgttcga 3600  
tttaaagaag ctgaagaagg attgacattt gcacagaaac gagcaatgga tgcagagtat 3660  
gaagcatcag aagcatataa aaaggtggac aagttgaaga ggaaatacga aaccgaaatc 3720  
agcactgtaa accaacaaca taatgcagag ccacaaaatc ccatagaatc tttgcaagct 3780  
tcttgtaatg acgatgctat ggccaaatat gatgaaccat cagctagtga tgggtgataac 3840  
caatggagag aagaattcca accattttac aagaaagacg aagagttgtc aaagctcgct 3900  
gaaccctctt ggttctcggg gtatgaccga tgcaacatat aa 3942

<210> 2612

<211> 1313

<212> PRT

<213> Arabidopsis thaliana

<400> 2612

Met Lys His Phe Met Met Pro Arg Asn Ala Ile Leu Arg Asp Ile Gly  
1 5 10 15

Glu Ser Gln Ser Pro Asn Pro Ser Leu Thr Lys Ser Lys Ser Gln Arg  
20 25 30

Lys Ile Lys Ser Ser Lys Glu Asn Ala Pro Pro Pro Asp Leu Asn Ser  
35 40 45

047-E2F-PCT.ST25.txt

Leu Ile Pro Asp His Arg Ser Ser Pro Ala Lys Leu Lys Ser Pro Leu  
 50 55 60  
 Pro Pro Arg Pro Pro Ser Ser Asn Pro Leu Lys Arg Lys Leu Ile Ala  
 65 70 75 80  
 Glu Ala Thr Ala Asp Asn Gly Val Ala Ile Gly Val Ser Asp Ser Gly  
 85 90 95  
 Val Lys Val Ile Val Arg Met Lys Pro Pro Ser Lys Gly Glu Glu Glu  
 100 105 110  
 Glu Met Ile Val Lys Lys Ile Ser Asn Asp Ala Leu Thr Ile Asn Glu  
 115 120 125  
 Gln Thr Phe Thr Phe Asp Ser Ile Ala Asp Pro Glu Ser Thr Gln Asp  
 130 135 140  
 Glu Ile Phe Gln Leu Val Gly Ala Pro Leu Val Glu Asn Cys Leu Ala  
 145 150 155 160  
 Gly Phe Asn Ser Ser Val Phe Ala Tyr Gly Gln Thr Gly Ser Gly Lys  
 165 170 175  
 Thr Tyr Thr Met Trp Gly Pro Ala Asn Gly Leu Leu Glu Glu His Leu  
 180 185 190  
 Ser Gly Asp Gln Arg Gly Leu Thr Pro Arg Val Phe Glu Leu Leu Phe  
 195 200 205  
 Ala Arg Leu Ser Glu Glu Gln Ala Lys His Ala Glu Arg Gln Leu Lys  
 210 215 220  
 Tyr Gln Cys Arg Cys Ser Phe Leu Glu Ile Tyr Asn Glu Gln Ile Thr  
 225 230 235 240  
 Asp Leu Leu Asp Pro Ser Leu Lys Asn Leu Met Ile Arg Glu Asp Val  
 245 250 255  
 Lys Ser Gly Val Tyr Val Glu Asn Leu Thr Glu Glu Tyr Val Lys Asn  
 260 265 270  
 Leu Lys Asp Leu Ser Lys Leu Leu Val Lys Gly Leu Ala Asn Arg Arg  
 275 280 285  
 Thr Gly Ala Thr Ser Val Asn Ala Glu Ser Ser Arg Ser His Cys Val  
 290 295 300

047-E2F-PCT.ST25.txt

Phe Thr Cys Val Val Glu Ser His Cys Lys Ser Val Ala Asp Gly Leu  
 305 310 315 320  
 Ser Ser Phe Lys Thr Ser Arg Ile Asn Leu Val Asp Leu Ala Gly Ser  
 325 330 335  
 Glu Arg Gln Lys Leu Thr Gly Ala Ala Gly Asp Arg Leu Lys Glu Ala  
 340 345 350  
 Gly Asn Ile Asn Arg Ser Leu Ser Gln Leu Gly Asn Leu Ile Asn Ile  
 355 360 365  
 Leu Ala Glu Ile Ser Gln Thr Gly Lys Gln Arg His Ile Pro Tyr Arg  
 370 375 380  
 Asp Ser Arg Leu Thr Phe Leu Leu Gln Glu Ser Leu Gly Gly Asn Ala  
 385 390 395 400  
 Lys Leu Ala Met Val Cys Ala Val Ser Pro Ser Gln Ser Cys Arg Ser  
 405 410 415  
 Glu Thr Phe Ser Thr Leu Arg Phe Ala Gln Arg Ala Lys Ala Ile Gln  
 420 425 430  
 Asn Lys Ala Ile Val Asn Glu Val Met Gln Asp Asp Val Asn Phe Leu  
 435 440 445  
 Arg Glu Val Ile Arg Gln Leu Arg Asp Glu Leu Gln Arg Val Lys Asp  
 450 455 460  
 Asp Lys Gly Asn Asn Pro Thr Asn Pro Asn Ala Ala Tyr Thr Thr Ser  
 465 470 475 480  
 Trp Asn Ala Arg Arg Ser Leu Ser Leu Leu Arg Ser Phe Gly Leu Gly  
 485 490 495  
 His Pro Lys Ser Leu Pro Asn Gly Asp Asp Asp Gly Asp Thr Glu Met  
 500 505 510  
 Glu Ile Asp Glu Glu Ala Val Glu Arg Leu Cys Ala Gln Met Gly Leu  
 515 520 525  
 Ser Pro Pro Ala Glu Asp Asn Asn Gln Glu Met Ser Arg Val Glu Lys  
 530 535 540  
 Ile Asn Ser Ser Leu Gln Thr Val Val Leu Lys Asp Glu Ser Tyr Asn  
 Page 3655

545                      550                      555                      560  
 Asn Ser His Leu Lys Ser Ser Glu Ala Thr Asp Val Asn Met Glu Asp  
                                  565                                   570                                   575  
 Ala Cys Cys Gln Thr Glu Asn Asn Gly Ser Glu Thr Asp Asn Ala Leu  
                                  580                                   585                                   590  
 Thr Val Ala Glu Thr Met Asp Asp Gly Ser Ser Val Gln Pro Asp Ser  
                                  595                                   600                                   605  
 Ile Thr Asn Ser Leu His Ser Cys Ile Ser Asp Thr Asn Gln Gly Asn  
                                  610                                   615                                   620  
 Ser Pro Ser Lys Ala Glu Asn Ile Pro Ser Cys Gln Asp Leu Val Ile  
                                  625                                   630                                   635                                   640  
 Glu Ala Asp Val Ser Ala Ile Val Ser Val Ala Asp Thr Ser Asn Asn  
                                  645                                   650                                   655  
 Thr Glu Gln Val Ser Val Asn Pro Val Ser Pro Cys Leu Ser Val Ala  
                                  660                                   665  
 Pro Val Ser Val Ser Pro Val Leu Ile Pro Pro Thr Glu Ser Ala Ser  
                                  675                                   680                                   685  
 Pro Lys Ile Arg Asn Ser Arg Lys Ser Leu Arg Thr Thr Ser Met Ser  
                                  690                                   695                                   700  
 Thr Ala Ser Gln Lys Asp Ile Glu Arg Ala Asn Gln Leu Thr Pro Glu  
                                  705                                   710                                   715                                   720  
 Val Val Glu Pro Ser Pro Ala Met Ser Thr Glu Val Leu Asn Leu Tyr  
                                  725                                   730                                   735  
 Ser Ala Leu Ser Thr Lys Lys Ser Glu Ala Phe Pro Val Pro Thr Arg  
                                  740                                   745                                   750  
 Gln Leu Ala Ala Ser Leu His Arg Gly Met Lys Leu Leu Asp Ser Tyr  
                                  755                                   760                                   765  
 Arg Gln Ser Thr Ala Leu Arg Arg Ser Thr Phe Arg Leu Ser Tyr Lys  
                                  770                                   775                                   780  
 Ala Leu Glu Cys Lys Pro Ser Thr Val Leu Ser Lys Ala Asp Val Gly  
                                  785                                   790                                   795                                   800

Val Gln Thr Tyr Pro Gln Ala Asp Glu Ile Ala Glu Asp Asn Ser Lys  
 805 810 815  
 Glu Val Leu Cys Ser Arg Cys Lys Cys Arg Ala Glu Cys Asp Ala Gln  
 820 825 830  
 Glu Ile Ser Asp Thr Ser Asn Leu Gln Leu Val Pro Ile Asp Asn Ser  
 835 840 845  
 Glu Gly Ser Glu Lys Ser Asn Phe Gln Val Pro Lys Ala Val Glu Lys  
 850 855 860  
 Val Leu Ala Gly Ser Ile Arg Arg Glu Met Ala Met Glu Glu Phe Cys  
 865 870 875 880  
 Thr Lys Gln Ala Ser Glu Ile Ser Gln Leu Asn Arg Leu Val Gln Gln  
 885 890 895  
 Tyr Lys His Glu Arg Glu Cys Asn Ala Ile Ile Gly Gln Thr Arg Glu  
 900 905 910  
 Asp Lys Ile Val Arg Leu Glu Ser Leu Met Asp Gly Val Leu Ser Lys  
 915 920 925  
 Asp Asp Phe Leu Asp Glu Glu Phe Ala Ser Leu Met His Glu His Lys  
 930 935 940  
 Leu Leu Lys Asp Met Tyr Glu Asn His Pro Glu Val Leu Gln Thr Arg  
 945 950 955 960  
 Ile Glu Leu Lys Arg Val Gln Glu Glu Leu Glu Ser Phe Lys Asn Phe  
 965 970 975  
 Tyr Gly Asp Met Gly Glu Arg Glu Val Leu Leu Glu Glu Ile His Asp  
 980 985 990  
 Leu Lys Ala Gln Leu Gln Cys Tyr Thr Asp Ser Ser Leu Thr Ser Ala  
 995 1000 1005  
 Arg Arg Arg Gly Ser Leu Leu Lys Leu Thr Tyr Ala Cys Asp Pro  
 1010 1015 1020  
 Asn Gln Ala Pro Gln Leu Asn Thr Ile Pro Glu Ser Val Asp Glu  
 1025 1030 1035  
 Gly Pro Glu Lys Thr Leu Glu Gln Glu Arg Leu Arg Trp Thr Glu  
 1040 1045 1050

## 047-E2F-PCT.ST25.txt

Ala Glu Ser Asn Trp Ile Ser Leu Ala Glu Glu Leu Arg Thr Glu  
 1055 1060 1065  
 Leu Asp Thr Asn Arg Leu Leu Met Glu Lys Gln Lys Arg Glu Leu  
 1070 1075 1080  
 Asp Thr Glu Lys Arg Cys Ala Glu Glu Leu Thr Glu Ala Met Gln  
 1085 1090 1095  
 Met Ala Met Gln Gly His Ala Arg Met Ile Glu Gln Tyr Ala Asp  
 1100 1105 1110  
 Leu Glu Glu Lys His Ile Gln Leu Leu Ala Arg His Arg Arg Ile  
 1115 1120 1125  
 Arg Glu Gly Ile Asp Asp Val Lys Lys Ala Ala Ala Arg Ala Gly  
 1130 1135 1140  
 Val Lys Gly Ala Glu Ser Arg Phe Ile Asn Ala Leu Ala Ala Glu  
 1145 1150 1155  
 Ile Ser Ala Leu Lys Val Gln Arg Glu Lys Glu Val Arg Tyr Phe  
 1160 1165 1170  
 Arg Asp Glu Asn Lys Ser Leu Gln Ser Gln Leu Arg Asp Thr Ala  
 1175 1180 1185  
 Glu Ala Val Gln Ala Ala Gly Glu Leu Leu Val Arg Phe Lys Glu  
 1190 1195 1200  
 Ala Glu Glu Gly Leu Thr Phe Ala Gln Lys Arg Ala Met Asp Ala  
 1205 1210 1215  
 Glu Tyr Glu Ala Ser Glu Ala Tyr Lys Lys Val Asp Lys Leu Lys  
 1220 1225 1230  
 Arg Lys Tyr Glu Thr Glu Ile Ser Thr Val Asn Gln Gln His Asn  
 1235 1240 1245  
 Ala Glu Pro Gln Asn Pro Ile Glu Ser Leu Gln Ala Ser Cys Asn  
 1250 1255 1260  
 Asp Asp Ala Met Ala Lys Tyr Asp Glu Pro Ser Ala Ser Asp Gly  
 1265 1270 1275  
 Asp Asn Gln Trp Arg Glu Glu Phe Gln Pro Phe Tyr Lys Lys Asp  
 1280 1285 1290



Glu Glu Leu Ser Lys Leu Ala Glu Pro Ser Trp Phe Ser Gly Tyr  
 1295 1300 1305

Asp Arg Cys Asn Ile  
 1310

<210> 2613

<211> 957

<212> DNA

<213> *Arabidopsis thaliana*

<400> 2613

```

atgctctctt ttttctctaa ccagatcgac cggcaaaaag atgtgtctaa tgaggaaaaa      60
accctaacca atctcgaaaa atctgacggt tcacaattcc ctggcgatga ctaccgtccg      120
tccgatcgga aaaactggat ggctggtctt acgttggaga aactaactct aaacaagatc      180
gtgtggccag gaacgcataa ttccagccacc aacgatatcg gaatacctct gatctctcgt      240
ccttttagctg aatgccaatc gctctctatc tacgagcagc tcgtcctcgg gacacgtgtc      300
ctcgatatcc gtgtgcaaga ggatcgccaa atctgccacg ggattctgac gtcatacgaa      360
attgatgttg tcattgatga cgttatcaga ttcttgtcgg agactcactc ggagattgta      420
atcctggaga taaggactga gtttggacac aaagatcctc cgggggttcga gacttacttg      480
gcagacaagt taggtcaatt cttgatacat caagatgata gcttgttcaa caagccggtg      540
tcagagattt tgccgaaaag gggttatatgc atctggaaac ctagagagtc tccaaagccg      600
agccgtgggtg gaattctctg gaactcagat tatctaaaag ataattggat cgatacggat      660
cttccatgga cgaaatttca gagcaatttg aagcatctga gtgagcagca gccgacatct      720
tctagaaaat tctttttaccg gggttgagaac acggtcacgc cgcaagcaga taatccggtt      780
gtgtgggtta aaccggtgac tgatcggatc cgaaaacacg ccagactatt tatttctcag      840
tgtgtttcca agggatgtgg agataagttg cagattttgt cactgattt catcgaagga      900
gatttcgttg atgcctgtgt cggccttact cacgcaagaa tcgaaggaaa gggtttga      957

```

<210> 2614

<211> 318

<212> PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2614

Met Leu Ser Phe Phe Ser Asn Gln Ile Asp Arg Gln Lys Asp Val Ser  
 1 5 10 15  
 Asn Glu Glu Lys Thr Leu Thr Asn Leu Glu Lys Ser Asp Gly Ser Gln  
 20 25 30  
 Phe Pro Gly Asp Asp Tyr Arg Pro Ser Asp Arg Lys Asn Trp Met Ala  
 35 40 45  
 Gly Leu Thr Leu Glu Lys Leu Thr Leu Asn Lys Ile Val Trp Pro Gly  
 50 55 60  
 Thr His Asp Ser Ala Thr Asn Asp Ile Gly Ile Pro Leu Ile Ser Arg  
 65 70 75 80  
 Pro Leu Ala Glu Cys Gln Ser Leu Ser Ile Tyr Glu Gln Leu Val Leu  
 85 90 95  
 Gly Thr Arg Val Leu Asp Ile Arg Val Gln Glu Asp Arg Gln Ile Cys  
 100 105 110  
 His Gly Ile Leu Thr Ser Tyr Glu Ile Asp Val Val Ile Asp Asp Val  
 115 120 125  
 Ile Arg Phe Leu Ser Glu Thr His Ser Glu Ile Val Ile Leu Glu Ile  
 130 135 140  
 Arg Thr Glu Phe Gly His Lys Asp Pro Pro Gly Phe Glu Thr Tyr Leu  
 145 150 155 160  
 Ala Asp Lys Leu Gly Gln Phe Leu Ile His Gln Asp Asp Ser Leu Phe  
 165 170 175  
 Asn Lys Pro Val Ser Glu Ile Leu Pro Lys Arg Val Ile Cys Ile Trp  
 180 185 190  
 Lys Pro Arg Glu Ser Pro Lys Pro Ser Arg Gly Gly Ile Leu Trp Asn  
 195 200 205  
 Ser Asp Tyr Leu Lys Asp Asn Trp Ile Asp Thr Asp Leu Pro Trp Thr  
 210 215 220  
 Lys Phe Gln Ser Asn Leu Lys His Leu Ser Glu Gln Gln Pro Thr Ser  
 225 230 235 240

Ser Arg Lys Phe Phe Tyr Arg Val Glu Asn Thr Val Thr Pro Gln Ala  
 245 250 255

Asp Asn Pro Val Val Trp Val Lys Pro Val Thr Asp Arg Ile Arg Lys  
 260 265 270

His Ala Arg Leu Phe Ile Ser Gln Cys Val Ser Lys Gly Cys Gly Asp  
 275 280 285

Lys Leu Gln Ile Leu Ser Thr Asp Phe Ile Glu Gly Asp Phe Val Asp  
 290 295 300

Ala Cys Val Gly Leu Thr His Ala Arg Ile Glu Gly Lys Val  
 305 310 315

<210> 2615

<211> 1380

<212> DNA

<213> Arabidopsis thaliana

<400> 2615

atgggattgt ggaatggaaa aggcaccgga ggatttatcc tctaccttct cgtggctttc	60
tccgtcgccg tcttctctgt ttcttacgtc ggagacacaa caaacctat tcatcatcat	120
ctctcttctc tctctgccac cgaaaaaatt tggccggatt tgaagtttag ctggaaactt	180
gtgttggtta cagtgatagc gtttctagga tcagcttggt ggactggttg tgggtgttga	240
gggtggtggga tttttgttcc tatgtcact cttatactcg ggttcgatac aaaatccgca	300
gctgcaatat caaaatgtat gataatggga gcatcagcat catcagtttg gtacaatgta	360
cgagttcgtc atccgacaaa agaagtacca atcttagatt atgatcttgc tcttctcttt	420
caaccaatgc ttcttctcgg tatcactggt ggtgtttctc tcagtgttgt gttcccttat	480
tggctcatta ctgtcctcat catcattctt ttcgtcggta cttcttcgag atcttttttt	540
aaaggcattg agatgtggaa ggaagagaca ttgttaaaga acgaaatggc gcagcaacga	600
gctaatatgg ttaattcccg gggagaactt ttaatcgata cagagtatga gccgctttac	660
ccgagagaag aaaaatcaga gctggaaata atacgtcca acctcaaag gaaagggctt	720
ctaattctag taactgtgtg gttgactttc ttgctcattc aaattgtcaa gaacgaaata	780
aaggtctgca gcacaatata ttggatacta ttcacgttac agttcccagt tgcttttagcg	840
gtgtttgggt ttgaagcaag caaattgtat acagcgaaca aaaagagggt aaacagtggc	900
aacactgaat gtatctgtga agctacgatt gagtggactc ctctgagtct aatcttctgt	960

047-E2F-PCT.ST25.txt

gggtctctgtg gtctcattgg aggtatcgta ggtgggtctcc ttggatccgg tgggtggattt 1020  
gttctcgggc ctttgcttct tgagattgga gtcatccac aggttgctag cgcaacagct 1080  
acctttgtga tgatgttttc ttcgtcctta tccgtagtcg agttctatct cctcaagaga 1140  
ttcccaatac catacgcaat gtacttgatt tcggtatcga ttcttgccgg tttttgggga 1200  
caatccttta taagaaagct cgtggcgatc ctgagaagag cttccataat cgttttcgtt 1260  
ctctcaggag tcatttgtgc aagtgtcttc acaatgggag tgattgggat agagaagagc 1320  
ataaagatga tacataacca tgaattcatg ggattcttag gattctgcag cagtcaatga 1380

<210> 2616

<211> 459

<212> PRT

<213> Arabidopsis thaliana

<400> 2616

Met Gly Leu Trp Asn Gly Lys Gly Thr Gly Gly Phe Ile Leu Tyr Leu  
1 5 10 15

Leu Val Ala Phe Ser Val Ala Val Phe Ser Val Ser Tyr Val Gly Asp  
20 25 30

Thr Thr Asn Pro Ile His His His Leu Ser Ser Leu Ser Ala Thr Glu  
35 40 45

Lys Ile Trp Pro Asp Leu Lys Phe Ser Trp Lys Leu Val Leu Ala Thr  
50 55 60

Val Ile Ala Phe Leu Gly Ser Ala Cys Gly Thr Val Gly Gly Val Gly  
65 70 75 80

Gly Gly Gly Ile Phe Val Pro Met Leu Thr Leu Ile Leu Gly Phe Asp  
85 90 95

Thr Lys Ser Ala Ala Ala Ile Ser Lys Cys Met Ile Met Gly Ala Ser  
100 105 110

Ala Ser Ser Val Trp Tyr Asn Val Arg Val Arg His Pro Thr Lys Glu  
115 120 125

Val Pro Ile Leu Asp Tyr Asp Leu Ala Leu Leu Phe Gln Pro Met Leu  
130 135 140

Leu Leu Gly Ile Thr Val Gly Val Ser Leu Ser Val Val Phe Pro Tyr  
 145 150 155 160  
 Trp Leu Ile Thr Val Leu Ile Ile Ile Leu Phe Val Gly Thr Ser Ser  
 165 170 175  
 Arg Ser Phe Phe Lys Gly Ile Glu Met Trp Lys Glu Glu Thr Leu Leu  
 180 185 190  
 Lys Asn Glu Met Ala Gln Gln Arg Ala Asn Met Val Asn Ser Arg Gly  
 195 200 205  
 Glu Leu Leu Ile Asp Thr Glu Tyr Glu Pro Leu Tyr Pro Arg Glu Glu  
 210 215 220  
 Lys Ser Glu Leu Glu Ile Ile Arg Ser Asn Leu Lys Trp Lys Gly Leu  
 225 230 235 240  
 Leu Ile Leu Val Thr Val Trp Leu Thr Phe Leu Leu Ile Gln Ile Val  
 245 250 255  
 Lys Asn Glu Ile Lys Val Cys Ser Thr Ile Tyr Trp Ile Leu Phe Ile  
 260 265 270  
 Val Gln Phe Pro Val Ala Leu Ala Val Phe Gly Phe Glu Ala Ser Lys  
 275 280 285  
 Leu Tyr Thr Ala Asn Lys Lys Arg Leu Asn Ser Gly Asn Thr Glu Cys  
 290 295 300  
 Ile Cys Glu Ala Thr Ile Glu Trp Thr Pro Leu Ser Leu Ile Phe Cys  
 305 310 315 320  
 Gly Leu Cys Gly Leu Ile Gly Gly Ile Val Gly Gly Leu Leu Gly Ser  
 325 330 335  
 Gly Gly Gly Phe Val Leu Gly Pro Leu Leu Leu Glu Ile Gly Val Ile  
 340 345 350  
 Pro Gln Val Ala Ser Ala Thr Ala Thr Phe Val Met Met Phe Ser Ser  
 355 360 365  
 Ser Leu Ser Val Val Glu Phe Tyr Leu Leu Lys Arg Phe Pro Ile Pro  
 370 375 380  
 Tyr Ala Met Tyr Leu Ile Ser Val Ser Ile Leu Ala Gly Phe Trp Gly  
 385 390 395 400

047-E2F-PCT.ST25.txt

Gln Ser Phe Ile Arg Lys Leu Val Ala Ile Leu Arg Arg Ala Ser Ile  
405 410 415

Ile Val Phe Val Leu Ser Gly Val Ile Cys Ala Ser Ala Leu Thr Met  
420 425 430

Gly Val Ile Gly Ile Glu Lys Ser Ile Lys Met Ile His Asn His Glu  
435 440 445

Phe Met Gly Phe Leu Gly Phe Cys Ser Ser Gln  
450 455

<210> 2617

<211> 501

<212> DNA

<213> Arabidopsis thaliana

<400> 2617

atgggtttgg ttacagatga agtgagagct agggcagaga aatacacagg agatgagata	60
tgccgtgaga agacaaagga gtttctcaag gaagtttcta tgcctaattgg tttattgcca	120
ttgaaggaca ttgaagaagt tggttacgac agagagacag gtattgtctg gctgaagcag	180
aagaagagca tcaccacaa gtttgaagcc atttgtaaac ttgtctctta cgccaccgag	240
gtcattgcac aggtggaggt cggaaagatc aagaagctta ccggtgttaa ggccaaggag	300
cttcttattt gggctactct caatgagctt gtcttggagc agccgacaag ttcagggaag	360
atcaatttca ggacaccaac tggctctgtcc aggactttcc cagtgtctgc tttcgttggt	420
cctgaagttg agaagcctgc aacggagaag aacaatggaa cactgaggt caaagaagct	480
gttgcagtca cagatgctta g	501

<210> 2618

<211> 166

<212> PRT

<213> Arabidopsis thaliana

<400> 2618

Met Gly Leu Val Thr Asp Glu Val Arg Ala Arg Ala Glu Lys Tyr Thr  
1 5 10 15

Gly Asp Glu Ile Cys Arg Glu Lys Thr Lys Glu Phe Leu Lys Glu Val  
 20 25 30  
 Ser Met Pro Asn Gly Leu Leu Pro Leu Lys Asp Ile Glu Glu Val Gly  
 35 40 45  
 Tyr Asp Arg Glu Thr Gly Ile Val Trp Leu Lys Gln Lys Lys Ser Ile  
 50 55 60  
 Thr His Lys Phe Glu Ala Ile Gly Lys Leu Val Ser Tyr Ala Thr Glu  
 65 70 75 80  
 Val Ile Ala Gln Val Glu Val Gly Lys Ile Lys Lys Leu Thr Gly Val  
 85 90 95  
 Lys Ala Lys Glu Leu Leu Ile Trp Val Thr Leu Asn Glu Leu Val Leu  
 100 105 110  
 Glu Gln Pro Thr Ser Ser Gly Lys Ile Asn Phe Arg Thr Pro Thr Gly  
 115 120 125  
 Leu Ser Arg Thr Phe Pro Val Ser Ala Phe Val Val Pro Glu Val Glu  
 130 135 140  
 Lys Pro Ala Thr Glu Lys Asn Asn Gly Thr Thr Glu Val Lys Glu Ala  
 145 150 155 160  
 Val Ala Val Thr Asp Ala  
 165

&lt;210&gt; 2619

&lt;211&gt; 1341

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2619

atggagacga tgacgatgaa gggttgaaacc attagtaaag aaatcataaa gccatcttcg 60  
 ccaactccaa ataatctcca aactctccaa ctctcaattt acgatcacat ccttcctcca 120  
 gtttacacag tagcctttct cttctacacc aaaaatgatt tgatctctca agaacacact 180  
 tcccacaaac tcaagacttc tctgtctgaa accctgacca agttctaccc tcttgccgga 240  
 agaatcaccg gagtaaccgt cgattgtacc gatgaaggag ctatctttgt cgatgctcgt 300  
 gtcaataact gtcctctcac tgaatttctc aagtgccttg atttcgacgc cctccaacag 360

047-E2F-PCT.ST25.txt

```

ttgcttcctc tagatgttgt agacaaccca tacgtggctg ctgccacgtg gcctttgctg 420
ctcgtgaagg caacttactt cggatgcgga ggcatggcca taggaatctg catcactcac 480
aaaatcgcgg acgcagcctc catctcgact ttcattcggt cctggggccgc cacggctcga 540
ggagagaacg atgccgctgc gatggaaagt cctgtatttg ctggtgcgaa tttctaccca 600
ccagccaatg aggcttttaa gctacctgcg gacgaacaag ccggcaagag aagcagcatt 660
acaaagagat ttgtgttcga agctttctaag gtggaagatc tcaggaccaa agccgctagt 720
gaagaaacag tagaccaacc tacgcgggtg gagagcggtt ctgcgctcat ctggaaatgc 780
ttcgtcgcat cctcaaagac aactacttgt gatcaciaag tgctgggtcca gcttgctaac 840
ttgcgggtcca agataccttc ctttctgcaa gaaagctcta tcggaaatct catgtttctt 900
tctgtggtct tgagtattgg tcgaggaggg gaagttaaaa ttgaagaggc cgttagagac 960
ttacgaaaaa aaaaggagga gttaggaact gtgaccttag acgagggtgg gtcacttgac 1020
tcactttcca tgatcggttc gaaactagca aatctgatgc tcaccaacta ttctcggttg 1080
agctatgaga ctcatgaacc ctataccgtg agtagctggt gtaagctacc tctttacgag 1140
gctagctttg gatgggattc tccggtttgg gttgttgga atgtgtcccc cgtgttaggc 1200
aacttggtcca tgttgataga ttccaaggac ggacaaggaa ttgaagcgtt cgtcacactg 1260
cctgaagaga acatgtcgtc cttcgagcag aaccagagt tgctcgcctt tgctaccatg 1320
aaccctagtg tcttggttta a 1341

```

<210> 2620  
 <211> 446  
 <212> PRT  
 <213> Arabidopsis thaliana

<400> 2620

Met	Glu	Thr	Met	Thr	Met	Lys	Val	Glu	Thr	Ile	Ser	Lys	Glu	Ile	Ile
1				5					10					15	
Lys	Pro	Ser	Ser	Pro	Thr	Pro	Asn	Asn	Leu	Gln	Thr	Leu	Gln	Leu	Ser
			20					25					30		
Ile	Tyr	Asp	His	Ile	Leu	Pro	Pro	Val	Tyr	Thr	Val	Ala	Phe	Leu	Phe
		35					40					45			
Tyr	Thr	Lys	Asn	Asp	Leu	Ile	Ser	Gln	Glu	His	Thr	Ser	His	Lys	Leu
	50					55					60				



## 047-E2F-PCT.ST25.txt

Lys Thr Ser Leu Ser Glu Thr Leu Thr Lys Phe Tyr Pro Leu Ala Gly  
 65 70 75 80  
 Arg Ile Thr Gly Val Thr Val Asp Cys Thr Asp Glu Gly Ala Ile Phe  
 85 90 95  
 Val Asp Ala Arg Val Asn Asn Cys Pro Leu Thr Glu Phe Leu Lys Cys  
 100 105 110  
 Pro Asp Phe Asp Ala Leu Gln Gln Leu Leu Pro Leu Asp Val Val Asp  
 115 120 125  
 Asn Pro Tyr Val Ala Ala Ala Thr Trp Pro Leu Leu Leu Val Lys Ala  
 130 135 140  
 Thr Tyr Phe Gly Cys Gly Gly Met Ala Ile Gly Ile Cys Ile Thr His  
 145 150 155 160  
 Lys Ile Ala Asp Ala Ala Ser Ile Ser Thr Phe Ile Arg Ser Trp Ala  
 165 170 175  
 Ala Thr Ala Arg Gly Glu Asn Asp Ala Ala Ala Met Glu Ser Pro Val  
 180 185 190  
 Phe Ala Gly Ala Asn Phe Tyr Pro Pro Ala Asn Glu Ala Phe Lys Leu  
 195 200 205  
 Pro Ala Asp Glu Gln Ala Gly Lys Arg Ser Ser Ile Thr Lys Arg Phe  
 210 215 220  
 Val Phe Glu Ala Ser Lys Val Glu Asp Leu Arg Thr Lys Ala Ala Ser  
 225 230 235 240  
 Glu Glu Thr Val Asp Gln Pro Thr Arg Val Glu Ser Val Thr Ala Leu  
 245 250 255  
 Ile Trp Lys Cys Phe Val Ala Ser Ser Lys Thr Thr Thr Cys Asp His  
 260 265 270  
 Lys Val Leu Val Gln Leu Ala Asn Leu Arg Ser Lys Ile Pro Ser Leu  
 275 280 285  
 Leu Gln Glu Ser Ser Ile Gly Asn Leu Met Phe Ser Ser Val Val Leu  
 290 295 300  
 Ser Ile Gly Arg Gly Gly Glu Val Lys Ile Glu Glu Ala Val Arg Asp  
 305 310 315 320

047-E2F-PCT.ST25.txt

Leu Arg Lys Lys Lys Glu Glu Leu Gly Thr Val Ile Leu Asp Glu Gly  
325 330 335

Gly Ser Ser Asp Ser Ser Ser Met Ile Gly Ser Lys Leu Ala Asn Leu  
340 345 350

Met Leu Thr Asn Tyr Ser Arg Leu Ser Tyr Glu Thr His Glu Pro Tyr  
355 360 365

Thr Val Ser Ser Trp Cys Lys Leu Pro Leu Tyr Glu Ala Ser Phe Gly  
370 375 380

Trp Asp Ser Pro Val Trp Val Val Gly Asn Val Ser Pro Val Leu Gly  
385 390 395 400

Asn Leu Ala Met Leu Ile Asp Ser Lys Asp Gly Gln Gly Ile Glu Ala  
405 410 415

Phe Val Thr Leu Pro Glu Glu Asn Met Ser Ser Phe Glu Gln Asn Pro  
420 425 430

Glu Leu Leu Ala Phe Ala Thr Met Asn Pro Ser Val Leu Val  
435 440 445

<210> 2621

<211> 849

<212> DNA

<213> Arabidopsis thaliana

<400> 2621

atggcgtatt tagctccgat ttcttcatcc ttatccatat tcaagaatcc ccaactctca	60
agattccaat tttctttcttc ctcaccgaac ccacttttcc ttcgacctag gattcagatt	120
ctgagtatga ccatgaacaa gtcgccgtct ttagtggttg ttgcggctac tactgcggca	180
gagaagcaga agaagaggta tcctggagaa tcaaagggtt ttgtggagga gatgaggttt	240
gtggctatga gacttcatac taaagatcaa gctaaggaag gtgagaaaga gactaaatct	300
attgaggaac gtcctgttgc taaatgggaa cctactgttg aaggttactt gaggtttctt	360
gtggatagta aattggttta tgatactctt gaactgatta ttcaagactc caatttccca	420
acttatgccg agttcaagaa cacggggctg gaaagagcgg agaaattatc cacggatttg	480
gagtggttca aggaacaagg ttacgagatt ccagaaccaa cagctcctgg taaaacatat	540
tctcaatatt taaaggaatt agcagagaag gatcctcaag cattcatttg tcacttctac	600

047-E2F-PCT.ST25.txt

aacatctact ttgctcatag tgctggtgga cgaatgattg gcagaaaggt ggcagagcgg 660  
 atactcgata ataaagaact cgagttctac aaatgggacg gcgaactttc tcaattgttg 720  
 cagaacgtta gggagaaact gaacaagggt gcagaggagt ggactagaga agaaaagaat 780  
 cattgtttgg aagagactga gaaatcgttc aagtattctg gtgagatact tcgtctcata 840  
 ttgtcctga 849

<210> 2622

<211> 282

<212> PRT

<213> Arabidopsis thaliana

<400> 2622

Met	Ala	Tyr	Leu	Ala	Pro	Ile	Ser	Ser	Ser	Leu	Ser	Ile	Phe	Lys	Asn
1				5					10					15	
Pro	Gln	Leu	Ser	Arg	Phe	Gln	Phe	Ser	Ser	Ser	Ser	Pro	Asn	Pro	Leu
			20					25					30		
Phe	Leu	Arg	Pro	Arg	Ile	Gln	Ile	Leu	Ser	Met	Thr	Met	Asn	Lys	Ser
		35					40					45			
Pro	Ser	Leu	Val	Val	Val	Ala	Ala	Thr	Thr	Ala	Ala	Glu	Lys	Gln	Lys
	50					55				60					
Lys	Arg	Tyr	Pro	Gly	Glu	Ser	Lys	Gly	Phe	Val	Glu	Glu	Met	Arg	Phe
65				70					75					80	
Val	Ala	Met	Arg	Leu	His	Thr	Lys	Asp	Gln	Ala	Lys	Glu	Gly	Glu	Lys
				85					90					95	
Glu	Thr	Lys	Ser	Ile	Glu	Glu	Arg	Pro	Val	Ala	Lys	Trp	Glu	Pro	Thr
			100					105					110		
Val	Glu	Gly	Tyr	Leu	Arg	Phe	Leu	Val	Asp	Ser	Lys	Leu	Val	Tyr	Asp
		115					120					125			
Thr	Leu	Glu	Leu	Ile	Ile	Gln	Asp	Ser	Asn	Phe	Pro	Thr	Tyr	Ala	Glu
	130					135					140				
Phe	Lys	Asn	Thr	Gly	Leu	Glu	Arg	Ala	Glu	Lys	Leu	Ser	Thr	Asp	Leu
145					150					155					160

047-E2F-PCT.ST25.txt

Glu Trp Phe Lys Glu Gln Gly Tyr Glu Ile Pro Glu Pro Thr Ala Pro  
165 170 175

Gly Lys Thr Tyr Ser Gln Tyr Leu Lys Glu Leu Ala Glu Lys Asp Pro  
180 185 190

Gln Ala Phe Ile Cys His Phe Tyr Asn Ile Tyr Phe Ala His Ser Ala  
195 200 205

Gly Gly Arg Met Ile Gly Arg Lys Val Ala Glu Arg Ile Leu Asp Asn  
210 215 220

Lys Glu Leu Glu Phe Tyr Lys Trp Asp Gly Glu Leu Ser Gln Leu Leu  
225 230 235 240

Gln Asn Val Arg Glu Lys Leu Asn Lys Val Ala Glu Glu Trp Thr Arg  
245 250 255

Glu Glu Lys Asn His Cys Leu Glu Glu Thr Glu Lys Ser Phe Lys Tyr  
260 265 270

Ser Gly Glu Ile Leu Arg Leu Ile Leu Ser  
275 280

<210> 2623

<211> 1521

<212> DNA

<213> Arabidopsis thaliana

<400> 2623

atgaaacatt tctctctact tttcattttt ctggtcatcc tcttggcaac aagctacagt	60
gatgccttta ccagaaacag ttttccaaag gatttcctct tcggagccgc cacttctgct	120
tatcagtggg aaggagctgt tgctgaagat ggaagaactc ctagtgtctg ggatactttc	180
tccaactctt acgatacagg taatggagat gtaacatctg atgggtatca caaatacaag	240
gaagatgtta agctgatggc aacaatgggc ttagaatcat tcagattctc tatctcctgg	300
tcaagactta tacctaattg aagaggactc attaatccaa aaggactatt gttttacaac	360
aatctcatca aagacctaaa aagccatgga atcgaaccac atgttacact ttaccactat	420
gatcttcctc agtctcttga agatgagtag ggcggatgga tcaaccgcaa aatcatagaa	480
gacttcactg cttatgcaga tgtatgcttc agagagtttg gggaggatgt gaagttatgg	540
actacaataa acgaagctac aattttcgcc attggttctt atgaccaagg aaccgcgccg	600

047-E2F-PCT.ST25.txt

```

cctggacatt gttctcctaa taaattcgtc aattgttcta ctggaaattc ttctacagaa 660
ccatatattg caggccataa catattgcta gctcatgcct ctgcttcaaa gttgtataaa 720
ctaaagtaca agagtaagca gaaaggatcc atagggctta gtatatttgc attcgggtta 780
tctccatata caaactccaa ggatgatgaa atcgcaactc aaagagctaa aactttctta 840
tatggctgga tgttgaagcc tttggtatth ggagactatc cggatgaaat gaagaaaact 900
gtgggatcga gattaccagt tttctcagag gaagagtcag agcaagttaa aggatcatct 960
gactttatag gaattattca ttacacaaca ttctatgtca caaaccacca accttcagct 1020
tctctctttc ccagcatggg tgaaggcttc tttaaagaca tgggagtata tataattccc 1080
actgggaatt cttcatttct tgtgtgggag gctactccat ggggtcttga aggtattctt 1140
gagtatataa agcagagcta taacaatcct ccagtctata ttcttgaaaa tggtatgccg 1200
atggtacgcg attcgacact acaagacaca caaagaattg aatacattca agcttacatt 1260
gacgctgtac tcaacgcaat gaagaatgga tcggacacga gaggttactt tgtatggctg 1320
atggttgatg tgtatgagat attgagtgga tatacgacca gcttcggaat gtaccatgtg 1380
aatttcagcg atcctggctg caagaggact ccaaagctct ctgcttcttg gtacactggg 1440
ttccttaatg gtacaattga tgttgcttct caagatacta ttcagttgtg gagcaacttc 1500
tctgtctctt cttcattgta a 1521

```

<210> 2624

<211> 506

<212> PRT

<213> Arabidopsis thaliana

<400> 2624

Met Lys His Phe Ser Leu Leu Phe Ile Phe Leu Val Ile Leu Leu Ala  
1 5 10 15

Thr Ser Tyr Ser Asp Ala Phe Thr Arg Asn Ser Phe Pro Lys Asp Phe  
20 25 30

Leu Phe Gly Ala Ala Thr Ser Ala Tyr Gln Trp Glu Gly Ala Val Ala  
35 40 45

Glu Asp Gly Arg Thr Pro Ser Val Trp Asp Thr Phe Ser Asn Ser Tyr  
50 55 60

Asp Thr Gly Asn Gly Asp Val Thr Ser Asp Gly Tyr His Lys Tyr Lys  
Page 3671

65					70											80
Glu	Asp	Val	Lys	Leu	Met	Ala	Thr	Met	Gly	Leu	Glu	Ser	Phe	Arg	Phe	
				85					90					95		
Ser	Ile	Ser	Trp	Ser	Arg	Leu	Ile	Pro	Asn	Gly	Arg	Gly	Leu	Ile	Asn	
			100					105					110			
Pro	Lys	Gly	Leu	Leu	Phe	Tyr	Asn	Asn	Leu	Ile	Lys	Asp	Leu	Lys	Ser	
		115					120					125				
His	Gly	Ile	Glu	Pro	His	Val	Thr	Leu	Tyr	His	Tyr	Asp	Leu	Pro	Gln	
	130					135					140					
Ser	Leu	Glu	Asp	Glu	Tyr	Gly	Gly	Trp	Ile	Asn	Arg	Lys	Ile	Ile	Glu	
145					150					155					160	
Asp	Phe	Thr	Ala	Tyr	Ala	Asp	Val	Cys	Phe	Arg	Glu	Phe	Gly	Glu	Asp	
				165					170					175		
Val	Lys	Leu	Trp	Thr	Thr	Ile	Asn	Glu	Ala	Thr	Ile	Phe	Ala	Ile	Gly	
			180					185					190			
Ser	Tyr	Asp	Gln	Gly	Thr	Ala	Pro	Pro	Gly	His	Cys	Ser	Pro	Asn	Lys	
		195					200					205				
Phe	Val	Asn	Cys	Ser	Thr	Gly	Asn	Ser	Ser	Thr	Glu	Pro	Tyr	Ile	Ala	
	210					215					220					
Gly	His	Asn	Ile	Leu	Leu	Ala	His	Ala	Ser	Ala	Ser	Lys	Leu	Tyr	Lys	
225					230					235					240	
Leu	Lys	Tyr	Lys	Ser	Lys	Gln	Lys	Gly	Ser	Ile	Gly	Leu	Ser	Ile	Phe	
				245					250					255		
Ala	Phe	Gly	Leu	Ser	Pro	Tyr	Thr	Asn	Ser	Lys	Asp	Asp	Glu	Ile	Ala	
			260					265					270			
Thr	Gln	Arg	Ala	Lys	Thr	Phe	Leu	Tyr	Gly	Trp	Met	Leu	Lys	Pro	Leu	
		275					280					285				
Val	Phe	Gly	Asp	Tyr	Pro	Asp	Glu	Met	Lys	Lys	Thr	Val	Gly	Ser	Arg	
	290					295					300					
Leu	Pro	Val	Phe	Ser	Glu	Glu	Glu	Ser	Glu	Gln	Val	Lys	Gly	Ser	Ser	
305					310					315					320	

Asp Phe Ile Gly Ile Ile His Tyr Thr Thr Phe Tyr Val Thr Asn His  
 325 330 335

Gln Pro Ser Ala Ser Leu Phe Pro Ser Met Gly Glu Gly Phe Phe Lys  
 340 345 350

Asp Met Gly Val Tyr Ile Ile Pro Thr Gly Asn Ser Ser Phe Leu Val  
 355 360 365

Trp Glu Ala Thr Pro Trp Gly Leu Glu Gly Ile Leu Glu Tyr Ile Lys  
 370 375 380

Gln Ser Tyr Asn Asn Pro Pro Val Tyr Ile Leu Glu Asn Gly Met Pro  
 385 390 395 400

Met Val Arg Asp Ser Thr Leu Gln Asp Thr Gln Arg Ile Glu Tyr Ile  
 405 410 415

Gln Ala Tyr Ile Asp Ala Val Leu Asn Ala Met Lys Asn Gly Ser Asp  
 420 425 430

Thr Arg Gly Tyr Phe Val Trp Ser Met Val Asp Val Tyr Glu Ile Leu  
 435 440 445

Ser Gly Tyr Thr Thr Ser Phe Gly Met Tyr His Val Asn Phe Ser Asp  
 450 455 460

Pro Gly Arg Lys Arg Thr Pro Lys Leu Ser Ala Ser Trp Tyr Thr Gly  
 465 470 475 480

Phe Leu Asn Gly Thr Ile Asp Val Ala Ser Gln Asp Thr Ile Gln Leu  
 485 490 495

Trp Ser Asn Phe Ser Val Ser Ser Ser Leu  
 500 505

<210> 2625

<211> 921

<212> DNA

<213> Arabidopsis thaliana

<400> 2625

atggaggtac cggtgattaa tagaataaga gatttcgaag ttggtataaa ctcgattaat 60

gatccttcgt ttctttctcg atctgttgct gtttccggaa tcggaaagct acaccaagct 120

047-E2F-PCT.ST25.txt

tatggttttt ggaaatgggg agcttttgatt atcgcatcttc tagcttattt caccaacttt	180
gtagtagtaaac tcaacagtct agttgttagg ttaagaaaaa tagatgtctc tgtttcctct	240
ccaactcttt ttgatgatta cgatagcgat tccgatgttt cttgttcctc taccgtctcc	300
tctgacgatg aaaaagacga agaagatgag gctgatgatg aagatgagga tgttgactcg	360
atctttaatc gaagacgagt caacggaggt ttccgcgtta gaggatctga ttattacgat	420
gatgatgatg atcagggaga caatggtaat tgcacatgga tggggaggcg atatagtgg	480
agttttggag atttgttctc atggcctgat cttggtggga ttggttcgag tggagtcgtg	540
aagctttggg atcatttaga tatcgatggc gatgatcatg agaatgttgt ggcaacgttt	600
ctcaagaact ataactcaac ctgcgcaccg tttttttggg cggcggagaa aaaaggtgtt	660
gacgccgtta aagtgaaggc gtgtgatcca cgcgccggtt ttcggatgcc ggctttgctc	720
gcggagtgga ggcagccggg gcggttggtta gggaaataaa tcggagttga taccggtgg	780
gtggagaaag tatacgtcag ggatgatgtt agcggagaga tagccgtggg agatttgagg	840
aagtttaacg gtgtgttgac ggacttgacg gaatgtgagg ctgagacttg gtgggacgct	900
gacgtcctta tctcgggctg a	921

<210> 2626

<211> 306

<212> PRT

<213> Arabidopsis thaliana

<400> 2626

Met	Glu	Val	Pro	Val	Ile	Asn	Arg	Ile	Arg	Asp	Phe	Glu	Val	Gly	Ile
1				5					10					15	

Asn	Ser	Ile	Asn	Asp	Pro	Ser	Phe	Leu	Ser	Arg	Ser	Val	Ala	Val	Ser
			20					25					30		

Gly	Ile	Gly	Lys	Leu	His	Gln	Ala	Tyr	Gly	Phe	Trp	Lys	Trp	Gly	Ala
		35					40					45			

Leu	Ile	Ile	Ala	Phe	Leu	Ala	Tyr	Phe	Thr	Asn	Phe	Val	Ser	Lys	Leu
	50					55					60				

Asn	Ser	Leu	Val	Val	Arg	Leu	Arg	Lys	Ile	Asp	Val	Ser	Val	Ser	Ser
65					70					75					80

Pro	Thr	Leu	Phe	Asp	Asp	Tyr	Asp	Ser	Asp	Ser	Asp	Val	Ser	Cys	Ser
				85					90					95	



047-E2F-PCT.ST25.txt

Ser Thr Val Ser Ser Asp Asp Glu Lys Asp Glu Glu Asp Glu Ala Asp  
100 105 110

Asp Glu Asp Glu Asp Val Asp Ser Ile Phe Asn Arg Arg Arg Val Asn  
115 120 125

Gly Gly Phe Arg Val Arg Gly Ser Asp Tyr Tyr Asp Asp Asp Asp Asp  
130 135 140

Gln Gly Asp Asn Gly Asn Cys Thr Trp Met Gly Arg Arg Tyr Ser Gly  
145 150 155 160

Ser Phe Gly Asp Leu Phe Ser Trp Pro Asp Leu Gly Gly Ile Gly Ser  
165 170 175

Ser Gly Val Val Lys Leu Trp Asp His Leu Asp Ile Asp Gly Asp Asp  
180 185 190

His Glu Asn Val Val Ala Thr Phe Leu Lys Asn Tyr Asn Ser Thr Ser  
195 200 205

Ser Pro Phe Phe Trp Ala Ala Glu Lys Lys Gly Val Asp Ala Val Lys  
210 215 220

Val Lys Ala Cys Asp Pro Arg Ala Gly Phe Arg Met Pro Ala Leu Leu  
225 230 235 240

Ala Glu Trp Arg Gln Pro Gly Arg Leu Leu Gly Asn Ile Ile Gly Val  
245 250 255

Asp Thr Gly Gly Val Glu Lys Val Tyr Val Arg Asp Asp Val Ser Gly  
260 265 270

Glu Ile Ala Val Gly Asp Leu Arg Lys Phe Asn Gly Val Leu Thr Asp  
275 280 285

Leu Thr Glu Cys Glu Ala Glu Thr Trp Trp Asp Ala Asp Val Leu Ile  
290 295 300

Ser Gly  
305

<210> 2627

<211> 531

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2627

```

atgggatcgg aacaaaacga tagcacaagc ttcacgcaat cgcaagcttc agagccaaag      60
ctatgtgtta aaggatgtgg tttctttgga tcaccatcaa acatggatct ctgttctaaa    120
tgttacagag gcatttgtgc tgaggaagct caaacagcag ttgctaaagc tgctgttgaa    180
aaatctttca agccttctcc tcctcgtagt ctcttcatag cagaacctcc tgctgttggt    240
gtggaacca aacccgaaaa ggcggcagtt gttgttgtct cggccgagcc atcttcctcg    300
gcggttcctg aggcgaacga gccatcgaga cctgcacgaa ccaaccggtg tttgtgttgt    360
aacaagaagg ttgggatcat ggggtttaag tgcaaatgcg ggagcacttt ctgcggcgaa    420
catcggtacc cggagactca tgattgcagc tttgatttca aagaagttgg acgtggagag    480
attgccaaag ctaatcctgt ggtaaggct gataaaattc aaaggttctg a              531

```

&lt;210&gt; 2628

&lt;211&gt; 176

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2628

```

Met Gly Ser Glu Gln Asn Asp Ser Thr Ser Phe Thr Gln Ser Gln Ala
1          5          10          15

Ser Glu Pro Lys Leu Cys Val Lys Gly Cys Gly Phe Phe Gly Ser Pro
          20          25          30

Ser Asn Met Asp Leu Cys Ser Lys Cys Tyr Arg Gly Ile Cys Ala Glu
          35          40          45

Glu Ala Gln Thr Ala Val Ala Lys Ala Ala Val Glu Lys Ser Phe Lys
50          55          60

Pro Ser Pro Pro Arg Ser Leu Phe Ile Ala Glu Pro Pro Ala Val Val
65          70          75          80

Val Glu Pro Lys Pro Glu Lys Ala Ala Val Val Val Val Ser Ala Glu
          85          90          95

Pro Ser Ser Ser Ala Val Pro Glu Ala Asn Glu Pro Ser Arg Pro Ala
100          105          110

```

Arg Thr Asn Arg Cys Leu Cys Cys Asn Lys Lys Val Gly Ile Met Gly  
115 120 125

Phe Lys Cys Lys Cys Gly Ser Thr Phe Cys Gly Glu His Arg Tyr Pro  
130 135 140

Glu Thr His Asp Cys Ser Phe Asp Phe Lys Glu Val Gly Arg Gly Glu  
145 150 155 160

Ile Ala Lys Ala Asn Pro Val Val Lys Ala Asp Lys Ile Gln Arg Phe  
165 170 175

<210> 2629

<211> 3207

<212> DNA

<213> Arabidopsis thaliana

<400> 2629

atggatgatg ttcagatcga tgatactttt ccggtggatc taaatgggggt tacgtcactt	60
tgttcaccgg agattcctag tttcgatttc gttagtgatg aaacagagaa attagagatc	120
ggagatactt ccattgatga ctgtgacgat gcattgggcg actccatgga ttcgggattt	180
tattcatttc gcctaattct ggggtgaagat ggatttaatc tgatgttaac gaggagagtt	240
aggtttctaa ttcaatatga gacaattatg ttcataaatg ctggaggaga tgattcaaag	300
gtattagatt ctgaattgaa tatctccaga gatgactatt tcgaaggagg agatgtgttg	360
agaacagaag agtctatagt tgaagctgga gactttccgt tcatttatca gtcagcacgt	420
gttggggaact tttgttacca gttaaacaat cttcttccgg gagagtactt gatcgatttc	480
catttcgcgg agattattaa caccaatgga cctaaaggga taagggtttt caacgtctat	540
gttcaagatg agaaggcaac tgagtttgat atattctcgg ttgttggcgc aaataggcca	600
ctcctgttgg ttgacttaag ggtcatggtg atggatgatg gattgattag ggtaaggttt	660
gaaggaataa atggaagtcc agtggtttgt gggatttgtc ttaggaaagc gccacaggtt	720
tcagttccaa ggacatcaca agattttatt aagtgtgaga attgtgctac cgaaatcgag	780
atttctccta ctcggaagag acttatgcga gccaaagctc atgacaagta tgagaagaaa	840
atagcagagc tttctgaacg atatgaacat aagacaaatg agtgccacga agcatggatg	900
tcactgacct ctgccaatga gcaactagag aaagtgatga tggaactcaa caataagata	960
tatcaggcac gctctctaga ccaaactgtg ataacacaag ctgattgttt gaagagtatc	1020

actagaaagt atgagaatga caagagacat tgggccacag caattgattc tctacaggag	1080
aaaatagaga taatgaaaag ggaacaatct cagctatcac aggaagcaca tgaatgcgtt	1140
gaagggatcc ccgaactgta taaaatgggtt ggtggagttc aggcactcgt ttcacagtgt	1200
gaagatctaa agcagaagta cagtgaagag caagcaaaac gaaaggagct gtacaaccat	1260
atacaggaga cgaaaggcaa tattaggggtc ttttgtcgct gccgcccttt gaatacggag	1320
gagacatcaa ccaagtctgc cacaattggt gactttgatg gagcaaaaga tggagagctt	1380
ggtgttatta caggaaataa ttccaagaaa agtttcaagt ttgacagagt ttatacaccg	1440
aaagatgggtc aagttgatgt cttcgccgat gcttctccga tggttgtttc agtcctagac	1500
ggctacaatg tttgtatttt tgcctacgga caaacaggaa caggaaagac gtttacaatg	1560
gaaggtactc cgcagaacag ggggtgtcaat tatagaaccg tcgagcaatt gtttgaagtt	1620
gctagagaaa ggagagagac catttcatat aacatatcgg ttagtgtcct tgaggtctac	1680
aatgaacaaa taagagactt gttggcaaca tcaccagggt caaagaagtt ggagataaaa	1740
caatcctctg atggctctca tcacgttcct ggattagtag aagcaaagt ggaaaatata	1800
aatgaagtct ggaatgtgct tcaagctggg agcaacgcaa gatcagttgg atcaaataat	1860
gtgaacgagc atagcagccg ctctcactgc atgctctcta taatggtgaa agcaaagaac	1920
ctgatgaatg gtgattgcac aaaaagcaag ctttggcttg tagatttagc tggaagtgag	1980
agattggcaa agacggatgt gcaagggtgag cgtctgaagg aagcacaaaa catcaacagg	2040
tcactctcag ctctggggga tgtgatttat gctttggcaa caaagagtag tcatattcca	2100
tacagtccat ctgagcatga tgtgagtga actctaagtt cacttaactt tgcaactcgt	2160
gtaagagggg ttgaattggg tcctgcaagg aagcaagttg ataccggtga gatccagaag	2220
ttgaaagcaa tgggtggagaa agcaagacaa gaaagccgat ctaaagatga atccataaag	2280
aaaatggagg agaacattca gaatctggaa ggtaagaaca aaggaagaga caactcatac	2340
agaagtctcc agggaaaaaa caaagacctt caaaaccaac ttgattcagt ccacaaccaa	2400
tcagaaaaac aatatgcaca gcttcaagag agactaaaga gcagagatga gatttgtagc	2460
aatcttcaac aaaaggtcaa ggagctagag tgcaagctac gggagagaca ccaatcagat	2520
tctgcagcta acaaccagaa ggttaaggat cttgagaata atttgaaaga atctgaagga	2580
agctcccttg tgtggcaaca gaagggttaag gattacgaga ataagttgaa agagtctgaa	2640
ggaaactctc ttgtgtggca acagaagatt aaagagttgg agataaaaca caaagacgag	2700
cagagccaag aagcagtgtt actacgacaa aagatcaaag aacttgagat gaggctaaag	2760
gagcaagaga agcatatata ggaaatggca acaactagag aattccctga agttgcaaac	2820
gctacgccta atgaagtga aacttgcttc aaagaagata actttggcaa tgagaatatg	2880
gaatccaaca ccaacatcct gagaacatca aaccgtctca agactaaaag acacgattca	2940

047-E2F-PCT.ST25.txt

ttaaatctca atgagatgac tagaaagaag agggcctcga gaagcggcga aacagagaac 3000  
aatggtgatg atcctcaa at gaaggagaaa cggatcagaa aatcagaccc accaaaagtt 3060  
ttctccagag tagtcagacc aactagaaca gcttctgggt catcaagcca agtccctgtg 3120  
gctcagaaga gagttattaa aagagaacaa caagaagttc cggtcgtgaa agagagagac 3180  
tccaagaaga agatttggtc aagataa 3207

<210> 2630

<211> 1068

<212> PRT

<213> Arabidopsis thaliana

<400> 2630

Met	Asp	Asp	Val	Gln	Ile	Asp	Asp	Thr	Phe	Pro	Val	Asp	Leu	Asn	Gly
1				5					10					15	
Val	Thr	Ser	Leu	Cys	Ser	Pro	Glu	Ile	Pro	Ser	Phe	Asp	Phe	Val	Ser
			20					25					30		
Asp	Glu	Thr	Glu	Lys	Leu	Glu	Ile	Gly	Asp	Thr	Ser	Ile	Asp	Asp	Cys
		35					40					45			
Asp	Asp	Ala	Leu	Gly	Asp	Ser	Met	Asp	Ser	Gly	Phe	Tyr	Ser	Phe	Arg
	50					55					60				
Leu	Ile	Leu	Gly	Glu	Asp	Gly	Phe	Asn	Leu	Met	Leu	Thr	Arg	Arg	Val
65					70					75					80
Arg	Phe	Leu	Ile	Gln	Tyr	Glu	Thr	Ile	Met	Phe	Ile	Asn	Ala	Gly	Gly
				85					90					95	
Asp	Asp	Ser	Lys	Val	Leu	Asp	Ser	Glu	Leu	Asn	Ile	Ser	Arg	Asp	Asp
			100					105					110		
Tyr	Phe	Glu	Gly	Gly	Asp	Val	Leu	Arg	Thr	Glu	Glu	Ser	Ile	Val	Glu
		115					120					125			
Ala	Gly	Asp	Phe	Pro	Phe	Ile	Tyr	Gln	Ser	Ala	Arg	Val	Gly	Asn	Phe
	130					135					140				
Cys	Tyr	Gln	Leu	Asn	Asn	Leu	Leu	Pro	Gly	Glu	Tyr	Leu	Ile	Asp	Phe
145					150					155					160

047-E2F-PCT.ST25.txt

His Phe Ala Glu Ile Ile Asn Thr Asn Gly Pro Lys Gly Ile Arg Val  
165 170 175

Phe Asn Val Tyr Val Gln Asp Glu Lys Ala Thr Glu Phe Asp Ile Phe  
180 185 190

Ser Val Val Gly Ala Asn Arg Pro Leu Leu Leu Val Asp Leu Arg Val  
195 200 205

Met Val Met Asp Asp Gly Leu Ile Arg Val Arg Phe Glu Gly Ile Asn  
210 215 220

Gly Ser Pro Val Val Cys Gly Ile Cys Leu Arg Lys Ala Pro Gln Val  
225 230 235 240

Ser Val Pro Arg Thr Ser Gln Asp Phe Ile Lys Cys Glu Asn Cys Ala  
245 250 255

Thr Glu Ile Glu Ile Ser Pro Thr Arg Lys Arg Leu Met Arg Ala Lys  
260 265 270

Ala His Asp Lys Tyr Glu Lys Lys Ile Ala Glu Leu Ser Glu Arg Tyr  
275 280 285

Glu His Lys Thr Asn Glu Cys His Glu Ala Trp Met Ser Leu Thr Ser  
290 295 300

Ala Asn Glu Gln Leu Glu Lys Val Met Met Glu Leu Asn Asn Lys Ile  
305 310 315 320

Tyr Gln Ala Arg Ser Leu Asp Gln Thr Val Ile Thr Gln Ala Asp Cys  
325 330 335

Leu Lys Ser Ile Thr Arg Lys Tyr Glu Asn Asp Lys Arg His Trp Ala  
340 345 350

Thr Ala Ile Asp Ser Leu Gln Glu Lys Ile Glu Ile Met Lys Arg Glu  
355 360 365

Gln Ser Gln Leu Ser Gln Glu Ala His Glu Cys Val Glu Gly Ile Pro  
370 375 380

Glu Leu Tyr Lys Met Val Gly Gly Val Gln Ala Leu Val Ser Gln Cys  
385 390 395 400

Glu Asp Leu Lys Gln Lys Tyr Ser Glu Glu Gln Ala Lys Arg Lys Glu  
405 410 415

047-E2F-PCT.ST25.txt

Leu Tyr Asn His Ile Gln Glu Thr Lys Gly Asn Ile Arg Val Phe Cys  
 420 425 430  
 Arg Cys Arg Pro Leu Asn Thr Glu Glu Thr Ser Thr Lys Ser Ala Thr  
 435 440 445  
 Ile Val Asp Phe Asp Gly Ala Lys Asp Gly Glu Leu Gly Val Ile Thr  
 450 455 460  
 Gly Asn Asn Ser Lys Lys Ser Phe Lys Phe Asp Arg Val Tyr Thr Pro  
 465 470 475 480  
 Lys Asp Gly Gln Val Asp Val Phe Ala Asp Ala Ser Pro Met Val Val  
 485 490 495  
 Ser Val Leu Asp Gly Tyr Asn Val Cys Ile Phe Ala Tyr Gly Gln Thr  
 500 505 510  
 Gly Thr Gly Lys Thr Phe Thr Met Glu Gly Thr Pro Gln Asn Arg Gly  
 515 520 525  
 Val Asn Tyr Arg Thr Val Glu Gln Leu Phe Glu Val Ala Arg Glu Arg  
 530 535 540  
 Arg Glu Thr Ile Ser Tyr Asn Ile Ser Val Ser Val Leu Glu Val Tyr  
 545 550 555 560  
 Asn Glu Gln Ile Arg Asp Leu Leu Ala Thr Ser Pro Gly Ser Lys Lys  
 565 570 575  
 Leu Glu Ile Lys Gln Ser Ser Asp Gly Ser His His Val Pro Gly Leu  
 580 585 590  
 Val Glu Ala Asn Val Glu Asn Ile Asn Glu Val Trp Asn Val Leu Gln  
 595 600 605  
 Ala Gly Ser Asn Ala Arg Ser Val Gly Ser Asn Asn Val Asn Glu His  
 610 615 620  
 Ser Ser Arg Ser His Cys Met Leu Ser Ile Met Val Lys Ala Lys Asn  
 625 630 635 640  
 Leu Met Asn Gly Asp Cys Thr Lys Ser Lys Leu Trp Leu Val Asp Leu  
 645 650 655

660

665

670

Lys Glu Ala Gln Asn Ile Asn Arg Ser Leu Ser Ala Leu Gly Asp Val  
 675 680 685  
 Ile Tyr Ala Leu Ala Thr Lys Ser Ser His Ile Pro Tyr Ser Pro Ser  
 690 695 700  
 Glu His Asp Val Ser Glu Thr Leu Ser Ser Leu Asn Phe Ala Thr Arg  
 705 710 715 720  
 Val Arg Gly Val Glu Leu Gly Pro Ala Arg Lys Gln Val Asp Thr Gly  
 725 730 735  
 Glu Ile Gln Lys Leu Lys Ala Met Val Glu Lys Ala Arg Gln Glu Ser  
 740 745 750  
 Arg Ser Lys Asp Glu Ser Ile Lys Lys Met Glu Glu Asn Ile Gln Asn  
 755 760 765  
 Leu Glu Gly Lys Asn Lys Gly Arg Asp Asn Ser Tyr Arg Ser Leu Gln  
 770 775 780  
 Glu Lys Asn Lys Asp Leu Gln Asn Gln Leu Asp Ser Val His Asn Gln  
 785 790 795 800  
 Ser Glu Lys Gln Tyr Ala Gln Leu Gln Glu Arg Leu Lys Ser Arg Asp  
 805 810 815  
 Glu Ile Cys Ser Asn Leu Gln Gln Lys Val Lys Glu Leu Glu Cys Lys  
 820 825 830  
 Leu Arg Glu Arg His Gln Ser Asp Ser Ala Ala Asn Asn Gln Lys Val  
 835 840 845  
 Lys Asp Leu Glu Asn Asn Leu Lys Glu Ser Glu Gly Ser Ser Leu Val  
 850 855 860  
 Trp Gln Gln Lys Val Lys Asp Tyr Glu Asn Lys Leu Lys Glu Ser Glu  
 865 870 875 880  
 Gly Asn Ser Leu Val Trp Gln Gln Lys Ile Lys Glu Leu Glu Ile Lys  
 885 890 895  
 His Lys Asp Glu Gln Ser Gln Glu Ala Val Leu Leu Arg Gln Lys Ile  
 900 905 910



Lys Glu Leu Glu Met Arg Leu Lys Glu Gln Glu Lys His Ile Gln Glu  
 915 920 925

Met Ala Thr Thr Arg Glu Phe Pro Glu Val Ala Asn Ala Thr Pro Asn  
 930 935 940

Glu Val Lys Thr Cys Phe Lys Glu Asp Asn Phe Gly Asn Glu Asn Met  
 945 950 955 960

Glu Ser Asn Thr Asn Ile Leu Arg Thr Ser Asn Arg Leu Lys Thr Lys  
 965 970 975

Arg His Asp Ser Leu Asn Leu Asn Glu Met Thr Arg Lys Lys Arg Ala  
 980 985 990

Ser Arg Ser Gly Glu Thr Glu Asn Asn Gly Asp Asp Pro Gln Met Lys  
 995 1000 1005

Glu Lys Arg Ile Arg Lys Ser Asp Pro Pro Lys Val Phe Ser Arg  
 1010 1015 1020

Val Val Arg Pro Thr Arg Thr Ala Ser Gly Ser Ser Ser Gln Val  
 1025 1030 1035

Pro Val Ala Gln Lys Arg Val Ile Lys Arg Glu Gln Gln Glu Val  
 1040 1045 1050

Pro Val Val Lys Glu Arg Asp Ser Lys Lys Lys Ile Trp Ser Arg  
 1055 1060 1065

<210> 2631

<211> 1836

<212> DNA

<213> Arabidopsis thaliana

<400> 2631  
 atggatccca ccatgaatcc aactccaact ccaagctccg ccggcaacag tgtctgcaca 60  
 gatgaattga ccaaccttcc cccggaggac tcgccactcg acagcgagaa ggatgatagc 120  
 gttgacttca gccaggagca aggatcggag tcaaatagaag ctattgacac tgagaatggt 180  
 tcaagatccg tagacaagaa ccaatactct gaaactgaag ttgtagttag agcaaaagat 240  
 ttacagacag aacctgattc actggatgat gatgtggaga ttgtgatcaa aaaccaacat 300  
 aagtattaca tatactgccc ttgctgtggt gaagatatca ccaaaacagt caagctcgtg 360

047-E2F-PCT.ST25.txt

aagatatcag atcccaaaca caaaaaagac catgacaaag ctgttgacag tgacactgag	420
aatgggttcaa aatccaaaga caagaacaca aagggttccat catgggttctc tgattttatt	480
cagccgctgt tttcttctga agacagagga aagaaagggg ttgttgattc agagttacta	540
ggaacttacg aagatctcgg tatcattggt gaggaaccga gcatagatgt cagtaacgag	600
aaagacagac cgagttttcc aaagtgggtac ctcgatgttt ttgcttggtt attcctctgt	660
attattattg ctctttctgt ctttctgact tctccaccgc ctttcattca accacatctg	720
caattaccat ctatgcctac attgaggatg ctttctgctt ctgtactttt gttactttcc	780
acatctgcgg tgttgcttct cttcattatt tcaatgaggt cccgtttcac tccgagatat	840
cacaaggaga aaggcgaggt cgttcccaag tctactgatt ccaagtctca cgatgaccaa	900
gctgcaaata ctgatcaaga ttttgacaag aaaacagaca aaaaaagaaa tcgcctaact	960
cctatatacc cttcatcact agagaaacct tccaagcaaa ctgtcaataa ggaaactcaa	1020
aatcacgata aagaagctgc agatcctgac caagatgtag acaaggaaac agagaaccaa	1080
aaaagtcacc taactccgat atatccttca ccactggagc aaccttccaa gcaaattatc	1140
aataaggaaa ctcaaacaga acctatgttg ccacctaata ctcaatcaga gatcccaa	1200
agtgttgaac caccgaaagg cggtaataaa gtagaaattc tgaaaagtat tgtgtatgga	1260
ggctcttacag aatccatcac aagcctatgc acggtaacat ctgcggcagc ttctggtgct	1320
tcaactctga acgttttagc cttgggagtt gccaatgtgt caagcggctt tcttctgact	1380
gttcacagcc tccaagaact aataaacgag aaaccagaa aacaaaccaa cactgatgat	1440
tctccagaag aaggagaagg agaagaagat cgatacgagg aagtactcgg gagaagagag	1500
tattcgagga ttcacagagt gatcgcaatc tcttctttcg tcatcttcgg attgatcca	1560
ccttttagtat acgggtttctc gtttcgaaaa aagatggaaa agagacaaga gtacaagggt	1620
ttagctgttt acgcagtgtc tctactctgc atcgtcttgc tctcaatagc gaaagcttac	1680
gtgtcgaaga aacgcgatta tgtcaagact ctgtttcggt acacgacgac ggcgacgacg	1740
gcgtcgggat tctctcaatt tgtgggatac ttggtgagtc aatggccttga gaaaagcggg	1800
ttttatgatg attctccaga aactcaacga gtttga	1836

<210> 2632

<211> 611

<212> PRT

<213> Arabidopsis thaliana

<400> 2632

Met Asp Pro Thr Met Asn Pro Thr Pro Thr Pro Ser Ser Ala Gly Asn  
 1 5 10 15  
 Ser Val Cys Thr Asp Glu Leu Thr Asn Leu Pro Pro Glu Asp Ser Pro  
 20 25 30  
 Leu Asp Ser Glu Lys Asp Asp Ser Val Asp Phe Ser Gln Glu Gln Gly  
 35 40 45  
 Ser Glu Ser Asn Glu Ala Ile Asp Thr Glu Asn Gly Ser Arg Ser Val  
 50 55 60  
 Asp Lys Asn Gln Tyr Ser Glu Thr Glu Val Val Val Arg Ala Lys Asp  
 65 70 75 80  
 Leu Gln Thr Glu Pro Asp Ser Leu Asp Asp Asp Val Glu Ile Val Ile  
 85 90 95  
 Lys Asn Gln His Lys Tyr Tyr Ile Tyr Cys Pro Cys Cys Gly Glu Asp  
 100 105 110  
 Ile Thr Lys Thr Val Lys Leu Val Lys Ile Ser Asp Pro Lys His Thr  
 115 120 125  
 Lys Asp His Asp Lys Ala Val Asp Ser Asp Thr Glu Asn Gly Ser Lys  
 130 135 140  
 Ser Lys Asp Lys Asn Thr Lys Val Pro Ser Trp Phe Ser Asp Phe Ile  
 145 150 155 160  
 Gln Pro Leu Phe Ser Ser Glu Asp Arg Gly Lys Lys Gly Val Val Asp  
 165 170 175  
 Ser Glu Leu Leu Gly Thr Tyr Glu Asp Leu Gly Ile Ile Gly Glu Glu  
 180 185 190  
 Pro Ser Ile Asp Val Ser Asn Glu Lys Asp Arg Pro Ser Phe Pro Lys  
 195 200 205  
 Trp Tyr Leu Asp Val Phe Ala Trp Leu Phe Leu Cys Ile Ile Ile Ala  
 210 215 220  
 Leu Ser Val Leu Ser Thr Ser Pro Pro Pro Phe Ile Gln Pro His Leu  
 225 230 235 240  
 Gln Leu Pro Ser Met Pro Thr Leu Arg Met Pro Ser Ala Ser Val Leu  
 245 250 255

047-E2F-PCT.ST25.txt

Leu Leu Leu Pro Thr Ser Ala Val Leu Leu Leu Phe Ile Ile Ser Met  
 260 265 270  
 Arg Ser Arg Phe Thr Pro Arg Tyr His Lys Glu Lys Gly Glu Val Val  
 275 280 285  
 Pro Lys Ser Thr Asp Ser Lys Ser His Asp Asp Gln Ala Ala Asn Thr  
 290 295 300  
 Asp Gln Asp Phe Asp Lys Lys Thr Asp Asn Lys Arg Asn Arg Leu Thr  
 305 310 315 320  
 Pro Ile Tyr Pro Ser Ser Leu Glu Lys Pro Ser Lys Gln Thr Val Asn  
 325 330 335  
 Lys Glu Thr Gln Asn His Asp Lys Glu Ala Ala Asp Pro Asp Gln Asp  
 340 345 350  
 Val Asp Lys Glu Thr Glu Asn Gln Lys Ser His Leu Thr Pro Ile Tyr  
 355 360 365  
 Pro Ser Pro Leu Glu Gln Pro Ser Lys Gln Ile Ile Asn Lys Glu Thr  
 370 375 380  
 Gln Thr Glu Pro Met Leu Pro Pro Asn Ala Gln Ser Glu Ile Pro Asn  
 385 390 395 400  
 Ser Val Glu Pro Arg Lys Gly Gly Asn Lys Val Glu Ile Leu Lys Ser  
 405 410 415  
 Ile Val Tyr Gly Gly Leu Thr Glu Ser Ile Thr Ser Leu Cys Thr Val  
 420 425 430  
 Thr Ser Ala Ala Ala Ser Gly Ala Ser Thr Leu Asn Val Leu Ala Leu  
 435 440 445  
 Gly Val Ala Asn Leu Ser Ser Gly Leu Leu Leu Thr Val His Ser Leu  
 450 455 460  
 Gln Glu Leu Ile Asn Glu Lys Pro Arg Lys Gln Thr Asn Thr Asp Asp  
 465 470 475 480  
 Ser Pro Glu Glu Gly Glu Gly Glu Glu Asp Arg Tyr Glu Glu Val Leu  
 485 490 495  
 Gly Arg Arg Glu Tyr Ser Arg Ile His Arg Val Ile Ala Ile Ser Ser  
 500 505 510

047-E2F-PCT.ST25.txt

Phe Val Ile Phe Gly Leu Ile Pro Pro Leu Val Tyr Gly Phe Ser Phe  
515 520 525

Arg Lys Lys Met Glu Lys Arg Gln Glu Tyr Lys Val Leu Ala Val Tyr  
530 535 540

Ala Val Ser Leu Leu Cys Ile Val Leu Leu Ser Ile Ala Lys Ala Tyr  
545 550 555 560

Val Ser Lys Lys Arg Asp Tyr Val Lys Thr Leu Phe Arg Tyr Thr Thr  
565 570 575

Thr Ala Thr Thr Ala Ser Gly Phe Ser Gln Phe Val Gly Tyr Leu Val  
580 585 590

Ser Gln Trp Leu Glu Lys Ser Gly Phe Tyr Asp Asp Ser Pro Glu Thr  
595 600 605

Gln Arg Val  
610

<210> 2633

<211> 747

<212> DNA

<213> Arabidopsis thaliana

<400> 2633  
atggcgattg ctctctcgtc gtcgtcgacg atcacgtcca ttactctgca gccgaagctg 60  
aagacgattc atggattagg gacagtactt cctgggttatt cgggtcaaac tcactttcgt 120  
agtgtctctc tccggcgtag cgccgtgggc gtgtcggcca ttaccggagc ttcttccgga 180  
gctggaatag ggaaaggtag agctgattcg ctagatacag tgaaagtctt ggatttgaga 240  
ggaaatgaga ttccgatttc tgatttatgg aaagatagga aggccgttgt tgcatttgct 300  
cgtcattttg gatgtgtgct ctgtcggaaa cgagcagctt atcttgcaga aaagaaggat 360  
gtgatggatg catctggtgt tgctcttggt ctgatcggac cggaagcat cgatcaggct 420  
aatacttttg tggaacagac taagtttaaa ggagaggtct atgcggatcc aaaccacgca 480  
tcatacgagg cgcttgagtt cgtttcaggg gtttctgtta catttacacc caaagctgct 540  
atgaagatac tagagtctta catggaagga taccgccaag actggaaact ctcgtttatg 600  
aaagatacag ttgaaagagg cggctggcaa caaggcggaa tcttagttgc tggccctggg 660

aaagataaca tctcttatat acgcaaggac aaagaagccg gtgatgaccc gcctgttgaa 720  
gagatcctta aagcgtgttg tgcttga 747

<210> 2634

<211> 248

<212> PRT

<213> Arabidopsis thaliana

<400> 2634

Met Ala Ile Ala Leu Ser Ser Ser Ser Thr Ile Thr Ser Ile Thr Leu  
1 5 10 15

Gln Pro Lys Leu Lys Thr Ile His Gly Leu Gly Thr Val Leu Pro Gly  
20 25 30

Tyr Ser Val Lys Ser His Phe Arg Ser Val Ser Leu Arg Arg Ser Ala  
35 40 45

Val Val Val Ser Ala Ile Thr Gly Ala Ser Ser Gly Ala Gly Ile Gly  
50 55 60

Lys Gly Thr Ala Asp Ser Leu Asp Thr Val Lys Val Leu Asp Leu Arg  
65 70 75 80

Gly Asn Glu Ile Pro Ile Ser Asp Leu Trp Lys Asp Arg Lys Ala Val  
85 90 95

Val Ala Phe Ala Arg His Phe Gly Cys Val Leu Cys Arg Lys Arg Ala  
100 105 110

Ala Tyr Leu Ala Glu Lys Lys Asp Val Met Asp Ala Ser Gly Val Ala  
115 120 125

Leu Val Leu Ile Gly Pro Gly Ser Ile Asp Gln Ala Asn Thr Phe Val  
130 135 140

Glu Gln Thr Lys Phe Lys Gly Glu Val Tyr Ala Asp Pro Asn His Ala  
145 150 155 160

Ser Tyr Glu Ala Leu Glu Phe Val Ser Gly Val Ser Val Thr Phe Thr  
165 170 175

Pro Lys Ala Ala Met Lys Ile Leu Glu Ser Tyr Met Glu Gly Tyr Arg  
180 185 190

047-E2F-PCT.ST25.txt

Gln Asp Trp Lys Leu Ser Phe Met Lys Asp Thr Val Glu Arg Gly Gly  
195 200 205

Trp Gln Gln Gly Gly Ile Leu Val Ala Gly Pro Gly Lys Asp Asn Ile  
210 215 220

Ser Tyr Ile Arg Lys Asp Lys Glu Ala Gly Asp Asp Pro Pro Val Glu  
225 230 235 240

Glu Ile Leu Lys Ala Cys Cys Ala  
245

<210> 2635

<211> 669

<212> DNA

<213> Arabidopsis thaliana

<400> 2635

atggcggaag aagttgggct tgatttggaa gaactcaggc aactccagaa catcgccaag	60
agacctcgtg ttctcaatct catcaattcc gagatttcaa acttggagaa gctgagagac	120
tctgcagtca gttcaaatgc gaaaccaaag gtaccagtta cagttcctgc accggtttct	180
tcttcgggta agccggtttc ttcttcggca ttgaactatg taactctcgg aacattcagc	240
tgggatcaag acaatgacaa agtcaagatg tacatatacct tggaagggtgt tgatgaggac	300
aaggttcaag ctgagttcaa gccaatgtct ttagacatca agatccatga tgtacaagga	360
aaaaattacc gatgtgccat cccgaagttg tgtaaggaga ttatgcctga gaaatgtaaa	420
gtgcttgtaa agcctaagag gatagttatc actatgggtca agtcttccag aggaaactgg	480
cttgacattc accacaaaga agacaagatt aaaccgagtt tggagaaaga gaaagacca	540
atggctggaa ttatggggat gatgaagaac ttgtatgagg atggagatga agaaatgaag	600
aagacaatag ctaaagcctg gacagatgct aggtcaggca aagcagcaga tcctttaaaa	660
ggactatga	669

<210> 2636

<211> 222

<212> PRT

<213> Arabidopsis thaliana

047-E2F-PCT.ST25.txt

<400> 2636

```

Met Ala Glu Glu Val Gly Leu Asp Leu Glu Glu Leu Arg Gln Leu Gln
1      5      10     15
Asn Ile Ala Lys Arg Pro Arg Val Leu Asn Leu Ile Asn Ser Glu Ile
20     25     30
Ser Asn Leu Glu Lys Leu Arg Asp Ser Ala Val Ser Ser Asn Ala Lys
35     40     45
Pro Lys Val Pro Val Thr Val Pro Ala Pro Val Ser Ser Ser Gly Lys
50     55     60
Pro Val Ser Ser Ser Ala Leu Asn Tyr Val Thr Leu Gly Thr Phe Ser
65     70     75     80
Trp Asp Gln Asp Asn Asp Lys Val Lys Met Tyr Ile Ser Leu Glu Gly
85     90     95
Val Asp Glu Asp Lys Val Gln Ala Glu Phe Lys Pro Met Ser Leu Asp
100    105    110
Ile Lys Ile His Asp Val Gln Gly Lys Asn Tyr Arg Cys Ala Ile Pro
115    120    125
Lys Leu Cys Lys Glu Ile Met Pro Glu Lys Cys Lys Val Leu Val Lys
130    135    140
Pro Lys Arg Ile Val Ile Thr Met Val Lys Ser Ser Arg Gly Asn Trp
145    150    155    160
Leu Asp Ile His His Lys Glu Asp Lys Ile Lys Pro Ser Leu Glu Lys
165    170    175
Glu Lys Asp Pro Met Ala Gly Ile Met Gly Met Met Lys Asn Leu Tyr
180    185    190
Glu Asp Gly Asp Glu Glu Met Lys Lys Thr Ile Ala Lys Ala Trp Thr
195    200    205
Asp Ala Arg Ser Gly Lys Ala Ala Asp Pro Leu Lys Gly Leu
210    215    220

```

<210> 2637

<211> 1374



&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2637

```

atggatgcag gtatgaacaa cacttcttct cactacaaga cgcaggctcg ttgccctctt    60
caagaacact ttcttcccag gaaaccttct aaggaaaacc tggacagggtt cataccgaac   120
agatcagcga tgaattttga ctatgctcac ttgcccctca ctgaaggaag aaaaggtaag   180
gatcagactg cagcggtaag ttcacatcc aaagaggcct acaggaagca attggctgag   240
accatgaact tgaaccacac aaggattctc gccttcagaa acaaacctca ggctcctgtc   300
gaactgcttc ccagcaatca ctctgcttct cttcaccaac agcccaaata tgtaaagcct   360
cgtcgataca ttctcagac ttctgagagg accttgatg cacctgacat tgttgacgat   420
ttctacctca acttgctgga ctggggaagt gcaaattgtct tagccatagc gttggaccac   480
actgtctact tgtgggatgc ttccactggt tctacatctg agcttgtgac cattgatgag   540
gagaaggggac ctgtcacaag tatcaactgg gctcctgatg gtcgtcatgt tgcagttgga   600
ctcaacaact ctgaagtcca gctgtgggat tctgcatcca accgtcaact gagaacattg   660
aagggtggtc accagtcacg agtaggatca ctggcatgga acaatcacat ctttactact   720
ggaggaatgg atggactgat catcaacaat gatgtgagga tcagatcacc cattgtggaa   780
acttacagag gtcacactca agaagtttgt gggctcaagt ggtcaggatc tggacaacaa   840
ctagcaagtg gtggcaacga caatgtggta cacatctggg atcgttctgt cgcttcctca   900
aactcaacca cacaatggct gcacaggctt gaggaacata catctgctgt gaaggctctt   960
gcgtggtgcc ctttccaagc gaatttgctt gcaactggtg gtggtggagg agacaggacg  1020
atcaagttct ggaatactca cactggggct tgcttgaatt cagtagacac tggttcccaa  1080
gtttgttcgt tgttatggag caagaatgaa agagagttgc ttagctcaca cgggtttaca  1140
cagaatcagc tcacactttg gaagtatcca tccatggtga aaatggctga gctcactggt  1200
catacatcaa gagttctata tatggcccag agtcagatg gttgtaccgt agcttcagca  1260
gcaggagatg agactctgag gttctggaat gtttttggag taccagagac cgccaaaaaa  1320
gctgctccaa aagcagtttc cgagccatct tctcacgtga atcgatttcg ttga      1374

```

&lt;210&gt; 2638

&lt;211&gt; 457

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2638

```

Met Asp Ala Gly Met Asn Asn Thr Ser Ser His Tyr Lys Thr Gln Ala
1      5      10      15

Arg Cys Pro Leu Gln Glu His Phe Leu Pro Arg Lys Pro Ser Lys Glu
20     25     30

Asn Leu Asp Arg Phe Ile Pro Asn Arg Ser Ala Met Asn Phe Asp Tyr
35     40     45

Ala His Phe Ala Leu Thr Glu Gly Arg Lys Gly Lys Asp Gln Thr Ala
50     55     60

Ala Val Ser Ser Pro Ser Lys Glu Ala Tyr Arg Lys Gln Leu Ala Glu
65     70     75     80

Thr Met Asn Leu Asn His Thr Arg Ile Leu Ala Phe Arg Asn Lys Pro
85     90     95

Gln Ala Pro Val Glu Leu Leu Pro Ser Asn His Ser Ala Ser Leu His
100    105    110

Gln Gln Pro Lys Ser Val Lys Pro Arg Arg Tyr Ile Pro Gln Thr Ser
115    120    125

Glu Arg Thr Leu Asp Ala Pro Asp Ile Val Asp Asp Phe Tyr Leu Asn
130    135    140

Leu Leu Asp Trp Gly Ser Ala Asn Val Leu Ala Ile Ala Leu Asp His
145    150    155    160

Thr Val Tyr Leu Trp Asp Ala Ser Thr Gly Ser Thr Ser Glu Leu Val
165    170    175

Thr Ile Asp Glu Glu Lys Gly Pro Val Thr Ser Ile Asn Trp Ala Pro
180    185    190

Asp Gly Arg His Val Ala Val Gly Leu Asn Asn Ser Glu Val Gln Leu
195    200    205

Trp Asp Ser Ala Ser Asn Arg Gln Leu Arg Thr Leu Lys Gly Gly His
210    215    220

Gln Ser Arg Val Gly Ser Leu Ala Trp Asn Asn His Ile Leu Thr Thr
225    230    235    240

```

Gly Gly Met Asp Gly Leu Ile Ile Asn Asn Asp Val Arg Ile Arg Ser  
 245 250 255  
 Pro Ile Val Glu Thr Tyr Arg Gly His Thr Gln Glu Val Cys Gly Leu  
 260 265 270  
 Lys Trp Ser Gly Ser Gly Gln Gln Leu Ala Ser Gly Gly Asn Asp Asn  
 275 280 285  
 Val Val His Ile Trp Asp Arg Ser Val Ala Ser Ser Asn Ser Thr Thr  
 290 295 300  
 Gln Trp Leu His Arg Leu Glu Glu His Thr Ser Ala Val Lys Ala Leu  
 305 310 315 320  
 Ala Trp Cys Pro Phe Gln Ala Asn Leu Leu Ala Thr Gly Gly Gly Gly  
 325 330 335  
 Gly Asp Arg Thr Ile Lys Phe Trp Asn Thr His Thr Gly Ala Cys Leu  
 340 345 350  
 Asn Ser Val Asp Thr Gly Ser Gln Val Cys Ser Leu Leu Trp Ser Lys  
 355 360 365  
 Asn Glu Arg Glu Leu Leu Ser Ser His Gly Phe Thr Gln Asn Gln Leu  
 370 375 380  
 Thr Leu Trp Lys Tyr Pro Ser Met Val Lys Met Ala Glu Leu Thr Gly  
 385 390 395 400  
 His Thr Ser Arg Val Leu Tyr Met Ala Gln Ser Pro Asp Gly Cys Thr  
 405 410 415  
 Val Ala Ser Ala Ala Gly Asp Glu Thr Leu Arg Phe Trp Asn Val Phe  
 420 425 430  
 Gly Val Pro Glu Thr Ala Lys Lys Ala Ala Pro Lys Ala Val Ser Glu  
 435 440 445  
 Pro Phe Ser His Val Asn Arg Ile Arg  
 450 455

&lt;210&gt; 2639

&lt;211&gt; 891

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

```

<400> 2639
atgacttcgt ttcttagttt ctccgccatt tcagctcatc cacctacttt ttccggcgct      60
tcatttcgtc ctcgctcttt ctctccccga ttgttcaagt cttgtgttaa gtgcacttat      120
gctgaagctg gattaagcag cgcttcatgg tcagccccta ttgacattgt ggcagatgtc      180
aaatccgaaa gggttgtagt tcttggtggg aatgggttcg ttggctcagc tatctgcaaa      240
gcagcaatct ccaatggtat tgaggttgtg agtgtttagca ggtcagggtc tcctaacttc      300
gaagattcat ggttggatca ggttacatgg gttactggtg atgttttcta tttgaattgg      360
gatgaagtac ttcttggtgc tactgctgta gtttcaacca ttggtgggtt tggaatgaa      420
gaacagatga aaagaatcaa tggatgaagct aacggtaccg ctgtgaatgc tgctaaggat      480
tttggggtcc ctaagttcgt cttgatcacg gttcacgatt acaatcttcc gccatttatt      540
ctctccaacg gatatttcac tggaaaacgt aacgcggagg cagaacttct ttccaagtat      600
cccacctcag gagttgtgct aagaccgggt ttcatatagc ggaaacgaaa agtgaacgga      660
atcgagggtc cgcttgatct agtcggggag ccactagaca agatctatga ttcagcagag      720
aggttcatta gaccattgag gtctctccct gcatctgata tcatcttggc tccaccggtt      780
aacgtcgatg atttagcact tgctgtgata aacgctgtta aagatgacga cttctttggc      840
attttcacta ttgagcagat caaagaagca gctgcaaaaa tgagagcgtg a              891

```

<210> 2640

<211> 296

<212> PRT

<213> Arabidopsis thaliana

<400> 2640

```

Met Thr Ser Phe Leu Ser Phe Ser Ala Ile Ser Ala His Pro Pro Thr
1          5          10          15

Phe Ser Gly Ala Ser Phe Arg Pro Arg Ser Phe Ser Pro Arg Leu Phe
20          25          30

Lys Ser Cys Val Lys Cys Thr Tyr Ala Glu Ala Gly Leu Ser Ser Ala
35          40          45

Ser Trp Ser Ala Pro Ile Asp Ile Val Ala Asp Val Lys Ser Glu Arg
50          55          60

```

Val Val Val Leu Gly Gly Asn Gly Phe Val Gly Ser Ala Ile Cys Lys  
65 70 75 80

Ala Ala Ile Ser Asn Gly Ile Glu Val Val Ser Val Ser Arg Ser Gly  
85 90 95

Arg Pro Asn Phe Glu Asp Ser Trp Leu Asp Gln Val Thr Trp Val Thr  
100 105 110

Gly Asp Val Phe Tyr Leu Asn Trp Asp Glu Val Leu Leu Gly Ala Thr  
115 120 125

Ala Val Val Ser Thr Ile Gly Gly Phe Gly Asn Glu Glu Gln Met Lys  
130 135 140

Arg Ile Asn Gly Glu Ala Asn Val Thr Ala Val Asn Ala Ala Lys Asp  
145 150 155 160

Phe Gly Val Pro Lys Phe Val Leu Ile Thr Val His Asp Tyr Asn Leu  
165 170 175

Pro Pro Phe Ile Leu Ser Asn Gly Tyr Phe Thr Gly Lys Arg Asn Ala  
180 185 190

Glu Ala Glu Leu Leu Ser Lys Tyr Pro Thr Ser Gly Val Val Leu Arg  
195 200 205

Pro Gly Phe Ile Tyr Gly Lys Arg Lys Val Asn Gly Ile Glu Val Pro  
210 215 220

Leu Asp Leu Val Gly Glu Pro Leu Asp Lys Ile Tyr Asp Ser Ala Glu  
225 230 235 240

Arg Phe Ile Arg Pro Leu Arg Ser Leu Pro Ala Ser Asp Leu Ile Leu  
245 250 255

Ala Pro Pro Val Asn Val Asp Asp Leu Ala Leu Ala Val Ile Asn Ala  
260 265 270

Val Lys Asp Asp Asp Phe Phe Gly Ile Phe Thr Ile Glu Gln Ile Lys  
275 280 285

Glu Ala Ala Ala Lys Met Arg Ala  
290 295

<210> 2641

<211> 807

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2641

```

atgtgtagtt tgtcggcgat tatgttggtta ccaacgaagc tgaaaccagc ttattcagac    60
aaacggagta acagtagcag cagcagctca ctcttcttca acaatagaag atccaagaag    120
aagaaccaat cgattgttcc cgttgcaagg ttgtttggac cggcgatttt cgaatcatcc    180
aaattgaaag tactcttctt aggggttgat gagaagaagc atccttcaac gctccctagg    240
acttacacac tcactcacag tgacattaca gctaaactaa ccttagctat ttctcaatcc    300
ataaacaact ctcagttgca aggatgggca aataggctat accgggatga agttgtggca    360
gaatggaaga aagtgaaagg gaaaatgtcg cttcacgttc attgtcacat aagcgggtggc    420
catttccttt tagatctctt tgcaaagttt cgatatttca tcttttgcaa agaactacct    480
gtggtgttga aggcttttgt gcatggagat ggggaacttg tgaacaacta tcctgagcta    540
caagaagctc ttgtttgggt ctatttccat tctaattgtca atgagttcaa caaagtcgag    600
tgttggggtc cgctttggga agctgtttcg cctgatggtc acaagactga gactcttccc    660
gaggctcggg gtgcggacga gtgtagttgt tgttttccaa ccgttagctc gattccatgg    720
tctcatagtc ttagtaatga aggtgtaa at ggttactctg ggactcagac tgagggaatt    780
gctactccaa atccggagaa actctag                                     807

```

&lt;210&gt; 2642

&lt;211&gt; 268

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2642

```

Met Cys Ser Leu Ser Ala Ile Met Leu Leu Pro Thr Lys Leu Lys Pro
1          5          10          15
Ala Tyr Ser Asp Lys Arg Ser Asn Ser Ser Ser Ser Ser Ser Leu Phe
          20          25          30
Phe Asn Asn Arg Arg Ser Lys Lys Lys Asn Gln Ser Ile Val Pro Val
          35          40          45
Ala Arg Leu Phe Gly Pro Ala Ile Phe Glu Ser Ser Lys Leu Lys Val
          50          55          60

```

047-E2F-PCT.ST25.txt

Leu Phe Leu Gly Val Asp Glu Lys Lys His Pro Ser Thr Leu Pro Arg  
 65 70 75 80  
 Thr Tyr Thr Leu Thr His Ser Asp Ile Thr Ala Lys Leu Thr Leu Ala  
 85 90 95  
 Ile Ser Gln Ser Ile Asn Asn Ser Gln Leu Gln Gly Trp Ala Asn Arg  
 100 105 110  
 Leu Tyr Arg Asp Glu Val Val Ala Glu Trp Lys Lys Val Lys Gly Lys  
 115 120 125  
 Met Ser Leu His Val His Cys His Ile Ser Gly Gly His Phe Leu Leu  
 130 135 140  
 Asp Leu Phe Ala Lys Phe Arg Tyr Phe Ile Phe Cys Lys Glu Leu Pro  
 145 150 155 160  
 Val Val Leu Lys Ala Phe Val His Gly Asp Gly Asn Leu Leu Asn Asn  
 165 170 175  
 Tyr Pro Glu Leu Gln Glu Ala Leu Val Trp Val Tyr Phe His Ser Asn  
 180 185 190  
 Val Asn Glu Phe Asn Lys Val Glu Cys Trp Gly Pro Leu Trp Glu Ala  
 195 200 205  
 Val Ser Pro Asp Gly His Lys Thr Glu Thr Leu Pro Glu Ala Arg Cys  
 210 215 220  
 Ala Asp Glu Cys Ser Cys Cys Phe Pro Thr Val Ser Ser Ile Pro Trp  
 225 230 235 240  
 Ser His Ser Leu Ser Asn Glu Gly Val Asn Gly Tyr Ser Gly Thr Gln  
 245 250 255  
 Thr Glu Gly Ile Ala Thr Pro Asn Pro Glu Lys Leu  
 260 265

<210> 2643

<211> 1299

<212> DNA

<213> Arabidopsis thaliana

047-E2F-PCT.ST25.txt

```

<400> 2643
atggcgatca aagacctgac ggcgacgacc ggtgattcat ctcttccttt aataaaatct 60
ccgccgtctg aaacaaccgg cggtgacaga acctctgctc ttcaaacgct cggtaacatt 120
atcgtctcca tcgtcggtac aggcgtcctt ggtcttcctt acgcattccg catcgccggt 180
tggttagccg gatctctcgg tgtcattatc gtcggattcg ccacctatta ctgcatgctc 240
ctcctcattc agtgcagaga taagctagaa tcggaagaag gagaagaaga atcgaaaact 300
tatggtgatt taggtttcaa atgtatggga acaaaaggtc gataactaac cgaattcctc 360
atcttcactg ctcaatgtgg tggatcagta gcgtatttag tgttcatagg tcgaaacttg 420
tcatccatat ttagttcgta tgggttaagt atggtttctt tcatattgat tctggttcca 480
atcgaagtgg gattgtcgtg gatcacttct ttatcagctc tctcgctttt cagtatcttt 540
gctgatatat gcaacatcat agcaatgtgt tttgttgtca aagaaaatgt ggaaatggtg 600
attgaaggag acttctcgtt tagtgataga actgctatct cgtctaccat tgggtggttta 660
ccttttgctg gaggagtgc ggtgttctgt tttgaggggt ttgcaatgac gttggctttg 720
gagagtctta tgagggaaag agaagctttc cctaaattgt tagctaaagt gcttgccggg 780
attacgtttg tctatgtgtt gttcgggttt tgtggttata tggcttatgg tgatcaaaca 840
aaggatatca tcactcttaa cctcccaa atattggtctg ccattgctgt tcagattggg 900
ttatgtgtgg gattgacgtt tacatttccg atcatggtac atccgcttaa cgagatcata 960
gagcagaaac tgaagaggat agactggctt caaaagcatc ataatgggta cagcaacgaa 1020
acaggttcag tctcaaaatt tgcaatcttt acaacgagga cacttttggg ggtaggactt 1080
gcagcaatcg cgagtttagt cccaggggtt ggtacatttg catctcttgt tggaagtact 1140
ttgtgcgcac tcattctctt tgtgttgccg gcttcttctc acctcacgct gctcgggtcca 1200
tcactaaatg tatggaacaa atccatcgac gtattcattg tgatttgcgg gttgatcttt 1260
gctgtttatg gtacgtacaa cacaatcgtc ggagtgtga 1299

```

<210> 2644

<211> 432

<212> PRT

<213> Arabidopsis thaliana

<400> 2644

```

Met Ala Ile Lys Asp Leu Thr Ala Thr Thr Gly Asp Ser Ser Leu Pro
1          5          10          15

```



Leu Ile Lys Ser Pro Pro Ser Glu Thr Thr Gly Gly Asp Arg Thr Ser  
 20 25 30  
 Ala Leu Gln Thr Leu Gly Asn Ile Ile Val Ser Ile Val Gly Thr Gly  
 35 40 45  
 Val Leu Gly Leu Pro Tyr Ala Phe Arg Ile Ala Gly Trp Leu Ala Gly  
 50 55 60  
 Ser Leu Gly Val Ile Ile Val Gly Phe Ala Thr Tyr Tyr Cys Met Leu  
 65 70 75 80  
 Leu Leu Ile Gln Cys Arg Asp Lys Leu Glu Ser Glu Glu Gly Glu Glu  
 85 90 95  
 Glu Ser Lys Thr Tyr Gly Asp Leu Gly Phe Lys Cys Met Gly Thr Lys  
 100 105 110  
 Gly Arg Tyr Leu Thr Glu Phe Leu Ile Phe Thr Ala Gln Cys Gly Gly  
 115 120 125  
 Ser Val Ala Tyr Leu Val Phe Ile Gly Arg Asn Leu Ser Ser Ile Phe  
 130 135 140  
 Ser Ser Tyr Gly Leu Ser Met Val Ser Phe Ile Leu Ile Leu Val Pro  
 145 150 155 160  
 Ile Glu Val Gly Leu Ser Trp Ile Thr Ser Leu Ser Ala Leu Ser Pro  
 165 170 175  
 Phe Ser Ile Phe Ala Asp Ile Cys Asn Ile Ile Ala Met Cys Phe Val  
 180 185 190  
 Val Lys Glu Asn Val Glu Met Val Ile Glu Gly Asp Phe Ser Phe Ser  
 195 200 205  
 Asp Arg Thr Ala Ile Ser Ser Thr Ile Gly Gly Leu Pro Phe Ala Gly  
 210 215 220  
 Gly Val Ala Val Phe Cys Phe Glu Gly Phe Ala Met Thr Leu Ala Leu  
 225 230 235 240  
 Glu Ser Ser Met Arg Glu Arg Glu Ala Phe Pro Lys Leu Leu Ala Lys  
 245 250 255  
 Val Leu Ala Gly Ile Thr Phe Val Tyr Val Leu Phe Gly Phe Cys Gly  
 260 265 270

047-E2F-PCT.ST25.txt

Tyr Met Ala Tyr Gly Asp Gln Thr Lys Asp Ile Ile Thr Leu Asn Leu  
275 280 285

Pro Asn Asn Trp Ser Ala Ile Ala Val Gln Ile Gly Leu Cys Val Gly  
290 295 300

Leu Thr Phe Thr Phe Pro Ile Met Val His Pro Leu Asn Glu Ile Ile  
305 310 315 320

Glu Gln Lys Leu Lys Arg Ile Asp Trp Leu Gln Lys His His Asn Gly  
325 330 335

Tyr Ser Asn Glu Thr Gly Ser Val Ser Lys Phe Ala Ile Phe Thr Thr  
340 345 350

Arg Thr Leu Leu Val Val Gly Leu Ala Ala Ile Ala Ser Leu Val Pro  
355 360 365

Gly Phe Gly Thr Phe Ala Ser Leu Val Gly Ser Thr Leu Cys Ala Leu  
370 375 380

Ile Ser Phe Val Leu Pro Ala Ser Tyr His Leu Thr Leu Leu Gly Pro  
385 390 395 400

Ser Leu Asn Val Trp Asn Lys Ser Ile Asp Val Phe Ile Val Ile Cys  
405 410 415

Gly Leu Ile Phe Ala Val Tyr Gly Thr Tyr Asn Thr Ile Val Gly Val  
420 425 430

<210> 2645

<211> 1863

<212> DNA

<213> Arabidopsis thaliana

<400> 2645  
atggagaaat ttgcgcctgt cgctgctctg ttactgcttc ttctctgttt tccggtagct 60  
ttctccggtc atgattatgg tcaagctctt tccaagagtc ttctcttctt cgaagctcag 120  
agatctggtg ttcttcctcg taaccaaaga gtcacttggc gctctcactc cggctctacc 180  
gacggcaaat caagcggcgt gaatctggtc ggaggttact acgacgccgg agacaatgtg 240  
aaatttgat taccgatggc tttcacggtg acgatgatgg cgtggagtgt gattgagtac 300  
gggaatcaat tacaagccaa cggcgagctt ggaaactcca ttgacgccat taaatggggt 360

047-E2F-PCT.ST25.txt

actgattatt	tcacaaagc	ccatcctgag	cccaacgtcc	tttacggcga	ggttggagat	420
ggcaacaccg	accattactg	ttggcagaga	ccggaagaaa	tgacgacgga	ccggaaagct	480
tacaggatag	atccgagtaa	tcccgggtcg	gatcttgccg	gagaaacagc	agccgccatg	540
gccgccgcat	caattgtttt	ccgccgatct	aaccctgttt	actctaggct	actactcact	600
cacgcctatc	agttgtttga	tttcgccgac	aaatacagag	gaaaatacga	cagcagtatc	660
actgtttgcc	agaaatacta	ccgatccgtc	agcggttaca	atgacgagtt	attgtggggc	720
gctgcgtggc	tataccaagc	ttcgaacaat	cagttctact	tggactactt	gggtcgcaac	780
ggtgacgcca	tgggtggtac	cggttggtcc	atgactgagt	ttggttggga	cgttaagtac	840
gctggtgttc	aaacccttgt	tgccaagttt	ttgatgcaag	gcaaagcagg	acgtcacgca	900
cctgtgttca	ggaagtatca	agagaaagct	gattccttta	tgtgttcctt	gttgggtaaa	960
agctcgagga	acattcagaa	gacaccaggt	ggtttgattt	tcagacaacg	ttggaacaat	1020
atgcagtttg	tcacaagcgc	ttccttcttg	accacggttt	actcagatta	cctaacttct	1080
tctcgaagca	acttgagatg	tgccgcggga	aatgtcgcac	cttcgcagct	tctttccttt	1140
gctaaatctc	aggtggatta	tattcttgga	gataaccgga	gagctaccag	ctacatggtt	1200
ggttatggta	acaattttccc	tcagagagtt	caccacagag	gctcttccat	cgtctctgtc	1260
aaggtggacc	gtacatttgt	cacctgccga	ggtggatatg	ccacttggtt	cagccgtaaa	1320
ggcagtgacc	cgaaccttct	cactggtgct	attgtcggtg	gccctgatgc	ttacgacaat	1380
ttcgtgaca	ggagagataa	ctatgagcag	actgagcctg	ctacttaca	caatgcacca	1440
ctccttggtg	ttcttgctcg	tctcagcagt	ggtcattccg	gttatagcca	gtttcttcca	1500
gtggttcctg	ctcctgttgt	ccgaagacca	atgcctattc	gtagaccgaa	agtgactact	1560
ccagtccgag	cttctgggtc	agtggtctata	gttcagaaga	taactagttc	atgggtctca	1620
aaggaagga	cttactacag	atactcaaca	actgtgatta	acaaatcttc	tagacctctg	1680
aaaagtctca	acctttcgat	caagaatctc	tatggacca	tctggggact	ctcgagatca	1740
ggcaactcgt	tcggtttacc	ctcgtggatg	cactcattgc	catccgaaa	atccctagag	1800
ttcgtctaca	ttcactcaac	aacacctgca	aatgtcgcgg	tatccagcta	cactttggct	1860
tga						1863

<210> 2646

<211> 620

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 2646

```

Met Glu Lys Phe Ala Pro Val Ala Ala Leu Leu Leu Leu Leu Cys
 1      5      10      15

Phe Pro Val Ala Phe Ser Gly His Asp Tyr Gly Gln Ala Leu Ser Lys
 20      25      30

Ser Leu Leu Phe Phe Glu Ala Gln Arg Ser Gly Val Leu Pro Arg Asn
 35      40      45

Gln Arg Val Thr Trp Arg Ser His Ser Gly Leu Thr Asp Gly Lys Ser
 50      55      60

Ser Gly Val Asn Leu Val Gly Gly Tyr Tyr Asp Ala Gly Asp Asn Val
 65      70      75      80

Lys Phe Gly Leu Pro Met Ala Phe Thr Val Thr Met Met Ala Trp Ser
 85      90      95

Val Ile Glu Tyr Gly Asn Gln Leu Gln Ala Asn Gly Glu Leu Gly Asn
100      105      110

Ser Ile Asp Ala Ile Lys Trp Gly Thr Asp Tyr Phe Ile Lys Ala His
115      120      125

Pro Glu Pro Asn Val Leu Tyr Gly Glu Val Gly Asp Gly Asn Thr Asp
130      135      140

His Tyr Cys Trp Gln Arg Pro Glu Glu Met Thr Thr Asp Arg Lys Ala
145      150      155      160

Tyr Arg Ile Asp Pro Ser Asn Pro Gly Ser Asp Leu Ala Gly Glu Thr
165      170      175

Ala Ala Ala Met Ala Ala Ala Ser Ile Val Phe Arg Arg Ser Asn Pro
180      185      190

Val Tyr Ser Arg Leu Leu Leu Thr His Ala Tyr Gln Leu Phe Asp Phe
195      200      205

Ala Asp Lys Tyr Arg Gly Lys Tyr Asp Ser Ser Ile Thr Val Ala Gln
210      215      220

Lys Tyr Tyr Arg Ser Val Ser Gly Tyr Asn Asp Glu Leu Leu Trp Ala
225      230      235      240

```

Ala Ala Trp Leu Tyr Gln Ala Ser Asn Asn Gln Phe Tyr Leu Asp Tyr  
 245 250 255  
 Leu Gly Arg Asn Gly Asp Ala Met Gly Gly Thr Gly Trp Ser Met Thr  
 260 265 270  
 Glu Phe Gly Trp Asp Val Lys Tyr Ala Gly Val Gln Thr Leu Val Ala  
 275 280 285  
 Lys Phe Leu Met Gln Gly Lys Ala Gly Arg His Ala Pro Val Phe Arg  
 290 295 300  
 Lys Tyr Gln Glu Lys Ala Asp Ser Phe Met Cys Ser Leu Leu Gly Lys  
 305 310 315 320  
 Ser Ser Arg Asn Ile Gln Lys Thr Pro Gly Gly Leu Ile Phe Arg Gln  
 325 330 335  
 Arg Trp Asn Asn Met Gln Phe Val Thr Ser Ala Ser Phe Leu Thr Thr  
 340 345 350  
 Val Tyr Ser Asp Tyr Leu Thr Ser Ser Arg Ser Asn Leu Arg Cys Ala  
 355 360 365  
 Ala Gly Asn Val Ala Pro Ser Gln Leu Leu Ser Phe Ala Lys Ser Gln  
 370 375 380  
 Val Asp Tyr Ile Leu Gly Asp Asn Pro Arg Ala Thr Ser Tyr Met Val  
 385 390 395 400  
 Gly Tyr Gly Asn Asn Phe Pro Gln Arg Val His His Arg Gly Ser Ser  
 405 410 415  
 Ile Val Ser Val Lys Val Asp Arg Thr Phe Val Thr Cys Arg Gly Gly  
 420 425 430  
 Tyr Ala Thr Trp Phe Ser Arg Lys Gly Ser Asp Pro Asn Leu Leu Thr  
 435 440 445  
 Gly Ala Ile Val Gly Gly Pro Asp Ala Tyr Asp Asn Phe Ala Asp Arg  
 450 455 460  
 Arg Asp Asn Tyr Glu Gln Thr Glu Pro Ala Thr Tyr Asn Asn Ala Pro  
 465 470 475 480  
 Leu Leu Gly Val Leu Ala Arg Leu Ser Ser Gly His Ser Gly Tyr Ser  
 485 490 495

047-E2F-PCT.ST25.txt

Gln Phe Leu Pro Val Val Pro Ala Pro Val Val Arg Arg Pro Met Pro  
500 505 510

Ile Arg Arg Pro Lys Val Thr Thr Pro Val Arg Ala Ser Gly Pro Val  
515 520 525

Ala Ile Val Gln Lys Ile Thr Ser Ser Trp Val Ser Lys Gly Arg Thr  
530 535 540

Tyr Tyr Arg Tyr Ser Thr Thr Val Ile Asn Lys Ser Ser Arg Pro Leu  
545 550 555 560

Lys Ser Leu Asn Leu Ser Ile Lys Asn Leu Tyr Gly Pro Ile Trp Gly  
565 570 575

Leu Ser Arg Ser Gly Asn Ser Phe Gly Leu Pro Ser Trp Met His Ser  
580 585 590

Leu Pro Ser Gly Lys Ser Leu Glu Phe Val Tyr Ile His Ser Thr Thr  
595 600 605

Pro Ala Asn Val Ala Val Ser Ser Tyr Thr Leu Ala  
610 615 620

<210> 2647

<211> 681

<212> DNA

<213> Arabidopsis thaliana

<400> 2647

atgatggtct cactagcttc atgtgtttcg tccccatctt cttcgtctct gttcttttagt	60
cgtcgggaga gattacattt ggtgaaagcc acggtggatg gcaggaacca gattgtccca	120
ccggcaaaag atcaaattccc taacaaacaa gtaacggaga gtgtgaatgt attaaaaacg	180
gctgcaaaaa ctcggaaagt tgcagcagat gagatttttag ctgctttctc tgctatcgaa	240
aaggctaaga ttgatccatc cacttttcctt gaaacgcttg gtgggtcccgga gtctcctgga	300
cgaacatgga tgcttatctt caccgccgag aagaaactga cgaaaggctc ttatttcctt	360
ctaactgctg ttcagagatt tgatgctgcg ggaaaaagaa tagagaatgg ggtgtatctt	420
ggtccatttg gagcattaac attcgaagga aggttttcat ggaagaatcg gatactagct	480
tttgtcttcg aacagatccg cataaagatt ggaccattag atcctctaga gttcagcttg	540
gggaagaaag acgctgtgga agagcctagt aataaagacc ctttcttcat ttggttctac	600

atcgatgaag aaatagccgt tgctcgaggt agaagtggcg gtacagcttt ctggtgtcgt 660  
 tgtcgtcgca ttgcttccta a 681

<210> 2648

<211> 226

<212> PRT

<213> Arabidopsis thaliana

<400> 2648

Met Met Val Ser Leu Ala Ser Cys Val Ser Ser Pro Ser Ser Ser Ser  
 1 5 10 15  
 Leu Phe Phe Ser Arg Arg Glu Arg Leu His Leu Val Lys Ala Thr Val  
 20 25 30  
 Asp Gly Arg Asn Gln Ile Val Pro Pro Ala Lys Asp Gln Ile Pro Asn  
 35 40 45  
 Lys Gln Val Thr Glu Ser Val Asn Val Leu Lys Thr Ala Ala Lys Thr  
 50 55 60  
 Arg Lys Val Ala Ala Asp Glu Ile Leu Ala Ala Phe Ser Ala Ile Glu  
 65 70 75 80  
 Lys Ala Lys Ile Asp Pro Ser Thr Phe Leu Glu Thr Leu Gly Gly Pro  
 85 90 95  
 Glu Ser Pro Gly Arg Thr Trp Met Leu Ile Phe Thr Ala Glu Lys Lys  
 100 105 110  
 Leu Thr Lys Gly Arg Tyr Phe Pro Leu Thr Ala Val Gln Arg Phe Asp  
 115 120 125  
 Ala Ala Gly Lys Arg Ile Glu Asn Gly Val Tyr Leu Gly Pro Phe Gly  
 130 135 140  
 Ala Leu Thr Phe Glu Gly Arg Phe Ser Trp Lys Asn Arg Ile Leu Ala  
 145 150 155 160  
 Phe Val Phe Glu Gln Ile Arg Ile Lys Ile Gly Pro Leu Asp Pro Leu  
 165 170 175  
 Glu Phe Ser Leu Gly Lys Lys Asp Ala Val Glu Glu Pro Ser Asn Lys  
 Page 3705

180

185

190

Asp Pro Phe Phe Ile Trp Phe Tyr Ile Asp Glu Glu Ile Ala Val Ala  
 195 200 205

Arg Gly Arg Ser Gly Gly Thr Ala Phe Trp Cys Arg Cys Arg Arg Ile  
 210 215 220

Ala Ser  
 225

&lt;210&gt; 2649

&lt;211&gt; 1284

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2649

atggtatcta ttggaagac gacccaaatc caaagaccaa accagggttac ttccacaatg 60  
 ttacaggagt catctccagc aatggatccg gattttaccg aatccgaaac ccgacccgaa 120  
 ttcaatccct cctccactga ttccaccgcc atggcagagt caaccgatgc aggggaaccg 180  
 acggcattcg aattagcctc atcccaagtc acatccgtcg ccgatctacc accggaacga 240  
 ttcaattcgc tcgacgaatt aacacacgat ctcggtcgc tccacgagct ttcgaccgct 300  
 ggctcatggc aagcgatcct cgagaagata tctcaagcca gagctctctt cctcctcaca 360  
 aagcctcacg agcatctcac ttatctcact taccaagtta tggctctcgc gaagcttcgt 420  
 cgctccgatg aagctttctca tgagcttaat tccttgacg atttcgacgg gacgcattac 480  
 aggtacgaat cgttccctga gattttaccct aatcggagag gatctatggt tcctttctct 540  
 ttacgatggc tctacgcttt gatcccgact aagcttggtg atcgtcagga agggttagat 600  
 cgttttatatg ttttgcttga ctttgttcga gatcgaatca gagagaaaga atctcagagt 660  
 ttagagagtt ctgtggaatt gtggaagaaa agagagacat ttgtgatgaa ttgcttgcta 720  
 gggtttcatt taggtcacia ggaatttggg gtgtctttgg atttgatgaa ggaattgatc 780  
 aatcgtgatc cgtttagacc gggttttgatt tcgaaactag ggtctgttca gatgcagttt 840  
 ggtgatgtag aaggagctaa aactacgttt gatagagttg agaagatggt gaatgaagga 900  
 aagagcaatg gtttattgaa cgagatacag ttcaacaatc ttgttggtag gaataaggct 960  
 ttggtttatg ttgtggcaaa ggactatggt tctgctgtga gagagtatga caaatgcatt 1020  
 gaaagggata actctgatat tatcgctgtc aacaataagg ctctttgttt gatgtacttg 1080  
 agagatctat cggatgcatg taaggatgat gaaagtgcag tggagagagt gcccaaccgcg 1140



047-E2F-PCT.ST25.txt

gctttgaacg agagcttggg ggtgaatttg tgtagtatgt atgagttggc ttatgttaat 1200  
catactgatg ttaagcggac gttaaacaat tggattgcac gtgttgctcc tgatgacttt 1260  
gattcatctt gtaccagagt ttga 1284

<210> 2650

<211> 427

<212> PRT

<213> Arabidopsis thaliana

<400> 2650

Met Val Ser Ile Gly Lys Thr Thr Gln Ile Gln Arg Pro Asn Gln Val  
1 5 10 15

Thr Ser Thr Met Phe Thr Glu Ser Ser Pro Ala Met Asp Pro Asp Leu  
20 25 30

Pro Glu Ser Glu Thr Arg Pro Glu Phe Asn Pro Ser Ser Thr Asp Ser  
35 40 45

Thr Ala Met Ala Glu Ser Thr Asp Ala Gly Glu Pro Thr Ala Phe Glu  
50 55 60

Leu Ala Ser Ser Gln Val Thr Ser Val Ala Asp Leu Pro Pro Glu Arg  
65 70 75 80

Phe Asn Ser Leu Asp Glu Leu Thr His Asp Leu Gly Ser Leu His Glu  
85 90 95

Leu Ser Thr Arg Gly Ser Trp Gln Ala Ile Leu Glu Lys Ile Ser Gln  
100 105 110

Ala Arg Ala Leu Phe Leu Leu Thr Lys Pro His Glu His Leu Thr Tyr  
115 120 125

Leu Thr Tyr Gln Val Met Ala Leu Ala Lys Leu Arg Arg Ser Asp Glu  
130 135 140

Ala Ser His Glu Leu Asn Ser Leu His Asp Phe Asp Gly Thr His Tyr  
145 150 155 160

Arg Tyr Glu Ser Phe Pro Glu Ile Tyr Pro Asn Arg Arg Gly Ser Met  
165 170 175

047-E2F-PCT.ST25.txt

Val Pro Phe Ser<sub>180</sub> Leu Arg Trp Leu Tyr<sub>185</sub> Ala Leu Ile Pro Thr<sub>190</sub> Lys Leu  
 Gly Asn Arg<sub>195</sub> Gln Glu Gly Leu Asp<sub>200</sub> Arg Leu Tyr Val Leu<sub>205</sub> Leu Asp Phe  
 Val Arg<sub>210</sub> Asp Arg Ile Arg Glu<sub>215</sub> Lys Glu Ser Gln Ser<sub>220</sub> Leu Glu Ser Ser  
 Val<sub>225</sub> Glu Leu Trp Lys Lys<sub>230</sub> Arg Glu Thr Phe Val<sub>235</sub> Met Asn Cys Leu Leu<sub>240</sub>  
 Gly Phe His Leu Gly<sub>245</sub> His Lys Glu Phe Gly<sub>250</sub> Val Ser Leu Asp Leu<sub>255</sub> Met  
 Lys Glu Leu Ile<sub>260</sub> Asn Arg Asp Pro Leu<sub>265</sub> Asp Pro Val Leu Ile<sub>270</sub> Ser Lys  
 Leu Gly Ser<sub>275</sub> Val Gln Met Gln Phe<sub>280</sub> Gly Asp Val Glu Gly<sub>285</sub> Ala Lys Thr  
 Thr Phe<sub>290</sub> Asp Arg Val Glu Lys<sub>295</sub> Met Leu Asn Glu Gly<sub>300</sub> Lys Ser Asn Gly  
 Leu<sub>305</sub> Leu Asn Glu Ile Gln<sub>310</sub> Phe Asn Asn Leu Val<sub>315</sub> Gly Arg Asn Lys Ala<sub>320</sub>  
 Leu Val Tyr Val Val<sub>325</sub> Ala Lys Asp Tyr Val<sub>330</sub> Ser Ala Val Arg Glu<sub>335</sub> Tyr  
 Asp Lys Cys Ile<sub>340</sub> Glu Arg Asp Asn Ser<sub>345</sub> Asp Ile Ile Ala Val<sub>350</sub> Asn Asn  
 Lys Ala Leu<sub>355</sub> Cys Leu Met Tyr Leu<sub>360</sub> Arg Asp Leu Ser Asp<sub>365</sub> Ala Ile Lys  
 Val Met<sub>370</sub> Glu Ser Ala Leu Glu<sub>375</sub> Arg Val Pro Thr Ala<sub>380</sub> Ala Leu Asn Glu  
 Ser<sub>385</sub> Leu Val Val Asn Leu<sub>390</sub> Cys Ser Met Tyr Glu<sub>395</sub> Leu Ala Tyr Val Asn<sub>400</sub>  
 His Thr Asp Val Lys<sub>405</sub> Arg Thr Leu Asn Asn<sub>410</sub> Trp Ile Ala Arg Val<sub>415</sub> Ala  
 Pro Asp Asp Phe<sub>420</sub> Asp Ser Ser Cys Thr<sub>425</sub> Arg Val

&lt;210&gt; 2651

&lt;211&gt; 1026

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2651

```

atggttatgt tgttacatag tgtgggacta attccatggt caaaccaaca aaagtctttt    60
ctcttccata gttattaccg ttacagatgc atagtttggt catctgaaac aggtttgtcc    120
ataagaagac aagctttgga gcaagttgat tctaagttgt ctagtggaga cgaaagagct    180
gcattgtctc ttgtcaaaga tctccaagga aaacctgatg gccttcgatg ttttggcgct    240
gcaaggcagg tgcctcagag actctacacg ttggagggaac tgaaactgaa tggattatac    300
gcagcttcac ttctctcgcc aacagatata acgcttggct ccatcgaaag aaaccttcag    360
atcgcagctg tctcaggggg aatagttgct tggaaagcct ttgacttgag ttctcaacag    420
cttttctttc ttactcttgg gtttatgttc ctgtggactt tggatttggt ctcttttaac    480
ggcggaattg ggagtttggt tcttgataca actggtcata cgtttagcca acgataccat    540
aacagagttg ttcagcacga agcgggtcat ttcttggtgg cctacttagt cgggattcta    600
ccacgcggat acacgctctc tagccttgaa gctttacaga aagaaggatc tctcaacatt    660
caagctggct cagcttttgt agactatgaa ttccttgaag aagttaattc tggaaaagtc    720
tccgctacga tgctgaacag attctcatgc attgctctgg ctggtgtagc aacagaatat    780
ctcctgtatg gttatgctga aggaggcctt gacgatatca gcaagttaga tggtttggtg    840
aagagtttgg ggttcacaca gaagaaagcg gactcgcagg tgaggtgggtc agtcctaac    900
accatactgc tactacgtcg ccatgagata gctcgatcga agctcgcgca ggctatgtcc    960
aaaggagaat ctgtcggatc ttgtatccaa atcatcgaag attctatcga tccttctgat   1020
atctag                                           1026

```

&lt;210&gt; 2652

&lt;211&gt; 341

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2652

Met Val Met Leu Leu His Ser Val Gly Leu Ile Pro Cys Ser Asn Gln  
Page 3709

1 5 15

Gln Lys Ser Phe<sub>20</sub> Leu Phe His Ser Tyr<sub>25</sub> Tyr Arg Tyr Arg Cys<sub>30</sub> Ile Val

Cys Ser Ser<sub>35</sub> Glu Thr Gly Leu Ser<sub>40</sub> Ile Arg Arg Gln Ala<sub>45</sub> Leu Glu Gln

Val Asp<sub>50</sub> Ser Lys Leu Ser Ser<sub>55</sub> Gly Asp Glu Arg Ala<sub>60</sub> Ala Leu Ser Leu

Val Lys Asp Leu Gln Gly<sub>70</sub> Lys Pro Asp Gly Leu<sub>75</sub> Arg Cys Phe Gly Ala<sub>80</sub>

Ala Arg Gln Val Pro<sub>85</sub> Gln Arg Leu Tyr Thr<sub>90</sub> Leu Glu Glu Leu Lys<sub>95</sub> Leu

Asn Gly Ile Asn<sub>100</sub> Ala Ala Ser Leu Leu<sub>105</sub> Ser Pro Thr Asp Thr<sub>110</sub> Thr Leu

Gly Ser Ile<sub>115</sub> Glu Arg Asn Leu Gln<sub>120</sub> Ile Ala Ala Val Ser<sub>125</sub> Gly Gly Ile

Val Ala Trp Lys Ala Phe Asp<sub>135</sub> Leu Ser Ser Gln Gln<sub>140</sub> Leu Phe Phe Leu

Thr Leu Gly Phe Met Phe<sub>150</sub> Leu Trp Thr Leu Asp<sub>155</sub> Leu Val Ser Phe Asn<sub>160</sub>

Gly Gly Ile Gly Ser<sub>165</sub> Leu Val Leu Asp Thr<sub>170</sub> Thr Gly His Thr Phe<sub>175</sub> Ser

Gln Arg Tyr His<sub>180</sub> Asn Arg Val Val Gln<sub>185</sub> His Glu Ala Gly His<sub>190</sub> Phe Leu

Val Ala Tyr<sub>195</sub> Leu Val Gly Ile Leu<sub>200</sub> Pro Arg Gly Tyr Thr<sub>205</sub> Leu Ser Ser

Leu Glu Ala Leu Gln Lys Glu<sub>215</sub> Gly Ser Leu Asn Ile<sub>220</sub> Gln Ala Gly Ser

Ala Phe Val Asp Tyr Glu<sub>230</sub> Phe Leu Glu Glu Val<sub>235</sub> Asn Ser Gly Lys Val<sub>240</sub>

Ser Ala Thr Met Leu<sub>245</sub> Asn Arg Phe Ser Cys<sub>250</sub> Ile Ala Leu Ala Gly<sub>255</sub> Val

Ala Thr Glu Tyr Leu Leu Tyr Gly Tyr Ala Glu Gly Gly Leu Asp Asp  
 260 265 270

Ile Ser Lys Leu Asp Gly Leu Val Lys Ser Leu Gly Phe Thr Gln Lys  
 275 280 285

Lys Ala Asp Ser Gln Val Arg Trp Ser Val Leu Asn Thr Ile Leu Leu  
 290 295 300

Leu Arg Arg His Glu Ile Ala Arg Ser Lys Leu Ala Gln Ala Met Ser  
 305 310 315 320

Lys Gly Glu Ser Val Gly Ser Cys Ile Gln Ile Ile Glu Asp Ser Ile  
 325 330 335

Asp Pro Ser Asp Ile  
 340

<210> 2653

<211> 3267

<212> DNA

<213> Arabidopsis thaliana

<400> 2653  
 atgggtctgc ttaaaacttc atggcttctt ctgcttttct gggttgtctc ttcccctttg 60  
 tgtttcaggt ttcattactg ttatggttca gagctctctg tgaagttctt gaaagcacct 120  
 cctactactt ctagatttac ttcagccaaa ttttcctttc ttgcttttga ggatggaaac 180  
 agaacttggt caagctgcaa attccgttgc aagctagatg accgtattag tttggactgc 240  
 catcaaagaa aagtttctta ctggaagttg ctagatggag atcatacact tgaggtttgc 300  
 gcaaatagga tgcattgatt tggctgcaat cactataatt ggactgttga tacggtttct 360  
 cctacagcct ttgtgactgc atcaatgcca tttaacaagt cacaaaacgt gtctgttaat 420  
 attactttta ctgagccatg tgttggtaga ggaggattcg gctgttcatc tgtgaattcc 480  
 tgcgaccttc ttgtctatgg tgctggccaa gttataccgt cttcatttac cgttcttgac 540  
 caatatctta gatattcact gcttgtggga ttatctcctg atgctcaata tggaaggatt 600  
 gtgttggtga tgaataagag tgtttgttct gatatagctg gtaacaattt taaaagagct 660  
 ttgggttcgc gtttctttgt ccattttgat agaagaaatg ttttagtcaa tctacgaact 720  
 catgtaccag agaagttact taagctaaac aaccaaacta ggacggtgca ggcaaccaat 780  
 gataacaaca agttgaatgt ttacttgtat ttctctgaac cggtactgaa ttcttcggct 840

gaaatttctca gacgactaaa cacaaaccaa ggtgatttgc ttcctatcga cggaataacc	900
aacgggaatc gccgtttcgc gtttatggtc acaaatacat cacggcgtgc aatagtcacg	960
gtgacccttg actcgaattc aattagaagc agacatggga cacctgcac tccaactgca	1020
ccactcactt ttctttatga taccgagaga cctcatgtta tattgaacac aacatctggt	1080
atgaggacaa gaaagcacac catccctgtc tggatcaaat tcatgaagcc agtgtttggg	1140
tttaactcct catttgtatc aatctcaggt ggatatcttg atagctttga ggaactgagt	1200
ggaagcatat acattgtata tgtaaaagcc aacaccagta cactttctat taagattcct	1260
gaaaatgtta ctgaggatgt cgcgggaaac aaaaatcttg catccaatat cctaaaagt	1320
aaacattatt ctgtgcctat gatattcttct gtgatttctt gggtaacaac ttacattttc	1380
ttggtgacgt ctttcgttgc gggactcctc actctttcaa ccacaagcct ttattctctt	1440
ggcgcattcc caagaccatc tccttatctg atatcagacc ccacgaggaa cttttttaga	1500
actgcctgtc acattcagtt ttttgcactc acgagatggc taccggtgac attgcctggt	1560
gattactatg aacttgtgag agggattcag tggataatcc cttattttcc tctcccatgg	1620
gaaactaaga tcaaggaaca gatcatggtg gccacaagtc cttacattgg tccacactcc	1680
ttcattttcta aaactcataa caacatgatt aatcttaaga catcaaccaa cgcgagtc	1740
gtattcggat tgccactcac cgcaatggag tacagattat tctttgagac ttcaaattctt	1800
aagccagaag cagaacacgt tcttggccta ccacattcaa cagtgtggag agatttcaat	1860
aggatcatgt tttggatagc tataattgga ggaagtttgg tactactgca tatagtcctc	1920
tctctgatac tgaagttcaa gaaagcacac agtgagaaga agaggagttt tgggtgcgtt	1980
gtcttcccaa gattcgagct gtttcttctc attctcgcct taccttcaat ctgcaaagct	2040
gcaaggagcc ttatacaagg ctatttttaa caccaaggag ctgcagaagc cagtgtcatt	2100
gttggatatcc ttgtgctttg cgtggtagct attctgcttc tggcattggt tctcttcctc	2160
tcggtcggga taacgttttg gaagttgtta cagtataaag agattcatca agaaggccaa	2220
actttccact ggtaccaaga actcatccga gtgacccttg gtcctggtaa aagaggccaa	2280
tggacatgga aaacagagaa ctctgtctat ctaactaggt taggtccagt tttcgaagat	2340
ttaaggggtc caccaaagta catgctcaca cagatttcag gaagcaatcc actcaagcaa	2400
caagatgatc ggatcatcgc atcagatgat gaaaacgaag atgctgaagc tccttgcata	2460
cagaaactct ttggaatcct tagaatttac tacacatttc tcgaaactgt gaagaggggtg	2520
tgtttgggga ttattgctgg tgctttcctt gacaatgaaa ctgcgaaaac tccgatagt	2580
gtcttgttga gcatcacttc ctttcagctg tttttccttc ttctgaagaa gccattcatc	2640
aagaaaaagg tacagcttgt agagatcatc tctatagcat gtcaagtcgg cgtattcgcc	2700
tcatgtctaa tgctcttggc gaaagacttt cccgaggcaa gcggaaagaa actcgggata	2760

047-E2F-PCT.ST25.txt

ttcatggtcg tattgttctt gattggattc attatgctga tgtgcaacga atggtactca 2820  
 ttgtacaaac aaacaaagcg gttagaccaa atcaacagat ctttcttgag tggctttaag 2880  
 atgtttatca ttggacttgc cgcgttaatc ctacctcaga aaatgatcaa gaacaagatc 2940  
 cccgtggctc aactagaagc acgaagcagc agcaatggag gcacaacccc agaattcagg 3000  
 tatagaaatt cttccggaag ccgaagctcg ggtagcttgg acaagccatg gttgaaacag 3060  
 attagagaaa tggcaaagtc tagcttcaca agagatagga gcaatagtaa gggttcctagt 3120  
 gatccttcgt gtagcaaaag cggttggagc agtagtattt ggggaacaaa gacaagtgga 3180  
 agctcttcta aggaatcatc tgcagattac aaatccagac ctaagggact ttacaaagat 3240  
 ttagaggcca tttttgcttc aaagtaa 3267

<210> 2654

<211> 1088

<212> PRT

<213> Arabidopsis thaliana

<400> 2654

Met Gly Leu Leu Lys Thr Ser Trp Leu Leu Leu Phe Trp Val Val  
 1 5 10 15

Ser Ser Pro Leu Cys Phe Arg Phe His Tyr Cys Tyr Gly Ser Glu Leu  
 20 25 30

Ser Val Lys Phe Leu Lys Ala Pro Pro Thr Thr Ser Arg Phe Thr Ser  
 35 40 45

Ala Lys Phe Ser Phe Leu Ala Phe Glu Asp Gly Asn Arg Thr Cys Ser  
 50 55 60

Ser Cys Lys Phe Arg Cys Lys Leu Asp Asp Arg Ile Ser Leu Asp Cys  
 65 70 75 80

His Gln Arg Lys Val Ser Tyr Ser Lys Leu Leu Asp Gly Asp His Thr  
 85 90 95

Leu Glu Val Cys Ala Asn Arg Met His Gly Phe Gly Cys Asn His Tyr  
 100 105 110

Asn Trp Thr Val Asp Thr Val Ser Pro Thr Ala Phe Val Thr Ala Ser  
 115 120 125

## 047-E2F-PCT.ST25.txt

Met Pro Phe Thr Ser Ala Gln Asn Val Ser Val Asn Ile Thr Phe Thr  
 130 135 140  
 Glu Pro Cys Val Gly Arg Gly Gly Phe Gly Cys Ser Ser Val Asn Ser  
 145 150 155 160  
 Cys Asp Leu Leu Val Tyr Gly Ala Gly Gln Val Ile Pro Ser Ser Phe  
 165 170 175  
 Thr Val Leu Asp Gln Tyr Leu Arg Tyr Ser Leu Leu Val Gly Leu Ser  
 180 185 190  
 Pro Asp Ala Gln Tyr Gly Arg Ile Val Leu Val Met Asn Lys Ser Val  
 195 200 205  
 Cys Ser Asp Ile Ala Gly Asn Asn Phe Lys Arg Ala Leu Gly Ser Arg  
 210 215 220  
 Phe Phe Val His Phe Asp Arg Arg Asn Val Leu Val Asn Leu Arg Thr  
 225 230 235 240  
 His Val Pro Glu Lys Leu Leu Lys Leu Asn Asn Gln Thr Arg Thr Val  
 245 250 255  
 Gln Ala Thr Asn Asp Asn Asn Lys Leu Asn Val Tyr Leu Tyr Phe Ser  
 260 265 270  
 Glu Pro Val Leu Asn Ser Ser Ala Glu Ile Leu Arg Arg Leu Asn Thr  
 275 280 285  
 Asn Gln Gly Asp Leu Leu Pro Ile Asp Gly Asn Thr Asn Gly Asn Arg  
 290 295 300  
 Arg Phe Ala Phe Met Val Thr Asn Thr Ser Arg Arg Ala Ile Val Thr  
 305 310 315 320  
 Val Thr Leu Asp Ser Asn Ser Ile Arg Ser Arg His Gly Thr Pro Ala  
 325 330 335  
 Ser Pro Thr Ala Pro Leu Thr Phe Leu Tyr Asp Thr Glu Arg Pro His  
 340 345 350  
 Val Ile Leu Asn Thr Thr Ser Gly Met Arg Thr Arg Lys His Thr Ile  
 355 360 365  
 Pro Val Trp Ile Lys Phe Met Lys Pro Val Phe Gly Phe Asn Ser Ser  
 370 375 380



047-E2F-PCT.ST25.txt

Phe Val Ser Ile Ser Gly Gly Tyr Leu Asp Ser Phe Glu Glu Leu Ser  
 385 390 395 400  
 Gly Ser Ile Tyr Ile Val Tyr Val Lys Ala Asn Thr Ser Thr Leu Ser  
 405 410 415  
 Ile Lys Ile Pro Glu Asn Val Thr Gln Asp Val Ala Gly Asn Lys Asn  
 420 425 430  
 Leu Ala Ser Asn Ile Leu Lys Val Lys His Tyr Ser Val Pro Met Ile  
 435 440 445  
 Ser Ser Val Ile Ser Trp Val Thr Thr Tyr Ile Phe Leu Val Thr Ser  
 450 455 460  
 Phe Val Ala Gly Leu Leu Thr Leu Ser Thr Thr Ser Leu Tyr Ser Leu  
 465 470 475 480  
 Gly Ala Phe Pro Arg Pro Ser Pro Tyr Leu Ile Ser Asp Pro Thr Arg  
 485 490 495  
 Asn Leu Phe Arg Thr Ala Cys His Ile Gln Phe Phe Ala Leu Thr Arg  
 500 505 510  
 Trp Leu Pro Val Thr Leu Pro Val Asp Tyr Tyr Glu Leu Val Arg Gly  
 515 520 525  
 Ile Gln Trp Ile Ile Pro Tyr Phe Pro Leu Pro Trp Glu Thr Lys Ile  
 530 535 540  
 Lys Glu Gln Ile Met Val Ala Thr Ser Pro Tyr Ile Gly Pro His Ser  
 545 550 555 560  
 Phe Ile Ser Lys Thr His Asn Asn Met Ile Asn Leu Lys Thr Ser Thr  
 565 570 575  
 Asn Ala Glu Ser Val Phe Gly Leu Pro Leu Thr Ala Met Glu Tyr Arg  
 580 585 590  
 Leu Phe Phe Glu Thr Ser Asn Leu Lys Pro Glu Ala Glu His Val Leu  
 595 600 605  
 Gly Leu Pro His Ser Thr Val Trp Arg Asp Phe Asn Arg Ile Met Phe  
 610 615 620  
 Trp Ile Ala Ile Ile Gly Gly Ser Leu Val Leu Leu His Ile Val Leu

625                      630                      635                      640  
 Ser Leu Ile Leu Lys Phe Lys Lys Ala His Ser Glu Lys Lys Arg Ser  
                                  645                      650                      655  
 Phe Gly Ala Phe Val Phe Pro Arg Phe Glu Leu Phe Leu Leu Ile Leu  
                                  660                      665                      670  
 Ala Leu Pro Ser Ile Cys Lys Ala Ala Arg Ser Leu Ile Gln Gly Tyr  
                                  675                      680                      685  
 Phe Lys His Gln Gly Ala Ala Glu Ala Ser Val Ile Val Gly Ile Leu  
                                  690                      695                      700  
 Val Leu Cys Val Val Ala Ile Leu Leu Leu Ala Leu Phe Leu Phe Leu  
                                  705                      710                      715                      720  
 Ser Val Gly Ile Thr Phe Gly Lys Leu Leu Gln Tyr Lys Glu Ile His  
                                  725                      730                      735  
 Gln Glu Gly Gln Thr Phe His Trp Tyr Gln Glu Leu Ile Arg Val Thr  
                                  740                      745                      750  
 Leu Gly Pro Gly Lys Arg Gly Gln Trp Thr Trp Lys Thr Glu Asn Ser  
                                  755                      760                      765  
 Val Tyr Leu Thr Arg Leu Gly Pro Val Phe Glu Asp Leu Arg Gly Pro  
                                  770                      775                      780  
 Pro Lys Tyr Met Leu Thr Gln Ile Ser Gly Ser Asn Pro Leu Lys Gln  
                                  785                      790                      795                      800  
 Gln Asp Asp Arg Ile Ile Ala Ser Asp Asp Glu Asn Glu Asp Ala Glu  
                                  805                      810                      815  
 Ala Pro Cys Ile Gln Lys Leu Phe Gly Ile Leu Arg Ile Tyr Tyr Thr  
                                  820                      825                      830  
 Phe Leu Glu Thr Val Lys Arg Val Cys Leu Gly Ile Ile Ala Gly Ala  
                                  835                      840                      845  
 Phe Leu Asp Asn Glu Thr Ala Lys Thr Pro Ile Val Val Leu Leu Ser  
                                  850                      855                      860  
 Ile Thr Ser Phe Gln Leu Phe Phe Leu Leu Leu Lys Lys Pro Phe Ile  
                                  865                      870                      875                      880

Lys Lys Lys Val Gln Leu Val Glu Ile Ile Ser Ile Ala Cys Gln Val  
885 890 895

Gly Val Phe Ala Ser Cys Leu Met Leu Leu Ala Lys Asp Phe Pro Glu  
900 905 910

Ala Ser Gly Lys Lys Leu Gly Ile Phe Met Val Val Leu Phe Leu Ile  
915 920 925

Gly Phe Ile Met Leu Met Cys Asn Glu Trp Tyr Ser Leu Tyr Lys Gln  
930 935 940

Thr Lys Arg Leu Asp Gln Ile Asn Arg Ser Phe Leu Ser Gly Leu Lys  
945 950 955 960

Met Phe Ile Ile Gly Leu Ala Ala Leu Ile Leu Pro Gln Lys Met Ile  
965 970 975

Lys Asn Lys Ile Pro Val Ala Gln Leu Glu Ala Arg Ser Ser Ser Asn  
980 985 990

Gly Gly Thr Thr Pro Glu Phe Arg Tyr Arg Asn Ser Ser Gly Ser Arg  
995 1000 1005

Ser Ser Gly Ser Leu Asp Lys Pro Trp Leu Lys Gln Ile Arg Glu  
1010 1015 1020

Met Ala Lys Ser Ser Phe Thr Arg Asp Arg Ser Asn Ser Lys Val  
1025 1030 1035

Pro Ser Asp Pro Ser Cys Ser Lys Ser Gly Trp Ser Ser Ser Ile  
1040 1045 1050

Trp Gly Thr Lys Thr Ser Gly Ser Ser Ser Lys Glu Ser Ser Ala  
1055 1060 1065

Asp Tyr Lys Ser Arg Pro Lys Gly Leu Tyr Lys Asp Leu Glu Ala  
1070 1075 1080

Ile Phe Ala Ser Lys  
1085

<210> 2655

<211> 1107

<212> DNA

<213> Arabidopsis thaliana

```

<400> 2655
atgggggtgta catctttccaa gcaagcaaaa gctaacgtcg tcgccgacgt ttacaaacca      60
ccgccgtcta gtttcgcggt gtttgatgtc aacgccatcc aagagccatg gctaaaattt      120
gaacatgaag atgatgagaa accgccacgc tccaccgtct tcgaccgtct cgacgaggat      180
gatgatgatg atgatgatga tggatgatgac gctcctaaaa catgggaaga agtcagcaaa      240
tctctagaaa ctaaacttaa acctgccgcc gttaaaccgc cggaagtaga ctctgttaaa      300
cctccggcga ctctccacg gcggcttccg cggaagagcg catcgttcca cacactggac      360
gagcttgaag tgagggccaa aagaagcatc gccgcgcaaa tcccagcgac aatggttaag      420
cttaagagaa ccgagtcgat gtccaagcta agacccgagt cagatgatcg aaccgagtcc      480
actcagtcgt cctactcggg gcctcggta gtgaaggaga acatattcgt caagagagac      540
agagaacgga gggagaaaga agggaaacaag aagccggtga tgaactggga cccacttagg      600
gagttcccg agaagtgtcc gccgggagga ggggaagggt tgattgtcta cacgacgtcg      660
ttgcaaggag tgcgtcgcac gtacgaggat tgtatgcgtg tgagggccat catggagcag      720
caaggagttg tggatggacga gagggacgtg tcttttagacg ccggagtcct gagcgagctt      780
aaggagcttc tccaagacga agcatcagtg gcgccgccgc gagtgtttgt gaaagggagg      840
tacttgggag gagcagcga agtgacagcg atgaatgaga acgggaagtt agggagggtg      900
ttgcggtggg cacgtgtgga gagagtaggg gaggaaggga ggctcacgtg tgaaggggtgc      960
ggaggagcga ggtggttgcc ttgtttcgag tgcggcgga gctgtaagggt ggcggcggtt     1020
ggggcgccca aaggtgaaag gtgggagagg tgtgtcaagt gtaatgagaa tggattgatt     1080
cgttgtcccg tgtgttttgt taattaa                                     1107

```

<210> 2656

<211> 368

<212> PRT

<213> Arabidopsis thaliana

<400> 2656

Met Gly Cys Thr Ser Ser Lys Gln Ala Lys Ala Asn Val Val Ala Asp  
1 5 10 15

Val Tyr Lys Pro Pro Pro Ser Ser Phe Ala Val Phe Asp Val Asn Ala  
20 25 30

Ile Gln Glu Pro Trp Leu Lys Phe Glu His Glu Asp Asp Glu Lys Pro  
 35 40 45  
 Pro Arg Ser Thr Val Phe Asp Arg Leu Asp Glu Asp Asp Asp Asp  
 50 55 60  
 Asp Asp Asp Gly Asp Asp Ala Pro Lys Thr Trp Glu Glu Val Ser Lys  
 65 70 75 80  
 Ser Leu Glu Thr Lys Leu Lys Pro Ala Ala Val Lys Pro Pro Glu Val  
 85 90 95  
 Asp Ser Val Lys Pro Pro Ala Thr Pro Pro Arg Arg Leu Pro Arg Lys  
 100 105 110  
 Ser Ala Ser Phe His Thr Leu Asp Glu Leu Glu Val Arg Ala Lys Arg  
 115 120 125  
 Ser Ile Ala Ala Gln Ile Pro Thr Thr Met Val Lys Leu Lys Arg Thr  
 130 135 140  
 Glu Ser Met Ser Lys Leu Arg Pro Glu Ser Asp Asp Arg Thr Glu Ser  
 145 150 155 160  
 Thr Gln Ser Ser Tyr Ser Gly Pro Arg Ser Val Lys Glu Asn Ile Phe  
 165 170 175  
 Val Lys Arg Asp Arg Glu Arg Arg Glu Lys Glu Gly Asn Lys Lys Pro  
 180 185 190  
 Val Met Asn Trp Asp Pro Leu Arg Glu Phe Pro Glu Lys Cys Pro Pro  
 195 200 205  
 Gly Gly Gly Glu Gly Leu Ile Val Tyr Thr Thr Ser Leu Gln Gly Val  
 210 215 220  
 Arg Arg Thr Tyr Glu Asp Cys Met Arg Val Arg Ala Ile Met Glu Gln  
 225 230 235 240  
 Gln Gly Val Val Val Asp Glu Arg Asp Val Ser Leu Asp Ala Gly Val  
 245 250 255  
 Leu Ser Glu Leu Lys Glu Leu Leu Gln Asp Glu Ala Ser Val Ala Pro  
 260 265 270  
 Pro Arg Val Phe Val Lys Gly Arg Tyr Leu Gly Gly Ala Ala Glu Val  
 275 280 285

047-E2F-PCT.ST25.txt

Thr Ala Met Asn Glu Asn Gly Lys Leu Gly Arg Val Leu Arg Trp Ala  
290 295 300

Arg Val Glu Arg Val Gly Glu Glu Gly Arg Leu Thr Cys Glu Gly Cys  
305 310 315 320

Gly Gly Ala Arg Trp Leu Pro Cys Phe Glu Cys Gly Gly Ser Cys Lys  
325 330 335

Val Ala Ala Val Gly Ala Ala Lys Gly Glu Arg Trp Glu Arg Cys Val  
340 345 350

Lys Cys Asn Glu Asn Gly Leu Ile Arg Cys Pro Val Cys Phe Val Asn  
355 360 365

<210> 2657

<211> 780

<212> DNA

<213> Arabidopsis thaliana

<400> 2657

atggcggtcac gtttatgtct tctccttctc gttgctgtga tcgccggagc atttgccgga	60
gacgtcatcg aactcaatcg atctcagagg gagttcgatt atttcgctct atctcttcaa	120
tggcctggaa cctattgccg tggaactcgc cattgttgct ccaaaaacgc ttgctgcaga	180
ggctccgatg ctccaactca attcacaatt catgggttat ggcctgacta taacgatggt	240
tcgtggcctt catgttggtta tcgatctgac tttaaagaga aggagatttc aacgttgatg	300
gatggtcttg agaagtactg gcctagtctc agttgtgggt ctccatcatc atgcaatggt	360
gggaaagggg cattttgggg ccacgagtgg gagaaacatg ggacttggtc ttctcctggt	420
tttcatgatg agtataatta cttccttacc acacttaatc tctacttgaa gcataatgtc	480
acggatgtcc tttatcaagc tggctatggt gcttccaaca gtgaaaagta tcctctagga	540
ggtatcgtaa cagccattca gaatgcattt catatcacc ctgaagtggg ttgcaaaaga	600
gatgcaatcg atgaaatacg tatatgcttc tataaagatt ttaagcccag ggactgtggt	660
ggttcacaag atttgacatc tagaaagtca tgccccaagt acgtaagttt gccggaatac	720
acgccattag atggtgaagc tatggttctg aagatgccaa cagaaagaga agctctttga	780

<210> 2658

<211> 259

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2658

```

Met Ala Ser Arg Leu Cys Leu Leu Leu Leu Val Ala Cys Ile Ala Gly
1      5      10      15
Ala Phe Ala Gly Asp Val Ile Glu Leu Asn Arg Ser Gln Arg Glu Phe
20      25      30
Asp Tyr Phe Ala Leu Ser Leu Gln Trp Pro Gly Thr Tyr Cys Arg Gly
35      40      45
Thr Arg His Cys Cys Ser Lys Asn Ala Cys Cys Arg Gly Ser Asp Ala
50      55      60
Pro Thr Gln Phe Thr Ile His Gly Leu Trp Pro Asp Tyr Asn Asp Gly
65      70      75      80
Ser Trp Pro Ser Cys Cys Tyr Arg Ser Asp Phe Lys Glu Lys Glu Ile
85      90      95
Ser Thr Leu Met Asp Gly Leu Glu Lys Tyr Trp Pro Ser Leu Ser Cys
100     105     110
Gly Ser Pro Ser Ser Cys Asn Gly Gly Lys Gly Ser Phe Trp Gly His
115     120     125
Glu Trp Glu Lys His Gly Thr Cys Ser Ser Pro Val Phe His Asp Glu
130     135     140
Tyr Asn Tyr Phe Leu Thr Thr Leu Asn Leu Tyr Leu Lys His Asn Val
145     150     155     160
Thr Asp Val Leu Tyr Gln Ala Gly Tyr Val Ala Ser Asn Ser Glu Lys
165     170     175
Tyr Pro Leu Gly Gly Ile Val Thr Ala Ile Gln Asn Ala Phe His Ile
180     185     190
Thr Pro Glu Val Val Cys Lys Arg Asp Ala Ile Asp Glu Ile Arg Ile
195     200     205
Cys Phe Tyr Lys Asp Phe Lys Pro Arg Asp Cys Val Gly Ser Gln Asp
210     215     220

```

047-E2F-PCT.ST25.txt

Leu Thr Ser Arg Lys Ser Cys Pro Lys Tyr Val Ser Leu Pro Glu Tyr  
225 230 235 240

Thr Pro Leu Asp Gly Glu Ala Met Val Leu Lys Met Pro Thr Glu Arg  
245 250 255

Glu Ala Leu

<210> 2659

<211> 537

<212> DNA

<213> Arabidopsis thaliana

<400> 2659  
atgcctcttt ctctccgtct ttctccttcg ccgacggcctt tatctccgac taccggagga 60  
tttgggtccat cgaggaaaca gtgccggatt ccttactccg gcgtcccgac gacgaagatt 120  
ggtttctgtt ctttgatttc taggaaaaga ggagattcct ctgttggttag gtgtagctta 180  
gaaaccgtta atgtcagtggt tggtcagggtg acggagggtcg ataaggacac gttctggccc 240  
atcgttaaag ccgccgggtga aaagcttggtc gtacttgaca tgtacactca atggtgtggt 300  
ccatgtaaag tgattgcccc taaatacaaa gctttatcag agaagtacga cgacgttggtg 360  
tttctaaagc ttgactgcaa tccagataac cggccattgg caaaagagct aggaataaga 420  
gtggttccaa ctttcaagat tttgaaggat aacaagggtt tcaaggaagt gaccggtgca 480  
aaatacgatg atctggttgc agcgattgaa acagcgaggt ctgctgcttc cggatga 537

<210> 2660

<211> 178

<212> PRT

<213> Arabidopsis thaliana

<400> 2660

Met Pro Leu Ser Leu Arg Leu Ser Pro Ser Pro Thr Ala Leu Ser Pro  
1 5 10 15

Thr Thr Gly Gly Phe Gly Pro Ser Arg Lys Gln Cys Arg Ile Pro Tyr  
20 25 30



Ser Gly Val Pro Thr Thr Lys Ile Gly Phe Cys Ser Leu Asp Ser Arg  
 35 40 45  
 Lys Arg Gly Asp Ser Ser Val Val Arg Cys Ser Leu Glu Thr Val Asn  
 50 55 60  
 Val Ser Val Gly Gln Val Thr Glu Val Asp Lys Asp Thr Phe Trp Pro  
 65 70 75 80  
 Ile Val Lys Ala Ala Gly Glu Lys Leu Val Val Leu Asp Met Tyr Thr  
 85 90 95  
 Gln Trp Cys Gly Pro Cys Lys Val Ile Ala Pro Lys Tyr Lys Ala Leu  
 100 105 110  
 Ser Glu Lys Tyr Asp Asp Val Val Phe Leu Lys Leu Asp Cys Asn Pro  
 115 120 125  
 Asp Asn Arg Pro Leu Ala Lys Glu Leu Gly Ile Arg Val Val Pro Thr  
 130 135 140  
 Phe Lys Ile Leu Lys Asp Asn Lys Val Val Lys Glu Val Thr Gly Ala  
 145 150 155 160  
 Lys Tyr Asp Asp Leu Val Ala Ala Ile Glu Thr Ala Arg Ser Ala Ala  
 165 170 175

Ser Gly

<210> 2661

<211> 885

<212> DNA

<213> Arabidopsis thaliana

<400> 2661

atggatcggc aaaattccga tgacatcatg agattttctcg atggaatggc tagctccgac	60
gacgtttcttt tcggttttct tgacgaagga aaccagtcac cggaagattt ctccgtaaac	120
ctcaacgccg gcgaagatga cggtgacgaa gacgacaata ataacaattc tgaagataac	180
aaagctttttt ggcaggaaca cgaacaactt cttcagggga cactgtatag gacaagttcc	240
attgagacaa agattagaca agctacaaaa gaagcgttga aacaagttaa atctaagggt	300
ctttattgtg tttgccggcg accagtggac ggcggttgcc ggagttgctt acgtggcgaa	360

atctctagac acctaagaga tgtcgccggc tacgattgcg tcatctctaa atctaaatgg 420  
 agaagttgtc aagacatccc tgcaggggaa cacgaattta tagagattgt ggaccgatcg 480  
 ggttcaaaga aaagcgagat gcgagtgggtg attgagttat catttagggc agagtttgag 540  
 attgcaaaag gcagtgaaga gtacaaaaga cttatcagtc gattgcctga ggtttacgtc 600  
 gggaaaaccg agaggcttcg atctctgata aagatattgt gcatagcggg aaagaaatgc 660  
 ttgagagaca agaaaatgca tatggctcct tggagaaaac acaagtacat gcaagccaag 720  
 tggcttggca catgtgatcg atctagctcc ttggaagctt cggtttccga ggccatggag 780  
 ccagaaaatt ggggtgccggg ggcgaagcct agggtttcta tgttgaacta tgatggtctc 840  
 ttaggtgggtt tctctgccgg tccggccact gtagcgggtcg tgtga 885

<210> 2662

<211> 294

<212> PRT

<213> *Arabidopsis thaliana*

<400> 2662

Met Asp Arg Gln Asn Ser Asp Asp Ile Met Arg Phe Leu Asp Gly Met  
1 5 10 15

Ala Ser Ser Asp Asp Val Leu Phe Gly Phe Leu Asp Glu Gly Asn Gln  
20 25 30

Ser Pro Glu Asp Phe Ser Val Asn Leu Asn Ala Gly Glu Asp Asp Gly  
35 40 45

Asp Glu Asp Asp Asn Asn Asn Asn Ser Glu Asp Asn Lys Ala Phe Trp  
50 55 60

Gln Glu His Glu Gln Leu Leu Gln Gly Thr Leu Tyr Arg Thr Ser Ser  
65 70 75 80

Ile Glu Thr Lys Ile Arg Gln Ala Thr Lys Glu Ala Leu Lys Gln Val  
85 90 95

Lys Ser Lys Gly Leu Tyr Cys Val Cys Arg Arg Pro Val Asp Gly Gly  
100 105 110

Cys Arg Ser Cys Leu Arg Gly Glu Ile Ser Arg His Leu Arg Asp Val  
115 120 125

Ala Gly Tyr Asp Cys Val Ile Ser Lys Ser Lys Trp Arg Ser Cys Gln  
 130 135 140

Asp Ile Pro Ala Gly Glu His Glu Phe Ile Glu Ile Val Asp Arg Ser  
 145 150 155 160

Gly Ser Lys Lys Ser Glu Met Arg Val Val Ile Glu Leu Ser Phe Arg  
 165 170 175

Ala Glu Phe Glu Ile Ala Lys Gly Ser Glu Glu Tyr Lys Arg Leu Ile  
 180 185 190

Ser Arg Leu Pro Glu Val Tyr Val Gly Lys Thr Glu Arg Leu Arg Ser  
 195 200 205

Leu Ile Lys Ile Leu Cys Ile Ala Gly Lys Lys Cys Leu Arg Asp Lys  
 210 215 220

Lys Met His Met Ala Pro Trp Arg Lys His Lys Tyr Met Gln Ala Lys  
 225 230 235 240

Trp Leu Gly Thr Cys Asp Arg Ser Ser Ser Leu Glu Ala Ser Val Ser  
 245 250 255

Glu Ala Met Glu Pro Glu Asn Trp Val Pro Val Ala Lys Pro Arg Val  
 260 265 270

Ser Met Leu Asn Tyr Asp Gly Leu Leu Gly Gly Phe Ser Ala Gly Pro  
 275 280 285

Ala Thr Val Ala Val Val  
 290

<210> 2663

<211> 1557

<212> DNA

<213> Arabidopsis thaliana

<400> 2663

atggatcgac ggggcaagta ttgggccgga ccgatgtgga tcgggttgag tatgtgcgga	60
tcgggctctg ataccatatt agagtgtagg ttaagattat tcaaacttca aaggcaaac	120
caaatgagct tcgtgtggtc cgctgcggtg tgggtcatag ctgtagccgc tgttgtgatt	180
agcaaattgg tataccgatg gtcgaacccg aagtgcaatg gcaagttacc accgggatca	240

047-E2F-PCT.ST25.txt

atggggtttac cgatcatcgg agagacatgc gacttctttg agcccatgg attatacgag 300  
atctcacctt ttgtcaagaa gaggatgtta aagtacgggc cattgtttcg gacaaatatt 360  
ttcggatcga acaccgtggt tttgacagaa cctgatatca tcttcgaagt ttttcggcaa 420  
gagaacaagt cttttgtggt tagctatcca gaagcttttg tcaagccatt tggaaaagaa 480  
aacgtgttcc tcaaacaatgg aaacatccac aagcacgtca agcaaatacag tcttcaacat 540  
cttggctctg aggcctttaa aaaaaagatg ataggagaaa tagacagagt aacatatgag 600  
catcttagat cgaaggctaa ccagggtagc ttcgatgcta aggaggcagt tgaaagtgtt 660  
ataatggcgc acttgacccc aaagataata agtaacctca aaccagaaac acaagcaact 720  
cttgtggaca atataatggc cctaggatct gaatggtttc agtcaccctt gaagcttacg 780  
actttgattt ctatctacaa agtctttatt gcacgtagat acgccctcca ggtgataaag 840  
gacgttttca cgaggaggaa agcgtccaga gaaatgtgcg gagacttcct cgacacaatg 900  
gtagaagagg gggagaaaga agacgtcatt tttaatgaag aaagtgcctat aaatctcata 960  
ttcgtatatt tggctgctgc taaagaatct acctcttcg ttactagctt ggccatcaaa 1020  
tttcttgccg aaaaccataa agctctcgca gagttgaaga gggagcatgc ggccatcctt 1080  
caaaatagaa atggttaaagg agctggagtt agctgggaag aatacagaca ccaaatagact 1140  
ttcactaaca tgggtgataaa tgagactctt cgaatggcaa acatggctcc tataatgtat 1200  
agaaaggctg tgaacgatgt cgaaatcaaa ggttacacaa ttccagcggg ctggattgtg 1260  
gcggttatac caccagctgt ccatttcaat gatgctatatt atgagaatcc tttggagttc 1320  
aatccatgga gatgggaggg gaaagagttg cggctctggat ctaagacgtt catggtgttt 1380  
ggaggtggag tgagacagtg tgtcggcgcg gagtttgca gactacaaat ttctatcttc 1440  
attcatcatc ttgtaacaac ctacgatttc tcattggccc aagaatcgga gttcatccgt 1500  
gcaccactcc catacttccc caaaggactg cctatcaaga tttcccagtc actctag 1557

<210> 2664

<211> 518

<212> PRT

<213> Arabidopsis thaliana

<400> 2664

Met Asp Arg Arg Gly Lys Tyr Trp Ala Gly Pro Met Trp Ile Gly Leu  
1 5 10 15

Ser Met Cys Gly Ser Gly Ser Asp Thr Ile Leu Glu Cys Arg Leu Arg  
20 25 30

047-E2F-PCT.ST25.txt

Leu Phe Lys Leu Gln Arg Gln Asn Gln Met Ser Phe Val Trp Ser Ala  
 35 40 45  
 Ala Val Trp Val Ile Ala Val Ala Ala Val Val Ile Ser Lys Trp Leu  
 50 55 60  
 Tyr Arg Trp Ser Asn Pro Lys Cys Asn Gly Lys Leu Pro Pro Gly Ser  
 65 70 75 80  
 Met Gly Leu Pro Ile Ile Gly Glu Thr Cys Asp Phe Phe Glu Pro His  
 85 90 95  
 Gly Leu Tyr Glu Ile Ser Pro Phe Val Lys Lys Arg Met Leu Lys Tyr  
 100 105 110  
 Gly Pro Leu Phe Arg Thr Asn Ile Phe Gly Ser Asn Thr Val Val Leu  
 115 120 125  
 Thr Glu Pro Asp Ile Ile Phe Glu Val Phe Arg Gln Glu Asn Lys Ser  
 130 135 140  
 Phe Val Phe Ser Tyr Pro Glu Ala Phe Val Lys Pro Phe Gly Lys Glu  
 145 150 155 160  
 Asn Val Phe Leu Lys His Gly Asn Ile His Lys His Val Lys Gln Ile  
 165 170 175  
 Ser Leu Gln His Leu Gly Ser Glu Ala Leu Lys Lys Lys Met Ile Gly  
 180 185 190  
 Glu Ile Asp Arg Val Thr Tyr Glu His Leu Arg Ser Lys Ala Asn Gln  
 195 200 205  
 Gly Ser Phe Asp Ala Lys Glu Ala Val Glu Ser Val Ile Met Ala His  
 210 215 220  
 Leu Thr Pro Lys Ile Ile Ser Asn Leu Lys Pro Glu Thr Gln Ala Thr  
 225 230 235 240  
 Leu Val Asp Asn Ile Met Ala Leu Gly Ser Glu Trp Phe Gln Ser Pro  
 245 250 255  
 Leu Lys Leu Thr Thr Leu Ile Ser Ile Tyr Lys Val Phe Ile Ala Arg  
 260 265 270  
 Arg Tyr Ala Leu Gln Val Ile Lys Asp Val Phe Thr Arg Arg Lys Ala

275

280

285

Ser Arg Glu Met Cys Gly Asp Phe Leu Asp Thr Met Val Glu Glu Gly  
 290 295 300  
 Glu Lys Glu Asp Val Ile Phe Asn Glu Glu Ser Ala Ile Asn Leu Ile  
 305 310 315 320  
 Phe Ala Ile Leu Val Val Ala Lys Glu Ser Thr Ser Ser Val Thr Ser  
 325 330 335  
 Leu Ala Ile Lys Phe Leu Ala Glu Asn His Lys Ala Leu Ala Glu Leu  
 340 345 350  
 Lys Arg Glu His Ala Ala Ile Leu Gln Asn Arg Asn Gly Lys Gly Ala  
 355 360 365  
 Gly Val Ser Trp Glu Glu Tyr Arg His Gln Met Thr Phe Thr Asn Met  
 370 375 380  
 Val Ile Asn Glu Thr Leu Arg Met Ala Asn Met Ala Pro Ile Met Tyr  
 385 390 395 400  
 Arg Lys Ala Val Asn Asp Val Glu Ile Lys Gly Tyr Thr Ile Pro Ala  
 405 410 415  
 Gly Trp Ile Val Ala Val Ile Pro Pro Ala Val His Phe Asn Asp Ala  
 420 425 430  
 Ile Tyr Glu Asn Pro Leu Glu Phe Asn Pro Trp Arg Trp Glu Gly Lys  
 435 440 445  
 Glu Leu Arg Ser Gly Ser Lys Thr Phe Met Val Phe Gly Gly Gly Val  
 450 455 460  
 Arg Gln Cys Val Gly Ala Glu Phe Ala Arg Leu Gln Ile Ser Ile Phe  
 465 470 475 480  
 Ile His His Leu Val Thr Thr Tyr Asp Phe Ser Leu Ala Gln Glu Ser  
 485 490 495  
 Glu Phe Ile Arg Ala Pro Leu Pro Tyr Phe Pro Lys Gly Leu Pro Ile  
 500 505 510  
 Lys Ile Ser Gln Ser Leu  
 515

&lt;210&gt; 2665

&lt;211&gt; 2301

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2665

```

atgaataact ctttacaaag ttctaaactt gtgcttctat tggctattgc tttggtccta      60
tttcttaaca cggagctgga ttttcttaca gctgctggag ccttagacag tgatagcaaa      120
gtttatatag tgtatcttgg cgaaagagaa cacgatgata ctgaacttgt cacagcttct      180
catcaccaga tgcttgaatc acttcttcaa agcaaagaag acgcacaaaa ctccctgata      240
tacagctacc aacatggatt ctctggtttc gcggcgcttc ttacatcata acaagctaag      300
aaaatttcag agcatccaga agttatccat gttataccaa accggattcg gaaacttaaa      360
accacaagag cttgggatca ctttggcctc tctccaattc caacttcttt ttcttcatta      420
tcatctgtaa aaggctcttc tcatgacacc aacttgggca gtgaagctat catcgggtgc      480
attgattccg ggatatggcc agagtcaaag gcagtcaacg atcaaggcct tggaccaata      540
cctaagcggt ggagaggaaa atgtgaacct ggagaacagt ttaacgccac aatacattgc      600
aacaacaagc taataggagc taggtactat ctaaacggtg tagtcgccgc aattggagga      660
aaattcaaca gaacaatcat ccaagatttc caatccacca gagatgcaaa cggtcacggt      720
acacatacag ccacaatagc tgggtggctca tttgtcccca acgtgagcta ctttggttta      780
gccaaggtc ttgtccgagg tgggtgctct cgagcccgaa tagcctcgta caaggcgtgt      840
tggaacgtaa tgagagatga aggaggagga actgatggaa gatgcacata tgctgatatg      900
tggaaggctt ttgatgatgc tatacatgat ggggttgatg ttttgtcggg ttctatcggg      960
ggaggatttc ccgaggattc ggaagtcgat aagctcgatt atatcgcggc ttttcacgcg      1020
gtggctaaag ggattacggt tgtggctgct gcgggtaacg aagggcctgg tgctcacact      1080
gttgacaatg ttgctccttg gcttttgact gttgctgcaa ctactcttga ccggtctttt      1140
cctacaaaga tcacacttgg gaataatcaa accctcttcg ctgaatctct gttcactgga      1200
ccggagattt caaccggttt agctttcttg gactcagaca gtgatgacac tgttgatgtg      1260
aaggggaaaa cagttcttgt tttcgatagt gcaactccaa ttgcagggaa aggtgtagca      1320
gcagtgatcc tagcccaaaa gcctgatgat cttctttctc gatgcaatgg tgtaccatgc      1380
atTTTTccag attacgagtt tggaactgag atTTTaaaat acatacgtac caccagatct      1440
cccacggtga gaattactgc agctactaca ctaactggtc agcctgcaac aactaagggt      1500
gctgcattct catgtagagg gcctaattcg gtttcaccag ccattctcaa gcctgatata      1560

```

gcagctccgg gtgtgagcat actcgcggca ataagtccgc ttaatccaga agaacagaac 1620  
ggatttggac ttctttcagg gacatcaatg tcaactcctg ttgtttctgg aataatagct 1680  
ctcctaaaat ctcttcaccc taagtgggtct cctgctgcag tgagatcagc tttgggcaca 1740  
acagcttgga ggacaagtcc atctggagaa ccaatctttg ctgaaggatc aaacaagaag 1800  
cttgcagatc catttgacta tggaggagga cttgtaaacc ctgaaaaagc tgctaaacca 1860  
ggacttgtct acgatatggg gattgtggat tacatcaagt atatgtgttc tgcgggttac 1920  
aacgactctt caatctctcg tgtgctcggg aaaaagacta attgcccaat tcctaagcca 1980  
tcaatgcttg atatcaactt accttcaatc acaattccaa atcttgagaa agaagtcaca 2040  
ctcacaagaa ctgtaaccaa tgttggaccc atcaagtcag tctatagagc tgtgatcgag 2100  
tctcctctcg gtataactct caccgtgaac ccaaccacac tcgtgtttaa gtctgcagct 2160  
aagagagtac tcactttctc ggttaaggct aaaacaagtc acaaagtcaa cactggctac 2220  
ttctttggaa gcttaacatg gagtgatggg gttcatgatg ttataatccc tgtctctggt 2280  
aagacaacga tttcgatgta a 2301

<210> 2666

<211> 766

<212> PRT

<213> Arabidopsis thaliana

<400> 2666

Met Asn Asn Ser Leu Gln Ser Ser Lys Leu Val Leu Leu Leu Ala Ile  
1 5 10 15

Ala Leu Val Leu Phe Leu Asn Thr Glu Leu Asp Phe Leu Thr Ala Ala  
20 25 30

Gly Ala Leu Asp Ser Asp Ser Lys Val Tyr Ile Val Tyr Leu Gly Glu  
35 40 45

Arg Glu His Asp Asp Pro Glu Leu Val Thr Ala Ser His His Gln Met  
50 55 60

Leu Glu Ser Leu Leu Gln Ser Lys Glu Asp Ala Gln Asn Ser Leu Ile  
65 70 75 80

Tyr Ser Tyr Gln His Gly Phe Ser Gly Phe Ala Ala Leu Leu Thr Ser  
85 90 95



Ser Gln Ala Lys Lys Ile Ser Glu His Pro Glu Val Ile His Val Ile  
 100 105 110  
 Pro Asn Arg Ile Arg Lys Leu Lys Thr Thr Arg Ala Trp Asp His Leu  
 115 120 125  
 Gly Leu Ser Pro Ile Pro Thr Ser Phe Ser Ser Leu Ser Ser Val Lys  
 130 135 140  
 Gly Leu Leu His Asp Thr Asn Leu Gly Ser Glu Ala Ile Ile Gly Val  
 145 150 155 160  
 Ile Asp Ser Gly Ile Trp Pro Glu Ser Lys Ala Val Asn Asp Gln Gly  
 165 170 175  
 Leu Gly Pro Ile Pro Lys Arg Trp Arg Gly Lys Cys Glu Pro Gly Glu  
 180 185 190  
 Gln Phe Asn Ala Thr Ile His Cys Asn Asn Lys Leu Ile Gly Ala Arg  
 195 200 205  
 Tyr Tyr Leu Asn Gly Val Val Ala Ala Ile Gly Gly Lys Phe Asn Arg  
 210 215 220  
 Thr Ile Ile Gln Asp Phe Gln Ser Thr Arg Asp Ala Asn Gly His Gly  
 225 230 235 240  
 Thr His Thr Ala Thr Ile Ala Gly Gly Ser Phe Val Pro Asn Val Ser  
 245 250 255  
 Tyr Phe Gly Leu Ala Gln Gly Leu Val Arg Gly Gly Ala Pro Arg Ala  
 260 265 270  
 Arg Ile Ala Ser Tyr Lys Ala Cys Trp Asn Val Met Arg Asp Glu Gly  
 275 280 285  
 Gly Gly Thr Asp Gly Arg Cys Thr Ser Ala Asp Met Trp Lys Ala Phe  
 290 295 300  
 Asp Asp Ala Ile His Asp Gly Val Asp Val Leu Ser Val Ser Ile Gly  
 305 310 315 320  
 Gly Gly Ile Pro Glu Asp Ser Glu Val Asp Lys Leu Asp Tyr Ile Ala  
 325 330 335  
 Ala Phe His Ala Val Ala Lys Gly Ile Thr Val Val Ala Ala Ala Gly  
 340 345 350

## 047-E2F-PCT.ST25.txt

Asn Glu Gly Pro Gly Ala His Thr Val Asp Asn Val Ala Pro Trp Leu  
 355 360 365  
 Leu Thr Val Ala Ala Thr Thr Leu Asp Arg Ser Phe Pro Thr Lys Ile  
 370 375 380  
 Thr Leu Gly Asn Asn Gln Thr Leu Phe Ala Glu Ser Leu Phe Thr Gly  
 385 390 395 400  
 Pro Glu Ile Ser Thr Gly Leu Ala Phe Leu Asp Ser Asp Ser Asp Asp  
 405 410 415  
 Thr Val Asp Val Lys Gly Lys Thr Val Leu Val Phe Asp Ser Ala Thr  
 420 425 430  
 Pro Ile Ala Gly Lys Gly Val Ala Ala Val Ile Leu Ala Gln Lys Pro  
 435 440 445  
 Asp Asp Leu Leu Ser Arg Cys Asn Gly Val Pro Cys Ile Phe Pro Asp  
 450 455 460  
 Tyr Glu Phe Gly Thr Glu Ile Leu Lys Tyr Ile Arg Thr Thr Arg Ser  
 465 470 475 480  
 Pro Thr Val Arg Ile Thr Ala Ala Thr Thr Leu Thr Gly Gln Pro Ala  
 485 490 495  
 Thr Thr Lys Val Ala Ala Phe Ser Cys Arg Gly Pro Asn Ser Val Ser  
 500 505 510  
 Pro Ala Ile Leu Lys Pro Asp Ile Ala Ala Pro Gly Val Ser Ile Leu  
 515 520 525  
 Ala Ala Ile Ser Pro Leu Asn Pro Glu Glu Gln Asn Gly Phe Gly Leu  
 530 535 540  
 Leu Ser Gly Thr Ser Met Ser Thr Pro Val Val Ser Gly Ile Ile Ala  
 545 550 555 560  
 Leu Leu Lys Ser Leu His Pro Lys Trp Ser Pro Ala Ala Val Arg Ser  
 565 570 575  
 Ala Leu Val Thr Thr Ala Trp Arg Thr Ser Pro Ser Gly Glu Pro Ile  
 580 585 590  
 Phe Ala Glu Gly Ser Asn Lys Lys Leu Ala Asp Pro Phe Asp Tyr Gly  
 595 600 605

047-E2F-PCT.ST25.txt

Gly Gly Leu Val Asn Pro Glu Lys Ala Ala Lys Pro Gly Leu Val Tyr  
610 615 620

Asp Met Gly Ile Val Asp Tyr Ile Lys Tyr Met Cys Ser Ala Gly Tyr  
625 630 635 640

Asn Asp Ser Ser Ile Ser Arg Val Leu Gly Lys Lys Thr Asn Cys Pro  
645 650 655

Ile Pro Lys Pro Ser Met Leu Asp Ile Asn Leu Pro Ser Ile Thr Ile  
660 665 670

Pro Asn Leu Glu Lys Glu Val Thr Leu Thr Arg Thr Val Thr Asn Val  
675 680 685

Gly Pro Ile Lys Ser Val Tyr Arg Ala Val Ile Glu Ser Pro Leu Gly  
690 695 700

Ile Thr Leu Thr Val Asn Pro Thr Thr Leu Val Phe Lys Ser Ala Ala  
705 710 715 720

Lys Arg Val Leu Thr Phe Ser Val Lys Ala Lys Thr Ser His Lys Val  
725 730 735

Asn Thr Gly Tyr Phe Phe Gly Ser Leu Thr Trp Ser Asp Gly Val His  
740 745 750

Asp Val Ile Ile Pro Val Ser Val Lys Thr Thr Ile Ser Met  
755 760 765

<210> 2667

<211> 552

<212> DNA

<213> Arabidopsis thaliana

<400> 2667

atgtcttttt cttccctcaa attgccaatc tttctcattc tctcaagtct tctccatgcg	60
gctatagggg aaaacattgt ttgcgagaat ctgccaacaa atatgtgctc gttctcaata	120
tccgctttccg ggaaaagatg tatattggag acggctaata tcgccggaga attcacttgc	180
cgcactttccg cagtggacgt ggaagggatt gtaaaccacg tggagaccga cgagtgcggt	240
tccgcttgtg gggttgatcg gaaaaccgta gggatctcgt cagactcctt gatggaggca	300

047-E2F-PCT.ST25.txt

ggtttcgccg ctaagctttg ctcatccgct tgcttggact attgccctaa cattcttgat 360  
ctctattttca acctcgccgc cggatgaagg gcattttttac ctgatctatg tgatgctcaa 420  
cggatgaatc cccagcggtc gatgatggaa ttcatacagc ccggcgccgc accaggccct 480  
gtctccgaaa ttgcaccagg cccacacctc gaagaagtct catctcctgc tctagctccg 540  
gcttctatgt aa 552

<210> 2668

<211> 183

<212> PRT

<213> Arabidopsis thaliana

<400> 2668

Met Ser Phe Ser Ser Leu Lys Leu Pro Ile Phe Leu Ile Leu Ser Ser  
1 5 10 15

Leu Leu His Ala Ala Ile Gly Glu Asn Ile Val Cys Glu Asn Leu Pro  
20 25 30

Thr Asn Met Cys Ser Phe Ser Ile Ser Ala Ser Gly Lys Arg Cys Ile  
35 40 45

Leu Glu Thr Ala Asn Val Ala Gly Glu Phe Thr Cys Arg Thr Ser Ala  
50 55 60

Val Asp Val Glu Gly Ile Val Asn His Val Glu Thr Asp Glu Cys Val  
65 70 75 80

Ser Ala Cys Gly Val Asp Arg Lys Thr Val Gly Ile Ser Ser Asp Ser  
85 90 95

Leu Met Glu Ala Gly Phe Ala Ala Lys Leu Cys Ser Ser Ala Cys Leu  
100 105 110

Asp Tyr Cys Pro Asn Ile Leu Asp Leu Tyr Phe Asn Leu Ala Ala Gly  
115 120 125

Glu Gly Ala Phe Leu Pro Asp Leu Cys Asp Ala Gln Arg Met Asn Pro  
130 135 140

Gln Arg Ser Met Met Glu Phe Ile Ser Ser Gly Ala Ala Pro Gly Pro  
145 150 155 160

Val Ser Glu Ile Ala Pro Gly Pro Thr Ser Glu Glu Val Ser Ser Pro  
 165 170 175

Ala Leu Ala Pro Ala Ser Met  
 180

<210> 2669

<211> 1170

<212> DNA

<213> Arabidopsis thaliana

<400> 2669

```

atggcgaatg gagctaatag agtggatctc gacgggaaac cgatacaacc gttgacaata    60
tgcattgatcg ggcgcggagg ttccatcggg tcacatctct gtgaaaagct cttgaccgag    120
acgccacata aggtgcttgc gctcgatggt tacaacgata agatcaaaca cttgcttgag    180
cctgataccg ttgaatggag tggtcggatc cagtttcatc gtatcaatat taagcatgat    240
tcgagacttg aaggctcttg taagatggcg gatctgatta taaatcttgc tgcgatctgt    300
actccagctg attacaatac acgtcctctt gatactatct acagcaattt cattgatgag    360
cttccagttg tgaaatactg ttctgagaac aacaagcgtc tcattcactt ttctacctgt    420
gaagtttatg gaaaaaccat tggaagcttt cttcctaagg atcatcctct gcgtgatgat    480
cctgctttct atgttcttaa agaagatatt tccccttgca tatttggttc aattgagaag    540
cagaggtggt catatgcgtg tgcaaagcaa ctgattgaga gacttgttta cgctgagggt    600
gctgagaatg ggcttgagtt caccatcgta cgacctttta actggattgg acctaggatg    660
gatttcatcc ccggcattga tggctcctagc gaagggtgtc cacgtgtcct tgcctgcttt    720
agtaacaatc ttctacgtcg tgagcctctc aagcttgtag atggtggaga atcacagaga    780
actttcgtct acatcaatga tgctattgaa gctgtccttt tgatgattga aaaccagag    840
agggcaaatg ggcacatctt caacgtaggc aaccggaaca acgaagttac agtaagacag    900
ctcgtgaaa tgatgaccga ggtttacgca aaagtgagtg gagaaggagc cattgagagc    960
ccaacggttg atgttagctc caaagagttt tacggggaag gttatgatga cagtgacaag   1020
agaatcccag acatgaccat cattaaccgc caactcggat ggaacccgaa aacatcgcta   1080
tgggacttgc tcgagtcgac cttaacctac cagcacagga catacgctga agctgtgaag   1140
aaggcaacat ccaaaccagt ggcttcctaa                                1170

```

<210> 2670

<211> 389

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2670

```

Met Ala Asn Gly Ala Asn Arg Val Asp Leu Asp Gly Lys Pro Ile Gln
 1      5      10      15

Pro Leu Thr Ile Cys Met Ile Gly Ala Gly Gly Phe Ile Gly Ser His
      20      25      30

Leu Cys Glu Lys Leu Leu Thr Glu Thr Pro His Lys Val Leu Ala Leu
 35      40      45

Asp Val Tyr Asn Asp Lys Ile Lys His Leu Leu Glu Pro Asp Thr Val
 50      55      60

Glu Trp Ser Gly Arg Ile Gln Phe His Arg Ile Asn Ile Lys His Asp
 65      70      75      80

Ser Arg Leu Glu Gly Leu Val Lys Met Ala Asp Leu Ile Ile Asn Leu
      85      90      95

Ala Ala Ile Cys Thr Pro Ala Asp Tyr Asn Thr Arg Pro Leu Asp Thr
      100      105      110

Ile Tyr Ser Asn Phe Ile Asp Ala Leu Pro Val Val Lys Tyr Cys Ser
      115      120      125

Glu Asn Asn Lys Arg Leu Ile His Phe Ser Thr Cys Glu Val Tyr Gly
      130      135      140

Lys Thr Ile Gly Ser Phe Leu Pro Lys Asp His Pro Leu Arg Asp Asp
      145      150      155      160

Pro Ala Phe Tyr Val Leu Lys Glu Asp Ile Ser Pro Cys Ile Phe Gly
      165      170      175

Ser Ile Glu Lys Gln Arg Trp Ser Tyr Ala Cys Ala Lys Gln Leu Ile
      180      185      190

Glu Arg Leu Val Tyr Ala Glu Gly Ala Glu Asn Gly Leu Glu Phe Thr
      195      200      205

Ile Val Arg Pro Phe Asn Trp Ile Gly Pro Arg Met Asp Phe Ile Pro
      210      215      220

```

047-E2F-PCT.ST25.txt

Gly Ile Asp Gly Pro Ser Glu Gly Val Pro Arg Val Leu Ala Cys Phe  
 225 230 235 240  
 Ser Asn Asn Leu Leu Arg Arg Glu Pro Leu Lys Leu Val Asp Gly Gly  
 245 250 255  
 Glu Ser Gln Arg Thr Phe Val Tyr Ile Asn Asp Ala Ile Glu Ala Val  
 260 265 270  
 Leu Leu Met Ile Glu Asn Pro Glu Arg Ala Asn Gly His Ile Phe Asn  
 275 280 285  
 Val Gly Asn Pro Asn Asn Glu Val Thr Val Arg Gln Leu Ala Glu Met  
 290 295 300  
 Met Thr Glu Val Tyr Ala Lys Val Ser Gly Glu Gly Ala Ile Glu Ser  
 305 310 315 320  
 Pro Thr Val Asp Val Ser Ser Lys Glu Phe Tyr Gly Glu Gly Tyr Asp  
 325 330 335  
 Asp Ser Asp Lys Arg Ile Pro Asp Met Thr Ile Ile Asn Arg Gln Leu  
 340 345 350  
 Gly Trp Asn Pro Lys Thr Ser Leu Trp Asp Leu Leu Glu Ser Thr Leu  
 355 360 365  
 Thr Tyr Gln His Arg Thr Tyr Ala Glu Ala Val Lys Lys Ala Thr Ser  
 370 375 380  
 Lys Pro Val Ala Ser  
 385

<210> 2671

<211> 585

<212> DNA

<213> Arabidopsis thaliana

<400> 2671

atgcaggatc tgacgtcagc agcagcgtat tatcatcagt cgatgatgat gacgacggcg	60
aaacagaacc aaccagagtt accagaacaa gaacagctaa agtgtcctcg ctgtgactca	120
cctaacta aattctgtta ctacaacaat tacaatctgt cacagccccg tcacttttgc	180

047-E2F-PCT.ST25.txt

```

aaaaactgtc gtcgttactg gactaaaggc ggtgctcttc gtaacatccc cgtcgggtggt 240
ggaactcgga aaagcaacaa acgatccggt tcttctccgt ctagtaatct caagaaccaa 300
accgtcgctg agaaacctga tcatcatggg tccgggtcag aagaaaaaga agagagagtt 360
tcgggtcaag aaatgaatcc gacccggatg ttatacgggt taccagttgg agatccgaat 420
ggtgcgagtt ttagttcggt gttggcgctg aatatgcaga tgggtgggct tgtttacgag 480
tccgggtcgc gttggttacc aggtatggat ttgggtttgg gttcgggtacg gaggagtgat 540
gacacgtgga ctgacttagc tatgaacaga atggagaaga attga 585

```

<210> 2672

<211> 194

<212> PRT

<213> Arabidopsis thaliana

<400> 2672

```

Met Gln Asp Leu Thr Ser Ala Ala Ala Tyr Tyr His Gln Ser Met Met
1          5          10          15

Met Thr Thr Ala Lys Gln Asn Gln Pro Glu Leu Pro Glu Gln Glu Gln
          20          25          30

Leu Lys Cys Pro Arg Cys Asp Ser Pro Asn Thr Lys Phe Cys Tyr Tyr
          35          40          45

Asn Asn Tyr Asn Leu Ser Gln Pro Arg His Phe Cys Lys Asn Cys Arg
          50          55          60

Arg Tyr Trp Thr Lys Gly Gly Ala Leu Arg Asn Ile Pro Val Gly Gly
65          70          75          80

Gly Thr Arg Lys Ser Asn Lys Arg Ser Gly Ser Ser Pro Ser Ser Asn
          85          90          95

Leu Lys Asn Gln Thr Val Ala Glu Lys Pro Asp His His Gly Ser Gly
          100          105          110

Ser Glu Glu Lys Glu Glu Arg Val Ser Gly Gln Glu Met Asn Pro Thr
          115          120          125

Arg Met Leu Tyr Gly Leu Pro Val Gly Asp Pro Asn Gly Ala Ser Phe
          130          135          140

```



047-E2F-PCT.ST25.txt

Ser Ser Leu Leu Ala Ser Asn Met Gln Met Gly Gly Leu Val Tyr Glu  
145 150 155 160

Ser Gly Ser Arg Trp Leu Pro Gly Met Asp Leu Gly Leu Gly Ser Val  
165 170 175

Arg Arg Ser Asp Asp Thr Trp Thr Asp Leu Ala Met Asn Arg Met Glu  
180 185 190

Lys Asn

<210> 2673

<211> 588

<212> DNA

<213> Arabidopsis thaliana

<400> 2673

atggcaacag catcgttcaa catgcaatca gtcttcgccg gtggattaac cactcgcaag	60
atcaacacca acaagctttt ctccgccggt agcttccta acctaagag gaattatccg	120
gtgggagtga gatgcatggc tgagggagga cccacgaatg aagactcttc accagcacca	180
tctacctcgg ccgctcagcc gttgccgaag tcaccatctc ctctcctcc tatgaaacct	240
aagggtgagca caaagtttag cgacttgcta gcgttttagcg gtccagcacc agagaggatt	300
aacggacggt tagcgatggt tggattcggt gcggcgttgg ctgtcgagct atccaagggt	360
gaaaacgttt tagctcagat ctccgacggt ggcgtctcat ggttcctcgg tacaacagcg	420
atcttgacac ttgcgtcgct tgtgccgctt ttcaagggca taagcgttga gtccaagtcc	480
aaaggtatca tgacgtcaga cgctgagctt tggaacggac gtttcgcgat gctcggtttg	540
gtcgcgttgg cgttcactga gttcgtcaaa ggtgggacac tcgtctaa	588

<210> 2674

<211> 195

<212> PRT

<213> Arabidopsis thaliana

<400> 2674

Met Ala Thr Ala Ser Phe Asn Met Gln Ser Val Phe Ala Gly Gly Leu  
1 5 10 15

047-E2F-PCT.ST25.txt

Thr Thr Arg Lys Ile Asn Thr Asn Lys Leu Phe Ser Ala Gly Ser Phe  
20 25 30

Pro Asn Leu Lys Arg Asn Tyr Pro Val Gly Val Arg Cys Met Ala Glu  
35 40 45

Gly Gly Pro Thr Asn Glu Asp Ser Ser Pro Ala Pro Ser Thr Ser Ala  
50 55 60

Ala Gln Pro Leu Pro Lys Ser Pro Ser Pro Pro Pro Met Lys Pro  
65 70 75 80

Lys Val Ser Thr Lys Phe Ser Asp Leu Leu Ala Phe Ser Gly Pro Ala  
85 90 95

Pro Glu Arg Ile Asn Gly Arg Leu Ala Met Val Gly Phe Val Ala Ala  
100 105 110

Leu Ala Val Glu Leu Ser Lys Gly Glu Asn Val Leu Ala Gln Ile Ser  
115 120 125

Asp Gly Gly Val Ser Trp Phe Leu Gly Thr Thr Ala Ile Leu Thr Leu  
130 135 140

Ala Ser Leu Val Pro Leu Phe Lys Gly Ile Ser Val Glu Ser Lys Ser  
145 150 155 160

Lys Gly Ile Met Thr Ser Asp Ala Glu Leu Trp Asn Gly Arg Phe Ala  
165 170 175

Met Leu Gly Leu Val Ala Leu Ala Phe Thr Glu Phe Val Lys Gly Gly  
180 185 190

Thr Leu Val  
195

<210> 2675

<211> 1188

<212> DNA

<213> Arabidopsis thaliana

<400> 2675

atggctgtct caactatcta ctcaacacaa gctctcaatt caactcattt cttaacctct 60

tcttcctcct ccaaacaagt cttcctctac cgtcgtcaac cacaaccaa ccgtagattc 120

047-E2F-PCT.ST25.txt

```

aacacactca tcacttgccg acaagaaacc atcgtgatcg gactagctgc tgactctggc 180
tgcggaacaa gtacctttat gcggaggctc accagcgtct ttggtggcgc tgctaagcca 240
ccaaaaggcg ggaaccctga ttccaacaca ctcatcagcg acacgaccac tgtgatctgt 300
cttgatgatt accattcttt ggataggtac ggtaggaaag agcagaaagt caccgctttg 360
gacccacgcg ccaatgactt tgatctcatg tatgagcaag tcaaagctct taagaatggg 420
atagccgtcg agaaaccgat ttataacat gtcactggac ttcttgaccc tccggagctt 480
attcagcctc ctaagattct tgtcatcgaa ggtcttcacc caatgtttga tgagcgagta 540
agagacttac tagacttcag tatctacttg gacattagca acgaagtcaa attcgcttgg 600
aaaattcaga gggacatggc tgaaagaggt cacagtttgg agagcatcaa agcgagtatc 660
gaagcccgaa agcccgactt cgatgcattc atcgaccgcg aaaagcagta cgcggatgcg 720
gtcatagaag tgcttcctac gactctgata ccagatgaca acgaagggaa agtggttgaga 780
gtgagattga taatgaagga aggtgttaag tacttcagcc cggtttacct gttcgatgaa 840
ggttcaacca tctcgtggat tccttgccgc cgcaaaactc cttgctcgta ccctggcatc 900
aagttcaact acgaacctga ctctacttc gaccatgagg tatcagtttt ggagatggat 960
ggacaatttg atagactgga cgagctgatt tacgtggaaa gtcacttgag caacctctcg 1020
accaaattct acggagaagt cactcaacaa atgctcaaac atgctgattt cccgggtagc 1080
aacaacggta ctggtctttt ccaaaccatt gttggattga agatcagaga tctctatgag 1140
cagctcattg ccaacaaagc cactgctcgt gcagaagcta aagcctaa 1188

```

<210> 2676

<211> 395

<212> PRT

<213> Arabidopsis thaliana

<400> 2676

```

Met Ala Val Ser Thr Ile Tyr Ser Thr Gln Ala Leu Asn Ser Thr His
1           5           10           15

```

```

Phe Leu Thr Ser Ser Ser Ser Lys Gln Val Phe Leu Tyr Arg Arg
20           25           30

```

```

Gln Pro Gln Thr Asn Arg Arg Phe Asn Thr Leu Ile Thr Cys Ala Gln
35           40           45

```

```

Glu Thr Ile Val Ile Gly Leu Ala Ala Asp Ser Gly Cys Gly Lys Ser

```

50

55

Thr Phe Met Arg Arg Leu Thr Ser Val Phe Gly Gly Ala Ala Lys Pro  
65 70 75 80

Pro Lys Gly Gly Asn Pro Asp Ser Asn Thr Leu Ile Ser Asp Thr Thr  
85 90 95

Thr Val Ile Cys Leu Asp Asp Tyr His Ser Leu Asp Arg Tyr Gly Arg  
100 105 110

Lys Glu Gln Lys Val Thr Ala Leu Asp Pro Arg Ala Asn Asp Phe Asp  
115 120 125

Leu Met Tyr Glu Gln Val Lys Ala Leu Lys Asn Gly Ile Ala Val Glu  
130 135 140

Lys Pro Ile Tyr Asn His Val Thr Gly Leu Leu Asp Pro Pro Glu Leu  
145 150 155 160

Ile Gln Pro Pro Lys Ile Leu Val Ile Glu Gly Leu His Pro Met Phe  
165 170 175

Asp Glu Arg Val Arg Asp Leu Leu Asp Phe Ser Ile Tyr Leu Asp Ile  
180 185 190

Ser Asn Glu Val Lys Phe Ala Trp Lys Ile Gln Arg Asp Met Ala Glu  
195 200 205

Arg Gly His Ser Leu Glu Ser Ile Lys Ala Ser Ile Glu Ala Arg Lys  
210 215 220

Pro Asp Phe Asp Ala Phe Ile Asp Pro Gln Lys Gln Tyr Ala Asp Ala  
225 230 235 240

Val Ile Glu Val Leu Pro Thr Thr Leu Ile Pro Asp Asp Asn Glu Gly  
245 250 255

Lys Val Leu Arg Val Arg Leu Ile Met Lys Glu Gly Val Lys Tyr Phe  
260 265 270

Ser Pro Val Tyr Leu Phe Asp Glu Gly Ser Thr Ile Ser Trp Ile Pro  
275 280 285

Cys Gly Arg Lys Leu Thr Cys Ser Tyr Pro Gly Ile Lys Phe Asn Tyr  
290 295 300

Glu Pro Asp Ser Tyr Phe Asp His Glu Val Ser Val Leu Glu Met Asp  
 305 310 315 320

Gly Gln Phe Asp Arg Leu Asp Glu Leu Ile Tyr Val Glu Ser His Leu  
 325 330 335

Ser Asn Leu Ser Thr Lys Phe Tyr Gly Glu Val Thr Gln Gln Met Leu  
 340 345 350

Lys His Ala Asp Phe Pro Gly Ser Asn Asn Gly Thr Gly Leu Phe Gln  
 355 360 365

Thr Ile Val Gly Leu Lys Ile Arg Asp Leu Tyr Glu Gln Leu Ile Ala  
 370 375 380

Asn Lys Ala Thr Ala Arg Ala Glu Ala Lys Ala  
 385 390 395

<210> 2677

<211> 561

<212> DNA

<213> Arabidopsis thaliana

<400> 2677

atggcgcat catcatctca tctcttcgca ctcccttcgc ctgcttctcc gtttctatct	60
gcaccaaacc ggaatcgagt tcgtgttctt gcgaaatcat gcccgagaa tcagagcttc	120
gactccaacg attcggattc ttcttcagag actaccaca aagcccaggg agatcagaaa	180
tcagtgtcac ggagacagtg gatgacggca tgtgtgtgcg catctgcagc ttttaattagc	240
aattcttata cctttgtctc tgtacaaagc gcagccgctt tagacaagaa accaggaggt	300
tcattgtcgt actgccaggg cagtgggtgct gttctttgtg atatgtgtgg tggtagagga	360
aaatggaaag ctctcaaccg aaaacgtgcg aaagatgtat atgagtttac ggaatgtcca	420
aactgttacg gtcgaggtaa gcttgtttgt cgggtctgtt taggtacagg ttaccaaac	480
aacaaaggcc ttcttagaag gcctgggtgct cgtgagctac tcgaaaagat gtacaatggt	540
cggcttcttc ctgattcatg a	561

<210> 2678

<211> 186

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 2678

Met Ala Ala Ser Ser Ser His Leu Phe Ala Leu Pro Ser Pro Ala Ser  
 1 5 10 15  
 Pro Phe Leu Ser Ala Pro Asn Arg Asn Arg Val Arg Val Leu Ala Lys  
 20 25 30  
 Ser Cys Pro Glu Asn Gln Ser Phe Asp Ser Asn Asp Ser Asp Ser Ser  
 35 40 45  
 Ser Glu Thr Thr His Lys Ala Gln Gly Asp Gln Lys Ser Val Ser Arg  
 50 55 60  
 Arg Gln Trp Met Thr Ala Cys Val Cys Ala Ser Ala Ala Leu Ile Ser  
 65 70 75 80  
 Asn Ser Tyr Thr Phe Val Ser Val Gln Ser Ala Ala Ala Leu Asp Lys  
 85 90 95  
 Lys Pro Gly Gly Ser Cys Arg Asn Cys Gln Gly Ser Gly Ala Val Leu  
 100 105 110  
 Cys Asp Met Cys Gly Gly Thr Gly Lys Trp Lys Ala Leu Asn Arg Lys  
 115 120 125  
 Arg Ala Lys Asp Val Tyr Glu Phe Thr Glu Cys Pro Asn Cys Tyr Gly  
 130 135 140  
 Arg Gly Lys Leu Val Cys Pro Val Cys Leu Gly Thr Gly Leu Pro Asn  
 145 150 155 160  
 Asn Lys Gly Leu Leu Arg Arg Pro Gly Ala Arg Glu Leu Leu Glu Lys  
 165 170 175  
 Met Tyr Asn Gly Arg Leu Leu Pro Asp Ser  
 180 185

&lt;210&gt; 2679

&lt;211&gt; 996

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

047-E2F-PCT.ST25.txt

<400> 2679  
atggggtcgtg gttacaatTT gctatttcgtt ctagtaacgt ttttagtatt ggttgcagct 60  
gtaaccgcac aagggaaccg tggctcaaac agcgggtggtg gtcgaagacc acatgttggg 120  
ttttatggga atagatgccg aaacgtagag tctattgtga gatctgtagt tcagtctcat 180  
gtccggtcta tcccggctaa tgcacctgga attttgcgaa tgcatttcca cgattgcttt 240  
gtccatggct gcgatggctc ggttctcctc gctggttaaca cctcagagag aaccgcagtt 300  
ccgaaccgtt cattgagagg gttcgaagtt attgaagaag ctaaggctcg gcttgagaag 360  
gcttgtcctc gtaccgtttc ttgtgctgat attctcacc ttgcagcccg agacgccgtc 420  
gttttgaccg gtggacaacg ctgggaagtg cccttgggac gtctcgacgg ccgaatctcg 480  
caagcctcag acgtgaactt gcccggacca agcgactccg ttgctaagca gaagcaagac 540  
ttcgtgcta aaactctcaa cacattagac ctcgtgactc ttgttggcgg acacacaata 600  
ggaactgctg gctgcggtct agtaagggga aggttcgtta acttcaacgg cacaggacaa 660  
cctgacctat caatcgacct gagttttgtg ccgctgattc tggctcagtg ccctcaaaat 720  
ggaggcacct gagtggagtt agacgagga agtggtgaca agtttgacac atcgttccta 780  
aggaaggtga cgtcaagtcg cgtggttctc caatccgatc tagtcctatg gaaggatccc 840  
gagacccgag ccatcattga acgtttatta ggattacgcc gaccatcctt gaggttcgga 900  
accgagttcg ggaagtcgat ggtcaaaatg agtctcatag aagttaagac tggatcagat 960  
ggggagattc gtcggggttg ttccgccatc aactaa 996

<210> 2680

<211> 331

<212> PRT

<213> Arabidopsis thaliana

<400> 2680

Met	Gly	Arg	Gly	Tyr	Asn	Leu	Leu	Phe	Val	Leu	Val	Thr	Phe	Leu	Val
1				5					10					15	
Leu	Val	Ala	Ala	Val	Thr	Ala	Gln	Gly	Asn	Arg	Gly	Ser	Asn	Ser	Gly
		20						25					30		
Gly	Gly	Arg	Arg	Pro	His	Val	Gly	Phe	Tyr	Gly	Asn	Arg	Cys	Arg	Asn
		35					40					45			
Val	Glu	Ser	Ile	Val	Arg	Ser	Val	Val	Gln	Ser	His	Val	Arg	Ser	Ile
	50					55					60				

047-E2F-PCT.ST25.txt

Pro Ala Asn Ala Pro Gly Ile Leu Arg Met His Phe His Asp Cys Phe  
 65 70 75 80  
 Val His Gly Cys Asp Gly Ser Val Leu Leu Ala Gly Asn Thr Ser Glu  
 85 90 95  
 Arg Thr Ala Val Pro Asn Arg Ser Leu Arg Gly Phe Glu Val Ile Glu  
 100 105 110  
 Glu Ala Lys Ala Arg Leu Glu Lys Ala Cys Pro Arg Thr Val Ser Cys  
 115 120 125  
 Ala Asp Ile Leu Thr Leu Ala Ala Arg Asp Ala Val Val Leu Thr Gly  
 130 135 140  
 Gly Gln Arg Trp Glu Val Pro Leu Gly Arg Leu Asp Gly Arg Ile Ser  
 145 150 155 160  
 Gln Ala Ser Asp Val Asn Leu Pro Gly Pro Ser Asp Ser Val Ala Lys  
 165 170 175  
 Gln Lys Gln Asp Phe Ala Ala Lys Thr Leu Asn Thr Leu Asp Leu Val  
 180 185 190  
 Thr Leu Val Gly Gly His Thr Ile Gly Thr Ala Gly Cys Gly Leu Val  
 195 200 205  
 Arg Gly Arg Phe Val Asn Phe Asn Gly Thr Gly Gln Pro Asp Pro Ser  
 210 215 220  
 Ile Asp Pro Ser Phe Val Pro Leu Ile Leu Ala Gln Cys Pro Gln Asn  
 225 230 235 240  
 Gly Gly Thr Arg Val Glu Leu Asp Glu Gly Ser Val Asp Lys Phe Asp  
 245 250 255  
 Thr Ser Phe Leu Arg Lys Val Thr Ser Ser Arg Val Val Leu Gln Ser  
 260 265 270  
 Asp Leu Val Leu Trp Lys Asp Pro Glu Thr Arg Ala Ile Ile Glu Arg  
 275 280 285  
 Leu Leu Gly Leu Arg Arg Pro Ser Leu Arg Phe Gly Thr Glu Phe Gly  
 290 295 300  
 Lys Ser Met Val Lys Met Ser Leu Ile Glu Val Lys Thr Gly Ser Asp  
 305 310 315 320



Gly Glu Ile Arg Arg Val Cys Ser Ala Ile Asn  
 325 330

<210> 2681

<211> 723

<212> DNA

<213> Arabidopsis thaliana

<400> 2681

```
atggatgctc gtaagagagg acgccctgaa gctgctgcct ctcacaactc caatggcgga    60
ttcaagaggt ctaagcaaga gatggaatca atttcaactg gtttaggaag caaatccaag    120
ccatgcacta aatttttcag cacttctgga tgtccatttg gtgacaattg ccacttcttg    180
cactatgtgc ccggtgggta caatgctgca gcgcagatga caaatctccg accaccggtt    240
tctcaagttt ccagaaatat gcaaggatct ggtggtcccg gcggcagatt ctcagggaga    300
ggagatccag gatcaggccc tgtttcaatc tttggtgctt ctacttccaa gatcagtgtg    360
gatgcttctt tagccggtgc catcattgga aaaggtggaa tccattccaa acagatatgc    420
cgtgaaacag gagcaaaatt atcgattaaa gatcatgaaa gagaccctaa cttgaagatt    480
atcgagctgg aaggaacatt tgaacagatc aatgtagcga gtgggatggt gagagagctt    540
atagggaggc ttggatcagt gaagaaacct caagggattg gtggtcctga agggaaacca    600
catcctggga gcaactacaa aaccaagatc tgtgataggt actctaaagg gaactgtaca    660
tatggagata gatgccattt tgctcatggt gaatctgagc tgcgcagggtc aggaatcgct    720
tag                                                                    723
```

<210> 2682

<211> 240

<212> PRT

<213> Arabidopsis thaliana

<400> 2682

Met Asp Ala Arg Lys Arg Gly Arg Pro Glu Ala Ala Ala Ser His Asn  
 1 5 10 15

Ser Asn Gly Gly Phe Lys Arg Ser Lys Gln Glu Met Glu Ser Ile Ser  
 20 25 30

047-E2F-PCT.ST25.txt

Thr Gly Leu Gly Ser Lys Ser Lys Pro Cys Thr Lys Phe Phe Ser Thr  
35 40 45

Ser Gly Cys Pro Phe Gly Asp Asn Cys His Phe Leu His Tyr Val Pro  
50 55 60

Gly Gly Tyr Asn Ala Ala Ala Gln Met Thr Asn Leu Arg Pro Pro Val  
65 70 75 80

Ser Gln Val Ser Arg Asn Met Gln Gly Ser Gly Gly Pro Gly Gly Arg  
85 90 95

Phe Ser Gly Arg Gly Asp Pro Gly Ser Gly Pro Val Ser Ile Phe Gly  
100 105 110

Ala Ser Thr Ser Lys Ile Ser Val Asp Ala Ser Leu Ala Gly Ala Ile  
115 120 125

Ile Gly Lys Gly Gly Ile His Ser Lys Gln Ile Cys Arg Glu Thr Gly  
130 135 140

Ala Lys Leu Ser Ile Lys Asp His Glu Arg Asp Pro Asn Leu Lys Ile  
145 150 155 160

Ile Glu Leu Glu Gly Thr Phe Glu Gln Ile Asn Val Ala Ser Gly Met  
165 170 175

Val Arg Glu Leu Ile Gly Arg Leu Gly Ser Val Lys Lys Pro Gln Gly  
180 185 190

Ile Gly Gly Pro Glu Gly Lys Pro His Pro Gly Ser Asn Tyr Lys Thr  
195 200 205

Lys Ile Cys Asp Arg Tyr Ser Lys Gly Asn Cys Thr Tyr Gly Asp Arg  
210 215 220

Cys His Phe Ala His Gly Glu Ser Glu Leu Arg Arg Ser Gly Ile Ala  
225 230 235 240

<210> 2683

<211> 897

<212> DNA

<213> Arabidopsis thaliana

## 047-E2F-PCT.ST25.txt

<400> 2683  
 atggtttagtg agagaagagt gcatccggat tgtataaacg cttcaaattcc ttatcacgag 60  
 tgtgtcagagt attgctttta gaaaatcgct gaagcaaagg ccagattcga gaagcagaac 120  
 actggattag ctaaagttca cgagcagacg agggagccgc tcgatgataa aagaatagag 180  
 gaagatagtt cagaagaaga agaggaggaa gaggataacc aagaacctca agtagatgta 240  
 actcaactta caggagagaca aaagaagttg tttgagttga gacttaagat gaatgaagca 300  
 agaaaatcca atcagacgga tgtcggggagt gaaaagaaga aaatggaagc accaacagag 360  
 acaaaaggaa tctcaaaaca gaaatggttg gaggggagga agaaaaagat tgggaaactt 420  
 cttgatgcta atggttttaga tatgacacag gcttatatgc tcgataactca agaagcagct 480  
 gaatcaaaat acaaaaaatg ggaaaaggaa cctacgcctg cgggttgga tgtctttaac 540  
 cagaagacgt tatacaacgc atacaagaaa cggacaaaga acattcaggt tgatctggag 600  
 gagtataaca gaatgagagc agctgatcca gagttttacc gtgaggcctc aagcttgcaa 660  
 tatggaaagg ctccaaaaac ttcgcaagat aagatagata agatggcaaa agagctctta 720  
 gacagagagc aaaagcgaca agagtttagc agggaggagga agttccggga agagaaggat 780  
 atcgattcca tcaacgacag aaacgagcat ttcaacaaga aaatcgagcg tgcgtttggg 840  
 aaatacacgc tggagatcaa aaacaacttg gaacgaggaa ctgcattacc cgactaa 897

<210> 2684

<211> 298

<212> PRT

<213> Arabidopsis thaliana

<400> 2684

Met Val Ser Glu Arg Arg Val His Pro Asp Cys Ile Asn Ala Ser Asn  
 1 5 10 15

Pro Tyr His Glu Cys Val Glu Tyr Cys Phe Lys Lys Ile Ala Glu Ala  
 20 25 30

Lys Ala Arg Phe Glu Lys Gln Asn Thr Gly Leu Ala Lys Val His Glu  
 35 40 45

Gln Thr Arg Glu Pro Leu Asp Asp Lys Arg Ile Glu Glu Asp Ser Ser  
 50 55 60

Glu Glu Glu Glu Glu Glu Glu Asp Asn Gln Glu Pro Gln Val Asp Val  
 65 70 75 80

047-E2F-PCT.ST25.txt

Thr Gln Leu Thr Gly Arg Gln Lys Lys Leu Phe Glu Leu Arg Leu Lys  
85 90 95

Met Asn Glu Ala Arg Lys Ser Asn Gln Thr Asp Val Gly Ser Glu Lys  
100 105 110

Lys Lys Met Glu Ala Pro Thr Glu Thr Lys Gly Ile Ser Lys Gln Lys  
115 120 125

Trp Leu Glu Gly Arg Lys Lys Lys Ile Gly Lys Leu Leu Asp Ala Asn  
130 135 140

Gly Leu Asp Met Thr Gln Ala Tyr Met Leu Asp Thr Gln Glu Ala Ala  
145 150 155 160

Glu Ser Lys Tyr Lys Lys Trp Glu Lys Glu Pro Thr Pro Ala Gly Trp  
165 170 175

Asp Val Phe Asn Gln Lys Thr Leu Tyr Asn Ala Tyr Lys Lys Arg Thr  
180 185 190

Lys Asn Ile Gln Val Asp Leu Glu Glu Tyr Asn Arg Met Arg Ala Ala  
195 200 205

Asp Pro Glu Phe Tyr Arg Glu Ala Ser Ser Leu Gln Tyr Gly Lys Ala  
210 215 220

Pro Lys Thr Ser Gln Asp Lys Ile Asp Lys Met Ala Lys Glu Leu Leu  
225 230 235 240

Asp Arg Glu Gln Lys Arg Gln Glu Phe Ser Arg Arg Arg Lys Phe Arg  
245 250 255

Glu Glu Lys Asp Ile Asp Ser Ile Asn Asp Arg Asn Glu His Phe Asn  
260 265 270

Lys Lys Ile Glu Arg Ala Phe Gly Lys Tyr Thr Leu Glu Ile Lys Asn  
275 280 285

Asn Leu Glu Arg Gly Thr Ala Leu Pro Asp  
290 295

<210> 2685

<211> 954

<212> DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2685

```

atggcgtctc tcaaagtccc aagcaatggt cctcttcccg aagatgacgc cgagcaactc   60
cacaaggctt tttcaggatg gggtagcaac gagaagctga tcatatcaat actagctcac   120
aggaacgcag cacaacgcag cttgatccgc agcgtttatg cagctaccta caatgaggat   180
cttctcaaag cattagacaa agagctttct agcgactttg agagagctgt gatgttggtg   240
actcttgatc caccagagag agatgcttat ttggctaaag aatccaccaa gatgttcacc   300
aagaacaatt gggttcttgt tgaaatcgct tgcacaaggc ctgctcttga gcttatcaag   360
gtcaagcaag cttaccaagc tcgatacaag aaatcaatcg aggaagatgt cgcgcaacac   420
acatctggtg accttcgtaa gctcttgctt cctcttggtga gcactttcag gtatgaagga   480
gatgatgtga acatgatgct tgcaagatct gaagctaaga tacttcacga gaagggtctca   540
gagaaatctt acagtgcga tgacttcatc agaatcttga caacaagaag caaagcacag   600
ctcggtgcaa cactcaacca ctacaacaac gagtatggaa acgccattaa caagaacttg   660
aaggaagagt cggacgacaa tgactacatg aaactactaa gagctgtaat cacatgtttg   720
acataccctg agaagcattt tgagaagggt cttcgtctat caatcaacaa aatgggaaca   780
gacgaatggg gactaaccgg agtcgtgact acacgaactg aagttgacat ggaacgcac   840
aaagaggaat atcagcgaag aaacagcatt cttttggacc gtgctatcgc caaagacact   900
tctggtgact atgaggacat gcttggtgct cttctcggac atggcgatgc ttga       954

```

&lt;210&gt; 2686

&lt;211&gt; 317

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2686

```

Met Ala Ser Leu Lys Val Pro Ser Asn Val Pro Leu Pro Glu Asp Asp
1           5           10           15

```

```

Ala Glu Gln Leu His Lys Ala Phe Ser Gly Trp Gly Thr Asn Glu Lys
                20           25           30

```

```

Leu Ile Ile Ser Ile Leu Ala His Arg Asn Ala Ala Gln Arg Ser Leu
35           40           45

```

```

Ile Arg Ser Val Tyr Ala Ala Thr Tyr Asn Glu Asp Leu Leu Lys Ala
                        Page 3751

```

50

55

Leu Asp Lys Glu Leu Ser Ser Asp Phe Glu Arg Ala Val Met Leu Trp  
65 70 75 80

Thr Leu Asp Pro Pro Glu Arg Asp Ala Tyr Leu Ala Lys Glu Ser Thr  
85 90 95

Lys Met Phe Thr Lys Asn Asn Trp Val Leu Val Glu Ile Ala Cys Thr  
100 105 110

Arg Pro Ala Leu Glu Leu Ile Lys Val Lys Gln Ala Tyr Gln Ala Arg  
115 120 125

Tyr Lys Lys Ser Ile Glu Glu Asp Val Ala Gln His Thr Ser Gly Asp  
130 135 140

Leu Arg Lys Leu Leu Leu Pro Leu Val Ser Thr Phe Arg Tyr Glu Gly  
145 150 155 160

Asp Asp Val Asn Met Met Leu Ala Arg Ser Glu Ala Lys Ile Leu His  
165 170 175

Glu Lys Val Ser Glu Lys Ser Tyr Ser Asp Asp Asp Phe Ile Arg Ile  
180 185 190

Leu Thr Thr Arg Ser Lys Ala Gln Leu Gly Ala Thr Leu Asn His Tyr  
195 200 205

Asn Asn Glu Tyr Gly Asn Ala Ile Asn Lys Asn Leu Lys Glu Glu Ser  
210 215 220

Asp Asp Asn Asp Tyr Met Lys Leu Leu Arg Ala Val Ile Thr Cys Leu  
225 230 235 240

Thr Tyr Pro Glu Lys His Phe Glu Lys Val Leu Arg Leu Ser Ile Asn  
245 250 255

Lys Met Gly Thr Asp Glu Trp Gly Leu Thr Arg Val Val Thr Thr Arg  
260 265 270

Thr Glu Val Asp Met Glu Arg Ile Lys Glu Glu Tyr Gln Arg Arg Asn  
275 280 285

Ser Ile Pro Leu Asp Arg Ala Ile Ala Lys Asp Thr Ser Gly Asp Tyr  
290 295 300

Glu Asp Met Leu Val Ala Leu Leu Gly His Gly Asp Ala  
 305 310 315

<210> 2687

<211> 549

<212> DNA

<213> *Arabidopsis thaliana*

<400> 2687

```

atggactcta tcgtctccag ttcgacgatt cttatgcgat catatctcac tcctccggtt      60
cgttcatggt ctccggcaac ctccgtttcc gtcaaacctc tgagctcagt ccaggtcacc      120
tccgtcgcgg ctaaccgcca cctgctttcg ttaagctccg gtgctagaag aaccagaaaa      180
agctctagtt cgggtgataag atgcggcgga atcaaagaga ttggagagag tgagttttcg      240
agtacggttc tcgaatcagc ccagccgggt ttggttgaat tcgtcgctac ttggtgcggt      300
ccctgcaa at tgatctatcc agctatggaa gccttatctc aggaatatgg tgacaaattg      360
acgattgtaa agattgatca cgacgcta at ccaaagttaa tagcggagtt caaggtttat      420
ggttttaccgc atttcattct cttcaaggac gggaaggaag ttccagggag cagaagggaa      480
ggtgctatta caaaggccaa gcttaaggag tacattgatg gtctcttgaa ctcaatatct      540
gttgcttaa                                         549

```

<210> 2688

<211> 182

<212> PRT

<213> *Arabidopsis thaliana*

<400> 2688

```

Met Asp Ser Ile Val Ser Ser Ser Thr Ile Leu Met Arg Ser Tyr Leu
1          5          10          15

Thr Pro Pro Val Arg Ser Cys Ser Pro Ala Thr Ser Val Ser Val Lys
20          25          30

Pro Leu Ser Ser Val Gln Val Thr Ser Val Ala Ala Asn Arg His Leu
35          40          45

Leu Ser Leu Ser Ser Gly Ala Arg Arg Thr Arg Lys Ser Ser Ser Ser
50          55          60

```

047-E2F-PCT.ST25.txt

Val Ile Arg Cys Gly Gly Ile Lys Glu Ile Gly Glu Ser Glu Phe Ser  
65 70 75 80

Ser Thr Val Leu Glu Ser Ala Gln Pro Val Leu Val Glu Phe Val Ala  
85 90 95

Thr Trp Cys Gly Pro Cys Lys Leu Ile Tyr Pro Ala Met Glu Ala Leu  
100 105 110

Ser Gln Glu Tyr Gly Asp Lys Leu Thr Ile Val Lys Ile Asp His Asp  
115 120 125

Ala Asn Pro Lys Leu Ile Ala Glu Phe Lys Val Tyr Gly Leu Pro His  
130 135 140

Phe Ile Leu Phe Lys Asp Gly Lys Glu Val Pro Gly Ser Arg Arg Glu  
145 150 155 160

Gly Ala Ile Thr Lys Ala Lys Leu Lys Glu Tyr Ile Asp Gly Leu Leu  
165 170 175

Asn Ser Ile Ser Val Ala  
180

<210> 2689

<211> 528

<212> DNA

<213> Arabidopsis thaliana

<400> 2689

atgggtgatc aaagtatatc taataagcct ctggatgaga aggtttcaat ggatttgact	60
tgtggtcagg aggcgatttt ggaagagctt aggatttggt taccctaatg ggttacacaa	120
gaacaagtca cagatatgat tagagggaca ttaggaata tagtcgaaat tggtgataat	180
ttttacgagc acgagactaa attctatgag caagtttctg ctgttatatc tttcacttct	240
agagatggaa ttagttcgag taaccacgat gcatttggtt cgaaactgga gtttattcac	300
tgtgaaacag agcggagtga aagttgtcag ccatcgagcgt ttcacaagct taagagcatg	360
agtagttcac agaagagcag tttttctcct gtgaagagga acagaaagat taaaggtaaa	420
ccaaagaaga aaggaaaagc ttcttctaag gtagaatctg gaggcccaa gcaagcttca	480
ataactaaat tcttcaacaa agtttcttca gaaggaacca agtcttag	528



&lt;210&gt; 2690

&lt;211&gt; 175

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2690

Met Gly Asp Gln Ser Ile Ser Asn Lys Pro Leu Asp Glu Lys Val Ser  
 1 5 10 15

Met Asp Leu Thr Cys Gly Gln Glu Ala Ile Leu Glu Glu Leu Arg Ile  
 20 25 30

Cys Leu Pro Lys Trp Val Thr Gln Glu Gln Val Thr Asp Met Ile Arg  
 35 40 45

Gly Thr Cys Arg Asn Ile Val Glu Ile Val Asp Asn Phe Tyr Glu His  
 50 55 60

Glu Thr Lys Phe Tyr Glu Gln Val Ser Ala Val Ile Ser Phe Thr Ser  
 65 70 75 80

Arg Asp Gly Ile Ser Ser Ser Asn His Asp Ala Phe Val Ser Lys Leu  
 85 90 95

Glu Phe Ile His Cys Glu Thr Glu Arg Ser Glu Ser Cys Gln Pro Ser  
 100 105 110

Gln Phe His Lys Leu Lys Ser Met Ser Ser Ser Gln Lys Ser Ser Ile  
 115 120 125

Ser Pro Val Lys Arg Asn Arg Lys Ile Lys Gly Lys Pro Lys Lys Lys  
 130 135 140

Gly Lys Ala Ser Ser Lys Val Glu Ser Gly Gly Pro Lys Gln Ala Ser  
 145 150 155 160

Ile Thr Lys Phe Phe Asn Lys Val Ser Ser Glu Gly Thr Lys Ser  
 165 170 175

&lt;210&gt; 2691

&lt;211&gt; 717

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

```

<400> 2691
atgagctctc aaatctgcag atctgcttcc aaagcagcca aatctcttct ctcttcagct    60
aaaaatgctc gcttcttctc tgaaggacga gccattggtg ctgcggcagc ggtttcggcg    120
tcaggaaaaa ttcctttgta tgcattctaac tttgcaagat catcagggttc tgggtgttgct    180
tctaagagtt ggatcactgg actcttagct cttcctgctg cagcttatat gattcaagat    240
caagagggttc ttgctgctga gatggaacga acttttattg ctatcaagcc tgatggtgtg    300
caaagaggac tgatatcaga gatcatttct cgattcgaac gcaagggatt caagctagtt    360
ggtatcaaag tcattgttcc ttctaaagat ttcgcacaaa agcattacca tgatcttaag    420
gaaagacctt tcttcaatgg tttgtgtgac ttccttagct ctggtcctgt tattgccatg    480
gtctgggaag gagatggtgt gatcagatac ggacgtaaac tgattggagc cactgacct    540
cagaaatctg agcctggaac aatccgagga gatcttgacg ttactgttgg caggaacata    600
atccatggaa gtgatggacc agagactgca aaggatgaga tcagtctgtg gtttaagcct    660
caagaacttg tttcttacac tagtaactct gagaagtggc tctatggtga caactaa    717

```

<210> 2692

<211> 238

<212> PRT

<213> Arabidopsis thaliana

<400> 2692

```

Met Ser Ser Gln Ile Cys Arg Ser Ala Ser Lys Ala Ala Lys Ser Leu
1           5           10           15
Leu Ser Ser Ala Lys Asn Ala Arg Phe Phe Ser Glu Gly Arg Ala Ile
20           25           30
Gly Ala Ala Ala Ala Val Ser Ala Ser Gly Lys Ile Pro Leu Tyr Ala
35           40           45
Ser Asn Phe Ala Arg Ser Ser Gly Ser Gly Val Ala Ser Lys Ser Trp
50           55           60
Ile Thr Gly Leu Leu Ala Leu Pro Ala Ala Ala Tyr Met Ile Gln Asp
65           70           75           80
Gln Glu Val Leu Ala Ala Glu Met Glu Arg Thr Phe Ile Ala Ile Lys
85           90           95

```

047-E2F-PCT.ST25.txt

Pro Asp Gly Val Gln Arg Gly Leu Ile Ser Glu Ile Ile Ser Arg Phe  
100 105 110

Glu Arg Lys Gly Phe Lys Leu Val Gly Ile Lys Val Ile Val Pro Ser  
115 120 125

Lys Asp Phe Ala Gln Lys His Tyr His Asp Leu Lys Glu Arg Pro Phe  
130 135 140

Phe Asn Gly Leu Cys Asp Phe Leu Ser Ser Gly Pro Val Ile Ala Met  
145 150 155 160

Val Trp Glu Gly Asp Gly Val Ile Arg Tyr Gly Arg Lys Leu Ile Gly  
165 170 175

Ala Thr Asp Pro Gln Lys Ser Glu Pro Gly Thr Ile Arg Gly Asp Leu  
180 185 190

Ala Val Thr Val Gly Arg Asn Ile Ile His Gly Ser Asp Gly Pro Glu  
195 200 205

Thr Ala Lys Asp Glu Ile Ser Leu Trp Phe Lys Pro Gln Glu Leu Val  
210 215 220

Ser Tyr Thr Ser Asn Ser Glu Lys Trp Leu Tyr Gly Asp Asn  
225 230 235

<210> 2693

<211> 1464

<212> DNA

<213> Arabidopsis thaliana

<400> 2693

atggagaaat caatggagaa aagcgtgagc tctgctgctt ctggtaatc aataaactcg	60
aagctgaggt atcctctcag atcggctctt agatccaagg aagggaagcc tcctgttcct	120
gatttctctg cttcttctat gccagaagg gcacgagttg tatctgctgt tagtcagagt	180
acaacagttc ttgatttgtc tgggaagaag agtggtgatc gaaccaagct accaccaaga	240
agactttcga ttccaaacaa gccacaagc aattcttctg ttaaatcagt gagcagcagc	300
gtcacttctc tttctgaagt caagccaaag agatcacgca ttgttcctag aagcttcaat	360
gaaacaacaa cacctgtctc tagtaatctc agatcatcag tgactcgaaa gaaagttgaa	420

gacttgtctt cctctactta ttggctgact catatcaagc tagctgaatc cgtggcgaaa 480  
 cattcgatct ctctcggttt ctttaaacctt gctcttcatg caggggtgtga gccacttgac 540  
 aagatgaaag aagagttgaa attgtatgct cgtcgcgaata acatggatgg gcttgctgat 600  
 gctatgaagg aacttttcgga actgtacaat atctctgaag aatccaatca ggtgcaggtc 660  
 tcggagacta gttctgtttgt agctgaagaa acagctatgt ctctgaacaa cgataatgat 720  
 gtccagagtt cattctccac tcctggaaat tcgaacatca catcagagat cacgaaagac 780  
 gatgctttgc aagattcaac cgtcacaaaa acaactaagg aaaaagatgc tttgcaagat 840  
 tcattctgtca cagaaacaac taaggaaaaa gatgctttgc aagattcatc tgtcacagaa 900  
 acatctaagg aagaagggtgc tttgcaagat tcattctgtca cagaaacaac taaggaagaa 960  
 gatgctttgc aagattcatc tgtcacagaa acaactaagg aagagcaggc gttggaaact 1020  
 gtaacacaag gaagaactag aaagtctctg gaggtaatca atgtgaacca agagaatgat 1080  
 tcagaggttg ttcaggaatc cgaagaaggg ctccgtccat cagcagatgg tgttcagatc 1140  
 gtgactgttg ttaaaccctt agacaagaaa cgtgccagaa aggagactgt tcctaagaac 1200  
 aacctgccgg tgaggacaaa gaaatcacta gcaaccaact ctgctaattc aaaaacagtt 1260  
 caagtaaaca aggatgataa gtctcagaag aagtctgaga ggatcactaa acccaggact 1320  
 aagagagttc aagaagagtc aaagaagtca attaagaaat ctactgctaa agaaggtgaa 1380  
 gttaaatctc tgaagcaaac agagaaaatg gagaacaaag aaaacacggt tgttgttggt 1440  
 gcaggagaag acatccaggt ttaa 1464

<210> 2694

<211> 487

<212> PRT

<213> Arabidopsis thaliana

<400> 2694

Met Glu Lys Ser Met Glu Lys Ser Val Ser Ser Ala Ala Ser Gly Asn  
 1 5 10 15

Ser Ile Asn Ser Lys Leu Arg Tyr Pro Leu Arg Ser Ala Leu Arg Ser  
 20 25 30

Lys Glu Gly Lys Pro Pro Val Pro Asp Phe Ser Ala Ser Ser Met Pro  
 35 40 45

Arg Arg Ala Arg Val Val Ser Ala Val Ser Gln Ser Thr Thr Val Leu  
 50 55 60

047-E2F-PCT.ST25.txt

Asp Leu Ser Gly Lys Lys Ser Val Asp Arg Thr Lys Leu Pro Pro Arg  
 65 70 75 80  
 Arg Leu Ser Ile Pro Asn Lys Pro Thr Ser Asn Ser Ser Val Lys Ser  
 85 90 95  
 Val Ser Ser Ser Val Thr Ser Leu Ser Glu Val Lys Pro Lys Arg Ser  
 100 105 110  
 Arg Ile Val Pro Arg Ser Phe Asn Glu Thr Thr Thr Pro Val Ser Ser  
 115 120 125  
 Asn Leu Arg Ser Ser Val Thr Arg Lys Lys Val Glu Asp Leu Ser Ser  
 130 135 140  
 Ser Thr Tyr Trp Leu Thr His Ile Lys Leu Ala Glu Ser Val Ala Lys  
 145 150 155 160  
 His Ser Ile Ser Leu Gly Phe Phe Lys Leu Ala Leu His Ala Gly Cys  
 165 170 175  
 Glu Pro Leu Asp Lys Met Lys Glu Glu Leu Lys Leu Tyr Ala Arg Arg  
 180 185 190  
 Asn Asn Met Asp Gly Leu Ala Asp Ala Met Lys Glu Leu Ser Glu Leu  
 195 200 205  
 Tyr Asn Ile Ser Glu Glu Ser Asn Gln Val Gln Val Ser Glu Thr Ser  
 210 215 220  
 Ser Val Val Ala Glu Glu Thr Ala Met Ser Leu Asn Asn Asp Asn Asp  
 225 230 235 240  
 Val Gln Ser Ser Phe Ser Thr Pro Gly Asn Ser Asn Ile Thr Ser Glu  
 245 250 255  
 Ile Thr Lys Asp Asp Ala Leu Gln Asp Ser Thr Val Thr Lys Thr Thr  
 260 265 270  
 Lys Glu Lys Asp Ala Leu Gln Asp Ser Ser Val Thr Glu Thr Thr Lys  
 275 280 285  
 Glu Lys Asp Ala Leu Gln Asp Ser Ser Val Thr Glu Thr Ser Lys Glu  
 290 295 300  
 Glu Gly Ala Leu Gln Asp Ser Ser Val Thr Glu Thr Thr Lys Glu Glu

047-E2F-PCT.ST25.txt

047-EZ-FCF.S129.EXC

305	310	315	320
-----	-----	-----	-----

Asp Ala Leu Gln Asp Ser Ser Val Thr Glu Thr Thr Lys Glu Glu Gln  
325 330 335

Ala Leu Glu Thr Val Thr Gln Gly Arg Thr Arg Lys Ser Leu Glu Val  
340 345 350

Ile Asn Val Asn Gln Glu Asn Asp Ser Glu Val Val Gln Glu Ser Glu  
355 360 365

Glu Gly Leu Arg Pro Ser Ala Asp Gly Val Gln Ile Val Thr Val Val  
370 375 380

Lys Pro Ser Asp Lys Lys Arg Ala Arg Lys Glu Thr Val Pro Lys Asn  
385 390 395 400

Asn Leu Pro Val Arg Thr Lys Lys Ser Leu Ala Thr Asn Ser Ala Asn  
405 410 415

Ser Lys Thr Val Gln Val Asn Lys Asp Asp Lys Ser Gln Lys Lys Ser  
420 425 430

Glu Arg Ile Thr Lys Pro Arg Thr Lys Arg Val Gln Glu Glu Ser Lys  
435 440 445

Lys Ser Ile Lys Lys Ser Thr Ala Lys Glu Gly Glu Val Lys Ser Leu  
450 455 460

Lys Gln Thr Glu Lys Met Glu Asn Lys Glu Asn Thr Val Val Val Gly  
465 470 475 480

Ala Gly Glu Asp Ile Gln Val  
485

<210> 2695

$\langle 211 \rangle$  921

<212> DNA

<213> Arabidopsis thaliana

<400> 2695  
atgacttatc acgaagaaga cgatacagtt tctgaatttc gagttagagt tgaagaagat 60

ggagttgata aattaggtca ttatgttaaa cttactgaag atttcgaagt acatcgacaa 120

gaaacagaac aagaatcttc atcatcaccg tcttcttctt cttcatgtgg acagaaacga 180

Page 3760

047-E2F-PCT.ST25.txt

tctgttttgggt tttggatcaa gcttgggtcctt ttctttcactt ttctaactgc tttgggtctc 240  
gctgggttaca aatggctata ccctttaatc atggataagg agctaataccc actcataaaa 300  
tgggagatgg agacatttac acaccctgtg tgcggtattc ttgtgtttgc atcagttctct 360  
ttattccctg tgatacttat tccaactacg ccgtcaatgt ggggtggctgg gattacattt 420  
ggttattttct atggccttct ccttactctt ccagctgtag ctattgggtgt ttcacttcct 480  
tactttcatca gctatctctt cctcaacaaa attcaagggt ggtttagaaag atatccagat 540  
caagctgcaa tggttgagagc tgctgggtgga ggcagttgggt ttcattcagtt tcgtgcagtt 600  
accttaatcc ggattttctcc atttcctttt gctgtatata attactgcgc tggttgcaact 660  
cgtgtgaagt tcggtcctta catggctgggt tctctcgtag gcatggcgcc ggagattttt 720  
gtcgcaattt atacagggat tcttataagg acattggcag atgcatccac tgcggaacaa 780  
aaggggtctct cgattcttca aattgttctc aacatttttg gttttgtagc aactgtttgtg 840  
acaactgttc tcatcactaa gtatgcgaaa agacagcttg aagttatgaa gaaggagaag 900  
gaagctttgt tgttacagta a 921

<210> 2696

<211> 306

<212> PRT

<213> Arabidopsis thaliana

<400> 2696

Met Thr Tyr His Glu Glu Asp Asp Thr Val Ser Glu Phe Arg Val Arg  
1 5 10 15

Val Glu Glu Asp Gly Val Asp Lys Leu Gly His Tyr Val Lys Leu Thr  
20 25 30

Glu Asp Phe Glu Val His Arg Gln Glu Thr Glu Gln Glu Ser Ser Ser  
35 40 45

Ser Pro Ser Ser Ser Ser Ser Cys Gly Gln Lys Arg Ser Val Trp Phe  
50 55 60

Trp Ile Lys Leu Gly Leu Phe Phe Thr Phe Leu Thr Ala Leu Gly Leu  
65 70 75 80

Ala Gly Tyr Lys Trp Leu Tyr Pro Leu Ile Met Asp Lys Glu Leu Ile  
85 90 95

047-E2F-PCT.ST25.txt

Pro Leu Ile Lys Trp Glu Met Glu Thr Phe Thr His Pro Val Cys Gly  
100 105 110

Ile Leu Val Phe Ala Ser Val Ser Leu Phe Pro Val Ile Leu Ile Pro  
115 120 125

Thr Thr Pro Ser Met Trp Val Ala Gly Ile Thr Phe Gly Tyr Phe Tyr  
130 135 140

Gly Leu Leu Leu Thr Leu Pro Ala Val Ala Ile Gly Val Ser Leu Pro  
145 150 155 160

Tyr Phe Ile Ser Tyr Leu Phe Leu Asn Lys Ile Gln Gly Trp Leu Glu  
165 170 175

Arg Tyr Pro Asp Gln Ala Ala Met Leu Arg Ala Ala Gly Gly Gly Ser  
180 185 190

Trp Phe His Gln Phe Arg Ala Val Thr Leu Ile Arg Ile Ser Pro Phe  
195 200 205

Pro Phe Ala Val Tyr Asn Tyr Cys Ala Val Ala Thr Arg Val Lys Phe  
210 215 220

Gly Pro Tyr Met Ala Gly Ser Leu Val Gly Met Ala Pro Glu Ile Phe  
225 230 235 240

Val Ala Ile Tyr Thr Gly Ile Leu Ile Arg Thr Leu Ala Asp Ala Ser  
245 250 255

Thr Ala Glu Gln Lys Gly Leu Ser Ile Leu Gln Ile Val Leu Asn Ile  
260 265 270

Phe Gly Phe Val Ala Thr Val Val Thr Thr Val Leu Ile Thr Lys Tyr  
275 280 285

Ala Lys Arg Gln Leu Glu Val Met Lys Lys Glu Lys Glu Ala Leu Leu  
290 295 300

Leu Gln  
305

<210> 2697

<211> 270

<212> DNA



&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2697

```

atgatggcaa gaaactcaat gtctgagaag cttgcaaatg atattgatac agcgggtgaag      60
acattatcag acaaagcgta cgagatagct ttgagccaga ttagaaacaa tcgtgaagcc      120
atggacaaga ttgttgaaat acttcttgag aaagagacta tgtcaggcga tgaattccga      180
gcaatcctat ctgaattcac agaaatccca cctgaaaacc gtgttgcttc ttcaacatcc      240
acatcaacac caacaccagc gtctgtctga      270

```

&lt;210&gt; 2698

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2698

```

Met Met Ala Arg Asn Ser Met Ser Glu Lys Leu Ala Asn Asp Ile Asp
1          5          10          15

Thr Ala Val Lys Thr Leu Ser Asp Lys Ala Tyr Glu Ile Ala Leu Ser
          20          25          30

Gln Ile Arg Asn Asn Arg Glu Ala Met Asp Lys Ile Val Glu Ile Leu
          35          40          45

Leu Glu Lys Glu Thr Met Ser Gly Asp Glu Phe Arg Ala Ile Leu Ser
          50          55          60

Glu Phe Thr Glu Ile Pro Pro Glu Asn Arg Val Ala Ser Ser Thr Ser
65          70          75          80

Thr Ser Thr Pro Thr Pro Ala Ser Val
          85

```

&lt;210&gt; 2699

&lt;211&gt; 477

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2699

```

atggctttct ctgcgactgt gtctcagctt tcttctcttt caaccatctc ctcttcatta    60
ccaatttctt ctagaagact ccctcatcga tctcttcctc aattcacagt caaagcagaa    120
gcagagaaag agaaacagag cacacagggc aagtctgatg gggaagcatc accagctgca    180
accaaaaccc ctaaaaccct cccaagaaa ccggtttact cgatgaagaa gggccaaatc    240
gttcgtgtgg aaaaagagaa gtacctcaac agcatcaatt acttatcagt tggacatcct    300
cctttctaca aaggacttga ttacatatac gaagatcgcg gcgaggtctt ggaccttcgt    360
gtctttgaga caggagagta tgcacttggt ggatgggttg gtatccccac cgcaccagct    420
tggtcccaa cagatatgct catcaagtgt gagaaacttg ttacgagcg aatgtag      477

```

&lt;210&gt; 2700

&lt;211&gt; 158

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2700

```

Met Ala Phe Ser Ala Thr Val Ser Gln Leu Ser Ser Leu Ser Thr Ile
1          5          10          15

Ser Ser Ser Leu Pro Ile Ser Ser Arg Arg Leu Pro His Arg Ser Leu
          20          25          30

Pro Gln Phe Thr Val Lys Ala Glu Ala Glu Lys Glu Lys Gln Ser Thr
          35          40          45

Gln Gly Lys Ser Asp Gly Glu Ala Ser Pro Ala Ala Thr Lys Thr Pro
          50          55          60

Lys Thr Leu Pro Lys Lys Pro Val Tyr Ser Met Lys Lys Gly Gln Ile
65          70          75          80

Val Arg Val Glu Lys Glu Lys Tyr Leu Asn Ser Ile Asn Tyr Leu Ser
          85          90          95

Val Gly His Pro Pro Phe Tyr Lys Gly Leu Asp Tyr Ile Tyr Glu Asp
          100          105          110

Arg Gly Glu Val Leu Asp Leu Arg Val Phe Glu Thr Gly Glu Tyr Ala
          115          120          125

Leu Val Gly Trp Val Gly Ile Pro Thr Ala Pro Ala Trp Leu Pro Thr
130          135          140

```

Asp Met Leu Ile Lys Cys Glu Lys Leu Val Tyr Glu Arg Met  
145 150 155

<210> 2701

<211> 183

<212> DNA

<213> Arabidopsis thaliana

<400> 2701  
atggaggcaa tgaagatgaa gctttacgtg gtgggttttg tggcagtgat agcgttctct 60  
acagttcacc agacggttgc agcggttgac gctcccgcgc ctagccctac ctccgatgct 120  
tcctcattta tccctacttt cttcgccctcc gtagcggtga tggccttttg attcttcttt 180  
taa 183

<210> 2702

<211> 60

<212> PRT

<213> Arabidopsis thaliana

<400> 2702

Met Glu Ala Met Lys Met Lys Leu Tyr Val Val Val Leu Val Ala Val  
1 5 10 15

Ile Ala Phe Ser Thr Val His Gln Thr Val Ala Ala Val Asp Ala Pro  
20 25 30

Ala Pro Ser Pro Thr Ser Asp Ala Ser Ser Phe Ile Pro Thr Phe Phe  
35 40 45

Ala Ser Val Ala Val Met Ala Phe Gly Phe Phe Phe  
50 55 60

<210> 2703

<211> 1299

<212> DNA

<213> Arabidopsis thaliana

047-E2F-PCT.ST25.txt

<400> 2703

atgaagatgc	tgagacttag	aaagaagcaa	catttggtgt	ttctactatg	cgtgtggtgt	60
ttggtggtgg	attggagcaa	agcagaaaca	gaggaaagtg	atggaagtcc	catggagaaa	120
acagagcaag	ctgctctata	ctctaccatt	caaggctttg	ttggtgaatc	ttggaatggc	180
tcttatcttt	atcctgaccc	ttgtggctgg	actcctatcc	aggggtgtgac	ttgtgatatc	240
tatgatgagc	tttggtatgt	aactgctcta	agctttggga	ctatgaaaga	caactctctt	300
gcttgttctg	aaagtccagt	gatcagacca	caactctttg	agctcaagca	cctcaagtct	360
ctctctcttt	tcaactgctt	cacaacgcct	aaccgatatc	tagcttcaat	ctccgatgaa	420
aagtggttgg	atctctctaa	aagcttggag	agacttgaga	tcagatcaaa	cccgggactg	480
ataggtgaac	tcccttctgt	catcactaac	ctcaccaacc	ttcaatctct	ggtggtgcta	540
gaaaacaagt	taacaggtcc	attgccagtg	aatttggccca	agttaaccag	attgagacgt	600
ttagtactgt	ctggaaaccg	gttcacaggg	agaatacctg	aggtctacgg	gttaaccgga	660
ttgttgatat	tggatgtgag	caggaatttc	ttatctgggg	cgttgccttt	aagcgttgga	720
ggattgtatt	ctctgctgaa	acttgatctt	agtaacaatt	acttggaagg	aaagttacct	780
agagagctag	agtccttgaa	gaatctcact	ctattggact	tgagaaacaa	cagattatca	840
ggtgggttga	gtaaagagat	ccaagagatg	acttcttttg	tagaactggg	tctgtccaat	900
aatcgcctag	ccggggactt	gacaggaata	aagtggagaa	atctgaagaa	tttagtggtt	960
cttgatctct	ccaacacagg	cttaaaaggg	gagattcctg	gttcaatctt	ggagctcaag	1020
aaactgaggt	ttttgggttt	gagcaacaac	aatctcggag	gcaaactcat	tccacaaatg	1080
gaaaccgaaa	tgcctagtct	cagcgcgctt	tacgtgaatg	gaaataacat	cagcggagag	1140
ttggaattct	ctaggtactt	ttatgagaga	atgggaagga	gacttggtgt	ttgggggaac	1200
cctaattctgt	gttacaacgg	agatgagacc	aagaacctta	gcgatcatgt	tcctttcgga	1260
gtgaaccaat	gtaagagaat	taaggcagat	aaatattag			1299

<210> 2704

<211> 432

<212> PRT

<213> Arabidopsis thaliana

<400> 2704

Met	Lys	Met	Leu	Arg	Leu	Arg	Lys	Lys	Gln	His	Leu	Val	Phe	Leu	Leu
1				5					10					15	

Cys Val Trp Cys Leu Val Val Asp Trp Ser Lys Ala Glu Thr Glu Glu  
 20 25 30  
 Ser Asp Gly Ser Pro Met Glu Lys Thr Glu Gln Ala Ala Leu Tyr Ser  
 35 40 45  
 Thr Ile Gln Gly Phe Val Gly Glu Ser Trp Asn Gly Ser Tyr Leu Tyr  
 50 55 60  
 Pro Asp Pro Cys Gly Trp Thr Pro Ile Gln Gly Val Thr Cys Asp Ile  
 65 70 75 80  
 Tyr Asp Glu Leu Trp Tyr Val Thr Ala Leu Ser Phe Gly Thr Met Lys  
 85 90 95  
 Asp Asn Ser Leu Ala Cys Ser Glu Ser Pro Val Ile Arg Pro Gln Leu  
 100 105 110  
 Phe Glu Leu Lys His Leu Lys Ser Leu Ser Leu Phe Asn Cys Phe Thr  
 115 120 125  
 Thr Pro Asn Arg Tyr Leu Ala Ser Ile Ser Asp Glu Lys Trp Leu Asp  
 130 135 140  
 Leu Ser Lys Ser Leu Glu Arg Leu Glu Ile Arg Ser Asn Pro Gly Leu  
 145 150 155 160  
 Ile Gly Glu Leu Pro Ser Val Ile Thr Asn Leu Thr Asn Leu Gln Ser  
 165 170 175  
 Leu Val Val Leu Glu Asn Lys Leu Thr Gly Pro Leu Pro Val Asn Leu  
 180 185 190  
 Ala Lys Leu Thr Arg Leu Arg Arg Leu Val Leu Ser Gly Asn Arg Phe  
 195 200 205  
 Thr Gly Arg Ile Pro Glu Val Tyr Gly Leu Thr Gly Leu Leu Ile Leu  
 210 215 220  
 Asp Val Ser Arg Asn Phe Leu Ser Gly Ala Leu Pro Leu Ser Val Gly  
 225 230 235 240  
 Gly Leu Tyr Ser Leu Leu Lys Leu Asp Leu Ser Asn Asn Tyr Leu Glu  
 245 250 255  
 Gly Lys Leu Pro Arg Glu Leu Glu Ser Leu Lys Asn Leu Thr Leu Leu  
 260 265 270

047-E2F-PCT.ST25.txt

Asp Leu Arg Asn Asn Arg Leu Ser Gly Gly Leu Ser Lys Glu Ile Gln  
275 280 285

Glu Met Thr Ser Leu Val Glu Leu Val Leu Ser Asn Asn Arg Leu Ala  
290 295 300

Gly Asp Leu Thr Gly Ile Lys Trp Arg Asn Leu Lys Asn Leu Val Val  
305 310 315 320

Leu Asp Leu Ser Asn Thr Gly Leu Lys Gly Glu Ile Pro Gly Ser Ile  
325 330 335

Leu Glu Leu Lys Lys Leu Arg Phe Leu Gly Leu Ser Asn Asn Asn Leu  
340 345 350

Gly Gly Lys Leu Ile Pro Gln Met Glu Thr Glu Met Pro Ser Leu Ser  
355 360 365

Ala Leu Tyr Val Asn Gly Asn Asn Ile Ser Gly Glu Leu Glu Phe Ser  
370 375 380

Arg Tyr Phe Tyr Glu Arg Met Gly Arg Arg Leu Gly Val Trp Gly Asn  
385 390 395 400

Pro Asn Leu Cys Tyr Asn Gly Asp Glu Thr Lys Asn Leu Ser Asp His  
405 410 415

Val Pro Phe Gly Val Asn Gln Cys Lys Arg Ile Lys Ala Asp Lys Tyr  
420 425 430

<210> 2705

<211> 876

<212> DNA

<213> Arabidopsis thaliana

<400> 2705

atggcaaaag acttgatgt gaacgagagt ggaccaccgg cggcgagaga ctacaaggat	60
ccgcctcccg caccattttt cgacatggag gagcttagga aatggccgct ttatagagcg	120
gtcatagctg agtttgtagc aacacttctg ttcctctacg tctcaatcct gactgtaatc	180
ggctacaaag ctcaaaccga tgcaaccgcc ggaggagtgg attgtggcgg cgtaggaata	240
ttgggtattg cgtgggcttt cgggtggaatg atctttgttc tcgtttactg taccgccggt	300
atctccggtg gtcatatataa tccggctgtg acggtgggac tattcctggc tcgtaaagtg	360

047-E2F-PCT.ST25.txt

```
tcattggtgc ggacagtgtt atacattgtg gctcagtgcc ttggtgccat ctgcggttgc 420
ggtttcgtca aagcattcca aagttcttac tacaccagat atggaggtgg agccaacgag 480
ctagccgatg gctacaacaa aggtaccgga ctcggtgccg agatcattgg aacttttgtc 540
cttgatataca ccgtcttctc ggcaaccgat cccaagcgaa atgctcgtga ctctcacgtg 600
ccagtttttg ctccacttcc cattggcttt gccgtcttca tggttcattt agccaccatt 660
cccacaccg gaaccggtat caaccggct cgtagctttg gagctgccgt tatttacaac 720
aacgaaaagg cctgggacga ccaatggatt ttttgggttg gaccgatgat cggagcagca 780
gcagcagcgt ttaccatca gtttatttta agagcggtg cgattaaagc tcttggtc 840
tttggtcctt ttggtcctt taggagcttt gcttaa 876
```

<210> 2706

<211> 291

<212> PRT

<213> Arabidopsis thaliana

<400> 2706

```
Met Ala Lys Asp Leu Asp Val Asn Glu Ser Gly Pro Pro Ala Ala Arg
1 5 10 15
```

```
Asp Tyr Lys Asp Pro Pro Pro Ala Pro Phe Phe Asp Met Glu Glu Leu
20 25 30
```

```
Arg Lys Trp Pro Leu Tyr Arg Ala Val Ile Ala Glu Phe Val Ala Thr
35 40 45
```

```
Leu Leu Phe Leu Tyr Val Ser Ile Leu Thr Val Ile Gly Tyr Lys Ala
50 55 60
```

```
Gln Thr Asp Ala Thr Ala Gly Gly Val Asp Cys Gly Gly Val Gly Ile
65 70 75 80
```

```
Leu Gly Ile Ala Trp Ala Phe Gly Gly Met Ile Phe Val Leu Val Tyr
85 90 95
```

```
Cys Thr Ala Gly Ile Ser Gly Gly His Ile Asn Pro Ala Val Thr Val
100 105 110
```

```
Gly Leu Phe Leu Ala Arg Lys Val Ser Leu Val Arg Thr Val Leu Tyr
115 120 125
```

047-E2F-PCT.ST25.txt

Ile Val Ala Gln Cys Leu Gly Ala Ile Cys Gly Cys Gly Phe Val Lys  
130 135 140  
Ala Phe Gln Ser Ser Tyr Tyr Thr Arg Tyr Gly Gly Gly Ala Asn Glu  
145 150 155  
Leu Ala Asp Gly Tyr Asn Lys Gly Thr Gly Leu Gly Ala Glu Ile Ile  
165 170 175  
Gly Thr Phe Val Leu Val Tyr Thr Val Phe Ser Ala Thr Asp Pro Lys  
180 185 190  
Arg Asn Ala Arg Asp Ser His Val Pro Val Leu Ala Pro Leu Pro Ile  
195 200 205  
Gly Phe Ala Val Phe Met Val His Leu Ala Thr Ile Pro Ile Thr Gly  
210 215 220  
Thr Gly Ile Asn Pro Ala Arg Ser Phe Gly Ala Ala Val Ile Tyr Asn  
225 230 235 240  
Asn Glu Lys Ala Trp Asp Asp Gln Trp Ile Phe Trp Val Gly Pro Met  
245 250 255  
Ile Gly Ala Ala Ala Ala Ala Phe Tyr His Gln Phe Ile Leu Arg Ala  
260 265 270  
Ala Ala Ile Lys Ala Leu Gly Ser Phe Gly Ser Phe Gly Ser Phe Arg  
275 280 285  
Ser Phe Ala  
290

<210> 2707

<211> 693

<212> DNA

<213> Arabidopsis thaliana

<400> 2707

atggctcaag cagtgacttc gatggctggc ttacgtggag catctcaggc tgtccttgaa	60
ggaagtttac agatcaacgg ctcaaaccgt ttgaacatct caagagtctc ggttgggtct	120
cagagaaccg gacttgtgat cagggctcag cagaacgtgt cagtaccaga aagtagtcgc	180
cggtcagtga ttggactcgt ggcggctggt ttagccggtg gttcattcgt taaagctggt	240



047-E2F-PCT.ST25.txt

```

ttcgccgaag ctattccgat caaagttggt ggtcctccac ttccttccgg tggcctacct 300
ggaacagata actcagacca agcaagagac ttttcattgg cattgaaaga tagattttac 360
atacaaccat tgtcaccaac agaagctgca gctagagcca aagattctgc taaagagatc 420
atcaacgtta agtcatttat cgacaaaaaa gcttggccct atgttcagaa cgatctccgt 480
ttaagagcat cgtacctccg ttacgatctc aacaccgtta tctccgctaa gcctaaggaa 540
gagaagcaaa gccttaaaga tctcaccgca aagcttttcc aaaccattga caacttggac 600
tatgcggcga gatcaaagag tagcccagat gctgagaagt attactcaga aactgtctcg 660
agtttgaaca atgttcttgc caagctcggt taa 693

```

<210> 2708

<211> 230

<212> PRT

<213> Arabidopsis thaliana

<400> 2708

Met Ala Gln Ala Val Thr Ser Met Ala Gly Leu Arg Gly Ala Ser Gln  
1 5 10 15

Ala Val Leu Glu Gly Ser Leu Gln Ile Asn Gly Ser Asn Arg Leu Asn  
20 25 30

Ile Ser Arg Val Ser Val Gly Ser Gln Arg Thr Gly Leu Val Ile Arg  
35 40 45

Ala Gln Gln Asn Val Ser Val Pro Glu Ser Ser Arg Arg Ser Val Ile  
50 55 60

Gly Leu Val Ala Ala Gly Leu Ala Gly Gly Ser Phe Val Lys Ala Val  
65 70 75 80

Phe Ala Glu Ala Ile Pro Ile Lys Val Gly Gly Pro Pro Leu Pro Ser  
85 90 95

Gly Gly Leu Pro Gly Thr Asp Asn Ser Asp Gln Ala Arg Asp Phe Ser  
100 105 110

Leu Ala Leu Lys Asp Arg Phe Tyr Ile Gln Pro Leu Ser Pro Thr Glu  
115 120 125

Ala Ala Ala Arg Ala Lys Asp Ser Ala Lys Glu Ile Ile Asn Val Lys  
Page 3771

130

135

Ser Phe Ile Asp Lys Lys Ala Trp Pro Tyr Val Gln Asn Asp Leu Arg  
145 150 155 160

Leu Arg Ala Ser Tyr Leu Arg Tyr Asp Leu Asn Thr Val Ile Ser Ala  
165 170 175

Lys Pro Lys Glu Glu Lys Gln Ser Leu Lys Asp Leu Thr Ala Lys Leu  
180 185 190

Phe Gln Thr Ile Asp Asn Leu Asp Tyr Ala Ala Arg Ser Lys Ser Ser  
195 200 205

Pro Asp Ala Glu Lys Tyr Tyr Ser Glu Thr Val Ser Ser Leu Asn Asn  
210 215 220

Val Leu Ala Lys Leu Gly  
225 230

<210> 2709

<211> 1509

<212> DNA

<213> Arabidopsis thaliana

<400> 2709

atggccatct ctttcctctg tttttgcctc attaccctcg cttcgttaat ctttttcgcc	60
aagaagatta aacacttgaa atggaatctt cctccaagcc ctccaaagtt tccgggtcatc	120
ggaaatttac accagattgg agaattgcct cacagggtcac ttcaacatct cgccgaaaga	180
tacggacctg tgatgcttct tcactttggg tttgtccctg taactgtggt ctcataaga	240
gaagcagctg aagaagtgtc cagaactcat gacctagact gttgcagcag gcctaaactt	300
gtcgggacaa gggttactctc gcggaatttt aaagatgtct gttttacgcc atacggtaac	360
gagtgggaagg cgcggcgtaa gtttgccctg cgtgagcttt tctgtttgaa aaagggttcag	420
tccttttaggc atatccgaga ggaagaatgt aactttctgg tcaagcaact gtcggaatcc	480
gcggttaatc gctctccggt cgatttgagc aaatcacttt tctggctaac cgctagtatc	540
tttttcagag ttgccttagg acagaatttt catgagagca attttatcga taaagaaaag	600
atcgaagagc tcgtgttcga agctgagact gccctagcaa gtttcacttg ttctgatttc	660
ttccctgttg ccggacttgg atggcttggt gattggtttt ccggacaaca caagagactc	720
aacgatgttt tttaacaagct cgatgctctg tttcaacatg tcatagatga tcattttaa	780

047-E2F-PCT.ST25.txt

ccaggaagat caaaagagca cgaagacatc atcgattcaa tgttggatgc gattcataaa 840  
gaaggaaaag atagttcctt agagctcata atagatcata ttaaggggtt tctcgcaat 900  
atatttcttg cagggataga cacaggggcc ctcaccatga tatgggcaat gacggagctc 960  
gttaaaaacc cgaaacttat aaagaaagtt caaggcgaga tccgagaaca acttggcagc 1020  
aataaggcga gaatcaccga ggaagatatc gataaagttc cttacttgaa gatggtaatc 1080  
aaagaaacat tcaggttaca cccggcagct cctcttatac ttccaagaga aacaatggct 1140  
cacatcaaag ttcaagggtg tgatattcct cccaagaggc ggatcttggt caatgtttcg 1200  
gctatcggaa gagatcccaa actctggaca aaccgggaag agtttgaccc tgagagggtt 1260  
atggatagct ctgttgatta taggggacaa cattacgagc tcttaccatt tgggtccggt 1320  
cgaaggatat gtcccgggat gccaatgggg attgctgccg tcgaattggg actcttgaac 1380  
ttactttact tcttcgattg gaagttgcct gatgggatga cacataaaga tattgatact 1440  
gaagaagctg gtactcttac aatcgtaag aaagtacctc tccagctcgt tccagttcga 1500  
gttcagtga 1509

<210> 2710

<211> 502

<212> PRT

<213> Arabidopsis thaliana

<400> 2710

Met Ala Ile Ser Phe Leu Cys Phe Cys Leu Ile Thr Leu Ala Ser Leu  
1 5 10 15

Ile Phe Phe Ala Lys Lys Ile Lys His Leu Lys Trp Asn Leu Pro Pro  
20 25 30

Ser Pro Pro Lys Phe Pro Val Ile Gly Asn Leu His Gln Ile Gly Glu  
35 40 45

Leu Pro His Arg Ser Leu Gln His Leu Ala Glu Arg Tyr Gly Pro Val  
50 55 60

Met Leu Leu His Phe Gly Phe Val Pro Val Thr Val Val Ser Ser Arg  
65 70 75 80

Glu Ala Ala Glu Glu Val Leu Arg Thr His Asp Leu Asp Cys Cys Ser  
85 90 95

047-E2F-PCT.ST25.txt

Arg Pro Lys Leu Val Gly Thr Arg Leu Leu Ser Arg Asn Phe Lys Asp  
100 105 110

Val Cys Phe Thr Pro Tyr Gly Asn Glu Trp Lys Ala Arg Arg Lys Phe  
115 120 125

Ala Leu Arg Glu Leu Phe Cys Leu Lys Lys Val Gln Ser Phe Arg His  
130 135 140

Ile Arg Glu Glu Glu Cys Asn Phe Leu Val Lys Gln Leu Ser Glu Ser  
145 150 155 160

Ala Val Asn Arg Ser Pro Val Asp Leu Ser Lys Ser Leu Phe Trp Leu  
165 170 175

Thr Ala Ser Ile Phe Phe Arg Val Ala Leu Gly Gln Asn Phe His Glu  
180 185 190

Ser Asn Phe Ile Asp Lys Glu Lys Ile Glu Glu Leu Val Phe Glu Ala  
195 200 205

Glu Thr Ala Leu Ala Ser Phe Thr Cys Ser Asp Phe Phe Pro Val Ala  
210 215 220

Gly Leu Gly Trp Leu Val Asp Trp Phe Ser Gly Gln His Lys Arg Leu  
225 230 235 240

Asn Asp Val Phe Tyr Lys Leu Asp Ala Leu Phe Gln His Val Ile Asp  
245 250 255

Asp His Leu Asn Pro Gly Arg Ser Lys Glu His Glu Asp Ile Ile Asp  
260 265 270

Ser Met Leu Asp Ala Ile His Lys Glu Gly Lys Asp Ser Ser Leu Glu  
275 280 285

Leu Ile Ile Asp His Ile Lys Gly Phe Leu Ala Asn Ile Phe Leu Ala  
290 295 300

Gly Ile Asp Thr Gly Ala Leu Thr Met Ile Trp Ala Met Thr Glu Leu  
305 310 315 320

Val Lys Asn Pro Lys Leu Ile Lys Lys Val Gln Gly Glu Ile Arg Glu  
325 330 335

Gln Leu Gly Ser Asn Lys Ala Arg Ile Thr Glu Glu Asp Ile Asp Lys  
340 345 350

047-E2F-PCT.ST25.txt

Val Pro Tyr Leu Lys Met Val Ile Lys Glu Thr Phe Arg Leu His Pro  
355 360 365

Ala Ala Pro Leu Ile Leu Pro Arg Glu Thr Met Ala His Ile Lys Val  
370 375 380

Gln Gly Tyr Asp Ile Pro Pro Lys Arg Arg Ile Leu Val Asn Val Ser  
385 390 395 400

Ala Ile Gly Arg Asp Pro Lys Leu Trp Thr Asn Pro Glu Glu Phe Asp  
405 410 415

Pro Glu Arg Phe Met Asp Ser Ser Val Asp Tyr Arg Gly Gln His Tyr  
420 425 430

Glu Leu Leu Pro Phe Gly Ser Gly Arg Arg Ile Cys Pro Gly Met Pro  
435 440 445

Met Gly Ile Ala Ala Val Glu Leu Gly Leu Leu Asn Leu Leu Tyr Phe  
450 455 460

Phe Asp Trp Lys Leu Pro Asp Gly Met Thr His Lys Asp Ile Asp Thr  
465 470 475 480

Glu Glu Ala Gly Thr Leu Thr Ile Val Lys Lys Val Pro Leu Gln Leu  
485 490 495

Val Pro Val Arg Val Gln  
500

<210> 2711

<211> 243

<212> DNA

<213> Arabidopsis thaliana

<400> 2711

atgggaaaca aagctacaac ggtgaaagaa gaacgcgaag agatccattt gaagattgta	60
cctccattgg acaaagtttt tctgcgttgg ctcgcaagag atctccagag agttcatgga	120
ttcaaaccga agaacaacac tcgtgcgata actcctccag atagctacat cgagtttatg	180
cggttaaagt gatcgcttga tgtagattta gatgaccctg atcttgccca tttgttcaag	240
taa	243

&lt;210&gt; 2712

&lt;211&gt; 80

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2712

Met Gly Asn Lys Ala Thr Thr Val Lys Glu Glu Arg Glu Glu Ile His  
 1 5 10 15

Leu Lys Ile Val Pro Pro Leu Asp Lys Val Phe Leu Arg Trp Leu Ala  
 20 25 30

Arg Asp Leu Gln Arg Val His Gly Phe Lys Pro Lys Asn Asn Thr Arg  
 35 40 45

Ala Ile Thr Pro Pro Asp Ser Tyr Ile Glu Phe Met Arg Leu Asn Gly  
 50 55 60

Ser Leu Asp Val Asp Leu Asp Asp Pro Asp Leu Ala His Leu Phe Lys  
 65 70 75 80

&lt;210&gt; 2713

&lt;211&gt; 1440

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2713

atgtcaccac aaacagagac taaagcaagt gttgggttca aagctggtgt taaagagtat 60  
 aaattgactt actatactcc tgaatatgaa accaaggata ctgatatctt ggcagcattc 120  
 cgagtaactc ctcaacctgg agttccacct gaagaagcag gggctgcggt agctgctgaa 180  
 tcttctactg gtacatggac aactgtgtgg accgatgggc ttaccagcct tgatcgttac 240  
 aaaggacgat gctaccacat cgagcccgtt ccaggagaag aaactcaatt tattgcgtat 300  
 gtagcttata ccttagacct ttttgaagaa ggttcggtta ctaacatgtt tacctcgatt 360  
 gtgggtaatg tatttgggtt caaagccctg gctgctctac gtctagagga tctgcgaatc 420  
 cctcctgctt atactaaaac tttccaagga ccacctcatg gtatccaagt tgaaagagat 480  
 aaattgaaca agtatggacg tcccctatta ggatgtacta ttaaaccaaa attgggggtta 540  
 tccgcgaaaa actatggtag agcagtttat gaatgtctac gtggtggact tgattttacc 600

047-E2F-PCT.ST25.txt

aaagatgatg agaatgtgaa ctcccaacca tttatgcggt ggagagaccg tttcttattt 660  
 tgtgccgaag ctatttataa atcacaggct gaaacagggtg aaatcaaagg gcattatttg 720  
 aatgctactg cgggtacatg cgaagaaatg atcaaaagag ctgtatttgc cagagaattg 780  
 ggagttccta tcgtaatgca tgactactta acagggggat tcaccgcaaa tactagtttg 840  
 tctcattatt gccgagataa tggcctactt cttcacatcc accgtgcaat gcacgctgtt 900  
 attgatagac agaagaatca tgggtatgcac ttccgtgtac tagctaaagc tttacgtcta 960  
 tctggtggag atcatattca cgcgggtaca gtagtaggta aacttgaagg agacaggagg 1020  
 tcaacttttg gctttgttga tttactgcgc gatgattatg ttgaaaaaga tcgaagccgc 1080  
 ggtatctttt tcaactcaaga ttgggtctca ctacctggtg ttctgcctgt ggcttcaggg 1140  
 ggtattcacg tttggcatat gcctgctttg accgagatct ttggagatga ttctgtacta 1200  
 caattcgggtg gaggaacttt aggccaccct tggggaaatg caccgggtgc cgtagccaac 1260  
 cgagtagctc tggaagcatg tgtacaagct cgtaatgagg gacgtgatct tgcagtcgag 1320  
 ggtaatgaaa ttatccgtga agcttgcaaa tggagtcctg aactagctgc tgcttgtgaa 1380  
 gtatggaaag agatcacatt taacttccca accatcgata aattagatgg ccaagagtag 1440

<210> 2714

<211> 479

<212> PRT

<213> Arabidopsis thaliana

<400> 2714

Met Ser Pro Gln Thr Glu Thr Lys Ala Ser Val Gly Phe Lys Ala Gly  
 1 5 10 15

Val Lys Glu Tyr Lys Leu Thr Tyr Tyr Thr Pro Glu Tyr Glu Thr Lys  
 20 25 30

Asp Thr Asp Ile Leu Ala Ala Phe Arg Val Thr Pro Gln Pro Gly Val  
 35 40 45

Pro Pro Glu Glu Ala Gly Ala Ala Val Ala Ala Glu Ser Ser Thr Gly  
 50 55 60

Thr Trp Thr Thr Val Trp Thr Asp Gly Leu Thr Ser Leu Asp Arg Tyr  
 65 70 75 80

Lys Gly Arg Cys Tyr His Ile Glu Pro Val Pro Gly Glu Glu Thr Gln  
 Page 3777

Phe Ile Ala Tyr Val Ala Tyr Pro Leu Asp Leu Phe Glu Glu Gly Ser  
100 105 110

Val Thr Asn Met Phe Thr Ser Ile Val Gly Asn Val Phe Gly Phe Lys  
115 120 125

Ala Leu Ala Ala Leu Arg Leu Glu Asp Leu Arg Ile Pro Pro Ala Tyr  
130 135 140

Thr Lys Thr Phe Gln Gly Pro Pro His Gly Ile Gln Val Glu Arg Asp  
145 150 155 160

Lys Leu Asn Lys Tyr Gly Arg Pro Leu Leu Gly Cys Thr Ile Lys Pro  
165 170 175

Lys Leu Gly Leu Ser Ala Lys Asn Tyr Gly Arg Ala Val Tyr Glu Cys  
180 185 190

Leu Arg Gly Gly Leu Asp Phe Thr Lys Asp Asp Glu Asn Val Asn Ser  
195 200 205

Gln Pro Phe Met Arg Trp Arg Asp Arg Phe Leu Phe Cys Ala Glu Ala  
210 215 220

Ile Tyr Lys Ser Gln Ala Glu Thr Gly Glu Ile Lys Gly His Tyr Leu  
225 230 235 240

Asn Ala Thr Ala Gly Thr Cys Glu Glu Met Ile Lys Arg Ala Val Phe  
245 250 255

Ala Arg Glu Leu Gly Val Pro Ile Val Met His Asp Tyr Leu Thr Gly  
260 265 270

Gly Phe Thr Ala Asn Thr Ser Leu Ser His Tyr Cys Arg Asp Asn Gly  
275 280 285

Leu Leu Leu His Ile His Arg Ala Met His Ala Val Ile Asp Arg Gln  
290 295 300

Lys Asn His Gly Met His Phe Arg Val Leu Ala Lys Ala Leu Arg Leu  
305 310 315 320

Ser Gly Gly Asp His Ile His Ala Gly Thr Val Val Gly Lys Leu Glu  
325 330 335



047-E2F-PCT.ST25.txt

Gly Asp Arg Glu Ser Thr Leu Gly Phe Val Asp Leu Leu Arg Asp Asp  
340 345 350

Tyr Val Glu Lys Asp Arg Ser Arg Gly Ile Phe Phe Thr Gln Asp Trp  
355 360 365

Val Ser Leu Pro Gly Val Leu Pro Val Ala Ser Gly Gly Ile His Val  
370 375 380

Trp His Met Pro Ala Leu Thr Glu Ile Phe Gly Asp Asp Ser Val Leu  
385 390 395 400

Gln Phe Gly Gly Gly Thr Leu Gly His Pro Trp Gly Asn Ala Pro Gly  
405 410 415

Ala Val Ala Asn Arg Val Ala Leu Glu Ala Cys Val Gln Ala Arg Asn  
420 425 430

Glu Gly Arg Asp Leu Ala Val Glu Gly Asn Glu Ile Ile Arg Glu Ala  
435 440 445

Cys Lys Trp Ser Pro Glu Leu Ala Ala Ala Cys Glu Val Trp Lys Glu  
450 455 460

Ile Thr Phe Asn Phe Pro Thr Ile Asp Lys Leu Asp Gly Gln Glu  
465 470 475

<210> 2715

<211> 201

<212> DNA

<213> Arabidopsis thaliana

<400> 2715

atggccaagg gtaaagatgt tcgagtaaca attatatttg aatgtaccag ttgtgttcga	60
aatgatatta agaaagaagc cgcggaatt tccagatata ttactcaaaa gaatcggcat	120
aacacccta gtcgattgga attgagaaaa ttctgtccct attgttataa acatacaatt	180
cacggggaaa tcaagaaata g	201

<210> 2716

<211> 66

<212> PRT

<213> Arabidopsis thaliana

<400> 2716

Met Ala Lys Gly Lys Asp Val Arg Val Thr Ile Ile Leu Glu Cys Thr  
1 5 10 15

Ser Cys Val Arg Asn Asp Ile Lys Lys Glu Ala Ala Gly Ile Ser Arg  
20 25 30

Tyr Ile Thr Gln Lys Asn Arg His Asn Thr Pro Ser Arg Leu Glu Leu  
35 40 45

Arg Lys Phe Cys Pro Tyr Cys Tyr Lys His Thr Ile His Gly Glu Ile  
50 55 60

Lys Lys  
65

<210> 2717

<211> 117

<212> DNA

<213> Arabidopsis thaliana

<400> 2717

atgacacaat caaatccgaa cgaacaaagt gttgaattaa atcgtaccag tctctattgg 60

gggttattac tcatttttgt acttgctggt ttattttcga attatttctt caattaa 117

<210> 2718

<211> 38

<212> PRT

<213> Arabidopsis thaliana

<400> 2718

Met Thr Gln Ser Asn Pro Asn Glu Gln Ser Val Glu Leu Asn Arg Thr  
1 5 10 15

Ser Leu Tyr Trp Gly Leu Leu Leu Ile Phe Val Leu Ala Val Leu Phe  
20 25 30

Ser Asn Tyr Phe Phe Asn  
35

&lt;210&gt; 2719

&lt;211&gt; 825

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2719

```

atggcgatac atttatacaa aacttctacc ccgagcacac gcaatggagc cgtagacagt    60
caagtgaaat ccaatccacg aaataatttg atctgtgggc agcatcattg tggtaaaggt    120
cgtaatgcca gaggaataat taccgcaagg catagagggg gaggtcataa gcgtctatac    180
cgtaaaatag attttcgacg aaatgcaaaa gacatatatg gtagaatcgt aaccatagaa    240
tacgacccta atcgaaatgc atacatttgt ctcatacact atgggggatgg tgagaagaga    300
tatattttac atcccagagg ggctataatt ggagatacca ttgtttctgg tacagaagtt    360
cctataaaaa tgggaaatgc cctacctttg accgatatgc ccttaggcac ggccatacat    420
aatatagaaa tcacacttgg aaggggtgga caattagcta gagcagcggg tgctgtagcg    480
aaactgattg caaaagaggg gaaatcggcc acattaaaat taccttctgg agagggtccgt    540
ttgatatcca aaaactgctc agcaacagtc ggacaagtgg gaaatgttgg ggtaaaccag    600
aaaagtttgg gtagagccgg atcgaaatgt tggctaggta aacgtcctgt agtaagagga    660
gtagttatga accctgtcga ccatcccat ggaggtggtg aagggagggc tccaattggt    720
agaaaaaac ccgtaacccc ctggggttat cctgcacttg gaagaagaac tagaaaaagg    780
aaaaaatata gtgagacttt gattcttcgt cgccgtagta aatag                      825

```

&lt;210&gt; 2720

&lt;211&gt; 274

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2720

```

Met Ala Ile His Leu Tyr Lys Thr Ser Thr Pro Ser Thr Arg Asn Gly
1           5           10           15

```

```

Ala Val Asp Ser Gln Val Lys Ser Asn Pro Arg Asn Asn Leu Ile Cys
20           25           30

```

```

Gly Gln His His Cys Gly Lys Gly Arg Asn Ala Arg Gly Ile Ile Thr
Page 3781

```

35

40

45

Ala Arg His Arg Gly Gly Gly His Lys Arg Leu Tyr Arg Lys Ile Asp  
 50 55 60  
 Phe Arg Arg Asn Ala Lys Asp Ile Tyr Gly Arg Ile Val Thr Ile Glu  
 65 70 75 80  
 Tyr Asp Pro Asn Arg Asn Ala Tyr Ile Cys Leu Ile His Tyr Gly Asp  
 85 90 95  
 Gly Glu Lys Arg Tyr Ile Leu His Pro Arg Gly Ala Ile Ile Gly Asp  
 100 105 110  
 Thr Ile Val Ser Gly Thr Glu Val Pro Ile Lys Met Gly Asn Ala Leu  
 115 120 125  
 Pro Leu Thr Asp Met Pro Leu Gly Thr Ala Ile His Asn Ile Glu Ile  
 130 135 140  
 Thr Leu Gly Arg Gly Gly Gln Leu Ala Arg Ala Ala Gly Ala Val Ala  
 145 150 155 160  
 Lys Leu Ile Ala Lys Glu Gly Lys Ser Ala Thr Leu Lys Leu Pro Ser  
 165 170 175  
 Gly Glu Val Arg Leu Ile Ser Lys Asn Cys Ser Ala Thr Val Gly Gln  
 180 185 190  
 Val Gly Asn Val Gly Val Asn Gln Lys Ser Leu Gly Arg Ala Gly Ser  
 195 200 205  
 Lys Cys Trp Leu Gly Lys Arg Pro Val Val Arg Gly Val Val Met Asn  
 210 215 220  
 Pro Val Asp His Pro His Gly Gly Gly Glu Gly Arg Ala Pro Ile Gly  
 225 230 235 240  
 Arg Lys Lys Pro Val Thr Pro Trp Gly Tyr Pro Ala Leu Gly Arg Arg  
 245 250 255  
 Thr Arg Lys Arg Lys Lys Tyr Ser Glu Thr Leu Ile Leu Arg Arg Arg  
 260 265 270  
 Ser Lys

&lt;210&gt; 2721

&lt;211&gt; 591

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2721

```

atgcctattg gcgttcctaaa agtacctttt cgaagtcctg gagaaggaga tacatcttgg      60
gttgacatat acaaccgact ttatcgagaa agattatattt ttttaggcca agaggttgat      120
accgaaatct cgaatcaact tattagtctt atgatatatc tcagtataga aaaggatacc      180
aaagatcttt atttgtttat aaactctcct ggtggatggg taatatctgg aatggctatt      240
tatgatacta tgcaatttgt gcgacccgat gtacagacaa tatgcatggg attggccgct      300
tcaatagcat cctttatcct agtcggagga gcaattacca aacgtatagc attccctcac      360
gctagggtaa tgatccatca acccgctagt tcgttttatg aggcacaaac gggagaattt      420
atcttggaag cggaagaatt acttaaacct cgcgaaacca tcacaagggt ttatgtacaa      480
agaacgggca aacctatatg gggtatatcc gaagacatgg aacgggatgt ttttatgtca      540
gcaacagaag cccaagctca tggaattggt gatcttgtag cggttcaata a                591

```

&lt;210&gt; 2722

&lt;211&gt; 196

&lt;212&gt; PRT

<213> *Arabidopsis thaliana*

&lt;400&gt; 2722

```

Met Pro Ile Gly Val Pro Lys Val Pro Phe Arg Ser Pro Gly Glu Gly
1          5          10          15

Asp Thr Ser Trp Val Asp Ile Tyr Asn Arg Leu Tyr Arg Glu Arg Leu
20          25          30

Phe Phe Leu Gly Gln Glu Val Asp Thr Glu Ile Ser Asn Gln Leu Ile
35          40          45

Ser Leu Met Ile Tyr Leu Ser Ile Glu Lys Asp Thr Lys Asp Leu Tyr
50          55          60

Leu Phe Ile Asn Ser Pro Gly Gly Trp Val Ile Ser Gly Met Ala Ile
65          70          75          80

```

047-E2F-PCT.ST25.txt

Tyr Asp Thr Met Gln Phe Val Arg Pro Asp Val Gln Thr Ile Cys Met  
85 90 95

Gly Leu Ala Ala Ser Ile Ala Ser Phe Ile Leu Val Gly Gly Ala Ile  
100 105 110

Thr Lys Arg Ile Ala Phe Pro His Ala Arg Val Met Ile His Gln Pro  
115 120 125

Ala Ser Ser Phe Tyr Glu Ala Gln Thr Gly Glu Phe Ile Leu Glu Ala  
130 135 140

Glu Glu Leu Leu Lys Leu Arg Glu Thr Ile Thr Arg Val Tyr Val Gln  
145 150 155 160

Arg Thr Gly Lys Pro Ile Trp Val Ile Ser Glu Asp Met Glu Arg Asp  
165 170 175

Val Phe Met Ser Ala Thr Glu Ala Gln Ala His Gly Ile Val Asp Leu  
180 185 190

Val Ala Val Gln  
195

<210> 2723

<211> 648

<212> DNA

<213> Arabidopsis thaliana

<400> 2723

atgagtaaag tttatgattg gttcgaagaa cgtcttgaga ttcaggcgat tgcagatgat	60
ataactagta aatatgttcc tccgcatgtc aacatatttt attgtctagg cggaattacc	120
cttacttggt ttttagtaca agtagctacg ggatttgcta tgacttttta ttaccgtcca	180
accgttactg aagcttttgc ttctgttcaa tatataatga ctgaagctaa ctttggttgg	240
ttaatccgat cagttcatcg atggtcggca agtatgatgg tcctaatagat gatcctgcac	300
gtatttcgtg tatacctcac cggtggtttt aaaaaacctc gcgaattaac ttgggttact	360
gggtgtggttc tgggtgtatt gaccgcatct tttggtgtaa caggttattc ttaccttgg	420
gatcaaattg gttattgggc ggtcaaaatt gtaacagggtg tacctgacgc tattccggta	480
ataggatcac ctcttgtaga attattacgc ggaagtgcta gtgttggaca atccactttg	540
actcgttttt atagtttaca cacttttgta ttacctcttc ttacggccgt ctttatgtta	600

atgcatttcc taatgatacg taagcaaggt atttctggtc ccttataa

648

&lt;210&gt; 2724

&lt;211&gt; 215

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2724

Met	Ser	Lys	Val	Tyr	Asp	Trp	Phe	Glu	Glu	Arg	Leu	Glu	Ile	Gln	Ala
1				5					10					15	

Ile	Ala	Asp	Asp	Ile	Thr	Ser	Lys	Tyr	Val	Pro	Pro	His	Val	Asn	Ile
			20					25					30		

Phe	Tyr	Cys	Leu	Gly	Gly	Ile	Thr	Leu	Thr	Cys	Phe	Leu	Val	Gln	Val
		35					40					45			

Ala	Thr	Gly	Phe	Ala	Met	Thr	Phe	Tyr	Tyr	Arg	Pro	Thr	Val	Thr	Glu
	50					55					60				

Ala	Phe	Ala	Ser	Val	Gln	Tyr	Ile	Met	Thr	Glu	Ala	Asn	Phe	Gly	Trp
65					70					75					80

Leu	Ile	Arg	Ser	Val	His	Arg	Trp	Ser	Ala	Ser	Met	Met	Val	Leu	Met
				85					90					95	

Met	Ile	Leu	His	Val	Phe	Arg	Val	Tyr	Leu	Thr	Gly	Gly	Phe	Lys	Lys
			100					105					110		

Pro	Arg	Glu	Leu	Thr	Trp	Val	Thr	Gly	Val	Val	Leu	Gly	Val	Leu	Thr
		115					120					125			

Ala	Ser	Phe	Gly	Val	Thr	Gly	Tyr	Ser	Leu	Pro	Trp	Asp	Gln	Ile	Gly
	130					135					140				

Tyr	Trp	Ala	Val	Lys	Ile	Val	Thr	Gly	Val	Pro	Asp	Ala	Ile	Pro	Val
145					150					155					160

Ile	Gly	Ser	Pro	Leu	Val	Glu	Leu	Leu	Arg	Gly	Ser	Ala	Ser	Val	Gly
				165					170					175	

Gln	Ser	Thr	Leu	Thr	Arg	Phe	Tyr	Ser	Leu	His	Thr	Phe	Val	Leu	Pro
			180					185					190		

047-E2F-PCT.ST25.txt

Leu Leu Thr Ala Val Phe Met Leu Met His Phe Leu Met Ile Arg Lys  
195 200 205

Gln Gly Ile Ser Gly Pro Leu  
210 215

<210> 2725

<211> 399

<212> DNA

<213> Arabidopsis thaliana

<400> 2725  
atgaccttaa atctttgtgt actgactccg aatcgaattg tttgggattc agaagtaaaa 60  
gaaatcattt tatctactaa tagtgacaaa attggtgtat tagcaaacca cgcgccgatt 120  
gccacagctg ttgatatagg tattttgaaa atacgccttg ctaaccaatg gttaacgatg 180  
gctctgatgg gcggttttgc tagaataggc aataatgaaa tcactatttt agtaaatgat 240  
gcagagaaga atagtgcacat tgatccacaa gaagctcagc aaactcttga aatagcagaa 300  
gctaacttga gaaaagctga aggtaagaga cagacaattg aggctaattc agctctcaga 360  
cgagctcgga cacgagtcga ggctctcaat acgatttga 399

<210> 2726

<211> 132

<212> PRT

<213> Arabidopsis thaliana

<400> 2726

Met Thr Leu Asn Leu Cys Val Leu Thr Pro Asn Arg Ile Val Trp Asp  
1 5 10 15

Ser Glu Val Lys Glu Ile Ile Leu Ser Thr Asn Ser Gly Gln Ile Gly  
20 25 30

Val Leu Ala Asn His Ala Pro Ile Ala Thr Ala Val Asp Ile Gly Ile  
35 40 45

Leu Lys Ile Arg Leu Ala Asn Gln Trp Leu Thr Met Ala Leu Met Gly  
50 55 60



Gly Phe Ala Arg Ile Gly Asn Asn Glu Ile Thr Ile Leu Val Asn Asp  
 65 70 75 80

Ala Glu Lys Asn Ser Asp Ile Asp Pro Gln Glu Ala Gln Gln Thr Leu  
 85 90 95

Glu Ile Ala Glu Ala Asn Leu Arg Lys Ala Glu Gly Lys Arg Gln Thr  
 100 105 110

Ile Glu Ala Asn Leu Ala Leu Arg Arg Ala Arg Thr Arg Val Glu Ala  
 115 120 125

Leu Asn Thr Ile  
 130

<210> 2727

<211> 324

<212> DNA

<213> Arabidopsis thaliana

<400> 2727

atgtttcagt tcgctaagtt ttcaaagtcc aaagagcgca gactagccac ggagcttgga	60
tacggttttcc cgatcggaga tccatggatc acagacggta tctcccatg gcctttcgcc	120
tctgaaagcg tccttccttc tcaatgcccg ggcattccatc caatgcattc ttttcgatct	180
tgtactcagg gtacactgaa caccacaaaa atatcgatga aactaactat aagtgattgc	240
ggattcgaac cgctcacaga aggattttaca gtcctgcact ctaccagagc tactacctgt	300
taccactttc ttttcaactc gtaa	324

<210> 2728

<211> 107

<212> PRT

<213> Arabidopsis thaliana

<400> 2728

Met Phe Gln Phe Ala Lys Phe Ser Lys Ser Lys Glu Arg Arg Leu Ala  
 1 5 10 15

Thr Glu Leu Gly Tyr Gly Phe Pro Ile Gly Asp Pro Trp Ile Thr Asp  
 20 25 30

047-E2F-PCT.ST25.txt

Gly Ile Ser Pro Trp Pro Phe Ala Ser Glu Ser Val Leu Pro Ser Gln  
 35 40 45  
 Cys Pro Gly Ile His Pro Met His Ser Phe Arg Ser Cys Thr Gln Gly  
 50 55 60  
 Thr Leu Asn Thr Thr Lys Ile Ser Met Lys Leu Thr Ile Ser Asp Cys  
 65 70 75 80  
 Gly Phe Glu Pro Leu Thr Glu Gly Phe Thr Val Leu His Ser Thr Arg  
 85 90 95  
 Ala Thr Thr Cys Tyr His Phe Leu Phe Asn Ser  
 100 105

<210> 2729

<211> 573

<212> DNA

<213> Arabidopsis thaliana

<400> 2729

atgtctgagg gatcagaaga tacgaaaaca aaactcgact ctgccggaga gttatcagat	60
gttgataacg agaactgcag tagcagcgga agtggcggtg gtagtagttc tggtgatacc	120
aaaaggactt gcgttgattg cggaactatc cgaactcctc tttggcgtgg tggtcctgcc	180
ggaccaaagt cattgtgcaa tgcttggtgg atcaagagta ggaagaagag acaagcagca	240
cttggtatga gatcagagga gaagaagaag aacagaaaaa gcaattgcaa taatgatcta	300
aacctcgacc atcgaaacgc caagaaatac aaaatcaaca tagttgatga tggcaagatc	360
gacatcgatg atgatccgaa aatttgcaat aacaagcgta gtagtagtag tagcagtaac	420
aaaggagtga gtaagttttt ggatttaggg tttaaagtac cggatgatgaa gagatcagcg	480
gttgagaaga agaggttatg gagaaaactc ggtgaggaag aaagagctgc tgtgcttctc	540
atggctctct cttgtagctc tgtttacgcc taa	573

<210> 2730

<211> 190

<212> PRT

<213> Arabidopsis thaliana

&lt;400&gt; 2730

Met Ser Glu Gly Ser Glu Asp Thr Lys Thr Lys Leu Asp Ser Ala Gly  
 1 5 10 15  
 Glu Leu Ser Asp Val Asp Asn Glu Asn Cys Ser Ser Ser Gly Ser Gly  
 20 25 30  
 Gly Gly Ser Ser Ser Gly Asp Thr Lys Arg Thr Cys Val Asp Cys Gly  
 35 40 45  
 Thr Ile Arg Thr Pro Leu Trp Arg Gly Gly Pro Ala Gly Pro Lys Ser  
 50 55 60  
 Leu Cys Asn Ala Cys Gly Ile Lys Ser Arg Lys Lys Arg Gln Ala Ala  
 65 70 75 80  
 Leu Gly Met Arg Ser Glu Glu Lys Lys Lys Asn Arg Lys Ser Asn Cys  
 85 90 95  
 Asn Asn Asp Leu Asn Leu Asp His Arg Asn Ala Lys Lys Tyr Lys Ile  
 100 105 110  
 Asn Ile Val Asp Asp Gly Lys Ile Asp Ile Asp Asp Asp Pro Lys Ile  
 115 120 125  
 Cys Asn Asn Lys Arg Ser Ser Ser Ser Ser Ser Asn Lys Gly Val Ser  
 130 135 140  
 Lys Phe Leu Asp Leu Gly Phe Lys Val Pro Val Met Lys Arg Ser Ala  
 145 150 155 160  
 Val Glu Lys Lys Arg Leu Trp Arg Lys Leu Gly Glu Glu Glu Arg Ala  
 165 170 175  
 Ala Val Leu Leu Met Ala Leu Ser Cys Ser Ser Val Tyr Ala  
 180 185 190

&lt;210&gt; 2731

&lt;211&gt; 828

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2731

atgcaacttg gaatctccat tattcgctct gcaccggatg cgtccgagga caatcgtagc 60

047-E2F-PCT.ST25.txt

cgtcaatcac gctctagccg cacggtcatg gttcatcaac cagggtttag ggcctgtctc 120  
 ttgagaaatc aaggaaacag agatttgacg tctctcagtg actgcatagc cgctcgttgt 180  
 gatagcttgc ttctggggaa gtctcacata ataaaccttt ccaaaaatag gcgatatgccg 240  
 tttaaaagca gagagaacac gatattcttt agtaaaaggc gaaagaatag ttcgctatgc 300  
 cctcactgca cggctcccc atttcagtta agcccaacta tgttgttaat gttctgccat 360  
 gacggagcta gattgaaagg aatgaatcct agaaatgctg aagaaagaaa gtacagacaa 420  
 gccgagggac tcgtgacacc gcaatttctt tctattcctg gttctccaat tgatctcaca 480  
 aaatgttggt catcactcct caacattcaa gggtgtaaaa tcgagatctt taaatctggt 540  
 ttttaagtga atgttctcct atcaacgcag ccactcctac acacaaatga aagtaactac 600  
 aaaacctgtc agaccgccgt gcgaccaccc cagcaaggta gaaccgaacc gagtaacgat 660  
 cctctacagc accgaatgcg tccgaggacg atcgtagccg tcaatcacgc tctagccgca 720  
 cggtcattgt tcattcaacca gggagaagac ggtgcctccg acggtggaaa tgaaaacgac 780  
 gaagatgtcg gcatgttaag ggatggaggt tacgtgattg tttcttaa 828

<210> 2732

<211> 275

<212> PRT

<213> Arabidopsis thaliana

<400> 2732

Met Gln Leu Gly Ile Ser Ile Ile Arg Ser Ala Pro Asp Ala Ser Glu  
 1 5 10 15

Asp Asn Arg Ser Arg Gln Ser Arg Ser Ser Arg Thr Val Met Val His  
 20 25 30

Gln Pro Gly Phe Arg Ala Cys Leu Leu Arg Asn Gln Gly Asn Arg Asp  
 35 40 45

Leu Thr Ser Leu Ser Asp Cys Ile Ala Ala Arg Cys Asp Ser Leu Leu  
 50 55 60

Leu Gly Lys Ser His Ile Ile Asn Leu Ser Lys Asn Arg Arg Met Pro  
 65 70 75 80

Phe Lys Ser Arg Glu Asn Thr Ile Phe Phe Ser Lys Arg Arg Lys Asn  
 85 90 95

Ser Ser Leu Cys Pro His Cys Thr Ala Pro Pro Phe Gln Leu Ser Pro  
100 105 110

Thr Met Leu Leu Met Phe Cys His Asp Gly Ala Arg Leu Lys Gly Met  
115 120 125

Asn Pro Arg Asn Ala Glu Glu Arg Lys Tyr Arg Gln Ala Glu Gly Leu  
130 135 140

Val Thr Pro Gln Phe Leu Ser Ile Pro Gly Ser Pro Ile Asp Leu Thr  
145 150 155 160

Lys Cys Trp Ser Ser Leu Leu Asn Ile Gln Gly Cys Lys Ile Glu Ile  
165 170 175

Phe Lys Ser Val Phe Lys Trp Asn Val Leu Leu Ser Thr Gln Pro Leu  
180 185 190

Leu His Thr Asn Glu Ser Asn Tyr Lys Thr Cys Gln Thr Ala Val Arg  
195 200 205

Pro Pro Gln Gln Gly Arg Thr Glu Pro Ser Asn Asp Pro Leu Gln His  
210 215 220

Arg Met Arg Pro Arg Thr Ile Val Ala Val Asn His Ala Leu Ala Ala  
225 230 235 240

Arg Ser Trp Phe Ile Asn Gln Gly Glu Asp Gly Ala Ser Asp Gly Gly  
245 250 255

Asn Glu Asn Asp Glu Asp Val Gly Met Leu Arg Asp Gly Gly Tyr Val  
260 265 270

Ile Val Ser  
275

<210> 2733

<211> 1119

<212> DNA

<213> Arabidopsis thaliana

<400> 2733

atgaaacaac agttggagag tttcattgaa acaaccaaac caagtgtctt tgttgccgat 60

atgttcttcc cttgggcgac agaattctgt gagaagctcg gtgtaccaag acttgtgttc 120

047-E2F-PCT.ST25.txt

cacggtacat ctttcttttc tttgtgttgt tcgtataaca tgaggattca taagccacac 180  
aagaaagtcg ctacgagttc tactcctttt gtaatccctg gtctcccagg agacatagtt 240  
attacagaag accaagccaa tgttgccaaa gaagaaacgc caatgggaaa gtttatgaaa 300  
gaggttaggg aatcagagac caatagcttt ggtgtattgg ttaatagctt ctacgagctg 360  
gaatcagctt atgctgattt ttatcgtagt tttgtggcga aaagagcttg gcatatcggt 420  
ccgctttcgc tatctaacag agagtttagga gagaaagcca gaagagggaa aaaggctaac 480  
attgatgagc aagaatgcct aaaatggctg gactctaaga cacctggttc agtagttttac 540  
ttgtcctttg ggagcggaac taatttcacc aacgaccagc tgtttagagat cgcttttggt 600  
cttgaagggtt ctggacaaag tttcatctgg gtggttagga aaaatgaaaa ccaaggtgac 660  
aatgaagagt gggtgcctga agggtttaaa gagaggacaa cagggaaagg gctaataata 720  
cctggatggg cgccgcaagt gctgatactt gaccataaag caattggagg atttgtgact 780  
cattgcggat ggaactcggc tatagagggc attgccgcgg ggctgcctat ggtaacatgg 840  
ccaatggggg cagaacagtt ctacaatgag aagctattga caaaagtgtt gagaatagga 900  
gtgaacgttg gagctaccga gttggtgaaa aaaggaaagt tgattagtag agcacaagtg 960  
gagaaggcag taagggaagt gattggtggt gagaaggcag aggaaaggcg gctatgggct 1020  
aagaagctgg gcgagatggc taaagccgct gtggaagaag gagggtcctc ttataatgat 1080  
gtgaacaagt ttatggaaga gctgaatggt agaaagtag 1119

<210> 2734

<211> 372

<212> PRT

<213> Arabidopsis thaliana

<400> 2734

Met Lys Gln Gln Leu Glu Ser Phe Ile Glu Thr Thr Lys Pro Ser Ala  
1 5 10 15

Leu Val Ala Asp Met Phe Phe Pro Trp Ala Thr Glu Ser Ala Glu Lys  
20 25 30

Leu Gly Val Pro Arg Leu Val Phe His Gly Thr Ser Phe Phe Ser Leu  
35 40 45

Cys Cys Ser Tyr Asn Met Arg Ile His Lys Pro His Lys Lys Val Ala  
50 55 60

Thr Ser Ser Thr Pro Phe Val Ile Pro Gly Leu Pro Gly Asp Ile Val  
 65 70 75 80  
 Ile Thr Glu Asp Gln Ala Asn Val Ala Lys Glu Glu Thr Pro Met Gly  
 85 90 95  
 Lys Phe Met Lys Glu Val Arg Glu Ser Glu Thr Asn Ser Phe Gly Val  
 100 105 110  
 Leu Val Asn Ser Phe Tyr Glu Leu Glu Ser Ala Tyr Ala Asp Phe Tyr  
 115 120 125  
 Arg Ser Phe Val Ala Lys Arg Ala Trp His Ile Gly Pro Leu Ser Leu  
 130 135 140  
 Ser Asn Arg Glu Leu Gly Glu Lys Ala Arg Arg Gly Lys Lys Ala Asn  
 145 150 155 160  
 Ile Asp Glu Gln Glu Cys Leu Lys Trp Leu Asp Ser Lys Thr Pro Gly  
 165 170 175  
 Ser Val Val Tyr Leu Ser Phe Gly Ser Gly Thr Asn Phe Thr Asn Asp  
 180 185 190  
 Gln Leu Leu Glu Ile Ala Phe Gly Leu Glu Gly Ser Gly Gln Ser Phe  
 195 200 205  
 Ile Trp Val Val Arg Lys Asn Glu Asn Gln Gly Asp Asn Glu Glu Trp  
 210 215 220  
 Leu Pro Glu Gly Phe Lys Glu Arg Thr Thr Gly Lys Gly Leu Ile Ile  
 225 230 235 240  
 Pro Gly Trp Ala Pro Gln Val Leu Ile Leu Asp His Lys Ala Ile Gly  
 245 250 255  
 Gly Phe Val Thr His Cys Gly Trp Asn Ser Ala Ile Glu Gly Ile Ala  
 260 265 270  
 Ala Gly Leu Pro Met Val Thr Trp Pro Met Gly Ala Glu Gln Phe Tyr  
 275 280 285  
 Asn Glu Lys Leu Leu Thr Lys Val Leu Arg Ile Gly Val Asn Val Gly  
 290 295 300  
 Ala Thr Glu Leu Val Lys Lys Gly Lys Leu Ile Ser Arg Ala Gln Val  
 305 310 315 320

047-E2F-PCT.ST25.txt

Glu Lys Ala Val Arg Glu Val Ile Gly Gly Glu Lys Ala Glu Glu Arg  
325 330 335

Arg Leu Trp Ala Lys Lys Leu Gly Glu Met Ala Lys Ala Ala Val Glu  
340 345 350

Glu Gly Gly Ser Ser Tyr Asn Asp Val Asn Lys Phe Met Glu Glu Leu  
355 360 365

Asn Gly Arg Lys  
370

<210> 2735

<211> 2409

<212> DNA

<213> Arabidopsis thaliana

<400> 2735

atgaacttcg gtagtctctt cgataacaca cccggtggtg gctctaccgg agcaagactt	60
ctctccggtt taagttatgg caaccacacc gccgcaacta acgtcttacc cggtggtgct	120
atggctcaag cggcagcggc tgctagtctc ttctctcctc ctctaacgaa atctgtttac	180
gcttcttctg gcctctctct agccctcgag caaccggaga gaggaaccaa ccgtggagaa	240
gcatcgatga ggaacaataa taacgtcggg ggaggaggcg ataccttcga tgggagtgtg	300
aacagaagaa gccgagaaga agaacatgag agtagatctg gtagtgataa cgttgaaggt	360
atctccggtg aagatcaaga cgctgctgat aagcctcctc ggaagaaacg ttatcaccga	420
cacactcctc aacaaatcca agaactcgaa tctatgttca aagagtgtcc gcatccagac	480
gagaaacaaa gattagaact aagtaagaga ctttgcttag agacaagaca agtcaagttc	540
tggttccaga atcgtcgcac tcagatgaag actcaattag agaggcatga gaacgcgtta	600
ttgagacaag agaacgataa gttaagagct gagaacatgt ctattcgtga agcaatgagg	660
aatccaatct gcaccaattg tggtggacct gccatgcttg gtgatgtctc tcttgaagaa	720
catcatctcc gtatcgaaaa cgctcgttta aaagacgagc ttgatcgtgt ctgtaacctc	780
accggttaagt tccttggcca ccaccataat caccactaca actcctcctt agaactcgct	840
gtcggcacca acaacaacgg tggacatttc gctttccctc ctgatttcgg cggtggtggt	900
ggttgcttac ctccgcagca gcagcagtcg acggtgatta atgggattga tcagaagtca	960
gttttgctgg agctggcttt aactgctatg gatgagttag tgaagcttgc tcagagtga	1020
gaaccgttat gggcctaaaag cttggacggt gagagagacg agcttaacca agatgagtac	1080



047-E2F-PCT.ST25.txt

atgagaacat tttcatctac taaaccaacc ggttttagcta ctgaagcttc tagaacctct 1140  
 ggtatggtca tcatcaatag cttagctctc gtcgagactt taatggactc caatcggtgg 1200  
 acggagatgt tcccgtgtaa cgtcgcaaga gctacaacca cgcacgttat atccggtggg 1260  
 atggctggaa caataaatgg tgcacttcaa ctgatgaatg cagagctaca agttttgtct 1320  
 ccaactggttc cggttcgtaa tggttaatttc ctccggttct gcaaacagca cgcggagggt 1380  
 gtgtggggcgg tgggtgatgt atcaattgat cctgtcaggg aaaactctgg tgggtgccccg 1440  
 gtaatccggc gactaccatc aggatgtgtg gtgcaggatg tgtctaattg atactctaag 1500  
 gtcacgtggg tggagcatgc agaatacgac gagaaccaa tccaccagct gtacaggccg 1560  
 ttgctacggt caggccttgg ttttggtctt caaagatggc tcgctacact tcagagacag 1620  
 tgcgagtgtc tcgccatcct catttcttcc tccgttacat ctcacgacaa cacatcaata 1680  
 acgcctggtg gtcgaaaaag catgctgaag ttagctcaac gcatgacgtt caacttctgt 1740  
 tcgggaatct cggcgccgtc ggtccacaat tggagcaagc tcaactgttg aaatgttgac 1800  
 ccggacgttc gagttatgac ccgtaagagt gtggacgatc caggagagcc tccggggatt 1860  
 gttttgagtg ctgccacttc tgtttggtta cctgctgcac cacagcgtct gtatgatttc 1920  
 ttgcggaacg aacggatgag atgcgaatgg gatattctat ccaacggtgg tcccatgcag 1980  
 gagatggccc atatcaccaa aggtcaagat cagggtgtct ctctgctccg ctccaatgca 2040  
 atgaacgcga atcagagtag tatgctaatt cttcaggaga catgcattga cgcattctgga 2100  
 gcgctttagt tatacgcgcc tgctgacatt cccgccatgc atgtggtgat gaacggtggt 2160  
 gattcatcct acgtggctct ccttccgtcc ggtttcgtg ttcttctga cggaggcatt 2220  
 gacggtggtg ggtcagggtg tggtgaccag cgaccggttg gtggtggatc cctcttgaca 2280  
 gtggcgtttc aaatccttgt aaacaatctc ccaacggcaa aactcacggt tgagtcggtg 2340  
 gagactgtca acaacctaat atcatgcacc gttcagaaga ttcgtgccgc tttacaatgc 2400  
 gaaagctga 2409

<210> 2736

<211> 802

<212> PRT

<213> Arabidopsis thaliana

<400> 2736

Met Asn Phe Gly Ser Leu Phe Asp Asn Thr Pro Gly Gly Gly Ser Thr  
 1 5 10 15

047-E2F-PCT.ST25.txt

Gly Ala Arg Leu Leu Ser Gly Leu Ser Tyr Gly Asn His Thr Ala Ala  
 20 25 30  
 Thr Asn Val Leu Pro Gly Gly Ala Met Ala Gln Ala Ala Ala Ala Ala  
 35 40 45  
 Ser Leu Phe Ser Pro Pro Leu Thr Lys Ser Val Tyr Ala Ser Ser Gly  
 50 55 60  
 Leu Ser Leu Ala Leu Glu Gln Pro Glu Arg Gly Thr Asn Arg Gly Glu  
 65 70 75 80  
 Ala Ser Met Arg Asn Asn Asn Asn Val Gly Gly Gly Gly Asp Thr Phe  
 85 90 95  
 Asp Gly Ser Val Asn Arg Arg Ser Arg Glu Glu Glu His Glu Ser Arg  
 100 105 110  
 Ser Gly Ser Asp Asn Val Glu Gly Ile Ser Gly Glu Asp Gln Asp Ala  
 115 120 125  
 Ala Asp Lys Pro Pro Arg Lys Lys Arg Tyr His Arg His Thr Pro Gln  
 130 135 140  
 Gln Ile Gln Glu Leu Glu Ser Met Phe Lys Glu Cys Pro His Pro Asp  
 145 150 155 160  
 Glu Lys Gln Arg Leu Glu Leu Ser Lys Arg Leu Cys Leu Glu Thr Arg  
 165 170 175  
 Gln Val Lys Phe Trp Phe Gln Asn Arg Arg Thr Gln Met Lys Thr Gln  
 180 185 190  
 Leu Glu Arg His Glu Asn Ala Leu Leu Arg Gln Glu Asn Asp Lys Leu  
 195 200 205  
 Arg Ala Glu Asn Met Ser Ile Arg Glu Ala Met Arg Asn Pro Ile Cys  
 210 215 220  
 Thr Asn Cys Gly Gly Pro Ala Met Leu Gly Asp Val Ser Leu Glu Glu  
 225 230 235 240  
 His His Leu Arg Ile Glu Asn Ala Arg Leu Lys Asp Glu Leu Asp Arg  
 245 250 255  
 Val Cys Asn Leu Thr Gly Lys Phe Leu Gly His His His Asn His His  
 260 265 270

047-E2F-PCT.ST25.txt

Tyr Asn Ser Ser Leu Glu Leu Ala Val Gly Thr Asn Asn Asn Gly Gly  
 275 280 285  
 His Phe Ala Phe Pro Pro Asp Phe Gly Gly Gly Gly Gly Cys Leu Pro  
 290 295 300  
 Pro Gln Gln Gln Gln Ser Thr Val Ile Asn Gly Ile Asp Gln Lys Ser  
 305 310 315 320  
 Val Leu Leu Glu Leu Ala Leu Thr Ala Met Asp Glu Leu Val Lys Leu  
 325 330 335  
 Ala Gln Ser Glu Glu Pro Leu Trp Val Lys Ser Leu Asp Gly Glu Arg  
 340 345 350  
 Asp Glu Leu Asn Gln Asp Glu Tyr Met Arg Thr Phe Ser Ser Thr Lys  
 355 360 365  
 Pro Thr Gly Leu Ala Thr Glu Ala Ser Arg Thr Ser Gly Met Val Ile  
 370 375 380  
 Ile Asn Ser Leu Ala Leu Val Glu Thr Leu Met Asp Ser Asn Arg Trp  
 385 390 395 400  
 Thr Glu Met Phe Pro Cys Asn Val Ala Arg Ala Thr Thr Thr Asp Val  
 405 410 415  
 Ile Ser Gly Gly Met Ala Gly Thr Ile Asn Gly Ala Leu Gln Leu Met  
 420 425 430  
 Asn Ala Glu Leu Gln Val Leu Ser Pro Leu Val Pro Val Arg Asn Val  
 435 440 445  
 Asn Phe Leu Arg Phe Cys Lys Gln His Ala Glu Gly Val Trp Ala Val  
 450 455 460  
 Val Asp Val Ser Ile Asp Pro Val Arg Glu Asn Ser Gly Gly Ala Pro  
 465 470 475 480  
 Val Ile Arg Arg Leu Pro Ser Gly Cys Val Val Gln Asp Val Ser Asn  
 485 490 495  
 Gly Tyr Ser Lys Val Thr Trp Val Glu His Ala Glu Tyr Asp Glu Asn  
 500 505 510  
 Gln Ile His Gln Leu Tyr Arg Pro Leu Leu Arg Ser Gly Leu Gly Phe  
 Page 3797

515

520

525

Gly Ser Gln Arg Trp Leu Ala Thr Leu Gln Arg Gln Cys Glu Cys Leu  
 530 535 540  
 Ala Ile Leu Ile Ser Ser Val Thr Ser His Asp Asn Thr Ser Ile  
 545 550 555 560  
 Thr Pro Gly Gly Arg Lys Ser Met Leu Lys Leu Ala Gln Arg Met Thr  
 565 570 575  
 Phe Asn Phe Cys Ser Gly Ile Ser Ala Pro Ser Val His Asn Trp Ser  
 580 585 590  
 Lys Leu Thr Val Gly Asn Val Asp Pro Asp Val Arg Val Met Thr Arg  
 595 600 605  
 Lys Ser Val Asp Asp Pro Gly Glu Pro Pro Gly Ile Val Leu Ser Ala  
 610 615 620  
 Ala Thr Ser Val Trp Leu Pro Ala Ala Pro Gln Arg Leu Tyr Asp Phe  
 625 630 635 640  
 Leu Arg Asn Glu Arg Met Arg Cys Glu Trp Asp Ile Leu Ser Asn Gly  
 645 650 655  
 Gly Pro Met Gln Glu Met Ala His Ile Thr Lys Gly Gln Asp Gln Gly  
 660 665 670  
 Val Ser Leu Leu Arg Ser Asn Ala Met Asn Ala Asn Gln Ser Ser Met  
 675 680 685  
 Leu Ile Leu Gln Glu Thr Cys Ile Asp Ala Ser Gly Ala Leu Val Val  
 690 695 700  
 Tyr Ala Pro Val Asp Ile Pro Ala Met His Val Val Met Asn Gly Gly  
 705 710 715 720  
 Asp Ser Ser Tyr Val Ala Leu Leu Pro Ser Gly Phe Ala Val Leu Pro  
 725 730 735  
 Asp Gly Gly Ile Asp Gly Gly Gly Ser Gly Asp Gly Asp Gln Arg Pro  
 740 745 750  
 Val Gly Gly Gly Ser Leu Leu Thr Val Ala Phe Gln Ile Leu Val Asn  
 755 760 765

Asn Leu Pro Thr Ala Lys Leu Thr Val Glu Ser Val Glu Thr Val Asn  
 770 775 780

Asn Leu Ile Ser Cys Thr Val Gln Lys Ile Arg Ala Ala Leu Gln Cys  
 785 790 795 800

Glu Ser

<210> 2737

<211> 1506

<212> DNA

<213> Arabidopsis thaliana

<400> 2737

```

atgcttcttc aaaacttctc caacaccatt ttccttctct gcctcttctt cacactcctc      60
tccgccacta aaccctaaa tctcactctc cctcaccaac acccttcccc tgattccgtc      120
gctctccatg tcatcaggag tgtaaataaa tctcttgcaa gaagacaact aagctcacca      180
tcatcatcct catcatcatc atcctcctca tcatcatcct cttgccgtac cggaaaccca      240
atcgacgatt gctggagatg cagcgacgca gactgggtcaa caaacgaca aagactagca      300
gactgttcaa tcggcttcgg acacggcaca ctcggaggca aaaacggcaa gatctacgtc      360
gtaactgact catccgacaa caaccaacaa aaccaaacac caggaacact ccgttacggc      420
gtaatccaag aagagccact ctggatcgtc ttctcttcaa acatgctcat cagactaaaa      480
caagaactca tcatcaacag ctacaaaacc ttagatgggc gtggctcagc cgttcacatt      540
accggaaacg gttgcttaac tctccaatac gttcaacaca tcatcatcca caacctccat      600
atctatgact gtaaaccctc agctggattc gagaaacgtg gtagatccga tggagatggg      660
atctcgaatc tcggatctca gaagatctgg gttgatcatt gttcaatgag tcattgcacc      720
gacgggctaa ttgatgctgt gatgggttct acagctataa ctatatctaa caattacttc      780
accaccacg acgaggttat gttgttgggt catgatgata actatgctcc tgatacgggg      840
atgcaagtga cgatagcgtt taatcatttc ggacaagggc ttgttcagag gatgcctagg      900
tgtcggagag gttacattca tgtagtgaat aatgatttca ctgagtggaa aatgtatgct      960
attggtggta gtggtaatcc caccattaac agtcaaggaa atcgttactc tgctccttct     1020
gatcctagcg ccaaagaggt gacgaagcga gtggactcga aggacgatgg tgaatggctg     1080
aattggaatt ggagaacaga aggggatttg atggagaatg gagctttctt tgtggcctct     1140
ggtgaaggaa tgagctcaat gtactctaaa gcttctagtg ttgaccctaa agctgcttct     1200

```

ctcgtagacc agctcactcg aaacgctggc gtttttggcg gtcccagggg tgatcaaggt 1260  
cagagtggca attcttactc tccttatgga ggcgacggcg gtggcgggtg gagcagcggt 1320  
gggagcagcg gtggagggat ggacgttatg ggaggtacga cgagaggaag cagcagcagc 1380  
agcggcgatg acagcaatgt cttccagatg atatttgga gcgatgcacc gtctcggccg 1440  
cgtttaacgt tattgttttc ttgtttaatg atttcggttt tgtcgttatc aactctatta 1500  
ttgtga 1506

<210> 2738

<211> 501

<212> PRT

<213> Arabidopsis thaliana

<400> 2738

Met Leu Leu Gln Asn Phe Ser Asn Thr Ile Phe Leu Leu Cys Leu Phe  
1 5 10 15

Phe Thr Leu Leu Ser Ala Thr Lys Pro Leu Asn Leu Thr Leu Pro His  
20 25 30

Gln His Pro Ser Pro Asp Ser Val Ala Leu His Val Ile Arg Ser Val  
35 40 45

Asn Glu Ser Leu Ala Arg Arg Gln Leu Ser Ser Pro Ser Ser Ser Ser  
50 55 60

Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Cys Arg Thr Gly Asn Pro  
65 70 75 80

Ile Asp Asp Cys Trp Arg Cys Ser Asp Ala Asp Trp Ser Thr Asn Arg  
85 90 95

Gln Arg Leu Ala Asp Cys Ser Ile Gly Phe Gly His Gly Thr Leu Gly  
100 105 110

Gly Lys Asn Gly Lys Ile Tyr Val Val Thr Asp Ser Ser Asp Asn Asn  
115 120 125

Pro Thr Asn Pro Thr Pro Gly Thr Leu Arg Tyr Gly Val Ile Gln Glu  
130 135 140

Glu Pro Leu Trp Ile Val Phe Ser Ser Asn Met Leu Ile Arg Leu Lys  
145 150 155 160

047-E2F-PCT.ST25.txt

Gln Glu Leu Ile Ile Asn Ser Tyr Lys Thr Leu Asp Gly Arg Gly Ser  
165 170 175

Ala Val His Ile Thr Gly Asn Gly Cys Leu Thr Leu Gln Tyr Val Gln  
180 185 190

His Ile Ile Ile His Asn Leu His Ile Tyr Asp Cys Lys Pro Ser Ala  
195 200 205

Gly Phe Glu Lys Arg Gly Arg Ser Asp Gly Asp Gly Ile Ser Ile Phe  
210 215 220

Gly Ser Gln Lys Ile Trp Val Asp His Cys Ser Met Ser His Cys Thr  
225 230 235 240

Asp Gly Leu Ile Asp Ala Val Met Gly Ser Thr Ala Ile Thr Ile Ser  
245 250 255

Asn Asn Tyr Phe Thr His His Asp Glu Val Met Leu Leu Gly His Asp  
260 265 270

Asp Asn Tyr Ala Pro Asp Thr Gly Met Gln Val Thr Ile Ala Phe Asn  
275 280 285

His Phe Gly Gln Gly Leu Val Gln Arg Met Pro Arg Cys Arg Arg Gly  
290 295 300

Tyr Ile His Val Val Asn Asn Asp Phe Thr Glu Trp Lys Met Tyr Ala  
305 310 315 320

Ile Gly Gly Ser Gly Asn Pro Thr Ile Asn Ser Gln Gly Asn Arg Tyr  
325 330 335

Ser Ala Pro Ser Asp Pro Ser Ala Lys Glu Val Thr Lys Arg Val Asp  
340 345 350

Ser Lys Asp Asp Gly Glu Trp Ser Asn Trp Asn Trp Arg Thr Glu Gly  
355 360 365

Asp Leu Met Glu Asn Gly Ala Phe Phe Val Ala Ser Gly Glu Gly Met  
370 375 380

Ser Ser Met Tyr Ser Lys Ala Ser Ser Val Asp Pro Lys Ala Ala Ser  
385 390 395 400

Leu Val Asp Gln Leu Thr Arg Asn Ala Gly Val Phe Gly Gly Pro Arg  
Page 3801

405

415

Asp Asp Gln Gly Gln Ser Gly Asn Ser Tyr Ser Pro Tyr Gly Gly Asp  
420 425 430

Gly Gly Gly Gly Gly Ser Ser Gly Gly Ser Ser Gly Gly Gly Met Asp  
435 440 445

Val Met Gly Gly Thr Thr Arg Gly Ser Ser Ser Ser Ser Gly Asp Asp  
450 455 460

Ser Asn Val Phe Gln Met Ile Phe Gly Ser Asp Ala Pro Ser Arg Pro  
465 470 475 480

Arg Leu Thr Leu Leu Phe Ser Leu Leu Met Ile Ser Val Leu Ser Leu  
485 490 495

Ser Thr Leu Leu Leu  
500

<210> 2739

<211> 1686

<212> DNA

<213> Arabidopsis thaliana

<400> 2739

atggacgaag attccgtcca tggcgattct cacctcaaga catgtgtcgt cctcggcgga	60
cgaggggttca ttggtcgatc gcttgtctcc agattgcttc gtctcggaaa ctggacagtc	120
cgagtcgcag attccggtca cactctccat cttgatgaat ccgattcgct cctcgaggat	180
gctctctcct ccggccgcgc ttcttatcac tgcgtcgatg ttcgtgataa acctcagatc	240
gttaaagtta ccgaggggttc ctatgttgta ttttacatgg gagctactga tttacgttcc	300
catgattact ttgactgcta caagggttata gttcaaggta caagaaatgt gatttctgcc	360
tgtcgtgaat ctggagtcag aaaacttata tacaacagta cagctgatgt tgtttttgat	420
ggttcccaac ctatacgtga tggatgatgaa tccttgagac gtcctttgaa gttccaatct	480
atgttgacag acttcaaagc tcaagcagaa gcgttgatca aattggctaa caaccgagat	540
ggtctcttaa cttgtgcact tcgctctagc attgtatttg gacctggtga cacagagttt	600
gtaccttttt tggatgaatct agccaagtcc ggatatgcaa agttttatact cgggagtggg	660
gaaaatatct ctgatttcac ttactcggag aacgtttctc atgcacatat ttgcgccgtt	720
aaagcattag attcacagat ggagtttgtg gctggaaagg aattttttat cacaaacctc	780



047-E2F-PCT.ST25.txt

```

aagccggtca gattttggga ctttgtaagc catatagttg aaggtctggg ataccaaga 840
ccatccatta aacttcctgt tcggctggtt ttgtatgttt tctcacttct taagtggaca 900
catgaaaagg agggccttgg gagtaattat gacacagcac atcagtatgc tctgttagct 960
tcatcaacga gaacttttaa ctgcaatgca gctaagaagc atcttggtta cacacctgtt 1020
gtgacacttg aagatggtat tgcacaaacg cttcaatggt tctctcggga tcttgagaag 1080
tctgatgaca caatcattca atctactgca gatcagcttc ttggttgtgg gaaagttgca 1140
gacatcttgc tgtggagaaa tgagaagaaa accttcgttt cttttcttgt cctaaacttg 1200
ttttattact gggttcttctt ttctggaaac acatttactt catctgcagc ccaacttctg 1260
tttatatttg ctgttgctct ctatggagtc tcttttgtgc cgtcaaagat tttcggggtt 1320
caagtcaaca aaatacccc atggagattt gagatctccg aatccgctgt gagagatctt 1380
agtagtgata tcgtagttgt ctggaatcaa ggagttcgca gttttaaatc ctttaagcagt 1440
ggaggagact ggatcaagtt cttcaagatt gcaggatcac tgtatctcct caaactgatt 1500
gtatcccgtt cattggcagc atttcttttc acagttatgt cgttctcatt caccggtttc 1560
ttcatctacg agcaatacga gcttgagctc taccacctag cccggatatt cgtcgaatgc 1620
ttaacattta ttaaaaggat ggtgatacct gtttctgatg cttcatctaa accaatgttc 1680
atgtga 1686

```

<210> 2740

<211> 561

<212> PRT

<213> Arabidopsis thaliana

<400> 2740

Met Asp Glu Asp Ser Val His Gly Asp Ser His Leu Lys Thr Cys Val  
1 5 10 15

Val Leu Gly Gly Arg Gly Phe Ile Gly Arg Ser Leu Val Ser Arg Leu  
20 25 30

Leu Arg Leu Gly Asn Trp Thr Val Arg Val Ala Asp Ser Gly His Thr  
35 40 45

Leu His Leu Asp Glu Ser Asp Ser Leu Leu Glu Asp Ala Leu Ser Ser  
50 55 60

Gly Arg Ala Ser Tyr His Cys Val Asp Val Arg Asp Lys Pro Gln Ile  
Page 3803

65		70		75		80									
Val	Lys	Val	Thr	Glu 85	Gly	Ser	Tyr	Val	Val 90	Phe	Tyr	Met	Gly	Ala 95	Thr
Asp	Leu	Arg	Ser 100	His	Asp	Tyr	Phe	Asp 105	Cys	Tyr	Lys	Val	Ile 110	Val	Gln
Gly	Thr	Arg 115	Asn	Val	Ile	Ser	Ala 120	Cys	Arg	Glu	Ser	Gly 125	Val	Arg	Lys
Leu	Ile 130	Tyr	Asn	Ser	Thr	Ala 135	Asp	Val	Val	Phe	Asp 140	Gly	Ser	Gln	Pro
Ile 145	Arg	Asp	Gly	Asp	Glu 150	Ser	Leu	Arg	Arg	Pro 155	Leu	Lys	Phe	Gln	Ser 160
Met	Leu	Thr	Asp	Phe 165	Lys	Ala	Gln	Ala	Glu 170	Ala	Leu	Ile	Lys	Leu 175	Ala
Asn	Asn	Arg	Asp 180	Gly	Leu	Leu	Thr	Cys 185	Ala	Leu	Arg	Ser	Ser 190	Ile	Val
Phe	Gly	Pro 195	Gly	Asp	Thr	Glu	Phe 200	Val	Pro	Phe	Leu	Val 205	Asn	Leu	Ala
Lys	Ser 210	Gly	Tyr	Ala	Lys	Phe 215	Ile	Leu	Gly	Ser	Gly 220	Glu	Asn	Ile	Ser
Asp 225	Phe	Thr	Tyr	Ser	Glu 230	Asn	Val	Ser	His	Ala 235	His	Ile	Cys	Ala	Val 240
Lys	Ala	Leu	Asp	Ser 245	Gln	Met	Glu	Phe 250	Ala	Gly	Lys	Glu	Phe 255	Phe	
Ile	Thr	Asn	Leu 260	Lys	Pro	Val	Arg	Phe 265	Trp	Asp	Phe	Val	Ser 270	His	Ile
Val	Glu	Gly 275	Leu	Gly	Tyr	Pro	Arg 280	Pro	Ser	Ile	Lys	Leu 285	Pro	Val	Arg
Leu	Val 290	Leu	Tyr	Val	Phe	Ser 295	Leu	Leu	Lys	Trp	Thr 300	His	Glu	Lys	Glu
Gly 305	Leu	Gly	Ser	Asn	Tyr 310	Asp	Thr	Ala	His	Gln 315	Tyr	Ala	Leu	Leu	Ala 320

Ser Ser Thr Arg Thr Phe Asn Cys Asn Ala Ala Lys Lys His Leu Gly  
 325 330 335  
 Tyr Thr Pro Val Val Thr Leu Glu Asp Gly Ile Ala Ser Thr Leu Gln  
 340 345 350  
 Trp Phe Ser Arg Asp Leu Glu Lys Ser Asp Asp Thr Ile Ile Gln Ser  
 355 360 365  
 Thr Ala Asp Gln Leu Leu Gly Cys Gly Lys Val Ala Asp Ile Leu Leu  
 370 375 380  
 Trp Arg Asn Glu Lys Lys Thr Phe Val Ser Phe Leu Val Leu Asn Leu  
 385 390 395 400  
 Phe Tyr Tyr Trp Phe Phe Phe Ser Gly Asn Thr Phe Thr Ser Ser Ala  
 405 410 415  
 Ala Gln Leu Leu Phe Ile Phe Ala Val Ala Leu Tyr Gly Val Ser Phe  
 420 425 430  
 Val Pro Ser Lys Ile Phe Gly Phe Gln Val Asn Lys Ile Pro Pro Trp  
 435 440 445  
 Arg Phe Glu Ile Ser Glu Ser Ala Val Arg Asp Leu Ser Ser Asp Ile  
 450 455 460  
 Val Val Val Trp Asn Gln Gly Val Arg Ser Phe Lys Ser Leu Ser Ser  
 465 470 475 480  
 Gly Gly Asp Trp Ile Lys Phe Phe Lys Ile Ala Gly Ser Leu Tyr Leu  
 485 490 495  
 Leu Lys Leu Ile Val Ser Arg Ser Leu Ala Ala Phe Leu Phe Thr Val  
 500 505 510  
 Met Ser Phe Ser Phe Thr Gly Phe Phe Ile Tyr Glu Gln Tyr Glu Leu  
 515 520 525  
 Glu Leu Tyr His Leu Ala Arg Ile Phe Val Glu Cys Leu Thr Phe Ile  
 530 535 540  
 Lys Arg Met Val Ile Pro Val Ser Asp Ala Ser Ser Lys Pro Met Phe  
 545 550 555 560  
 Met

&lt;210&gt; 2741

&lt;211&gt; 1647

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2741

```

acaaatcaac catttctcct ttcttcttat ttctgagcaa agttttttct tcctttcata    60
ttgtgaggat gtccaaaacc aatatgaaat tttgcaatag ttattttctg gtcgatccga    120
ccaaagcaag ttttcttgat ctctttttgc ttttgttttc ctccaacctg accagtgcaa    180
gattcatcga ttctcctccg gatacgctta aaggcttccg gagaagtttc gcgagtcgat    240
ggatccttgc gttggccatc ttctttcaaa aagtattaat gctcttaagt aaaccttttg    300
cattcattgg tcaaaagctc acatattggc tcaaccttct tacggcaaat ggaggcttct    360
tcaacttgat acttaacctt atgtcaggaa agctggtcaa gcctgacaaa tcttcggcga    420
cgtatacttc ttttatagga tgctcagatc gacgaataga gcttgacgag aagataaatg    480
ttggtagcat cgaatacaaa tcgatgttgt caataatggc ttctaagatc tcttatgaga    540
gcaaacctta catcacttcc gtcgtcaaaa acacttgga gatggacttg gtgggtaact    600
acgactttta caacgctttc caagaaagta aattgacgca agccttcgtg ttcaagactt    660
cgagcaccaa tccagacctc atcgtcgtta gcttcagagg aaccgaacct ttcgaggctg    720
ccgattggtg cactgatctc gacctctctt ggtacgagat gaagaacgtt ggcaaagtcc    780
acgccggggt ctcaagagct ttaggtctcc aaaaagatgg atggcccaag gaaaatatta    840
gtctactaca ccaatatgct tactacacca tcagacagat gcttagagac aagcttggca    900
gaaacaagaa ccttaaatat attctaacag gtcacagcct tggcggagca ctagctgctc    960
ttttcccggc gattctggcc attcacggtg aggatgagct gctagataag ctagagggaa   1020
tctatacggt tggacagcca cgtgtaggag atgaggactt tggtagagtt atgaaggggtg   1080
tggtgaaaaa gcatggaata gagtatgaga gattcgtcta taacaatgat gttgtgccta   1140
gagtgccctt tgatgacaag tacttattct catacaagca ctatggacct tgcaattcct   1200
tcaacagtct ctacaaagga aaggtaagag aagatgcacc aaatgcgaac tacttcaact   1260
tgttgtgggt aataccgcag ctgttgactg gtttgtggga gtttataagg agtttcatat   1320
tacagttttg gaaaggcgac gagtacaaag agaattgggt aatgagatgt gttaggggtg   1380
tgggaaatag gttccctggg ggctctaacc atttccatt tgattacgtc aactctactc   1440
gcctaggagg cttggttcga cctcctccta ctactactcc tgaggataaa cttgccctca   1500
ttgcttgaac tctcattatt taataatcat atccacttta tctgccctaa tgacgggttaa   1560

```

ataattgcac ttgagcttta atgtattctc tgtgttatgt gtttttgtat gtgagttttt 1620  
 atgttggttaa caatatctac cttttcc 1647

<210> 2742

<211> 479

<212> PRT

<213> Arabidopsis thaliana

<400> 2742

Met	Ser	Lys	Thr	Asn	Met	Lys	Phe	Cys	Asn	Ser	Tyr	Phe	Leu	Val	Asp	
1				5					10					15		
Pro	Thr	Lys	Ala	Ser	Phe	Leu	Asp	Leu	Leu	Leu	Leu	Leu	Phe	Ser	Ser	
			20					25					30			
Asn	Leu	Thr	Ser	Ala	Arg	Phe	Ile	Asp	Ser	Pro	Pro	Asp	Thr	Leu	Lys	
		35					40					45				
Gly	Phe	Arg	Arg	Ser	Phe	Ala	Ser	Arg	Trp	Ile	Leu	Ala	Leu	Ala	Ile	
	50					55					60					
Phe	Leu	Gln	Lys	Val	Leu	Met	Leu	Leu	Ser	Lys	Pro	Phe	Ala	Phe	Ile	
65					70					75					80	
Gly	Gln	Lys	Leu	Thr	Tyr	Trp	Leu	Asn	Leu	Leu	Thr	Ala	Asn	Gly	Gly	
				85					90					95		
Phe	Phe	Asn	Leu	Ile	Leu	Asn	Leu	Met	Ser	Gly	Lys	Leu	Val	Lys	Pro	
			100					105					110			
Asp	Lys	Ser	Ser	Ala	Thr	Tyr	Thr	Ser	Phe	Ile	Gly	Cys	Ser	Asp	Arg	
		115					120					125				
Arg	Ile	Glu	Leu	Asp	Glu	Lys	Ile	Asn	Val	Gly	Ser	Ile	Glu	Tyr	Lys	
	130					135					140					
Ser	Met	Leu	Ser	Ile	Met	Ala	Ser	Lys	Ile	Ser	Tyr	Glu	Ser	Lys	Pro	
145					150					155					160	
Tyr	Ile	Thr	Ser	Val	Val	Lys	Asn	Thr	Trp	Lys	Met	Asp	Leu	Val	Gly	
				165					170					175		
Asn	Tyr	Asp	Phe	Tyr	Asn	Ala	Phe	Gln	Glu	Ser	Lys	Leu	Thr	Gln	Ala	

180  
 185  
 190  
 Phe Val Phe Lys Thr Ser Ser Thr Asn Pro Asp Leu Ile Val Val Ser  
 195 200 205  
 Phe Arg Gly Thr Glu Pro Phe Glu Ala Ala Asp Trp Cys Thr Asp Leu  
 210 215 220  
 Asp Leu Ser Trp Tyr Glu Met Lys Asn Val Gly Lys Val His Ala Gly  
 225 230 235 240  
 Phe Ser Arg Ala Leu Gly Leu Gln Lys Asp Gly Trp Pro Lys Glu Asn  
 245 250 255  
 Ile Ser Leu Leu His Gln Tyr Ala Tyr Tyr Thr Ile Arg Gln Met Leu  
 260 265 270  
 Arg Asp Lys Leu Gly Arg Asn Lys Asn Leu Lys Tyr Ile Leu Thr Gly  
 275 280 285  
 His Ser Leu Gly Gly Ala Leu Ala Ala Leu Phe Pro Ala Ile Leu Ala  
 290 295 300  
 Ile His Gly Glu Asp Glu Leu Leu Asp Lys Leu Glu Gly Ile Tyr Thr  
 305 310 315 320  
 Phe Gly Gln Pro Arg Val Gly Asp Glu Asp Phe Gly Glu Phe Met Lys  
 325 330 335  
 Gly Val Val Lys Lys His Gly Ile Glu Tyr Glu Arg Phe Val Tyr Asn  
 340 345 350  
 Asn Asp Val Val Pro Arg Val Pro Phe Asp Asp Lys Tyr Leu Phe Ser  
 355 360 365  
 Tyr Lys His Tyr Gly Pro Cys Asn Ser Phe Asn Ser Leu Tyr Lys Gly  
 370 375 380  
 Lys Val Arg Glu Asp Ala Pro Asn Ala Asn Tyr Phe Asn Leu Leu Trp  
 385 390 395 400  
 Leu Ile Pro Gln Leu Leu Thr Gly Leu Trp Glu Phe Ile Arg Ser Phe  
 405 410 415  
 Ile Leu Gln Phe Trp Lys Gly Asp Glu Tyr Lys Glu Asn Trp Leu Met  
 420 425 430

Arg Phe Val Arg Val Val Gly Ile Val Phe Pro Gly Gly Ser Asn His  
 435 440 445

Phe Pro Phe Asp Tyr Val Asn Ser Thr Arg Leu Gly Gly Leu Val Arg  
 450 455 460

Pro Pro Pro Thr Thr Thr Pro Glu Asp Lys Leu Ala Leu Ile Ala  
 465 470 475

<210> 2743

<211> 219

<212> DNA

<213> Arabidopsis thaliana

<400> 2743

atggcaagca tatgcgaaga tccaggaaaa agctcatggc cagagctttt gggggcaaaa	60
ggagaagatg caaaagaagt gatcgagaga gagaatccaa aaatgaaagc agttatcatt	120
ttggatggaa cagttgttcc ggagatcttt atttgctctc gtgtttacgt ttgggtcaac	180
gattgcggaa tcgttggttca aattcctatc atcgggttaa	219

<210> 2744

<211> 72

<212> PRT

<213> Arabidopsis thaliana

<400> 2744

Met Ala Ser Ile Cys Glu Asp Pro Gly Lys Ser Ser Trp Pro Glu Leu  
 1 5 10 15

Leu Gly Ala Lys Gly Glu Asp Ala Lys Glu Val Ile Glu Arg Glu Asn  
 20 25 30

Pro Lys Met Lys Ala Val Ile Ile Leu Asp Gly Thr Val Val Pro Glu  
 35 40 45

Ile Phe Ile Cys Ser Arg Val Tyr Val Trp Val Asn Asp Cys Gly Ile  
 50 55 60

Val Val Gln Ile Pro Ile Ile Gly  
 65 70

&lt;210&gt; 2745

&lt;211&gt; 1917

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2745

atggctgttg atagcagaat ggatctgcta agcgaaagag ctgtgttgat gagagcatct	60
cttcaaaaga gtcaaaccat caccgataat gttgttttcta tcctcggctc cttcgatagt	120
cgtctgtctg ctcttgaaac cgccatgcgt cctactcaga ttaggactca tgctataagg	180
aaagctcatg agaattattga taggactctt aaggctgctg aagttatttt gtctcaattc	240
gatctcctcc gtcaggcaga gactaaagta ctcaaggggc cacatgagga cctggaaagt	300
tatctggatg caattgctca actcagaaag attattcgtt attttatgag caacaaaagc	360
tttaagagta gtgatggagt tctcaaccac gcaaatagtt tgcttgctaa agcacagtca	420
aagctggagg aagagtttaa gcagttgcta gcttcttaca gtaaagcggg ggagcctgat	480
cgcctatttg atggccttcc caactcactg agaccatcct cagacgggga tggaggtgga	540
aaaccccacg gaggacatca caatgatgac gcggaaactg ctgcttatac acttccaatc	600
ctcattccgt cacgggtgtt gccacttttg catgacttgg cacagcaaatt ggttcaggct	660
ggtcaccaac aacagttgct acaaatttat agggacacac gttcctttgt cttggaagaa	720
agcttaaaga aattgggagt tgaaaaactt agcaaagagg atgtccagag gatgcagtgg	780
gaagtttttg aggccaaaat tggaaattgg atccatttca tgcgcattgc tgttaaatta	840
ctctttgctg gagaaagaca agtatgtgac cagatatctc gaggccttca ttctctaagt	900
gatcagtgtt ttgcagaagt tacagtgagc agtgtctcaa tgctacttag ctttggggat	960
gctatagcca ggagcaagag atctccagaa aagttgtttg tactcttaga catgtatgag	1020
ataatgcggg agcttcatac agagattgag acaattttca aagggaaagc atgcctcgaa	1080
attagagatt ctgcgacggg cttgacaaag cggttggcgc aaactgctca ggaaacattt	1140
ggtgattttg aagaagctgt tgagaaagat gctacaaaga ctgctgttct agatggaact	1200
gtccacccac taacaagcta tgtcatcaat tatgtcaagt ttttattcga ctaccaaaca	1260
acattgaagc aacttttctt ggaatttgga aatggagatg actcaaattc gcagctagca	1320
tccgtaacga tgcggataat gcaggcgctt caaaacaact tggacggaaa atcgaaacag	1380
tacaaagatc ctgcattgac acacttgttc ctgatgaaca acattcatta catggtcaga	1440
tctgtgcgca ggtcagaagc caaggatttg ttaggcgatg attgggttca aagacatagg	1500
cgtatcgtgc agcaacatgc aaaccaatac aaaagagttg cctggacaaa gatactacaa	1560



047-E2F-PCT.ST25.txt

agctcatcgg cgcaagggtt gacctcatct gggggaggaa gtttagaggg aggaaacagc 1620  
 agtggagttt caagaggatt attaaaagag aggttcaaga tgttcaatat gcagtttgat 1680  
 gagttgcatc agagacaatc gcaatggaca gttccagaca cagagttaag agagtcacta 1740  
 agacttgctg ttgctgaagt attattgcct gcttatagat cattcctcaa acgctttggg 1800  
 cctttggttg agagtgggaa gaatcctcag aaatacataa agtatacagc tgaagatctt 1860  
 gaaagattgt tgggtgagtt gtttgaagga aagtctatga atgaaccacg ccggttaa 1917

<210> 2746

<211> 638

<212> PRT

<213> Arabidopsis thaliana

<400> 2746

Met Ala Val Asp Ser Arg Met Asp Leu Leu Ser Glu Arg Ala Val Leu  
 1 5 10 15

Met Arg Ala Ser Leu Gln Lys Ser Gln Thr Ile Thr Asp Asn Val Val  
 20 25 30

Ser Ile Leu Gly Ser Phe Asp Ser Arg Leu Ser Ala Leu Glu Thr Ala  
 35 40 45

Met Arg Pro Thr Gln Ile Arg Thr His Ala Ile Arg Lys Ala His Glu  
 50 55 60

Asn Ile Asp Arg Thr Leu Lys Ala Ala Glu Val Ile Leu Ser Gln Phe  
 65 70 75 80

Asp Leu Leu Arg Gln Ala Glu Thr Lys Val Leu Lys Gly Pro His Glu  
 85 90 95

Asp Leu Glu Ser Tyr Leu Asp Ala Ile Ala Gln Leu Arg Lys Ile Ile  
 100 105 110

Arg Tyr Phe Met Ser Asn Lys Ser Phe Lys Ser Ser Asp Gly Val Leu  
 115 120 125

Asn His Ala Asn Ser Leu Leu Ala Lys Ala Gln Ser Lys Leu Glu Glu  
 130 135 140

Glu Phe Lys Gln Leu Leu Ala Ser Tyr Ser Lys Ala Val Glu Pro Asp

145                      150                      155                      160  
 Arg Leu Phe Asp Gly Leu Pro Asn Ser Leu Arg Pro Ser Ser Asp Gly  
                                  165                      170                      175  
 Asp Gly Gly Gly Lys Pro His Gly Gly His His Asn Asp Asp Ala Glu  
                                  180                      185                      190  
 Thr Ala Ala Tyr Thr Leu Pro Ile Leu Ile Pro Ser Arg Val Leu Pro  
                                  195                      200                      205  
 Leu Leu His Asp Leu Ala Gln Gln Met Val Gln Ala Gly His Gln Gln  
                                  210                      215                      220  
 Gln Leu Leu Gln Ile Tyr Arg Asp Thr Arg Ser Phe Val Leu Glu Glu  
                                  225                      230                      235                      240  
 Ser Leu Lys Lys Leu Gly Val Glu Lys Leu Ser Lys Glu Asp Val Gln  
                                  245                      250                      255  
 Arg Met Gln Trp Glu Val Leu Glu Ala Lys Ile Gly Asn Trp Ile His  
                                  260                      265                      270  
 Phe Met Arg Ile Ala Val Lys Leu Leu Phe Ala Gly Glu Arg Gln Val  
                                  275                      280                      285  
 Cys Asp Gln Ile Phe Arg Gly Phe Asp Ser Leu Ser Asp Gln Cys Phe  
                                  290                      295                      300  
 Ala Glu Val Thr Val Ser Ser Val Ser Met Leu Leu Ser Phe Gly Asp  
                                  305                      310                      315                      320  
 Ala Ile Ala Arg Ser Lys Arg Ser Pro Glu Lys Leu Phe Val Leu Leu  
                                  325                      330                      335  
 Asp Met Tyr Glu Ile Met Arg Glu Leu His Thr Glu Ile Glu Thr Ile  
                                  340                      345                      350  
 Phe Lys Gly Lys Ala Cys Leu Glu Ile Arg Asp Ser Ala Thr Gly Leu  
                                  355                      360                      365  
 Thr Lys Arg Leu Ala Gln Thr Ala Gln Glu Thr Phe Gly Asp Phe Glu  
                                  370                      375                      380  
 Glu Ala Val Glu Lys Asp Ala Thr Lys Thr Ala Val Leu Asp Gly Thr  
                                  385                      390                      395                      400

Val His Pro Leu Thr Ser Tyr Val Ile Asn Tyr Val Lys Phe Leu Phe  
 405 410 415  
 Asp Tyr Gln Thr Thr Leu Lys Gln Leu Phe Leu Glu Phe Gly Asn Gly  
 420 425 430  
 Asp Asp Ser Asn Ser Gln Leu Ala Ser Val Thr Met Arg Ile Met Gln  
 435 440 445  
 Ala Leu Gln Asn Asn Leu Asp Gly Lys Ser Lys Gln Tyr Lys Asp Pro  
 450 455 460  
 Ala Leu Thr His Leu Phe Leu Met Asn Asn Ile His Tyr Met Val Arg  
 465 470 475 480  
 Ser Val Arg Arg Ser Glu Ala Lys Asp Leu Leu Gly Asp Asp Trp Val  
 485 490 495  
 Gln Arg His Arg Arg Ile Val Gln Gln His Ala Asn Gln Tyr Lys Arg  
 500 505 510  
 Val Ala Trp Thr Lys Ile Leu Gln Ser Ser Ser Ala Gln Gly Leu Thr  
 515 520 525  
 Ser Ser Gly Gly Gly Ser Leu Glu Gly Gly Asn Ser Ser Gly Val Ser  
 530 535 540  
 Arg Gly Leu Leu Lys Glu Arg Phe Lys Met Phe Asn Met Gln Phe Asp  
 545 550 555 560  
 Glu Leu His Gln Arg Gln Ser Gln Trp Thr Val Pro Asp Thr Glu Leu  
 565 570 575  
 Arg Glu Ser Leu Arg Leu Ala Val Ala Glu Val Leu Leu Pro Ala Tyr  
 580 585 590  
 Arg Ser Phe Leu Lys Arg Phe Gly Pro Leu Val Glu Ser Gly Lys Asn  
 595 600 605  
 Pro Gln Lys Tyr Ile Lys Tyr Thr Ala Glu Asp Leu Glu Arg Leu Leu  
 610 615 620  
 Gly Glu Leu Phe Glu Gly Lys Ser Met Asn Glu Pro Arg Arg  
 625 630 635

&lt;210&gt; 2747

&lt;211&gt; 3414

&lt;212&gt; DNA

<213> *Arabidopsis thaliana*

&lt;400&gt; 2747

```

atgtcgtcac tcagcagaga actcgtgttt ttaatacttc agtttctcga tgaagagaaa      60
ttcaaagata ctgttcacag gttggagaaa gagtctgggt ttttcttcaa catgaggtac      120
tttgaagata gtgtaacagc tgggtgaatgg gatgatgtag agaagtatct ttctggattc      180
actaaagttg atgataatag atactctatg aaaatatatt tcgagattcg gaagcagaag      240
taccttgaag cacttgacaa gaaagatcat gccaaggcgg ttgatattct tgttaaggag      300
ttgaaagtgt tctcgacatt caacgaagag ctttttaagg agattacat gcttttaacc      360
ttgactaact tcagggaaaa tgagcagctt tccaagtatg gagatactaa gtccgcaaga      420
ggtatcatgc ttggggaact taaaaaactg attgaagcaa atcctctctt ccgagacaaa      480
cttcaatttc ccagtttgaa gaattctaga ttgagaacct taataaatca aagtttgaac      540
tggcaacatc agctttgcaa gaatcctagg cctaaccggg atataaaaac actatttggt      600
gaccatacgt gtgggcatcc caatgggtgca cacactcctt cccctacaac taatcattta      660
atgggttcag tccctaaagt tggaggcttc ccaccattag gtgctcacgg tccatttcag      720
ccaacaccag ctctctttac aacatctctt gcaggatgga tgcctaatacc atcgggtacaa      780
caccctactg tttccgctgg gcctatcggc ttaggtgccc ccaacagtgc tgtgtctatg      840
ttaaagcgtg agcgtcccag gagtcctcca actaatagcc tatcaatgga ttatcagacg      900
gcagattctg aaagtgtggt gaagagaccc agaccttttg gtatttcaga tgggggttaat      960
aatctttccag tcaatgtctt gccagtcaca tatccagggc aaagccatgc tcatgcaact     1020
tattctactg atgacttgcc caaaaacggt agcaggattt tgagtcaggg ttctgccatt     1080
aagagcatgg attttcatcc agtacagcaa actatgctcc ttgttggcac caatcttggt     1140
gatattgcaa tatgggaggt gggtagcagg gagaagctcg tttctagaag ctttaaagtt     1200
tgggatcttg ctacttgcac tgtgaacctt caggcttcac ttgctagcga gtatactgca     1260
gcagtaaacc gagttgtttg gagtcctgat ggagggtctac tgggtgtcgc atattccaag     1320
catattgtgc atatatattc atatcatggt ggcgaggatt tacggaatca tctagagatt     1380
gatgcccatt ctggtaatgt caacgatctt gctttctccc aaccaaacca gcaattatgt     1440
gttgtgactt gtggagaaga caagacaatc aagggtctggg atgctgttac cggaaataaa     1500
ttgcacactt ttgaagggtc tgaggcacct gtttattccg tgtgcccaca ccagaaagag     1560
aatattcagt tcatattctc aactgctggt gatgggaaaa taaaggcttg gttatatgac     1620
aacatggggt ctagagtgga ttatgatgcc cccggctgat cttgcacgtc gatggcatat     1680

```

## 047-E2F-PCT.ST25.txt

tgtgtgatg ggactagatt attttcttgt ggtactagta aggaggggga gtcattcatt 1740  
 gttgaatgga atgaaagtga aggagctgtg aagcggactt atcttggact ggggaaacgg 1800  
 tctgtggggg ttgtccagtt cgacaccatg aagaataaat ttttggtagc tggatgatgaa 1860  
 ttccaagtca aattttggga tatggatagt gttgatctct tgagttcaac ggctgcagaa 1920  
 gggggtttac cgtcttcccc ttgcttaagg atcaataaag aaggaactct gctggccgctc 1980  
 tcaactactg ataacggaat taagattcta gcgaatgctg aaggttccag aattttgcat 2040  
 tccatggcaa accgtggcct tgatagctct agagctcctc ctgggtcagt tgctaagggt 2100  
 cctattgttg gcacatttgg cactccaaat tcaagcactg gaatgagtct atcaatgggt 2160  
 gaaagaagtg gaccagtggc atctgttact ggattgaatg gagataatcg cagtctgcca 2220  
 gatgtcaaac cacgaatcgc tgatgatgca gagaaatcaa agacttgga gctgactgag 2280  
 atcagtgaac gttcccagct tcgtactctg cggcttcctg acaccctgct accagcaaga 2340  
 gttgttaagt tgatatatac aaattctgga ggtgctatat tggcattagc agaaaatgct 2400  
 gcacataaac tatggaaatg gcaaaagagt gagcggaaatc ttttgggaaa ggcaaacagc 2460  
 aatgtccac cacagctttg gcagccatct agtggagtat taatgacaaa tgatacacgt 2520  
 gagggaaaca aagaggatgt agttccatgc tttgcactct caaaaaatga ttcttatgtc 2580  
 atgtcagcct ctggaggaaa aatttcctta ttcaacatga tgacttttaa gacgatgacg 2640  
 acattcatgg ctctctctcc agcagcgact tcccttgctc tccatcctca agacaataat 2700  
 ataattgcta tcggaatgga tgactcttct attcaaactc acaatgtcag agttgatgag 2760  
 gttaaaagta aattgaaagg tcatcagaag agagtgactg gtttagcatt ctcaaacgtg 2820  
 ctaaagtgtc ttgtttcctc tgggtgctgat tctcagcttt gtgtatggag catggatgga 2880  
 tgggaaaaac aagctagcaa acagatacaa attccaagcg ggcattcacc aaatccactt 2940  
 gctcatacac gcgttcagtt ccatcaagac cagatacatg tacttggtgt ccatgccagc 3000  
 cagttagcca tatatgaggc tcctaaatta gagaacatga agcagtggat accgaaagag 3060  
 tcaagtgggt cagtcacaga tgcagtatat tcatgtgata gccagtcaat ctatgcagcc 3120  
 tttgatgatg gaagtgtgag tatcttgacg gcaacaacat tgcaactgaa gtgccgcatt 3180  
 ggtcccaatt catatttgcc ttcaaaccg agctcgagag tatatccagc cacagttgca 3240  
 gcacatccgt ctgaaccaa ccagtttgca gttggactaa ccgatgggtg ggtccacgtg 3300  
 atcgaaccac caggtccaga agggaagtgg ggaatatccg caccaccaga aaacggagca 3360  
 gggccaagcg tctcctcagc tcccgggtca gatcaacaac cgagtgattc gtag 3414

&lt;210&gt; 2748

&lt;211&gt; 1137

&lt;212&gt; PRT

&lt;213&gt; Arabidopsis thaliana

&lt;400&gt; 2748

Met Ser Ser Leu Ser Arg Glu Leu Val Phe Leu Ile Leu Gln Phe Leu  
 1 5 10 15

Asp Glu Glu Lys Phe Lys Asp Thr Val His Arg Leu Glu Lys Glu Ser  
 20 25 30

Gly Phe Phe Phe Asn Met Arg Tyr Phe Glu Asp Ser Val Thr Ala Gly  
 35 40 45

Glu Trp Asp Asp Val Glu Lys Tyr Leu Ser Gly Phe Thr Lys Val Asp  
 50 55 60

Asp Asn Arg Tyr Ser Met Lys Ile Phe Phe Glu Ile Arg Lys Gln Lys  
 65 70 75 80

Tyr Leu Glu Ala Leu Asp Lys Lys Asp His Ala Lys Ala Val Asp Ile  
 85 90 95

Leu Val Lys Glu Leu Lys Val Phe Ser Thr Phe Asn Glu Glu Leu Phe  
 100 105 110

Lys Glu Ile Thr Met Leu Leu Thr Leu Thr Asn Phe Arg Glu Asn Glu  
 115 120 125

Gln Leu Ser Lys Tyr Gly Asp Thr Lys Ser Ala Arg Gly Ile Met Leu  
 130 135 140

Gly Glu Leu Lys Lys Leu Ile Glu Ala Asn Pro Leu Phe Arg Asp Lys  
 145 150 155 160

Leu Gln Phe Pro Ser Leu Lys Asn Ser Arg Leu Arg Thr Leu Ile Asn  
 165 170 175

Gln Ser Leu Asn Trp Gln His Gln Leu Cys Lys Asn Pro Arg Pro Asn  
 180 185 190

Pro Asp Ile Lys Thr Leu Phe Val Asp His Thr Cys Gly His Pro Asn  
 195 200 205

Gly Ala His Thr Pro Ser Pro Thr Thr Asn His Leu Met Gly Ser Val  
 210 215 220

047-E2F-PCT.ST25.txt

Pro Lys Val Gly Gly Phe Pro Pro Leu Gly Ala His Gly Pro Phe Gln  
225 230 235 240

Pro Thr Pro Ala Pro Leu Thr Thr Ser Leu Ala Gly Trp Met Pro Asn  
245 250 255

Pro Ser Val Gln His Pro Thr Val Ser Ala Gly Pro Ile Gly Leu Gly  
260 265 270

Ala Pro Asn Ser Ala Val Ser Met Leu Lys Arg Glu Arg Pro Arg Ser  
275 280 285

Pro Pro Thr Asn Ser Leu Ser Met Asp Tyr Gln Thr Ala Asp Ser Glu  
290 295 300

Ser Val Leu Lys Arg Pro Arg Pro Phe Gly Ile Ser Asp Gly Val Asn  
305 310 315 320

Asn Leu Pro Val Asn Val Leu Pro Val Thr Tyr Pro Gly Gln Ser His  
325 330 335

Ala His Ala Thr Tyr Ser Thr Asp Asp Leu Pro Lys Asn Val Ser Arg  
340 345 350

Ile Leu Ser Gln Gly Ser Ala Ile Lys Ser Met Asp Phe His Pro Val  
355 360 365

Gln Gln Thr Met Leu Leu Val Gly Thr Asn Leu Gly Asp Ile Ala Ile  
370 375 380

Trp Glu Val Gly Ser Arg Glu Lys Leu Val Ser Arg Ser Phe Lys Val  
385 390 395 400

Trp Asp Leu Ala Thr Cys Thr Val Asn Leu Gln Ala Ser Leu Ala Ser  
405 410 415

Glu Tyr Thr Ala Ala Val Asn Arg Val Val Trp Ser Pro Asp Gly Gly  
420 425 430

Leu Leu Gly Val Ala Tyr Ser Lys His Ile Val His Ile Tyr Ser Tyr  
435 440 445

His Gly Gly Glu Asp Leu Arg Asn His Leu Glu Ile Asp Ala His Ala  
450 455 460

Gly Asn Val Asn Asp Leu Ala Phe Ser Gln Pro Asn Gln Gln Leu Cys  
Page 3817

465 470 480  
Val Val Thr Cys Gly Glu Asp Lys Thr Ile Lys Val Trp Asp Ala Val  
485 490 495  
Thr Gly Asn Lys Leu His Thr Phe Glu Gly His Glu Ala Pro Val Tyr  
500 505 510  
Ser Val Cys Pro His Gln Lys Glu Asn Ile Gln Phe Ile Phe Ser Thr  
515 520 525  
Ala Val Asp Gly Lys Ile Lys Ala Trp Leu Tyr Asp Asn Met Gly Ser  
530 535 540  
Arg Val Asp Tyr Asp Ala Pro Gly Arg Ser Cys Thr Ser Met Ala Tyr  
545 550 555 560  
Cys Ala Asp Gly Thr Arg Leu Phe Ser Cys Gly Thr Ser Lys Glu Gly  
565 570 575  
Glu Ser Phe Ile Val Glu Trp Asn Glu Ser Glu Gly Ala Val Lys Arg  
580 585 590  
Thr Tyr Leu Gly Leu Gly Lys Arg Ser Val Gly Val Val Gln Phe Asp  
595 600 605  
Thr Met Lys Asn Lys Phe Leu Val Ala Gly Asp Glu Phe Gln Val Lys  
610 615 620  
Phe Trp Asp Met Asp Ser Val Asp Leu Leu Ser Ser Thr Ala Ala Glu  
625 630 635 640  
Gly Gly Leu Pro Ser Ser Pro Cys Leu Arg Ile Asn Lys Glu Gly Thr  
645 650 655  
Leu Leu Ala Val Ser Thr Thr Asp Asn Gly Ile Lys Ile Leu Ala Asn  
660 665 670  
Ala Glu Gly Ser Arg Ile Leu His Ser Met Ala Asn Arg Gly Leu Asp  
675 680 685  
Ser Ser Arg Ala Pro Pro Gly Ser Val Ala Lys Gly Pro Ile Val Gly  
690 695 700  
Thr Phe Gly Thr Pro Asn Ser Ser Thr Gly Met Ser Leu Ser Met Gly  
705 710 715 720



Glu Arg Ser Gly Pro Val Ala Ser Val Thr Gly Leu Asn Gly Asp Asn  
 725 730 735  
 Arg Ser Leu Pro Asp Val Lys Pro Arg Ile Ala Asp Asp Ala Glu Lys  
 740 745 750  
 Ser Lys Thr Trp Lys Leu Thr Glu Ile Ser Glu Arg Ser Gln Leu Arg  
 755 760 765  
 Thr Leu Arg Leu Pro Asp Thr Leu Leu Pro Ala Arg Val Val Lys Leu  
 770 775 780  
 Ile Tyr Thr Asn Ser Gly Gly Ala Ile Leu Ala Leu Ala Glu Asn Ala  
 785 790 795 800  
 Ala His Lys Leu Trp Lys Trp Gln Lys Ser Glu Arg Asn Leu Leu Gly  
 805 810 815  
 Lys Ala Asn Ser Asn Val Pro Pro Gln Leu Trp Gln Pro Ser Ser Gly  
 820 825 830  
 Val Leu Met Thr Asn Asp Thr Arg Glu Gly Asn Lys Glu Asp Val Val  
 835 840 845  
 Pro Cys Phe Ala Leu Ser Lys Asn Asp Ser Tyr Val Met Ser Ala Ser  
 850 855 860  
 Gly Gly Lys Ile Ser Leu Phe Asn Met Met Thr Phe Lys Thr Met Thr  
 865 870 875 880  
 Thr Phe Met Ala Pro Pro Pro Ala Ala Thr Ser Leu Ala Phe His Pro  
 885 890 895  
 Gln Asp Asn Asn Ile Ile Ala Ile Gly Met Asp Asp Ser Ser Ile Gln  
 900 905 910  
 Ile Tyr Asn Val Arg Val Asp Glu Val Lys Ser Lys Leu Lys Gly His  
 915 920 925  
 Gln Lys Arg Val Thr Gly Leu Ala Phe Ser Asn Val Leu Asn Val Leu  
 930 935 940  
 Val Ser Ser Gly Ala Asp Ser Gln Leu Cys Val Trp Ser Met Asp Gly  
 945 950 955 960  
 Trp Glu Lys Gln Ala Ser Lys Gln Ile Gln Ile Pro Ser Gly His Ser  
 965 970 975

047-E2F-PCT.ST25.txt

Pro Asn Pro Leu Ala His Thr Arg Val Gln Phe His Gln Asp Gln Ile  
980 985 990

His Val Leu Val Val His Ala Ser Gln Leu Ala Ile Tyr Glu Ala Pro  
995 1000 1005

Lys Leu Glu Asn Met Lys Gln Trp Ile Pro Lys Glu Ser Ser Gly  
1010 1015 1020

Ser Val Thr Asp Ala Val Tyr Ser Cys Asp Ser Gln Ser Ile Tyr  
1025 1030 1035

Ala Ala Phe Asp Asp Gly Ser Val Ser Ile Leu Thr Ala Thr Thr  
1040 1045 1050

Leu Gln Leu Lys Cys Arg Ile Gly Pro Asn Ser Tyr Leu Pro Ser  
1055 1060 1065

Asn Pro Ser Ser Arg Val Tyr Pro Ala Thr Val Ala Ala His Pro  
1070 1075 1080

Ser Glu Pro Asn Gln Phe Ala Val Gly Leu Thr Asp Gly Gly Val  
1085 1090 1095

His Val Ile Glu Pro Pro Gly Pro Glu Gly Lys Trp Gly Ile Ser  
1100 1105 1110

Ala Pro Pro Glu Asn Gly Ala Gly Pro Ser Val Ser Ser Ala Pro  
1115 1120 1125

Gly Ser Asp Gln Gln Pro Ser Asp Ser  
1130 1135

<210> 2749

<211> 630

<212> DNA

<213> Arabidopsis thaliana

<400> 2749  
atgaaggcca ccatatccat cactaccatc tttctcgtgg tcgctttggc cgcaccctcc 60  
ctagctcgtc ctgacaacca tgctgaggac tctgtaggcc gtctacttcg tcctgggtcaa 120  
acgtaccaca tcgtacctgc gaatcccgag acaggaggag gtattttctc gaacagtga 180  
gaaatctgtc ctcttgacat cttccagtca aacaatccgc ttgacttggg cctaccatc 240

047-E2F-PCT.ST25.txt

aaatttaagt ccgagttatg gtttggttaag gaaatgaata gtatcaccat cgagtttgag 300  
gctccgaact ggtttttgtg tcctaaagaa tccaaggggt ggagagttgt gtactctgaa 360  
gaattcaaaa agagtcttat aataagcact ggtggttcat caaacccaag tggcttccag 420  
atccatcgag tcgacggagg tgcttacaag attgtatatt gtacaaacat ctcgactact 480  
acgtgcatga acgttggcat attcacccgat atctctggtg cagcagcgtt agccttgacc 540  
agcgatgagg ctctcctagt taagttccag aaggcagcaa ctccaaaagc tgatttgaag 600  
actaagctga ggatgttccc tttctactga 630

<210> 2750

<211> 209

<212> PRT

<213> Arabidopsis thaliana

<400> 2750

Met Lys Ala Thr Ile Ser Ile Thr Thr Ile Phe Leu Val Val Ala Leu  
1 5 10 15

Ala Ala Pro Ser Leu Ala Arg Pro Asp Asn His Val Glu Asp Ser Val  
20 25 30

Gly Arg Leu Leu Arg Pro Gly Gln Thr Tyr His Ile Val Pro Ala Asn  
35 40 45

Pro Glu Thr Gly Gly Gly Ile Phe Ser Asn Ser Glu Glu Ile Cys Pro  
50 55 60

Leu Asp Ile Phe Gln Ser Asn Asn Pro Leu Asp Leu Gly Leu Pro Ile  
65 70 75 80

Lys Phe Lys Ser Glu Leu Trp Phe Val Lys Glu Met Asn Ser Ile Thr  
85 90 95

Ile Glu Phe Glu Ala Pro Asn Trp Phe Leu Cys Pro Lys Glu Ser Lys  
100 105 110

Gly Trp Arg Val Val Tyr Ser Glu Glu Phe Lys Lys Ser Leu Ile Ile  
115 120 125

Ser Thr Gly Gly Ser Ser Asn Pro Ser Gly Phe Gln Ile His Arg Val  
130 135 140

047-E2F-PCT.ST25.txt

Asp Gly Gly Ala Tyr Lys Ile Val Tyr Cys Thr Asn Ile Ser Thr Thr  
145 150 155 160

Thr Cys Met Asn Val Gly Ile Phe Thr Asp Ile Ser Gly Ala Arg Arg  
165 170 175

Leu Ala Leu Thr Ser Asp Glu Ala Leu Leu Val Lys Phe Gln Lys Ala  
180 185 190

Ala Thr Pro Lys Ala Asp Leu Lys Thr Lys Leu Arg Met Phe Pro Phe  
195 200 205

Tyr

<210> 2751

<211> 366

<212> DNA

<213> Arabidopsis thaliana

<400> 2751

atgggcaccg gagaaaaaac cctgaagagc ttccagttac atcgcaaaca atcagtcaaa	60
gtcaaagatg ttccaaaagg gtgttttagcg atcaaagtgg gatcgcaagg agaagagcaa	120
cagagattta tcgttcctgt tttgtatttt aaccatccat tgttcatgca gctcctgaaa	180
gaagcagaag acgagtatgg attcgatcaa aagggcacca tcacaattcc ttgtcacgtg	240
gaggagtttc gttacgttca agctttgata gatggagaga gatcagttta caatggtaac	300
aaccatcatc atagacatgg tggccgtgac cagtatcatc atcttgttgg atgcttcaga	360
gcttga	366

<210> 2752

<211> 121

<212> PRT

<213> Arabidopsis thaliana

<400> 2752

Met Gly Thr Gly Glu Lys Thr Leu Lys Ser Phe Gln Leu His Arg Lys  
1 5 10 15

047-E2F-PCT.ST25.txt

Gln Ser Val Lys Val Lys Asp Val Pro Lys Gly Cys Leu Ala Ile Lys  
                   20                  25                  30

Val Gly Ser Gln Gly Glu Glu Gln Gln Arg Phe Ile Val Pro Val Leu  
                   35                  40                  45

Tyr Phe Asn His Pro Leu Phe Met Gln Leu Leu Lys Glu Ala Glu Asp  
           50                  55                  60

Glu Tyr Gly Phe Asp Gln Lys Gly Thr Ile Thr Ile Pro Cys His Val  
   65                  70                  75                  80

Glu Glu Phe Arg Tyr Val Gln Ala Leu Ile Asp Gly Glu Arg Ser Val  
                   85                  90                  95

Tyr Asn Gly Asn Asn His His His Arg His Gly Gly Arg Asp Gln Tyr  
           100                  105                  110

His His Leu Val Gly Cys Phe Arg Ala  
           115                  120

<210> 2753

<211> 339

<212> DNA

<213> Arabidopsis thaliana

<400> 2753

atggttgagc tagacattca gattccatca gcatacgatc catttgcaga agctaaagat	60
tcagatgcac caggagctaa agagaacatt cacattcgaa tccagcagag gaatgggaaa	120
aagagcttga cgactgttca agggcttaag aaagagtaca gctacgagag gattctcaag	180
gatttgaaga aagatttctg ctgcaacggt aacgttgtgc aggacaaaga actaggcaag	240
atcatccagc ttcaaggtga tcaaaggaag aaagtgtctc agttcttggt ccaaactggg	300
attgctaaga aggatcagat caagatccac ggtttctaa	339

<210> 2754

<211> 112

<212> PRT

<213> Arabidopsis thaliana

<400> 2754

047-E2F-PCT.ST25.txt

Met Val Glu Leu Asp Ile Gln Ile Pro Ser Ala Tyr Asp Pro Phe Ala  
 1 5 10 15  
 Glu Ala Lys Asp Ser Asp Ala Pro Gly Ala Lys Glu Asn Ile His Ile  
 20 25 30  
 Arg Ile Gln Gln Arg Asn Gly Lys Lys Ser Leu Thr Thr Val Gln Gly  
 35 40 45  
 Leu Lys Lys Glu Tyr Ser Tyr Glu Arg Ile Leu Lys Asp Leu Lys Lys  
 50 55 60  
 Asp Phe Cys Cys Asn Gly Asn Val Val Gln Asp Lys Glu Leu Gly Lys  
 65 70 75 80  
 Ile Ile Gln Leu Gln Gly Asp Gln Arg Lys Lys Val Ser Gln Phe Leu  
 85 90 95  
 Val Gln Thr Gly Ile Ala Lys Lys Asp Gln Ile Lys Ile His Gly Phe  
 100 105 110

<210> 2755

<211> 861

<212> DNA

<213> Arabidopsis thaliana

<400> 2755

atcatattat ttcttaaaat gtcaggagct ctctttcttc tctcttacat atctttcaga	60
gagacaactt cttatcttta atcgtgtgcc gaattatatt gtcggttttt gtgcccagac	120
gagatctgat tttgctatca acacggcttt tccgttgccg tgttcttgcc gttaacacga	180
agtagttggt ggattttcca tagagaggtg gaggacgtca aacaagagac ctacagatct	240
tcaaaggaga agagaaacca ccagatctgc aaacaacaag acacatcgga aggaaacgaa	300
gaggacaaac gaaagacttt atacgtgagg cgaaaccagt ttggattctg cgggagagga	360
gcggagcaac aaagagaaga caaaattcga cgccggggag acatagctac accggcgcca	420
gaagacggtg aatcttttgg agtctcgtgt atgtcgcatt gcagagtttt tactcttttt	480
ttagtactag aataaacatt taacgttaat cattacatct aagttcataa gctactatta	540
aaagtgacaa gccgtgcatt ggattttatt ctcttattga gtctaattat ttttgtgtat	600
cttcatggtg ttgttttgct attactggtg aaaaacagat gatctaccaa cgatttcggt	660
acgacgtggt ttctcactga aaaaccgtat ctccgatggc gaaagatgac gatgggaatc	720

047-E2F-PCT.ST25.txt

tttcttttgc tcaccttaca cgtgtctttt ggtgatcttt cttgatccaa tcttcttcta	780
taaacgatgc attattgggc tcttcttggg catgcgtttg ttcgtagttt atttatccgt	840
gttcggctgt acttggcctt g	861

<210> 2756

<211> 64

<212> DNA

<213> Artificial sequence

<220>

<223> T7 promoter and oligo dT

<400> 2756	
ggccagtga ttgtaatacg actcactata gggaggcggt tttttttttt tttttttttt	60
tttv	64

<210> 2757

<211> 34

<212> DNA

<213> Artificial sequence

<220>

<223> primer 1 for E2Fa

<400> 2757	
aaaaagcagg ctgtgtcgta cgatcttctc ccgg	34

<210> 2758

<211> 33

<212> DNA

<213> Artificial sequence

<220>

<223> primer 2 for E2Fa

<400> 2758	
agaaagctgg gtcatgtgat aggagaacca gcg	33

<210> 2759  
 <211> 30  
 <212> DNA  
 <213> Artificial sequence

<220>

<223> primer 1 for DPa

<400> 2759  
 atagaattcg cttacatttt gaaactgatg

30

<210> 2760  
 <211> 30  
 <212> DNA  
 <213> Artificial sequence

<220>

<223> primer 2 for DPa

<400> 2760  
 atagtcgact cagcgagtat caatggatcc

30

<210> 2761  
 <211> 27  
 <212> DNA  
 <213> Artificial sequence

<220>

<223> primer 1 for glutamine synthetase

<400> 2761  
 cagatcttgt taaccttgac atctcag

27

<210> 2762  
 <211> 25  
 <212> DNA  
 <213> Artificial sequence



<220>

<223> primer 2 for glutamine synthetase

<400> 2762  
gggtcaaaag atacaaccac accag 25

<210> 2763

<211> 21

<212> DNA

<213> Artificial sequence

<220>

<223> primer 1 for glutamate synthase

<400> 2763  
ggtttacgag ctacatggcc c 21

<210> 2764

<211> 20

<212> DNA

<213> Artificial sequence

<220>

<223> primer 2 for glutamate synthase

<400> 2764  
gagcaatccg ttcagcctcc 20

<210> 2765

<211> 22

<212> DNA

<213> Artificial sequence

<220>

<223> primer 1 for histone acetylase

<400> 2765  
gcgtttgacc actcttgag ac 22

<210> 2766  
 <211> 22  
 <212> DNA  
 <213> Artificial sequence

<220>

<223> primer 2 for histone acetylase

<400> 2766  
 gaacgccatt gagaaagtcc gc

22

<210> 2767  
 <211> 23  
 <212> DNA  
 <213> Artificial sequence

<220>

<223> primer 1 for LOB domain protein 41

<400> 2767  
 gttaccggct cgacttgaag atc

23

<210> 2768  
 <211> 22  
 <212> DNA  
 <213> Artificial sequence

<220>

<223> primer 2 for LOB domain protein 41

<400> 2768  
 gaatcggagg gaaagtctga cg

22

<210> 2769  
 <211> 24  
 <212> DNA  
 <213> Artificial sequence

<220>

<223> primer 1 for isocitrate lyase

<400> 2769

gtgtgggtttc caagctttcc tacg

24

<210> 2770

<211> 22

<212> DNA

<213> Artificial sequence

<220>

<223> primer 2 for isocitrate lyase

<400> 2770

ggtgaaggga ctagccttgt gg

22

<210> 2771

<211> 22

<212> DNA

<213> Artificial sequence

<220>

<223> primer 1 for nitrite reductase

<400> 2771

gggatcaatc ctcaggagaa gg

22

<210> 2772

<211> 24

<212> DNA

<213> Artificial sequence

<220>

<223> primer 2 for nitrite reductase

<400> 2772

ccgtccatct ttattagcgg catg

24

<210> 2773  
 <211> 22  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> primer 1 for actin 2

<400> 2773  
 ttaccgaggc tcctcttaac cc 22

<210> 2774  
 <211> 22  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> primer 2 for actin 2

<400> 2774  
 accaccgatc cagacactgt ac 22

<210> 2775  
 <211> 8  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> E2F-like binding site

<400> 2775  
 wttsscscs 8

<210> 2776  
 <211> 8  
 <212> DNA  
 <213> Artificial sequence

<220>

<223> preferred binding site of E2Fa/DPa complex

<400> 2776

tttcccgc

8